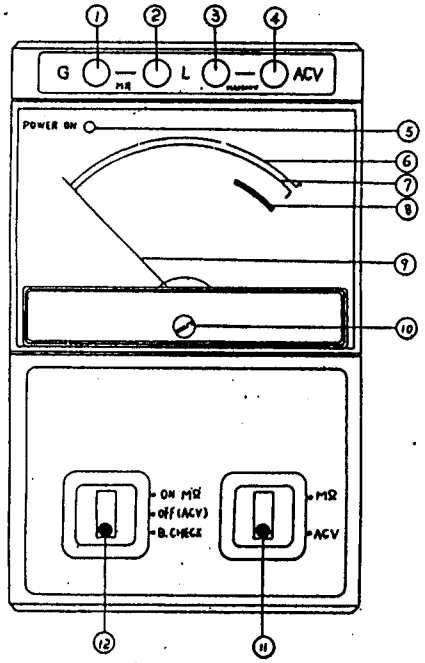
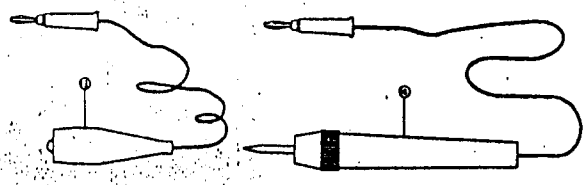
Owners
Manual
IT990
ELECTRONIC INSULATION
TESTER
MΩ
G
L

1 GROUND Terminal
2 LINE Terminal
3 ACV Terminal
4 ACV Terminal
5 Power ON Lamp
6 MΩ Scale
7 ACV Scale
8 BATT scale
9 Pointer
10 Meter Zero Adjust Screw
11 Function Switch
12 Power Switch
13 GROUND Test Lead
14 LINE Test Lead





I INTRODUCTION

The IT990 Insulation Tester is used to measure the resistance between individual windings, windings to ground, or conductor to ground. It is a measure of the dielectric resistance or insulation quality of the device under test. The meter supplies approx. 500V to the test leads and can measure leakage resistances as high as 1000 megohms. The meter also has an AC volts scale to measure to 600V. The tester uses a taut band meter as the indicator and the case is made of high impact plastic. Please read instructions before using the instrument.

II SPECIFICATIONS

1. Rated voltage/rated resistance – 500V/1000 megohms
2. Effective measuring range – 0 to 1000 megohms
3. Center scale – 20 megohms
4. AC voltage scale – 0 to 600V
5. Tolerance – ±5% of indicated value
6. Batteries – 6 "AA" cells (9V)
7. Dimensions – 169 x 106 x 36 mm
8. Weight – Approx. 430g. (with batteries)

ACCESSORIES

1. Test leads
2. Case
3. Owners manual

III NOTES

1. Mechanical zero adjust:
   Put the tester in a horizontal position; the pointer should be pointing to ∞ ohms. This can be set with the Zero Adjust Screw. (fig 1)

2. Battery Test:
   Set the function switch to MΩ and the power switch to B. Check. The blue range indicates batteries are good. (fig 2)

3. Battery Replacement:
   Remove screw from back cover and open case. Insert six new "AA" type batteries. (as fig 3) Reassemble case.

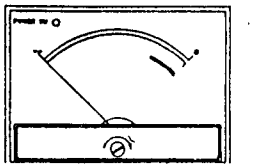


fig (1)

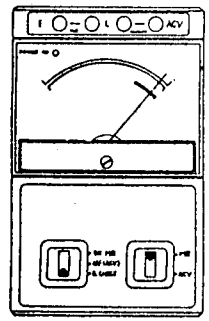


fig (2)

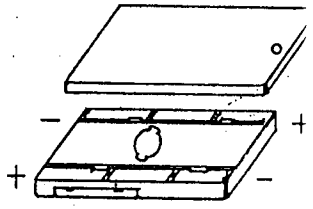


fig (3)

IV OPERATION

A. Resistance Measurement

1 Insert test leads, black to "G" and red to "L" (fig 4)

2 Check that no voltage is present in circuit to be tested.

3 Connect leads to circuit. If one side of circuit is grounded, use the "G" lead. (as fig 5).

4 Set function switch to MΩ and power switch to on. CAUTION: WHEN THE "POWER ON" LAMP IS ILLUMINATED, 500V IS APPLIED TO THE TEST LEADS.

5 Read value on the black resistance scale.

6 Set power switch to off.

B. ACV Measurement

1 Insert test leads into ACV jacks.

2 Set function switch to "ACV" and power switch to "OFF (ACV)".

3 Connect leads to circuit. (as fig 6)

4 Read value on the red ACV scale.

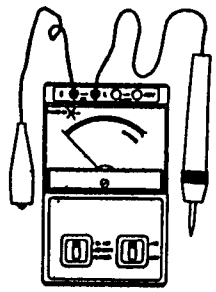


fig (4)

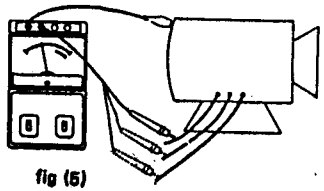


fig (5)

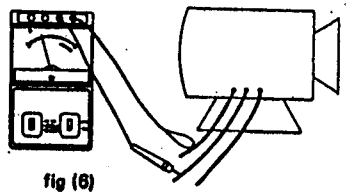


fig (6)

CAUTIONS

1) This instrument should only be used by competent personel who are familiar with and follow good work and safety practices.
2) Do not use instrument in an explosive atmosphere.
3) Be sure that no voltage is present in circuit before taking resistance measurements.
4) Any time you entrust you personal saftey to the proper operation of an instrument, always test it on a known live circuit first.
5) Keep instrument and leads clean and dry. Replace leads if damaged.
6) Do not use solvents to clean instrument. If necessary, use silicon oil or anti-static fluid.
7) Avoid severe mechanical shock, temperature and humidity extremes, and strong magnetic fields.
8) Remove batteries for long term storage.