

DIODE TEST

Test current: 1.2mA (approximate)

Accuracy: $\pm(3.0\% \text{ rdg} + 3 \text{ dgts})$

Resolution: 1mV

Audible indication: <0.03V

Open circuit volts: 3.5Vdc typical

Overload protection: 500VDC or AC rms

CONTINUITY

Audible indication: Less than 30 Ω

Response time: 100ms

Overload protection: 500VDC or AC rms

OPERATION

Before taking any measurements, read the Safety Information Section. Always examine the instrument for damage, contamination (excessive dirt, grease, etc.) and defects. Examine the test leads for cracked or frayed insulation. If any abnormal conditions exist do not attempt to make any measurements.

Input Warning Beeper

The meter has a beeper that warns the user when the test lead is in the current jack while the meter is switched to make a voltage measurement. Another safety feature to protect the meter and you.

MAX / MIN

The "MAX" displays the maximum value of measurements. The "MIN" displays the minimum value of measurements. The "MAX/MIN" appears and flashes in the LCD to display the value that is being measured now. After finishing the measurement, press MAX/MIN button for more than 2 seconds to exit **Relative Δ** Press (Δ) button to enter the Relative mode. The (Δ) annunciator is displayed, and residual value on the display is subtracted and stored as a reference value. In the Relative mode, the value shown on the display is always the difference between the stored reference value and the present reading. Press (Δ) button again to exit the relative mode.

Backlight

Press the  button to activate the backlight for approximately 60 second.

Manually Selecting Range

The meter also has a manual range mode. In manual range, you select and lock the meter in a range. To manually select a range: Press [RANGE] button to hold the selected range. Subsequently pressing the [RANGE] button will select each range in sequence from the lowest to highest range. Hold the button for 2 seconds to return to the Autorange Mode.

Voltage Measurements

1. Connect the red test lead to "V Ω " jack and the black test lead to the "COM" jack.
2. Set the Function/Range switch to the desired voltage type (AC or DC) and range. If magnitude of voltage is not known, set switch to the highest range and reduce until a satisfactory reading is obtained.
3. Connect the test leads to the device or circuit being measured.
4. For dc, a (-) sign is displayed for negative polarity; positive polarity is implied.

Current Measurements

1. Connect the red test lead to the (μ A, mA or 10A) jack and the black test lead to the "COM" jack.
2. Set the Function/Range switch to the DC or AC ranges.
3. Remove power from the circuit under test and open the normal circuit path where the measurement is to be taken. Connect the meter in series with the circuit.
4. Apply power and read the value from the display.

Resistance Measurements

1. Set the Function/Range switch to the desired resistance range.
2. Remove power from the equipment under test.
3. Connect the red test lead to the "V Ω " jack and the black test lead to the "COM" jack.
4. Connect the test leads to the points of measurements and read the value from the display.

Diode Tests

1. Connect the red test lead to the "V Ω " jack and the black test lead to the "COM" jack.
2. Set the Function/Range switch to the "" position.
3. Turn off power to the circuit under test. External voltage across the components causes invalid readings.

7. Audible Indication: Less than 0.03V.

Continuity Measurements

1. Set the Function switch to the "" position.
2. Turn off power to the circuit under test. External Voltage across the components causes invalid reading.
3. Connect the test leads to the two points at which continuity is to be tested. The buzzer will sound if the resistance is less than approximately 30 Ω .

Capacitance Measurements

1. Set the Function/Range switch to the desired capacitance range.
2. Connect the red test lead to the "V Ω " jack and the black test lead to the "COM" jack.
3. Touch the probes to the capacitor. Observe polarity when measuring polarized capacitors.
4. Read the capacitance directly from the display.
5. Discharge the capacitor before taking capacitance measurements.
6. When the capacitor to be tested is connected, if "dISC" symbol indicates on LCD, it means there is voltage existing in the tested capacitor and need to be discharged before testing.
7. For maximum accuracy, step to the desired range in manual ranging, then press the Relative Δ button to zero out test lead capacitance before the measurement.

