PK-110 Electrical Test Kit

Three Electrical Testers to Perform Quick and Safe Voltage Tests

Amprobe's PK-110 Electrical Test Kit offers three electrical testers with testing functions suitable for a variety of residential applications. The kit includes the AM-420 Digital Multimeter, ST-102B Socket Tester with GFCI and VP-1000 Non-Contact Voltage Detector. From identifying voltage presence in outlets and switches to confirming proper wiring of regular and GFCI protected outlets, the PK-110 kit boasts all the features needed to perform quick and safe electrical tests.



PK-110 Features

AM-420

Digital Multimeter

- AC/DC Voltage
- DC Current
- Resistance
- **Audible Continuity and Diode Test**
- Battery Test (1.5V and 9V)
- Data Hold
- Safety Rated: CAT II 250 V













VP-1000

Detector



AC Voltage Detection

Non-Contact Voltage

Visual Voltage Presence Alert

Safety Rated: CAT IV 1000 V



ST-102B

Socket Tester with **GFCI**

- Tests Standard and GFCI Outlets
- Verifies Proper Wiring
- Detects Five Different Wiring Faults
- · CSA Listed for Safety



PK-110 Applications













AM-420 Digital Multimeter

VP-1000 Non-Contact Voltage Detector

ST-102B Socket Tester with GFCI

AM-420 Digital Multimeter

Accurately measure voltage up to 250V in receptacles, switches, extension cords and light fixtures

Troubleshoot light bulbs and fuses with the continuity function

Check 1.5V and 9V batteries

Test extension cords and verify proper wiring of an outlet with voltage function

CAT II 250 V safety rating

VP-1000Non-Contact Voltage Detector

Easily and safely detect voltage presence between 90 and 1000 V. Quickly verify voltage presence in outlets, switches, extension cords, circuit breakers and fuses without disconnecting the electrical system.

Bright LED alerts when voltage is present

Operates as 'always on' using low power circuitry with no buttons for increased safety

Double insulated, CAT IV 1000V safety rating

ST-102BSocket Tester with GFCI

Test receptacle wiring and confirm GFCI sockets are properly wired with push button

Detect five different wiring faults open ground, open neutral, open hot, hot/ground reverse, and hot/neutral reverse

