



# **INSTRUCTION MANUAL FOR CONTACT RESISTANCE METER MODEL – LS-100 Amp**

## **INTRODUCTION:**

1. GENERAL
2. GENERAL DESCRIPTION
3. SPECIFICATIONS
4. OPERATING INSTRUCTIONS
5. FRONT PANEL DRAWING



LS-100A

## **GENERAL**

Some Twenty years ago we committed ourselves to fill up the void in indigenous production-oriented test equipments for our fast growing electronic and electrical Industry, which was then dependent on costly imported equipment. Even the simplest of the equipments were being imported equipment's. Even the simplest of the equipment's were being imported with the omnipresent menace of servicing problems.

True to our commitment, over the years, dedicated and hard-core professionals at Sivananda Electronics have come out with a wide range of test equipment's to cater to the needs of the Indian Electronics and Electrical Components Industry. The types of equipment ranges from simple but vital equipment's to the most sophisticated equipment's are using the latest state of the art technology.

Prime design criteria and production orientation, speed, accuracy, ease of operation and suitability for diverse climatic conditions and technical level of manpower leading to an ever growing list of satisfied customers, shows that we have been successful in fulfilling our commitment.

Our constant endeavor is to update the present equipment's and bring out new equipment's as per International standards. A constant feedback from our customer is a source of encouragement in our endeavor.

As our equipment's are production-oriented, every precaution is taken at each stage to ensure long life and trouble free operation. A well knit team of service engineer's support our after sales programmer.

***You have already selected a winner.***

***Read the manual carefully and proceed to use the equipment with confidence.***



LS-100A

**GENERAL DESCRIPTION :**

Microhm Meter is a high sensitivity equipment allowing measurement down to 0.01 microhm.

This equipment uses four terminal method for measuring very low resistance. In all, there are four leads, 2 for forcing constant current into resistor under test and 2 for measuring voltage across test resistor.

The instrument uses latest state of art technology and integrated circuits to amplify the voltage across the test resistor and hence stable resistance measurement is possible even at Micro Ohm levels.

The current passing through the object is continuous. Applied current is passed through the object. The current flowing through the object and voltage across the object is measured simultaneously and the resistance value is calculated.

**Always connect the leads only which are supplied with the Instrument.**



LS-100A

## **TECHNICAL SPECIFICATIONS**

- 1) Power supply : 230 Volts AC  $\pm$  10%, 50Hz.
- 2) Test Current : 10A / 25A / 50A /100 A selectable
- 3) Resistance range :

Resistance Range	Resolution
199.99 m $\Omega$	0.01m $\Omega$
19.999 m $\Omega$	0.001m $\Omega$
1.9999 m $\Omega$	0.0001m $\Omega$
199.99 $\mu\Omega$	0.01 $\mu\Omega$

**Note: Please select the proper Current range for better accuracy**

- 4) Accuracy :  $\pm$  0.3 % of reading  $\pm$ 2digits
- 5) Dimensions : 590 X 460 X 280 mm (L x B x H )
- 6) Display : 4 ½ digit LED display.
- 7) Weight : Instrument: 18 Kg.

**Note: - Design subject to change for better improvement.**



LS-100A

## **OPERATING CONTROLS :**

The following controls and indicators are provided on the Instrument.

