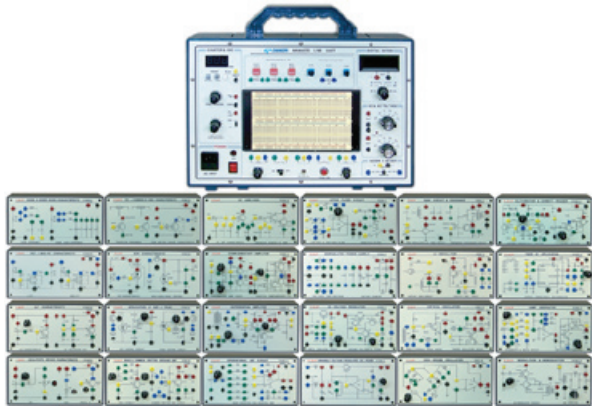


# CPE-EO2200

## Analog Semiconductor Circuit Trainer



### EXPERIMENTAL CONTENTS

- Semiconductor diode characteristics
- Zener diodes
- Bipolar transistors
- Characteristics of common emitter amplifier
- Characteristics of Junction FET
- Characteristics of insulated gate FET
- SCR characteristics
- UJT Characteristics
- Characteristics of LED and phototransistor
- DC amplifier circuit

### FEATURES

- 24 experimental modules and 52 circuit practices
- Capable of performing applied experiments through the breadboard
- Built-in dual power supply and overload protection
- Equipped with AF generator and frequency counter
- Carrying case system for convenient storage and mobility

- Complementary amplifier circuit
- Differential amplifier circuit
- Operational amplifier
- Active filter
- Unregulated power supply
- Tank circuit resonance
- Oscillator
- Wien Bridge Oscillator
- Monostable multivibrator
- 555 Timer
- Integrator amplifier
- Amplitude modulation

### SPECIFICATIONS

#### • Main system unit

- 1) DC Output :  $\pm 0 \sim 15V$  (0.5A) tracking output
- 2) Decade Capacitor :  $0.001\mu F \sim 0.999\mu F$  (3-dial)  
 $100\text{pF} \sim 99900\text{pF}$  (3-dial)
- 3) Decade Resistor :  $1\text{k}\Omega \sim 15\text{k}\Omega$   
 $10\text{k}\Omega \sim 150\text{k}\Omega$   
 $100\text{k}\Omega \sim 1.5\text{M}\Omega$
- 4) AF Generator :  $10\text{Hz} \sim 100\text{Hz}$  (4 ranges & digital counter display)  
Output :  $1V / 10V$  (2 ranges)  
Waveform : Sine and square
- 5) Multi-tester : DC Voltage :  $20\text{mV} \sim 500\text{V}$  (auto range)  
AC Voltage :  $2\text{V} \sim 500\text{V}$  (auto range)  
Buzzer & Diode Checker (or DC current  $0 \sim 300\text{mA}$ )
- 6) AC Output :  $30\text{V CT}$  ( $15\text{V} + 15\text{V}$ )  $0.1\text{A}$
- 7) Resistor :  $1\Omega \sim 30\text{M}\Omega$
- 8) Switch : Slide switch (1ea), toggle switch (1ea), push button (1ea)
- 9) Breadboard : Socket Tie-Point : 1260 points  
Bus Tie-Point : 300 points
- 10) Input Power :  $220\text{V } 60\text{Hz}$
- 11) Dimension:  $380(\text{W}) \times 260(\text{D}) \times 130(\text{H}) \text{ mm}$

#### • Carrying case for modules storage

- Storage capacity : 24 modules
- Dimension :  $380(\text{W}) \times 260(\text{D}) \times 130(\text{H}) \text{ mm}$

#### • Experimental modules ( 24ea)

- 1) Semiconductor characteristics (7ea)
  - M01 : Characteristics of diode and zener-diode
  - M02 : Characteristics of transistor and common emitter ground
  - M03 : Characteristics of FET and MOSFET
  - M04 : SCR characteristics
  - M05 : UJT characteristics
  - M06 : SCR and TRIAC applications
  - M07 : Characteristics of LED and photo device
- 2) Semiconductor circuit experiments (5ea)
  - M08 : Base and common emitter ground amp.
  - M09 : DC amplifier
  - M10 : Complementary amplifier
  - M11 : Differential amplifier
  - M12 : Operational amplifier
- 3) Electronics circuit experiments (12ea)
  - M13 : Active filter (LPT, HPF, BPF)
  - M14 : Unregulated power supply
  - M15 : DC voltage regulator
  - M16 : Variable voltage DC power supply
  - M17 : Tank circuit and resonance
  - M18 : LC oscillator (Hartley & Colpitt)
  - M19 : Crystal oscillator
  - M20 : Wien Bridge Oscillator
  - M21 : Multivibrator and Schmitt Trigger
  - M22 : Timer IC application
  - M23 : Ramp generator
  - M24 : Modulation and demodulation
- 4) Board size :  $110(\text{D}) \times 200(\text{W}) \times 40(\text{H}) \text{ mm}$

### STANDARD ACCESSORIES

- Power cord : 1ea
- Circuit connection cable : 1set
- User's guide manual : 1ea