Three illuminated lights on the tester indicate the type of wiring problem



Visit us at www.TestEquipmentDepot.com

PK-110 Detailed Specifications

AC Voltage 200.0 / 250 V			
200 mV 2.000 / 20.00 / 20.00 / 20.00 / 20.00 250 V 4./(1.2% rdg + 2 LSD) @ 200 mV to 200 V	Feature	AM-420	Best Accuracy
DC Voltage 2.000 / 20.00 / 20.00 / 25.0 V	AC Voltage	200.0 / 250 V	+/-(1.5% rdg + 4 LSD) @ 45 Hz to 400 Hz
2.000 / 20.00 / 20.00 MA 2.000 / 20.00 Ω Resistance 2.000 / 20.00 Ω 2.000 / 20.00 Ω 2.000 / 20.00 Ω 2.000 / 20.00 Ω 2.000 MΩ Diode Test Open-circuit voltage is around 1.5V. Normal voltage is around 1.5V. Normal voltage is around 0.5V to 0.8V for silicon PN junction. Battery Test Data Hold • General Specifications: Maximum Display Range Manual-ranging Operating Temperature Relative Humidity 32°F ~ 86°F (0°C ~ +30°C) ≈75%, 86°F ~ 104°F (+30°C ~ +40°C) ≈50% Storage Temperature 14°F ~ 122°F (-10°C ~ +50°C) Electromagnetic Compatibility In an RF filed of 1V/m = Specified accuracy ± 5%. RF field > 1V/m is not specified. Over-range Indication Battery Ife Alkaline battery (GLF22, 6LR61, MN1604) or equivalent Battery Life Low Battery Indication Decovoltage Category CAT II 250V safety rated EMC Compliance IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance EMC Compliance EMC Compliance	DC Voltage	2.000 / 20.00 / 200.0 / 250 V	+/-(1.2% rdg + 2 LSD) @ 200 mV to 200 V
2.000 / 20.00 / 20.00 / 20.00 kΩ	DC Current		+/-(1.2% rdg + 5 LSD) @ 200 μA to 20 mA
Open-circuit voltage is around 1.5V. Normal voltage is around 0.5V to 0.8V for silicon PN junction. Battery Test 1.5 V, 9 V 4/(8.0% rdg + 1 LSD) Data Hold General Specifications: Maximum Display Range Manual-ranging Operating Temperature Relative Humidity 32°F - 86°F (0°C ~ +30°C) × 575%; 86°F - 104°F (+30°C ~ +40°C) × 50% Operating Altitude Storage Temperature Electromagnetic Compatibility In an RF filed of 1V/m = Specified accuracy ± 5%. RF field > 1V/m is not specified. Over-range Indication Battery One 9V alkaline battery (6LF22, 6LR61, MN1604) or equivalent Alkaline: 100 hours typical Low Battery Indication Overvoltage Category CAT II 250V safety rated Sefety Compliance EMC Compliance EMC Compliance EMC Compliance EMC Compliance IEC 61326-1	Resistance	2.000 / 20.00 / 200.0 kΩ	+/-(1.5% rdg + 5 LSD) @ 200 Ω to 200 kΩ
Normal voltage is around 0.5V to 0.8V for silicon PN junction. Battery Test 1.5 V, 9 V 4/-(8.0% rdg + 1 LSD) Maximum Display 1999, updates 2 to 3/sec Manual-ranging Operating Temperature Relative Humidity 32°F ~ 86°F (0°C ~ +40°C) Relative Humidity 32°F ~ 86°F (0°C ~ +30°C) =75%; 86°F ~ 104°F (+30°C ~ +40°C) =50% Operating Altitude Storage Temperature Electromagnetic Compatibility In an RF filed of 1V/m = Specified accuracy ± 5%. RF field > 1V/m is not specified. Over-range Indication Battery One 9V alkaline battery (6LF22, 6LR61, MN1604) or equivalent Battery Life Low Battery Indication CAT II 250V safety rated Safety Compliance IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance	Continuity	Beeps at ≤10 Ω , off at >70 Ω	
Data Hold General Specifications: Maximum Display Range Manual-ranging Operating Temperature Relative Humidity Operating Altitude Storage Temperature In an RF filed of 1V/m = Specified accuracy ± 5%. RF field > 1V/m is not specified. Over-range Indication Battery One 9V alkaline battery (6LF22, 6LR61, MN1604) or equivalent Low Battery Indication Overvoltage Category Safety Compliance IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance I 1999, updates 2 to 3/sec Nanual-ranging 1999, updates 2 to 3/sec Nanual-ranging Nanual-ranging Nanual-ranging Safer ~ 104°F (0°C ~ +40°C) < 50°C Ed. (0°C ~ +40°C) ≤ 50% Refer ~ 104°F (+30°C ~ +40°C) ≤ 50% Safer ~ 104°F (+30°C ~ +40°C) ≤ 50% Safer ~ 104°F (-30°C ~ +40°C) ≤	Diode Test		
Maximum Display Range Manual-ranging Operating Temperature Relative Humidity Operating Altitude Storage Temperature Electromagnetic Compatibility Over-range Indication Battery One 9V alkaline battery (6LF22, 6LR61, MN1604) or equivalent Battery Life Low Battery Indication Overvoltage Category Safety Compliance I 1999, updates 2 to 3/sec Manual-ranging Altoucc → +40°C) Alva ← ~ 120°F (~10°C ~ +40°C) ≤50% S 2000 m 1 1°, "-1" or maximum display reading One 9V alkaline battery (6LF22, 6LR61, MN1604) or equivalent Alkaline: 100 hours typical CAT II 250V safety rated Safety Compliance IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance IEC 61326-1	Battery Test	1.5 V, 9 V	+/-(8.0% rdg + 1 LSD)
Maximum Display Range Manual-ranging Operating Temperature 32°F ~ 104°F (0°C ~ +40°C) Relative Humidity 32°F ~ 86°F (0°C ~ +30°C) ≤75%; 86°F ~ 104°F (+30°C ~ +40°C) ≤50% Operating Altitude \$ 2000 m Storage Temperature 14°F ~ 122°F (-10°C ~ +50°C) Electromagnetic Compatibility In an RF filed of 1V/m = Specified accuracy ± 5%. RF field > 1V/m is not specified. Over-range Indication 1 ", "-1" or maximum display reading Battery One 9V alkaline battery (6LF22, 6LR61, MN1604) or equivalent Alkaline: 100 hours typical Low Battery Indication Overvoltage Category CAT II 250V safety rated Safety Compliance IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance IEC 61326-1	Data Hold	•	
