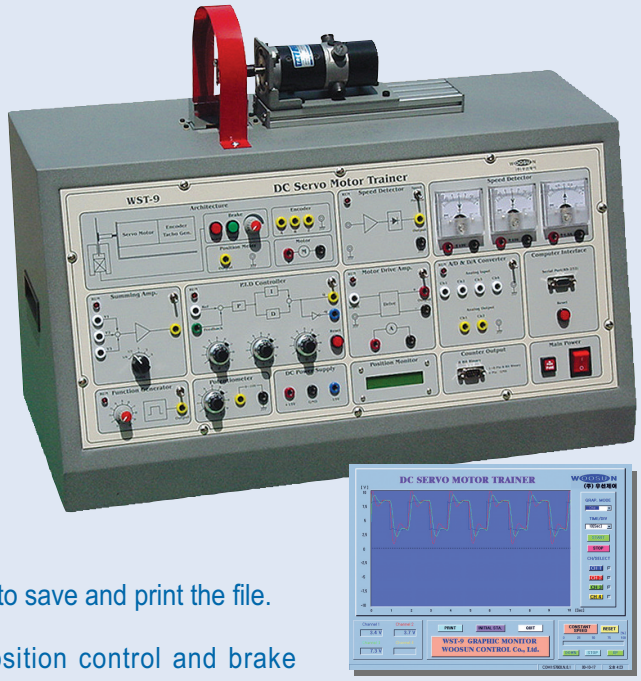
04 Electrictity Machine Educational Equipment

WST-9

DC Servo Motor Trainer

Introduction



- DC Servo Motor Trainer(WST-9) is an equipment to do an experiment for speed operation, position control by PID control. Students can easily understand the basic principle and characteristics of DC servo motor.
- Using computer, students can do experiments for PID control, Analog control and Digital control.
  It designed to get the curved line processed on CRT and students are able to save and print the file.
- Angular control system is used for position control and brake system is equipped for constant-speed experiment.

Experimental List

Basic Operations Practice of Servo-Motor

- Basic Operations Practice of Servo-Motor
- Brake Practice of Servo-Motor
- Frequency Response Practice of Servo-Motor

What is PID Control ?

- What is PID?
- Speed Practice of Servo-Motor with PID
- Brake Practice in Speed Practice with PID
- Summing AMP Response Practice with PID

Position Control Practice

- Position Control Practice
- Position Control Practice by Computer Interface

WST-9

Specification

- **Power** : 1Φ AC
- **DC Power** : ± 15V DC
- **Computer Interface** : RS - 232
- **Meter** : Speed, Ampere, Voltage each 1EA
- **Speed and Position Indicating** : 2×16 LCD
- **Brake** : Eddy Current Type
- **Control Mode**
  - Speed Detector
  - P. I. D. Controller Block
  - Brake Amp Block
  - Computer Interface Block
  - Position Indicating and Monitor Block
  - Potentiometer Block
  - Summing Amp Block
  - Motor Drive Amp Block
  - A/D & D/A Converter Block
  - Square Wave Generator Block
  - Counter Output Block(8 Bit Binary)
  - Reset Switch
- **Machine Device**
  - DC Servo Motor
  - Balancing Position Control System
  - Brake
- **Style** : Portable Type
- **Dimension** : 650(W)×300(D)×520(H)mm

Accessory

- ▶ Experimental Manual : 1copy
- ▶ Connecting Cord : 1unit
- ▶ Software(ST MERCURY T09 V3.0) : 1copy
- ▶ Interface Cable : 1unit
- ▶ Power Cable : 1EA