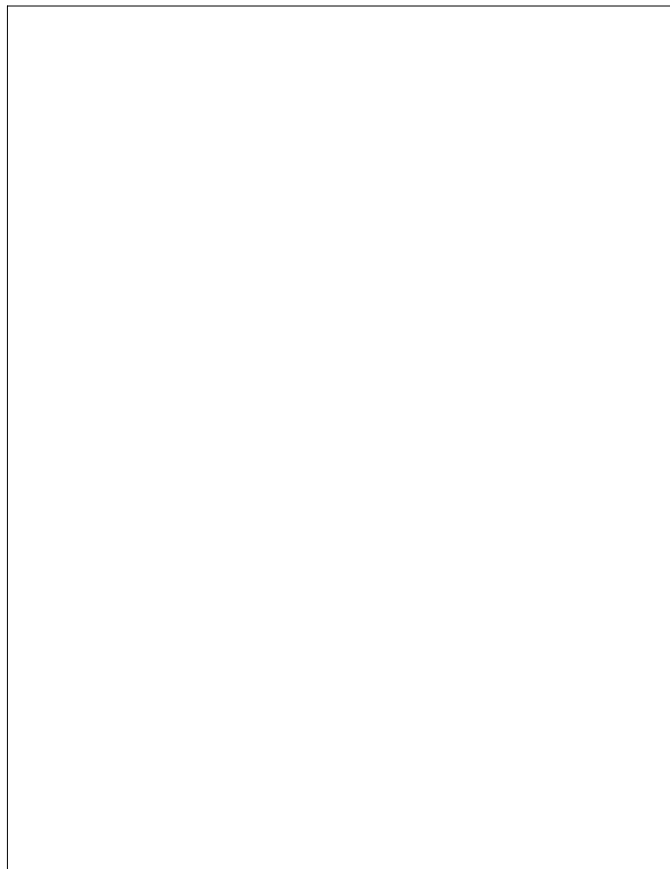
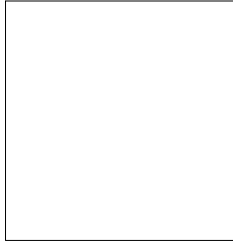


DIGITAL MULTIMETER

4 1/2 digits, True RMS
Model : DM-9027T

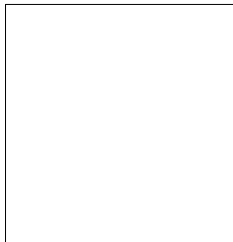


Caution Symbol



Caution :

- * Risk of electric shock !**



Caution :

- * Do not apply the overload voltage, current to the input terminal !**
- * Remove test leads before open the battery cover !**
- * Cleaning - Only use the dry cloth to clean the plastic case !**

Environment Conditions

- * Installation categories II .**
- * Pollution Degree 2.**
- * Altitude up to 2000 meters.**
- * Indoor use.**
- * Relative humidity 80% max.**

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1. FEATURES

- * Design meet IEC 1010 safety requirement.
- * 4 1/2 digits DMM, high precision.
- * Large LCD display with annunciators.
- * LCD display, easy read-out.
- * True RMS measuring reading for ACV & ACA function.
- * With data hold function
- * Compact & strong housing case.
- * Optional Holster case.
- * Full range optional adapters for Temperature, Light, DC/AC CLAMP current, Humidity, RPM, Pressure measurement.

2. SPECIFICATIONS

2-1 General Specifications

Display	15 mm(0.5") LCD, w/ annunciators, 4 1/2 digits Max. reading 19999
Measurement	28 ranges, DCV, ACV, DCA, ACA, ohms, hFE, DIODE, Continuity Beeper.
Polarity	Automatic Switching, '-' indicates negative polarity.
Zero Adjustment	Automatic adjustment.
Over-input Indicator	"1" mark indication.
Sampling Time	Approx. 0.4 second.
Operating Temp.	0 𐄂 to 50 𐄂 (32 蚌 to 122 蚌).
Operating Humidity	Less than 80% RH.
Power Supply	006 P DC 9V battery.
Power Consumption	Approx. DC 1.6 mA.
Dimensions	185 x 87 x 39 mm (6.7 X 3.5 X 1.4 inch)
Weight	320 g/0.71 LB

Fuse	The meter build in one fuse for current range(200u/2m/20m/200mA) protection, its spec. : Rating - 500 mA Size - 5 mm dia. x 20 mm
Accessories Included	Red and Black Test Leads 1 pair. Instruction Manual 1 PC.
Optional Accessories	Please refer page 9, 10, 11.

