Eclipse XT Machine Training

Highly Configurable Scalable Pick-and-Place Handler

Cohu

Automotive

Mobility

IoT/IoV & Optoelectronics

Computing & Network

Industrial & Medical

Consumer

Course Description

This training material introduces the student to the Eclipse XT test handler. The training is offered in three levels from the perspective of an Operator, a Maintenance Technician and an Advanced Technician:

- Level 1 - Basic: Focused on basic operational procedures: loading/unloading parts, troubleshooting, and general equipment safety
- Level 2 - Intermediate: Maintenance focused course intended to get the student familiar with the product. Operational requirements, setup and alignment, device workflows, and mechanical/electrical diagnosis
- Level 3 - Advanced: Maintenance focused course intended to get the student familiar with the product. Complex mechanical/electrical diagnosis, motor tuning, setup and alignment

Course Outline

- Overview and Safety
- Machine Platform
- Troubleshooting
- Electrical and Thermal Control
- Q&A, Test, Wrap Up

Course Length

- Level 1: Basic - one day (seven hours)
- Level 2: Intermediate - five days (forty hours)
- Level 3: Advanced - ten days (eighty hours)

Prerequisites

- Level 2: Level 1 training and a minimum of thirty days experience with the Eclipse XT test hander
- Level 3: Level 2 training and a minimum of six months experience with the Eclipse XT test handler

Recommended

- English - written and spoken

- **Ambient to 130°C (Standard)**
- **Tri-temp range -55°C to +155°C**
- **Ultra fast T-Core Active Thermal Control**
- **Low to 800 W power applications**
- **OSAT friendly standard process flow and device kits compatible**

Exclipse XT Machine Training

Level 1: Basic

Day 1

1 - Overview
- Handler Overview
- Functional Mechanism Overview

2 - Safety
- EMOs, and Interlocks
- Barriers, Doors and Safety Covers
- Thermal Hazards
- Electrical Hazards

3 - Operations and User Interface
- Basic System Operations
- User Interface Screens Use
- Load Lots, Run Devices, Alarms and Recoveries
- Recipe Management and Package Files

4 - Q&A
- Q&A, Test, Wrap Up

Level 2: Intermediate

Day 1

1 - Overview
- Handler Overview
- Functional Mechanism Overview

2 - Safety
- EMOs, and Interlocks
- Barriers, Doors and Safety Covers
- Thermal Hazards
- Electrical Hazards

3 - System Mechanisms
- Names, Locations, Functions Automation
- Names, Locations, Functions Options
- Names, Locations, Functions Thermal Hardware
- Connect Facilities and Validate Requirements
- Perform Start Up Shut Down and INIT.

Day 2 - 3

4 - Operations and User Interface
- Basic System Operations
- User Interface Screens Use
- Load Lots, Run Devices, Alarms and Recoveries
- Recipe Management and Package Files
- Performance System Diagnostics for Motor and IO

5 - TS Mechanical Procedures
- Kit Change Hardware Removal
- SKL Removal
- Testsite Alignments
- SLK Head Repair Offline
- Install SLK and Post Checks
- TS Kit HW Installation

6 - Teaching and ACL
- Test Site Arm Teaching
- Test Site Auto Contactor Learning (ACL)
- User Interface Screens Use

Day 4 - 5

7 - IO PnP Mechanical Procedures
- Floating Lock PnP Head Alignment at Shuttle
- PnP Pitch Verification Align and Teach
- PnP Tray and Shuttle Teaching (3 point cal.)
- PnP Z Base Setup for Pick and Place
- PnP Kit Installation
- Sequential Offset and Adjustments (overview)
- User Interface Screens Use

8 - Device Detection Features
- Input Shuttle Device Out of Pocket HW Intro.
- Input Device Out of Pocket Cal. Adj.
- Output Device Out of Pocket Cal.
- In Socket Inspection Vision HW Overview
- In Socket Inspection Basic Setup for Operations
- In Socket Inspection Vision Training

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Exclipse XT Machine Training

Level 2: Intermediate (cont/d)

9 - Thermal

- Overview ATC Operation Eclipse
- ATC Hardware Introduction T-Core I, Heat Exchange
- Temperature User Interface Screens (ATC)
- Perform SLK Thermal Calibration (HW dep.)
- Performance System Shuttle and SK Plate Cal.
- Contactor Docking Heater (option)
- Liquid Cooler or Chiller Servicing (option)

10 - Electrical

- System Schematic Overview
- Trace Power Distribution
- Electronic Communication and IO
- Copley, Panasonic, Can Bus, Omron

11 - Troubleshooting

- System Troubleshooting Methods
- Troubleshoot Instructor Induced Bugs

12 - Q&A

- Q&A, Test, Wrap Up

Level 3: Advanced

Day 1 - 6

1 - Overview

- Level 2 Training Review

2 - Alignment

- Test Site Alignments
- Soak Plate Alignments
- Shuttle Alignments
- Input PnP Alignment
- Ouput PnP Alignment
- ATL Alignments
- XY Alignments
- XY Alignments
- Sort Alignments
- Input Tray Platform
- Manual Tray Platform

3 - Auto Teach

- Auto Contactor Learning
- Auto Contact Cleaning
- Pick and Place Teaching (Input and Output PnP)
- Package Offset Adjustments
- Check and Run a Kit

Day 7 - 10

4 - CanOpen Troubleshooting with CME

- Motor/IO File Loading Procedures
- Standalone Method Loading of Motor File
- Diagnostic with CME2 Program

5 - Electrical and Thermal Control

- Schematics Review
- Thermal Control
- Trace Power Distribution
- Electronic Communications and IO

6 - Q&A

- Q&A, Test, Wrap Up

Who Should Attend

- Level 1 : Operator
- Level 2: Maintenance Technician
- Level 3: Advanced Technician

Training Locations

- Level 1 - Basic: on-site customer class
- Level 2 - Intermediate: on-site customer class or Cohu training facility
- Level 3 - Advanced: on-site customer class or Cohu training facility

Customized classes and on-site customer classes are available to suit your training needs.

More Information/Registration

- Contact training@cohu.com

Training Course Catalog

- Visit our handler training catalog to view our other training offerings www.cohu.com/handler-training