

# Electric Installation Safety Measurement Trainer

**EIS-2000**



- Training for earth-to-earth, earth-to-neutral
- Training for insulation-to-installations
- Training for electrical safety measurement
- Training for the most common electrical faults

## ■ FEATURE

The ideal tool for engineering, training and the simulation of measurement on electrical installations  
Fault simulation of electric installations and demonstration of actual measurements.  
Education of electrical installations and education of measuring instrument usage

### ▶ Electrical installation system training

1-Phase, 3-phase, 3-phase 4 wire (R/S/T/N)

### ▶ Measurement training

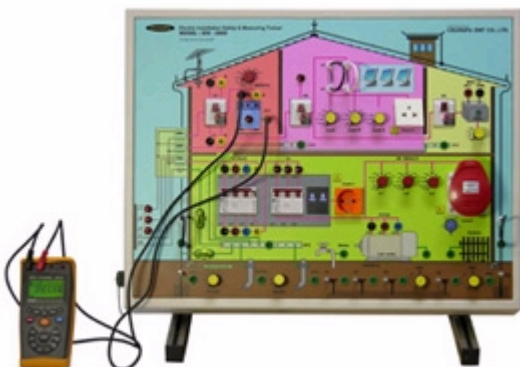
AC voltage, earth resistance, earth voltage, phase insulation resistance, phase test, live line test, resistance by leakage current, capacitance by leakage current, DC volt.

### ▶ Fault simulation

ELB training, circuit-breaker training, leakage current variable test, earth resistance variable test, loop test, RCD protection switch test, battery voltage test, and etc.

### Integrated electrical measurement trainer

This product is an integrated simulation equipment for measuring AC voltage, DC voltage, earth resistance, insulation resistance, and leak current in single-phase AC, 3-phase AC, 3-phase 4-wire AC circuits and for allowing the test of electric leak cutoff.



Available at the various places like technical schools and colleges

As an effective multi-purpose equipment, this equipment enables companies to educate electricity safety and measuring methods to their staffs and school teachers to educate electricity measuring methods for electricity, electron, and communication to the students. This product also enables colleges to educate basic electricity and measurement their students. And the user can make the good use of this equipment with Multifunctional Electric Meter(Optional : EM-2005/2015).

### Possible to practice field simulations

EIS-2000 allows the user to measure insulation resistance, earth resistance, assistance earth resistance, effect of ground voltage, and unique ground resistance of electric facilities, as this equipment comprises electricity facility circuits of single-phase AC and 3-phase AC.

### Possible to make an actual AC load experiment

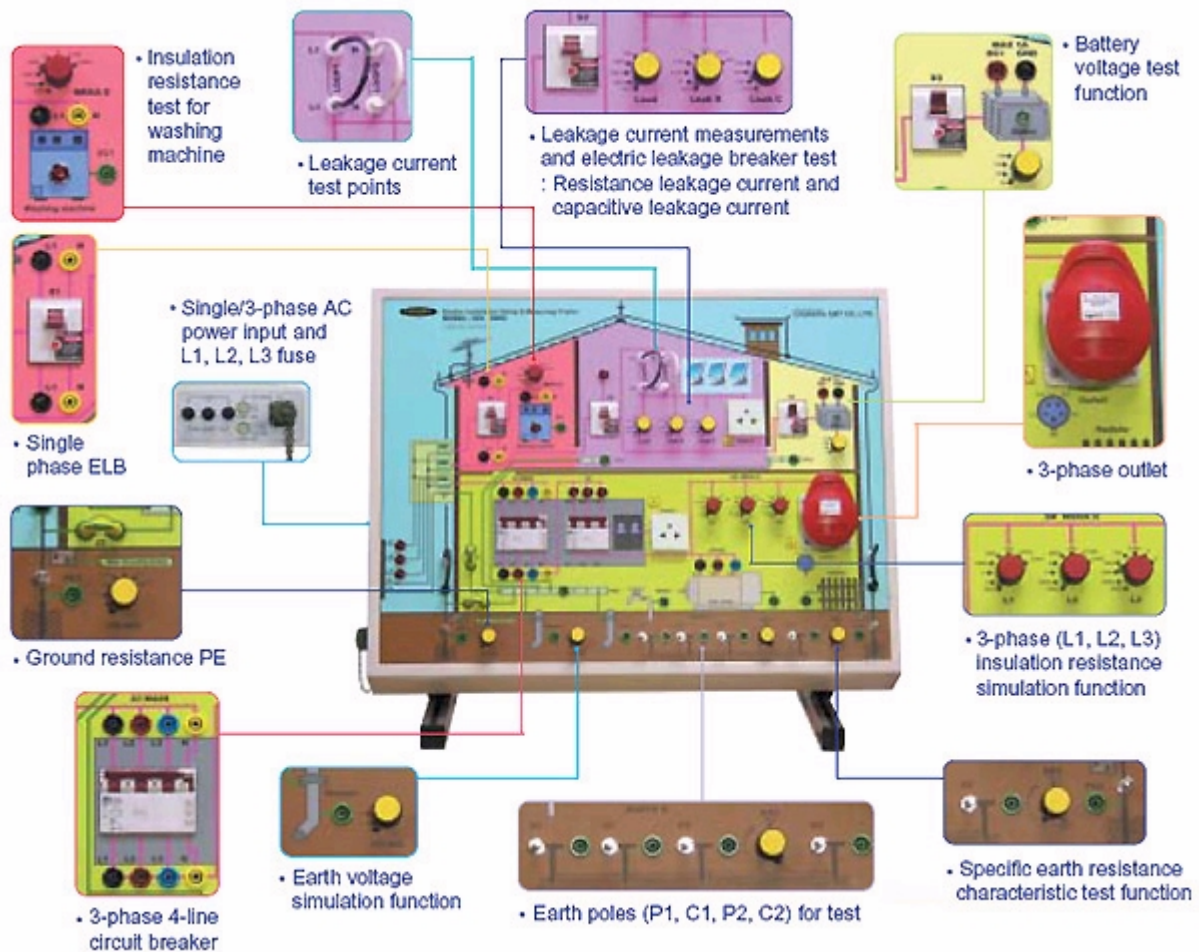
When measuring single-phase leak current, the user can make a test by charging load in person as there is a socket for load. The user can also make a test by charging load in person as there are sockets for single-phase load and 3-phase load in a 3-phase line.

