

Portable PLC Troubleshooting Learning System – Siemens S7-1200

990-PS712F

ET

ELECTRONICS



Learning Topics:

- PLC Troubleshooting
- PLC Systems Troubleshooting
- Analog Input & Output Troubleshooting
- PLC Operation & Programming
- Siemens HMI Panel Operation
- PLC Motor Control
- Counter/Timer Instructions
- Math & Data Move Instructions
- HMI Application Editing
- Analog & Motion Control
- Thermostatic & Analog Temperature Control
- Reversing Constant-Speed Motor Control
- Variable Speed Motor Control
- Stepper Motor Control

Amatrol's Portable PLC Troubleshooting Learning System – Siemens S7-1200 (990-PS712F) provides a mobile option for teaching both basic and advanced applications as well as sophisticated troubleshooting using the powerful Siemens S7-1200 PLC. Programming, operating, and troubleshooting skills on modern PLC systems are vital for future professionals. Amatrol's 990-PS712F provides a highly interactive system that integrates an HMI panel, networking, and a variety of programming commands in order to simulate real-world processes.

Inside this attractive, durable carrying case, learners will find a world-class learning system with components like the KTP 600 Human Machine Interface (HMI) panel, which allows user input and displays output data. Combined with Amatrol's thorough curriculum, learners will gain both theoretical and hands-on knowledge that can start them on a path towards a rewarding career.



Technical Data

Complete technical specifications available upon request.

Workstation

Carrying Case: 29 1/2" W x 20 1/2" H x 12" D
Durable ABS Plastic Construction
Workstation Mounting Panel

Circuit Breaker

Master Control Relay Circuit

Siemens S7-1200 Programmable Controller

Digital Inputs (24 VDC, Sink /Source) (14)
Digital Outputs (Solid State – MOSFET) (10)
Analog Inputs (Voltage, Single-ended, 0 to 10V, 10-bit) (2)
Analog Output (-10V to +10V 12-bit or 0 to 20 mA 11-bit)

Siemens Step 7 Basic Software

Siemens HMI Panel

5.7" TFT with 256 Colors
Touch Screen with 6 Tactile Function Keys
Ethernet Interface (TCP/IP)

Siemens Ethernet Switch, 4-port

24 VDC Power Supply

12 VDC Power Supply

Power Cord

I/O Simulator

Green Normally-Open Pushbutton
Red Normally-Closed Pushbutton
Black Normally-Open Pushbuttons
Two-position Selector Switches (4)
Red Indicators (6)
Yellow Indicator
Green Indicator
Potentiometer for Analog Input Adjustment

Thermostatic and Analog Temperature Application

Discrete Temperature Sensing Switch
Fan
Solid-State, Relay Controlled Heater
Scaled Temperature Sensing Circuit

Reversing Starter and Variable Speed Motor Control Application

Selector Switch
Inductive Proximity Sensors (3)

Stepper Motor Control Application

Stepper Motor Drive
Stepper Motor

Fault Pro CD

Student Curriculum (B40080)

Instructor Guide (C40080)

Install Guide (D40080)

Additional Requirements:

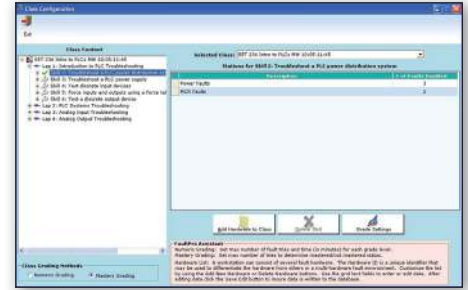
See <http://www.amatrol.com/support/computer-requirements>

Utilities Required:

115/220 VAC, 50/60 Hz, Power Outlet

PLC Fault Troubleshooting

Within the 990-PS712F, Amatrol offers FaultPro 4.0, the industry's premier program utilizing electronic faults, and covers topics such as how to troubleshoot PLC power supply problems, how to test analog and discrete input devices, and how to solve software problems. Amatrol offers thorough, world-class curriculum that covers methods of system troubleshooting, types of PLC component tests, and step-by-step processes. FaultPro allows instructors to instantly set and tailor faults to test a learner's weaknesses and turn them into strengths. The electronic faults also protect the equipment from incurring any damage.



PLC Curriculum and Skills: Basics to Motion Control

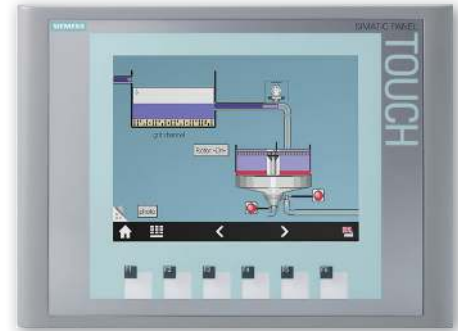
In addition to world-class troubleshooting skills, the 990-PS712F offers all of the skills and applications available on the 990-PS712, including:

- Analog Temperature Application
- Thermostatic Temperature Application
- Variable Speed Motor Control Application
- Reversing Motor Starter Application
- Stepper Motor Control Application

The 990 offers skills such as: configuring the IP address of an S7-1200 PLC; downloading and running a PLC project that performs logic operations; and entering and operating a PLC project that uses seal-in logic to control a motor.

Human Machine Interface (HMI)

HMI panels replace or compliment traditional hard-wired control panels by integrating operator input control and output display information. On the 990-PS712, learners will use a KTP600 HMI, which features a display screen and six tactile function keys. Learners will study basic operation skills, such as downloading a project and connecting the HMI to an ethernet network, before moving to more advanced skills, like using WinCC software to create and configure project screens and configuring an I/O Field object as an input and an output.



Portable Workstation

The 990-PS712F is a mobile training platform that can deliver training at multiple facilities. The 990 features a portable case with wheels and a handle for easy transport. The cover is quickly removed to enable the case to sit firmly upright on a table surface. The cover also locks so the workstation can be safely stored when not in use.

