

MT2168 XT AHC Machine Training

Pick and Place Handler



Course Description

This training material introduces the student to the MT2168 XT AHC 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

- Introduction and Course Orientation
- Software
- Machine Platform
- Machine Input and Output
- Machine Modules
- Adjustments
- Q&A, Test, Wrap Up

Course Length

- Level 1: Basic - two days (sixteen hours)
- Level 2: Intermediate - five days (forty hours)
- Level 3: Advanced - five days (forty hours)

Prerequisites

- Level 2: Level 1 training and a minimum of thirty days experience with the MT2168 XT AHC test handler
- Level 3: Level 2 training and a minimum of six months experience with the MT2168 XT AHC test handler

Recommended

- English - written and spoken



Automotive



Mobility



IoT/IoV & Optoelectronics



Computing & Network



Industrial & Medical



Consumer

- Full tri-temp range -50°C to +155°C
- Temperature accuracy $\pm 1^\circ\text{C}$
- Up to 15,000 UPH
- Up to 32 contact sites
- High soak capacity
- Modular and scalable base unit - engineering to HVM

MT2168 XT AHC Machine Training

Level 1: Basic

Day 1

- 1 - Course Orientation Introduction
- 2 - Safety Regulations and Overview
- 3 - Basics/Handler Modules
 - Machine Structure
 - Available Machine Configurations
 - Scalability
 - Operation and Display Elements
 - Signal Tower
 - Location of Supply Connections and Interfaces
- 4 - Device Flow
 - Device Flow through the Modules
 - Tray Flow at the Unloader
 - Definition of Movements and Numbering Conventions
 - Pin 1 Orientation
- 5 - HMI
 - HMI Design, Operating Elements, Run Screen
 - Navigation Wizard
 - Main Menu Items and Menu Structure
- 6 - Handler Operation
 - Power On/Off
 - Load/Unload
- 7 - HMI Operation
 - Sorting Operation and Temperature Operation
 - Check Recipe, Bin Mapping, Yield
 - Load Recipe
- 8 - Finish Operations, LN₂ Barrel Exchange

Day 2

- 8 - Customer Specific Operation
 - Lot Tracking
 - Soft-Plunge Function
 - Hardware Options (DDD, Plunger Pressure Booster, ATC)
- 9 - Troubleshooting
- 10 - Q&A
 - Q&A, Test, Wrap Up

Level 2: Intermediate

Day 1

- 1 - Course Orientation Introduction
- 2 - Basics/Handler Modules
- 3 - Safety Regulations and Overview
- 4 - Device Flow and Machine Operation
 - Tray and Device Flow through the Modules
 - Definition of Movements and Numbering Conventions
 - Pin 1 Orientation
 - Load and Unload Trays
- 5 - HMI and Application
 - HMI Design, Operating Elements, Run Screen
 - Menu Structure
 - Sorting Operation and Temperature Operation
 - Practice Operating the Handler
 - Software Update (new patch for Controller PC)

Day 2

- 5 - Electrical Hardware
- 6 - Heating/Cooling
- 7 - Production at Cold Temperature

Day 3

- 7 - Conversion and Teaching
 - Conversion Kit/Site Pitch Kit
 - Pick and Place Teaching

Day 4

- 8 - UPG's, Teaching and Alignment
 - UPG/Options/Tools
 - Teaching/Basic Alignments

Day 5

- 9 - Troubleshooting
- 10 - Preventive Maintenance
- 11 - Q&A
 - Q&A, Test, Wrap Up

- Full tri-temp range -50°C to +155°C
- Temperature accuracy $\pm 1^\circ\text{C}$
- Up to 15,000 UPH

- Up to 32 contact sites
- High soak capacity
- Modular and scalable base unit - engineering to HVM

MT2168 XT AHC Machine Training

Level 3: Advanced

Day 1

1 - Introduction Basics/Handler Modules

- Course Orientation
- Machine Structure
- Module Names and Locations

2 - Safety

- Different Operating Conditions
- Door Request and Emergency Off Switch
- Potential Dangerous Areas

3 - Basic Alignments

- Tool Kits
- Exercises on Loader, Shuttles, Unloader using ProWorks instructions

Day 2

4 - Production at Cold Temperature

- Service Panels

5 - Air Conditioning

- Options ATC and ASP
- Cold Box

6 - Software - BUH

- System Recovery
- Data Handling Using a USB Flash Drive

Day 3

7 - Software - Drives

- Race Car

8 - Recipe

- Recovery
- Configuration
- Exchange Controller PC

Day 4

9 -CAN-Bus

- Basics
- CAN -Net Structure of the Handler
- CAN-Net o...7 in Detail

10 - Troubleshooting

- CAN-Net
- Vacuum
- Software

Day 5

11 - Temperature Calibration

- Basics, compressed-air setting, air flow setting
- BUH Calibration, using the Calibration Kit

12 - Preventive Maintenance

- Why Preventive Maintenance?
- Preventive Maintenance and Safety
- Hands on exercises

13- 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