
Bierer

METERS

Safety is number one.



Manufacturing & Service: Bierer & Associates Inc.

HP72-DCXL

HI POT DEVICE

Operating Instructions



Limitation of Warranty and Liability

Bierer & Associates Inc. warrants this product to be free from defects in workmanship and material, under normal use and service conditions for a period of one year from date of shipment.


Due to continuous product improvement and development, Bierer & Associates Inc. reserves the right to modify product designs and specifications without notice.


It is impossible to eliminate all risks associated with the use of high voltage electrical devices including this device. Risks of serious injury or death are inherent in working around energized electrical systems. Such risks include but are not limited to variations of electrical systems and equipment, manner of use or applications, weather and environmental conditions, operator mentality, and other unknown factors that are beyond the control of Bierer & Associates Inc.


Bierer & Associates Inc. do not express or imply to be an insurer of these risks, and by purchasing or using this product you **AGREE TO ACCEPT THESE RISKS**. IN NO EVENT SHALL Bierer & Associates Inc. BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.


SAFETY MESSAGE DEFINITIONS per ANSI Z535

These instructions contain important safety messages to alert the user to potentially hazardous situations, how to avoid the hazard, and the consequences of failure to follow the instruction.

The safety alert symbol  identifies a safety message. The signal word following the symbol indicates:

 **DANGER** A hazardous situation which, if not avoided, **will** result in death or serious injury and equipment damage.

 **WARNING** A hazardous situation which, if not avoided, **could** result in death or serious injury and equipment damage.

 **CAUTION** A hazardous situation which, if not avoided, **could** result in minor or moderate injury and equipment damage.

NOTICE Important safety message relating to equipment damage only.

PRODUCT SAFETY INFORMATION

WARNING

1. Meter assembly, interconnect cable assembly, and live line tool adapters shall be considered **non-insulating**. Do not let live line tool fittings come in contact with energized or grounded conductors. **The live line tool adapters, fittings, and handles supplied with meters shall not be used on any other devices.**
2. Use appropriate length live line tools for voltage being worked and maintain minimum approach distances as outlined in OSHA 1910.269, Table R-6.
3. All Phasing Meters and Voltage Detectors manufactured during and after 2007 will have a limit mark engraved on the high voltage probe(s) 2.5 inches from the tip to indicate to the user the physical limit that should not be exceeded when approaching and contacting an electrical conductor or other electrical test points. Zero Ohm insulated adapters (81280IE) should be used if limit mark will be exceeded.
4. This equipment should be used only by qualified employees, trained in and familiar with the safety-related work practices, safety rules and other safety requirements associated with the use of this type of equipment.
5. These instructions are not intended as a substitute for adequate training, nor do they cover all details or situations which could be encountered when operating this type of equipment.
6. Before operating this equipment, read, understand and follow all instructions contained in this manual. Keep instructions with equipment.

INSPECTION & MAINTENANCE BEFORE USE

WARNING

1. Prior to using any high voltage test equipment a careful inspection should be made to ensure the unit is free from any contaminants such as dirt, grease, etc. and that there are no apparent physical damages.
2. High voltage probe assemblies shall be wiped clean prior to each use with a silicone impregnated cloth and kept clean and free of contaminants. This will prevent tracking on the outside of the probe and meter error.
3. Always confirm internal battery voltage before and after each use.
4. Unit shall be tested before and after each use on a known voltage source. Failure to do so could result in false negative indications

DESIGN and FUNCTION

The HI POT DEVICE is designed to HI POT de-energized 15kV class cables. The tool transforms 18 volts from the battery to approximately 8,000 volts DC. When the battery is installed and the safety switch is in the closed position, the unit is in voltage detection mode. Unit should be in this position when installing the device as it will sound a warning alarm if you approach an energized source. When the safety switch is open and the toggle switch is switched ON (forward), the unit is in the Hi-Pot mode and the high voltage DC is being applied.

BATTERY REPLACEMENT

There is an 18V battery on the base of the unit. On the front of the battery is a built in battery test button. If the battery test results in 2 or less lights, it is recommended to remove the battery by pressing both buttons on the sides, and sliding the battery out of the device to be charged. Once the battery is fully charged, you can resume any testing required.

METER SET-UP and TESTING



WARNING

- See “Product Safety Information”, page 3.
 - See “Inspection & Maintenance”, page 3.
1. Ensure the safety switch is in the closed position. This ensures the high voltage doesn't become active when installing the battery.
 2. Install the 18V rechargeable battery.
 3. To test the meter, attach the ground clamp to the probe tip. Then flip the safety and power switch to the open and ON position. If the meter and tester are working properly, the needle will move the 100% full scale position. This indicates a full short on the line. Once complete you can flip the safety switch closed, which will automatically switch the toggle OFF, at which point the high voltage is removed. The unit is ready for operation.

URD CABLE DC LEAKAGE TESTER “Hi-Potting”



WARNING – see “Meter Set-Up & Testing”, page 4.

