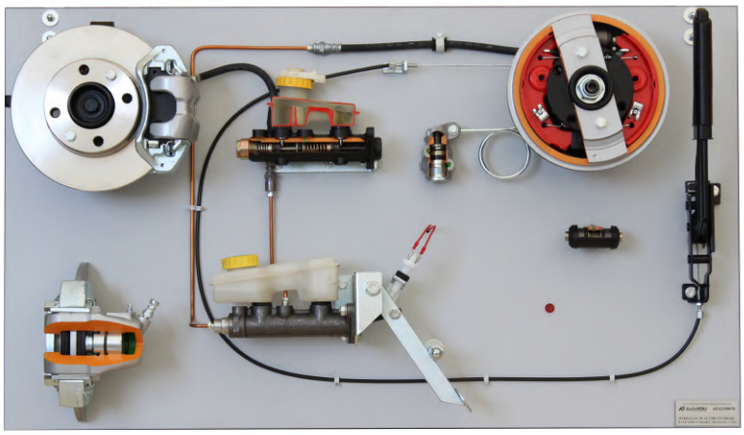
HYDRAULIC DUAL CIRCUIT BRAKE WITH SERVO BRAKE

A4

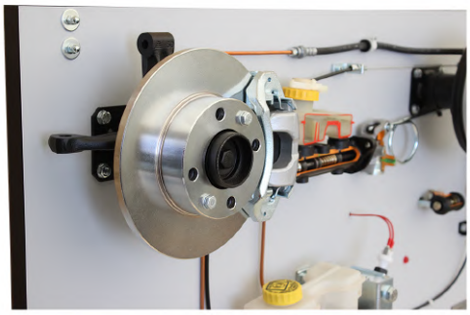
Product number
AE412050M

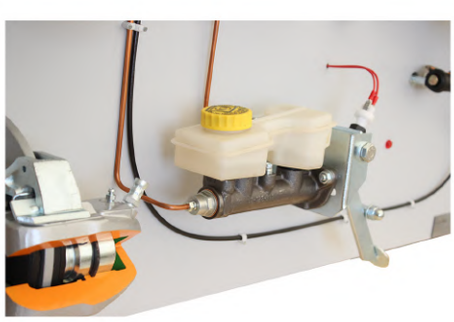
Fully operational hydraulic braking system with disc and drum brakes. It includes a 225 mm (8.85 in) diameter disc brake and a 220 mm (8.66 lb) diameter drum brake, integrated with a split brake pump and a transparent oil tank. The unit showcases a vacuum-assisted servo brake system for amplifying braking force and incorporates a pressure relief valve for the rear brake. Experience with OEM brake components, hydraulic circuits, and servo mechanisms, enhancing the understanding of brake system functionality and hydraulic dynamics in automotive training.

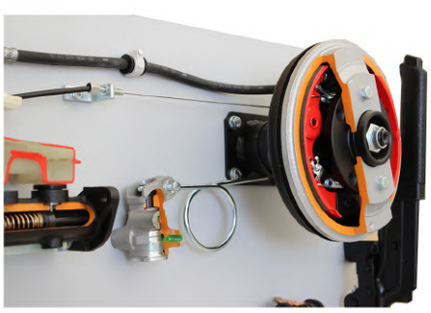


Features

- Dual Circuit Hydraulic System: Includes a master cylinder with split circuit design and hydraulic lines for realistic simulation of brake pressure dynamics.
- Disc and Drum Brakes: Equipped with a 225 mm (8.85 in) disc brake and a 220 mm (8.66 lb) drum brake, demonstrating the differences in braking mechanisms and their applications.
- Servo Brake System: Features a vacuum-assisted servo brake with a diaphragm and drive piston to illustrate how servo systems amplify braking force.
- Transparent Components: Transparent oil tank and visible hydraulic lines provide clear visibility of fluid levels and hydraulic flow.
- Pressure Relief Valve: Includes a pressure relief valve for the rear brake, allowing for the demonstration of brake pressure regulation.

