



## **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







**Input Specifications** 

Voltage 115/230 VAC ± 10%, user selectable

Frequency  $50/60 \text{ Hz} \pm 5\%$ 

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 AAC

Voltage 3130: 6 VAC, fixed

Current 3140: 1.00 - 40.00 AAC

Voltage 3140: 8 VAC, fixed

Current 3160: 1.00 - 60.00 AAC

Voltage 3160: 9 VAC, 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

O for continuous running

Resolution: 0.1 sec

Accuracy:  $\pm$  (0.1% of setting + 0.05 secs)

Maximum & Minimum Range 3130:  $0 - 120 \text{ m}\Omega$  for 1 - 30.00 A

Limits  $0-510~\text{m}\Omega$  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 mΩ for 10.01 - 30.00 A 0 - 600 mΩ for 1.00 - 10.00 A

Accuracy 3140:  $\pm$  (3% of setting + 3 m $\Omega$ )

Range 3160:  $0 - 150 \text{ m}\Omega$  for 30.01 - 60.00 A

0 -  $300~m\Omega$  for 15.01 - 30.00~A

0 - 600 mΩ for 1.00 - 15.00 A

Accuracy 3160:  $\pm$  (3% of setting + 3 m $\Omega$ )

Offset Capability Range:  $0 - 100 \text{ m}\Omega$ 

Resolution:  $1 \text{ m}\Omega$ 

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: ± (3% of reading + 0.03 A)

Ohmmeter Display 3130 Range:  $0 - 510 \text{ m}\Omega$ 

Resolution:  $1 \text{ m}\Omega$  / step

Accuracy:  $\pm$  (2% of reading + 2 m $\Omega$ )

**Ground Bond Test Mode (Continued)** 

Ohmmeter Display 3140 Range:  $0 - 150 \text{ m}\Omega$  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:  $1\,\text{m}\Omega$ 

Accuracy:  $\pm$  (2% of reading + 2 m $\Omega$ ) Range: 0 - 600 m $\Omega$  for 1.00 - 5.99 A

Resolution:  $1 \text{ m}\Omega$ 

Accuracy:  $\pm$  (3% of reading + 3 m $\Omega$ )

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:  $1\,\text{m}\Omega$ 

Accuracy:  $\pm$  (2% of reading + 2 m $\Omega$ ) Range: 0 - 600 m $\Omega$  for 1.00 - 5.99 A

Resolution:  $1 \, \text{m}\Omega$ 

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 & The following input and output signals are provided

Signal Output through two 9 pin D type connectors:

Remote control: Test, Reset, Interlock, and

1. Remote control. Test, Reset, Interlock, an

Withstand Processing

2. Remote recall of memory program #1, #2, and #3

 ${\it 3.\ Outputs:\ Pass,\ Fail,\ Test-in-process,\ Start\ Out}\\$ 

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.



To find your nearest representative visit the "Local Sales Offices" section of our web site at www.asresearch.com or call us toll-free at 1-800-858-8378

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