

M-910

Modicon 984/Quantum Family Programmable Controllers/Level One - Maintenance & Troubleshooting

Course Description	<p>This 36-hour training program allows students to gain hands-on experience in the troubleshooting and maintenance of the Modicon 984 family of programmable controllers. Hardware and software troubleshooting are heavily emphasized throughout the training program. Troubleshooting techniques covered include interpretation of status indicators, diagnostic messages, error codes and use of the programming terminal to quickly isolate faults and take proper corrective actions.</p>
Topical Outline	<ul style="list-style-type: none">▪ Introduction to Programmable Controllers▪ 984 System Hardware and Troubleshooting▪ Processor Configurations▪ Traffic Cop▪ Segment Scheduler (Overview)▪ Installation▪ Programming Terminal Operation▪ Instruction Entry and Interpretation:<ul style="list-style-type: none">- Ladder Logic- Relays: NO, NC, Transitional- Timers: 1.0, 0.1, 0.01 sec.- Counters: Up, Down- Math: 4-digit, Add, Subtract, Multiply, Divide- Data Transfer (Overview)▪ Instruction Editing▪ Program Searching▪ Forcing Inputs and Outputs▪ Troubleshooting:<ul style="list-style-type: none">- Status Indicators- Diagnostic Messages- Error Codes- I/O Modules and I/O Racks- Software▪ Hands-On Troubleshooting Projects:▪ Conveyers, Material Handling Robots, Batch Process Stations and Simulator Panels are used to give students hands-on experience solving typical problems encountered in the factory.▪ Modbus and Modbus Plus▪ Program Loading, Program Documentation and Printing
Prerequisites	<p>Students should have successfully completed Intellect Controls Group course I-100, Introduction to Ladder Logic and Control, or have a working knowledge of electromechanical control devices and relay ladder logic.</p>
Course Hardware	<p>Modicon 984 Models: 385, 485, Quantum</p>

M-910

Modicon 984/Quantum Family Programmable Controllers/Level One - Maintenance & Troubleshooting

Continued...

Course Length

36 hours

CEU's

3.3

Objectives

Persons successfully completing this course will be able to:

Identify hardware components of a 984 programmable controller system.

Distinguish the features and capabilities of the different 984 processors.

Configure and install a 984 programmable controller system.

Effectively use a programming terminal to isolate processor and I/O faults.

Understand and troubleshoot control programs containing the ladder logic (Level One) instructions of the 984 programmable controller.

Properly use peripheral devices to load programs and generate/print reports.