

AUDIO IMPEDANCE TESTER




INSTRUCTION MANUAL

1. INTRODUCTION

WARNING!

read " SAFETY NOTES " before using the meter.


2. SAFETY NOTES


1. Read the following safety information carefully before attempting to operate or service the meter.
2. Use the meter only as specified in this manual, otherwise the protection provided by the meter may be impaired.
3. Rated environmental conditions:
 - a. Indoor use
 - b. Installation CAT III 100V.
 - c. Pollution Degree 2.
 - d. Altitude up to 2000 Meter.
 - e. Relative Humidity 80% Max.
 - f. Ambient Temperature 0*~40*.
4. Observe the international electrical symbols listed below:
 - Meter is protected throughout by double insulation or reinforced insulation.
 -  Warning! Risk of electric shock.
 -  Caution! Refer to this manual before using the meter.Note  Do not use on live system.

3. FEATURES

1. True measurement of speaker systems actual impedance at 1kHz
2. Three test ranges (20*/200*/2000*) allow testing of home theater and commercial sound systems.
3. Convenient portable battery operation.
4. Low battery indication
5. Data hold function.
6. Timer function for continuous hands free operation. The timer can last about 3-5 minutes when users press TEST ON/OFF button.


4. SPECIFICATIONS

1. Measurement range:
20*/200*/2000*
2. Test frequency:
1kHz
3. Accuracy:
20*: *2%rdg*2dgt or *0.1*, which is greater.
200*/2000*: *2%rdg*2dgt
4. Protection:
Meets IEC-1010 (EM61010). Installation CAT III 100V
5. Power requirement:
9V DC (6*1.5V "AA" UM-3 batteries)
6. Dimensions:
168(L)*110(W)*60(D) mm
7. Included Accessories:
Test leads, instruction manual, carry case
8. Low battery indication:
"  " Symbol appears on the display

9. Data hold indication:
"  " Symbol appears on the display
10. Display:
LCD 3 1/2 digit (2000 counts)
11. Weight:
Approx. 550g (battery included)

5. MEASURING METHODS

BEFORE PROCEEDING MEASUREMENT, READ SAFETY NOTES.

1. Ensure the system under test is not live.
2. In proceeding with measurement, if "  " symbol appears on the display, replace with new batteries.
3. Rotary the function switch to suitable range then press the pushbutton to test and take the reading.
4. A drawing of the system should be made before testing so the measurement can be attributed to network.
5. Measure system power-an 10W up

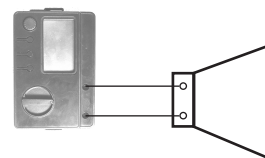
$$P=ZI^2$$

$$P=V^2/Z$$

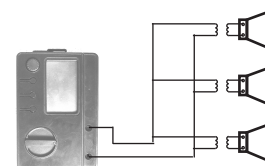
For example on a 100V system:

If $P=50W$, $Z=V^2/P=100^2/50=200^*$

- a. The tester can measure load down to 2k*. (10W at 100V line).
 - b. The tester can't measure 100V system with power lower than 10W.
6. Checking a speaker:
Speakers are general from 2* to 16*, use 20* range or for higher impedance speaker, use 200* or 2000* range.




7. Checking a PA system:
For example on a PA system. using a 100V configuration.



- a. If Z measured is lower, check for short-circuited wires or faulty speakers or transformers.
- b. If Z measured is higher, check for wiring or components (Speakers, transformers or connections).

6. MAINTENANCE

1. Battery Replacement:
When the symbol "  " appears on the display, replace with new batteries. As follows:
 - a. Disconnect the test leads from the instrument and turn off the power.
 - b. Use a screwdriver to unscrew the screws on back cover then slide the cover, take out the cover, take out the batteries and replace with new batteries type SUM-3.
 - c. Place back cover and install the screws.

2. Cleaning and storage:

WARNING

To avoid electrical shock or damage to the meter, do not get water inside the case.

Periodically wipe the case with a damp cloth and detergent; do not use abrasives or solvents.
If the meter is not to be used for a period of longer than 60 days, remove the batteries and store them separately.