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DIGITAL MULTIMETER - BENCH TOP

GENERAL SPECIFICATION

- Power supply : 220V ± 10%, 50Hz
- Manual range
- 4 1/2-digit large LCD display with back light(displaying range:75 × 40mm),max. reading: 19999
- Voltage measurement up to 1000VDC and 750V AC
- DC, AC current up to 20A
- ACV frequency response: 50kHz
- Frequency, Resistance, Capacitance measurement, Triode, Diode check and Continuity Test
- Overload protection:250V rms
- Operation environment: 0ºC--40ºC,<75% R.H
- Dimension: 260mm × 220mm × 82mm
- Weight: approx.1kg

TECHNICAL SPECIFICATION

Accuracy = ±(reading% + the lowest effective digit) preheating time: 30 min.

Temperature for accuracy guarantee:(23 ± 5)ºC, R.H<75%.

DC VOLTAGE

Range	Accuracy	Resolution
200mV	± (0.05% RDG + 3)	10uV
2V		100uV
20V		1mV
200V		10mV
1000V	± (0.1% RDG + 5)	100mV

Input resistance: 10MΩ for all ranges
Overload protection: 200mV range: 250VDC or AC peak value
Other range: 1000VDC or AC peak value

AC VOLTAGE

Range	Input Frequency	Accuracy	Resolution
200mV	50Hz - 50kHz	± (0.8% RDG + 80)	10uV
2V	50Hz - 20kHz		100uV
20V			1mV
200V	50Hz - 5kHz		10mV
750V	50Hz - 400kHz	± (1.0% RDG + 50)	100mV

The input value for accuracy gurantee should be larger than 10% of range.
Input resistance: 2MΩ for all range.
Overload protection: 200mV range: DC or AC peak value,
Other range: 1000V DC or AC peak value

DC CURRENT

Range	Accuracy	Resolution
20mA	± (0.35% RDG + 10)	1μA
200mA	± (0.8% RDG + 10)	10μA
2A		100μA
20A		1mA

Max. input voltage drop: 200mV
Max. input current: 20A (wighin 15s)
Overload protection: 2A/250V fused, 20A/250V fused

AC CURRENT

Range	Input Frequency	Accuracy	Resolution
200mA	50Hz-5kHz	± (0.8% RDG + 80)	10μA
2A	50Hz-400Hz	± (1.0% RDG + 50)	100μA
20A			1mA

Max. input voltage drop: 200mV
Max. input current: 20A (within 15s)
Overload protection: 2A/250V fused, 20A/250V fused

RESISTANCE

Range	Accuracy	Resolution
200 Ω	± (0.1% RDG + 20)	0.01 Ω
2k Ω	± (0.1% RDG + 5)	0.1 Ω
20k Ω		1 Ω
200k Ω		10 Ω
2M Ω		100 Ω
20M Ω	± (0.4% RDG + 5)	1k Ω

Open voltage: less than 3V
Overload protection: 250V DC or AC peak value

CAPACITANCE

Range	Accuracy	Resolution
20nF	± (3.5% + 20)	1pF
2uF		100pF
200uF	± (5% + 30)	10nF

Measuring frequency: approx. 400Hz
Overload protectrion: 36V DC or AC peak value

FREQUENCY

Range	Accuracy	Resolution
20kHz	± (1.0% + 20)	0.1Hz
1Hz		200kHz

Input sensitivity: 500mV rms
Overload protection: 250V DC or AC peak value (within 15s)

hFE MEASURING

Range	Displaying	Test Condition
hFE NPN or PNP	0~1000.0	Basic current is approx. 10mA, Vce is approx. 3V

DIODE AND CONTINUITY TEST

Range	Accuracy	Resolution
⊣▶⊢ ◦)))	The measuring value is the approx. value for forward voltage drop. when the resistance under tested is less then 70 Ω ± 20 Ω, buzzer sounds and display the approx. value. The open voltage is approx. 3V	Forward DCA is approx. 1mA, backward DCV is less than 3V

Overload protection: 250V DC and AC peak value.

