

**VECTECH 190.  
SOLDERING TESTER.**

**Iron temperature tester  
Instructions for use**

## First, note:

1. The grounding column on the test board is convenient for the user to connect with the crocodile clip, the interior is connected to the analog ground, please do not loosen it, so as not to ground badly.
2. The temperature sensor is very thin, with a diameter of only 0.2, and care must be taken that if too much force is used, it can cause a break.
3. The test point of the temperature sensor is specially treated, but frequent testing can cause wear and tear, so replace it as soon as there is wear to ensure test accuracy.
4. When there is a solder at the end of the wiring, wipe it clean with an alcohol-stained cloth and do not wash it with paint thinners or benzene.
5. Before testing, a new solder should be applied to the solder head, which is necessary to ensure good contact between the soldering iron head, the temperature sensor and the test plate.
6. During the test, do not touch the soldering iron head with the stainless steel platform under the test point to avoid measurement errors.
7. The overflow mark is -1 or 1, and during the test voltage and resistance, the iron head and the test plate do not come into contact, and a value indicates that this is normal.
8. During the testing of voltages and resistors, the AC power supply required to be used must have a ground wire.
9. When testing voltages and resistors, if the data exceeds the specified value, check the fastening screws on the iron head,

loosen them, tighten them, and then retest them.

## Second, the name of the part:

2. The resistance between 1 the iron head and the ground is obtained with R2-R1.

### (5) Overflow display

1. The overflow code is 1, which indicates that the sensor is not connected when measuring the iron temperature, and that the soldering head is not in contact with the test plate or that the ground wire inside the soldering iron is open when measuring voltage and resistance.
2. The overflow code is -1, possibly because the temperature sensor's red and blue ends are reversed or the measured temperature is below 0°C

## Five, ground wire:

A ground wire is a connection between a soldering iron ground wire and a temperature tester, which measures the voltage and resistance of the solder head to the ground.

## Maintenance and calibration:

1. If there is solder on the terminal, it can be wiped with alcohol

on a soft cloth and not with thinners or benzene.

2. Repeated tests can wear out the sensor, and if you need accurate measurements, replace the sensor.
3. The life of the sensor differs from the flux and solder you use, typically measuring 50 times per sensor.
4. If the temperature tester is to be calibrated, contact your nearest dealer.

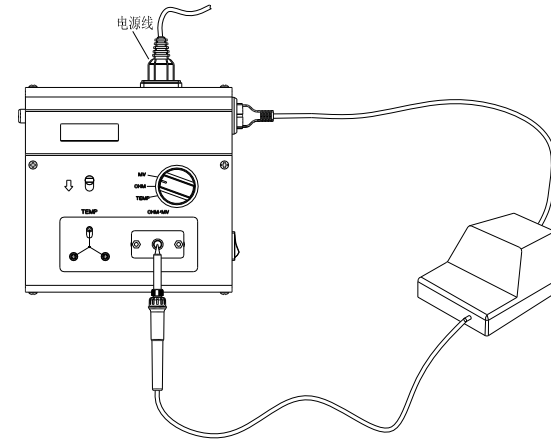
### Seven, replaceable parts:

Serial number.	Number.	Name.
1.	47112.1.	Sensors (K thermocouples /10pcs.).
2.	11012.	Ground wire
3.	12107.1.	Power output base UL
4.	12107.	Power output base CCC

