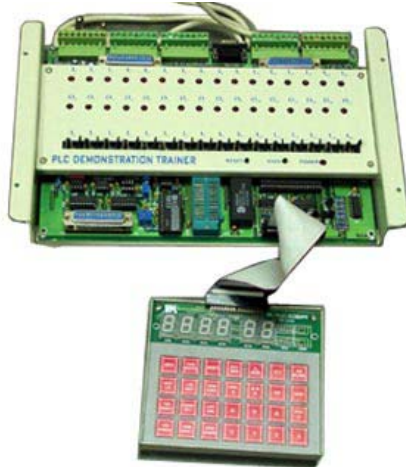


## SNT-PLCT PLC Demonstration Trainer



PLC Trainer has been designed in a different way than conventional PLC suitable to impart training and use of PLC in Process Industry for students at all levels with:

- 16 Input Switches and 16 Output LEDs to simulate the Ladder Program.
- PLC Assembler to generate ladder programs.
- ZIF on front panel to load programs from EPROM and adaptor.
- Descriptive user manual with number of examples including description & fundamentals of PLC.
- Number of Experimental Panels to be connected to the PLC for practical demonstration of PLC uses (optional)

### SPECIFICATION

- Microcontroller Based modular Mini PLC Trainer
- PLC Trainer consisting of main unit, Hand held programming unit
- 16 input signals (24V) and 16 outputs for controlling the process on D-type sub connector.
- Analog output: 12 bit
- Analog input: 16 channels (single ended)  
8 channels (differential)
- Programming unit: Hand held model with 28 keys and 6 digit display.
- Static process control simulator board consisting of switches and 16 LEDs for input simulation and 16 LEDs for output indications respectively.
- RAM module with battery backup to store the programmes.
- RS232C port available for uploading & downloading of files from PC.
- Powerful commands like AND, OR, ANI, ORI, SET, RST, LD, LDI, OUT, TIMER, COUNTER, ANB, ORB, IL, ILC, etc. directly executable
- Model Programmes for the following process provided for the guidance of the User.
- Execution or programs are possible even without hand held unit

- Standard EPROM module which is affixed on ZIF socket to store the programmes provided with the trainer.
- Main unit and Hand held Key pad are housed in attractive metallic unit.
- User should be able to develop his own logics, store them in Hard Disk Drive
- Detailed manual to carry out the experiments along with the instructions
- Operating voltage: 220V, 50Hz AC,  $\pm 10\%$  at 50°C.

### EXPERIMENTAL MODULES

Following static process simulator board/model setup are required to test the developed programmes:

- Starter control & Star Delta starter** for 1/4 HP AC Motor to demonstrate the use of PLC Motor Starting (**3 phase 1/4HP motor to be ordered separately**).
- Water Tank level control & Reaction Vessel** with sensors to detect different levels of water and switch off the water supply (Logic Controlled). This Module is provided along with the water tank and sensors, required accessories.
- Reaction Vessel** to control the temperature of water set by the Thermostat at a particular temperature by the user.
- Fan control simulator** controls the speed of fan at various steps. This module should be provided along with Fan as an experimental model and switch to be provided to change the speed for the Fan through switching.
- Seven segment display** simulator for displaying a message.
- Lift control** with experimental model of lift which is truly operational, totally controlled by manual switches to select the floors.
- Pick & place control**
- Resistance welding** is a model controlled through electromagnetic relays to show operation of Electrode movement (not energized).
- Sequential switching of motors** with two nos. of 220V AC/5A output to connect motor (motor not provided).
- Conveyer Belt System and Pneumatic Control**  
3 cylinders with optical sensor and conveyer belt.



Lift Controller



Level Control & Reaction Vessel

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