

Temperature Calibrator

Temperature Calibrator with mV and mA

STC-500

INSTRUCTION
MANUAL

Rev 1.0

A. Operating the STC-500.

1. Meter / Measure Mode.

Place "Meter / Probe" toggle switch in meter mode.

Now Press "Display select" to one of the four modes

Mode	LED Indication	Used as a Meter Like in a DMM
1	Volts	Voltmeter 2V Full Scale 1.999V
2	mVolts	Voltmeter 200mV Full Scale 199.9mV
3	mAmps	Ammeter 200mA Full Scale 199.9mA
4	Ohm RTD	Ohmmeter 2000 Ohms 1999 Ohms

Mode 1 & 2. In Voltmeter mode use the "Red / Volts" as positive Terminal and "Green / Com" as Negative Terminal.

Do not apply more than 100 Volts as it will Damage equipment.

Mode 3. In Ammeter mode use "Green / Com" as Positive Terminal and "Black / mA" as Negative terminal.

Apply only currents with a Series Fusible Resistor of 10 Ohms.

Mode 4. In Ohmmeter mode use the two yellow terminals for connecting the RTD Sensor or Resistor whose Resistance is to be Measured.

Do Not apply any Voltages or Currents to these Terminals.

2. Probe / Simulate mode.

Place Meter / Probe toggle switch in Probe mode.

Now Press Display select to one of the four modes

Mode	LED Indication	Simulates....
1	Volts	Transmitters o/p from 0 Volts to 1.999 V.
2	mVolts	Thermocouples K, J, as a millivoltsource.
3	mAmps	Transmitters o/p from 0mA to 30 mA.
4	Ohm RTD	RTD Pt-100 with from 50 to 200 Ohms.

Mode 1 & 2. Use the "Red / Volts" as positive Terminal and "Green / Com" as Negative Terminal to simulate Thermocouples.

Mode 3. Use "Green / Com" as Negative Terminal and "Black / mA" as Positive terminal to simulate a 4-20mA Trx.

Mode 4. Use the two yellow terminals for connecting to the Electronic equipment to simulate a RTD Sensor or Thermistor.

For Mode 1, 2 and 3 two Variable Pots are available above and Below "SET VALUE" the bottom is for coarse setting and the top is for fine setting.

For Mode 4 use "SET-Ohm" Pot for getting a resistance value required. Read value on Display by using "Push to adjust ohms" switch.

C. Calibrating the STC-500.

For Calibration Four Multiturn Potentiometers are Given at the rear Panel of equipment. Calibration is done in Meter / Measure mode. Warm up for 15 mts. Select toggle switch to Meter / Measure mode.

1. Display Select to be in "Volts"
Apply 1.500 Volts from a standard Calibrator.
Adjust Rear panel pot "Volts" to match and record.
2. Display Select to be in "mVolt"
Apply 150 mVolt from a standard Calibrator.
Adjust Rear panel pot "mVolt" to match and record .

For the above Red / Volts Terminal is Positive Green / Com Terminal is Negative.

3. Display select to be in "mAmp"
Apply 50 mAmp from a standard Calibrator.
Adjust Rear panel pot "mAmp" to match and record.

Use Green / Com as Positive Terminal and Black / mAmps as Negative Terminal.

4. Display select to be in "Ohm RTD"
Apply 100 Ohms from a standard Resistance Box.
Adjust Rear panel pot "RTD" to match and record readings.

Use the Two Yellow terminals with a resistance symbol.

WARNING !

***THE WARRANTY IS VOID IF UNIT IS OPENED BY CUSTOMER OR THIRD PARTY.
NO USER SERVICEABLE PARTS INSIDE AND NO CALIBRATION CONTROLS !.***