

POLAR ROBOT MAINTENANCE PROTOCOL DOCUMENTATION

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Version: 3.2

Classification: CONFIDENTIAL - PROPRIETARY

1. INTRODUCTION

1 This Maintenance Protocol Documentation ("Protocol") is issued by Polar Dynamics Robotics, Inc., a Delaware corporation ("Company"), and constitutes the authoritative maintenance requirements for all Series X-500 and X-700 autonomous mobile robots ("Units") manufactured by the Company.

2 This Protocol contains proprietary and confidential information protected under U.S. and international intellectual property laws. Unauthorized disclosure, reproduction, or use is strictly prohibited.

2. DEFINITIONS

1 "Authorized Service Provider" means any entity or individual certified by the Company to perform maintenance on Units.

2 "Critical Components" means the proprietary IceNav(TM) system, cold-resistant actuators, and thermal management systems.

3 "Maintenance Record" means the digital log maintained in the Company's secure cloud platform documenting all maintenance activities.

4 "Standard Operating Temperature" means the range of -40 C to +10 C (-40 F to 50 F).

3. MAINTENANCE REQUIREMENTS

1 Scheduled Maintenance Intervals

- a) Level 1 Inspection: Every 500 operating hours
- b) Level 2 Service: Every 2,000 operating hours
- c) Critical Component Review: Every 5,000 operating hours

d) Full System Overhaul: Every 10,000 operating hours

2 Critical Component Protocols

a) IceNav(TM) System

- Sensor calibration check every 250 hours
- Navigation algorithm validation monthly
- Thermal sensor array inspection bi-weekly

b) Cold-Resistant Actuators

- Torque verification weekly
- Lubricant level check bi-weekly
- Seal integrity inspection monthly

4. PROPRIETARY PROCEDURES

1 All maintenance procedures involving Critical Components must utilize Company-approved tools and diagnostic software.

2 Authorized Service Providers must maintain current certification and follow Company-specified procedures detailed in Appendix A (incorporated by reference).

3 Any modification to the thermal management system requires prior written authorization from the Company's Engineering Department.

5. DOCUMENTATION REQUIREMENTS

1 Maintenance Records

a) All maintenance activities must be logged in real-time using Company's secure maintenance portal

b) Records must include:

- Technician identification and certification number
- Date and time of service
- Specific procedures performed
- Components replaced or modified
- Environmental conditions during service
- Post-maintenance performance metrics

2 Quality Assurance

- a) Photo documentation required for all Critical Component maintenance
- b) Video recording required for thermal system modifications
- c) Performance test data must be uploaded within 24 hours of service completion

6. INTELLECTUAL PROPERTY PROTECTION

- 1 All maintenance procedures, diagnostic tools, and associated documentation constitute trade secrets of the Company.
- 2 Authorized Service Providers acknowledge that exposure to Company's proprietary technology during maintenance creates no rights or licenses to such technology.
- 3 Any improvements or modifications developed during maintenance activities are the exclusive property of the Company.

7. LIABILITY AND COMPLIANCE

- 1 Failure to follow this Protocol voids all warranties and may result in termination of service authorization.
- 2 The Company assumes no liability for damages resulting from unauthorized maintenance or deviation from this Protocol.
- 3 Authorized Service Providers must maintain comprehensive insurance coverage as specified in their service agreements.

8. PROTOCOL UPDATES

- 1 The Company reserves the right to modify this Protocol at any time.
- 2 Updates will be distributed electronically to all Authorized Service Providers.
- 3 Continued maintenance activities constitute acceptance of Protocol updates.

9. EXECUTION

IN WITNESS WHEREOF, the undersigned acknowledges receipt and understanding of this Protocol.

Authorized Service Provider: _

Name: _

Title: _

Date: _

POLAR DYNAMICS ROBOTICS, INC.

By: _

Name: Dr. James Barrett

Title: Chief Robotics Officer

Date: _