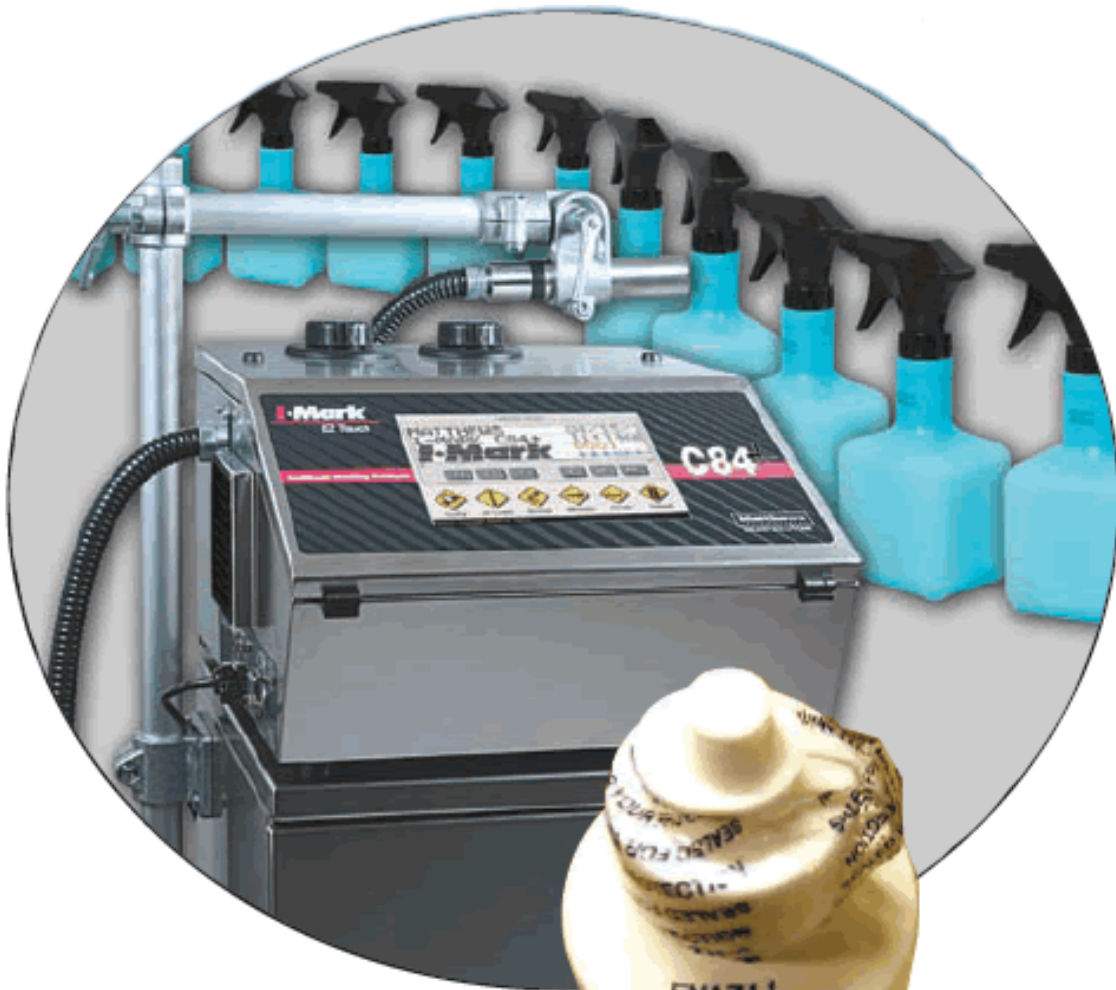


Service Level Course Syllabus



I-Mark™
EZ Touch **C84+**

6515 Penn Avenue, Pittsburgh, PA 15206
O: 800.775.7775 | F: 412.665.2550 | info@matw.com | matthewsmarking.com

I-Mark C84+ Continuous Ink Jet Printer

Service Level Course Syllabus

Class Hours: 8:30 - 4:30

Lunch: 12:00 - 1:00

Instructor Office hours: 8:00 - 8:30 & 4:30 - 5:00

Instructor: Matthews Intl.
Technical Training Instructor
Matthews International Corporation
Marking Products Division
6515 Penn Avenue
Office Phone: 412-665-2500

A. DESCRIPTION

This course will enable the student to properly identify the system components, understand the theory of operation, to perform component replacement, to perform routine and daily maintenance, troubleshooting of the C84+ Continuous Ink Jet printer (CIJ).

