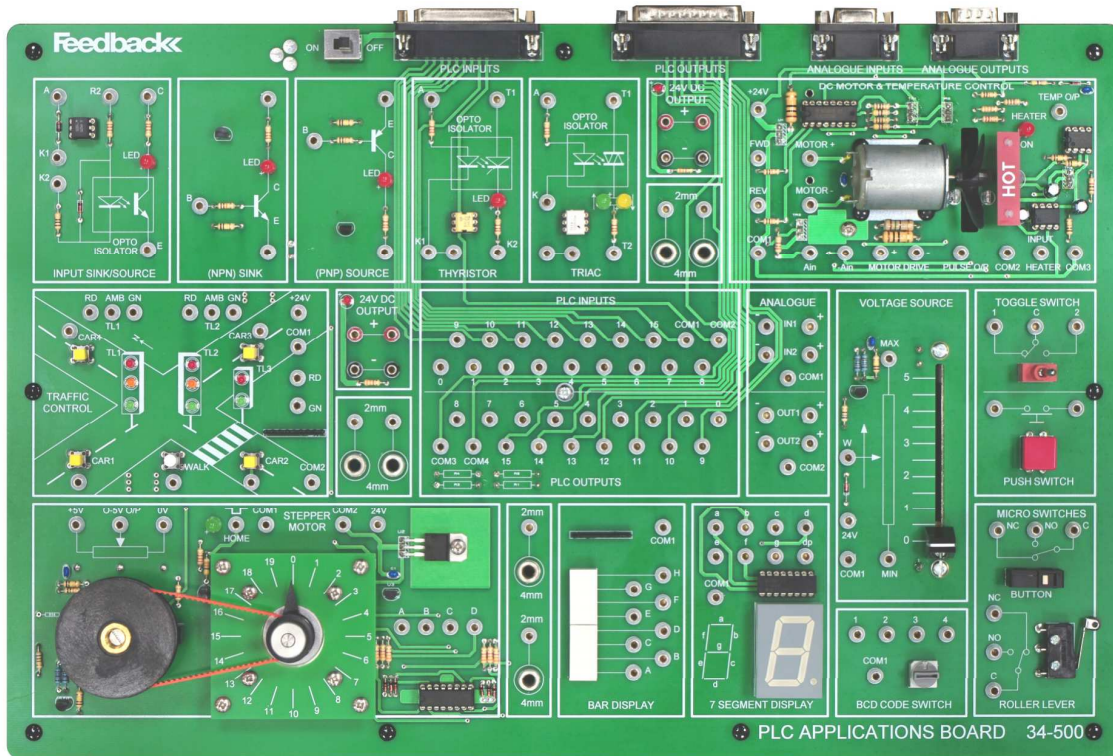# PLC Trainer
34-500

Introduction

Programmable Logic Controllers (PLCs) are used extensively in many manufacturing processes and control applications being readily programmed and reprogrammed when variations in the controlled process are required. The Feedback PLC Trainer and PLC Applications offer extensive training in basic PLC structure, identifying types of input and output options and programming from simple to more advanced routines including Ethernet communications. The Feedback range of PLC products offers a choice in both cost and complexity such that those with little or no knowledge can start with the PLC Trainer and progress through to complex systems with their more challenging programming requirements. All applications in this range are readily inter-changeable (Plug and Play) through the use of plug leads once the PLC has been configured. In the case of the PLC Trainer, the PLC hardware structure allows for expansion of the core digital unit with the addition of analogue modules and the option of a Human Machine Interface (HMI) over Ethernet. This extends the learning into the programming and application of such devices. The Feedback trainers are supported with a user manual, program examples and solutions.

Description

The Feedback PLC Trainer offers the training required to understand and apply both PLC hardware and software programming through the structured students' manual that provides a progressive level of learning. The manual deals with the fundamentals of PLC hardware and software through to basic program writing and more advanced applications, finally to motor control. The PLC Trainer is an A3 size board that is divided into many individual smaller areas. Each one of these areas contains a number of components that are described and applied to gain an appreciation of their application. PLC programs are available for Allen Bradley, Mitsubishi and Siemens. See back page for PLC Pack options.

Features

- Complete integrated range (Plug and play with cabled system)
- Low cost start up with 34-501/34-502
- Mitsubishi, Siemens & Allen Bradley PLC choices
- Large number of exercises covered from the basics to more complex applications
- Programming examples provided
- PLC Trainer curriculum relevant to BTEC National syllabuses
- Common PLC connectivity between Trainers simplifies connections
- External connection highway by D type connector leads
- On board connections by 2 mm plug leads for the PLC Trainer
- Specially designed for those with little or no knowledge of PLCs
- Large number of exercises covered from the basics to more complex applications
- 14 areas of components to study
- Programming examples provided
- External connections by D type connector leads
- On board connections by 2 mm plug leads
- Content relevant to BTEC National NQF Level 3 and BTEC Higher National – H1 NQF Level 4
- Extensions to Analogue I/O and HMI
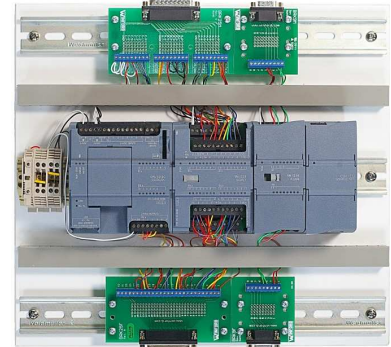
Curriculum Coverage

- Down loading and up loading programs
- Selecting inputs and outputs
- Input and output data processing
- Implementing simple instructions
- Logic functions AND, OR, and inverse
- Understanding Flags
- Understanding registers
- Using timers
- Using counters
- Writing programs to operate devices and control processes
- Simple logic configurations with LED output
- Input from a code switch to internal counter value
- Input from a code switch to seven segment display
- LED count sequence 1, 2, 4, 8 etc
- LED count sequence 1, 10, 100 etc
- LED Traffic light sequencing, single and dual ways (Cross roads)
- Stepper motor drive sequencing, forward and reverse
- Stepper motor positioning to a desired point and home position
- Stepper motor drive sequencing with counter and display
- DC Motor speed PWM control

PLC Digital I/O Pack and Digital I/O Pack Pre-Wired Options

PLC programs are available for Allen Bradley, Mitsubishi and Siemens. The PLC options include Digital I/O Pack or Digital I/O Pack pre-wired versions. The pack includes PLC hardware, PLC Programming software, Power supply and leads.

PLC Pre-Wired Boards

Available on a pre-wired board, with the appropriate PLC pack wired to multi-way connectors, enabling plug and play capability with the range of PLC applications.

Ordering information

PLC Trainer   34-500

PLCs – essential, can use your own or purchase as follows:

	Digital I/O Pack	Digital I/O Pack Pre-Wired
Mitsubishi	34-020	34-020-1
Allen Bradley	34-040	34-040-1
Siemens	34-060	34-060-1

Feedback

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