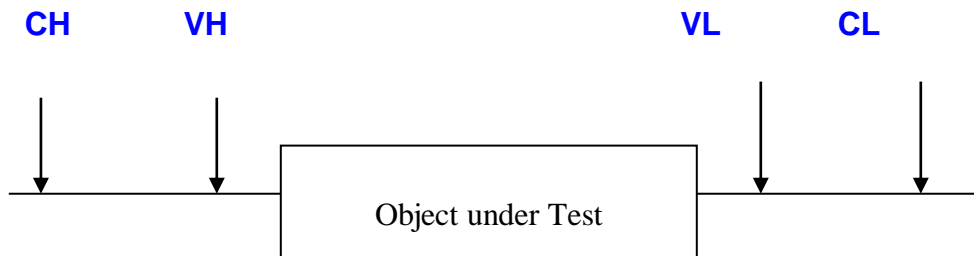
- a) Mains ON / OFF Switch.
- b) 20X4 LCD Display for displaying Resistance Value.
- c) 4X3 matrix keypad Press switch provided marked as Press to Measure for reading the value.
- d) Four terminals provided on front panel for connecting object (Two for Current & two for Voltage marked as **CH, CL & VH, VL** respectively)
- e) Mains connector with fuse provided on front panel to connect mains supply.
- f) RS232 port for PC connectivity.
- g) 3 Pin rounded shell connector for connecting foot switch.
- h) Earth terminal
- i) 20X4 line LCD for displaying Current and Resistance values.
- j) Thermal printer



LS-100A

## **Operating Procedure**

- Connect the instrument to 230V AC  $\pm$  15%, 50 Hz supply.
- Connect leads supplied with Instrument. Connect respective leads to the object under test. Ensure voltage leads should be on the inner side & current leads should be on the outer side of test object as shown below.





LS-100A

- Switch 'ON' the instrument and allow 5 minutes time for warm up.
- Following screen will appear on Display.

SivanandaElectronics  
CRM LS-100AuP  
08/10/21 - 11:18:25  
(1)Start HelpMenu(9)

- Press 'START', the screen will change to enter object make and display Test No., type object name.

Test No: 25  
Enter Object Make:  
BEL 2021 █  
(\* )Back Next(#)

- After filling object name press Next(#).(Current Selection Screen)

Select Test Current  
(1)10A 20A(2)  
(3)50A 100A(4)  
(\* )Back



LS-100A

- Enter desired current i.e  
Key (1) for 10A  
Key (2) for 20A  
Key (3) for 50A  
Key (4) for 100A
- When any one of the current range is selected its corresponding resistance range will be display i.e.  
For 10A 1)200m $\Omega$  2)20m $\Omega$



For 20A 1)20m $\Omega$  2)2m $\Omega$



For 50A 1)20m $\Omega$  2)2m $\Omega$  3)200u $\Omega$





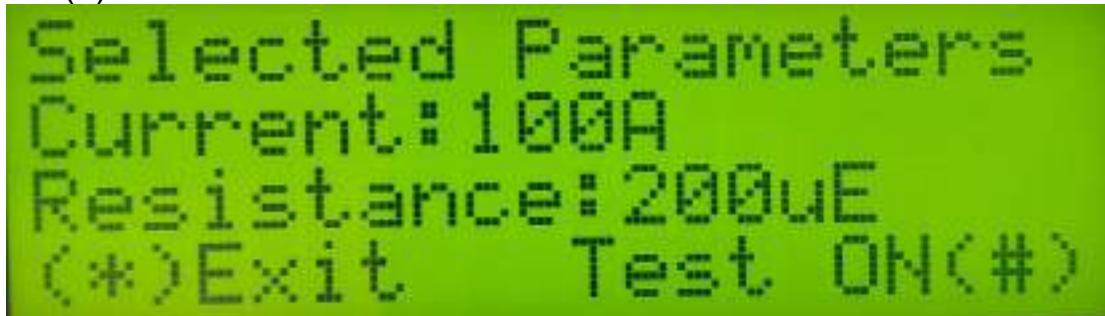
LS-100A



For 100A 1)20mΩ 2)2mΩ 3)200uΩ



- After selecting suitable current and resistance ranges, press 'Test ON(#)'.



- Test will be started displaying current and resistance value. Press (1) to repeat Test and (#) to save test.