Manual-ranging Operating Temperature Relative Humidity 32°F ~ 86°F (0°C ~ +30°C) ≤75%; 86°F ~ 104°F (+30°C ~ +40°C) ≤50% Operating Altitude ≤ 2000 m Storage Temperature 14°F ~ 122°F (-10°C ~ +50°C) Electromagnetic Compatibility In an RF filed of 1V/m = Specified accuracy ± 5%. RF field > 1V/m is not specified. Over-range Indication "1", "-1" or maximum display reading Battery One 9V alkaline battery (6LF22, 6LR61, MN1604) or equivalent Alkaline: 100 hours typical Low Battery Indication Overvoltage Category CAT II 250V safety rated Safety Compliance IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance IEC 61326-1	9.5		
Operating Temperature 32°F ~ 104°F (0°C ~ +40°C) Relative Humidity 32°F ~ 86°F (0°C ~ +30°C) ≤75%; 86°F ~ 104°F (+30°C ~ +40°C) ≤50% Operating Altitude \$2000 m Storage Temperature 14°F ~ 122°F (-10°C ~ +50°C) Electromagnetic Compatibility In an RF filed of 1V/m = Specified accuracy ± 5%. RF field > 1V/m is not specified. Over-range Indication "1", "-1" or maximum display reading Battery One 9V alkaline battery (6LF22, 6LR61, MN1604) or equivalent Alkaline: 100 hours typical Low Battery Indication Overvoltage Category CAT II 250V safety rated Safety Compliance IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance	Maximum Display	1999, updates 2 to 3/sec	
Relative Humidity 32°F ~ 86°F (0°C ~ +30°C) ≤75%; 86°F ~ 104°F (+30°C ~ +40°C) ≤50% ≤ 2000 m Storage Temperature 14°F ~ 122°F (-10°C ~ +50°C) In an RF filed of 1V/m = Specified accuracy ± 5%. RF field > 1V/m is not specified. Over-range Indication "1", "-1" or maximum display reading One 9V alkaline battery (6LF22, 6LR61, MN1604) or equivalent Alkaline: 100 hours typical Low Battery Indication Overvoltage Category CAT II 250V safety rated Safety Compliance IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance IEC 61326-1	Range	Manual-ranging Manual-ranging	
Operating Altitude Storage Temperature 14°F ~ 122°F (-10°C ~ +50°C) In an RF filed of 1V/m = Specified accuracy ± 5%. RF field > 1V/m is not specified. Over-range Indication "1 ", "-1" or maximum display reading Battery One 9V alkaline battery (6LF22, 6LR61, MN1604) or equivalent Alkaline: 100 hours typical Low Battery Indication Overvoltage Category CAT II 250V safety rated Safety Compliance IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance	Operating Temperature	32°F ~ 104°F (0°C ~ +40°C)	
Storage Temperature 14°F ~ 122°F (-10°C ~ +50°C) Electromagnetic Compatibility In an RF filed of 1V/m = Specified accuracy ± 5%. RF field > 1V/m is not specified. Over-range Indication "1", "-1" or maximum display reading One 9V alkaline battery (6LF22, 6LR61, MN1604) or equivalent Alkaline: 100 hours typical Low Battery Indication Overvoltage Category CAT II 250V safety rated Safety Compliance IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance	Relative Humidity	32°F ~ 86°F (0°C ~ +30°C) ≤75%; 86°F ~ 104°F (+30°C ~ +40°C) ≤50%	
In an RF filed of 1V/m = Specified accuracy ± 5%. RF field > 1V/m is not specified. Over-range Indication Battery One 9V alkaline battery (6LF22, 6LR61, MN1604) or equivalent Alkaline: 100 hours typical Low Battery Indication Overvoltage Category CAT II 250V safety rated Safety Compliance IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance	Operating Altitude	≤ 2000 m	
Over-range Indication " 1 ", "-1" or maximum display reading One 9V alkaline battery (6LF22, 6LR61, MN1604) or equivalent Battery Life Alkaline: 100 hours typical Low Battery Indication Overvoltage Category CAT II 250V safety rated Safety Compliance IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance	Storage Temperature	14°F ~ 122°F (-10°C ~ +50°C)	
Battery Battery Life Alkaline: 100 hours typical Low Battery Indication Cvervoltage Category CAT II 250V safety rated Safety Compliance IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance IEC 61326-1	Electromagnetic Compatibility	In an RF filed of $1V/m = Specified$ accuracy $\pm 5\%$. RF field $> 1V/m$ is not specified.	
Alkaline: 100 hours typical Low Battery Indication CAT II 250V safety rated Safety Compliance IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance IEC 61326-1	Over-range Indication	" 1 ", "-1" or maximum display reading	
Compliance CAT II 250V safety rated CAT II 250V safety rated EC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance IEC 61326-1	Battery	One 9V alkaline battery (6LF22, 6LR61, MN1604) or equivalent	
Overvoltage Category CAT II 250V safety rated Safety Compliance IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance IEC 61326-1	Battery Life	Alkaline: 100 hours typical	
Safety Compliance IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008 EMC Compliance IEC 61326-1	Low Battery Indication		
EMC Compliance IEC 61326-1	Overvoltage Category	CAT II 250V safety rated	
·	Safety Compliance	IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04 Update No.1:2008	
Certification cCSAus and CE	EMC Compliance	IEC 61326-1	
	Certification	cCSAus and CE	
Dimensions (L x W x H) 4.5 x 2.6 x 1.6 in (115 x 65 x 40 mm)	Dimensions (L x W x H)	4.5 x 2.6 x 1.6 in (115 x 65 x 40 mm)	
Weight Approximately 0.61 lb (275 g) with battery installed	Weight	Approximately 0.61 lb (275 g) with battery installed	