B. ORGANIZATION

This is a lecture-lab course in which the instructor presents discussion topics. Labs will be presented by the instructor and performed by the student. All labs are designed to re-enforce the lecture portion of the course.

C. COURSE OBJECTIVES

1. Upon completion of this course the student shall be able to
 - a. Understand C84+ and CIJ theory of operation
 - b. Properly identify all C84+ system components
 - c. Properly remove and replace system components
 - d. Properly troubleshoot common problems using the provided flowcharts
 - e. Systematically train operators on the C84+
 - f. Properly use an Installation Checklist
 - g. Properly perform the 1000/2500 hour Scheduled Maintenance routine

D. COURSE TOPICS

The course will cover the following topics:

- 1. Introduction**
 - a. Safety (Matthews)
 - b. Facilities (Matthews)
- 2. Welcome to Matthews Marking Products**
- 3. Overview**
 - a. System Description
 - i. Control Unit
 - ii. Printhead and Components
 - iii. Ink System and Components
 - iv. Electronics and Components
 - v. Display
 - vi. Connector Interface Panel
 - b. Specifications
 - i. Power requirements
 - ii. Ink requirements
- 4. DOD Theory & Operation**
 - a. Technology – CIJ explained
 - b. Jet
 - c. Modulation
 - d. Charge
 - e. Phase
 - f. Drop Speed
 - g. Print Deflection
 - h. Viscosity Control
 - i. Solvent Addition
- 5. Component Replacement**
 - a. Printhead
 - b. Electronic Boards
 - c. Fan Filters
 - d. Ink Filters
 - e. Ink Pump
- 6. Operator Training**
 - a. How to Train Operators
 - b. Installation Checklist
- 7. Troubleshooting**
 - a. Determining the Resolution to Real Problems
 - b. Using Flow Charts
- 8. Daily Maintenance**
 - a. Printhead Cleaning
 - b. Proper Shutdown based on Customer's Needs
- 9. 1000/2500 Hour Scheduled Routine Maintenance**
 - a. Draining the Ink System
 - b. Flushing the Ink System
 - c. Replacing System Ink Filters
 - d. Following the 1000/2500 Hour Schedule Routine Maintenance as described in the manual.
 - e. Ink System Filter changes

F. GRADING PLAN

ATTENDANCE:

Attendance is mandatory for the entire length of course. Any failure to attend all classroom lectures and labs will result in failure of class by the student and employer will be notified.

GENERAL: Upon successful completion of the class, the student will be awarded a certificate of completion.

G. STUDENT REQUIREMENTS

1. Students are required to bring a laptop PC
2. Safety Glasses (Non-prescription Safety glasses will be provided)
3. Safety Steel Toe shoes in the event that training may take place on the shop floor.

H. CLASSROOM RULES OF CONDUCT

1. As a courtesy to all students/staff, cell phones must be turned off while in class.
2. Laptops are only permitted for designated training purposes.
3. Recording devices are not allowed in the classroom.
4. Food is not permitted in the classroom during course instruction.
5. Beverages are allowed only on the student's desk, not equipment benches.
6. Class lab time is expected to be spent in lab work. Lab time is not free time. Attendance and concerted work on assignments are required.
7. Breaks shall be given at the discretion of the instructor.

I. YOUR IDEAS, EVALUATIONS, ETC.

Students are encouraged to complete a course evaluation at the completion of the class. In general, your ideas, comments, suggestions, questions, etc. are welcome. Your discretion in these matters is expected, however.