LS-100A

```
Current: 99.93AMP
Resistance: 80.45uΩ
(1)Repeat          Save(#)
```

- To view saved reports, press key 2 and enter desired report no and press View (#).

```
Total Reports: 24
Enter Report No:
001
(*)Back          View(#)
```

- Printing saved reports. Press key 3 and enter desired report no and press Print (#).

```
Total Reports: 24
Enter Report No:
(*)Back          Print(#)
```



LS-100A

```
-----  
Sivananda Electronics  
CRM LS-100AuP Report  
-----  
Report No:002  
Test Conducted On:  
06/10/21 15:02:48  
Object Make:  
Current:99.79A  
Resistance: 80.48u0hm  
-----
```

- Press key 9 for help menu

```
HELP MENU  
1. Start Test  
2. View Reports  
(* )Back          Next(#)
```

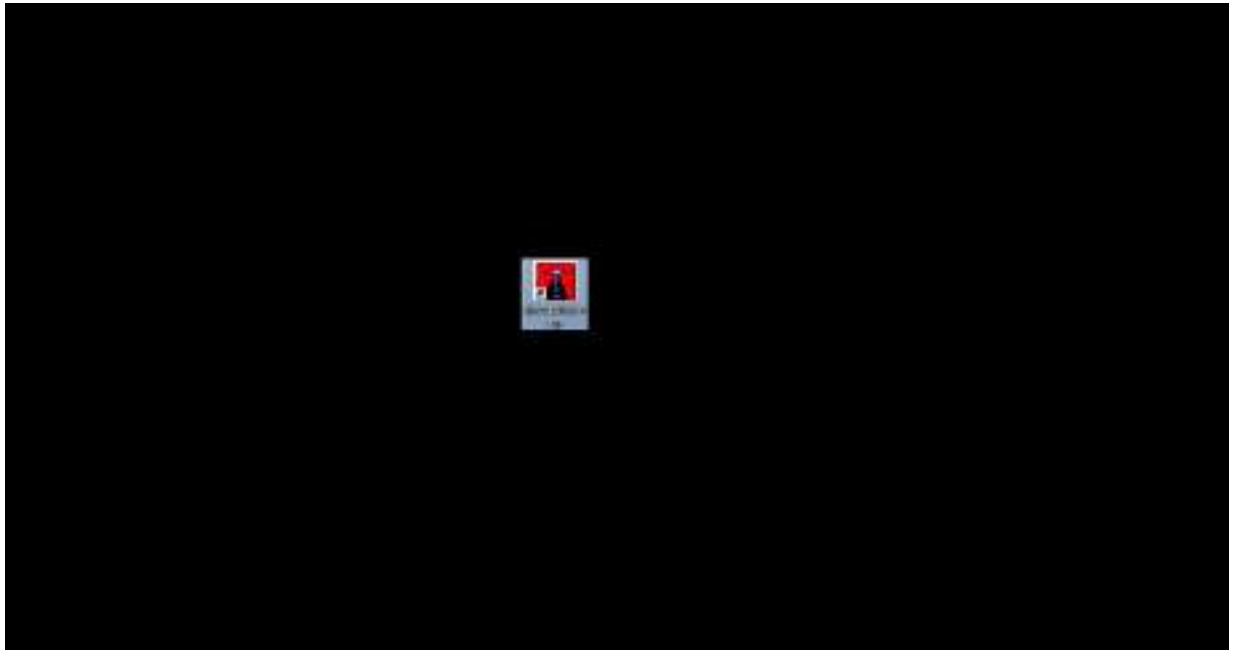
```
3. Print Reports  
4. Not in use  
5. Not in use  
(* )Back          Next(#)
```



