

# ELECTRICAL FABRICATION 1 LEARNING SYSTEM

950-ELF1



**CURRICULUM IS THE KEY TO LEARNING**

## Learning Topics:

- Electrical Terms
- Electricity Safety
- Wire Stripping Techniques
- Wire Termination Techniques
- Power Cord Installation
- Wiring System Components
- Nonmetallic Cable Installation
- Switch Installation
- Outlet Installation
- Lighting Installation
- Service Connection
- Circuit Protection
- Testing and Troubleshooting
- 3-Way Switch Circuit Installation

Amatrol's Electrical Fabrication 1 Learning System teaches students skills that are commonly used by electricians, technicians, and engineers in today's industry. Installing, operating, repairing, or designing equipment for modern industry requires fundamental knowledge of electrical wiring and components. Students will gain expertise in key skill areas such as basic electrical system wiring, interpreting wire installation plans, handling non-metallic cable, installing basic components such as switches, outlets, and lighting, and connecting electrical services.

The model 950-ELF1 includes a workstation, wiring components, storage case, hand tool package, electrical consumable package, electrical accessories, student curriculum in print, instructor's assessment guide, and installation guide. Amatrol's optional interactive multimedia extends the learning opportunity as well as allows students to learn in the style they need.

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# DESIGNED FOR LEARNING

## Hands-On, Job-Ready Industry Skills



The 950-ELF1 covers industry-relevant essential electrical fabrication skills. These skill areas include test checking with a voltage tester, checking electrical components for UL and CSA standards approval, stripping insulation from wires, installing spade-lug connectors, connecting wires to a terminal strip, reading and interpreting a wiring installation plan, and safely and properly installing electrical wiring, lighting, and components.

## Safety Emphasized at All Levels

The 950-ELF1 not only teaches students proper installation of electrical wiring and components but also the importance of safe installation. Student curriculum emphasizes basic safety rules as well as the National Electrical Code (NEC) and other safety approval ratings. Students develop skills to identify and work with components that are marked with these safety ratings. Students also learn about and apply circuit protection and how to properly operate, install, and test circuit breakers.



Breaker Connection to Power Rail

## Optional Interactive Multimedia

In addition to Amatrol's print-based curriculum, the 950-ELF1 can be expanded with highly interactive multimedia. The 950-ELF1 optional multimedia includes interactive computer-based instruction with both theory and hands-on tutorials consisting of text, digital video, voice, online self-review tests, interactive simulations, color diagrams and color photos. Amatrol's strong interactive multimedia includes visual, auditory, and text based learning styles to reinforce each other in well-organized learning segments.

## TECHNICAL DATA

### Workstation

- 1.5in welded steel tube frame
- Durable work surface and vertical steel mounting panel
- Silk-screened labels
- Dimensions: 34in H x 38 1/2in W x 30in D
- Storage case for all loose accessories

### Wiring Components

- Circuit breakers (2)
- Circuit breaker panel
- Single gangs (3)
- Double gang
- Octagonal junction boxes (2)
- Fluorescent, 15w light fixture
- Fluorescent lamp, 18in

### Hand Tool Package and Storage Case

- Wire crimping tool set
- Long needle nose pliers (6in)
- Diagonal cutters (6in)
- Slotted and Phillips screwdrivers
- Neon circuit and continuity testers
- Utility pliers
- 2-tray storage box

### Electrical Accessories

- Plug, dead front
- Three way switch (2)
- Toggle switch covers (2)
- Duplex receptacles and covers
- Plastic lamp holder
- Single toggle switch
- Plug lockout
- Single and octagon cover blanks

### Electrical Consumable Package

- Incandescent lamps, 25W (2)
- Fluorescent 18in lamps (2)
- PVC electrical tape
- Black, white and green wire, 14 gauge, 500 feet
- Wire nuts
- Romex cable, 14 gauge, 3 wire, 250 feet
- Romex cable, 14 gauge, 2 wire, 250 feet

### Student Learning Activity Packet Set, B12204 Instructor's Assessment Guide, C12204 Installation Manual, D12204

### Additional Requirements:

- Consumables Package, 33504
- 120V AC Power
- Workstation - recommended table 82-610 Mobile Technology Workstation or equivalent

