

## Electrical and Controls Module Level 1

# Basic Electrical

### General Information

Course Number: M-103  
Format: Instructor led  
Length: 4 hours  
Maximum Students: 8

### Audience

This course is for maintenance technicians, supervisors, and people who support the conveyor system.

### Customer Requirements

A room with a projector and a marking board with markers

### Prerequisites

- A general knowledge of mechanical and electrical systems
- A general knowledge of safety and lockout/tagout procedures
- A working knowledge of tools and test equipment

### Benefits

This course is designed to increase knowledge and skills to understand basic electricity, uses, and troubleshooting.

### Course Objectives

*Upon completion of this course, the student should be able to:*

- Describe the theory of electricity
- Demonstrate the use of Ohm's law
- Demonstrate using a meter to check voltage, resistance, and current

### Topics

#### 1. General

*1/2 Hour*

- a. Safety

#### 2. Theory

*2 1/2 Hour*

- a. Conductors and insulators
- b. Basic AC and DC
- c. Circuits
- d. Ohm's law

#### 3. Test Equipment and Troubleshooting

*1 Hour*

- a. Meter usage
- b. Voltage
- c. Resistance
- d. Current