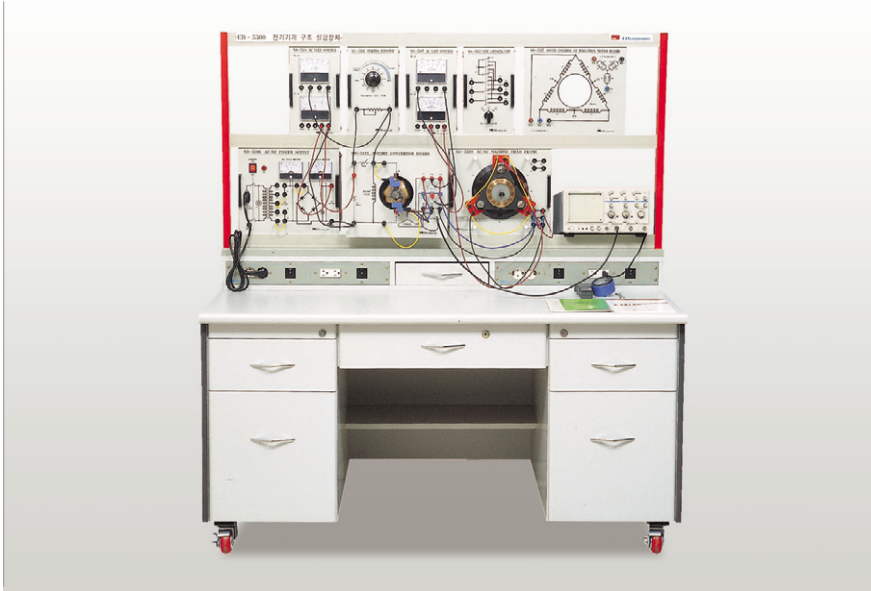


# ELECTRICAL MACHINE TRAINER

# ED-5300

- 19 types of Modules & Graphic Boards
- 25 types of Electrical Machine Assembly
- Experimental Board Rack & Storage Trolley



## > EXPERIMENTS

### BASIC EXPERIMENTS ON GENERATOR

- Principles of the generator
- Single-phase AC generator using permanent magnet
- DC Generator using permanent magnet
- Separately excited DC shunt-wound generator by field coil
- Self-excited DC shunt-wound generator by field coil
- Generator's no-load saturation
- Load characteristics of separately excited DC shunt-wound generator
- Revolving field, single-phase AC shunt-wound generator
- Load characteristics of AC generator
- Principles of 3-phase generator
- Revolving field, 3-phase AC generator
- Revolving armature-type 3-phase AC generator
- Principles of rotary converter

### BASIC EXPERIMENTS ON MOTOR

- Principles of the motor
- DC Motor using permanent magnet
- DC series-wound motor using the field coil
- DC shunt-wound motor by starter and field resistor
- DC compound motor
- AC commutator motor(universal motor)
- Rotary field of 3-phase induction motor
- Squirrel cage induction motor
- 2-step speed control of induction motor
- Repulsion motor
- Split-phase motor by condenser
- Polarized(shading coil type) motor

## > SPECIFICATIONS

### EXPERIMENTAL BOARD RACK(BR-6)

- Installation Capacity : 8ea
- Dimension : 1480(W) x 740(H) x 320(D)mm

### BOARD STORAGE CABINET(BS-20)

- Storage Capacity : 13ea
- Dimension : 680(W) x 1080(H) x 450(D)mm

### EXPERIMENTAL MODULES LIST

- NO-5301 Field Rheostat : 1ea
- NO-5302 Starting Rheostat : 1ea
- NO-5303 AC/DC Machine Load Unit : 1ea
- NO-5304 Three-Phase(Y- $\Delta$ ) Load Unit : 1ea
- NO-5305 Variable R, L, C Load Unit : 1ea
- NO-5306 AC/DC Power Supply : 1ea
- NO-5307 AC Volt/Ampere Meter : 1ea

- NO-5308 DC Volt/Ampere Meter : 1ea
- NO-5309 DC Milliammeter : 1ea
- NO-5310 AC/DC Machine Field Frame : 2ea
- NO-5311 Auto Driving Unit : 1ea
- NO-5312 Pole Changing Unit : 1ea

#### GRAPHIC BOARDS LIST

- NO-5313 DC Machine Board : 1ea
- NO-5314 Three-Phase Machine Board : 1ea
- NO-5315 Rotary Converter Board : 1ea
- NO-5316 Compound Motor Board : 1ea
- NO-5317 Speed Control of Induction Motor Board : 1ea
- NO-5318 Repulsion Motor Board : 1ea
- NO-5319 Split-Phase Motor Board : 1ea

#### MACHINE PARTS LIST

- 3-Pole Rotor & Other Rotors : 6ea
- Wide Magnetic Pole Pieces : 15ea
- Shunt Field & Various Field Coil : 10ea
- Permanent Magnet(Round Type) : 2ea
- Brush & Brush Holder set : 3ea(built-in brush)
- Supporter for Rotator and Stator : 12ea
- Filament Lamp(3/6/12V) : 15ea

