

## TEST REPORT

This is certify that "SHANTI" Insulation Tester Model No. ITS /ITV /ITC \_\_\_\_\_ Sr. No. \_\_\_\_\_ having following range: \_\_\_\_\_ Volts \_\_\_\_\_ Megohms was tested in our laboratory as per Indian standard Specification No. IS 2992 and the results are as follows:

- (a) Terminal Voltage at central scale mark as per clause 9.2 \_\_\_\_\_
- (b) Insulation Resistance measured by applying 500VDC. As per clause 11.4 \_\_\_\_\_
- © High Voltage test for one minute by applying 2KV AC. (rms) as per clause 11.5 \_\_\_\_\_
- (d) Accuracy as per clause 9.1 \_\_\_\_\_

Date:

TESTED BY:

## WARRANTY

SHANTI Insulation Tester is Guaranteed for 12 months from the original date of dispatch against any manufacturing defects. In case of any complain, Please return the instrument securely packed and freight prepaid to enable us to repair and return the same. No other warranty is implied or otherwise is applicable.

Rev: A/ 23/10/2018

## INSULATION TESTER SERIES ITS



**OPERATING MANUAL**

*Manufactured by:*

**SHANTI INSTRUMENTS PRIVATE LIMITED**

KT Legend, Building No. 5, KT Industrial Park No. 2, Waliv, Vasai (East),  
Dist-Palghar -401208

Tel. No. +91 9607936627, Email : [service@shanti-instruments.com](mailto:service@shanti-instruments.com)

## INTRODUCTION

The 'SHANTI' Insulation Tester series is a universal portable self powered multipurpose instrument with its own brushless AC voltage generator for checking insulation resistance in the electrical and electronic fields. This rugged, precision instrument can locate intermittent shorts, defective electrical connections, insulation breakdowns or conductor failure due to wear, moisture, abrasion, deterioration, corrosion or other hostile environmental factors.

## APPLICATION

ITS series insulation tester can be used for locating and trouble shooting insulation related problems. The insulation tester is also useful for preventive maintenance. Testing before break down occurs can greatly reduce further damages and break down time. It will also reduce periodic overhaul expenses by revealing the electrical condition of wiring and components which might otherwise be replaced unnecessarily.

## CONSTRUCTION

The ITS series insulation tester is the culmination of many years of 'SHANTI' experience in manufacturing Insulation Testers. The accuracy is as per clause 9.1 of IS 2992. The case is PC molded. A pair of '-' (Earth) and '+' (Line) terminal socket is provided for standard probe sets. The generator is driven by a collapsible permanently fitted crank (which folds parallel to the body while not in use). Self lubricating moulded gears and oil impregnated bushes are used to eliminate mechanical maintenance of the generator. It incorporates the 'SHANTI' moving coil movement. The generator and movement are of heavy duty construction to provide long periods of trouble free operation.

## PRECAUTIONS

Before connecting the test leads of tester, always make certain that all electrical power is disconnected from the

apparatus or lines to be tested. **NEVER MAKE ANY CONNECTION TO LIVE ELECTRICAL CIRCUITS OR EQUIPMENT.** When carrying out an insulation test between a circuit and the ground, connect the '+' terminal of the tester to the circuit and '-' terminal to the ground.

## PRINCIPLE OF OPERATION

A hand driven generator provides the necessary voltage for the measuring operation. All the components are integrally enclosed within the same casing. The tester is designed so that the operator is only required to connect the articles under test to the terminals and turn the handle of generator. The insulation resistance value is measured and read out directly on calibrated meter. To facilitate accurate readout, select the place free from vibration for the measuring operation.

## MAINTENANCE

If below mentioned care is taken, the instrument can provide many years of trouble free service. Like any precision test instrument the "SHANTI" Tester should not be stored in a place with excessive dampness, humidity, vibration or heat. Avoid locations where corrosive gases, oil vapors, moisture, dust, temperature extremes exist.

## BEFORE MEASUREMENT

Place the Insulation Tester on horizontal level surface & ensure that pointer is pointing to '∞' mark on scale. If not adjust the green colored zero knob so that pointer points to '∞' mark on the scale. Now rotate the handle at 160 RPM and observe the pointer. It should not deviate from ∞' by more than 0.7mm.

## MEASUREMENT

Connect '-' terminal to earth and '+' to Line. Rotate the handle at 160 RPM. Pointer on scale will read out the insulation resistance value directly.