

RobotPro NX

PC-based Robot Maintenance Package

Key Benefits

Quickly identify problems through troubleshooting

Ability to repair robots with minimal training

Maintain robots to minimize downtime

Minimum System Requirements

IBM-compatible Pentium III

256 MB RAM

>100 MB

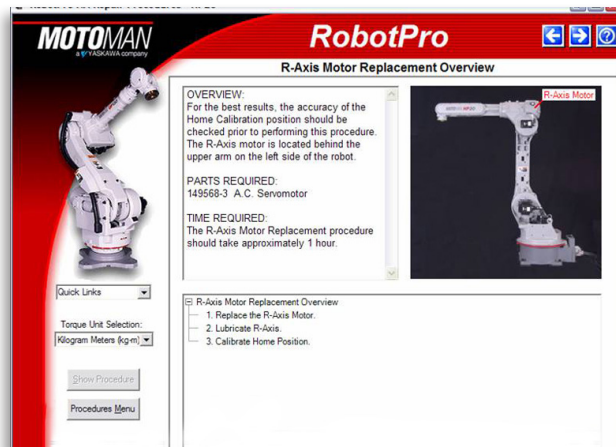
16-bit color

Mouse

Windows® 10 or 7

Compatibility

NX100 controller



- Optimize your robot's uptime and minimize repair costs with RobotPro NX, a PC-based expert maintenance system with an easy-to-use graphical user interface.
- RobotPro NX features effective step by-step instructions for maintenance, troubleshooting and repair. It is tailored to specific robot and controller models.
- This comprehensive support tool includes:
 - A preventive maintenance schedule with links to procedures
 - Interactive troubleshooting to quickly pinpoint cause of problem through a series of questions
 - Descriptive test and repair procedures with illustrative graphics
 - Easy access to wiring diagrams, spare parts lists
 - Illustrated parts lists (not available for all models)

Troubleshooting

- Immediate access to:
 - Wiring diagrams
 - Proper voltages
 - Component locations
 - Adjustment procedures
- Question/answer procedure – Approximately 50 percent of industrial downtime can be

attributed to the troubleshooting process. RobotPro prompts you through a question/answer procedure to identify the cause of an alarm or error.

- Cause of problem – Once enough information is collected, RobotPro will display the cause of the problem and procedure(s) to correct it. Motoman's own field service representatives use these features to diagnose errors and alarms.

Simplify Repair Procedures

- Examples:
 - Motor replacement
 - Drive unit replacement
 - Encoder reset
 - Servo pack replacement
- RobotPro provides you with proper steps and detailed instructions to correct the problem. Part drawings, diagrams, schematic wiring drawings, parts lists, or photographs are accessible using hyperlinks. Easy-to-read color images are included.
- Since RobotPro is portable, you can easily use the software on a laptop near the robot to locate, review, and use recommended repair procedures.

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Maintenance Schedule

- Life cycle information – Specific preventive maintenance details are provided in a procedural format that covers daily inspection tasks through 36,000 operating hours.
- Checklists – Procedures for robot and controller configuration, including slide show graphics, links to exploded parts diagrams, configuration tables and spare parts lists.
- Maintenance records – Technicians can record maintenance activity performed on individual robot cells.

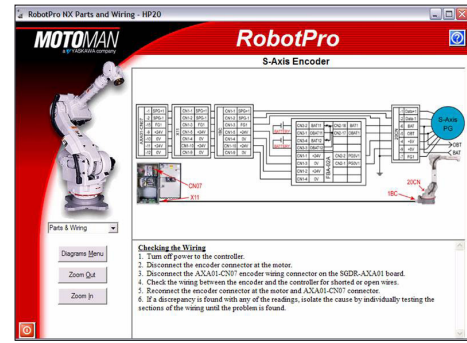
Preventive Maintenance

- Examples:
 - Lubricate robot axes
 - Inspect robot and controller
 - Replace wiring harness
 - Replace battery in controller
- Illustrated parts list – Provides ability to locate specific parts and part numbers. A maintenance schedule is available with detailed items for both the robot and the controller.
- Detailed procedures – Proper preventive maintenance will maximize the robot's uptime and production. RobotPro's detailed procedures and illustrations will simplify maintenance to ensure that the robot remains in peak operating condition.