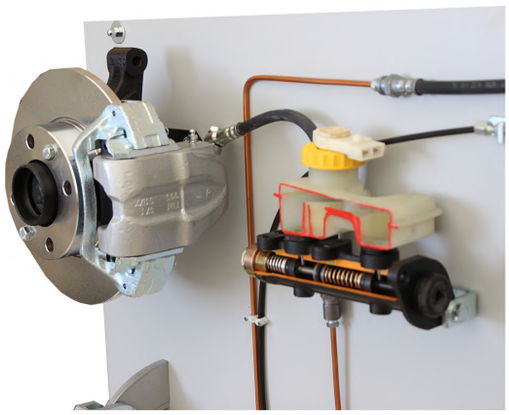


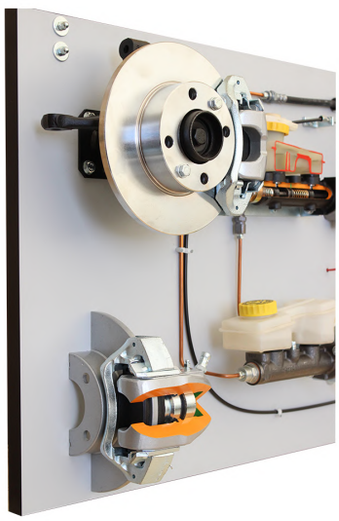


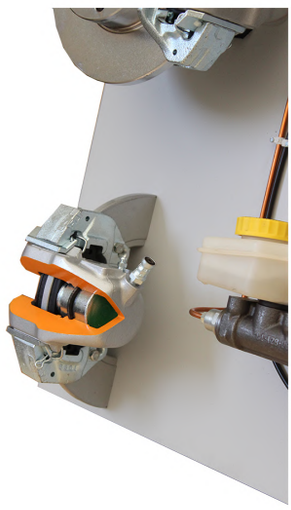


Values for students

- Analyze and learn the operation of disc brakes with a 225 mm (8.85 in) diameter and drum brakes with a 220 mm (8.66 lb) diameter. Study the impact of friction and heat dissipation mechanisms in braking efficiency.
- Understand the hydraulic principles of the dual circuit brake system, including the function of the master cylinder, brake lines, and the effect of hydraulic pressure on braking force. Observe how the force applied to the small piston in the master cylinder translates into a larger force on the brake calipers or drum cylinders.
- Examine the role of the servo brake system in amplifying brake force. Explore how the vacuum brake pump and pressure differential enhance braking efficiency, making the pedal effort manageable while achieving significant braking force.
- Observe brake pressure changes through integrated sensors and indicators. The system allows students to visualize the brake pressure in real-time, enhancing their understanding of brake performance under different conditions.
- Study cutaway models of the brake pump, disc brakes, drum brake cylinder, and pressure relief valve. This enables a detailed examination of internal components and their functions.







Values for teachers

- The training unit offers a practical demonstration of hydraulic and servo brake systems, facilitating interactive teaching. It supports a wide range of instructional activities from basic principles to advanced troubleshooting.
- Features such as transparent oil tanks and accessible brake components ensure a safe learning environment. The wall-mounted design optimizes space while allowing easy access for demonstrations and maintenance.
- Utilize built-in sensors to demonstrate brake pressure and system responses. This feature aids in explaining theoretical concepts with real-time data, enhancing the learning experience for students.
- Constructed with high-quality components, the unit is designed for long-term use in educational settings. Its robust construction withstands frequent handling and instructional activities.
- Plug and play design, requiring no additional mountings, assembly, or special preparation for operation.

Specifications

- Dimensions: 1100 x 300 x 850 mm (43.31 in×11.81 in×33.46 in)
- Weight: approx. 35 kg (77 lb)
- Made in EU
- Product number: AE412050M