



## Continuous Miner Electrical Systems Troubleshooting Training

### Course Duration

3 days

### Target Audience

Mine maintenance personnel and service engineers

### Description

The class covers troubleshooting of the Continuous Miner electrical system. After realistic faults are created on an electrical system training panel the students use the electrical schematics, controller case drawings and the FaceBoss Diagnostic Display to generate the possible causes of the faults. Testing on the training panel is done to verify the cause of the fault.

This course also focuses on screen navigation and interpretation of the Face Boss Diagnostic Display.

Other areas covered will include electrical schematic interpretation which encompasses identification of each electrical circuit.

Upon completion of correcting each fault the student highlights the circuit on the schematic and identifies the location of the fault on the controller case drawing. The highlighted prints become a reference for the student for future use.

The course focus is on combining diagnostic screens, circuit and controller case knowledge to correctly troubleshoot problems on all machine circuits. This will be followed by a review.

### Prerequisites

Students should have a basic knowledge of the Continuous Miner electrical system.

### Course Location

Customer Site or Franklin

### Course Objectives

Upon completion of this course the student will be able to:

- Analyze and interpret machine electrical schematics and controller case drawings for the purpose of troubleshooting and repair
- Navigate and interpret the various screens of the Face Boss Diagnostic Display to determine electrical system faults
- Identify and locate machine electrical components on the controller case drawings
- Make use of a training panel to troubleshoot realistic faults

### Main Concepts

- Electrical component application and function
- FaceBoss Diagnostic Display screen navigation and interpretation
- Electrical schematics and controller case drawings analysis
- Electrical maintenance and troubleshooting

## Day 1/2/3

### Overview

- Laptop computers are set up displaying FaceBoss screens.
- Distribute electrical schematics, a machine technical manual, pocket guides.
- Create a fault on the training panel.
- Using the FaceBoss diagnostic screens, electrical schematics, technical manual, and pocket guides, the trainee will identify possible causes and faults.
- Goal of this course is to cover all machine electrical circuits.
- The trainee locates faults on the training panel using a multi-meter, then highlights the corresponding circuit on the electrical schematic and locates components on the controller case drawings.