HPD-20
HIGH VOLTAGE PROBE

INSTRUCTION MANUAL

Index Page

1. Safety precaution

Electricity can cause severe injuries with high voltages. Therefore it is very important to read the following info before using HPD-20.
This instrument must only be used and operated by a competent trained person and in strict accordance with the instructions. We will not accept liability for any damage or injury caused by misuse or non compliance with instructions and safety procedures.

(1) Examine the probe to make sure it is clean and dry. If in doubt, wipe with a clean, dry, lint-free cloth.

(2) Take a look at the situation of the floor. It must be dry, clean and free of oil. Keep in your mind that never stand on a wet or damp floor.

(3) Always connect the alligator clip of the high voltage probe meter to earth ground before taking any measurements.

(4) Make sure the connection between the probe and the test point is proper. Also make sure the tip is clear of wires, metal supports and other nearby conductive things.

(5) Remain clear and avoid contact with any exposed metal and other conductive parts of the device being checked

(6) It is better to work with your colleague. Remember to be careful and hear from your colleague. If an accident occurs, you will be able to get help as soon as possible.

(7) If possible, always turn the high voltage source off before connecting or disconnecting the probe.

(8) Please wear high insulating gloves when you measure the voltage

2. Specifications

(1) Input Impedance : 500 M ohm

(2) Attenuation Ratio : 1000:1

(3) Accuracy : DCV (0 ~ 20kV)±1%
DCV (20kV ~ 30kV)±2%

ACV (0 ~ 20kV) Typically ±5% at 60 Hz

(4) Max. Working voltage : AC 20kV, DC 30kV

(5) Operating temperature: 0°C ~ 40°C

(6) Storage temperature : -10°C ~ 60°C

(7) Cable Length : 3 feet

(8) Weight : 10 ounces

(9) Note : HPD-20 is designed to be used with DMM

3. Operation

(1) Connect the red test plug to the Volts (V+ ; Hi) terminal of your multimeter.
(2) Connect the black test plug to the Com (V- ; Lo) terminal of your multimeter.
(3) Select the desired voltmeter function and range, do not use autoranging.
(4) Keep in your mind to turn the high voltage source off before making any connections.
(5) Connect the black alligator clip (the probe common lead) to a good earth ground or reliable chassis ground. Make sure the connection is proper

4. WARNING

(1) Do not attempt to take measurements from sources where the chassis or return lead is not grounded.

(2) This ground connection is critical to the safe operation of t he probe. Failure to make this connection when making high voltage measurements may result in personal injury or damage to the probe or voltmeter. This connection should always be made before the probe tip comes into contact with the high voltage and must not be removed until after the probe tip has been removed from the high voltage source

(3) 'R not connect the ground clip lead to the high voltage source or the probe tip to ground for any reason.

(4) Make sure that no part of your body is in contact with the device under test before turning the high voltage source on.

(5) Please keep in your mind that the voltage you measure is 1000 times greater than the voltmeter reading.

(6) Remember to turn the high voltage source off after the test is done.

(7) Disconnect the probe tip from the high voltage source before removing the ground clip lead.

(8) Before use the high voltage probe, users have to use a power source to make sure the high voltage probe function is OK.

(9) Please follow the instructions of the manual to use the high voltage probe.

5. Cleaning

(1) The exterior probe body and cables are the only parts to clean. Use a soft cotton cloth to clean it. Do not allow any portion of the probe to be submerged at any time.
(2) Keep in your mind to dry the probe thoroughly before doing any voltage measurement.
(3) Do not use solvents and solvent fumes. Solvents and solvent fumes can cause deterioration of the probe body and cables.

6. Rated environmental conditions

(1) Indoor use.
(2) Installation Category III.
(3) Pollution Degree 2.
(4) Altitude up to 2000 Meter.
(5) Relative Humidity 80% Max.

CAUTION : The probes should be used only with UL Listed, CAT III rated measuring instruments that have adequate protection against arc explosion.

7. Observe the international electrical symbols

Meter is protected throughout by double insulation or reinforced insulation.

Warning! Risk of electric shock.

Caution! Refer to this manual before using the meter.

CAT IV - Measurements performed at the source of the low voltage installation.
CAT III - Measurements performed in the building installation.
CAT II - Measurements performed on circuits directly connected to the low voltage installation.
CAT I - Measurements performed on circuits not directly connected to Mains.