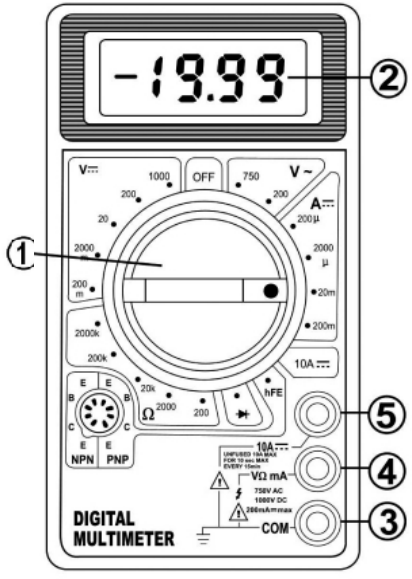
NO.	ITEM	SPECIFICATION
1	DC Voltage	200m/2/20/200/1000V± 0.5%
2	AC Voltage	200/750V± 1.2%
3	DC Current	200μ/2m/20mA± 1.0% 200mA± 1.2%,10A± 2.0%
4	Resistance	200± 1.0% 2K/20K/200KΩ/2MΩ± 1.2%
5	Diode check	Test Current 0.8mA Test Voltage 3V
6	hFE	1~1000
7	Power source	6F22(9V)×1
8	Size	70mm×126mm×28mm
9	Weight	170g(including battery)
10	Display	15×46mm LCD

Rev.	Revision	Date
01	Update	10/11/2010



GENERAL

This instrument is one of the series of compact pocket − sized $3\frac{1}{2}$ digit multimeters for measuring DC and ac voltage, DC current, resistance and diode. Some of those also provide temperature, transistor measurement and audible continuity test function or can be used as a signal generator (see table). Full range overload protection and low battery voltage indication are Provided. they are ideal instruments for use in fields, such as laboratory, workshop, hobby and home applications.

FRONT PANEL DESCRIPTION

1. FUNCTION AND RANGE SWITCH

This swich is used to select the function and desired range as well as to turn on the instrument.

To extend the life of this battery, the switch should be in the "OFF" position when the instrument is not in use.

2. DISPLAY

$3\frac{1}{2}$ digit, 7 segment, 0.5" high LCD.

3. "Common" JACK

Plug in connector for black (negative) test lead.

4. "V Ω mA" JACK

Plug in connector for red (Positive) test lead for all voltage and resistance and current(except 10A) measurements.

5. "10A" JACK

Plug in connector for red (positive) test lead for 10A measurement.

SPECIFICATIONS

Accuracies are guranteed for 1 year, 23℃ ± 5℃, less than 75% RH.

DC VOLTAGE

RANGE	RESOLUTION	ACCURACY
200mV	100μV	± 0.5 % of rdg± 1D
2000mV	1mV	± 0.5 % of rdg± 3D
20V	10mV	± 0.5 % of rdg± 3D
200V	100mV	± 0.5 % of rdg± 3D
1000V	1V	± 0.5 % of rdg± 3D

OVERLOAD PROTECTION: 220VAC for 200mV range and 1000V DC or 750V AC for other ranges.

AC VOLTAGE

RANGE	RESOLUTION	ACCURACY
200V	100mV	± 1.2 %of rdg ± 10D
750V	1V	± 1.2 % of rdg ± 10D

OVERLOAD PROTECTION: 1000V DC or 750VAC for all ranges.

FREQUENCY RANGE:45Hz − 450Hz

DC CURRENT

RANGE	RESOLUTION	ACCURACY
200μA	100nA	± 1% of rdg± 2D
2000μA	1μA	± 1% of rdg± 2D
20mA	10μA	± 1% of rdg ± 2D
200mA	100μA	± 1.2% of rdg± 5D
10A	10mA	± 2% of rdg ± 2D

OVERLOAD PROTECTION: 200mA 250V fuse (10A range unfused).

MEASURING VOLTAGE DROP : 200mV.

RESISTANCE

RANGE	RESOLUTION	ACCURACY
200 ohm	100m ohm	± 1.0 % of rdg ± 8D
2000 ohm	1 ohm	± 1.2 % of rdg ± 8D
20k ohm	10 ohm	± 1.2 % of rdg ± 8D
200k ohm	100 ohm	± 1.2 % of rdg ± 8D
2000k ohm	1k ohm	± 1.2 % of rdg ± 8D

MAXIMUM OPEN CIRCUIT VOLTAGE : 2.8V.

OVERLOAD PROTECTION : 15 seconds maximum 220Vrms on all ranges.

OPERATING INSTRUCTIONS

WARNING

1. To avoid electrical shock hazard and/or damage of the instrument, do not measure voltages that might exceed DC 1000V or AC 750V above earth ground.

2. Before the use of instrument, inspect test leads, connectors and probes for cracks, breaks, or crazes in the insulation.

DC VOLTAGE MEASUREMENT

1. connect red test lead to "V Ω mA" jack. Black lead to "COM" jack.

2. Set RANGE switch to desired DCV position. If the voltage to be measured is not known beforehand, set switch to the highest range and reduce it untill satisfactory reading is obtained.

3.Connect test leads to device or circuit being measured.

4. Turn on power of the device or circuit being measured, voltage value will appear on Digital Display along with the voltage polarity.

AC VOLTAGE MEASUREMENT

1. Red lead to "V Ω mA". Black lead to "COM".

2. RANGE switch to desired ACV position.

3. Connect test leads to device or circuit being tested.

4. Read voltage value on Digital Display.

DRAWN	Alex	10/11/2010	UNIT: mm	
CHECKED	Sara	10/11/2010		
ENG APPR.			Sinotech	
MFG APPR.				
Q.A.				
M830B-BLK			SIZE A4	DWG.NO. 318781 REV 01
			SCALE:	Weight(kg): 0.17Kg SHEET 1 OF 1