2-2 Electrical Specifications (23 #5 C)

DC Voltage	
Range	200 mV / 2 V/ 20 V/ 200 V / 600 V
Resolution	0.01 mV / 0.1 mV /1 mV /10 mV / 0.1 V
Accuracy	#(0.1%+2d) -200mV. 3(0.2%+2d) -2V,20V,200V,600V.
Input Impedance	10 M ohm.
Over Load Protection	DCV, 350 ACV - 200mV range. DCV, 600 ACV - others.

AC Voltage (True RMS)	
Range	200 mV/2/20/200/600 V
Resolution	0.01 mV/0.1 m/1 m/10 m/0.1 V
Accuracy	#(0.8%+10d) -200mV,2V,20V,200V,600V * spec. are tested under 50/60 Hz.
Input Impedance	10 M ohm.
Over Load Protection	DCV, 350 ACV - 200mV range. DCV, 600 ACV - others.

DC Current	
Range	200u/2m/20m/200m/10A
Resolution	10n/100n/1u/10u/1mA
Accuracy	#(0.5%+5d) -200uA,2mA,20mA #(0.8%+10d) -200mA #(2%+5d) -10A
Over Load Protection	200u/2m/20m/200mA range : 0.5A fuse protection
	10 A range : Max. 10A (no fuse).

AC Current(True RMS)	
Range	200u/2m/20m/200m/10A
Resolution	10n/100n/1u/10u/1mA
Accuracy	#(0.8%+10d) -200uA,2mA,20mA,200mA #(2%+10d) -10A * spec. are tested under 50/60 Hz.
Over Load Protection	200u/2m/20m/200mA range : 0.5A fuse protection
	10 A range : Max. 10A (no fuse).

OHMS	
Range	200/2k/20k/200k/2M/20M ohm
Resolution	0.01/0.1/1/10/100/1k ohm
Accuracy	#(0.5%+5d) -200 ohm #(0.3%+5d) -2k,20k,200k,2 M ohm #(0.8%+3d) -20 M ohm.
Over Load Protection	DCV, 350 ACV.

Remark : The above DCV, ACV, DCA, ACA, ohm spec. are tested under the environment RF Field Strength less than 3 V/M & frequency less than 30 MHz only.

Diode Check	
Range	Approx. forward voltage(VF), good/defect test.
Resolution	0.1 mV.

Transistor hFE	
0-1000 hFE, NPN/PNP.	

Data hold	
To freeze the display values.	

Continuity	
Sound beeper for continuity check. Beeper will sound if the measuring resistance < 250 ohm approximately.	

3. FRONT PANEL DESCRIPTION

Fig. 1

- | | |
|--------------------------------|--------------------------|
| 3-1 Display | 3-a Volt/OHM/Diode Input |
| 3-2 Power On/Off Switch | 3-b 200 mA Current Input |
| 3-3 Data Hold Switch | 3-c 10 A Current Input |
| 3-4 Function Rotary Switch | 3-d Transistor hFE Input |
| 3-5 DCV Rotary Switch | |
| 3-6 ACV Rotary Switch | |
| 3-7 ACA Rotary Switch | |
| 3-8 DCA Rotary Switch | |
| 3-9 OHM Rotary Switch | |
| 3-10 hFE Rotary Switch | |
| 3-11 Battery Compartment/Cover | |

4. MEASURING PROCEDURE

4-1 DCV, ACV, DCA, ACA, OHM, Continuity beeper, Diode, hFE

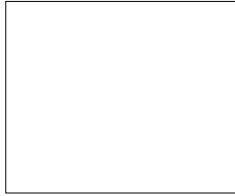
When operate the MULTIMETER, first push on the "POWER SW."(3-2, Fig. 1). Then rotate the "Range Selector" to the right position. & plug in the test lead to the right "Input Terminal" according the following instruction & ref. Fig. 1.

Function	Range Selector	Input Terminal
DCV	3-5 DCV	3-a
ACV	3-6 ACV	3-a
DCA (< 200 mA)	3-7 DCA	3-b
DCA (200 mA)	3-7 DCA	3-c
ACA (< 200 mA)	3-8 ACA	3-b
ACA (200 mA)	3-8 ACA	3-c
OHM	3-9 ohm	3-a
Continuity beeper	3-9 ohm(beeper)	3-a
Diode	3-9 ohm(Diode)	3-a
hFE	3-10 hFE	3-d

4-2 Data hold

When make any measurement, if select the "Hold Switch" (3-3, Fig.1) to the "Hold" position will keep the data on the display. It will release the data hold function if select the "Hold Switch" to the "Off" position(left side) again.

