



# HYAMP® III

## Production Line Ground Bond Testers

HYAMP® III is a microprocessor controlled Ground Bond tester with an enhanced graphic LCD. It features three testers: the 3130 with 30 Amp output, the 3140 with 40 Amp output and the 3160 with 60 Amp output. Model 3130 also 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 Ground Bond Tester**

**Model 3140 - 40 Amp Ground Bond Tester**

**Model 3160 - 60 Amp Ground Bond Tester**

### Features and Benefits

- External RS-232 interface available for entry-level automation (Model 3130)
- 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

U.S. Patents: 6,744,259, 6,515,484.  
Other patents pending.



Safety agency listed.

## Input Specifications

Voltage	115/230 VAC $\pm$ 10%, user selectable
Frequency	50/60 Hz $\pm$ 5%
Fuse - 3130	6.3 A, slo-blow 250 VAC
Fuse - 3140	10 A, slo-blow 250 VAC
Fuse - 3160	15 A, slo-blow 250 VAC

## Ground Bond Test Mode

Output Rating	Current 3130: 1.00 - 30.00 A AC Voltage 3130: 6 V AC, fixed Current 3140: 1.00 - 40.00 A AC Voltage 3140: 8 V AC, fixed Current 3160: 1.00 - 60.00 A AC Voltage 3160: 9 V AC, fixed Resolution: 0.01 A Regulation: $\pm$ (2% of setting + 0.02 A)
Output Frequency	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: $\pm$ (0.1% of setting + 0.05 secs)
Maximum & Minimum Limits	Range 3130: 0 - 120 m $\Omega$ for 1 - 30.00 A 0 - 510 m $\Omega$ for 1 - 10.00 A Accuracy 3130: $\pm$ (2% of setting + 2 m $\Omega$ ) Range 3140: 0 - 150 m $\Omega$ for 30.01 - 40.00 A 0 - 200 m $\Omega$ for 10.01 - 30.00 A 0 - 600 m $\Omega$ for 1.00 - 10.00 A Accuracy 3140: $\pm$ (3% of setting + 3 m $\Omega$ ) Range 3160: 0 - 150 m $\Omega$ for 30.01 - 60.00 A 0 - 300 m $\Omega$ for 15.01 - 30.00 A 0 - 600 m $\Omega$ for 1.00 - 15.00 A Accuracy 3160: $\pm$ (3% of setting + 3 m $\Omega$ )
Offset Capability	Range: 0 - 100 m $\Omega$ Resolution: 1 m $\Omega$ Accuracy: $\pm$ (2% of setting + 2 m $\Omega$ )
Current Display 3130	Range: 0.00 - 30.00 A Resolution: 0.01 A / step Accuracy: $\pm$ (3% of reading + 0.03 A)
Current Display 3140	Range: 0.00 - 40.00 A Resolution: 0.01 A Accuracy: $\pm$ (3% of reading + 0.03 A)
Current Display 3160	Range: 0.00 - 60.00 A Resolution: 0.01 A Accuracy: $\pm$ (3% of reading + 0.03 A)
Ohmmeter Display 3130	Range: 0 - 510 m $\Omega$ Resolution: 1 m $\Omega$ / step Accuracy: $\pm$ (2% of reading + 2 m $\Omega$ )

## Ground Bond Test Mode (Continued)

Ohmmeter Display 3140	Range: 0 - 150 m $\Omega$ for 30.01 - 40.00 A 0 - 200 m $\Omega$ for 10.01 - 30.00 A 0 - 600 m $\Omega$ for 6.00 - 10.00 A Resolution: 1 m $\Omega$ Accuracy: $\pm$ (2% of reading + 2 m $\Omega$ ) Range: 0 - 600 m $\Omega$ for 1.00 - 5.99 A Resolution: 1 m $\Omega$ Accuracy: $\pm$ (3% of reading + 3 m $\Omega$ )
Ohmmeter Display 3160	Range: 0 - 150 m $\Omega$ for 30.01 - 60.00 A 0 - 300 m $\Omega$ for 15.01 - 30.00 A 0 - 600 m $\Omega$ for 6.00 - 15.00 A Resolution: 1 m $\Omega$ Accuracy: $\pm$ (2% of reading + 2 m $\Omega$ ) Range: 0 - 600 m $\Omega$ for 1.00 - 5.99 A Resolution: 1 m $\Omega$ Accuracy: $\pm$ (3% of reading + 3 m $\Omega$ )
Timer Display	Range: 0.0 - 999.9 secs Resolution: 0.1 secs Accuracy: $\pm$ (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 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 kgs)
Weight 3140	30.9 lbs (14 kgs)
Weight 3160	49.40 lbs (22.40 kgs)
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

Specifications subject to change without notice.



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