

# HP T400 Simplex Color Inkjet Web Press: Train to Maintain



This is a lecture-style and hands-on course focused on the repair, maintenance and troubleshooting of the HP T400 Simplex Color Inkjet Web Press.



**Course Title:** HP T400 Simplex Color Inkjet Web Press: Train to Maintain

**HP Product Number:** H4K26

**Category:** Graphics/IHPS

**Course Length:** 10 Days

**Delivery Language:** English

**To Order:** Graphics Arts AMS Training at [amsgraphicstraining@hp.com](mailto:amsgraphicstraining@hp.com) or 877-415-3222

## Audience

- Customer Maintenance Technicians

## Prerequisites

- Successful completion of the HP T400 Simplex Operator Training Course (H4K25)
- English comprehension at a technical level, appropriate for understanding and using course materials
- Student must bring a Windows compatible laptop to class
- Electrical safety training including switching and grounding procedures and safety related maintenance practices
- Understanding of the causes of and hazards associated with arch flash and appropriate responses including protection boundaries and insulating personal protective equipment and tools
- Experience working with high voltage equipment (480V)
- Experience working in electrical enclosures
- Knowledge of appropriate personal protective equipment (PPE) for common electrical tasks
- Understanding of the types and uses of electrical test equipment such as multi-meters
- Understanding of voltage, amperage, and resistance
- Understanding of electrical conductor and connector types and uses
- Ability to read and interpret electrical schematics and symbols
- Basic computer skills including installing programs and networking
- Basic plumbing skills including familiarity with tools, materials, fittings, sealants, valves, and safe practices
- Basic understanding of pneumatic systems including tools, materials, fittings, sealants, valves, and safe practices
- Ability to read and interpret pneumatic symbols and drawings
- Must complete lockout/tagout training as defined by your company

## Course Objectives

By the end of this class you will be able to:

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- Perform maintenance and repair tasks
- Troubleshoot component level and system-wide issues
- Describe when and how to access additional support
- List safety issues associated with the press in general and specific procedures

Trained HP Color Inkjet Press Technicians will positively influence press reliability by:

- Reduce press down time by quickly and accurately diagnosing problems and finding solutions
- Enhance the longevity of press components by performing preventive maintenance tasks
- Improve overall performance and print quality

## Course Outline

The course includes the following modules:

### **Module 1: Introduction**

#### **Module 2: Safety**

- Locate E-Stops
- Place the press in a safe state
- Describe hazards and how to avoid injuries

#### **Module 3: System Overview**

- Identify electronic PCA boards and functions
- Describe data flows
- Describe major digital front end (DFE) components and functions

#### **Module 4: Electrical Troubleshooting**

- Electrical safety
- Lockout/tagout procedures
- Operating a digital volt meter
- Using electrical schematics
- E-Stop circuits on the press
- Locate the remote I/O connections on the press
- Indicator lights on system I/O ports
- Using telnet to reboot the press
- Using telnet to view the Press.log
- Using the Press Diagnostic system tests to troubleshoot
- Accessing the VNC screen

#### **Module 5: Print Electronics System**

- PCA boards
- Print data flow
- Troubleshooting PCA board level failures
- Troubleshooting print data communication failures
- Handling precautions for Fiber Optic cables
- Print encoder signal path
- Print encoder signal errors

#### **Module 6: TCP/IP Networks**

- Network components and functions
- Virtual Large Area Networks (VLANs)
- TCP/IP network topology
- Accessing and using network host tables
- Troubleshooting network connectivity issues

#### **Module 7: Printbar Control and Servicing**

- Service board and printbar assembly
- CAN bus communication

- Using Tera Term application to communicate with the service board
- Common servicing commands
- The seven states of a printbar
- Using LED lights to troubleshoot service boards
- Configuring a service board
- Using the PEC utility web page 9105
- Print Arch functions
- Pen to Paper Spacing

#### **Module 8: Dryers**

- Major components
- Dryer states
- WISH system
- Dryer VNC screen
- SCR event logs
- Troubleshooting tables
- Common repair procedures
- Lubricating blower bearings

#### **Module 9: Compute Systems**

- Major DFE components
- Sequoia Press Adapter

#### **Module 10: Web Transport System**

- Major components
- Troubleshooting
- Load cell calibration
- Web Guide system
- Troubleshooting and repairing HP winders

#### **Module 11: Ink Delivery System**

- Recommended PPE and associated hazards
- Ink delivery path
- Operator controls
- Aerosol system
- Flow sensor adjustment
- Bulk ink filter replacement
- Diaphragm pump repair

#### **Module 12: Inline Process Controller**

- Hardware and software systems
- Using schematic drawings
- Theory of operation
- Camera alignment
- Flat field adjustment
- Common problems

#### **Module 13: Conclusion**

- Self-Evaluation Checklists
- Learning Check
- Course Evaluation

**For more information:**

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