



AUTOMOTIVE CHARGING SYSTEM EDUCATIONAL TRAINER





Automotive charging system educational trainer offers to understand automotive alternators and charging systems. 12V alternator mounted in a lightweight aluminum frame, this trainer facilitates hands-on learning and practical demonstrations of charging and discharging processes.



Features

- 12V Alternator mounted in a light aluminum frame for practical demonstration and hands-on learning.
- Realistic battery charging/discharging processes with adjustable alternator rotation speed.
- Integrated negative terminal fault simulation for hands-on troubleshooting practice.
- Displays for loading, charging, RPM, and voltage to facilitate real-time monitoring and analysis.
- Open contacts and multiple meters (ammeter for battery, charging, and load currents; voltmeter; speed meter) for detailed performance measurement.
 - Includes an emergency stop switch, ignition switch, and main switch for operational safety and control.



Value for Students

- Fully functional 12V alternator, battery, and associated components to understand the charging and discharging processes. Learn to perform various measurements and analyze the alternator's performance under different conditions.
- Practice diagnosing and troubleshooting with integrated negative terminal fault simulation. This feature helps develop skills in fault detection and system troubleshooting.
- Adjust the alternator's rotation speed and observe the effects on charging performance. This practical experience aids in understanding the relationship between rotation speed, voltage output, and battery charging.
- Utilize information panels for real-time monitoring of loading, charging, RPM, and voltage. Perform detailed measurements of alternator and battery performance, including charging and load currents, to gain insights into electrical load management.
- Study the structure and functionality of automotive alternators with open contact points for detailed measurement. Understand the principles of operation and maintenance through direct interaction with the alternator and associated electrical systems.
- Work with safety removable panels that protect against hot and rotating parts, enhancing both learning and safety. You can access its components directly through removable panels

Value for Instructors

- Provides a practical and visual means to teach the principles of automotive charging systems, including alternator operation, battery management, and load simulations.
- Includes key components such as ammeters, voltmeters, and RPM simulators to facilitate a broad range of educational activities. The equipment allows for effective demonstration of both normal operation and fault conditions.
- Includes information panels and basic diagrams that provide clear, visual explanations of alternator operation and charging system principles.
- Built with a closed aluminum frame construction, ensuring durability and ease of maintenance. The compact design integrates an instrument cluster, measurement, and fault simulation panel within a sturdy structure. The inclusion of safety features such as an emergency stop switch ensures a secure learning environment.
- The training stand is designed for simplicity, requiring only small adjustments to reset to default parameters, making it easy to prepare and start each lesson quickly and efficiently.

Specifications

- Dimensions: 620 x 540 x 540 mm (24.41 in x 21.26 in x 21.26 in)
- Power supply: ~230 V (US 110V)
- Components: 12V battery, alternator, electric motor, ammeters, voltmeter, RPM simulator, load level, charging indicator, and emergency stop switch.
- Product number: MSMSG01



