



Course: Econopak Series Maintenance and Operations – EL-EPK-MO

Course Description: Customers attending this training will gain hands-on skills required to maintain and operate the Econopak wavesoldering system through specialized performance based equipment training *(PBET) standards. Each student, upon successful completion of the skills criteria and course objectives, will receive a certificate of competence for the operation and maintenance of the Econopak wavesoldering system.

Course Length: 4 Days **Start:** Monday 9:00 a.m. **End:** Thursday 5:00 p.m.

Intended Audience: Individuals responsible for the maintenance and/or proper day-to-day operations of the wavesoldering process.

Course Objectives: Upon completion of the course and accomplishment of the practical skills criteria, the student will be qualified to operate and maintain the Econopak wavesoldering system and will be able to:

- Define wave solder theory and basic soldering process problems.
- Identify safety hazards and precautions related to the machine's operation.
- Set-up, operate, and maintain the Conveyor system
- Set-up, operate, and maintain the Fluxer system
- Set-up, operate, and maintain the Preheaters system
- Set-up, operate, and maintain the Nozzles and Solder Pot system
- Operate and use (manual or computer) control systems.
- Level and align various elements of the machine system.
- Perform suggested preventive maintenance
- Use the electrical schematics and block diagrams to identify system anomalies.

Prerequisites:

- Ability to use meters, hand tools, etc.
- Basic electro-mechanical skills
- Ability to read / interpret engineering drawings

* All courses are structured according to PBET standards. The PBET standards, developed by the Technician Training Council and sponsored by SEMATECH and SEMI/SEMITECH and include the following six concepts that are integrated into every course:

- Derive performance objectives from analysis
- Establish course content from performance objectives
- Identify prerequisite skills
- Maximize hands-on practice
- Develop skill tests to measure competency
- Repeat practice and skill tests until mastery of each objective is achieved per course objectives.



Course: Econopak Series Troubleshooting – EL-EPK-TS

Course Description: This course provides numerous practical “hands-on” troubleshooting and maintenance exercises that put to practice classroom theory following *PBET standards. The students are given electrical and software training necessary to develop the techniques and knowledge required to calibrate and perform in-depth troubleshooting of the Econopak system. Each student, upon successful completion of the skills criteria and course objectives, will receive a certificate of competence for the troubleshooting course for the Econopak wavesoldering system.

Course Length: 4 Days **Start:** Monday 9:00 a.m. **End:** Thursday 5:00 p.m.

Intended Audience: Individuals responsible for the in-depth maintenance of the Econopak wavesoldering system.

Course Objectives: Upon completion of the course and accomplishment of the practical skills criteria, the student will be qualified to perform in-depth troubleshooting on the Econopak wavesoldering system and will be able to:

- Operate and use machine controls systems and navigate software screens/menus
- Perform system software upgrades and archives.
- Set and define the various elements of a process profile.
- Calibrate the conveyor width
- Calibrate the Solder pot lead clearance
- Calibrate blower failure control modules
- Calibrate the temperature control systems for all the heaters
- Perform in-depth system’s mechanical troubleshooting
- Use the schematics and block diagrams to perform in-depth electrical troubleshooting.

Prerequisites:

- Attendance of the Operations and Maintenance course
- 6 months experience of machine maintenance / operations
- Ability to read / interpret engineering drawings

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- Derive performance objectives from analysis
- Establish course content from performance objectives
- Identify prerequisite skills
- Maximize hands-on practice
- Develop skill tests to measure competency
- Repeat practice and skill tests until mastery of each objective is achieved per course objectives.