### Main experimental contents

- Electric safety education preventing from electric accidents
- Grounding and electric installation safety education
- Electromagnetic Interferences and their prevention education
- Static electricity disturbances and their prevention education
- Thunderbolt damages protection education
- Inspection prior to the power supply of electric installations
- Experiments and practices of electric equipment safety
- Single phase / three phase voltage measurements
- DC voltage measurements
- R/S/T phase and live line voltage detection
- Insulation resistance measurements
- Ground resistance (2 point, 3 point type) and earth voltage measurements
- The measurement experiment of ground resistance which is influenced by earth resistivity
- Leakage current measurements and electric leakage breaker test
- Measurement of wiring continuity test



EIS-2000 is an educational equipment devised by international standards in relation to electrical fields like IEC 364 and EN 61010-1.



### Standard accessories

- Angle stand : 1 ea
- Single-phase AC power cable (2m) : 1 ea
- Three-phase AC power cable (4m) : 1 ea
- Experimental lead wire : 1set
- User Manual : 1 ea
- Instruction & experiment book (180 pages) : 1 volume

## ■ Technical Specification

Insulation resistance	1-phase power line 0.08MΩ , 0.1MΩ , 0.2MΩ , 1MΩ , 10MΩ , 100MΩ , 200MΩ , OPEN 3-phase power line L1: 0.2MΩ , 0.5MΩ , 1MΩ , 10MΩ , 100MΩ , 200MΩ , 500MΩ , OPEN L2: 0.3MΩ , 0.75MΩ , 2MΩ , 20MΩ , 150MΩ , 300MΩ , 400MΩ , OPEN L3: 0.09MΩ , 0.1MΩ , 0.2MΩ , 1MΩ , 10MΩ , 100MΩ , 200MΩ , OPEN
Ground resistance	2 point earth test Water pipe:7.5Ω / Heater:10Ω / GAS Pipe:3Ω / Radiator:100Ω / Motor:10Ω 3 point earth test 1Ω , 2Ω , 3Ω , 5Ω , 7.5Ω , 10Ω , 30Ω , 110Ω variation of earth resistance value
Auxiliary Earth Resistivity	0~10KΩ variable 2ea
Earth point rod	PE1 / PE2 / P1 / P2 / P3 / C1 / C2 6ea
Earth voltage	0V, 6V, 9V selectable
Phase test points	U(L1), V(L2), W(L3)
Leakage current load for test	R-Load1 1KΩ , 10KΩ , 100KΩ , 200KΩ , 300KΩ , OPEN Leak current (R-load2) 30mA, 15mA, 2mA, 1mA, 0.4mA, 0.2mA, 0.1mA, OPEN Leak C-load 0.033 μF, 0.01 μF, 0.001 μF, OPEN
DC voltage output for test	0V, 5V, 12V, 24V / max.1Ampere
Electric leak breaker	1-phase 15A / 30mA 3ea
Circuit breaker	3-phase 4 wire 10A : 1ea / 3-phase 3 wire 10A : 1ea
AC output socket for load	1-phase 2ea(outlet1, outlet2), 3-phase 4 wire + PE(outlet3)
Power indicator	AC 8ea, DC 1ea
Input power	1-phase 110V ±15%(50/60Hz), 3-phase 220V ±15% (50/60Hz) 4 wire(L1/L2/L3/N) and co-PE or 1-phase 220V ±15% (50/60Hz), 3-phase 380V ±15%(50/60Hz) 4 wire(L1/L2/L3/N) and co-PE
Dimension	660(W) X 550(H) X 170(D)mm
Weight	20 Approx.

### Multifunctional Electric Meter (CEM-2005/CEM-2015) - Optional

- AC voltage : 0 V to 750 V true RMS
- DC voltage : 0 V to 1000V
- Insulation resistance
  - : 500V / 1000MΩ(CEM-2005)
  - : 250V / 100MΩ, 500V / 1000MΩ, 1000V / 2000MΩ(CEM-2015)
- Ground resistance (Earth Ω) : 0 ~ 2000Ω
- Live line meter (HOT) : Buzzer alarm and LCD display
- Phase meter (PHA) : R.S.T phase tester
- Low resistance measurement & continuity test  
(conductivity : 0Ω to 10KΩ)
- IrDA communication and memory function



CEM-2005/CEM-2015