- Compass : 1ea
- Belt for M/G : 1ea
- Fixing Bolt : 10ea

#### GENERAL CHARACTERISTICS

- **Input Voltage**
  - » AC 220V(No-5306, No-5311)
- **Operating Temperature** : 0~45°C, below 80% R.H.
- **Dimension**
  - » Module Size(A) : 170(W) x 302(H)mm : 7ea
  - » Module Size(B) : 340(W) x 302(H)mm : 5ea
  - » Graphic Board : 340(W) x 300(H)mm : 7ea
- **System Weight** : 110kg

#### ACCESSORIES

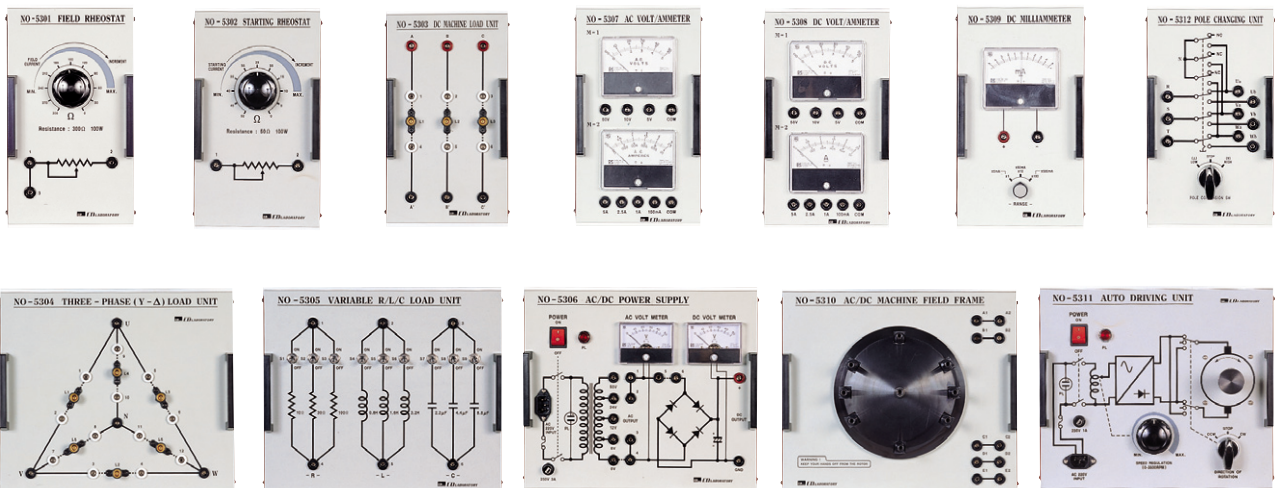
- Patch Cord(ø4 Plug Type) : 1set
- AC Power Cord : 2ea
- Experimental Manual : 1ea
- Operation Manual : 1ea

#### OPTION

- Digital Tachometer(ED-5118)

## > COMPONENT LIST

### Experimental Modules

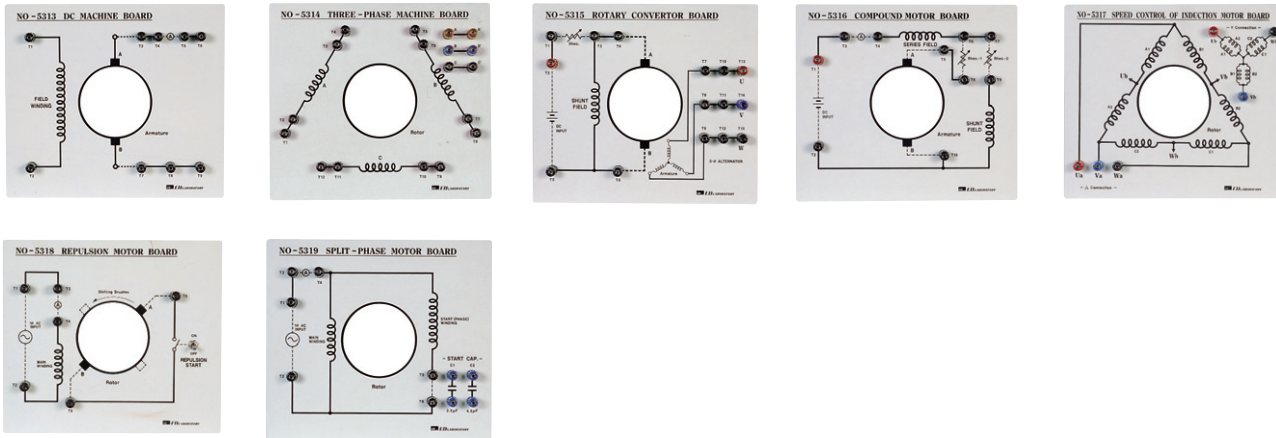


# ELECTRICAL MACHINE TRAINER

# ED-5300

PART1  
ELECTRICALS/  
ELECTRONICS/  
EMBEDDED

## Experimental Graphic Boards



## Machine Parts



## Board Storage Cabinet

