



ELECTRA VECTRA PREVENTATIVE MAINTENANCE COURSE

Online Training Course

Course ID: SP149-155

ITW EAE Learning

Our eLearning courses are specifically designed to provide engaging and interactive learning opportunities for operators, technicians, engineers and/or managers to be introduced to or build upon the knowledge and skills needed to successfully operate, maintain, program, or troubleshoot their Electrovert Electra Vectra wave soldering system. Online courses are designed to cover beginning and intermediate competencies and should be mastered before considering more advanced, in person training. Courses require a reliable internet connection and can be viewed at your own pace on your phone, tablet, or pc laptop.

Course Overview:

This is a must-take course for any technician responsible for preventative maintenance on an Electrovert Electra and/or Vectra wave soldering system. A separate module is dedicated to each recommended maintenance time interval and covers step-by-step instructions on how to complete each of the recommended maintenance tasks, helpful tips, and the required tools and spare parts to have on hand.

Who Should Take the Course:

Anyone who will perform preventative maintenance on an Electra and/or Vectra wave soldering system.

Prerequisites:

- Electra Vectra Safety Information & Guidelines (SP147)
- Electra Vectra Machine Overview (SP148)

A basic understanding of cleaning and how to operate Electra and/or Vectra wave soldering system is required to perform preventative maintenance on the machine.

Time Requirements: 3-4 hours **Assessments:** Quiz **Language:** English

Learning Objectives:**Module 1: Preventative Maintenance Overview**

- Classify Preventative Maintenance tasks into Inspection, Cleaning, Part Replacement, and Lubrication.
- Recognize the need for calendar-based maintenance in Electra Vectra wave machines.
- Address potential issues identified during the cleaning process.
- Understand the importance of having the right tools and materials on hand before performing maintenance.
- Navigate the machine software to access maintenance functions.

Module 2: Daily Preventative Maintenance

- Clean incoming board detect sensor.
- Wipe residue from underneath top preheaters/fluxer/covers and hood/spray fluxer nozzle/actuator cover.
- Remove solder deposits from the conveyor rails and clean machine windows.
- Clean any spills on/around the fluxers and preheaters.
- Verify flux and solder levels.
- Remove dross from solder surface.
- Inspect conveyor and conveyor fingers.
- Verify lubrication of conveyor chains/width shafts/drive mechanism.

Module 3: Weekly Preventative Maintenance

- Lubricate conveyor chains, shafts, drive mechanism.
- Inspect finger cleaner brushes and nozzles, clean trays, and screen filter.
- Clean electrical cabinet cool fan filters.
- Inspect IR preheater elements (VectraElite/Electra)
- Clean the Actuator on the fluxer.
- Verify pump belt tension.
- Clean solder nozzles.
- Clean solder wave height sensor (if equipped).
- Clean the dross from the float and remove any dross in the reservoir.

Module 4: Monthly Preventative Maintenance

- Clean finger cleaner reservoir.
- Inspect conveyor width adjust chain tension.
- Clean the fluxer slides (mounting frame).
- Inspect fluxer tubing for cracks and leaks.
- Inspect and lubricate solder pot jacking stand tubes/chain.
- Clean residue from exhaust sensor lines.
- Check solder contamination level – Lead Free.

Module 5: Quarterly Preventative Maintenance

- Clean solder nozzles, flowducts, and pumps.
- Clean convection preheater blowers (if equipped).
- Inspect Nitrogen Curtains.

Module 6: Semi-Annual Preventative Maintenance

- Inspect electrical connections.
- Lubricate feeder drive chain (if equipped).
- Check solder contamination level – Tin/Lead Alloy.

Module 7: Annual Preventative Maintenance

- Clean finger chains and conveyor rails.
- Clean exhaust hoses and manifold.

For more information and pricing, please contact ITW EAE at training@itweae.com.