

DIGITAL MULTIMETER

OPERATING MANUAL

Models :
DT830A DT830B
DT830C DT830D(BUZ)
DT830E(M838)

2. DC Current:

RANGE	RESOLUTION	ACCURACY
200uA	100nA	±1% of rdg ±2D
2000uA	1uA	
20mA	10uA	
200mA	100uA	±1.2% of rdg ±2D
10A	10mA	±2% of rdg ±2D

Overload protection: 02A/250V fused 10 A range not fused.

3. AC Voltage

RANGE	RESOLUTION	ACCURACY
200V	100mV	±1.2% of rdg ±10D
1000V	1V	

Frequcuy range: 45Hz to 400 Hz

Overload protection: AC 750V rms

Indication: Average value (rms of sine wave.)

4. Resistance:

RANGE	RESOLUTION	ACCURACY
200 Ω	100m Ω	±0.8% of rdg ±20D
2000 Ω	1 Ω	
20K Ω	10 Ω	
200K Ω	100 Ω	
2000K Ω	1K Ω	±1.0% of rdg ±2D

Overload protection: 250VDC or AC rms. Less than 10 sec.

Maximum open circuit voltage: 2.8V

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The buit-in temperature sensor will show the room temperature.


5.2 Insert the thermocouple plug into K PROBE socket and connect the object under measurement. The display will show the temperature value.

6. Transistor hFE Measurement:

6.1 Set the FUNCTION switch o the hFE position.
 6.2 Insert the E. B. C. of the PNP or NPN transistor to he proper jack in the socket on the front panel.

7. Diode and Audible Continuity Measurement:

7.1 Connect RED test lead to the "V mA" jack and BLACK test lead to the "COM" jack.

7.2 Set the FUNCTION switch to the  position and connect the RED test leads to the ANODE of diode and BLACK to CATHODE. The display will then show the approx. forward voltage of this diode. If connect the test leads on the other way round, the display will show an overrange status "1"

7.3 Buzzer sounds if the resistance between the two probes less than approximately 70 .

8. 50Hz Sine wave Output:

8.1 Connect RED test lead to the "V mA" jack and BLACK test lead to the "COM" jack.

8.2 Turn the FUCTION switch to position and the RED and BLACK test leads being the output jack.

Attention:

This function being the output message so don't use

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Thanks for buying our product. Please go through the instruction manual before starting to use the meter.

I. INTRODUC TION:

1. SWITCH

Our DMM adopt rotational switch which situated at the middle of the front case. It is used for the selection of FUNCTION, RANGE AND POWER ON-OFF. In order to save energy, please turn the switch to "OFF" position when not in use.

2. DISPLAY

3 1/2, 12mm height LCD display.

3. "COM" jack

Common jack

4. "VΩmA" jack

Voltage, resistance, no more than 200 mA, current and battery input test jack, 50Hz sine wave output jack.

5. "10A"jack

For the input of more than 200mA current

II. FEAT URES:

Display: 3 1/2 LCD with maximum display 1999.

Polarity: Auto polarization

Overrange: Maximum display "1"

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5. Temperature:

RANGE	RESOLUTION	ACCURACY
-20℃ to 1370 ℃	1℃	±3℃ ±2D (up to 150℃) ±3% of rdg (over 150℃)

6. Transistor hFE:

Vce approximately 2.8V, 1b approximately 10 A.

Display show approximately hFE 0-1000.

7. Diode and Audible Continuity:

Diode: Testing voltage approx. 2.4V, current 1.5mA, indicate forward diode approx. value.

Buzzer: Sounds when measure less than 70 ±20 .

8. Sine Wave Output:

Output sine wave 50Hz, output current approx: 3Vp-p

9. Battery Test:

RANGE	CURRENT CONSUMED
1.5V	50mA
9V	5mA

IV. OPE RATION INSTRUC TION:

1. DC Voltage Measurement V (DCV):

1.1 Connect RED test lead to "V mA" jack, BLACK test lead to "COM" jack.

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for measuring voltage.

The circuit being protected by short circuit device.


The voltage cannot exceed 40Vp-p.

9. Battery Test:

9.1 Connect RED test lead to the "VΩmA" jack and BLACK test lead to the "COM" jack.

9.2 Turn the FUNCTION switch to the BATT position. Connect the test lead across the battery under measurement. The display will show the voltage of the battery.

V. BATTERY AND FUSE REPLACEMENT:

When the voltage of the battery is low, the symbol  BATT will a ppear on the display. Then the battery should be replaced. You should check the fuse when no measurement could be taken for current using mA range.


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Working environment: temp.0-40℃ relative humidity:<75%

Storing environment:-15-50℃

Battery: 9V

High voltage symbol: DC 1000V or AC 750V range will show high voltage symbol"HV"

Low voltage indication: Left side of LCD will show  or BAT symbol.

Size: 125mm 70mm 27mm

Weight: 126g not include battery

III. TECHN ICAL SPEC IFICATION :

Accuracy: +a% reading + No. of digits

Guaranteed for 1 year.

Environmental temperature: 23℃+ 5℃

Relative Humidity: < 75%

1.DC Voltage:

RANGE	RESOLUTION	ACCURACY
200mV	100uV	±0.5% of rdg ±2digit
2V	1mV	
20V	10mV	
200V	100mV	
1000V	1V	±0.8% of rdg ±3digit

Input impedance: 1 M

Overload protection: DC or AC peak value of 1000V.

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1.2 Set the FUNCTION switch to the desired V (DCV) position. If not sure, set to the highest range.

1.3 Connect the test leads across the source or load under measurement.

2. DC Current Measurement A (DCA):

2.1 Connect the RED test lead to "V mA" jack when the current is less than 200mA and to "10A" jack when the current is larger than 200mA

Connect the BLACK test lead to the "COM" jack.

Set the FUNCTION switch to the desired DCA position.Connect the test leads across the source or load under measurement.

3.AC Voltage Measurement v (ACV):

3.1 Connect the RED test lead to "V mA" jack and BLACK test lead to the "COM" jack.

3.2 Set the FUNCTION switch to the desired ACV position

3.3 Connect the test leads across the source or load under measurement.

4. Resistance Measurement():

4.1 Connect the RED test lead to "V mA" jack and BLACK test lead to " COM" jack.

4.2 Set the FUNCTION switch o the position.

4.3 Connect the test leads across the resistor under measurement.

4.4 When measuring the resistance, the power should be turned off and in short circuit staues by connecting the two test leads.

5. Temperature Measurement:

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VI. BRIEF SUMM ARY OF THE FUNC TION:

	DT 830A	DT 830B	DT 830C	DT 830D	DT 830E
DC Voltage	√	√	√	√	√
DC Current	√	√	√	√	√
AC Voltage	√	√	√	√	√
AC Current					
Max. Resistance (M)	2	2	2	2	2
Diode Te st	√	√	√	√	√
Transistor		√		√	√
Continuity Buzzer			√	√	√
Light Emitting Indication					
Capacitor					
Frequency					
Temperature			√		√
Conductance					
Battery Test	√				
Logic Test					
Square Wave Ou tput Signal	√		√	√	
Large Current(A)		10	10	10	10
Small Current(A)	200	200	200	200	200

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