Dielectric Withstand Testers

For Production Line Safety Agency Compliance Testing

- Microprocessor Digital Design With Software Friendly Menuing
- Electronic Ramp & Dwell
- Standard Ground Continuity Check
- Interconnects To Ground Bond Tester
- Tamper Proof Front Panel Controls
- Low-Current Sense
- Test Setup Memories
- Switchable 50/60Hz Testing
- PLC Remote Control
- 500VA Model Available

Models 3500D, 3505D, 3565D, 3570D & 4500D
HYPOT II FEATURES & BENEFITS

**FEATURE**  
No load setup of trip current and output voltage  
This provides the operator with an easy and safe way to set trip currents and output voltages since parameters are set without high voltage activated.

**FEATURE**  
Tamper proof front panel controls  
No knobs, switches or pots to set or accidentally knock out of setting. Once setup is accomplished through software it is maintained in memory. Front panel controls can be locked via an ON/OFF setting in the calibration menu.

**FEATURE**  
Line and load regulation  
This system maintains the output voltage to within 1% of settings from no load to full load and over the line voltage range to ensure that test results remain consistent and within safety agency requirements.

**FEATURE**  
Interconnects to HYAMP® JR. model 3030D  
Interconnects to the model 3030D Ground Bond tester to form an entry-level system incorporating the two most common safety tests.

**FEATURE**  
Electronic dwell settings  
The electronic dwell control helps keep test results consistent by ensuring that the test duration is the same for each product tested.

**FEATURE**  
Front panel LCD displays test parameters and results  
A front panel LCD allows the operator to monitor the test. The display holds the results after a test item failure so that the operator can easily review the test results. Indications of failures are clearly displayed.

**FEATURE**  
Non-invasive front panel calibration  
Complete calibration is performed through the front panel. No need to open the instrument and expose a technician to high voltage.

**FEATURE**  
Meets safety agency standards  
Hypot II is CE and TÜV listed which means it has passed the tough design and performance requirements as called out in EN 61010 and IEC 1010 international safety standards. The CE mark means it can be used anywhere worldwide including all countries in Europe. Additionally, all of the 35xxD series Hypot II models are UL listed.

**FEATURE**  
Low-current sense*  
Monitors the minimum level of current flow, thus ensuring that the device under test (DUT) is properly connected and that the hipot test is being performed.

**FEATURE**  
Electronic ramping*  
Provides a gradual and timed method to increase output voltage to the DUT, minimizing any damage from quickly over-applying high voltage to sensitive DUT’s.

**FEATURE**  
Test setup memories*  
The operator can store and recall test setups, thus eliminating the need to re-enter setup information.

**FEATURE**  
Built-in Insulation Resistance test  
With the built-in IR test capability in model 3570D, an IR test may be performed alone or in conjunction with an AC or DC hipot test. The 2 MΩ range complies with agency specifications such as IEC.

*Only available on 3505D, 3565D, 3570D and 4500D.

### ACCESSORIES:

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistor Kit</td>
<td>Precision 1% resistor is ideal as a load to set current trip points. Meets 120 k ohm requirements.</td>
<td>35534</td>
</tr>
<tr>
<td>Black Stationary Probe</td>
<td>Provides an insulated fixed metallic contact point to a DUT for a return path.</td>
<td>35539</td>
</tr>
<tr>
<td>Foot Switch</td>
<td>Ideal for applications where an operator needs to start a test “hands off” the instrument.</td>
<td>35822</td>
</tr>
<tr>
<td>Retractable Probe</td>
<td>High voltage retractable 5 KV AC probe for safe testing and application of high voltage.</td>
<td>38081</td>
</tr>
<tr>
<td>Retractable Return Probe</td>
<td>This retractable probe is used on the return side of the Hypot II.</td>
<td>38082</td>
</tr>
<tr>
<td>Safe-T-Probe*</td>
<td>Test gun with trigger that controls retractable probe and activates instruments high voltage circuit.</td>
<td>38083</td>
</tr>
<tr>
<td>Adjustable Resistor Bank</td>
<td>Provides test loads from 120 K to 2.148 k ohms. 6 terminals with 12 settings. Helps verify regulation.</td>
<td>36956</td>
</tr>
</tbody>
</table>

### OPTIONAL EQUIPMENT:

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rear Panel Outputs</td>
<td>Allows access to the High Voltage &amp; Return outputs from the rear panel for automated systems.</td>
<td>01</td>
</tr>
<tr>
<td>Remote Interlock</td>
<td>This option adds an interface for external safety interlock devices.</td>
<td>03</td>
</tr>
<tr>
<td>Digital Arc Detection</td>
<td>This allows you the capability to detect lower level arcing for diagnostic purposes.</td>
<td>04</td>
</tr>
<tr>
<td>Floating Return</td>
<td>Designed for testing ungrounded DUT’s at low current levels.</td>
<td>05</td>
</tr>
</tbody>
</table>
HYPOT® II SPECIFICATIONS

A Complete Entry-Level System to Meet the Most Common Electrical Safety Compliance Tests

Combining any versions or models of Hypot II with the 3030D HY AMP® JR, creates an entry-level system. We call it the SYSTEM 3000. It comes complete with hardware and interconnection cables which allow you to perform Dielectric Withstand, Insulation Resistance and Ground Bond tests through a single DUT connection. This system was designed for manufacturers that need to comply with safety agency standards requiring high voltage tests of insulation and high current tests of the protective ground circuit.

