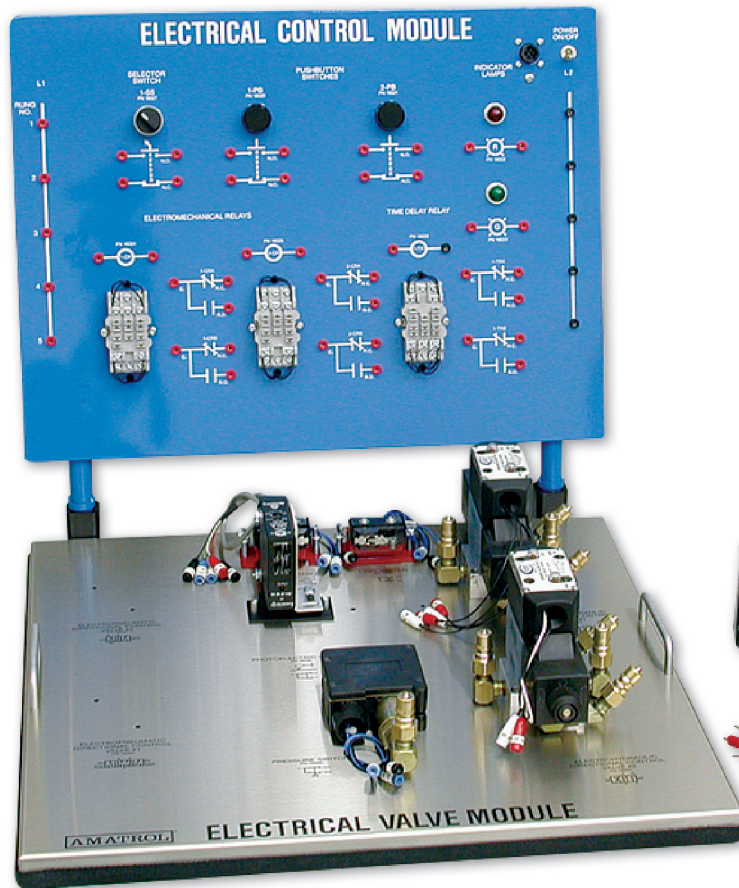
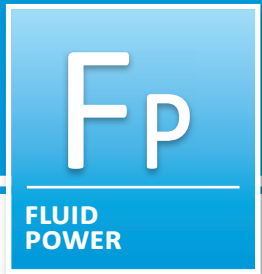
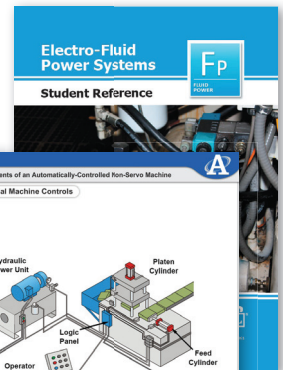


# Electro-Hydraulics Learning System

85-EH



Electro-Hydraulics Learning System



Interactive Multimedia Curriculum and Student Reference Guide

## Learning Topics:

- Electrical Control Concepts
- Logic Elements
- Basic Control Devices
- Power Devices
- Control Relays
- Sequencing Control
- Cylinder Sequencing
- Timer Control
- Photoelectric Sensor Applications
- Pressure Control Applications
- Circuit Applications
- Safety Circuits

The Electro-Hydraulics Learning System (85-EH) teaches electrical relay control of hydraulic systems and their industrial applications. Learners will study industry-relevant electro-hydraulic skills including operation, installation, performance analysis, and design. The 85-EH can be used with Basic Hydraulics (85-BH) or any Amatrol learning system that includes the 85-BH. The 85-EH can also optionally be used with Intermediate Hydraulics (85-IH).

The Electro-Hydraulic Learning System includes an electrical control panel with relay control components and an electrical valve module with solenoid-operated hydraulic directional control valves and electrical / electronic sensors. These components will be used to study a variety of topics including electrical control systems, basic control devices, power devices, control relays, sequencing control, timer control, pressure control applications, and circuit applications.