LS-100A



- Double click on



- Home screen



LS-100A

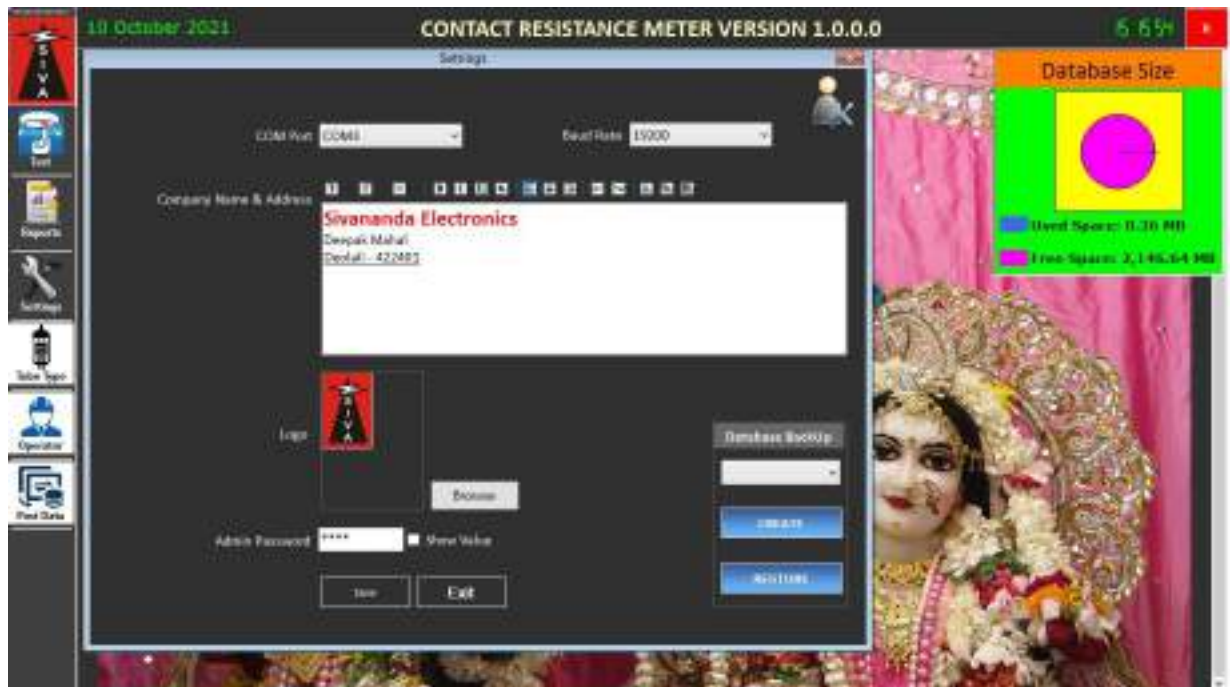


- Click on setting tab enter the password for COM port selection, edit company name and address, set logo and password and options for database backup.





LS-100A



- Click on Tube type tab and enter password, here you can add, edit and remove tube type.



LS-100A



- Click on operator tab and enter password, here you can add, edit and remove operator details.





