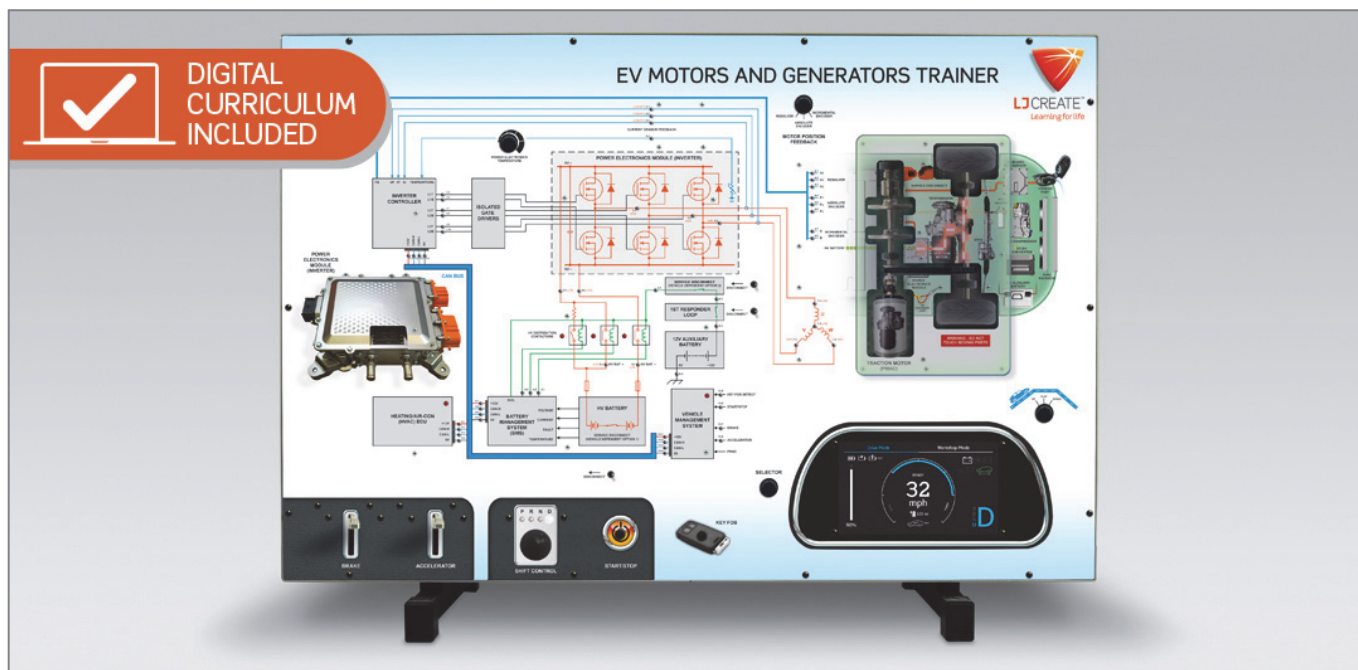


Product Information Sheet

EV Motors and Generators Panel Trainer



The EV Motors and Generators Panel Trainer provides students and instructors with the opportunity to demonstrate, investigate and fault-find a simulation of an electric vehicle traction motor system.

The trainer is designed to allow access to a simulation of the mechanical operation as well as provide a mimic of the electrical power flow. The trainer also includes test points at a safe voltage level to allow for investigation of electrical circuits. To facilitate the development of techniques in diagnostics and fault-finding skills, the panel includes a range of fault-insertion options to simulate typical real-world system malfunctions.

This trainer includes access to digital curriculum materials including theory and practical learning tasks. The trainer can also be used in conjunction with our optional cloud-based software, which offers online practical electronics tasks as well as interactive theory presentations, investigations, and assessments, which link directly to the practical activities carried out using this resource.

The Panel Trainer Provides the Following Features:

- Simulation of mechanical and electrical power flow
- Dashboard with speed, RPM, ECO monitor and temperature displays
- LCD panel scan tool to display diagnostic trouble codes
- Brake and accelerator pedals
- Gear-shift control and park push-button
- Three phase traction motor
- Selectable feedback via a resolver and two encoders
- Terminals to make DC and AC circuit measurements
- Electric motor driving wheels with light channel power flow display
- Manual or automatic fault insertion (16 Faults)

Typical Practical Tasks Include:

- System Start-Up Procedures
- Disabling the HV System
- Operation of the Inverter Circuit
- Pulse Width Modulation Control
- The Inverter Controller
- CAN Bus Communication System
- The Three Phase Traction Motor
- Generator Operation
- Regenerative Braking and the Rectifier Circuit
- Operation of the Inverter Controller with Different Feedback Types
- Troubleshooting the Motors/Generators Panel
- Troubleshooting Drivetrain Faults
- Troubleshooting the IGBT and PEM Components
- Identifying Motor Faults
- Troubleshooting the Sensors
- HVAC Failure
- Troubleshooting the Start-Up Circuit

Items Included:

- Trainer
- Curriculum in digital format
- Wall mounting brackets and bench stands

Other Items Required:

- Lab scope
- Digital multimeter

General Information:

Trainer Dimensions: 900 x 170 x 600 mm (W, D, H)
Packed Volume: Approx. 0.316 m³
Packed Weight: Approx. 26 kg

Order Code: 742-01

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For more information visit www.ljcreate.com