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The YR2050 battery internal resistance tester is a true four-wire milliohmeter and wire tester, which can measure wire resistance, length and cross-sectional area. Fast calculation of resistivity, and quality of motors and transformers windings. The machine is compact, easy to carry, and is an ideal electrical and electronic testing machine.

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The machine cannot measure live devices, and the test interface cannot input AC or DC voltage. The charging port uses the MicroUSB charging port, and the input voltage is 4.5V-5.5V.

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Menu key (start/set/cancel)

1. Short press to turn on the phone when it is off.
2. In normal mode and detection mode, click [Menu] to enter the menu list.
3. Under the menu list, click [Menu] to enter the selected menu option.
4. In the menu options, click [Menu] to cancel the setting and return to the menu list.
5. In normal mode and detection mode, long press the [Menu] key to enter the shutdown interface, and use the [Save/HOLD] key and [] key to confirm whether it is necessary to shut down

Save/HOLD key

1. In the whether to shut down interface, click [Save/HOLD] button to confirm shutdown.
2. In the normal mode and the detection mode, the short skill [Save/HOLD] button will display HOLD on the left side of the screen, indicating that the measured value has been locked, click again to unlock.
3. In normal mode and detection mode, correctly short-circuit the Kelvin folder, when the measured value has a small deviation of f (less than 200 characters). Long press the [Save/HOLD] key when the letter U appears in the upper left corner of the screen, the display value will be adjusted Zero, press and hold again to cancel, the zero adjustment cannot be started in the HOLD state.
4. Under the menu list, short press the [Save/HOLD] key to exit directly to the menu list.
5. In the menu options, click the [Save/HOLD] button to save the settings and return to the menu list, and click the [Save/HOLD] button again to save the settings and return to the measurement interface.
6. In the parameter setting, click the [Save/HOLD] button to save the setting and exit the currently selected option.
7. In the detection mode, enter the modification state for the selected parameter, press again to save and exit the modification state.

Range key

1. Select the currently used range, press continuously to continuously switch between each range and the auto range function.

Arrow keys

1. Scroll up and down the menu, or select the parameter to be set.
2. When the parameter is selected, the parameter can be added or subtracted.

Select key

1. In the detection mode, click the [Secluded] button to calculate based on the measured resistance value when it is pressed.
2. In the detection mode, when the parameter enters the modification state, click the [Select] key to change the digit of the parameter to be set.
3. In the menu options, click the [gradual] key to select the parameter, or change the digit to be modified in the parameter. Or directly modify the selected parameters.

f(Ł'DUfUa YhYf 'gYhh)b [

In the measurement interface, click the [Menu] key to enter the menu list, use the [] key and [] key to switch the selected menu, after selecting, press the [Menu] key to enter the setting, and press the [Save/HOLD] key to exit the setting and return to the measurement interface.

1. Normal mode: common mode for general testing, the display interface is the measurement interface. Long press [HOLD/ZEROR] key, ZR will be displayed on the left side of the screen, press again to release.
 - 1.1. The upper part on the left is the resistance upper and lower limit setting value display, after LO is the resistance lower limit, and after UP is the resistance upper limit.
 - 1.2. The upper part on the right is the result of detection and judgment. When the measured value of the file is within the range of the upper and lower limits, PASS will be displayed, otherwise it will display NO and the sound will be raised. The upper and lower limit values are set and turned on in item 5 in the menu.
2. Detection mode: used to calculate the parameters of the wire. The first line in the interface is the real-time resistance measurement value. The left side of the second line is the resistance value used for calculation, and the right is the resistivity selection. The left side of the third row is the cross-sectional area of the wire, and the right side is the length of the wire. The fourth line needs to be calculated parameters. First use the []key and []key to select a row of the calculation result, and press the [Save/HOLD] key to make the calculation result enter the settable state. Press [] key and [] to select the parameter to be calculated. Press [Save/HOLD] key to save, then press [] key and [] key to select the option to input data, press [Save/HOLD] key to make the option enter the settable state. Click [Select] key to move the selected value Digits, press [] and [] key to add or subtract the value. When the unit is selected, it is to modify the decimal point, and press the [Save/HOLD] key to save. Finally, measure the resistance of the wire, and click the [Limb] button to get the calculation result.
3. Backlight setting: Backlight parameter setting. Brightness (10%-99%); trigger (close, operate, always on); delay (5s-60s)
4. Energy saving setting: automatic shutdown function setting. Automatic shutdown (open, close); delay (5min-60min); low power consumption (open, close). When entering the low-power mode, the position where the measured value is displayed displays the "one" symbol. You can exit the low-power mode by pressing any button on the panel.
5. Setting of upper and lower limit alarm value:
 - 5.1. In the measurement interface, press the [Menu] key to enter the setting
 - 5.2. Select the parameter to be set by pressing [] key and [] key.
 - 5.3. Select the parameter to be set through the [Select] button, and press the [Select] button to move the selected digit.
 - 5.4. After selecting the digit to be set, press the [] key and [] to add and subtract the logarithmic value. When the unit is selected, the position of the decimal point is modified.
 - 5.5. After setting, press [Save/HOLD] key to save the setting value and exit the parameter setting state.
 - 5.6. Then turn on the comparison function, press [Save/HOLD] to save and exit the menu 5 items, and return to the normal mode interface to test directly. (Note: LO is the lowest value, UP is the highest value. Within this interval Is qualified.)
6. Serial port settings: the extended option is temporarily not open, please consult the manufacturer for details.
7. Calibration: The calibration function is temporarily unavailable.

