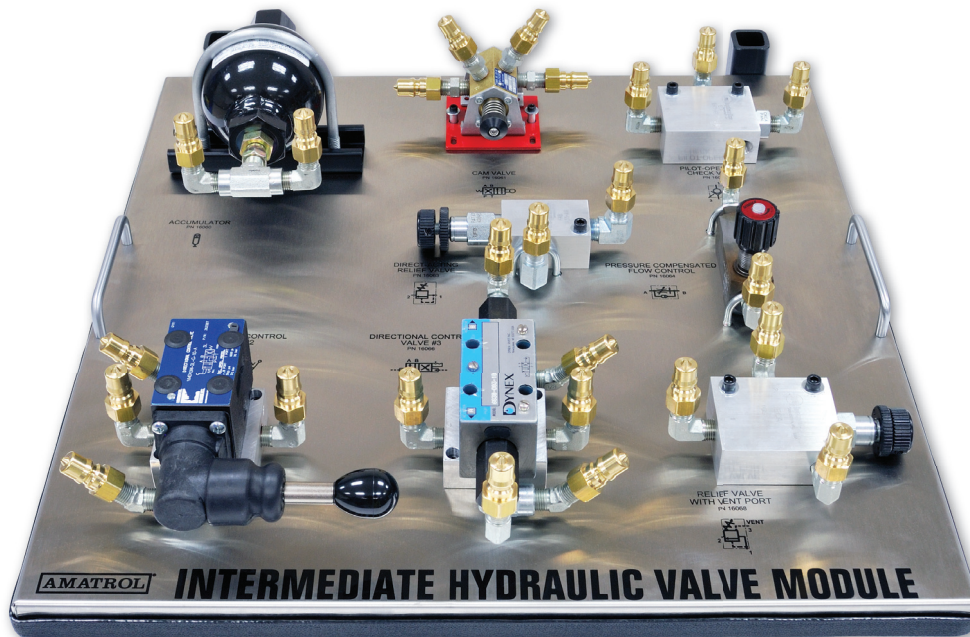


Hydraulics 2 Learning System

96-HYD2

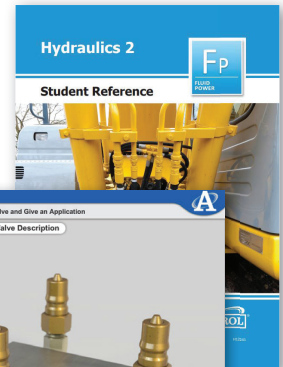
Fp

FLUID
POWER



The Hydraulics 2 Learning System uses the Intermediate Hydraulic Valve Module (85-IH).

Student Reference Guide



Interactive Multimedia Curriculum

Learning Topics:

- Pressure Control Circuits
- Sequence Valves
- Pressure Reducing Valves
- Hydraulic DCV Applications
- Two-Position, Pilot-Operated, and Cam-Operated DCVs
- Hydraulic Cylinder Applications
- Cylinder Types
- Regeneration Circuits
- Pressure-Compensated Flow Control Valves
- Synchronization Circuits

Amatrol's Hydraulics 2 Learning System (96-HYD2) builds upon the knowledge and skills taught by the Hydraulics 1 Learning System. Hydraulics 2 focuses on more advanced skills and topics, such as pressure intensification, cylinder regeneration, and operation and troubleshooting of a variety of hydraulic components.

The 96-HYD2 features real-world, heavy-duty hydraulic components students will encounter on the job, including control valves, relief valves, flow control valves, check valves, and accumulators. The in-depth multimedia curriculum teaches learners both relevant knowledge and hands-on skills related to these components, such as adjusting pressure settings, taking measurements, and making various calculations. Users will also learn how these components are used in real-world applications, like elevators, punch presses, backhoes, dump trucks, hydraulic presses, and more!



Technical Data

Complete technical specifications available upon request.

Intermediate Hydraulic Valve Module (85-IH)

- Accumulator
- Cam Valve
- Check Valve
- Relief Valve
- Flow Control Valve
- Directional Control Valves
- Long Tapered Cam Operator
- Hose Assembly

Actuator Kit (16410)

Multimedia Curriculum (M12241)

Instructor's Guide (C12241)

Installation Guide (D12241)

Student Reference Guide (H12241)

Additional Requirements:

- Hydraulics 1 Learning System (96-HYD1)
- Accumulator Charging Assembly (79-552)
- Computer (Visit www.amatrol.com/support/computer-requirements for details.)

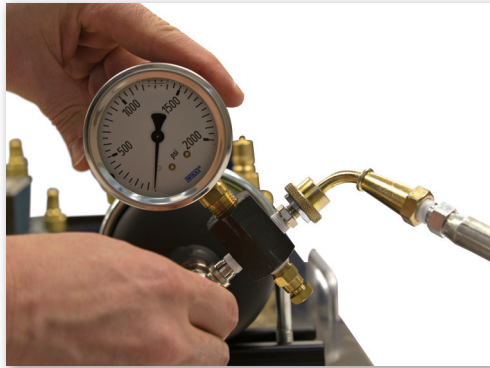
Utilities Required:

- Compressed Air Supply (2 CFM @ 100 PSIG/
0.142 cmm @ 690 kPa)

Options:

- Hydraulics 3 Learning System (96-HYD3)

Study Hydraulic Components and Practice on Real-World Equipment



Hands-On Practice with Real-World Equipment

The 96-HYD2 features a variety of real-world, industrial-quality hydraulics components that learners will encounter on the job, such as an accumulator, control valves, relief valves, flow control valves, and check valves. Users will practice relevant hands-on skills like connecting and operating directional control valves, basic regeneration circuits, and reduced pressure circuits.

Learn Advanced Hydraulic Skills

Building upon the Hydraulics 1 Learning System, the 96-HYD2 teaches learners a variety of advanced hydraulic concepts and skills. For example, learners will study pressure control circuits, hydraulic directional control valve applications, and hydraulic cylinder applications. Relevant skills taught include designing a hydraulic circuit that uses a pressure reducing valve, connecting and operating a hydraulic 4/2 directional control valve, and connecting and adjusting a pressure-compensated flow control valve.



96-HYD1 with 96-HYD2

Engaging, Highly-Interactive Multimedia

Objective 5: Describe the Function of a Two-Sequence Valve Control Circuit

Function of a Two-Sequence Valve Control Circuit

Objective 10: Describe the Operation of a Pressure-Compensated Flow Control Valve and Give Its Schematic By

PCFC Operation Example

This example shows oil flowing through the valve at a certain rate with a typical pressure at the inlet and zero pressure at the outlet.

The needle valve is adjusted so that the pump flow cannot flow through the valve without creating a back pressure at the valve's inlet (Gauge A) that is high enough to open the relief valve.

The pressure at Gauge B also tries to rise to the relief valve pressure but it does not because this pressure is applied to side A of the compensator piston.

This causes the spool to try to close, which limits the pressure at Gauge B.

Stays Closed

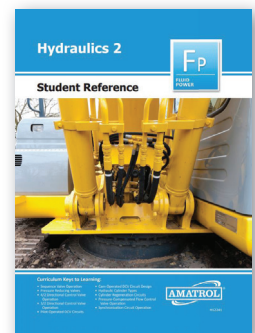
Page 61 of 102

Interactive
Multimedia
Curriculum

Amatról'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 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 Hydraulics 2 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.



AMATROL
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