CROWN ELECTRONIC SYSTEMS

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4 ½ DIGIT DIGITAL MULTIMETER
DM 23

Features :

- 4½ Digital Multimeter
- 20,000 Counts
- Large LCD Display with Manual Range
- No Power-OFF under natural operation
- Data Hold, Max
- Conductance, Capacitance, Frequency
- Backlight

Technical Data :

Basic Functions	Range	Basic Accuracy
DC Voltage	10µV ~ 1000V	±(0.05% + 3digit)
AC Voltage	10µV ~ 750V	±(0.8% + 25digit)
DC Current	0.01µA ~ 20A	±(0.5% + 4digit)
AC Current	10µA ~ 20A	±(1.5% + 25digit)
Resistance	0.01Ω ~ 200MΩ	±(0.2% + 5digit)
Capacitance	0.1pF ~ 200uF	±(3.5% + 10digit)
Frequency	200kHz	±(3.0% + 15digit)
hFE (NPN or PNP)	0 ~ 1000	Basic current is approx. 10µA, Vce is approx 3.0V

Special Function :

Diode test	✓	Anti Shock Protect	✓
hFE test	✓	Input impedance	10MΩ
Continuity Buzzer	Approx. < 30Ω ±10Ω	Sampling Rate	3 times per second
Low Battery Display	Approx. < 7.5V	AC Frequency Response	40-400Hz
Auto Power OFF	Approx. 30 min.	Power	9V (6F22)
Function Protection	✓		

- **Standard Accessories** : Test Leads, Holster, Manual
- **Dimension** : 185(H) x 93(W) x 35(D)mm

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DIGITAL MULTIMETER
DM-97

Features

3¾ Digital Multimeter

4000 CountsLarge LCD Display with Auto/Manual Range

No Power-OFF under natural operation

Data Hold, Max. / Min. Value Hold

Capacitance, Frequency / Duty Cycle, Temperature and Transistor Test

Technical Data :

Basic Functions	Range	Basic Accuracy
DC Voltage	0.1mV ~ 1000V	±(0.5% + 4digit)
AC Voltage	0.1mV ~ 750V	±(0.8%+ 6digit)
DC Current	0.1uA ~ 20A	±(1.0% + 5digit)
AC Current	0.1uA ~ 20A	±(1.5% + 5digit)
Resistance	0.1 ~ 40M	±(0.8% + 2digit)
Capacitance	10pF ~ 200uF	±(3.5% + 8digit)
Frequency	0.1Hz ~ 30MHz	±(0.5% + 4digit)
Celsius	-40°C ~ 1000°C	±(0.8% + 4digit)
hhFE (NPN or PNP)	0 ~ 1000	

Special Function :

Diode test		Function Protection	
Transistor testing		Input impedance	10M
Continuity Buzzer	Lower 30 ±10	Sampling Rate	3 times per second
Low Battery Display	Lower 2.4V	AC Frequency Response	40-400Hz
Auto Power OFF	Approx. 30 min.	Power	F3V AAA

Standard Accessories : Test Leads, Holster, Manual, TP 01 Temperature Probe Bead type

Dimension : 185(H) x 93(W) x 35(D)mm

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3 ½ DIGIT DIGITAL MULTIMETER DM 86

Features:

- 3½ Digital Multimeter
- No Power-OFF under natural operation
- Full protection in All Ranges
- NCV Test

Technical Data :

Basic Functions	Range	Basic Accuracy
DC Voltage	200mV/2V/20V/200V/1000V	±(0.5% + 4)
AC Voltage	200mV/2V/20V/200V/750V	±(0.8% + 5)
DC Current	200uA/2mA/20mA/20mA/2A/20A	±(1.0% + 5)
AC Current	200uA/2mA/20mA/20mA/2A/20A	±(1.5% + 5)
Resistance	200	±(0.8% + 1)
Temperature	-40 ~ 1000 C / 0 ~ 1832 F	±(1.0% + 5)

Special Function :

Diode test		NCV	
Transistor Testing		Input impedance	10M
Continuity Buzzer	Approx. < 30 ±10	Sampling Rate	3 times per second
Low Battery Display	Approx. < 7.5V	AC Frequency Response	40-400Hz
Auto Power OFF	Approx. 30 min.	Power	9V (6F22)

Standard Accessories : Test Leads, Holster, Temp. Probe, Manual

Dimension : 170(H) x 86(W) x 35(D)mm

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