Electrical Fabrication 1 Learning System

96-ELF1





Learning Topics:

- Electrical System Wiring
- Electricity Safety
- Wire Stripping & Termination Techniques
- Power Cord Installation
- Residential Wiring Systems
- Non-Metallic Cable Installation
- Switch, Outlet & Lighting Installation
- Service Connection
- Circuit Protection
- 3-Way Switch Lighting Circuit Installation

Amatrol's Electrical Fabrication 1 Learning System (96-ELF1) teaches the fundamental concepts of electrical wiring, including the industry-standard components used by electricians, technicians, and engineers to install, operate, repair, and design equipment for modern industry. Learners will gain expertise in key skill areas, such as basic electrical system wiring, interpreting wire installation plans, handling non-metallic cable, connecting electrical services, and installing basic electrical components like switches, outlets, and lighting.

The 96-ELF1 features a desktop workstation, wiring component and consumable packages, a storage case for loose components, and a hand tool package, as well as in-depth, highly-interactive multimedia curriculum. The combination of real-world components and hands-on electrical wiring training allows learners to practice skills they will use on the job, such as: wire stripping and termination techniques, grounding methods used in junction boxes, installing a circuit breaker in a service panel, and many more!



Technical Data

Complete technical specifications available upon request

Mobile Workstation (T7021)

Circuit Breaker Panel Single-Gang Electrical Boxes (3) Octagonal Electrical Boxes (2) **Double-Gang Electrical Box** Fluorescent Light Fixture

Loose Components Tool Box

Hand Tool Package Wire Crimping Tool Set Lineman's Pliers 6" Long Nose Pliers 6" Diagonal Cutters **Continuity Tester** Neon Circuit Tester 4" Slotted Screwdriver 3" Phillips #1 Screwdriver

Electrical Consumables Package

¾" PVC Electrical Tape (20' Roll) White 14AWG Solid THHN Wire (500' Roll) Black 14AWG Solid THHN Wire (500' Roll) Green 14AWG Solid THHN Wire (500' Roll) Wire Nuts (16) Incandescent Lamp (25W/120V) 18" Fluorescent Lamp (15W) Ground Clips, Side Mount (14-10 AWG) 14/3 Romex Cable (250' Roll) 14/2 Romex Cable (250' Roll)

14/3 Type SO Cable (25' Roll) **Electrical Components Package**

Replacement Plug, Dead Front (Hubbell) Plug Lockout 3-Way Toggle Switches, Ivory (2) Toggle Switch, Single, Ivory Duplex Receptacle, Ivory GFCI Plug Cover Plates, Single, Blank (2) Covers, Duplex (2) Covers, Toggle (2) Incandescent Light Fixture, Plastic Body Octagonal Covers, Blank (2)

Square Box Covers, Blank (2 Multimedia Curriculum (M12204) Instructor's Guide (C12204)

Installation Guide (D12204)

Student Reference Guide (H12204)

Additional Requirements: Digital Multimeter Copy of National Electrical Code Computer (Visit www.amatrol.com/support/ computer-requirements for details.)

Utilities Required:

Electric (120 VAC/60 Hz/1 phase)

Study Electrical Wiring System Components and Practice on **Real-World Equipment**



Practice on Real-World Equipment

Amatrol's Electrical Fabrication 1 Learning System (96-ELF1) features a wide variety of real-world components used by electricians and engineers, such as lineman's pliers, diagonal cutters, circuit breakers, electrical boxes, toggle switches, and an assortment of wires and cables. Learners will use these components to practice essential skills used in industry, like connecting a plug to an electrical cord, running and securing non-metallic cable between electrical boxes, and connecting a wiring system to a service panel.

Learn Hands-On Residential Wiring Skills and Safety Standards

The 96-ELF1's interactive multimedia curriculum provides in-depth coverage of electrical wiring topics, such as: the operation of fuses and circuit breakers, how to connect an electrical switch, how to remove the sheathed jacket from non-metallic cable, how to install a spade-lug connector on a wire, and much more! The curriculum also focuses on safety standards to ensure learners practice installation techniques that are safe and consistent with the National Electrical Code (NEC).



Hands-On Skills Training

Engaging, Highly-Interactive Multimedia



Amatrol's curriculum features a highly-interactive, multimedia format that includes stunning 3D graphics and

videos, voiceovers of all text, and interactive quizzes and exercises designed to appeal to learners with different learning styles. The 96-ELF1 curriculum teaches learners about the basics of residential electrical wiring systems. For example, learners will study service connections and how to install switches, outlets, and lighting. The combination of theoretical knowledge and hands-on skills solidifies understanding and creates a strong basis for pursuing more advanced skills.

Student Reference Guide

A sample copy of the Residential Wiring Student Reference Guide is also included with the system for your evaluation. Sourced from the system's curriculum, the Student Reference Guide takes the entire series' technical content contained in the learning objectives and combines them into one perfectly-bound book. 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.



