

Corporate Office

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Level 1 Mobile Electric

Course Description: This course covers the electrical fundamentals as they apply in the mobile equipment environment. The course emphasizes basic electrical components, terminology, and safety. Special emphasis is placed on understanding digital VOM's and using them to measure current, resistance, continuity, capacitance, and more. Math is kept to a minimum and the course is hands-on from the very beginning. As topics are introduced, students will be able to demonstrate them using their VOM's and electronic boards. Direct application of each topic to real world truck electrical systems will continually be demonstrated in areas such as testing batteries, continuity in circuits, testing for voltage, etc.

Topics from the ASE Certifications E2 and T6 will be covered and addressed along with electrical topics found in the International Fluid Power Society's Mobile Hydraulic Mechanic Certification.

Prerequisites: None

Course material: CFC-Solar School book

Learning Objectives:

- Electrical fundamentals
- Circuit fundamentals
- Circuit analysis
- Basic magnetism
- Circuit components
- Electrical testers
- Safety in electrical testing
- Personal safety
- Equipment safety
- Safe work policies
- Voltmeter basics and proper use
- Intro to multiplexing systems
- Troubleshoot common electrical problems on aerial equipment
- Learn how to properly add or delete optional circuits to existing trucks