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**HYAMP® II**

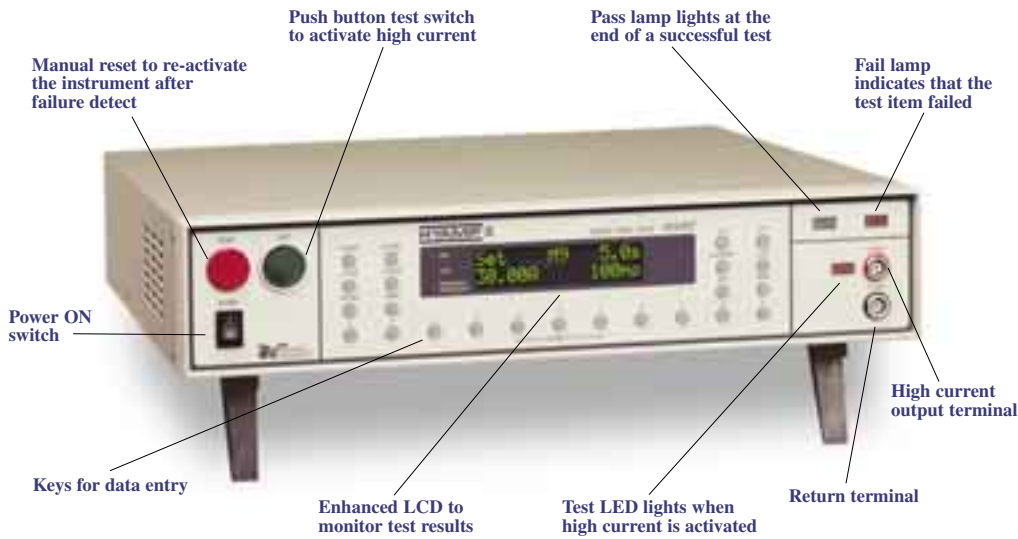
## **Ground Bond Tester**

**For Safety Agency Compliance Testing**



- **Microprocessor Digital Design with Software Friendly Menuing**
- **Tamper Proof Front Panel Controls**
- **Can be Interconnected to HypotPLUS® II to form a Semi-Automated Test System**
- **4-Wire Measurement and Milliohm Offset Capability**
- **Storage of up to 10 Different Test Programs**
- **Remote Access to Test Programs**





The HYAMP® II Ground Bond tester is a state-of-the-art instrument featuring full microprocessor control to enhance ease of use and operator safety. HYAMP® II provides you with all the capability you need to perform Ground Bond tests required by UL, CSA, VDE, IEC, TÜV, European Norms and other safety agencies. HYAMP® II can be used as a stand-alone tester or it can be interconnected to the HypotPLUS® II to form a semi-automated test system. HYAMP® II eliminates all the weaknesses that are inherent with older, analog designed products.

## HYAMP® II Features and Benefits

**FEATURE** **Advanced, menu driven software**  
**BENEFIT** The easy to follow setup screens ensure that the operator correctly sets up all test parameters.

**FEATURE** **Tamper proof front panel controls**  
**BENEFIT** This makes it possible to limit user access to the setup screens so that only authorized personnel with a security password can change test parameters. Passwords are programmable to ensure that the required test parameters cannot be tampered with.

**FEATURE** **4 wire measurement & milliohm offset**  
**BENEFIT** These features minimize the effect of test lead resistance. The four wire measurement technique (Kelvin method) eliminates test lead resistance when using the standard test leads. The milliohm offset function allows the use of longer test leads and test fixtures without compromising the test results.

**FEATURE** **Storage of up to 10 different test programs**  
**BENEFIT** A real benefit for manufacturers that test different products. This makes it possible to store all the various test parameters required and quickly recall them for each of the different products that need to be tested.

**FEATURE** **Remote memory access**  
**BENEFIT** Up to three program memories can be accessed through the remote control (PLC) port so that a manufacturer can quickly toggle through the various programs without going into the setup menu.