REMOTE CONTROL & SIGNAL OUTPUT

The following input & output signals are provided through the 9 pin D type connector:

1. Inputs: test and reset
2. Outputs: pass, fail, & test in process

SECURITY

Lockout capability to avoid unauthorized access to test set-up program.

LINE CORD

Detachable 7 ft. (2.13m) power cable terminated in a three prong grounding plug.

TERMINATIONS

5 ft. (1.52 m) high voltage & return leads with clips & a standard U.S. style (NEMA 5-15) remote receptacle box for testing items terminated with a line cord. International receptacles also available.

MECHANICAL

Tilt up front feet
Dimensions: (W x H x D) 11 x 3.5 x 14.56 in. (280 x 89 x 370 mm)
Weight: 20 lbs. (9 Kgs)

ENVIRONMENTAL

Operating Temperature: 32° - 113° F (0°- 45° C)
Relative Humidity: 0 to 95%

CALIBRATION

All adjustments are made through front panel.

LOW CURRENT SENSE*

3505D: 0.00 - 12.00 mA AC
Accuracy: ± (2% of setting + 0.02 mA)
3565D & 3570D: 0.00 - 12.00 mA AC, 0.00 - 5.00 mA DC
Accuracy: ± (2% of setting + 0.02 mA)

RAMP TIMER*

0.2 - 999.9 secs. in 0.1 sec. increments
0 Ramp setting = 0.1 secs. fixed
Accuracy: ±10 milliseconds

MEMORY*

Allows storage of up to 5 different test programs

IR TEST**

Range: 1 MΩ - 1000 MΩ
Accuracy: ± (5% of reading + 2 counts) > 500 Volts
± (7% of reading + 2 counts) < 500 Volts
Voltage: 100 - 1000 V DC in 10 V steps
Accuracy: ± (2% of output + 5 V)
Failure Settings: High/Lo limit 1 MΩ - 1000 MΩ
IR Delay Range: 0, 0.5 - 999.9 secs. (0 = constant)
Resolution: 0.1 secs.
Accuracy: ± (0.1% of reading + 0.05 secs.)

*Only available on 3505D, 3565D & 3570D.
**Only available on 3570D.

ALL OTHER INSTRUMENT SPECIFICATIONS MATCH THE GRIDS SHOWN ABOVE.

ADDITIONAL SPECIFICATIONS

MODEL 4500D (500 VA)

INPUT VOLTAGE
115/230 V selectable, ± 15% variation 50-60 Hz ± 5%

FUSE
115 V AC, 230 V AC — 15 A fast acting 250 V AC

OUTPUT
Rating AC 0 - 5000 V, 10 V/step, 100 mA
Regulation: ± (1% of output + 5 V)

FAILURE SETTINGS
High limit: 0.10 - 99.99 mA, 0.01 mA/step
Low limit: 0.00 - 100.00 mA
Accuracy: ± (2% of setting + 0.05 mA)

METERING
Voltmeter (4 digits) - Range: AC 0.00 - 5.00 KV, Resolution: 0.01 KV,
Accuracy: ± (2% of reading + 10 V)
Ammeter (4 digits) - Range: AC 0.00 - 99.99 mA, Resolution: 0.01 mA,
Accuracy: ± (2% of reading + 0.05 mA)

MECHANICAL
Tilt up front feet. Dimensions: (W x H x D) 16.92 x 5.24 x 11.8 in.
(430 x 133 x 300 mm) Weight: 62 lbs. (28 Kgs)

All other instrument specifications match the grids shown above.
The Industry’s Most Complete Line of Instruments for Electrical Safety Compliance Testing

**autoware**
Software designed to store, analyze and retrieve data on automated Associated Research instruments, while performing Line Leakage, Insulation Resistance, Dielectric Withstand, Ground Bond and Functional Run tests. Autoware also allows for bar coding inputs and provides basic statistical analysis graphs.

**QUADCHEK**

**HYPOTULTRA**
3-in-1 Dielectric Analyzers with AC, DC or AC/DC Hipot, Insulation Resistance and optional built-in scanner available on some models. Available in 500 VA output versions.

**LINECHEK**
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 AR safety testers to form a complete automated testing system.

**RUNCHEK**
The 905D functional run test system measures current, voltage, power factor and watts. It can be interconnected to our safety testers so all tests can be performed through a single DUT connection. Available with standard GPIB or RS-232 interface.

**SWITCHING MATRIX**
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.)

**HYDAME**
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 with a single DUT connection.

**HYDAME**
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 with a single DUT connection.

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