Hipot Tester
Models H111 & H216

Programmable Digital Electrical Safety Testers

The AEMC® Hipot Testers are designed for AC/DC Withstanding Voltage Testing, providing a safe and accurate test environment for the operator. The Model H216 also includes an Insulation Resistance Testing (IR) feature.

The testers comply with the requirement of the electrical equipment and appliance testing standard, UL, CSA and other international standards. The testers can be used for withstanding voltage tests of the various types of electrical equipment and components.

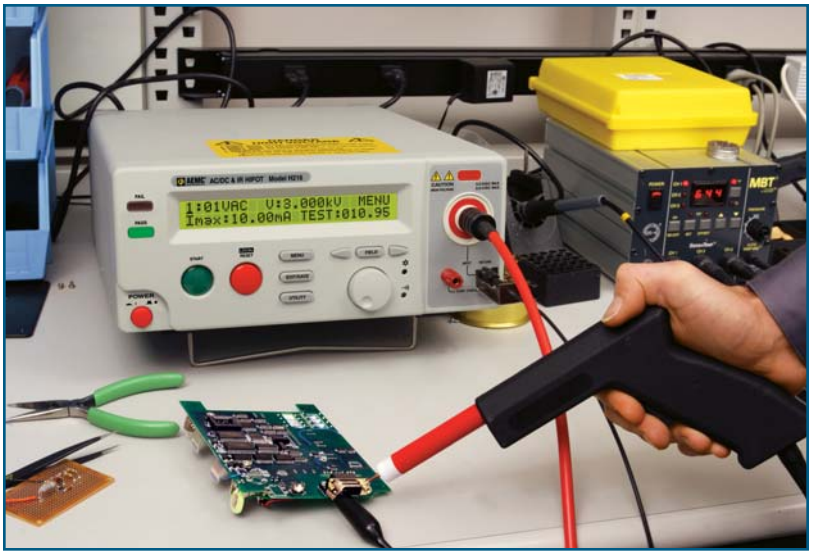
Features

- **No load setup of trip current and output voltage.** A safe way to setup trip current and output voltage without having the high voltage activated, or the use of a load resistor.
- **Large 24 x 2 character LCD with adjustable backlight.** Provides a clear display of all test parameters, including test, step, mode, status, output voltage, trip current and test time.
- **Quick and easy setup from the front panel.** A user-friendly interface provides a quick and easy way to set all parameters.
- **Electronic ramping and testing.** Digitally controlled ramping and test time.
- **Line and load regulation.** Linear amplifier and feedback – control maintains the output voltage independently from load variations.
- **Selectable output frequency.** 50/60Hz operation is selectable through the "UTILITY" setup.
- **Adjustable ARC detect level.** ARC detect level can be programmed in the "UTILITY" setup.
- **Storage of up to 10 tests, 16 steps for each test.** Provides the user with a choice for testing different types of products or different test scenarios.
- **Adjustable output voltage during test.** A special test mode COM (below test 1:01) allows the user the ability to manually adjust the output voltage during test.
- **Flashing high voltage indicator.** A flashing red LED warns that high voltage is present at the output.
- **PLC remote control.** The 9-pin interface provides:
  inputs: START, RESET
  outputs: TEST, PASS, FAIL
- **Data lock function.** Front panel can be locked or unlocked by the "UTILITY" setup to prevent unauthorized changes to the setup.
- **RS-232 Interface.** Interface allows computer control of operations.

Applications

- Test dielectric strength of electrical insulation
- Test ground circuit continuity of 3-wire appliances and devices
- Detect workmanship defects, such as nicks in wires and components mounted incorrectly
- Locate defective components
- Measure insulation resistance

	H111	H216
AC Hipot – 5kV	✓	✓
DC Hipot – 6kV	–	✓
Continuity	✓	✓
Arc Detection	✓	✓
Insulation Resistance (IR)	–	✓

