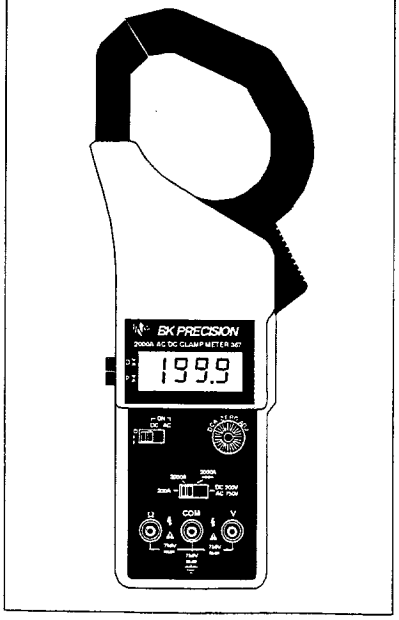
INSTRUCTION MANUAL

B&K PRECISION ®

AC/DC CLAMP METER
MODEL 367



B&K PRECISION ®
MAXTEC INTERNATIONAL CORP.

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SYMBOLS

⚠	See instruction manual for further precautionary information.
ϟ	Danger, high voltage terminal.
COM	Common input terminal.
V	Volts
A	Amperes
DC	DC Voltage
AC	AC Voltage
Ω	Ohms
→|	Diode Test
D H	Data hold symbol.
P H	Peak Hold symbol.
⏚	Earth ground.
LO BAT	Low battery symbol.
400 V **500 V** **750 V** **MAX.**	Maximum input rating of terminal with respect to **COM** input terminal.

HELPFUL HINT

TEST LEADS

Only use the safety type test leads like those supplied with this meter for safe operation and to avoid false readings. Periodically inspect these test leads to ensure that the conductors are not intermittent, corroded or broken. Keep the jack area of the meter free of dirt. Inspect the test leads for breaks in the insulation and replace as necessary.

Replacement test leads are available from ***B&K Precision***, request Model TL-1.

SPECIFICATIONS

ELECTRICAL

DC Current (Using Clamp):

Range	Resolution	Accuracy
200 A	100 mA	±(1.5% FS +5 digits)
2000 A	1 A	±(2.0% FS +2 digits) to 1500 A. ±(6.0% FS +2 digits) to 2000 A.

Overload Protection: 2000 A.

AC Current (Using Clamp): Avg. sense, rms reading.

Range	Resolution	Accuracy at 50/60 Hz
200 A	100 mA	±(1.5% rdg +5 digits)
2000 A	1 A	±(2.0% rdg +2 digits) to 1500 A. ±(6.0% rdg +2 digits) to 2000 A.

Overload Protection: 2000 A.

DC Voltage (Using Test Leads):

Range	Resolution	Accuracy
200 V	0.1 V	±(0.8% rdg +1 digit)

Overload Protection: 1000 V DC & 800 V AC.

Input Impedance: 10 MΩ.

AC Voltage (Using Test Leads): Avg. sense, rms reading.

Range	Resolution	Accuracy at 50/60 Hz
750 V	1 V	±(1% rdg +2 digits)

Overload Protection: 1000 V DC & 800 V AC.

Input Impedance: 10 MΩ.

ELECTRICAL

Resistance (Using Test Leads):

Range	Resolution	Accuracy
2 kΩ	1Ω	±(1.0% rdg +1 digit)

Overload Protection: 450 V DC & 450 V AC.

Maximum Open Circuit Voltage: 3.5 V.

Diode Test (Using Test Leads):

Forward Junction Voltage: Displayed in V.

Resolution: 1 mV.

Maximum Test Current: 1.5 mA.

Maximum Open Circuit Voltage: 3.5 V

Overload Protection: 500 V DC & 350 V AC.

Peak Hold:

Acquisition Time: 150 ms.

Accuracy: ±(3.0% rdg + 3 digits).

Data Hold:

Displayed Reading: Instantly frozen.

GENERAL

Jaw Opening: 1-3/4" (44 mm).

Display: 3-1/2 digit liquid crystal display (LCD) w/maximum reading of 1999 counts.

Polarity: Automatic, "-" shown, + assumed.

Overrange Indication: "1" or "-1" shown, all other digits blank.

Measuring Rate: 2.5 times/sec., nominal.

Low Battery Indication: LO BAT symbol shown.

Power Requirement: Single, standard 9 V battery (NEDA 1604A).

Battery Life: Alkaline, 150 hours typical.

Operating Temp.: 0° C to 40° C, <80% relative humidity.

Storage Temp.: -10° C to +60° C, <80% relative humidity w/battery removed.

Dimensions (H x W x D): 10" x 3-3/4" x 1-7/16 (254 x 95 x 36 mm).

