

# MT2168 LSPK AH Machine Training

## Pick and Place Handler



### Course Description

This training material introduces the student to the MT2168 AH 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 AH test handler
- Level 3: Level 2 training and a minimum of six months experience with the MT2168 AH test handler

### Recommended

- English - written and spoken



Automotive



Mobility



IoT/IoV & Optoelectronics



Computing & Network



Industrial & Medical



Consumer

- Full tri-temp range -50C° to +155°C
- Temperature accuracy ± 1°C
- Up to 15,000 UPH
- Up to 32 contact sites
- High soak capacity
- Modular and scalable base unit - engineering to HVM

# MT2168 LSPK AH 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

### 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 - Safety Regulations and Overview
- 3 - 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
- 4 - 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
  - Theory of Operations
  - Module Details Base Unit Unloader and Sort Shuttle
- 6 - Temperature Calibration
  - Introduction on Temperature Calibration
  - Static Temperature Calibration of BUH

### 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 LSPK AH 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/Software

- Loader
- Unloader

#### 4 - Basic Alignments/Mechanics

- Pick and Place Head

### Day 2

#### 5 - Alignment Alignments/Mechanics

- Dual Shuttle
- Indy, Race Car, Docking Station

#### 6 - Module Exchange

- Manual Tray Unloader
- Automatic Tray Unloader

### Day 3

#### 7 - Module Exchange

- Race Car

#### 8 - Software

- Recovery
- Configuration
- Exchange Controller PC

### Day 4

#### 9 - Installation/Exchange of Motor/Drive

- Firmware Installation, Parameter Setting
- Software Tools

#### 10 - Troubleshooting

- CAN-Net
- Vacuum

### Day 5

#### 11 - Troubleshooting

#### 12 - Finish Open Tasks

#### 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](mailto:training@cohu.com)

## Training Course Catalog

- Visit our handler training catalog to view our other training offerings [www.cohu.com/handler-training](http://www.cohu.com/handler-training)