**FEATURE** **Interconnection to HypotPLUS® II**  
**BENEFIT** By interconnecting the HYAMP® II and the HypotPLUS® II Dielectric Withstand tester, a true semi-automated test system is formed. The test system can be configured to test Ground Bond first and then to advance to the Dielectric Withstand test. The system can also be set up to test Ground Bond and Dielectric Withstand **simultaneously** for greater time savings and increased throughput.

**FEATURE** **Line & load regulation**  
**BENEFIT** This system maintains the output current to within 2% of setting from its minimum to maximum resistance range and over the line voltage range to ensure that test results remain consistent and within safety agency requirements.

**FEATURE** **Selectable output frequencies of 50 or 60 hertz**  
**BENEFIT** HYAMP® II was designed for the global market. This feature makes it simple for the user to select the output frequency so that products can be tested at the same frequency at which they will be used.

**FEATURE** **Adjustable output current, voltage & milliohm trip**  
**BENEFIT** This capability makes the HYAMP® II versatile enough to meet all safety agency specifications for Ground Bond test requirements.

**FEATURE** **LCD displays set-up parameters & results**  
**BENEFIT** A front panel LCD allows the operator to monitor the test. The display holds the results after a test item pass or failure so that the operator can easily review the test results. Indications of low fail and high fail are clearly displayed after a failure.

**FEATURE** **PLC remote inputs & outputs**  
**BENEFIT** Standard 9 pin interface provides outputs for Pass, Fail, Reset Out, Start Out and Test in Process. A second 9 pin interface provides inputs for Test, Reset, Withstand Processing and Program Select. This gives the user all the basic remotes required to configure the HYAMP® II through simple PLC relay control or to interconnect to HypotPLUS® II.

**FEATURE** **CE approved & TÜV listed**  
**BENEFIT** You can be assured that HYAMP® II is safe to use since the TÜV-GS mark means it has passed the tough design and performance requirements as called out in EN 61010 and IEC 1010 International Safety Standards. CE approval means that HYAMP® II can be used anywhere in Europe.



HYAMP® II shown with HypotPLUS® II and interconnecting receptacle box for testing products terminated in a line cord. Also shown are the standard rack mount handles.

HYAMP® II and HypotPLUS® II together offer a true semi-automated test system. The system can be configured to test Ground Bond first and then to advance to the Dielectric Withstand test. The system can also be set up to perform both tests simultaneously for greater time savings and increased throughput.

**Options:**

<b>1-01</b>	HYAMP® II to HypotPLUS® II Interface Kit, includes receptacle box.
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**INTERNATIONAL VERSIONS**



# HYAMP® II Specifications

<b>INPUT</b>	115/230V selectable, ± 15% variation 47 - 63 Hz
<b>FUSE</b>	115 VAC, 230VAC -- 10A fast acting 250VAC
<b>OUTPUT ADJUSTMENT</b>	Current: AC 3 - 31 Amps, 0.01 Amp/step Regulation: ± (2% of Setting + 0.02A) Voltage: AC 3 - 8 Volts, 0.1 Volt/step
<b>OUTPUT FREQUENCY</b>	50/60 Hz selectable
<b>HIGH TRIP RANGE</b>	0 - 600 mΩ for 3 - 12 Amps, 1 mΩ /step 0 - 150 mΩ for 3 - 31 Amps, 1 mΩ/step Accuracy: ± (2% of setting + 2 mΩ)
<b>LOW TRIP RANGE</b>	0 - 600 mΩ for 3 - 12 Amps, 1 mΩ /step 0 - 150 mΩ for 3 - 31 Amps, 1 mΩ/step Accuracy: ± (2% of setting + 2 mΩ)
<b>MILLIOHM OFFSET</b>	Max. Offset Capability: 100 mΩ , 1 mΩ /step Accuracy: ± (2% of setting + 2 mΩ)
<b>CURRENT DISPLAY</b>	4 digits Range: 0 - 31 Amps Resolution: 0.01 Amp/step Accuracy: ± (3% of Reading + 0.03 A)
<b>OHMMETER DISPLAY</b>	3 digits Range: 0 - 600 mΩ Resolution: 1 mΩ/step Accuracy: ± (2% of Reading + 2mΩ)
<b>TIMER DISPLAY</b>	4 digits Range: 0 - 999.9 seconds Resolution: 0.1 seconds /step Accuracy: ± (0.1% of Reading + 0.05 seconds)
<b>DWELL TIMER</b>	0 and 0.5 – 999.9 seconds, 0.1 second/step "0" for continuous running Accuracy: ± (0.01% of Setting + 0.02 seconds)