Accessories Supplied: Battery
Carrying Case
Test Leads
Instruction Manual

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.

To obtain warranty coverage in the U.S.A., this product must be registered by completing and mailing the enclosed warranty registration card to MAXTEC ***BK Precision***, within (15) days from the date 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. 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

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.

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 voltages are even more dangerous. Observe the following safety precautions:

1. Never exceed the following input ratings to avoid the possibility of personal injury and/or damage to the instrument:

DC VOLTS	1000 V DC
AC VOLTS	750 V rms
AMPS	2000 A DC or AC rms
OHMS	450 V peak

2. Before using clamp meter, verify that the battery compartment of the case is closed and secure. Never use it with this compartment open.
3. Remove test leads before replacing battery.
4. Only use safety type test leads.
5. When using a probe, touch only the insulated portion. Never touch the exposed tip.
6. For your safety when making high voltage measurements while the power is on, never touch the equipment, meter, or test leads.
7. Insulation rating of the clamp is 1000 V DC, 750 V AC. Do not clamp around conductors at higher voltages.
8. Use the time proven "one hand in the pocket" technique while handling an instrument probe. Be particularly careful to avoid contacting a nearby metal object that could provide a good ground return path.
9. 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.
10. Before replacing batteries, make sure that the input leads are disconnected from any voltage points.
11. Never work alone. Someone should be nearby to render aid if necessary. Training in CPR (cardio-pulmonary resuscitation) first aid is highly recommended.

OPERATING INSTRUCTIONS

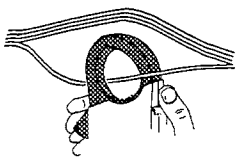
CURRENT MEASUREMENTS

1. Set **OFF/ON DC** or **AC** slide selector to **AC** or **DC** to match type of current to be measured.
2. For DC current measurements, adjust **DCA ZERO** for zero reading on display. If reading does not "zero", open and release jaw several times to demagnetize the jaw.
3. Open spring loaded clamp by pressing trigger on left side of meter.
4. Position clamp around a single wire or conductor and release trigger. Make sure clamp is entirely closed.

NOTE

Clamp must be positioned around only "one" conductor of a circuit as shown in following diagram. If clamp is placed around two or more current carrying conductors the reading will be false. A good example of a false reading would be an attempt to measure current by clamping around the line cord of an appliance. Currents flowing in both directions tend to cancel the measurement giving a false reading.

Illustration Of Single Wire Clamped For Current Measurement



CURRENT MEASUREMENTS (cont.)

5. For measurements of unknown current levels, set current range to 2000 amps (decimal point is not shown). For best resolution, select lower range if reading is below 200 amps. Select the appropriate range (2000 or 200 amps) if approximate level of current is known.
6. Read current level directly from LCD readout.

VOLTAGE MEASUREMENTS

1. Select DC or AC voltage measurements with **OFF/ON DC** or **AC** slide selector.
2. Set Function Range selector to **AC 750V/DC 200V.**
3. Plug red test lead into right **V** jack. Black test lead must be plugged into **COM** jack.
4. Connect test leads across measuring points.
5. Read voltage level directly from readout. Do not exceed indicated ranges.

RESISTANCE MEASUREMENTS

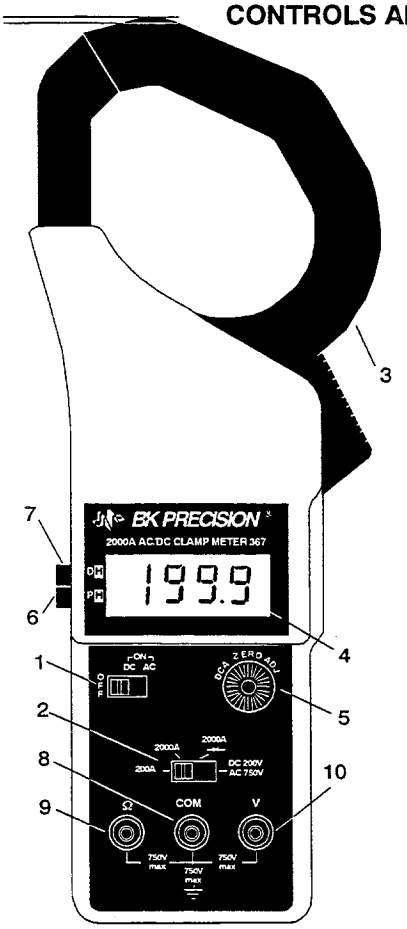
1. Slide **OFF/ON DC** or **AC** selector to **AC** or **DC**.
2. Set Function/Range selector to **2000Ω/⊣⊢** position.
3. Plug red test lead into left Ω jack. Black test lead must be plugged into **COM** jack.
4. Verify that power is off and any capacitors are discharged in circuit about to be tested.
5. Connect test leads across measuring points.
6. Read resistance value directly from readout.

