

User Manual: NexBot Robotics 731-004 Joint Grease Cartridge

SKU: NXB-GEN-731-004 | Version: 1.0 | Brand: NexBot Robotics

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1. Safety Information

READ ALL SAFETY INSTRUCTIONS BEFORE OPERATION. Failure to follow safety procedures may result in serious injury or equipment damage.

DANGER: Grease injected under high pressure can penetrate the skin, causing serious injury, gangrene, or amputation. Seek immediate medical attention if a high-pressure injection injury occurs.

WARNING: Avoid prolonged skin contact. May cause skin irritation. Wash hands thoroughly with soap and water after handling. Wear appropriate personal protective equipment (PPE), including gloves and safety glasses.

WARNING: Avoid eye contact. Grease can cause serious eye irritation. If contact occurs, flush eyes with water for at least 15 minutes and seek medical attention.

CAUTION: Spilled grease creates a significant slip hazard. Immediately clean any spills with an appropriate absorbent material.

NOTICE: Store NexBot Robotics 731-004 Joint Grease Cartridges in a cool, dry, well-ventilated area away from direct sunlight and contaminants. Do not store at temperatures outside the recommended range.

2. Product Overview

NexBot Robotics 731-004 Joint Grease Cartridge (NXB-GEN-731-004) is a joint grease used in industrial robotics equipment where category-specific fit, electrical or mechanical compatibility, and predictable serviceability are important to buyers. The product should be understood as the exact component named by its category path, not as a complete robot or a generic service item. It supports installation, replacement, and maintenance workflows in robotic production cells by giving procurement and maintenance teams a clearly defined part class, relevant engineering specifications, and application context that matches the actual hardware being purchased.

3. Getting Started

1. Product Identification

The NexBot Robotics 731-004 Joint Grease Cartridge is identifiable by its SKU NXB-GEN-731-004 printed on the label. The label also includes the batch number and expiration date, which should be verified before use.

2. Compatibility Verification

This grease cartridge is specifically formulated for NexBot Robotics equipment. Always cross-reference the SKU NXB-GEN-731-004 with the official maintenance manual for your specific robot model to ensure compatibility and prevent equipment damage.

3. Storage and Handling

Store cartridges upright in their original packaging between 0°C and 40°C (32°F and 104°F). Avoid dropping the HDPE cartridge, as impacts can damage the seals and lead to leaks or dispensing issues.

4. Operation

Recommended Application Frequency

The re-lubrication interval depends on the robot's duty cycle, operating environment, and axis load. Refer to the specific robot's maintenance schedule for precise frequency guidelines for each joint.

Tip: For high-load or continuous-operation applications, consider increasing lubrication frequency by 25% over the standard recommendation.

Grease Purging Technique

When applying grease, the goal is to displace the old, degraded grease with new lubricant. Apply new grease until a small, consistent bead of the old grease is visibly purged from the joint's seals. This ensures the entire joint is filled with fresh lubricant.

Assessing Grease Condition

Visually inspect the purged grease. If it appears watery, discolored, or contains metallic particles, it may indicate a deeper mechanical issue or excessive contamination requiring further investigation beyond simple re-lubrication.

Tip: Wipe a sample of the purged grease onto a clean, white cloth to better assess its color and look for contaminants.

Avoiding Over-Greasing

While under-lubrication is harmful, over-greasing can also cause problems by blowing out seals and creating a mess that attracts contaminants. Stop applying pressure as soon as clean grease is purged from the seals.

Empty Cartridge Disposal

Once a cartridge is empty, it should be disposed of in accordance with local, state, and federal environmental regulations. Even an 'empty' cartridge contains residual grease and should not be disposed of in standard municipal waste.

5. Maintenance Schedule

Interval	Task	Notes
Weekly	Check inventory levels of NXB-GEN-731-004 cartridges to ensure adequate stock for scheduled maintenance.	Reorder when stock reaches the pre-determined minimum level.
Monthly	Inspect all stored grease cartridges for any signs of physical damage, such as cracks in the HDPE body, or leakage around the seals.	Quarantine and properly dispose of any damaged cartridges.
Quarterly	Rotate stock using the First-In, First-Out (FIFO) method to ensure older cartridges are used before they expire.	Move cartridges with the earliest expiration dates to the front of the storage shelf.
Annually	Conduct a full inventory audit and check the expiration dates on all stored NXB-GEN-731-004 cartridges.	Any cartridges that are past their expiration date should be removed from service stock and disposed of properly.
As Needed	Clean and inspect grease guns used for application. Ensure couplers and nozzles are free from hardened grease and contaminants.	A clean tool prevents contamination of the robot joint during lubrication.

6. Troubleshooting

Symptom	Possible Cause	Solution
Grease will not dispense from the grease gun.	The grease fitting on the robot is clogged, or there is an air lock in the grease gun.	Clean the grease fitting thoroughly. Re-prime the grease gun to purge any trapped air.
The cartridge does not fit into the grease gun.	The grease gun is not designed for a 235 x 54 mm cartridge.	Verify the grease gun's specifications. Use only NexBot-approved or compatible grease guns.
Grease is leaking from the back (plunger end) of the cartridge.	The cartridge's plunger seal is damaged or the grease gun's plunger is misaligned.	Replace the NXB-GEN-731-004 cartridge with a new one. Inspect the grease gun for damage.
Robot joint remains noisy or hot after lubrication.	Insufficient grease was applied, the wrong grease type was used, or there is an underlying mechanical failure.	Re-apply grease, ensuring old grease is purged. Confirm NXB-GEN-731-004 is the correct SKU. If the issue persists, schedule a mechanical inspection.
Grease appears to have separated (oil is leaking from the nozzle).	The cartridge was stored improperly (e.g., high heat) or is past its expiration date.	Discard the cartridge immediately. Use a new, in-date cartridge from properly managed stock.
The grease gun coupler will not attach to the fitting.	The grease fitting is damaged, or the coupler is worn out or the wrong size.	Inspect and, if necessary, replace the grease fitting on the robot. Inspect and replace the grease gun coupler if it is worn.
Excessive amount of grease is required to see any purge.	A seal in the joint has failed completely.	Stop applying grease. This indicates a mechanical failure that requires immediate inspection and repair by a qualified technician.

7. Technical Specifications

Parameter	Value	Unit
Weight	0.5	kg
Material	HDPE	
Country of Origin	KR	
Dimensions	235 x 54 x 54 mm	

