

# OMRON PLC TRAINING SYSTEM

Model Number : GOTT-PLC-CQM



## DESCRIPTION

GOTT-PLC-CQM is a complete training system, introducing the student to the operation, programming and troubleshooting of modern industrial programmable logic controllers.

A complete curriculum is provided incorporating many learning activities related to basic sequence, circuit flow, ladder logic programming and troubleshooting. Many activities reflect actual industrial applications.

An optional hand-held programming pendant, input/output devices and a wiring kit are provided, making the device complete and ready for use without the need for additional accessories or a link to PC base programming, monitoring and control.

This product, together with its associated student manual & programming manual, creates a complete introductory course in PLCs, for industrial training applications as well as in the educational learning.

A PLC (Programmable Logic Controller) is effectively a computer with I/O. The I/O (input/output modules) is a method of getting signals from the outside world into the computer and back again. The I/O is generally robust (so they can cope with noise and spikes). Also available are intelligent I/O cards (which effectively have a computer on the I/O card) for Intermediate Model and HMI devices (touch screen) for Advance Model.

## FEATURES

- Works with Existing Equipment
- Equipped with manual switches to simulate all inputs
- Equipped with indication lights to simulate all outputs
- Open system. Ready to communicate with personal PC
- Allows attachment to interface with other external devices.
- Easy connecting ability to existing motor sensors, valves and switches through standard banana jacks
- Can be combined with other DAC devices relating to industrial sensors & other mechatronics training equipment.
- Allows PLC main unit to be programmed from a Personal Computer in either ladder or mnemonic codes.
- Using a Omron CX-Programmer software for interface.
- Personal Computer module or communication module for connecting the PLC to the host PC.
- Communication of PLC to PC should be through RS 232 with adapter. Accommodates Most PLC Brands
- Easy and Portable
- Short circuit protection
- The PLC able to support other HMI system.

## GENERAL SPECIFICATION

Operation Conditions	0 to 45°C, 85% or Less(R.H.)
Input power	AC 240V, 50/60Hz 1-Phase

## STANDARD COMPONENT SPECIFICATION :

The system consists of the following standard items :

### (I) PLC MAIN UNIT

ITEM	DESCRIPTION	UNITS
Controller	OMRON CQM PLC (CPU 21)	1 ea
Input	24V DC Input	16 ea
Output	Relay Contact Output	16 ea
Programming console (optional)	Full programming features on back lit Two line LCD display Keypad Hand-held programmer	1 ea
Cable	Program download cable	1 ea
Memory	2K EEPROM memory	1 ea
Power Supply	24 V DC 2.1A (short circuit protection)	1 ea

### (II) CONTROL PANEL

ITEM	DESCRIPTION	UNITS
Input Terminals	4mm $\phi$ Banana Jack	16 ea
Output Terminals	4mm $\phi$ Banana Jack	16 ea
Input Switches	Toggle Switch	16 ea
Simulation Indicators	LED	32 ea
DC Supply Terminal	24V DC +/-	2 ea

## ORDERING INFORMATION :

ITEM	MODEL NUMBER	CODE
OMRON PLC TRAINING SYSTEM	GOTT-PLC-CQM	787-000
OMRON CQM 32 I/O	GOTT-CQM-BASIC	787-560
TEACHING PENDANT	GOTT-PLC-PENDANT	787-646
OMRON CX PROGRAMMER	GOTT-PLC-CX-1	787-600

\*Proposed design only, subject to changes without any notice.

## ACCESSORIES

- Connecting cables for drive unit to switches, LED, relays & other peripherals.
- Connection leads.
- Experiment manual.
- Soft copy manual for easy print-out.

## EXPERIMENT TOPICS :

- Fundamentals of Logic
- PC communication
- Developing Ladder Logic Programs
- Programming Timers
- Structure of Control Systems
- Sequencer Programs
- Master Control & Zone Control Instructions
- Programming Counters
- Jump Instructions & Sub-routines
- Combined Counter & Timer Functions
- PLC Installation Practices.

## Manuals :

- (1) All manuals are written in English
- (2) Model Answer
- (3) Teaching Manuals

## General Terms :

- (1) Accessories will be provided where applicable
- (2) Manuals & Training will be provided where applicable
- (3) Designs & Specifications are subject to change without notice
- (4) We reserve the right to discontinue the manufacturing of any product

## Warranty :

2 Years