DIODE TESTS

1. Slide **OFF/ON DC** or **AC** selector to **AC** or **DC**.
2. Set Function/Range selector to **2000Ω/⊣⊢** position.
3. Plug red test lead into left Ω jack. Black test lead must be plugged into **COM** jack.
4. Verify that power is off and any capacitors are discharged in circuit about to be tested.
5. Connect black test lead to cathode of diode, red test lead to anode. Forward voltage should be less than as follows:
   - Silicon diodes, 0.7 V.
   - Germanium diodes, 0.3 V.
   - LEDs, 1.5 V.

   Reversing leads should show open circuit, "1" or "-1" in leftmost position.
6. Read voltage level directly from readout.

CONTROLS AND INDICATORS



1. **OFF/ON DC** or **AC**. Slide selector turns meter on or off and selects DC or AC measurements (3-position).
2. **Function/Range Selector**. Slide selector to choose range and function (4-position).
   - **200A** or **2000 A:** Select range for current measurements.
   - **2000Ω/⊣⊢**: Select for resistance measurements to 2000 ohms or diode tests.
   - **DC 200V/AC 750V:** Select for voltage measurements, to 200 V DC or 750 V AC.
3. **Current Clamp**. Use for current measurements without disconnecting circuit. Simply open clamp and loop around conductor.
4. **Display, LCD Readout**. Indicates current, voltage, diode test, resistance, overrange, polarity (-), and low battery status. 3-1/2 digit display (1999 maximum) with automatic placement of decimal point.
5. **DCA ZERO**. Adjustment to set display to zero before making DC current measurements.
6. **PEAK HOLD**. Push button switch to turn peak hold feature on or off.
7. **DATA HOLD**. Push button switch to turn data hold feature on or off.
8. **COM Jack**. Black (common neutral, ground), low side test lead input.
9. **V Jack**. Positive (or high) test lead input for voltage measurements.
10. **Ω Jack**. Test lead input for resistance measurements and diode tests.

GENERAL PROCEDURES

WARNING

See SAFETY instructions in this manual before attempting any measurements.

1. Although a battery was supplied with this meter, it is not installed. Install it as instructed in the MAINTENANCE section of this manual.
2. Set slide selector to **OFF/ON DC** or **AC** to **DC** or **AC**. Any character in display indicates meter is on.
3. For current measurements, use the current clamp. For all other measurements use the test leads. When using test leads, plug black lead into **COM** jack. Plug red lead into **V** jack for voltage measurements, or into Ω jack for resistance and diode tests.
5. Read measurements directly from display. For current measurements select range. In high range, such as **2000 A**, decimal is not shown.
6. An overrange condition using any function is shown by a "1" or "-1" reading in the leftmost position at display with no other digits present.
7. After completing your measurements, be sure to slide **OFF/ON DC** or **AC** selector to **OFF** to conserve battery power.

OPERATING INSTRUCTIONS

USING DATA HOLD FEATURE

1. Note: This feature is used to hold, or freeze a measurement.
2. Take measurement as previously outlined.
3. While measurement is displayed, press DATA HOLD. Readout will hold reading even after clamp or test leads are removed from circuit.
4. To release or clear reading on hold, press DATA HOLD again, button pops out fully.

USING PEAK HOLD FEATURE

1. Note: This feature is used to hold the maximum level of a short term changing current or voltage. For example, a surge current when power is first applied to a circuit.
2. Press PEAK HOLD immediately before making the measurement.
3. Take measurement as previously outlined.
4. To release or clear reading captured and held, press PEAK HOLD again, button pops out fully.

MAINTENANCE

WARNING

Remove test leads before changing batteries. Never operate instrument with battery compartment open.

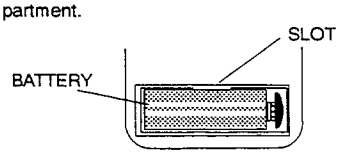
CAUTION

Remove discharged batteries immediately to prevent damage from battery leakage.

BATTERY REPLACEMENT

The presence of the low battery symbol (**LO BAT**) on the readout indicates that the battery is near discharge. The meter may still be used for a short time afterwards. However, replace the battery as soon as possible

The battery compartment cover is located at the rear of the case - near bottom. To open this cover, slip a coin or similar object or into the slot, then push down and pry up. The meter uses a standard 9 V (NEDA 1604A) battery. After replacing battery, be sure to snap cover back into case closing the compartment.



BATTERY COMPARTMENT, COVER REMOVED