

## SPECIFICATIONS

|                   |                                                                                   |
|-------------------|-----------------------------------------------------------------------------------|
| Voltage Range DC: | 1 kV to 40 kV                                                                     |
| Voltage Range AC: | 1 kV to 28 kV rms                                                                 |
| Divider Ratio     | 1000:1                                                                            |
| Input Resistance: | 1000 megohms, nominal                                                             |
| Accuracy DC:      | ±3%, plus meter accuracy                                                          |
| Accuracy AC:      | ±5%, plus meter accuracy @ 50/60 Hz                                               |
| Dimension         | 16-1/2" x 2-1/8 x 2"                                                              |
| Cable Length      | 34"                                                                               |
| Probe Tips        | Two interchangeable screw-in types, one round needle and one special flat spring. |
| Safety            | IEC1010, EN61010                                                                  |



**BK PRECISION®**

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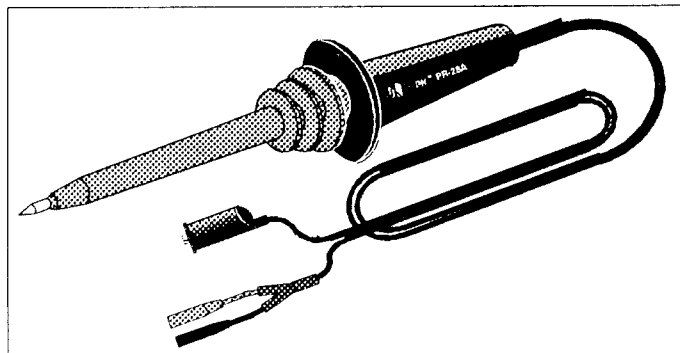
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## INSTRUCTION MANUAL



**BK PRECISION®**

### HIGH VOLTAGE PROBE MODEL PR-28A



## SAFETY

These steps outline the minimum, basic safety precautions that must be followed when using this high voltage probe. Before you use this instrument, read and thoroughly understand this information. You must have a thorough understanding of the hazards that may occur when working with high voltages and when using this probe. Failure to follow good safety practices could cause you serious personal harm, even death. Remember, high voltage kills if safety precautions are not followed!

1. In addition to these safety instructions, follow those given by the manufacturer of the device being checked.
2. Examine probe, make sure it is clean and dry. Dirt, moisture and grease can provide a creep path for voltage. If in doubt, wipe with a clean, dry, lint-free cloth.
3. Check floor in the test area. It must be dry, clean and free of oil. Never stand on a wet or damp floor.
4. Always connect the alligator clip of this probe to earth ground before taking any measurements.
5. Examine the entry to your high voltage test point. Make sure that you are able to bring the probe in to the test point. Also, make sure the tip is clear of wires, metal supports and other nearby conductive surfaces.
6. Verify that you are able to remain clear and avoid contact with any exposed metal and/or other conductive parts of the device being checked.

## SAFETY (cont.)

7. Only use one hand to hold the handle of the probe. Keep your free hand behind you, preferably in your hip pocket. This position helps avoid a situation where the voltage could flow across your chest should a mishap occur. Current flow across your chest is very damaging as it disturbs the rhythm of the heart.
8. Always work within sight and hearing of another person. If an accident occurs, you will be able to get aid quickly.
9. When handling a CRT, avoid touching the conductive coating before it's discharged. Remember, it can hold a dangerous charge long after the set is turned off.

## DESCRIPTION

This probe measures high voltages: dc up to 40 kV and ac up to 28 kV. Voltages are read on any external customer supplied voltmeter having a constant input impedance of 10M $\Omega$  and equipped with receptacles for standard banana plugs. This probe fits all **EK Precision** DMMs and other similar meters.

An internal voltage divider in this probe multiplies the range of your voltmeter by 1000; a 30 V external reading is actually 30,000 V. The components are housed in a high-impact, light weight ABS plastic case with good insulating and impact resistant properties. An alligator clip provides a good earth ground connection; banana plugs interconnect this probe to your meter.

## OPERATION

### WARNING

*Before taking any measurements, first connect the alligator clip of this probe to earth ground and make sure connection is electrically good.*

1. Examine probe, make sure it is clean and dry. Dirt, moisture and grease can provide a creep path for voltage. If in doubt, wipe with a clean, dry, lint-free cloth.
2. Make sure appropriate tip is installed in probe for measurement. Use round needle tip for general applications, flat tip for CRT's; hand tighten, do not use pliers.
3. Connect alligator clip of your probe to earth ground - electrical connection must be good.
4. Plug-in red and black banana plug leads of probe into your meter/instrument. Make sure ground lead from probe is connected to common ground of your instrument/meter.
5. Select Voltage function at meter/instrument; voltage type, DC or AC; and voltage range, typically 20 or 200 volts.  
NOTE: Probe multiplies reading by 1000, a reading of 30 V is actually 30,000 volts.
6. With your free hand in your back pocket, touch probe to high voltage point and note reading at external meter. Avoid contacting any exposed metal parts.

## LIMITED ONE YEAR WARRANTY

**BK Precision** warrants to the original purchaser that its 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.

**BK Precision** 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 product or as a result of unauthorized alterations or repairs. It is void if the serial number is altered, defaced or removed.

**BK Precision** 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 service cannot be obtained locally, please send the unit to **BK Precision** Service Center, 1031 Segovia Circle, Placentia, CA 92870, 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.