DISPOSAL OF THIS ARTICLE

Dear Customer,

If you as some point intend to dispose of this article, then please keep in mind that many of its components consist of valuable materials, which can be recycled. Please do not discharge it in the garbage bin, but check with your local council for recycling facilities in your area.

PN:31.11.4309

3 1/2 COMPACT SIZE DIGITAL MULTIMETER

- ☑ Buzzer
- ☑ Back light
- ☑ Cable tester
- ☑ All range protect

READ AND UNDERSTAND THIS MANUAL BEFORE USING THE INSTRUMENT

OPERATOR'S MANUAL

the specified ratings.
Reinstall the battery cover and lock this cover.

mainframe and removed accessory.

b. Turn the switch on automatic mode. If everything is well, the lights of mainframe and removed will flash synchronism.

2) Manual mode:

a. Connect the two terminals of cable with the mainframe and removed accessory.

b. Turn the switch on manual mode and press the “TEST” button. Each press make one step.

c. Manual mode can hold the test result and easy to locate the error position.

Note: When test the RJ11, the LED lights display on mainframe and removed accessory are opposite.

9-4. FUNCTIONAL DESCRIPTION

The table about the LED light used in testing different description cables is as follows:

MODE	1	2	3	4	5	6	7	8	G
RJ45	√	√	√	√	√	√	√	√	
RJ12		√	√	√	√	√	√		
RJ11			√	√	√	√			
USB	√	√	√	√					√

10. BATTERY REPLACEMENT

If the sign “⊟” appear on the display, it indicates battery should be replaced. Remove screws and open the back case, replace the exhausted battery with new batteries (NEDA 6F22 9V⎓ or equivalent).

11. FUSE REPLACEMENT

Fuse rarely needs replacement and is blown almost always as a result of operator’s error. This meter uses a fuse: F0.5A/250V fast action. To replace the fuses, open the battery cover; replace the damaged fuse with a new fuse of

WARRANTY

This Instrument is warranted to be free from defects in material and workmanship for a period of one year. Any instrument found defective within one year from the delivery date and returned to the factory with transportation charges prepaid, will be repaired, adjusted, or replaced at no charge to the original purchaser. This warranty does not cover expandable items such as batteries & fuses. If the defect has been caused by a misuse or abnormal operating conditions, the repair will be billed at a nominal cost.

1. **SAFETY INFORMATION**

DT4300 digital multimeter has been designed according to EN61010-1 oncoming electronic measuring instruments with an over voltage category (CAT I 1000V and CAT II 600V) and Pollution degree 2.

To continue protection against fire, replace fuse only with the specified voltage and current ratings: F0.5AH/600V and F10AH/600V, fast action.

To clean the meter, use a damp cloth and mild detergent only, do not use abrasives or solvents on it.

2. ELECTRICAL SYMBOLS


DC (Direct Current)


AC (Alternating Current)


Important safety information.
Refer to the manual


Dangerous voltage may be present


Earth ground


Low battery


Fuse


Diode


Continuity test


Conforms to European Union directive


Double insulated

WARNING

To avoid possible electric shock or personal injury, follow these guidelines:

a. Do not use the meter if it is damaged. Before you use the meter, inspect the case. Pay particular attention to the insulation surrounding the connectors.

b. Inspect the test leads for damaged insulation or exposed metal. Check the test leads for continuity.

be tested and the black test lead to the cathode.

4) The meter will show the approximate forward voltage of the diode. If the connections are reversed, “1” will be shown on the display.

9. CABLE TESTER INSTRUCTION

9-1. SUMMARY

This network cable tester is using to scan and judge the continuation property of the double-twisted cable.

Both automation and manual are feasible.

9-2. MAIN PERFORMANCE

1) Test unshielded or shielded net wire, telephone line, USB cable.

2) Check continuity and configuration of lead with unshielded and shielded modular plugs.

3) Test the following faults: open circuits, short, miswire and reversals.

4) Check the shield layer (SHIELD).

5) The mainframe and removed accessory can operate by single person.

9-3. FAULTY PHENOMENON

1) OPEN: If one or more wire had opened, the lights of mainframe and removed accessory were all lightless.

2) SHORT: When the net wire are short, the lamps of mainframe will light in turns and the lights of removed accessory will have two or more lightless.

3) MISWIRE & REVERSAL: The lights of mainframe can flash in turns, but the lamps of removed accessory cannot.

9-4. OPERATION

1) Automatic mode:

a. Connect the two terminals of cable with the

1) Connect the BLACK test lead to the “COM” jack and the RED to the “VΩ” jack (Note: The polarity of the red test lead is positive “+”).
2) Set the range switch to desire Ω range
3) Connect the test leads across the load to be measured.
4) Read the reading on the display.