Testing De-Energized URD cable

1. Attach Meter to appropriate length live line tools for the voltage being worked.
2. Attach a bushing adapter to the end of the meter probe.
3. Attach alligator clip to any ground, being sure to observe all safety methods while doing so.
4. Isolate both ends of the cable to be tested, use a feed-through bushing on the near end.
5. Approach the other side of the feedthrough bushing slowly with the meter. An audible sound will indicate voltage is still on the line. If voltage is present, remove the tool and follow appropriate procedures to isolate the cable to be tested.
6. If no horn sounds, you can push the meter all the way onto the feedthrough bushing.
7. Flip the red safety cover up and then the power switch up to activate the high voltage test.
8. A good cable may show a rise as far as the 100% mark but will then go back down to near 0%.
9. A bad cable will either show a steady high percentage on the scale or the meter will continuously bounce up and down.
10. After completion of the test, flip the red safety switch down, there may be a horn sound momentarily as the unit is discharging the DC voltage off the cable.
11. Remove all equipment and return the tested cable to its normal configuration.

NOTE 1: The section of cable under test must be isolated on both ends and cannot be connected to/or through equipment or lighting arrestors.

NOTE 2: The maximum reading during the hi-potting test is 100% which represents a “bolted” fault. Readings near zero represent a good cable with little or no cable leakage. Readings in between near zero and 100% could be high leakage or bad cable.

NOTES

PARTS & ACCESSORIES

PART NO.	DESCRIPTION
3402	Quick Change to Grip All Adapter
3403	Quick Change to Universal Adapter
8128EALB	15 – 25kV Elbow Adapter
8128TBALB	15 - 25kV Bushing Adapter



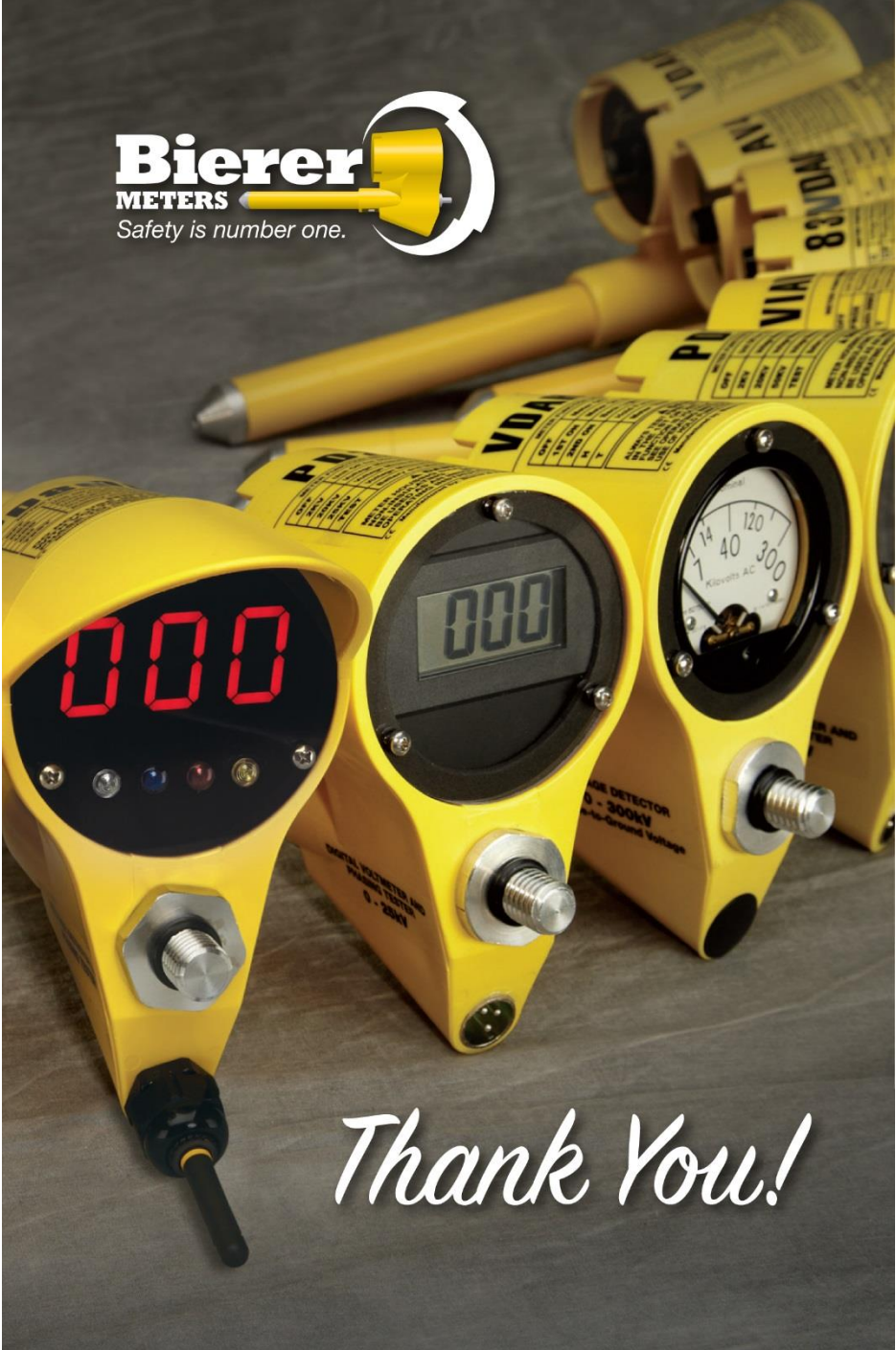
Technical & Service

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Thank You!