

SERVICE PLANS

ANNUAL AND EXTENDED MAINTENANCE

Yaskawa Motoman's service plans can help identify impending performance issues with robots that are in production. This ensures that issues are addressed before affecting production downtime.

The **Annual Service Plan** is designed to augment customers with a self maintenance strategy.

PLAN INCLUDES

- Provide checklist to customer at time of service
- Complete inspection of manipulator and controller
- Monitor robot in normal production
- Perform grease analysis testing
- Provide reports on grease analysis and audit results, along with recommendations for the continued performance of robots in production
- Lubrication of manipulator
- Inspection of internal wiring harness

The **Extended Service Plan** is designed to augment customers with a preventative maintenance strategy. This plan includes all items listed above in the Annual Service Plan and:

- Replacement of internal robot harness
- Replacement of batteries for the robot and controller



Yaskawa Motoman Grease Analysis Report

PM Date	12/13/2008		
Servo Hours	30000		
AXIS	Weight %	Judgement	Comments
1: S	0.01	Within Normal Range	Cont
2: L	0.02	Within Normal Range	Cont
3: U	0.03	Within Normal Range	Cont
4: R	0.02	Within Normal Range	Cont
5: B	0.02	Within Normal Range	Cont
6: T	0.04	Within Normal Range	Cont

Iron Content History

Customer Case

Robot Model #

Robot Serial #

YASKAWA PREVENTATIVE MAINTENANCE SERVICE REPORT

Customer: _____ Controller: _____ Customer P. O. No: _____
 Contact Name: _____ Manipulator: _____ WOB / Sales Order # _____
 Date: _____ Software Version: _____
 Technician: _____ Warranty ID# _____ Serial Number: _____ Application Type: _____
 Preventative Maintenance Package: ☐ Extended Preventative Maintenance Package: ☐ Other: _____

MAINTENANCE SERVICE REQUESTED

Preventative Maintenance Package: ☐ Extended Preventative Maintenance Package: ☐ Other: _____

Manipulator

Electrical: Wire Harness Inspection, Motor Cable Lead Inspection, Base Cable, Exterior Damage, Servo On Lamp, Over-Travel Limit Switch, West Clutch, S, L, U Absolute Data Battery, R, B, T Absolute Data Battery, Wire Harness Replenishment

Mechanical: Balancers, Link Arms, Cover Plate Body, Cover Screws Present, Plugs Replaced & Verified, Home Position Calibration

Driveline: Belt, Pulley, Vibration

Grease: S-Axis, L-Axis, U-Axis, R-Axis, B-Axis, T-Axis

Controller

Data Backup: CMOS Battery, Absolute Data Battery, Absolute Data Numbers (on Door), Alarm History, Cabinet Cleaning, Servo Pack & CPU Cooling Fans, Cabinet Cooling Fans (Rear & Door)

Upper & Lower Casing, Application Overlay, 3 Position Enable Switch, LCD Screen (Touch Screen), Emergency Stop Button, Teach Pendant Hanger, Hand Stop, Pendant Cable & Connections

Emergency Stop Button, Start Button & Light, Hold Button & Light, Teach Mode Button, Play Mode Button, Remote Mode Button

Notes: _____

Name: _____ Date: _____

Signature: _____

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YASKAWA AMERICA, INC.

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