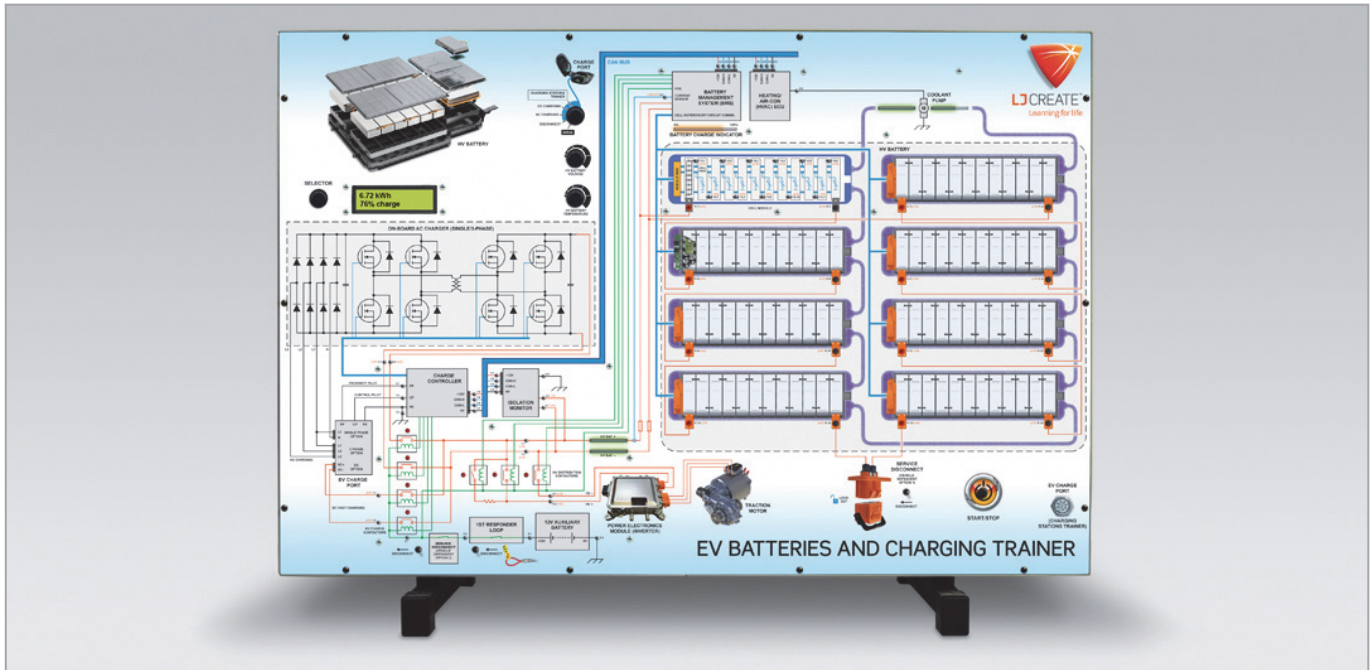


Product Information Sheet

EV Batteries and Charging Panel Trainer



The EV Batteries and Charging Panel Trainer provides students and instructors with the opportunity to demonstrate, investigate and fault-find a simulation of an electric vehicle high-voltage battery system.

The trainer is designed to illustrate the operation of the HV battery and charging systems 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:

- Visualization of HV battery structure and operation
- Simulation and visualisation of electrical power flow
- Charge rate selector
- Port to connect to other LJ Create EV Panel Trainers
- Start/Stop Button
- Service Disconnect Switch
- Controls to adjust HV battery temperatures
- Battery stack and on-board charger circuit simulation
- Terminals to make DC and AC circuit measurements
- Manual or automatic fault insertion (16 Faults)

Typical Practical Tasks Include:

- First Responder Loop and the Service Disconnect
- De-energising process for the HV Battery
- Charging Methods and Circuits
- The Charge Controller
- Introduction to the HV Battery Stack
- The HV Battery Management System
- HV Battery Modules and Cells
- Module Controllers and Sensing
- HV Battery Cell Balancing
- Temperature Monitoring and Control
- Introduction to troubleshooting the HV Battery Panel
- Troubleshooting the CAN Bus
- Troubleshooting the HV Distribution System
- Troubleshooting Contactor Failures
- Troubleshooting Intermittent Cell Issues
- Finding Faulty Sensors
- Troubleshooting Charging System Faults
- Interconnecting the LJ Create EV Panels

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: 741-01

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For more information visit www.ljcreate.com