Feature	VP-1000
Operating Voltage Range	90 Vac → 1000 Vac, 50/60 Hz
Sensitivity	Lights at approx. 0.39 in (10 mm) distance from a wire carrying 120 Vac
Operating Temperature	32°F to 104°F (0°C to +40°C), ≤ 80% RH
Storage Condition	14°F to 122°F (-10°C to +50°C), ≤ 95% RH
Operating Altitude	2000 meters
Power Supply	Two 1.5 V AAA batteries
Dimensions (L x W x H)	6.10 x 0.96 x 0.85 in (155 x 24.5 x 21.5 mm)
Weight	Approx. 0.11 lb (50 g) with batteries installed
Safety Compliance	IEC 61010-1, UL 61010-1 2nd Ed. and CAN/CSA C22.2 No. 61010-1-04
EMC Compliance	IEC 61326-1
Certification	cCSAus and CE

Feature	ST-102B	
Operating Voltage	110 – 125 Vac, 50 – 60 Hz	
Wattage	0.3 W	
Actuator	Black button	
Indicator	Red LED, three lights, neon	
Lamp Lens Colors	One red, two amber	
Six Conditions Indicated	Open ground, open neutral, open hot, hot/ground reverse, hot/neutral reverse, correct	
Safety Compliance	C22.2 No. 160-M1985 / UL 1436 – 4th Edition	
Certification	cCSAus	