

Portable AC Motor Drive Troubleshooting Learning System

990-DRV1F



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Portable Workstation

Learning Topics:

- Drive Input Troubleshooting
- Motor Input Troubleshooting
- Drive Relay Troubleshooting
- Introduction to AC Drives
- Two and Three Wire Motor Control
- Jogging Control
- Speed Control
- Torque Control
- Motor Ramping to Rated Speed
- Motor Ramping to a Stop
- DC Injection Braking
- AC Drive Versus Line Starting
- Programming Low Speed Boosts
- Acceleration Past Rated Speed
- S-Curve Acceleration

Amatrol's Portable AC Motor Drive Troubleshooting Learning System (990-DRV1F) features industry-standard components like a Rockwell PowerFlex 4 variable frequency AC drive and a 3-phase AC motor used to teach the fundamentals of configuring and operating an AC drive. The 990-DRV1F uses FaultPro, Amatrol's electronic fault insertion, to teach motor drive troubleshooting skills, such as drive input, motor input, and drive relay troubleshooting. This learning system is a vital training addition to industries like packaging, textiles, and paper where rapid motor acceleration and deceleration are required.

The 990-DRV1F is a compact, durable system that can be placed on a conference room table, shop floor desk, or practically anywhere when training space is limited. However, this learning system's small footprint doesn't sacrifice the comprehensive knowledge and skill building for which Amatrol is known.



Technical Data

Complete technical specifications available upon request.

AC Drive
AC 3-Phase Motor
Potentiometer
Voltage Meter (LED type)
Pushbuttons (3)
Forward/Reverse Selector Switch
Indicator Lamps (2)
PLC/Manual Selector Switch
Tachometer
Lead Set
FaultPro software
Interactive Multimedia (M11135, M11153)
Instructor's Guide (C11135, C11153)
Install Guide (D11135, D11153)
Student Reference Guide (H11135, H11153)
Additional Requirements:
Personal Computer
Requirements: <http://www.amatrol.com/support/computer-requirements>
Utilities:
Electricity (120 VAC/60 Hz/1 phase)

Real-World Troubleshooting using Electronic Fault Insertion!

The 990-DRV1F uses FaultPro, an electronic fault insertion system that is only available from Amatrol, to insert 20+ faults into the system for troubleshooting. During the learning process, FaultPro allows learners to insert faults in the system as they progress through the step-by-step procedures learning industrial troubleshooting methods. Then, FaultPro can be set to randomly select and insert a fault to test a learner's troubleshooting abilities and prepare them to solve real-world technical problems once they're in the field.



Build AC Motor Drives Skills Nearly Anywhere

The 990-DRV1F allows learners to train with actual industry-standard components like a Rockwell PowerFlex 4 variable frequency AC drive and a 3-phase AC motor to gain real-world experience and prepare them for work opportunities. This learning system also includes onboard analog and discrete input devices that enable the learners to operate the drive in many different program

applications, a digital tachometer to monitor output and a digital voltmeter to monitor analog input into the motor, and lockout/tagout to teach vital safety skills when working with AC motors.

Impressively, the 990-DRV1F includes all of these components, yet runs on single phase power in order to increase the range of training settings where it can be used.



Highly Engaging Interactive Multimedia

Beginning at the foundation of AC Electronic Drives knowledge, the 990-DRV1F's extensive multimedia curriculum uses a combination of text, audio, and 3D graphics to fully engage a learner as they move through the operation, installation, and performance analysis of AC motors. This in-depth theoretical knowledge can then be used to complete hands-on skills like operating a variable frequency AC drive to provide low speed boost. Other major topic areas covered in the curriculum include jogging control and torque control, ramping commands, DC injection braking, and acceleration methods. This curriculum also includes troubleshooting topics that teach the methods, symptoms, and tests for solving system faults.



The 990-DRV1F: Mobile, Durable, Compact Learning System

Set within a durable ABS plastic case, the 990-DRV1F features wheels and a handle to create a mobile training platform that can be used to deliver training where needed and that's easy to store and transport. The cover is quickly removed to enable the case to sit firmly upright on a table surface for any learner to use.

Student Reference Guide

A sample copy of the Portable AC Drives Troubleshooting Learning System's Student Reference Guide is also included with the system for your evaluation. Student Reference Guides supplement this course by providing a condensed, inexpensive reference tool that learners will find invaluable once they finish their training making it the perfect course takeaway.