8. Restore calibration: temporarily closed.
9. Contrast setting: Contrast can be set. ~9, the larger the value, the deeper the display.
10. Resistivity setting: There are 8 custom resistivities in the resistivity setting menu that can be set by the user. Press [key] and [key] to select the custom value to be set, and click [Select] key to enter the modifiable state. Press [Select] to move the selected digit without authorization, press [] and [] to disconnect Micro value addition is to modify the position of the decimal point when the unit is selected, press the [Save/HOLD] key to save.

f) ƒ'DfYVg]c b 'gdYVZ]W]h]c b g

Range	Maximum resolution	Accuracy	Display mode
1	0.01m	0.12%+0.03%	1.19999
10	0.1m	0.08%+0.02%	11.9999
100	1m	0.08%+0.02%	119.999
1K	10m	0.10%+0.03%	1199.99

Format of accuracy: [measurement range%+[range]%]

Within the normal operating temperature (10 -40) Deviation: 100ppm/

f* ƒ'A U]b hYb Ub W

Unit:

1. Avoid high temperature and humid environment. Prevent the interface and circuit from being damp and oxidized.
2. Avoid long-term direct exposure of strong sunlight to the LCD screen to avoid aging.
3. If it is not used for a long time, please keep the battery with 50% charge (or battery voltage between 3.7V-3.9V) to extend the life.

Test line:

1. Always check the continuity and disconnection of each signal line of the test line to avoid test errors caused by disconnection.
2. Avoid high temperature and humid environment to prevent the interface and probe from being damp and oxidized.

f+ƒ; Yb Yf U` hYVX b]W]`]b X]W]hc f g

Maximum voltage between any terminals: 20V

Protection fuse current: 0.5A

Display: 120,000 words, updated 4 times per second

Temperature: Work: 10 -40 Storage: -20 -60 Coefficient: 0.1*/ (10 -40)

Battery type: 3.7V 2000mAh 18650

Power consumption:

<60mA (10 and above, when the power is 3.7V, the backlight is turned off)

<160mA (1 process, when the power is 3.7V, the backlight is turned off)

<10mA (enter low power consumption mode)

0mA (shutdown)

f| Ł'HYgh'a UHhf g'bYYX]b ['UhhYb h]cb

1. The machine has been calibrated before shipment, and there is no need to calibrate or reset the machine again.
2. After power on, such as in the automatic range AUT. Just connect the test line and test directly.
3. Use of Kelvin Plus test leads: The clamps must be open when measuring wires or resistances, and there should be no direct contact between the two metal pieces of each clamp, and they must be in good contact with the wires or resistances, otherwise stable and accurate measurements cannot be made.

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1. Why does the length of the same roll of 91 threads change?

Answer: The same resistivity has a positive temperature coefficient, which means that the resistivity will increase as the temperature rises, which leads to an increase in the overall resistance value. Other parameters When the number is constant, the calculated wire length also increases, but these changes are small compared to the whole.

2. Please put in the words of YR2050, etc.? Two Kelvin history short presses and 0.0X Huiou resistance

Answer: There is a stepping sequence for the direct short-circuiting of the test line. The sequence of overlapping clamps is Nong, black line, white line, and white line. After short-circuiting, it may not be zero, but it will be a very small value and generally not recorded. When the machine is turned on, there will be an internal automatic zero point calibration, so the displayed zero point deviation is basically caused by southern factors, and the most common is the thermocouple phenomenon.

3. YR2050 has a high resolution, can it measure large single iron phosphate batteries?

Answer: YR2050 is a direct current tester, which cannot test active devices.

4. Why can't I enter the calibration interface of YR2050?

Answer: Because YR2050 has a resolution of 120,000 words (five and a half digits), and high precision calibration, it needs to be calibrated with a precision resistance calibrated by a high-level meter. YR2050 has high stability, and general users do not need to calibrate the meter. Please contact the manufacturer if necessary.

5. Why can't the YR2050 serial port sector enter?

Answer: YR2050 does not open the serial port function, so the serial port setting is closed in the menu.

6. How to check the profitability of the electric grill for you?

Answer: Measure the resistance of each winding of the motor separately, and provide a simple reference through the comparison table.

7. Can it be used to measure MOS on-resistance code?

Answer: For the NMOS black clip clamp the S pin of the MOS, the red clip is connected to the D pin of the MOS, and a positive voltage of 12V is connected between the G pin and the S pin. For the S pin of the PMOS red clip clip MOS, the black clip is connected to the D pin of the MOS, and a negative voltage of 12V is connected between the G pin and the S pin.

8. The numbers change quickly, and the measurement is uncertain.

Answer: The reasons are constant, the test line is in poor contact with the battery, there is strong interference around or there is a short circuit between the test lines.

9. Can it measure capacitance?

Answer: Capacitance cannot be measured. This is a DC tester.

' %) 'g]]W&bY 'ZYI]V`Y`W&fX.

Gauge	Area [mm ²]	Resistance per meter	Gauge	Area [mm ²]	Resistance per meter
30 AWG	0.0754 (15*0.08) mm ²	232.1 m	16 AWG	1.266 (252*0,08) mm ²	13.82 m
28 AWG	0.0955 (19*0,08) mm ²	183.2 m	14 AWG	2.01 (400*0,08) mm ²	8.706 m
26 AWG	0.15 (30*0.08) mm ²	116.6 m	12 AWG	3.41 (680*0.08) mm ²	5.132 m
24 AWG	0.20 (40*0,08) mm ²	87.5 m	10 AWG	5.27 (1050*0.08) mm ²	3.959 m
22 AWG	0.30 (60*0.08) mm ²	58.33 m	8 AWG	8.29 (1650*0.08) mm ²	2.111 m
20 AWG	0.50 (100*0.08) mm ²	35.00 m	6 AWG	16.08 (3200*0.08) mm ²	1.088 m
18 AWG	0.75 (150*0.08) mm ²	23.33 m	4 AWG	21.61 (4300*0.08) mm ²	0.810 m