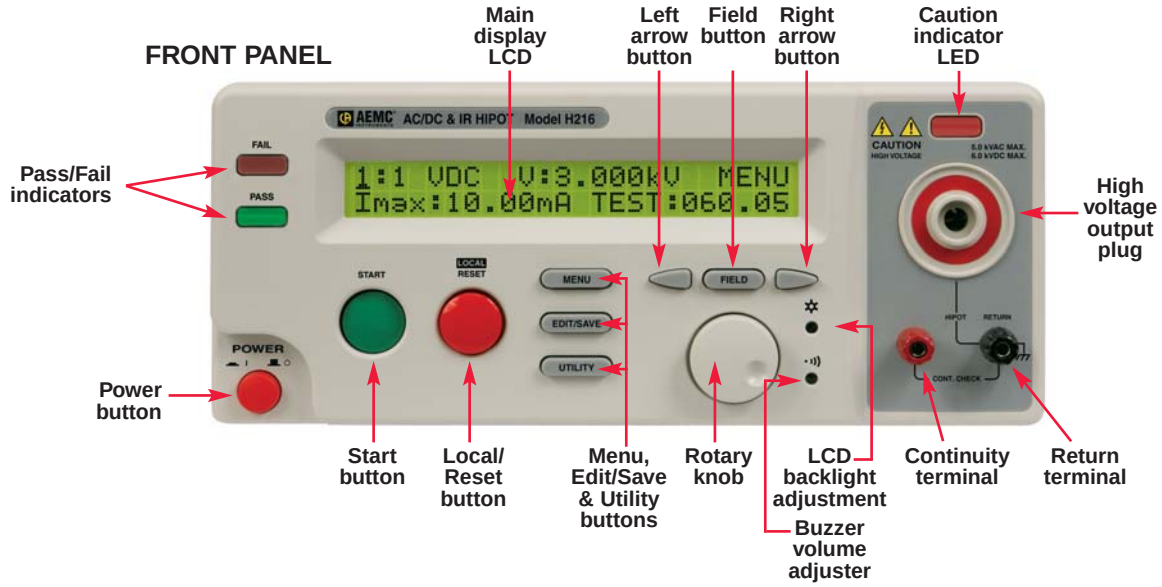


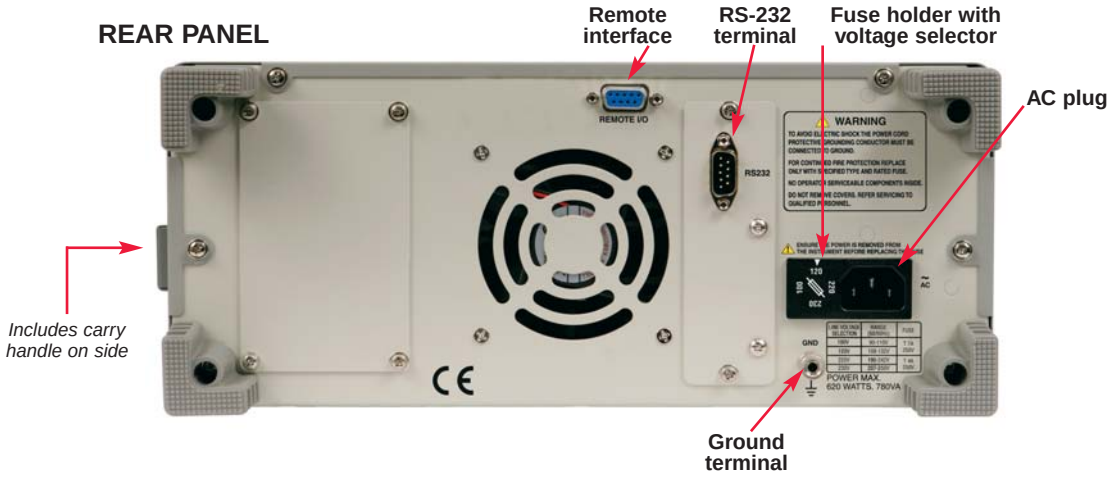
Model H216 tests a board for leakage with optional HV Test Pistol.

