AC/DC COMBINED H.V. TEST SET

0-50KV / 50mA & 0-70KV/ 10mA AC / DC COMBINED H.V. TEST SET

TECHNICAL SPECIFICATION :

"CIE" make AC/DC combine High Voltage Test Set is suitable for applied voltage on transformer, motor, insulations, cables etc. The set is capable of giving continuously variable high voltage (manual control) from Zero to 50KV in AC HV mode & Zero to 70KV in DC HV mode

TECHNICAL FEATURES

INPUT	**:**	230 volts, 1 Phase, 50HZ AC.
OUTPUT	**:**	1) Continuously variable from zero to 50 KV A.C. OR 2) Continuously variable from zero to 70 KV D.C.
CAPACITY	**:**	50mA (max) for A.C. & 10mA (max) for D.C.
OVERLOAD TRIPPING	**:**	25mA & 50mA for AC and 1mA & 10mA for DC HV mode.
DUTY	**:**	Intermittent duty cycle i.e. 5 mins "ON", 10min "OFF"
UNIT	**:**	**The set is in Three Units.**

OPERATIONAL INSTRUCTION :

A. AC H.V. MODE :

VERY INPORTANT : DON'T OPEN OR KEEP FREE THE EXTERNAL mA. METER TERMINALS WHEN EXTERNAL mA. METER IS NOT IN USE.

1. Disconnect the interconnection between AC HV output terminals to DC HV rectifier unit & keep free V1 & mA terminal of control unit.
2. Make the two units (CONTROL UNIT & TRANSFORMER UNIT) earthed properly. It is very important.
3. Connect the sample under test between earth and AC H.V. output terminal.
4. Connect the main power supply cord to the nearest power supply (230V A.C.)
5. Make the set 'ON' by mains 'ON' switch which is indicated by glowing 'MAINS ON' indication lamp.
6. Keep the "AC/DC" mA meter & KV meter mode selection switch at 'AC' mode position which is very important.
7. Keep the 'METER SELECTION' switch at 'AC' mode. It is very important.
8. Bring back the variac to zero position. Unless the H.V. ckt. Cannot energize. It is called zero interlocking.
9. Keep the overload tripping switch (AC switch) at 25mA or 50mA where required. Don't disturb this switch under H.V. raises condition.
10. After making variac zero position press the 'H.T. ON' green push switch to energized the H.T. kit. It is indicated by red H.T. lamp.
11. After making H.T. circuit 'ON' slowly increase the output voltage which is shown by the set K.V. meter upto test voltage. If the sample under test breaks below test voltage the H.T. circuit automatically tripped 'OFF' & the exact voltage can be seen by pressing the memory push switch without disturbing the voltage regulator.
12. Any emergency to required H.T. ckt. 'OFF' then press red H.T. 'OFF' push switch.

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B. <u>DC H.V. MODE</u> :

VERY INPORTANT : DON'T OPEN OR KEEP FREE THE EXTERNAL mA. METER TERMINALS WHEN EXTERNAL mA. METER IS NOT IN USE.

1. Connect the three units as given in the interconnection ckt. Diagram (DC HV MODE)
2. Keep "AC/DC" METER MODE Selection switch to "DC" Meter MODE.
3. Connect the mains power supply cord to the nearest power supply (230V A.C.)
4. Make the set 'ON' by mains 'ON' switch which is indicated by glowing 'MAINS ON' indication lamp.
5. Keep the AC/DC meter mode selection switch at DC position.
6. Keep he DC overload tripping switch at 1mA OR 10mA. Position & do not change position during HV Raise condition.
7. Bring back the variac to zero position. Unless the H.V. ckt. Cannot energize. It is called zero interlocking.
8. After making variac zero position press the 'H.T. ON' green push switch to energized the H.T. kit. It is indicated by red H.T. lamp.
9. After making H.T. circuit 'ON' slowly increase the output voltage which is shown by the set K.V. meter upto test voltage. If the sample under test breaks below test voltage the H.T. circuit will be automatically tripped "OFF".
10. To see the leakage current in the range of micro-Amp. Press the 'Red to 0.1mA' push switch.
11. Any emergency to required H.T. ckt. 'OFF' then press red H.T. 'OFF' push switch.

<u>CAUTION</u>

VERY INPORTANT : DON'T OPEN OR KEEP FREE THE EXTERNAL mA. METER TERMINALS WHEN EXTERNAL mA. METER IS NOT IN USE.

a. Make the units earthed properly.

b. Don't change the tripping switch position during 'H.T. CKT. ON'

c. Don't touch the H.T. bushing during 'H.T. CKT. ON'

d. Don't INTERCONNECT BETWEEN DC HV OUTPUT TERMINAL TO AC HV INPUT FOR DC OUTPUT.

e. Discharge the output bushing for D.C. output by the 'DISCHARGE ROD' which is given.