<b>REMOTE CONTROL (PLC)</b>	The following input and output signals are provided through two 9 pin D type connectors: 1. Inputs: test, reset and withstand processing. 2. Remote recall of memory program #1, #2 & #3. 3. Outputs: pass, fail, test in process, reset out, and start out.
<b>MEMORY</b>	Allows storage of up to 10 different test programs.
<b>SECURITY</b>	Password lockout capability to avoid unauthorized access to test set-up program.
<b>LINE CORD</b>	Detachable 7 ft. (2.13 m) power cable terminated in a three prong grounding plug.
<b>TERMINATIONS</b>	5 ft. (1.52 m) high current and return leads with clips.
<b>MECHANICAL</b>	Bench or rack mount (2U height) with tilt up front feet. Dimensions: (w x h x d) 17 x 3.5 x 16.5 inches (432 x 88 x 419 mm) Weight: 27.6 lbs. (12.5 kgs)
<b>ENVIRONMENTAL</b>	Operating Temperature: 32° - 113° F (0° - 45°C) Relative Humidity: 0 to 95%
<b>CALIBRATION</b>	Traceable to National Institute of Standards and Technology (NIST). Calibration controlled by software. Adjustments are made through front panel keypad in a restricted access calibration mode. Calibration information stored in non-volatile memory.



HYAMP® II includes rear panel high current and return connections and remote control connections to make it easier to build into a rack mount system.



High resolution LCD clearly indicates setup parameters and test results.

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Associated Research has lead the way in the Electrical Compliance Safety industry, providing instruments and services to meet a full range of testing applications.

We offer the most extensive line of electrical safety testing instruments in the industry. Our products range from single-point manual, to fully-automated testing systems, all with the latest in microprocessor technology, and a full five-year warranty\*.

\*Warranty offered in North America only.

# The World Standard in Electrical Safety Testing



## Contact us today for information on HYAMP® II or any of our other instruments:

- **QUADCHEK® II:** 4-in-1 Multi-Function Electrical Safety Compliance Analyzers include AC/DC Hipot, Insulation Resistance, Ground Bond tester and optional built-in scanner in a single instrument. Complete with IEEE-488 (GPIB) or RS-232 interface. Available in 500 VA output versions.
- **HypotULTRA® II:** 3-in-1 Dielectric Analyzers with AC, DC or AC/DC Hipot, Insulation Resistance and optional built-in scanner available on some models. All models available with either IEEE-488 (GPIB), RS-232 or printer interface. Available in 500 VA output versions.
- **LINECHEK™ 510L/520L:** Designed to automate line leakage testing in production line or lab environments. The 510L is a stand-alone system and the 520L can interconnect with other Associated Research safety testers of form a complete automated testing system.
- **HS-8A/HS-16 Scanners:** The HS-8A is an 8 port scanner and the HS-16 is a 16 port scanner. Both models are high-voltage and high-current matrix scanners for multi-point or multi-product testing. (For use with QUADCHEK® II or HypotULTRA® II.)
- **Autaware™:** Software designed to store, analyze and retrieve data on automated AR instruments, while performing Line Leakage, Insulation Resistance, Dielectric Withstand and Ground Bond tests. Autaware also allows for bar coding inputs and provides basic statistical analysis graphs.
- **HypotPLUS® II:** The first semi-automated Microprocessor Controlled Dielectric Withstand testers. All models include enhanced PLC control and advanced failure detection systems.
- **Hypot® II:** Dielectric Withstand testers with simple PLC control for production line safety agency compliance testing.
- **HYAMP® JR.:** 30 Amp Ground Bond tester that works as a stand-alone instrument or can be interconnected to the Hypot® II to form a complete entry-level test system.

For additional information, contact us at:

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