Battery Technology Fundamentals Learning System

T7022

EL ELECTRICAL



T7022



Interactive Multimedia Curriculum and Student Reference Guide

Learning Topics:

- 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
- Introduction to Electric Vehicle Systems
- EV Electrical System Operation

Amatrol's Battery Technology Fundamentals Learning System teaches basic knowledge and skills related to battery chemistry, construction, operation, safety, charging, and storage. The system's hands-on training workstation features a variety of real industrial 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 Battery Technology Fundamentals Learning System includes Amatrol eLearning multimedia curriculum that begins with the basics of electrical circuits, voltage, current, and resistance before moving on to 29 hands-on skills related to battery types, operation, charging, testing, handling, and storage. The course also includes an introduction to electric vehicle (EV) systems and their operation. 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.

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Technical Data

Complete technical specifications available upon request.

Tabletop Workstation
Electrical Instrumentation Package
Battery Power Package
Smart Charger/Discharger Set
Electrical Circuit Component Package
Individual Cell Smart Charger
Battery Storage Unit
24 VDC Power Supply
Lead Set
Interactive Multimedia Curriculum (M34150)
Instructor's Guide (C34150)
Instructor's Resource Print CD (K34150)
Installation Guide (D34150)
Student Reference Guide (H34150)
Additional Requirements:
Recommended table 82-610 Mobile Technology Workstation or equivalent
Computer Requirements: http://www.amatrol.com/support/computer-requirements/
Utilities:
Electricity (100-240V/50-60Hz/1ph)

Teach Hands-On Skills with Real Industrial Components

Amatrol's Battery Technology Fundamentals Learning System (T7022) teaches relevant hands-on battery skills by providing direct experience with a variety of real industrial 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.

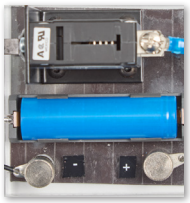


Power Inverter



Thermal Camera

Multiple Power Options & Safety Features



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 Battery Smart Chargers

Learners using the T7022 will gain experience with multiple types of 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

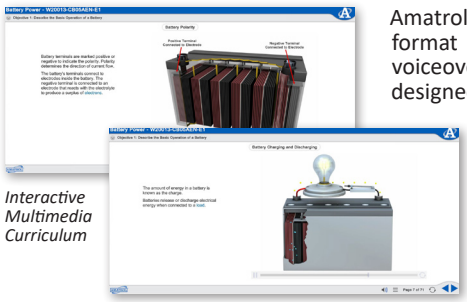
Gain Battery Skills Using a Wide Variety of Electrical Circuit Components

The T7022 features a wide variety of electrical circuit components to bring industrial realism to the process of learning battery fundamentals, including: 12VDC fan motor; 12VAC 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



Interactive Multimedia Curriculum

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 the basics of electrical circuits, voltage, current, and resistance before moving on to 29 hands-on skills related to battery types, operation, charging, testing, handling, and storage. The course also includes an introduction to EV systems and their operation. The combination of theoretical knowledge and hands-on skills solidifies understanding and creates a strong basis for pursuing more advanced skills.

AMATROL®
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