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Electronic Source Company

CORPORATE TRAINING AND CONTINUING EDUCATION

To ensure consistency and uniformity across all departments, we encourage on-going training in all areas of our operations. We believe this policy enables ESC personnel to:

- Perform their job at consistent quality levels
- Understand and meet the needs of our customers, both internal and external.
- Work for continuous improvement of all systems and processes.
- Manage and train others for competency and quality according to the policies and procedures that are documented in our Quality Systems Manual.

TRAINING COURSE DESCRIPTIONS

ESD Awareness
This course covers an introduction to ESD, ESC control personnel, ESD control in the work area, and ESD control regarding handling and transport.
Duration: **1 hour**
ESC Certification: **1-year expiration**

Basic Soldering
This course covers the basics of hand soldering. Topics covered are: Soldering Tools and Equipment, solder materials; preparation for soldering; through-hole soldering techniques. Students participate in a practical lab exercise during which they build a working workmanship sample.
Duration: **4 days**
ESC Certification: **Non-expiring**

Through-hole Component Identification
This course covers how to: identify through-hole components; read color-coded resistors; read capacitor values; identify the difference between axial-leaded parts and radial-leaded parts; identify polarity markings and pin one designations.
Duration: **5 hours**
ESC Certification: **1-year expiration**

Surface Mount Component Identification
This course covers the identification of surface mount components. The student will learn how to read the values on chip resistors and chip capacitors, as well as how to identify polarity markings and pin-one designations.
Duration: **8 hours**
ESC Certification: **1-year expiration**

Surface Mount (SMT) Process Overview
This course provides a general overview of the surface mount process. Topics discussed include different types of SMT components; part markings, size codes, and materials; the manufacturing process sequence.
Duration: **3 hours**
ESC Certification: **Non-expiring**

IPC-A-610C
An IPC-registered instructor conducts this course. This course covers acceptance requirements for the manufacture of electrical and electronic assemblies. Topics addressed include: introductory information; specialized designs; terms and definitions; inspection methodology; magnification aids and lighting; mechanical assembly; component installation location and orientation; soldering; cleanliness; markings; coatings; laminate conditions; discrete wiring; surface mount assemblies.
Duration: **3 days**
ESC Certification: **2-year expiration**

SMT Acceptability Requirements
This course covers Section 12 of the IPC-A-610C standard. It covers the acceptability requirements for mounting and soldering SMT components.
Duration: **4 hours**
ESC Certification: **Non-expiring**

J-STD-001
An IPC-registered instructor conducts this course. This course addresses the requirements for the manufacture of soldered Electrical and Electronic Assemblies. Topics covered include: introductory information; applicable documents; general requirements; materials; components; assembly processes; assembly soldering processes; cleanliness requirements; assembly requirements; coating and encapsulation; rework and repair; miscellaneous requirements.
Duration: **3 days**
ESC Certification: **2-year expiration**

Wire and Terminal Soldering
This course comes from Module 2 of the J-STD-001 Worker Proficiency course. The student strips and tins wires, and wraps wires around various terminals. The soldering workmanship samples must meet Class 3 product requirements from the J-STD-001 criteria.
Duration: **3 days**
ESC Certification: **2-year expiration**

IPC-7711 and 7721
An IPC-registered instructor conducts this course. IPC-7711 addresses rework of electronic assemblies. IPC 7721 addresses repair and modification of printed boards and electronic assemblies. This course covers the procedural requirements, tools, materials and methods to be used in the modification, rework, repair, overhaul, and restoration of electronic products.
Duration: **5 days**
ESC Certification: **2-year expiration**

PCB Fabrication
This course covers all of the processes for the fabrication of printed wiring boards. Topics addressed include: history of PCBs (printed circuit boards); different types of PCBs; PCB specifications, acceptance criteria, design considerations, and CAD design.
Duration: **4 hours**
ESC Certification: **Non-expiring**

Wave Soldering
This course covers the wave solder process sequence. Topics addressed include: materials; operating components of the wave solder machine; wave solder machine considerations; thermal profiling; touch-up; wave solder process troubleshooting; safety.
Duration: **7 hours**
ESC Certification: **Non-expiring**