



4x4 VEHICLE TRANSMISSION WITH MECHANICAL GEARBOX EDUCATIONAL TRAINER

A2/A3

Product number
AE411300M



5-speed gearbox with reverse, integrated with a 2-speed reduction gear for demonstrating gear shifting and power reduction in four wheel drive vehicle. Trainer consists of self locking hypoid differentials and drive shafts with universal joints for accurate replicating of the power transfer system for 4x4 vehicles. Manual controls for front-wheel drive engagement and sectioned view for clear visibility of all transmission components, making it perfect for technical and vocational automotive training.

Features

- 5-speed gearbox with reverse provides full manual control for understanding gear shifting and power transfer.
- 2-speed reduction gear allows students to learn the principles of gear reduction and how it impacts vehicle speed and torque.
- Manual front-wheel drive engagement demonstrates how to engage or disengage the front-wheel drive, learn how to control all wheel drive vehicles.
- Drive shafts with universal joints for a clear view of how power is transferred from the gearbox to the differentials through drive shafts.
- Self-locking hypoid differentials for understanding how torque is distributed to the wheels, especially in off-road scenarios.
- Sectioned transmission assembly shows key components.





Value for Students

- Model with 5-speed gearbox, manual operation of front-wheel drive, and 2-speed reduction gear.
- Explore accurate, sectioned cutaways of various drivetrain components including drive shafts, universal joints, and hypoid differentials.
- Understand the complete process of power transfer from the transmission to the front and rear differentials via driving shafts, with manual control for engaging different drive modes.
- Learn how to engage the reducer-divider and front-wheel drive in real-world conditions.
- Perform diagnostics by manually operating the gearbox, speed reducer, and differentials to observe their functions in various scenarios.



Value for Instructors

- The trainer offers a clear visible way to explain the operation of complex 4x4 vehicle transmission.
- Uses OEM components for easy, safe, and realistic training that mimics real car.
- Mounted on a sturdy stand with wheels, the model can easily be integrated into any classroom or workshop environment.
- The design allows multiple students to engage simultaneously, reinforcing practical skills and teamwork.
- Mobile and space saving stand, allows concurrent use by multiple students, promoting collaborative learning and practical training opportunities.



Specifications

- Dimensions: 750 x 2250 x 1050 mm
- Weight: 230 kg (507 lb)
- Product number: AE411300M

