The Model 5100 features a digital clock/timer that indicates time and date and allows accurate testing on time-based test applications such as step voltage and dielectric absorption tests. The timer may be programmed: either to indicate the elapsed time of an applied test voltage; or, the time elapsed since the test stopped (discharge time).

An audible signal beeps when the test voltage has been applied and also serves as a time base for tests of long duration. A high voltage indicator on the front panel blinks when the measurement voltage is on the output terminals.

The Model 5100 also has a unique low insulation test range of 10 to 30,000 kΩ with a constant current of 33 µA (maximum voltage of 1300 V), which is useful for testing old or flooded installations. A voltmeter (safety check) with a range of 0 to 600 VAC/DC is standard. A guard terminal minimizes surface leakage errors. The 5100 also features a lock-in test button and automatic discharge when the button is released.

The Model 5100 is specifically designed for field, utility and industrial use, and is built and tested to international safety and environmental standards. The rugged, safety-yellow field case is weatherproof and rainproof when closed. The instrument cover also may be completely removed during operation, if desired.

The Model 5100 is supplied with a set of three leads, hex key, 12 V NiCD battery and 110 VAC US line cord.
Features

- True Megohmmeter®
- Test voltage combinations of 500V, 1000V, 2500V and 5000V
- High sensitivity, direct insulation resistance reading to 3,000,000M Ω (3T Ω)
- Lock-in test button for hands-free operation
- Two resistance ranges per test voltage for better accuracy and reading
- Automatic discharge when test button released and voltage indication
- Large, easy-to-read analog scale

Applications

- Test insulation on cable, transformers, motors, insulators, generators and wiring installations
- Spot reading tests
- Timed resistance or absorption tests
- Dielectric and polarization tests
- Step voltage tests
- Low insulation test range for testing old or flooded installations
- Field, utility and industrial use

Specifications

<table>
<thead>
<tr>
<th>MODEL</th>
<th>5100N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ELECTRICAL</strong></td>
<td></td>
</tr>
<tr>
<td><strong>INSULATION TESTS</strong></td>
<td>For each test voltage two direct reading ranges:</td>
</tr>
<tr>
<td>Test Voltage</td>
<td>500V</td>
</tr>
<tr>
<td>Short Circuit Current</td>
<td>6mA</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±5% of Reading</td>
</tr>
<tr>
<td>Automatic Discharge</td>
<td>When test button is released; 0.1s/µF Discharge voltage displayed on meter</td>
</tr>
<tr>
<td>Charging Time</td>
<td>0.5 to 5s/µF typical</td>
</tr>
<tr>
<td>Voltage Test/Safety Check</td>
<td>0 to 600VAC/DC</td>
</tr>
<tr>
<td><strong>RESISTANCE TESTS</strong></td>
<td>Solid state circuitry generating rated test voltage across the full range</td>
</tr>
<tr>
<td>Measurement Range</td>
<td>10 to 30,000k Ω (30M Ω)</td>
</tr>
<tr>
<td>Test Voltage</td>
<td>1300Vdc</td>
</tr>
<tr>
<td>Test Current</td>
<td>33µAac</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±5% of Reading</td>
</tr>
<tr>
<td><strong>GENERAL</strong></td>
<td>10 beeps per minute (may be disabled)</td>
</tr>
<tr>
<td>Power Source</td>
<td>Rechargeable 12V NiCD battery, AC Supply: 110/220V, 47 to 450Hz AC ± 20%</td>
</tr>
<tr>
<td>Battery life</td>
<td>500 to 2500 one-minute tests, Recharging time: 14 hrs (max) for full charge</td>
</tr>
<tr>
<td>Low battery indicators</td>
<td>Fuse: 3.15A fast blow</td>
</tr>
<tr>
<td><strong>Dielectric Test</strong></td>
<td>4000Vdc, 60Hz, 1 minute</td>
</tr>
<tr>
<td>Overload</td>
<td>600Vrms between one terminal and the other two</td>
</tr>
<tr>
<td>Meter Movement/Display</td>
<td>Rugged taut band suspension: 4.4 x 2.2' (112 x 55mm) meter with 4 scales</td>
</tr>
<tr>
<td>Clock/Timer</td>
<td>Test voltage ON activates timer automatically</td>
</tr>
<tr>
<td>Dimensions</td>
<td>9.8 x 10.2 x 15.4' (250 x 260 x 390mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>14.8 lbs (6.7kg)</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>14° to 131° F (-10° to 55° C)</td>
</tr>
<tr>
<td>Case</td>
<td>High impact, fiberglass charged polycarbonate (fire resistant UL 94); sealed and weatherproofed; rainproof when closed</td>
</tr>
<tr>
<td>Terminals</td>
<td>Color-coded safety terminals, guard terminal eliminates surface leakage errors</td>
</tr>
<tr>
<td><strong>SAFETY</strong></td>
<td></td>
</tr>
<tr>
<td>Safety Rating</td>
<td>4000V dielectric test; Double insulation, IEC 348 (Class II); IEC 801-2; IEC 801-3; IEC 801-4; IEC 801-5; IEC 38; Pub. 160; IEC 359; IEC 529; IEC 68.2.6; IEC 68.2.27; IEC 68.2.32; IEC 68.2.31; IEC 68.2.29; UL 94 (fire resistant)</td>
</tr>
<tr>
<td>CE Mark</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Megohmmeter Model 5100 (Analog, Timer, 500V, 1000V, 2500V, 5000V, 30MΩ minimum)...

Includes set of leads, hex key, battery, US AC line cord and user manual

**ORDERING INFORMATION**

**CATALOG NO.**

Megohmmeter Model 5100  Cat. #1396.07

Includes test leads, probe, clip and power cable

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1. Push button ON/OFF
2. Earth terminal
3. Guard terminal
4. Line terminal
5. High voltage indicator
6. Low battery indicator
7. Charging light
8. Power line socket
9. Fuse socket
10. Analog measurement scale
11. Zero adjust
12. Reset button
13. Clock/timer
14. LCD
15. Selection switch
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