Specifications

MODELS	H111	H216
ELECTRICAL		
AC HIPOT		
Voltage Range	100V to 5000VAC (5kV)	100V to 5000VAC (5kV)
Voltage Step Resolution	5V	5V
Voltage Regulation	±1% of Reading ± 5V	±1% of Reading ± 5V
Accuracy	±2% of Reading ± 10V (>500V)	±2% of Reading ± 10V (>500V)
Test Frequency	50Hz or 60Hz (selectable)	50Hz or 60Hz (selectable)
Current	0.10mA to 40mA in 0.02mA steps	0.10mA to 40mA in 0.02mA steps
Max Current Output	40mA @ 5kV	40mA @ 5kV
Accuracy	±2% of Reading ± 2cts	±2% of Reading ± 2cts
Ramp and Test Time	0.000s to 999.9s	0.000s to 999.9s
DC HIPOT		
Voltage Range	–	100V to 6000VDC (6kV)
Voltage Step Resolution	–	5V
Voltage Regulation	–	±1% of Reading ± 5V
Accuracy	–	±2% of Reading ± 10V (>500V)
Trip Current	–	0.10mA to 10mA in 0.01mA steps
Max Current Output	–	10mA @ 6kVDC
Accuracy	–	±2% of Reading ± 2cts
Ramp and Test Time	–	0.000s to 999.9s
INSULATION RESISTANCE (IR)		
DC Test Voltage	–	50 & 100V; 500V & 1000V
Measurement Range	–	1 to 1990MΩ 1 to 9900MΩ
Accuracy 1 to 500MΩ 501 to 2000MΩ	– –	±5% of Reading (500 & 1000V) ±10% of Reading
Test Time	–	0.000s to 999.9s
CONTINUITY CHECK		
Resistance Range	0.001Ω to 1.500Ω	0.001Ω to 1.500Ω
Test Current	100mA (0.1A)	100mA (0.1A)
Detect Accuracy	0.1Ω @ 1Ω	0.1Ω @ 1Ω
Test Time	0.000s to 999.9s	0.000s to 999.9s
ARC DETECTION		
Detect Current	Selectable in 1mA steps from 2 to 20mA	Selectable in 1mA steps from 2 to 20mA
STORAGE		
Programmable test sequences	10	10
Steps per test sequence	16	16
REMOTE INTERFACE (DB9 CONNECTOR)		
Outputs	Test, Pass and Fail	Test, Pass and Fail
Inputs	Start and Reset	Start and Reset
Output Breakdown Voltage	±350V	±350V
Continuous Load Current	±100mA	±100mA
Remote RS-232 Interface (DB9 connector)	Allows terminal more operation from a PC to program the instruments, run tests and retrieve results. Requires 9 pin serial, cross over type, interface cable	
POWER SUPPLY		
	100V, 120V, 220V, 230V ± 10% @ 50/60Hz (selectable on rear panel)	
MECHANICAL		
Operating Temperature	32° to 104°F (0° to 40°C) @ 80% RH max	
Storage Temperature	14° to 158°F (-10° to 70°C) @ 70% RH max	
Operating Environment	Indoor use only: altitude up to 6500 ft (2000m). Ambient temperature: 32° to 104°F (0° to 40°C) Relative humidity: 80% max. Installation Category II. Pollution Degree 2	
Dimensions	17.5 x 13 x 5.8" (446 x 330 x 149mm)	
Weight	33 lbs (14.9kg)	
SAFETY		
Safety Rating	EN 61010-1, Cat. II, Pollution Degree 2	
CE Mark	Yes	

Construction





Accessories

HV Test Pistol (6 ft)
Model with SP02 and black grounding lead included

Optional HV Test Lead 9 ft (3m)
(unterminated without test pistol)
Catalog #2117.89

PC RS-232, DB9 F/F 6 ft Null Modem cable
Catalog #2119.45

ORDERING INFORMATION	CATALOG NO.
Hipot Tester Model H111 (5kVAC)	**Cat. #2129.60**
Hipot Tester Model H116 (5kVAC and IR)	**Cat. #2129.63**
All models include tester, one high voltage test pistol (SP02), one return lead with retainer, a US AC 110V power cord and user manual	
Accessories	
HV Test Lead 9 ft (unterminated, 3m)	Cat. #2117.89
Cable, PC RS-232, DB9 F/F 6 ft Null Modem Cable	Cat. #2119.45

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