LS-100A

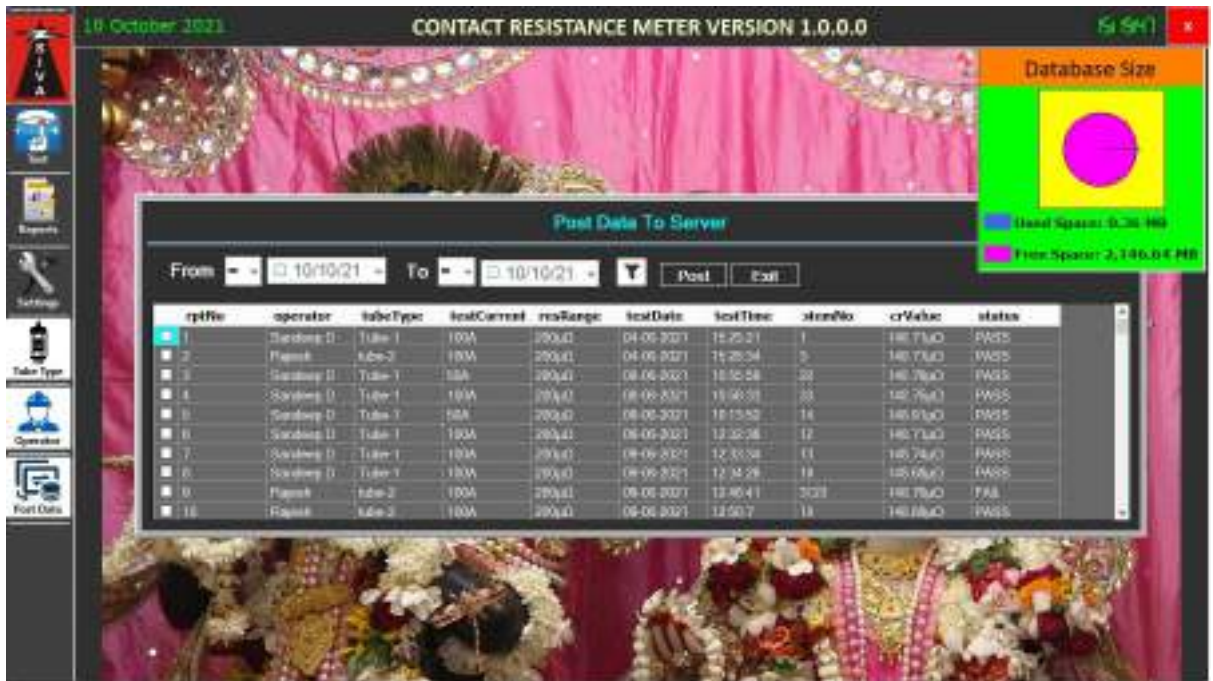


- Click on Post data tab and enter password, here you can Post data to server.





