PAINTworks III™
Control System

Basic Description

FANUC Robotics' PAINTworks III provides the necessary tools for an integrated paint shop control system. Offering centralized cell level control, PAINTworks III interfaces with all paint booth automation equipment including robots, reciprocators and bell zones. PAINTworks III is also used with robotic sealing and dispensing systems offering a continuous control architecture for the entire paint shop. PAINTworks III basic system control functions are process control, process monitoring and real time sequencing of cell activities. These functions are supported through a user-friendly PAINTworks III operator interface and the cell programmable logic controller (PLC). Plant host computer interface and manual input of job information are also supported.

System Features

- Centralized cell level control and operator interface
- Interactive color graphics with user-friendly data entry and status monitoring
- System fault identification and on-line recovery
- Error logging downtime and production reporting
- Networking to FANUC SYSTEM R-J3 Controllers, plant communications and other cells

PAINTworks III System Components

The primary components offered with the PAINTworks III Control System include the System Control Console, System Distribution Panel, and Process Control Enclosure.

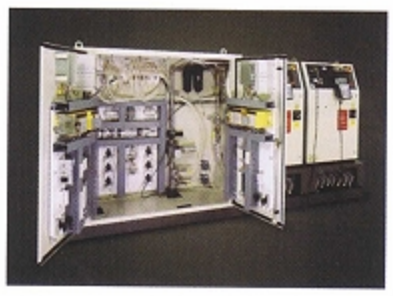
System Control Console (SCC)

System Distribution Panel (SDP)

Manual Control Panel (MCP)

Single Process Control Enclosure (PCE)

Manual Input Station (MIS)



Dual Process Control Enclosure (PCE)

- The System Control Console (SCC) offers centralized process control and monitoring. The SCC incorporates push-button controls along with a PAINTworks III based user interface. It is a NEMA 12 enclosure (2 doors) which houses the PLC, PAINTworks III computer, and safety interlock circuitry. The PLC performs real-time sequencing of process activities including job queuing, path initialization, error recovery and message handling

- In a separate panel, which is included with the SCC, is the System Distribution Panel (SDP), which serves as the central power distribution point for the system components. The SDP provides 120VAC power and the robot controller provides 24VDC power.

- Process Control Enclosure (PCE) is a single door NEMA 12 enclosure that serves as the process control point for each robot. It is typically located on the booth wall near the robot it controls. It contains a FANUC I/O rack connected to the robot controller over a fiber optic cable. The robot controller handles the process activities including color change, electrostatic set points, trigger control, bell speed monitoring, etc.

- An optional, Manual Control Panel (MCP) is a NEMA 12 push-button type panel used to manually jog the manipulator, trigger the applicator for testing and E-STOP/ reset the system. It is also available in an explosion proof panel for hazardous environments

- An optional, Manual Input Station (MIS) is used for manual entry or verification of job style, colors, and repair options. The MIS is offered in three styles, an explosion proof push button station, a NEMA 12, and a color graphics terminal.

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PAINTworks III System Overview

(Example P-200E Robot Cell)

System Distribution Panel
(SDP)

PLC Data Communications to
Next Cell or Plant
Communications System

Network Communications to
Host Computer

System Controls Console
(SCC)

Manual Control Panel (MCP)
Optional

Manual Input Station (MIS)
Optional

Single Process Control
Enclosure (PCE)

SYSTEM R-J3*i*B
Controller With
System Teach Pendant

P-200E
Robot

FANUC SYSTEM R-J3
Controller With P-200E Robot
(Typical for Each Robot in Cell)

FANUC Robotics

FANUC Robotics America, Inc.
3900 W. Hamlin Road
Rochester Hills, MI 48309-3253
(248) 377-7000
Fax (248) 276-4133
1-800-47-ROBOT

iNNOVATIVE
FINISHING SOLUTIONS

Exclusive Canadian Distributor
389 Deerhurst Drive
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L6T 5K3
Phone: (905) 458-3232
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