

Installation Guide: NexBot Robotics 731-004 Joint Grease Cartridge

SKU: NXB-GEN-731-004 | Revision: 1.0 | Category: Wear Parts & Consumables > Lubricants & Fluids > Joint Grease

DANGER: Disconnect all power sources before beginning installation. Follow lockout/tagout (LOTO) procedures per OSHA 1910.147.

1. Required Tools & Materials

- NexBot-compatible manual or pneumatic grease gun
- Lint-free industrial wipes
- Nitrile safety gloves
- Safety glasses with side shields
- Grease fitting cleaning tool or small brush
- Designated waste container for used consumables
- Mild solvent for cleaning grease fittings
- Torque wrench (if replacing grease fittings)

2. Pre-Installation Checks

1. Verify the robot and related equipment are in a safe, de-energized state (Lockout/Tagout).
2. Confirm the product SKU NXB-GEN-731-004 matches the requirements in the robot's service manual.
3. Inspect the NexBot Robotics 731-004 Joint Grease Cartridge for any signs of damage, leaks, or expiration.
4. Ensure the grease gun is clean, free of debris, and compatible with a 235 x 54 mm cartridge.
5. Identify all lubrication points on the robot joint as specified in the maintenance schematic.
6. Review the Material Safety Data Sheet (MSDS) for the 731-004 grease before handling.

3. Installation Procedure

Step 1: Prepare Work Area

Ensure the area around the robot joint is clean and well-lit. Remove any obstacles and place absorbent pads below the lubrication point to catch any drips.

Warning: Spilled grease is a slip hazard. Clean up any spills immediately.

Step 2: Uncap the Cartridge

Remove the plastic cap from the nozzle end of the NXB-GEN-731-004 cartridge. Then, remove the pull-tab or seal from the plunger end.

Step 3: Load Grease Gun

Retract the plunger rod on the grease gun. Insert the open nozzle end of the 235 mm HDPE cartridge into the grease gun barrel and screw the barrel back onto the gun head.

Warning: Do not force the cartridge if it does not fit. Verify grease gun compatibility.

Step 4: Prime the Grease Gun

Release the plunger rod so it engages with the cartridge's follower plate. Pump the handle until grease begins to flow consistently from the gun's nozzle, purging any trapped air.

Step 5: Clean Grease Fitting

Thoroughly clean the target grease fitting (zerk) on the robot joint using a lint-free wipe and a small amount of solvent. This prevents contaminants from being injected into the joint.

Warning: Ensure solvent is fully evaporated before applying grease to prevent contamination.

Step 6: Connect Grease Gun

Firmly attach the grease gun coupler to the clean grease fitting on the robot. Ensure a secure, leak-proof connection before applying pressure.

Step 7: Apply Grease

Pump the grease gun handle slowly and steadily. Continue applying grease until a small bead of old grease is purged from the joint seals, indicating the joint is full.

Warning: High-pressure grease injection can cause serious injury. Never place hands or body parts near the nozzle.

Step 8: Disconnect and Clean Up

Disconnect the grease gun coupler from the fitting. Use a lint-free wipe to clean any excess new and purged grease from the fitting and surrounding area.

4. Post-Installation Verification

1. Verify that a small amount of fresh grease is visible at the joint seals.
2. Check the connection point for any signs of leakage after application.
3. Manually articulate the robot joint through its full range of motion at a slow speed to distribute the new grease.
4. Document the lubrication service, including date, joint number, and SKU used (NXB-GEN-731-004), in the maintenance log.
5. Properly dispose of the empty HDPE cartridge and any used wipes according to local environmental regulations.
6. Return the robot to operational status by removing Lockout/Tagout devices.

Note: For technical support, contact your authorized service provider or visit <https://robotics.barca.group/support>.

