**ACCESSORIES SUPPLIED**
- Pocket Carrying Case
- Instruction Manual
- Test Leads

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**SPECIFICATIONS**

### DC VOLTS (auto and manual ranging)

<table>
<thead>
<tr>
<th>Range</th>
<th>Resolution</th>
<th>Accuracy</th>
<th>Overvoltage Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 mV</td>
<td>100 μV</td>
<td>± (1.3% + 2)</td>
<td>500 V DC + AC Peak</td>
</tr>
<tr>
<td>3 V</td>
<td>1 mV</td>
<td>± (0.7% + 2)</td>
<td></td>
</tr>
<tr>
<td>30 V</td>
<td>10 mV</td>
<td>± (1.3% + 2)</td>
<td></td>
</tr>
<tr>
<td>300 V</td>
<td>100 mV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>450 V</td>
<td>1 V</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Input Impedance: >10 MΩ

### AC VOLTS (auto and manual ranging, average rms)

<table>
<thead>
<tr>
<th>Range</th>
<th>Resolution</th>
<th>Accuracy</th>
<th>Overvoltage Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 V</td>
<td>1 mV</td>
<td>± (2.3% + 5)</td>
<td>500 V DC + AC Peak</td>
</tr>
<tr>
<td>30 V</td>
<td>10 mV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>300 V</td>
<td>100 mV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>450 V</td>
<td>1 V</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Input Impedance: >10 MΩ

### DIODE CHECK

<table>
<thead>
<tr>
<th>Range</th>
<th>Resolution</th>
<th>Accuracy</th>
<th>Test Current</th>
<th>Max. Open Ckt. Volts</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 V</td>
<td>1 mV</td>
<td>± (10% + 2)</td>
<td>0.6 mA</td>
<td>3.2 V</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Vf=0.6 V)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Measures forward voltage drop of diode or semiconductor in mV
Overload Protection: 500 V DC + AC Peak

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**SPECIFICATIONS**

### RESISTANCE (auto and manual ranging)

<table>
<thead>
<tr>
<th>Range</th>
<th>Resolution</th>
<th>Accuracy</th>
<th>Max. Open Circuit Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 Ω</td>
<td>0.1 Ω</td>
<td>± (2.0% + 3)</td>
<td>1.3 V</td>
</tr>
<tr>
<td>3 kΩ</td>
<td>1 Ω</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 kΩ</td>
<td>10 Ω</td>
<td></td>
<td></td>
</tr>
<tr>
<td>300 kΩ</td>
<td>100 Ω</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 MΩ</td>
<td>1 kΩ</td>
<td>± (6.0% + 3)</td>
<td>0.65 V</td>
</tr>
<tr>
<td>30 MΩ</td>
<td>10 kΩ</td>
<td>± (10% + 5)</td>
<td></td>
</tr>
</tbody>
</table>

Overload Protection: 500 V DC + AC Peak

### CONTINUITY CHECK

<table>
<thead>
<tr>
<th>Range</th>
<th>buzzer threshold, approx.</th>
<th>response time, approx.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>300 Ω</td>
<td>20 Ω</td>
</tr>
<tr>
<td></td>
<td>150 ms</td>
<td></td>
</tr>
</tbody>
</table>

Overload Protection: 500 V DC + AC Peak

**NOTE:**
Accuracy specifications apply from +18 to +28 °C at relative humidity up to 70% unless otherwise indicated.
Accuracy stated as ±(% of reading + number of counts).
LIMITED ONE YEAR WARRANTY

MAXTEC INTERNATIONAL CORPORATION warrants to the original purchaser that its **BK Precision** product, and the component parts thereof, will be free from defects in workmanship and materials for a period of one year from the date of purchase.

MAXTEC will, without charge, repair or replace, at its option, defective product or component parts upon delivery to an authorized **BK Precision** service contractor or to the factory service department, accompanied by proof of the purchase date in the form of a sales receipt.

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. It is void if the serial number is altered, defaced or removed.

MAXTEC shall not be liable for any consequential damages, including without limitation damages resulting from loss of use. Some states do not allow limitation 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.

For your convenience, we suggest you contact your **BK Precision** distributor, who may be authorized to make repairs or can refer you to the nearest service contractor.

If warranty cannot be obtained locally, please send the unit to **BK Precision** Service Department, 6470 West Cortland Street, Chicago, Illinois 60635, properly packaged to avoid damage in shipment.

**BK Precision** Test Instruments only warrants products sold in the U.S.A and its overseas territories. In other countries, each distributor warrants the **BK Precision** products which it sells.

