

TYPICAL APPLICATIONS



* CONNECTION WIRING CHECK

Move the tester handle close to the hair dryer with the power OFF. The LED lights up when the plug is inserted improperly, or if the 'LIVE/HOT' wire is improperly connected to the plug.



* GROUND/EARTHING CHECK

Move the tester handle close to the toaster with the power OFF. LED lights up if the 'Ground/Earth' is not connected in the wiring.



* CAPACITOR

LED light comes ON and then goes OFF. The capacitor is GOOD, when similar indication is shown by switching leads.



* DIODE; RECTIFIER

LED lights up in the 'FORWARD' bias direction only.



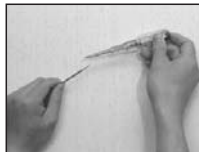
* TRANSISTOR (NPN Type)

LED lights up both at 'C' & 'E' with a finger touching 'B'.



* TRANSISTOR (PNP Type)

LED lights up at 'B' with a finger alternatively touching 'C' & 'E'.



* IGNITION CHECK

LED flashes consistently when the tester is moved close to ignition wire with high voltage present.



* BULB; RELAY COIL; FUSE; SPEAKER

GOOD: when the LED lights up brightly.
FAULTY/BAD: when the LED light is dim or it doesn't light up in continuity mode.



* FAULT FINDING

Check 'FAULT' condition of wiring such as a loose (bad contact) connection, or a dry solder joint of wiring, etc., by testing continuity.



* LOCATING BROKEN WIRE

Trace the tester handle along the wire. LED goes out where the wire is broken.



* WIRING CHECK

Easy to check out proper connection of the wiring - simple continuity test.

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AEMC® VOLTAGE TESTER
INSTRUMENTS (US Driver Blade)

Model SC-1



READ BEFORE OPERATING



IEC 1010, 250V, Cat. II

SPECIFICATIONS:

- 1) AC VOLTAGE TEST : Contact method from 70-250VAC
: Non-Contact method from 70-600VAC
- 2) DC VOLTAGE TEST : Up to 250VDC
- 3) POLARITY TEST : 1.5V-36VDC
- 4) CONTINUITY CHECK : 0-5MΩ
- 5) TEMPERATURE RANGE: 14° to 122°F (-10°C to + 50°C)
- 6) FREQUENCY RANGE: 50 to 500Hz

BATTERY REPLACEMENT :

- * Type : 392A ; AG3; LR41 ; 192 ; V3GA. (1.5V x 2 Alkaline or Silver type)
- * Battery life : Approx. 5 hours of continuous operation.

HOW TO REPLACE THE BATTERIES :

Unscrew the 'SENSING CAP' completely in counter-clockwise direction, then gently straighten wire over the batteries. Replace the batteries with 'NEGATIVE' side in down position and then bend the wire back. Replace the Sensing Cap.

- ⚠ CAUTION :**
- 1) Never attempt to take any parts out except replacing batteries.
 - 2) Do not operate the tester with the 'Sensing Cap' removed.
 - 3) Secure the screw tightly (clockwise).



NOTES :

1. The tester should not be used to test voltages above the rated voltage.
2. The LED indication can be impaired/dim in unfavorable lighting conditions. (e.g. in sunlight) or in unfavorable positions.
3. The tester must be tested before use (SELF-TEST).
4. The tester must not be used in the presence of high humidity. (e.g. dew or rain).
5. The blade is the only part which may enter into contact with a live (hot) sample. Other tester parts may only be used on insulated samples.
6. Do not use the tester if it is damaged in any way.
7. Static electricity may be generated by rubbing the PLASTIC BODY thus causing false readings (LED indication).
8. Never modify any components/parts inside the tester.

Quick Operation Guide

Initial Preparation

Self Test

LED Indicator

Prior to use, please perform a 'Self-Test' to ensure proper LED and battery operation.



To 'SELF-TEST', touch the 'DRIVER-BLADE' with one finger and the 'SENSING CAP' with the other hand.

Red LED light indicates a normal operation.

AC Voltage Test

1. Contact Method (70-250VAC)

When Testing, the 'TIP' must be in direct contact with the 'Live/Hot' part of the AC Voltage. The Red LED lights up indicating the presence of AC Voltage.

Note: The Red LED will also light up at the Neutral or Earth/Ground output if either is disconnected.



Caution : When in direct Contact Method mode, do not touch the 'SENSING CAP' of the tester.

2. Non-Contact Method (70-600VAC)

⚠ Caution: Do not put 'SENSING CAP' or tip blade into contact with a live circuit.

i. Identifying Polarity of AC Voltage

Hold the tester by the shaft as shown for Non-Contact testing of AC voltage. To locate 'Live/Hot' side of wire, gently trace the Tester along the wire. 'Live/Hot' side is indicated by the Red LED. The fault point in the 'Live/Hot' wire is indicated by a light interruption. Instantaneous finding of AC Voltage is also obtained by the tester when placed near socket, plug, wire inside PVC conduit, etc.



Note : To increase the sensitivity, hold the tester by the TIP while testing.

ii. High Voltage/Electrical Appliances / Hidden Wire Check

Detects high voltage, such as in a car ignition system, high voltage in transformer/wire. The LED will light up if the Earth/Ground is disconnected at the outlet or in the appliance.



SENSITIVITY SELECT (AC VOLTAGE NON-CONTACT ONLY)



SENSITIVITY

For better sensitivity, touch the 'SENSING CAP' when testing.



HIGH SENSITIVITY

To obtain the highest sensitivity and best visibility, hold the tester 'TIP' and place the 'SENSING CAP' towards the object being tested.



REDUCING THE SENSITIVITY

To reduce the sensitivity, place your other hand on the object being tested. (e.g. hold the wire insulation.)

Note : The sensitivity may be reduced in high humidity environment.

Continuity Test

⚠ CAUTION : Be sure to disconnect any AC Mains or High Voltage !
Do not test continuity on a live circuit!

1. Polarity Check

Identifies the DC Polarity of Voltage (1.5-36VDC). Touch NEGATIVE (-) with finger and POSITIVE (+) with test tip. LED lights up at POSITIVE (+) only.



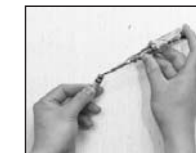
Lights Up
(Positive)



Does not Light up
(Negative)

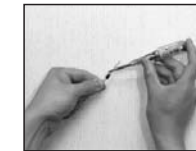
2. Electrical Check

Tests and verifies the connection of wires, plug sockets, fuses, bulbs, heaters/heating elements, toasters, fans, etc. Easily identifies 'Good' or 'Bad' fuses, bulbs etc.



3. Electronic Component Check

Tests, checks and identifies the condition of the Rectifier, Diode, Resistor, Capacitor, Transistor, Cable, Computer Cable, PCB etc.



4. Battery Test

Indicates the condition of a battery cell (1.5 volts and up). The battery is good when the LED lights up at the Positive (+) side, while a reverse indication shows that the battery is weak or drained.



Does not light up at negative terminal
(Normal)



Lights up at negative terminal
(Weak/Drained)