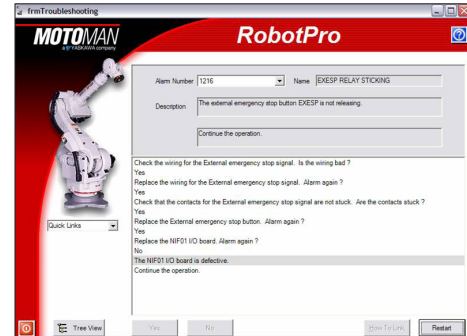
AVAILABLE MODELS

| | | | |
|---------|--------|---------|---------|
| EA1400N | HP6** | EPL160 | EPL80 |
| EA1900N | HP3* | HP20-6 | SSA2000 |
| ES165N | ES200N | HP165 | IA20 |
| HP20 | HP50 | HP50-20 | |

* Includes NX100, NXM100, and NXCI00 controllers.
 ** Includes NX100 and NXM100 controllers



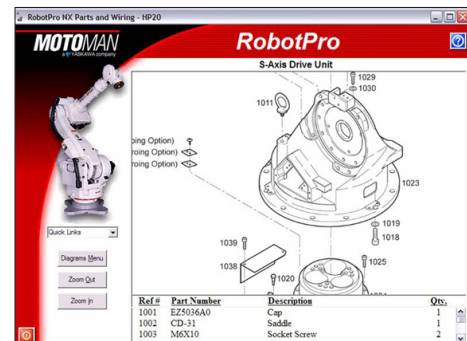
Wiring Diagram



Troubleshooting Q&A

| Inspection Item | Frequency | Date | Servo Hit | By | Est Date | Servo Hit |
|-------------------------------|-------------|-----------|-----------|----|-----------|-----------|
| Overhaul | 36,000 Hour | | 0 | | 0 | 0 |
| Wiring Harness Check | 12,000 Hour | | 0 | | 0 | 0 |
| Tripwire Bell Check | 12,000 Hour | | 0 | | 0 | 0 |
| Second Home Position Check | Daily | 8/17/2006 | 60 | KL | 8/18/2006 | 64 |
| External Limit Check | Daily | 8/17/2006 | 60 | KL | 8/18/2006 | 64 |
| SULS Motor Check | Daily | 8/17/2006 | 60 | KL | 8/18/2006 | 64 |
| Manipulator Check | Daily | | 0 | | | 0 |
| RawFlow Bell Check | 1,000 Hour | 8/17/2006 | 60 | KL | 9/7/2006 | 60 |
| E-Stop Button Check | 1,000 Hour | | 0 | | 0 | 0 |
| Enable Switch Check | 1,000 Hour | | 0 | | 0 | 0 |
| Controller Battery Check | 1,000 Hour | | 0 | | 0 | 0 |
| Controller Fan Check | 1,000 Hour | | 0 | | 0 | 0 |
| Controller Chassis Seal Check | 3,000 Hour | | 0 | | 0 | 0 |
| Controller Door Closed Check | Daily | | 0 | | 0 | 0 |
| S-Axis Drive Lubrication | 6,000 Hour | | 0 | | 0 | 0 |
| U-Axis Drive Lubrication | 6,000 Hour | | 0 | | 0 | 0 |
| W-Axis Drive Lubrication | 6,000 Hour | | 0 | | 0 | 0 |
| R-Axis Drive Lubrication | 6,000 Hour | | 0 | | 0 | 0 |

Maintenance Records



Illustrated Parts List

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