Note:

a. For resistance measurements >1MΩ, the meter may take a few seconds to stabilize reading. This is normal for high-resistance measurement.
b. When the input is not connected, i.e. at open circuit, the symbol “1” will be displayed as an over range indicator.
c. Before measuring in-circuit resistance, be sure that the circuit under test has all power removed and all capacitors are fully discharged.

8-4. Continuity Test

1) Connect the BLACK test lead to the “COM” jack and the RED to the “VΩ” jack (Note: The polarity of the red test lead is positive “+”).
2) Set the range switch to  range
3) Connect the test leads across the load to be measured.
4) If the circuit resistance is lower than about 30±20Ω, the built-in buzzer will sound.

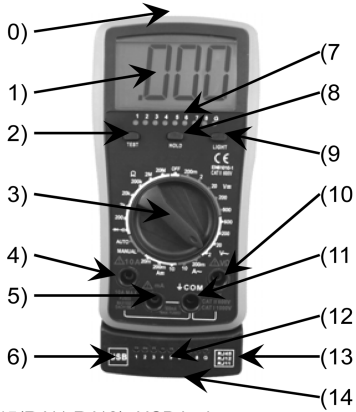
8-5. Diode Test

1) Connect the BLACK test lead to the “COM” jack and the RED to the “VΩ” jack (Note: The polarity of the red test lead is positive “+”).
2) Set the range switch to range
3) Connect the red test lead to the anode of the diode to

Replace damaged test leads before you use the meter.
c. Do not use the meter if it operates abnormally. Protection may be impaired. When in doubt, have the meter serviced.
d. Do not operate the meter around explosive gas, vapor, or dust.
e. Do not apply more than the rated voltage, as marked on the meter, between terminals or between any terminal and earth ground.
f. Before use, verify the meter’s operation by measuring a known voltage.
g. When measuring current, turn off circuit power before connecting the meter in the circuit.
h. When servicing the meter, use only specified replacement parts.
i. Use with caution when working above 30V ac rms, 42V peak, or 60 dc. Such voltages pose a shock hazard.
j. When using the probes, keep your fingers behind the finger guards on the probes.
k. Connect the common test lead before you connect the live test lead. When you disconnect test leads, disconnect the live test lead first.
l. Remove the test leads from the meter before you open the battery door.
m. Do not operate the meter with the battery door or portions of the cover removed or loosened.
n. To avoid false readings, which could lead to possible electric shock or personal injury, replace the batteries as soon as the low battery indicator (“  ”) appears.
o. CAT II - Measurement Category II is for measurements performed on circuits directly connected to low voltage installation. (Examples are measurements on

household appliances, portable tools and similar equipments.) Do not use the meter for measurements within Measurement Categories III and IV.

3. PANEL DESCRIPTION



0) RJ45(RJ11,RJ12), USB jack
1) Display
3 1/2 digits LCD, with a max. reading of 1999
2) “TEST” Button
3) Function Rotary Switch
This switch can be used to select desired function and range.
4) “10A” Jack
Plug-in connector for the red test lead for Current (200mA ~ 10A) measurements

connection will be indicated when making a DC measurement.

Note:

a. In small range, the meter may display an unstable reading when the test leads have not been connected to the load to be measured. It is normal and will not affect the measurements.
b. In manual range mode, when the meter shows the over range symbol “1”, a higher range must to be selected.
c. To avoid damage to the meter, don’t measure a voltage which exceeds 600V⎓ or 600V~.

8-2. Measuring Current

1) Connect the BLACK test lead to the “COM” jack. If the current to be measured is less than 200mA, connect the red test lead to the “mA” jack. If the current is between 200mA and 10A, connect the red test lead to the “10A” jack instead.
2) Set the range switch to desire A⎓ or A~ range. If the current magnitude to be measured is unknown beforehand, set the ranges switch to the highest range position and then reduce it range by range until satisfactory resolution is obtained.
3) Connect test leads in series with the circuit to be measured.
4) Read the reading on the display. For DC current measurement, the polarity of the red test lead connection will be indicated as well.

Note:

a. When the display shows the over range symbol “1”, a higher range must be selected.

