ANTI-LOCK BRAKE SYSTEM FOR TRAINING

(Model MEDIA 3.0-4W)

(Updated 27/02/2025)

❖ IMAGE

❖ INTRODUCTION

- Training equipment for Anti-lock brake system (Model 3.0 MEDIA) is research product of DTDAuto Vietnam.

- Equipment is perfect specialized equipment for vocational schools where trainees are taught both theory & practice of ABS

- Equipment includes an ABS teaching model, software on computer, a synchronously coupled electronic block and a diagnostic equipment to form a standard, modern & professional teaching set.

- ABS 3.0 MEDIA provides all the essential pedagogical elements such as listening, seeing, and acting through simulation capabilities and computer support.

- Construction of the system is built based on real parts of ABS system. ABS software is used to control, simulate, display and graph the operation

- The device is designed and manufactured in Vietnam according to German educational equipment standards.

❖ PURPOSE

- Used as teaching and learning tools for technical research and training for universities and vocational training centers of automotive engines.

- Students understand the basic components of the ABS system

- Understand the advantages and disadvantages of anti-lock braking system (ABS) compared to non-ABS braking system

- Understand the structure, principle, and operating principle of ABS anti-lock braking system
- Understand the circuit diagram of the system and the actual installation location of components on the vehicle
- Learn how to diagnose faults and fix them

❖ SPECIFICATION

- Equipment is mounted on the frame with movable wheels, full of equipment of ABS system such as: ABS control module, speed sensors, pulse rings, brake master cylinder, ABS pump, motor... operation and running as same on the vehicle.
- ABS 3.0 have DLC3 diagnostic connector that connect to diagnostic tool to read information and diagnose fault
- Equipment used to learn the principles, structure, repair, practice skills in diagnosis, error handling, operation skills in repairing by traditional methods, by computers and fault diagnostic tool.
- This is a full system of e-textbook including: audio, static images, animation, video clip of ABS structure & operation
- Graph the ABS process when braking, comparison between brakes with ABS and brakes without ABS
- Support electrical wiring diagram on the equipment to help students understand and analyze the operating principle of the system.
- The system communicates with a computer to support training: read/ clear fault codes, reset ECU, view live data, active actuator.

❖ NEW FEATURE IN ABS 3.0

Model section:

- Equipment is designed with sensors, actuator unit and original ECU on automobile.
- Model structure includes 4 sensors and 4 pulse rings that work independently for a variety of training situations
- Use new generation ABS system (two-state valve of Toyota).
- Use original brake master cylinder by Pneumatic on automobile

- The system uses DLC3 diagnostic port to connect to diagnostic equipment to read information and diagnose fault
- Vivid design with indicators on the model
- The system is quieter and more stable
- Support principle circuit diagram and component position of ABS system on the equipment

Computer Software:

- E-textbook are edited and supplemented to be more suitable for using projector
- A lecture system on ABS braking displayed via a projector, designed for multimedia classrooms.
- The training software is optimized with high resolution and operates smoothly on operating systems from Windows 7 and above.
- Surveying the operating characteristics of ABS brakes and sensors through the operation of real parts of ABS brakes in cars.
- Combined with diagnostic tool, students can directly observe the operation of ABS and practice with the fault diagnosis system using different methods:
  + Method of fault diagnosis by flashing of ABS light
  + Method of fault diagnosis with OBD scanner on computer
- Pairing software and reading faults via DLC3 diagnostic connector supports the following functions: reading system faults, displaying current parameters and operating status of the system, activating actuators for testing, supporting special functions such as air discharge, memory reset...

Pairing accessories:

The fault diagnosis tool combined with the software on the computer is used to read/clear faults, reset the ECU, view current parameters and activate the actuator.

The ABS training equipment is designed to be able to connect with a computer during operation, creating a multimedia teaching device system that meets the Computer Based Training and Media Training (CBT & Media) modern teaching equipment standards today

❖ **COMPONENTS**

- Visual model with real details of the ABS brake system
- ABS brake system teaching software on USB data
- Electronic adapter used for diagnosis and signal analysis
- Computer, printer, and bracket (optional)
- User guide, teaching textbook
- 12V/30A battery and charger (optional)

❖ **OTHER SPECIFICATIONS**

- Voltage used: 220VAC/50Hz and 12VDC/30A;
- Weight: about 75 kg
- Actual product size: 99 x 68 x 172 (cm)
- Weight total Package about 150kg
- Package size: 110 x 80 x 196 (cm)
- Indoor activities

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