5. MEASURING CONSIDERATIONS

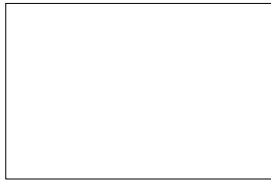


Caution :

*** Do not apply the overload voltage, current to the input terminal !**

- (1) Ensure that the battery(006 P DC 9V) is connected to its snap terminal correctly and placed in the battery compartment.
- (2) Before operating this instrument, familiarize yourself with all instructions that mentioned in this manual.
- (3) Always check to make sure that the function switch is set to the proper position.
- (4) Place the RED Test Lead into the proper input terminal before making measurements.
- (5) Remove either of the test leads from the circuit under test when changing the measurement range.
- (6) Do not exceed the maximum rated signal of each range to the input terminal.
- (7) The "Power On/Off Switch" always to the "OFF" position when the instrument does not use. Remove the battery if the instrument is not to be used for a long period of time.
- (8) Be sure to slide the "Data Hold Switch" to the off position (left side) if the data function is not be executed.

6. MAINTENANCE



Caution :


**Remove test leads before
open the battery cover !**



Caution :

*** Risk of electric shock !**

6-1 Replacement of Battery

- (1) When the left corner of the LCD display shows "", it indicates the battery output less than 6.1 V - 7.7 V. Replacement of the battery is then needed. However measurement could still be taken for another few hours before the tester becomes inaccurate.
- (2) Open the "Battery Cover"(3-11, Fig. 1) on rear cabinet by loose the screw on the battery cover and remove the battery.
- (3) Replace with a 9V battery and reinstate the rear cabinet.

6-2 Replacement of Fuse

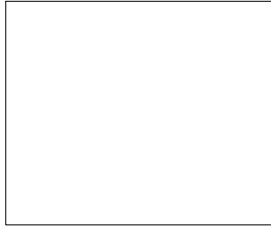
Fuse :

Rating : 500 mA, Size : 5 mm dia. x 20 mm

- (1) This instrument is provided with one 5 x 20 mm 500 mA fuse for 200mA, 20mA, 2mA, 200uA current range overload protection purpose.
When the current range function (2 A range) can not operate, please check if the fuse is broken ?

- (2) When replace the fuse, please open the Battery Cover and remove the battery, refer Fig.2
- (3) Replace the fuse according the spec. and reinstate the battery cover again.

6-3 Cleaning



Caution :

**Cleaning - Only use
the dry cloth to clean
the plastic case !**

7. OPTIONAL ACCESSORIES & ADAPTERS

7-1 Holster, HS-01

High quality rubber protective holster.

Fig. 2

7-2 Other optional accessories & adapters

Carrying Case CA-03	Vinyl soft carrying case, high quality. 185 x 90 x 60 mm.
Temperature Adapter DH-802C, DH-802F	Match DMM to be used as the thermometer. DH-802C : CENTIGRADE MODEL DH-802F : FAHRENHEIT MODEL Sensor : Type k thermocouple probe, TP-01, included. Output : 0.1 mV DC / 0.1 𐄂 or 0.1 𐄂.
Test Lead, TL-02A	High quality and better performance test lead with silicon rubber wire & separate alligator clip sets.
LIGHT ADAPTER LX-02	Match DMM to be used as the Light meter. 3 ranges, 2000/20000/50000 LUX.
ANEMOMETER ADAPTER AM-402	Match DMM to be used as the Anemometer. Measurements : m/s, km/h, ft/min., knots.
HUMIDITY ADAPTER HA-701	Match DMM be used as the humidity meter. Range : 10 % to 95 % RH.
TACHOMETER ADAPTER TA-601	Match DMM to be used as the Tachometer. Photo type : 2 ranges. 100 - 20,000 RPM.

400 A AC/DCA CURRENT ADAPTER CA-501	Match DMM to be used as the DCA & ACA clamp meter. Range : 200A, 400A. Output :1 ACmV/1 ACA, 1 DCmV/1 DCA.
2000 A AC/DCA CURRENT ADAPTER CA-202	Match DMM to be used as the DCA & ACA clamp meter. Range : 200A, 2000A. Output :1 ACmV/1 ACA, 1 DCmV/1 DCA.
MINI ACA CURRENT ADAPTER CA-201	Match DMM to be used as the ACA clamp meter. clamp meter. Range : 20A, 200A. Output : 1 ACmV/1 ACA(200A), 10 ACmV/1 ACA(20A).
50 A CURRENT SHUNT, ST-50	50 A DCA/ACA resistance shunt. Match DMM to measure the current up to 50 A precisely.

8. THE ADDRESS OF THE AFTER SERVICE CENTER

