

EV-Battery Technology Fundamentals Learning System

T7022



T7022

Interactive Multimedia Curriculum and Student Reference Guide

Learning Topics:

- Introduction to Electric Vehicle Systems
- Basic Electrical Circuit Concepts
- Voltage and Current Concepts
- Resistance and Circuit Concepts
- Circuit Protection
- Lithium-Ion Battery Operation
- Lithium-Ion Battery Characteristics
- Battery Charging
- Battery Handling and Storage
- Battery Packs
- Battery Life
- Battery Production and Testing
- EV Electrical System Operation

Amatrol's EV-Battery Technology Fundamentals Learning System teaches basic knowledge and skills related to electric vehicle (EV) battery chemistry, construction, operation, safety, charging, and storage. The system's hands-on training workstation features a variety of real industrial EV battery system electrical components, including lithium-ion batteries, a smart charger/discharger, electrical circuit components, an individual cell smart charger, battery storage unit, and electrical measurement instruments.

The EV-Battery Technology Fundamentals Learning System includes Amatrol eLearning multimedia curriculum that begins with an introduction to EV systems and the basics of electrical circuits, voltage, current, and resistance before moving on to 29 hands-on skills related to EV battery types, operation, charging, testing, handling, and storage. Users will learn important skills, such as measuring battery cell discharge current, adjusting charge controller settings, using a thermal camera to measure battery temperature, and using a smart charge controller to charge a battery pack.



Teach Hands-On Skills with Real Industrial Components

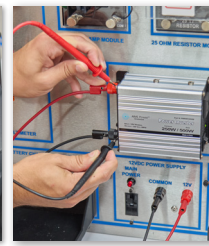
Amatrol's EV-Battery Technology Fundamentals Learning System (T7022) teaches relevant EV battery hands-on skills by providing direct experience with a variety of real industrial EV battery system electrical components, including lithium-ion batteries, a smart charger/discharger, electrical circuit components, an individual cell smart charger, battery storage unit, thermal camera, and electrical measurement instruments.



Cylindrical
Battery Charger
& Analyzer



Battery
Discharger &
Analyzer



Power Inverter

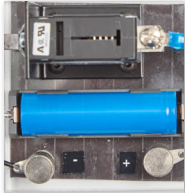


Thermal Camera

Multiple Power Options & Safety Features



Battery Pack



Individual Battery



12 VDC Power Supply

The T7022 boasts multiple power options, including individual lithium-ion batteries, lithium-ion battery packs, and a 12VDC power supply to power circuits, so you're not constantly draining the lithium-ion batteries. The training system also features a range of safety features, such as battery storage, battery circuit breakers, low current, and lithium-ion phosphate batteries.

Learn How to Operate Multiple Types of EV Battery Smart Chargers

Learners using the T7022 will gain experience with multiple types of EV battery smart chargers. The included 4-Slot Smart Charger, Battery Pack Smart Charger/Analyzer, and Battery Pack Smart Discharger feature displays and can be operated with both PC and Bluetooth software. The included Battery Pack Battery Management System (BMS) can also be operated via Bluetooth software.



4-Slot Smart Charger



Pack Smart Charger



Pack Smart Discharger



Pack BMS

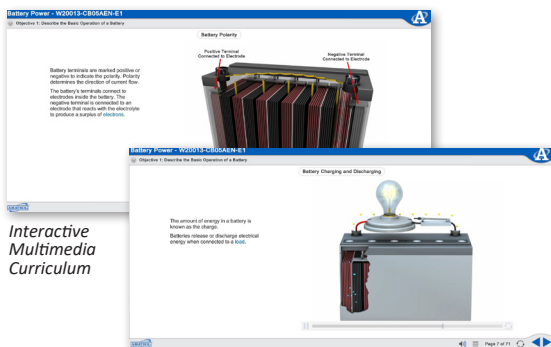
Gain EV Battery Skills Using a Wide Variety of Electrical Circuit Components

The T7022 features a wide variety of electrical circuit components to bring industrial realism to the process of learning EV battery fundamentals, including: 12VDC fan motor; 120VAC fan motor; lamps; resistors; push button switches; selector switches; control relay; fuse; circuit breaker; DC-DC converter; and AC inverter.



Electrical Circuit Components

eLearning Multimedia Student Curriculum with 29 Hands-On Skills



Amatrol's curriculum features a highly interactive, multimedia format that includes stunning 3D graphics and videos, voiceovers of all text, and interactive quizzes and exercises designed to appeal to learners with different learning styles. The T7022 curriculum starts with an introduction to EV systems and the basics of electrical circuits, voltage, current, and resistance before moving on to 29 hands-on skills related to EV battery types, operation, charging, testing, handling, and storage. The combination of theoretical knowledge and hands-on skills solidifies understanding and creates a strong basis for pursuing more advanced skills.



Certified ISO 9001:2015