LS-100A

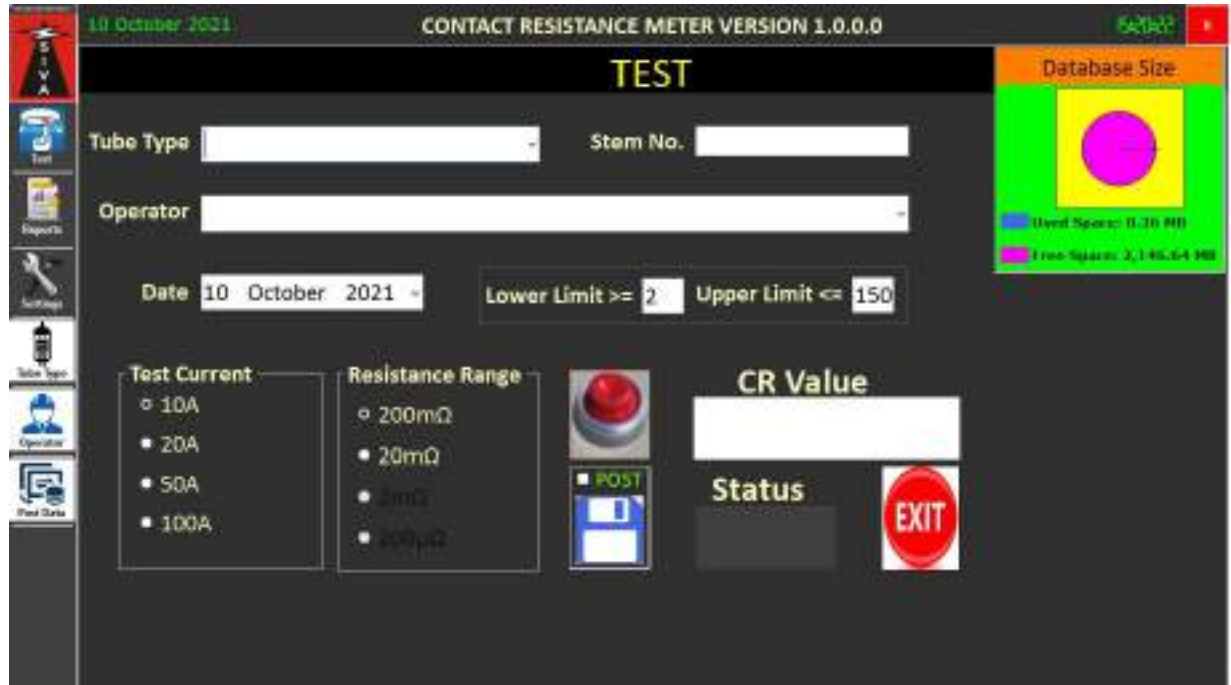


- Click on Test tab select Tube Type, enter Stem No., select operator, set Lower and Upper Limit, select Test Current and



LS-100A

Resistance range and click on Test ON or press Foot switch to Start Test.



- Wait for the results

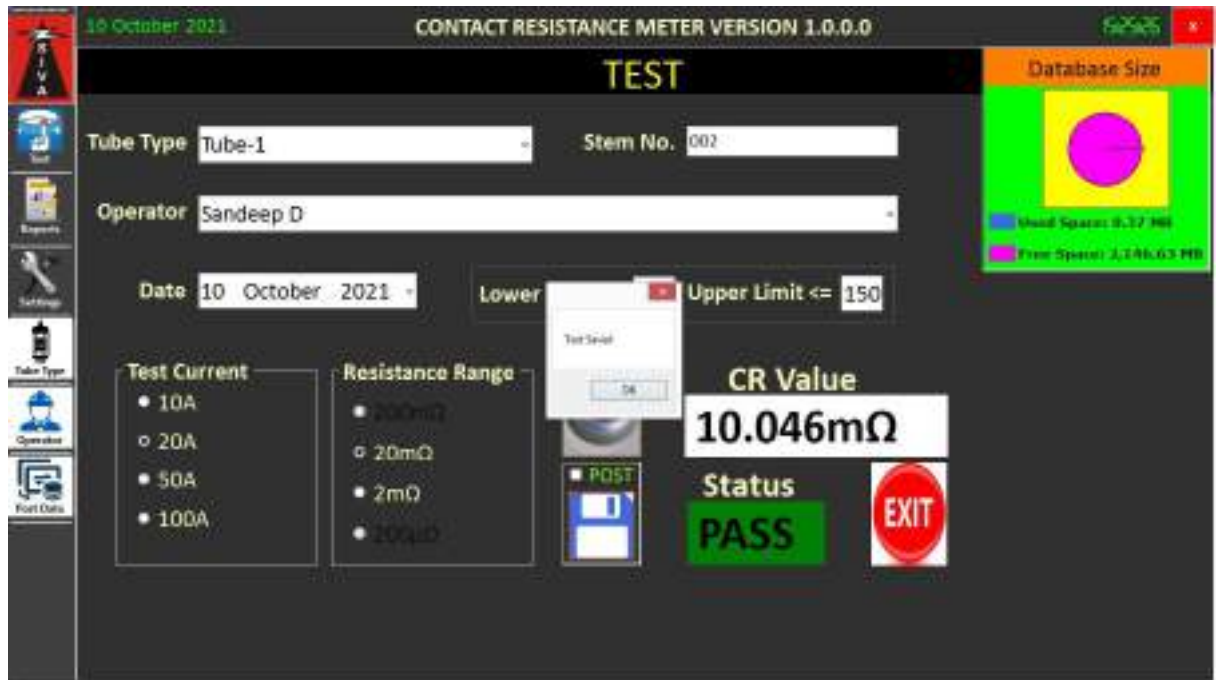


- Click on Save tab and press ok





LS-100A



- Click on Report tab to view report, here you have options for report selection.



- Pdf report file



LS-100A

Report

**Sivananda Electronics**  
Deepak Mohol  
Deshai - 422481

S/N	Date	Tube Type	ELEM	CR Value	Operator	Status
158	10-10-2021	Tube-1	BEI	10.00e0	Sandeep D	PASS