Frequency Measurements

1. Set the Function/Range switch to the "Hz" position.
2. Connect the red test lead to the "V Ω " jack and the black test lead to the "COM" jack.
3. Connect the test leads to the point of measurement and read the frequency from the display.

Auto Power Off

1. Auto power off: approx. 30 minutes.
2. After auto power off, press any button to restart the meter, and the reading of measurement will be maintained in the display.

Cancellation of Auto Power Off Feature:

Press and hold the (RANGE) button while rotating function switch from off to any position to turn the meter on. The auto power off feature is disabled.

Note "APO" annunciator is missing from the LCD.

MAINTENANCE

WARNING

Remove test leads before changing battery or fuse or performing any servicing.

Battery Replacement

Power is supplied by a 9 volt battery. (NEDA 1604, IEC 6F22). The "" appears on the LCD display when replacement is needed. To replace the battery, remove the three screws from the back of the meter and lift off the front case. Remove the battery from case bottom.

Fuse Replacement

If no current measurements are possible. Check for a blown overload protection fuse. For access to fuses, remove the three screws from the back of the meter and lift off the front case. Replace F1 only with the original type 0.5A/500V, fast acting ceramic fuse, 6.35x32mm Replace F2 only with the original type 10A/600V, fast acting ceramic fuse, 6.35x25.4mm.

Cleaning

Wipe the case with a damp cloth and mild detergent. Do not use abrasives or solvents. Dirt or moisture in the terminals can affect readings.

Safety: Conforms to IEC61010-1 (EN61010-1), CATII 1000V, CATIII 600V, Class II, Pollution degree 2 Indoor use.

CATII: Is for measurements performed on circuits directly connected to the low-voltage installation.

CAT III: Is for measurements performed in the building installation.

EMC: Conforms to EN61326.

The symbols used on this instrument are:



Caution, refer to accompanying documents



Equipment protected throughout by Double insulation (Class II)



Alternating current

Limited Three-Year Warranty

B&K Precision warrants to the original purchaser that its products and the component parts thereof, will be free from defects in workmanship and materials for a period of **three years** from date of purchase from an authorized B&K Precision distributor.

B&K Precision will, without charge, repair or replace, at its option, defective product or component parts. Returned product must be accompanied by proof of the purchase date in the form of a sales receipt.

To obtain warranty coverage in the U.S.A., this product must be registered by completing the warranty registration form on within fifteen (15) days of purchase.

Exclusions: This warranty does not apply in the event of misuse or abuse of the product or as a result of unauthorized alterations or repairs. The warranty is void if the serial number is altered, defaced or removed.

B&K Precision shall not be liable for any consequential damages, including without limitation damages resulting from loss of use. Some states do not allow limitations of incidental or consequential damages. So the above limitation or exclusion may not apply to you.

This warranty gives you specific rights and you may have other rights, which vary from state-to-state.

SERVICE INFORMATION

Warranty Service: Please go to our website, & click on the service/repair button to obtain an RMA #. Return the product in the original packaging with proof of purchase to the address below. Clearly state in writing the performance problem and return any leads, probes, connectors and accessories that you are using with the device.

Non-Warranty Service: Please go to our website, & click on the service/repair button to obtain an RMA #. Return the product in the original packaging to the address below. Clearly state in writing the performance problem and return any leads, probes, connectors and accessories that you are using with the device. Customers not on open account must include payment in the form of a money order or credit card. For the most current repair charges please visit and click on "service/repair".

Return all merchandise to B&K Precision Corp. with pre-paid shipping. The flat-rate repair charge for Non-Warranty Service does not include return shipping. Return shipping to locations in North American is included for Warranty Service. For overnight shipments and non-North American shipping fees please contact B&K Precision Corp.

Include with the returned instrument your complete return shipping address, contact name, phone number and description of problem.