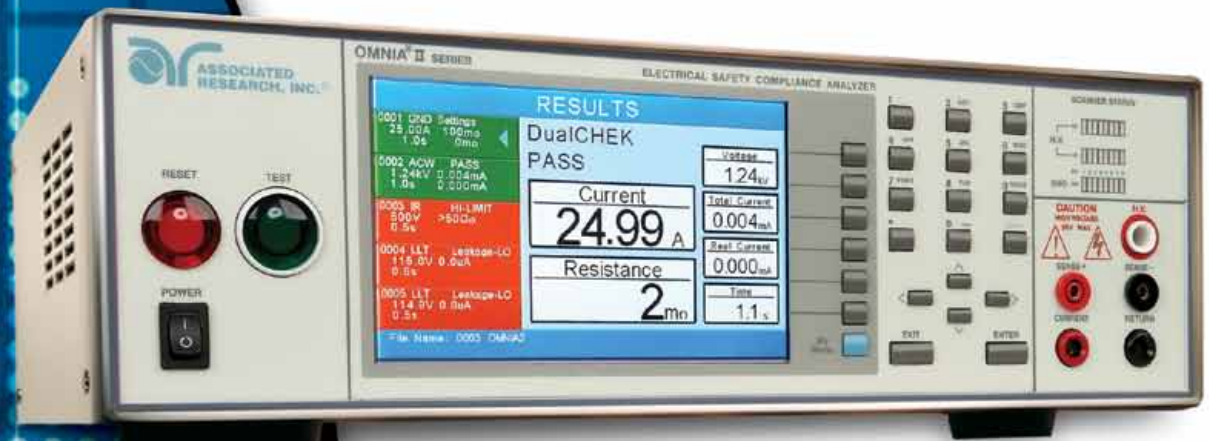


INSTRUMENTS FOR

# ELECTRICAL SAFETY COMPLIANCE TESTING



HI POT TESTERS

GROUND BOND TESTERS

INSULATION RESISTANCE TESTERS

LINE LEAKAGE TESTERS

MEDICAL TEST SYSTEMS

HV/HC SCANNING MATRICES

SOFTWARE SOLUTIONS

FUNCTIONAL RUN TESTERS

CUSTOM INSTRUMENTS





# HYAMP® III

## Production Line Ground Bond Testers

HYAMP® III is a microprocessor controlled Ground Bond tester with an enhanced graphic LCD. Four models are available: the 3130 with 30 Amp AC output, the 3140 with 40 Amp AC output, the 3145 with 40 Amp DC output and the 3160 with 60 Amp AC output. Model 3145 comes with RS-232 interface standard and model 3130 has an optional external RS-232 interface. HYAMP III can be interconnected with Hypot® III to form a complete test system.

### Model 3130 - 30 Amp AC Ground Bond Tester

### Model 3140 - 40 Amp AC Ground Bond Tester

### Model 3145 - 40 Amp DC Ground Bond Tester

### Model 3160 - 60 Amp AC Ground Bond Tester

## Features and Benefits

- RS-232 Interface available for entry level automation (Model 3145 Standard, Model 3130 Optional)
- Cost-effectively meet DC Ground Bond test requirements commonly found in alternate energy and solar testing applications (Model 3145)
- Patented VERI-CHEK® feature prompts users through steps to validate the instrument's operation
- Graphic LCD provides intuitive menu system to simplify the entire testing process from set-up to results
- Patented CAL-ALERT® feature alerts the operator that the tester is due for re-calibration
- PLC Remote Control allows operators to remotely control the Ground Bond tester
- 10 Memories with 3 Steps per memory for storing and recalling test parameters
- Interconnects with an Associated Research Hipot tester to form a complete test system
- 4 wire measurement and milliohm offset for accurate Ground Bond test results
- Electronic Dwell timer for more consistent and reliable testing
- Adjustable output current and milliohm trip ranges to meet all safety agency specifications for Ground Bond test requirements



Models 3130, 3140 & 3160.

## Input Specifications

Voltage	115/230 VAC ± 10%, user selectable 100-120 / 200-240 VAC ± 10%, auto-detection
Frequency	50/60 Hz ± 5%
Fuse - 3130	6.3 A, Slow Blow 250 VAC
Fuse - 3140	10 A, Slow Blow 250 VAC
Fuse - 3145	10 A, Slow Blow 250 VAC
Fuse - 3160	15 A, Slow Blow 250 VAC