8-3. Measure Resistance

Response: Average, calibrated in rms of sine wave

7-5. RESISTANCE

Range	Resolution	Accuracy
200Ω	0.1Ω	±(1.5% of rdg + 3dgts)
2KΩ	1Ω	±(1.5% of rdg + 3dgts)
20KΩ	10Ω	
200KΩ	100Ω	
2MΩ	1KΩ	±(1.5% of rdg + 3dgts)
20MΩ	10KΩ	±(1.5% of rdg + 3dgts)

Open Circuit Voltage: about 0.25V
Overload Protection: 250V DC/AC rms

7-6. Diode and Continuity

Range	Introduction	Remark
	The approximate forward voltage drop will be displayed	Open circuit voltage: about 2.7V
	The built-in buzzer will sound if the resistance is less than about 30±20Ω.	Open circuit voltage: about 2.7V

Overload Protection: 250V DC/AC rms

8. OPERATION INSTRUCTION

8-1. Measuring Voltage

1) Connect the BLACK test lead to the “COM” jack and the RED to the “VΩ” jack.
2) Set the function switch to desire V⎓ or V~ range.
3) If the voltage magnitude to be measured is unknown beforehand, select the highest range.
4) Connect the test leads across the source or load to be measured.
5) Read LCD display. The polarity of the RED lead

5) “mA” Jack
   Plug-in connector for the red test lead for Current (<200mA) measurements
6) USB jack
7) Cable test LED light
8) “HOLD” button
9) “LIGHT” button
   To turn on the backlight, press this button.
   The backlight will turns off automatically about 10 seconds later after you turn on it.
10) “VΩ” Jack
    Plug-in connector for the red test lead for DCV , ACV and Ω measurements.
11) “COM” Jack
    Plug-in connector for black (negative) test lead.
12) Cable test long-distance LED light
13) RJ45(RJ11,RJ12) jack
14) Removed accessory

4. ACCESSORIES

Owners manual: 1 piece
Test leads: 1 pair

5. INTRODUCTION

This manual provides all safety information, operation instruction, specifications and maintenance for the meter, which is compact, handheld, and battery operated.
This instrument performs AC/DC voltage, AC/DC Current, Resistance, Audible Continuity and Diode test, it is a 3 1/2 digits, 1999 counts manual ranging DMM.
It has the functions of polarity indication, data hold, over range indication and backlight function. It can be operated easily and is an ideal instrument tool.

6. GENERAL CHARACTERISTICS

Display : LCD, 1999 counts updates 2/sec
Polarity Indication : "-" displayed automatically
Over-range Indication : Only "1" displayed
Low Battery Indication : "⊟" displayed
Operation Temperature : 0°C to 40°C, less than 75%RH
Storage Temperature : -10°C to 50°C, less than 85%RH
Battery Type : 9V 6F22
Dimension(H×W×D) : 190×85×35mm
Weight : Approx 322g

7. SPECIFICATIONS

Accuracy is guarantied for 1 year 23°C±5°C less than 70%RH

7-1. DC VOLTAGE (Auto ranging)

Range	Resolution	Accuracy
200mV	0.1mV	±(0.8% of rdg + 5dgts)
2V	1mV	±(0.8% of rdg + 2dgts)
20V	10mV	
200V	100mV	
600V	1V	±(1.0% of rdg + 5dgts)

Input Impedance: 10MΩ
Overload Protection: 600V DC/AC rms
(200mV range: 250V DC/AC rms)
Max. Input voltage: 600V DC

7-2. AC VOLTAGE

Range	Resolution	Accuracy
2V	1mV	±(1.2% of rdg + 3dgts)
20V	10mV	
200V	100mV	
600V	1V	±(1.2% of rdg + 8dgts)

Input Impedance: 10MΩ

Frequency Range: 40Hz ~ 400Hz
Overload Protection: 600V DC/AC rms
Response: Average, calibrated in rms of sine wave
Max. Input voltage: 600V AC rms

7-3. DC CURRENT

Range	Resolution	Accuracy
20mA	10μA	±(1.0% of rdg + 5dgts)
200mA	100μA	
10A	10mA	±(2.0% of rdg + 5dgts)

Overload Protection:
20mA and 200mA ranges: F0.5A/600V fuse
10A ranges: F10A/600V fuse
Max. Input Current:
"mA" jack: 200mA
"10A" jack: 10A
(For measurements>5A: duration <10 seconds, interval >15 minutes)
Voltage Drop: 200mV

7-4. AC CURRENT

Range	Resolution	Accuracy
200mA	100μA	±(1.0% of rdg + 5dgts)
10A	10mA	±(3.0% of rdg + 5dgts)

Overload Protection:
200mA ranges: F0.5A/600V fuse
10A ranges: F10A/600V fuse
Max. Input Current:
"mA" jack: 200mA
"10A" jack: 10A
(For measurements>5A: duration <10 seconds, interval >15 minutes)
Voltage Drop: 200mV
Frequency Range: 40Hz ~ 400Hz