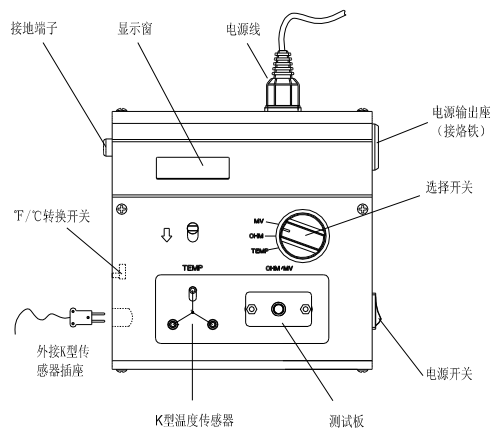
1. Connect the temperature tester and the soldering iron as shown in the figure above.
2. If your soldering iron is a temperature-controlled iron, set it to use the temperature until it reaches thermal stability.
3. Dial the selection switch to "mV".
4. Connect the grounding end with the grounding clip and the ground post on the test plate.
5. Read the display data V1.
6. Disconnect the ground wire.
7. Clean the iron head and apply a new solder.
8. A small tin bead is in the center of the test plate and is heated with an iron until it melts completely.
9. When the display is stable, read the data V2, if the iron power

plug is a crocodile clip, it is better than a three-core plug, simply use the ground wire clip, connect the ground end, you can complete the measurement.

10. The voltage difference between the iron head and the ground can be derived from  $V2 - V1$ .



- (4) Measure the resistance between the iron head and the ground
1. Dial the selection switch to the OHM file and measure R1 and R2 in the same way that V1 and V2 are measured.



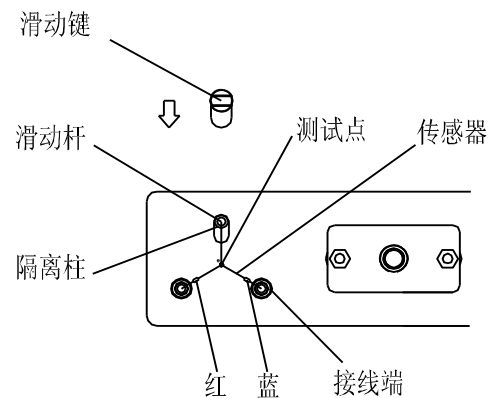
### Third, technical indicators:

Name.	Temperature tester	
The test range	Temperature.	0-600°C/32-1200°F 。
	Voltage.	0-90mV(AC)
	Resistance.	0-90Ω 。
Resolution.	Temperature.	1°C/1°F 。
	Voltage.	0.1mV。
	Resistance.	0.1Ω 。
Accuracy.	Temperature.	±3°C 。
		±6°F 。
	Voltage.	±(3% plus 2 words).
	Resistance.	±(1% plus 2 words).

Temperature sensor	Type K thermocouple	
Show.	Liquid C <sub>1</sub> 2 1 Display (LCD).	3.5 bits
	Out-of-range display	-1,1 。
Voltage measurement	Match MIL-STD-2000	
Rated power	1W。	
Size.	200(W)×50(H)×120(D)mm 。	
Weight.	About 1.1kg	
Use the environment	0-40°C/32-104°F 0-80RH% 。	

### Fourth, how to use:

#### (1) Prepare



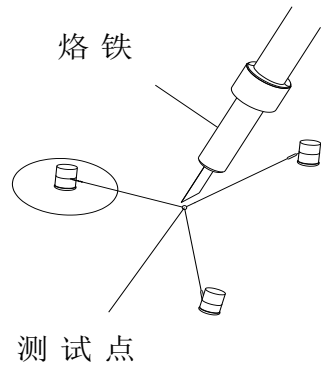
1. Press the slide key in the direction indicated by the arrow and install the sensor (red-end connection mark).

There is a red dot terminal, the blue end is connected to the blue dot terminal).

2. Plug in the power plug and turn on the power switch.

## (2) Test the temperature of the soldering iron head

1. Dial the switch to the appropriate position. (F: Show Fahrenheit temperature, S.C. temperature).
2. Turn the selection switch to the "TEMP" gear.
3. Iron head, coat with new solder.
4. Place the soldering iron head on the test point of the temperature sensor quickly



To test the temperature with an external K-type sensor, insert the K-type sensor plug into the external K-type sensor socket on the left side of the iron tester (the sensor on the terminal of the temperature measurement area must be removed).

5. The displayed values are constantly increasing, waiting for a few seconds before the values stabilize and then reading.

## (3) Measure the voltage difference between the iron head and the ground