## Ground Bond Test Mode

Output Rating	Current 3130: 1.00 - 30.00 AAC Voltage 3130: 6 VAC, fixed  Current 3140: 1.00 - 40.00 AAC Voltage 3140: 8 VAC, fixed  Current 3145: 1.00 - 40.00 Amps DC Voltage 3145: 8 Volts DC, maximum  Current 3160: 1.00 - 60.00 AAC Voltage 3160: 9 VAC, fixed
Output Frequency 3130/3140/3160	Range: 50 / 60 Hz, User Selectable
Dwell Time Setting	Range: 0 and 0.5 - 999.9 secs 0 for continuous running Resolution: 0.1 sec Accuracy: ± (0.1% of setting + 0.05 secs)
Maximum & Minimum Limits	Range 3130: 0 - 120 mΩ for 1 - 30.00 A 0 - 510 mΩ for 1 - 10.00 A Accuracy 3130: ± (2% of setting + 2 mΩ) Range 3140: 0 - 150 mΩ for 30.01 - 40.00 A 0 - 200 mΩ for 10.01 - 30.00 A 0 - 600 mΩ for 1.00 - 10.00 A Accuracy 3140: ± (3% of setting + 3 mΩ) Range 3145: 0 - 150 mΩ for 30.01 - 40.00 A 0 - 200 mΩ for 10.01 - 30.00 A 0 - 600 mΩ for 1.00 - 10.00 A Accuracy 3145: ± (2% of reading + 2 counts) Range 3160: 0 - 150 mΩ for 30.01 - 60.00 A 0 - 300 mΩ for 15.01 - 30.00 A 0 - 600 mΩ for 1.00 - 15.00 A Accuracy 3160: ± (3% of setting + 3 mΩ)
Offset Capability	Range: 0 - 100 mΩ Resolution: 1 mΩ Accuracy: ± (2% of setting + 2 mΩ)
Current Display 3130	Range: 0.00 - 30.00 A Resolution: 0.01 A / step Accuracy: ± (3% of reading + 0.03 A)
Current Display 3140	Range: 0.00 - 40.00 A Resolution: 0.01 A Accuracy: ± (3% of reading + 0.03 A)
Current Display 3145	Range: 0.00 - 40.00 A Resolution: 0.01 A Accuracy: ± (3% of reading + 0.03 A)
Current Display 3160	Range: 0.00 - 60.00 A Resolution: 0.01 A Accuracy: ± (3% of reading + 0.03 A)

## Ground Bond Test Mode (Continued)

Ohmmeter Display 3130	Range: 0 - 510 mΩ Resolution: 1 mΩ / step Accuracy: ± (2% of reading + 2 mΩ)
Ohmmeter Display 3140	Range: 0 - 150 mΩ for 30.01 - 40.00 A 0 - 200 mΩ for 10.01 - 30.00 A 0 - 600 mΩ for 6.00 - 10.00 A  Resolution: 1 mΩ Accuracy: ± (2% of reading + 2 mΩ) Range: 0 - 600 mΩ for 1.00 - 5.99 A Resolution: 1 mΩ Accuracy: ± (3% of reading + 3 mΩ)
Ohmmeter Display 3145	Range: 0 - 150 mΩ for 30.01 - 40.00 A 0 - 200 mΩ for 10.01 - 30.00 A 0 - 600 mΩ for 6.00 - 10.00 A  Resolution: 1 mΩ Accuracy: ± (2% of reading + 2 counts) Range: 0 - 600 mΩ for 1.00 - 5.99 A Resolution: 1 mΩ Accuracy: ± (3% of reading + 3 mΩ)
Ohmmeter Display 3160	Range: 0 - 150 mΩ for 30.01 - 60.00 A 0 - 300 mΩ for 15.01 - 30.00 A 0 - 600 mΩ for 6.00 - 15.00 A  Resolution: 1 mΩ Accuracy: ± (2% of reading + 2 mΩ) Range: 0 - 600 mΩ for 1.00 - 5.99 A Resolution: 1 mΩ Accuracy: ± (3% of reading + 3 mΩ)
Timer Display	Range: 0.0 - 999.9 secs Resolution: 0.1 secs Accuracy: ± (0.1% of reading + 0.05 secs)

## General Specifications

Mechanical	Bench or rack mount with tilt up feet.
Dimensions 3130	(W x H x D) 8.5 x 4.0 x 15.5 in. (216 x 103 x 390 mm) includes feet
Dimensions 3140	(W x H x D) 8.5 x 4.0 x 16.9 in. (216 x 103 x 430 mm) includes feet
Dimensions 3145	(W x H x D) 8.5 x 4.0 x 15.0 in. (216 x 103 x 370 mm) includes feet
Dimensions 3160	(W x H x D) 16.9 x 5.1 x 15.7 in. (430 x 130 x 400 mm) includes feet
Weight 3130	19.15 lbs (8.7 kg)
Weight 3140	30.9 lbs (14 kg)
Weight 3145	11.55 lbs (5.23 kg)
Weight 3160	49.40 lbs (22.40 kg)
Remote Control & Signal Output	The following input and output signals are provided through two 9 pin D type connectors: 1. Remote control: Test, Reset, Interlock, and Withstand Processing 2. Remote recall of memory program #1, #2, and #3 3. Outputs: Pass, Fail, Test-in-process, Start Out and Reset Out
Program Memory	10 Memories, 3 steps per memory
Interface	External RS-232 interface for Model 3130 RS-232 Standard for Model 3145

Specifications subject to change without notice.

Accredited calibration service available. Includes ISO 17025, ANSI Z540.1-1994, CTL & Denan's Law requirements.

For more information on testing to a specific standard, refer back to the Common Safety Standard Reference Chart.

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