

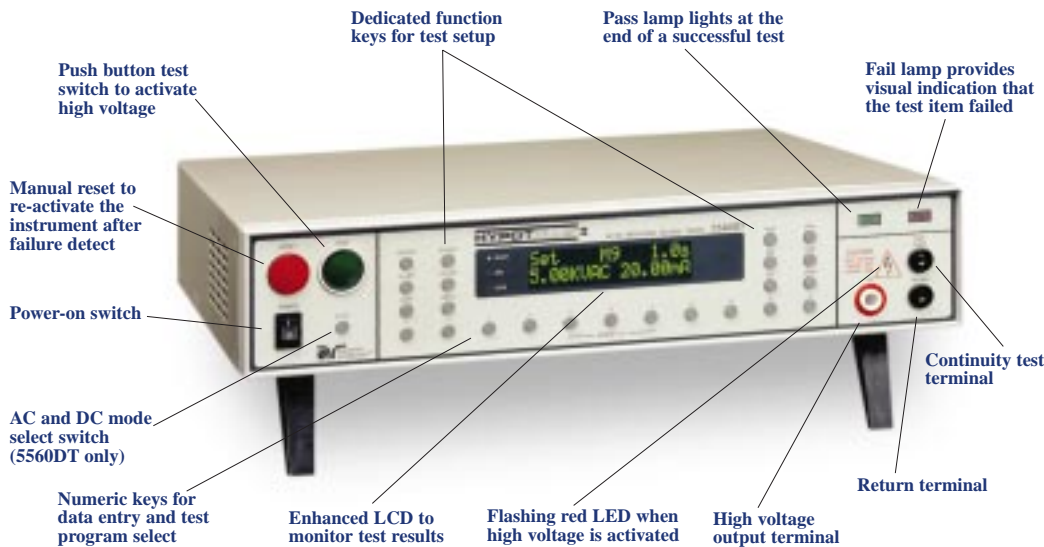
# HYPOTPLUS® II

## Dielectric Withstand Testers

For Production Line Safety Agency Compliance Testing



- **Microprocessor Digital Design with Software Friendly Menuing**
- **Tamper Proof Front Panel Controls**
- **Enhanced PLC & Ten Volt Analog Signal for Automated Applications**
- **Can be Interconnected to HYAMP® II Ground Bond Tester to form a Semi-Automated Test System**
- **Advanced Failure Detection System Including Continuity, LO, HI, Arc, Short and Breakdown**



The HypotPLUS®II includes full microprocessor control to enhance ease of use and operator safety. This instrument provides you with all the capability you need to meet hipot and continuity tests required by UL, CSA, VDE, IEC, TÜV, other safety agencies and the European Norms including the LOW VOLTAGE DIRECTIVE 73/23/EEC. HypotPLUS®II is available in an AC version (Model 5500DT) or an AC/DC version (Model 5560DT) to make it flexible enough to meet a wide range of testing applications.

## HypotPLUS® 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** 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 different product that needs to be tested.

**FEATURE** Ground Continuity Test

**BENEFIT** For products terminated with a three pin plug, it allows for a quick and easy check of continuity on a ground system. This test must be passed before a Hipot Test is activated and is a requirement of UL and other safety agencies. A three pin remote receptacle box comes standard as part of the system.

**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 select and execute the various programs without going into the setup menu.

**FEATURE** Enhanced LO limit setting

**BENEFIT** Operating across the full range of leakage current, 0.00-19.99mA AC or 0.00-5.99mA DC. Allows detection of low leakage levels during a test to ensure that the device under test is connected. The user can select minimum current flow based on anticipated current draw of a device under test that is known to be good.

**FEATURE** Resolution down to 10 microamps

**BENEFIT** Allows for the detection of low levels of leakage current.

**FEATURE** Digitally set arc detection

**BENEFIT** 9 sensitivity levels to check for lower arcing conditions for diagnostic purposes.

**FEATURE** Interconnection to HYAMP®II

**BENEFIT** By interconnecting the HypotPLUS®II and the HYAMP®II Ground Bond tester, a true semi-automated test system is formed. The test system can be configured to test Ground Bond first and then 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** LCD displays setup 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 LO, HI, Arc, Short and Breakdown are clearly displayed after a failure.

**FEATURE** Enhanced remote control

**BENEFIT** Test inputs are provided for Test, Reset and Program Select. Three remotely accessible programs are available to automate your testing needs. Test outputs include Pass, Fail and Test in Process.

**FEATURE** Real current\*

**BENEFIT** Many DUT's are highly capacitive. This includes any item with line filters or items such as motors. The real current option allows the user to monitor only the REAL portion of the leakage current and ignore any REACTIVE component that is present due to the capacitance of the DUT. Either REAL or TOTAL current may be read. Independent failure settings for REAL and TOTAL currents are also provided.