## Technical Data

Complete technical specifications available upon request.

### Electrical Control Panel

- Selector Switch
- Pushbutton Switch, DPST (2)
- Indicator Light, Green
- Indicator Light, Red
- Power Switch Assembly
- Control Relay, Cube, DPDT, 24 VDC (2)
- Timer Relay
- Lead Set

### Electrical Valve Module (Hydraulics Only)

- Directional Control Valve, 3-Position, 4-Way
- Directional Control Valve, 2-Position, 4-Way
- Pressure Switch Assembly
- Limit Switch Assembly, Left
- Limit Switch Assembly, Right
- Photoelectric Switch Assembly

### Interactive Multimedia Curriculum (MB861)

#### Instructor's Guide (CB861)

#### Installation Guide (DB861)

#### Student Reference Guide (HB861)

#### Additional Requirements:

- Used with Basic Hydraulics on one of the following systems (85-BH, 850-H1, 850-HD1, 850-C1, 850-CD1, or 850-CD2)
- 24VDC power supply (16019)

#### Options:

- Can be used with Intermediate Hydraulics (85-IH)

#### Utilities:

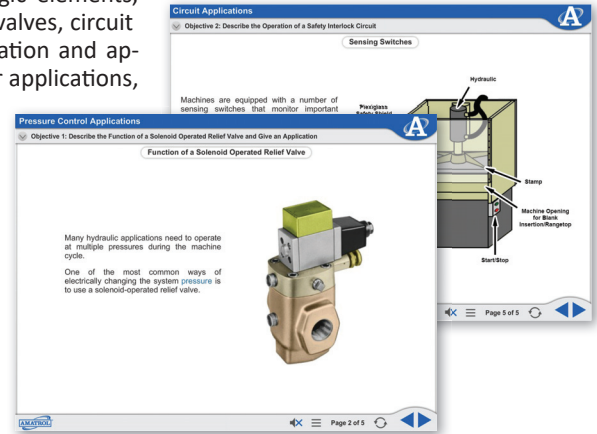
- Electricity (120 VAC/60 Hz/1 phase)

## Hands-On Electro-Hydraulic Training with Industrial Components

This learning system includes two panels, an electrical control panel and an electrical valve module. The electrical control panel includes two pushbutton switches, indicator lights, two control relays, and a timer relay. The electrical valve module includes directional control valves, a pressure switch assembly, limit switch assemblies, and a photoelectric switch assembly. Learners will use these components to set up a variety of industrial relay control circuits using ladder diagrams and Boolean logic. Relay control is a fundamental building block in the study of automation since programmable controllers and solid-state controls also use the same programming methods.

## Optional Multimedia Adds Interactivity to Unmatched Electro-Hydraulic Curriculum

Learners using the 85-EH will gain in-depth knowledge of electrically-controlled hydraulic systems used for industrial applications. This system's curriculum covers a large selection of electro-hydraulic topics including logic elements, ladder diagrams, solenoid-operated valves, circuit protection, transformers, relay operation and applications, cylinder sequencing, timer applications, and pressure switch operation and applications. This multimedia curriculum features stunning 3D graphics, audio voiceovers, and interactive quizzes and activities.



## Flexibility to Combine with Other Hydraulic Learning Systems



850-HD1 with 85-EH Electrical Control Panel and Other Options

The 85-EH is a flexible learning system that can be used with a wide-range of products featuring Amatrol's Basic Hydraulics Learning System (85-BH). Options for utilizing the 85-EH include: Controls Technology – Basic Hydraulics (850-H1), Basic Fluid Power (850-C1) for both hydraulic and pneumatic training, or one of our double-sided trainers for maximized use of space. This line of products features Controls Technology – Basic Hydraulic (850-HD1) and two combination systems: Basic Fluid Power with two hydraulic manifolds (850-CD1) or one (850-CD2). The 85-EH can also be used to with Amatrol's Intermediate Hydraulics Learning System (85-IH), which can also be added to the previously listed products.

## Student Reference Guide

A sample copy of the Electro-Hydraulics 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.

