Troubleshooting/Motor Controls

Motor Controls for Maintenance Technicians

For workers in the industrial and manufacturing sectors, understanding electrical motor controls is a valuable skill for production managers, technicians, designers and line workers. This course is a comprehensive introduction to motor controls , covering the essential topics for employees working in a variety of industrial and production settings. Students will understand, follow and troubleshoot motor control circuits and understand how components work to determine if they are bad. This will save the company money by only changing the bad parts and teach the technician to quickly and accurately diagnose and repair problems.

"DON'T BE A PARTS CHANGER"

Motor Controls for Maintenance Technicians

Course Topics and Objectives

- General Principles of Motor Control
- Overload Relays
- Flow Switches and Sensors
- Solenoid and Motor Operated Valves Temperature Sensing Devices
- Proximity Detectors Photodetectors
- Schematics and Wiring Diagrams
- Basic Control Circuits
- Jogging and Inching Sequence Control
- Single-phase and three-phase Motors
- Motor Installation
- Connection diagrams
- Theory of operation
- Phase/Rotation Control circuits
- Drawing symbols
- One line drawings
- NEMA symbols
- Manual Starters
- Relays, Contactors, and Motor Starters
- The Control Transformer
- Timing Relays
- Pressure Switches and Sensors
- Float Switches
- Limit Switches
- Hand-Off Automatic Controls
- Forward-Reverse Control
- Start-Stop Push-Button Control
- Multi-Pushbutton Stations
- Basic Parts of a motor
- Motor construction
- Motor types
- Wire and troubleshoot basic electrical control circuits to develop a logical, systematic approach to troubleshooting
- How to troubleshoot pushbutton, relay, motorstarter and other common component problems
- How to wire basic electrical circuits using wiring diagrams
- Recognize the different types of electrical control ladder diagram
- Read a basic electric circuit diagram
- Perform continuity and resistance checks on relay coils and contacts, overloads, fuses, circuit breakers, switches and other control circuit components.

Over 60 Hands On Lab Projects

Motor Controls for Maintenance Technicians

Who Should Attend:

- All Building Maintenance Personnel
- All Plant & Facility Maintenance Technicians
- Electricians
- Mechanics
- HVAC Technicians
- Boiler Operators
- Machine Operators
- Apprentices
- Alarm Technicians
- Non-Electrical Engineers
- Building Engineers
- Stationary Engineers
- Low Voltage Specialists
- Multi-craft & Cross Training Personnel
- Environmental health & safety personnel
- Maintenance Supervisors
- Plant & facility managers

Onsite Training:

- We offer onsite training at your facility.
- We can provide the same courses as we offer in public seminars. We can even design courses especially to meet your needs.

Advantages of On-Site Training:

- Modify the content to your specific needs
- Protect company privacy
- Workers remain on site in case of an emergency
- Saves time and travel costs
- Instructors can discuss your specific equipment
- Problems can be openly discussed
- Flexible scheduling
- Increased price savings as the groups get larger
- Promote teamwork & camaraderie among workers
- More comfortable learning environment

Motor Controls for Maintenance Technicians

Class Options:

2 Day Class
- Ladder Diagrams and Schematics for Maintenance Technicians

2 Day Class
- VFDs for Maintenance Technicians

2 Day Class
Electric Motors for Maintenance Technicians4

4 Day Class
Motor Controls Workshop
- Ladder Diagrams and Schematics for Maintenance Technicians - 2 Days
- Motor Controls for Maintenance Technicians - 2 Days

5 Day Class
Motor Controls Workshop
Ladder Diagrams and Schematics for Maintenance Technicians - 2 Days
Motor Controls for Maintenance Technicians - 2 Days Plus 1 Full Day of Troubleshooting.

Note: The 4 day workshop combines Ladder Diagrams and Schematics for Maintenance Technicians and Motor Controls for Maintenance Technicians to form a 4 day class.
Note: The Troubleshooting Bootcamp combines Ladder Diagrams and Schematics for Maintenance Technicians, Motor Controls for Maintenance Technicians and a Full Day of Troubleshooting to form a 5 day class.