**FEATURE** 10-volt analog signal\*

**BENEFIT** Enhances the ability to use HypotPLUS®II in an automated system. This analog signal allows the user full access to the voltage and current controls. The user can set voltage and read back current and voltage over the full range of the HypotPLUS®II.

**FEATURE** CE approved & TÜV listed

**BENEFIT** You can be assured that HypotPLUS®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.

\*Optional features and benefits.



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

Accessories:		
Safe-T-Probe®	Allows operator to safely apply high voltage to the device under test	SP02
Footswitch	Allows operator to test without touching tester	35822
Adjustable Resistor Bank	12 settings. 120K to 2.148k ohms. Helps verify regulation.	36956
Resistor Kit	120k ohm resistor for checking trip point.	35534
Black Stationary Probe	Probe used on the return side of the HypotPLUS® II.	35539

Options:	
1-01	10 volt Analog Interface
2-03	Real Current (option includes 3kV AC @ 35mA) (5500DT only)
3-07	Remote Interlock Function

**INTERNATIONAL VERSIONS**



# HypotPLUS® II Specifications

MODELS:	AC only (Model 5500DT)	AC/DC (Model 5560DT)
INPUT	115 VAC (± 15%), 47-63 Hz, Single Phase 230 VAC (± 15%), 47-63 Hz, Single Phase User Selectable	
FUSE	115/230 VAC-5 Amp	
OUTPUT RATING	5KV AC @ 20 mA	5KV AC @ 20 mA 6KV DC @ 6 mA
OUTPUT ADJUSTMENT	0-5KV AC, 10 volt/steps 0-20.00 mA AC, 0.01 mA/steps	0-5KV AC (6KV DC), 10 volt/steps 0-20.00 mA AC & 6 mA DC, 0.01 mA/steps
HIGH TRIP RANGE	0.05-20.00 mA AC Accuracy ±(2% of setting + 0.02mA)	0.05-20.00 mA AC & 0.02-6.00 mA DC Accuracy ±(2% of setting + 0.02 mA)
LOW TRIP RANGE	0.00-19.99 mA AC Accuracy ±(2% of setting + 0.02mA)	0.00-19.99 mA AC & 0.00-5.99 mA DC Accuracy ±(2% of setting + 0.02mA)
CONTINUITY TRIP	1.1 Ohm maximum at .1 Amp	
FAILURE DETECTOR	Audible & Visual (LED & displayed on LCD) meter holds breakdown voltage and leakage current reading after failure.	
VOLTAGE DISPLAY	3 Digits, 6.00 KV Full Scale, LCD Display Accuracy: Readings ± (2% of reading + 10 volts) Settings ± (2% of reading + 5 volts)	
CURRENT DISPLAY	4 Digits, 20.00 mA Full Scale, LCD Display Accuracy: Readings ± (2% of reading + 0.02 mA)	
DC OUTPUT RIPPLE		≤ 5% (6 KV DC, 6 mA)
AC OUTPUT WAVEFORM	Sine wave, Distortion ≤ 1%	
AC OUTPUT FREQUENCY	50 or 60 Hz, User Selectable	
OUTPUT REGULATION	1% of Setting + 5 Volts	
DWELL TIMER	0.5-999.9 seconds in 0.1 second increments or continuous, accuracy ± (0.1% of reading + 0.05 seconds)	
RAMP TIMER	0.5-99.9 seconds in 0.1 second increments accuracy ± (0.1% of reading + 0.05 seconds)	
REMOTE (PLC)	Inputs-Test, Reset, Memory Select Outputs-Pass, Fail, Remote Alarm, Test in Process	
MEMORY	Allows storage of up to 10 different test programs	
SECURITY	User selectable password to avoid unauthorized access to test setup program	
LINE CORD	Detachable 7 ft. (2.13 m) power cable terminated in a three prong grounding plug	
TERMINATIONS	5 ft. (1.52 m) high voltage and return leads with clip and a standard U.S. style (NEMA 5-15) remote receptacle box for testing items terminated with a line cord. International plugs also available.	
MECHANICAL	Bench or rack mount (2U height) with tilt up front feet Dimensions: (w x h x d) 17 x 3.5 x 16.5 (432 x 88 x 419mm) Weight 25 lbs. (11.34 kg) net	
ENVIRONMENTAL	Operating Temperature 32° -113° F (0° - 45°C) Relative Humidity - 0 to 95%	
CALIBRATION	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.	



HypotPLUS® II includes rear panel high voltage 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. Single function dedicated keys speed setup without scrolling through the menu.

## For over 60 years...

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 HypotPLUS® 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.
- **HYAMP® II:** 30 Amp Ground Bond tester that works as a stand-alone instrument or can be interconnected to the HypotPLUS®II to form a semi-automated test system.
- **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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