SPECIFICATIONS

OPERATING CHARACTERISTICS

Display:
3 1/2 digit liquid crystal (LCD) with a maximum reading of 3200. Analog bargraph with 32 segments.

Polarity Selection:
Automatic, negative (-) polarity indicated, positive (+) assumed.

Low Battery Indication:
Character "B" displayed for low battery voltage.

Overrange Indication:
"OL" displayed.

Sample Rate:
2 measurements/second, nominal.

Auto Power Off:
Automatic shut down after about 10 minutes of no activity.

PHYSICAL DATA

Temperature:
Full Operation: 0 to 40 °C at <70% relative humidity.
Storage: -20 to 60 °C at <80% relative humidity (battery removed).

Power Requirements:
Two 1.5 V button-type batteries, NEDA #1166A or equivalent.

Battery Life:
250 hours.
SAFETY

WARNING
An electrical shock causing 10 milliamps of current to pass through the heart will stop most human heartbeats. Voltage as low as 35 volts dc or ac rms should be considered dangerous and hazardous since it can produce a lethal current under certain conditions. Higher currents are even more dangerous. Observe the following safety precautions:

1. Never apply input voltages greater than 450 V. Personal injury and/or damage to the instrument may occur. This meter is not recommended for high voltage industrial use.
2. When testing ac powered equipment, remember that ac line voltage may be present on some power input circuits (for example, on off switch, fuses, transformer, etc.). Always run a copper or aluminum core wire connected to an ac outlet, even if it is turned off.
3. If possible, familiarize yourself with the equipment being tested and the location of its high voltage points. However, remember that high voltage may appear at unexpected points in defective equipment.
4. Before replacing batteries, make sure that the input leads are disconnected from any voltage points.
5. Use the time proven "one hand in the pocket" technique while handling an instrument probe. Be particularly careful to avoid contacting the nearby metal object that could provide a good ground return path.
6. Never touch the exposed tip.

OPERATING INSTRUCTIONS

OPERATING INSTRUCTIONS (Cont.)

RANGE SELECTION
The RANGE HOLD push button allows you to switch between manual and autoranging. When the meter is used as a calibrated instrument, autoranging is automatically selected. Autoranging the decimal point is automatically selected which will provide the best resolution for measurement being made. In manual ranging, you select the range (resolution) desired.

When you press RANGE HOLD the first time, you go into manual ranging and the present range is held. The next time this button is pressed, you get the next higher range. Each successive time this button is pressed you step up until the highest range is reached. If you press this button again, you now get the lowest range and the step up procedure is started again.

You can go back into autoranging at any time; to return, press and hold RANGE HOLD for at least two seconds.

OPERATING INSTRUCTIONS (Cont.)

VOLTAGE MEASUREMENTS

Never try to measure voltages greater than 450 V.

1. Set function selector to VOLT position.
2. Select DC or AC voltage with mode switch.
3. Touch probes to the test points: Range is selected automatically displaying input voltage with best resolution.
4. Note that value shown in display window is the actual value with the decimal point correctly located. The annunciator shows whether the reading indicates millivolts (mV) or volts (V).
5. Set function selector to OFF when not in use to conserve power.

DATA HOLD
When DATA HOLD is pressed, it freezes the present reading and the "HOLD" symbol is displayed at the lower left side of the display window. Test leads can now be disconnected from the test source without affecting the reading at the display. Press this button again to reset the meter and clear the reading on hold.

OPERATING INSTRUCTIONS (Cont.)

RESISTANCE MEASUREMENTS

Verify that power is off in circuit under test and that electrolytic capacitors are discharged.

1. Set function selector to Ω (+/-) position.
2. Press mode switch until you see Ω displayed.
3. Touch probes to the test points. Range is selected automatically giving actual resistance value with best resolution.
4. Annunciator shows reading as ohms (Ω), kilohms (kΩ), or megohms (MΩ).
5. Set function selector to OFF when not in use to conserve power.

CONTINUITY TEST

1. Set function selector to Ω (+/-) position.
2. Press mode switch until you see → displayed.
3. Touch probes to test points. Audible beeper sounds when resistance is less than about 20 ohms.
4. Set function selector to OFF when not in use to conserve power.

AUTO POWER OFF

1. The meter will automatically shut off if there is no activity for about 10 minutes.
2. To restore operation, momentarily set function switch to "OFF" then to the desired function.

USE OF ANALOG BARGRAPH

The analog bargraph displays the relative magnitude of the input on the selected range. It updates 10 times as fast as the numerical display. This makes it useful for indicating the direction of change of a varying quantity (adjusting for a peak reading for example).