DEXTER AXLE 023-180-00

Dexter Axle 023-180-00 Electric Brake Assembly Instruction Manual

Model: 023-180-00 | Brand: DEXTER AXLE

1. Introduction

This instruction manual provides essential information for the proper installation, operation, and maintenance of your Dexter Axle 023-180-00 Electric Brake Assembly. This assembly is designed for trailer applications requiring a 12" x 2" electric brake system, typically for 7000 lb axles. Adhering to these instructions will ensure safe and efficient performance of your trailer's braking system. Please read this manual thoroughly before beginning any installation or service.

2. Safety Information

WARNING: Improper installation or maintenance of brake components can lead to serious injury or death. If you are not confident in your ability to perform these procedures, seek assistance from a qualified technician.

- Always wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Ensure the trailer is securely supported on jack stands before working underneath.
- Disconnect the trailer battery before working on electrical components.
- Brake dust may contain asbestos or other hazardous materials. Avoid inhaling dust and use appropriate respiratory protection.
- Refer to your trailer's manufacturer manual for specific axle and brake requirements.

3. Components Included

Each Dexter Axle 023-180-00 Electric Brake Assembly package typically includes:

- One (1) 12" x 2" Electric Brake Assembly (Left-hand or Right-hand, as specified)
- Mounting Nuts
- Electrical Plugs/Connectors
- Instruction Sheet (refer to this manual for detailed guidance)



Figure 1: Dexter Axle 023-180-00 Electric Brake Assembly. This image displays the complete brake assembly, including the backing plate, brake shoes, springs, magnet, and wiring. Note the blue adjusters and the "Made in USA" sticker.

4. Setup and Installation

This section outlines the general steps for installing the electric brake assembly. Specific procedures may vary based on your trailer's axle type and existing setup.

4.1 Pre-Installation Checks

- Verify that the new brake assembly matches the existing one (left-hand or right-hand). The 023-180-00 is typically a left-hand assembly.
- Ensure the axle flange bolt pattern matches the brake assembly.
- Inspect the brake drum for wear, scoring, or cracks. Replace if necessary.

4.2 Removal of Old Assembly (if applicable)

1. Lift and secure the trailer. Remove the wheel and tire.
2. Remove the dust cap, cotter pin, spindle nut, and washers.
3. Carefully slide the brake drum off the spindle.
4. Disconnect the electrical wires from the old brake assembly.
5. Unbolt the old brake assembly from the axle flange.

4.3 Installation of New Assembly

1. Position the new brake assembly onto the axle flange, aligning the bolt holes.
2. Secure the assembly with the provided mounting nuts. Torque to manufacturer specifications (typically 45-75 ft-lbs, consult axle manual).
3. Connect the brake wires. The two wires from the brake magnet are non-polarized, meaning either wire can be connected to the trailer's brake wire and the other to ground. Ensure connections are secure and protected from corrosion.
4. Reinstall the brake drum, bearings, washers, and spindle nut. Adjust wheel bearings according to axle manufacturer's instructions.
5. Replace the dust cap and wheel/tire.

5. Operating Instructions

5.1 Initial Brake Adjustment

After installation, the brakes must be adjusted for optimal performance.

1. With the wheel and tire installed, locate the star wheel adjuster access hole on the bottom of the brake backing plate.
2. Using a brake spoon or flathead screwdriver, rotate the star wheel until a slight drag is felt when rotating the wheel by hand.
3. Back off the adjuster approximately 8-10 clicks until the wheel rotates freely without drag.
4. Repeat for all brake assemblies.

5.2 Break-In Procedure

New brake shoes and drums require a break-in period to ensure proper seating and maximum braking efficiency.

- Drive the trailer at approximately 40 mph on a safe, open road.
- Apply the trailer brakes using the manual override on your brake controller, reducing speed to 20 mph. Do not lock up the brakes.
- Release the brakes and drive for a short distance to allow them to cool.
- Repeat this procedure approximately 20 times.
- After break-in, re-adjust the brakes as described in Section 5.1.

6. Maintenance

Regular inspection and maintenance are crucial for the longevity and safe operation of your electric brake assembly.

- **Annual Inspection:** At least once a year, or every 12,000 miles, remove the brake drums and inspect the brake shoes for wear, cracks, or contamination. Check all springs, adjusters, and the magnet for proper function and wear.
- **Brake Shoe Replacement:** Replace brake shoes when the lining thickness is 1/16 inch or less at its thinnest point. Always replace shoes on both sides of an axle simultaneously.
- **Magnet Inspection:** Check the brake magnet for excessive wear or damage. A worn magnet can reduce braking

effectiveness.

- **Electrical Connections:** Inspect all wiring and connections for corrosion, fraying, or loose terminals. Ensure good ground connections.
- **Bearing Maintenance:** Follow your axle manufacturer's recommendations for wheel bearing inspection and lubrication.

7. Troubleshooting

Problem	Possible Cause	Solution
No trailer brakes	No power to brake controller; faulty brake controller; open circuit in trailer wiring; worn brake magnet.	Check vehicle fuse for brake controller; test brake controller output; inspect trailer wiring for breaks or loose connections; test brake magnets for continuity and resistance.
Weak braking	Brakes out of adjustment; worn brake shoes; contaminated brake shoes/drum; low voltage to brakes; improper break-in.	Adjust brakes (Section 5.1); inspect and replace worn shoes; clean or replace contaminated components; check wiring for voltage drop; perform break-in procedure (Section 5.2).
Brakes lock up	Brake controller set too high; short circuit in brake wiring; seized brake components.	Reduce brake controller gain setting; inspect wiring for shorts; inspect brake assembly for seized parts and replace as needed.
Uneven braking	Brakes on one side out of adjustment; worn components on one side; contaminated components.	Adjust all brakes evenly; inspect and replace worn or contaminated components on affected wheels.

8. Specifications

- **Model Number:** 023-180-00 (Dexter Part #K23-180-00)
- **Brake Type:** Electric
- **Brake Size:** 12 inches x 2 inches
- **Axle Capacity:** Designed for 7000 lb axles
- **Hand:** Left-hand (driver's side)
- **Weight:** Approximately 15 pounds
- **Dimensions:** Approximately 5 x 5 x 5 inches (packaged)
- **Assembly Required:** No (pre-assembled unit)
- **Manufacturer:** Dexter Axle

9. Warranty and Support

For warranty information or technical support regarding your Dexter Axle 023-180-00 Electric Brake Assembly, please contact Dexter Axle directly or refer to their official website. Keep your purchase receipt for warranty claims.
Dexter Axle Contact Information: Please visit www.dexteraxle.com for the most current support resources and contact details.

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