PLC Troubleshooting Learning System – Siemens ET200PRO – Safety

890-ET200SF

ELECTRONICS



890-ET200SF

Learning Topics:

- Safety System Components
- Safety Programming
- PLC Connections & Operations
- PLC Programming
- PLC Motor Control
- PLC Timer Instructions
- PLC Counter Instructions
- PLC Systems Troubleshooting
- Event Sequencing
- Application Development
- Program Control Instructions
- Math and Data Move Instructions

Amatrol's PLC Troubleshooting Learning System – Siemens ET200Pro – Safety (890-ET200SF) teaches general PLC programming, operation, and troubleshooting in Safety PLC applications. Safety PLCs are growing in popularity because they provide for the safe operation of a machine or process and offer improved fault detection and diagnostics in automated systems, enabling production to resume quickly following a safety related interruption. Safety PLCs are used regularly in applications involving robots or everywhere emergency stops are standard.

The 890-ET200SF includes industrial components such as a Siemens ET200Pro Safety PLC, fail-safe discrete I/O module, e-stop assembly, Siemens managed EtherNet switch, and much more! Learners will use these components to study about the basics of PLC components, operation, and applications before moving on more advanced topics like application editing, programming, timer instructions, safety program configuration, and safety application blocks.

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Technical Data

Complete technical specifications available upon request.

Siemens ET200PRO Safety PLC
8-Point Input Module
8-Point Output Module
4-Point Output Module
2-In 3-Out Failsafe Discrete I/O Module
PC Programming Interface
I/O Connector Kit
Fault Insertion Engineering Integration and Connector Kit
E-Stop Assembly
Siemens Managed Ethernet Switch
Student Curriculum (B41400 & B41401)
Instructor's Guide (C41400 & C41401)
Installation Guide (D41400 & D41401)
Additional Requirements:
- 890-PEC-B Workstation
- (5) Standard 890 series Application Stations
- Step 7 Software (82-900)
- S7 Distributed Safety Software (42136)
- PLC Integration Package (89-MPS)
- Computer

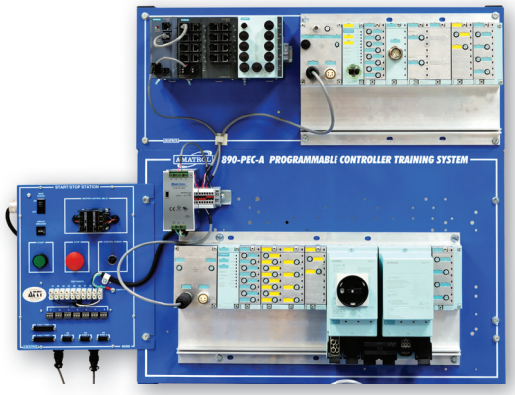
Only Amatrol Provides Vital Hands-On Training Using Safety PLC's!

The 890-ET200SF covers the Safety PLC, it's applications within industries, and various hands-on skills to prepare learners for job opportunities in manufacturing. Some of these skills include: identifying Siemens ET200pro safety hardware; configuring an ET200pro IM 54-8FX controller in a safety project; using safety I/O in a safety project; adding error OBs to an ET200pro project; monitoring multiple instances of the F_Estop1 function block; and using F-I/O datablock parameters to passivate F-I/O modules

Growing in popularity, safety automation systems are built for error-detection in automated processes, which minimizes danger to operators and components without restricting industrial production any more than necessary to achieve the specified level of safety. The Safety PLC runs two programs simultaneously: one program written to execute the procedure and the other, a safety program, built for early error detection.

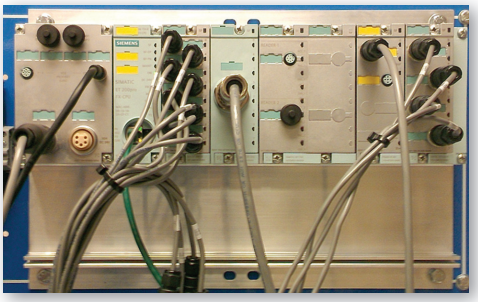
System Uses Industrial Components Learners Will See In The Field

Amatrol products provide an unmatched learning experience because our learning systems are built from real-world industrial components. This approach allows learners to practice and build skills on components they'll actually use on jobsites. The 890-ET200SF includes a Siemens ET200PRO Safety PLC, 8-point input module, 8-point output module, 4-point output module, failsafe discrete I/O module, PC programming interface, E-Stop assembly, EtherNet switch, and more. The Siemens ET200PRO includes comprehensive self-tests and self-diagnostics to check the fail-safe of the controller by running two programs simultaneously: a standard program written in ladder logic and a safety program written in either F-LAD or F-FBD.



Safety PLC Programming and Operation on Industry Standard Devices

Along with specialized Safety PLC skills and topics, this learning system also thoroughly covers programmable logic controller knowledge necessary for job-ready skills. Beginning with basic components and operations, learners will study topic areas including: PLC programming; PLC motor control; PLC timer and counter instructions; PLC troubleshooting; event sequencing; and application development. Learners will use this knowledge to practice skills such as: entering a basic controller project using the SIMATIC manager; designing a PLC program to jog a motor; troubleshooting a fault using Error OBs; and designing a reciprocating actuator PLC program.



Wide Range of Options to Expand Learning Potential

In addition to the vital skills and topics included with the base learning system, the 890-ET200SF features several optional products that can further expand the teaching potential for this growing industrial area. These additional products include: Remote I/O with Motor Starter (89-ET200RM), Stacklight for ET200 (89-SL-ET200), HMI for ET200 (89-HMI-ET200), RFID for ET200 (89-RF-ET200), and the Profinet Pneumatics Panel (89-EP1).

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2400 Centennial Blvd. Jeffersonville, IN 47130 USA 800.264.8285 812.288.8285 www.amatrol.com

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