KOMATSU

Product Training and Publications

Feeder Breaker Electrical Systems Troubleshooting Training

Course Duration
2 days

Target Audience

Mine maintenance personnel and service engineers.

Description
The class covers troubleshooting of the Feeder Breaker electrical system. After realistic faults are created on an electrical system training panel the students use the electrical schematics, controller case drawings and the PLC 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 PLC 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 Feeder breaker 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 PLC 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
- PLC Diagnostic Display screen navigation and interpretation
- Electrical schematics and controller case drawings analysis
- Electrical maintenance and troubleshooting.

Day 1 and Day 2

Overview

- Distribute electrical schematics, a machine technical manual, pocket guides
- Create a fault on the training panel
- Using the PLC 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 mult-imeter, then highlights the corresponding circuit on the electrical schematic and locates components on the controller case drawings.