

JIARUIXIN 24V390

JIARUIXIN 24V390 Children Electric Car Steering Gearbox User Manual

Model: 24V390 | Brand: JIARUIXIN

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the JIARUIXIN 24V390 Children Electric Car Steering Gearbox with 24 Volt Motor. This product is designed as a replacement part for children's ride-on cars, specifically for steering control. Please read this manual thoroughly before installation and use to ensure proper function and safety.

2. SPECIFICATIONS

- **Brand:** JIARUIXIN
- **Model Name:** Gearbox
- **Speed:** 5000 RPM
- **Voltage:** 24 Volts
- **Horsepower:** 18 Watts
- **Product Dimensions:** 4.6"W x 4"H
- **Material:** Metal
- **Item Weight:** 7 Ounces
- **Manufacturer:** jiaruixun
- **UPC:** 765241374951
- **ASIN:** B09P7HH4BJ
- **Item Model Number:** 24V390-BUKK-ZX-5
- **Manufacturer Recommended Age:** 16 years and up

3. KEY FEATURES

- RS390 24V Children Electric Car Steering Gearbox with Motor.
- Suitable for kids ride-on cars; ensure compatibility with your car's voltage.

- Designed for specific children's riding steering toy accessories.
- Verify the purchased part's appearance matches the original component.
- The remote control direction motor is intended for left and right steering under the steering wheel and is not suitable for rear-wheel drive.

4. SETUP AND INSTALLATION

4.1. Component Overview and Dimensions

Familiarize yourself with the gearbox components and their dimensions for proper fitment.



Figure 1: Top and bottom view of the 24V390 steering gearbox with key dimensions: 1.6 cm shaft diameter, 390 motor 2.8 cm, 7.5 cm width, and 14 cm length.



Figure 2: Side view of the gearbox, showing its profile and motor attachment.



Figure 3: Close-up of the gearbox shaft, indicating a height of 2.1 cm.



Figure 4: Top view of the gearbox, showing the motor and locations for mounting screws.



Figure 5: Angled view of the gearbox, highlighting the motor and overall assembly.



Figure 6: The gearbox assembly, including the motor and the attached wiring harness connector.

4.2. Wiring Harness and Switch Connections

Properly connect the wiring harness to the various switches and the motor. The following video demonstrates the connections for the pedal, forward/backward switch, start switch, high/low speed switch, and motor lines.

Video 1: This video provides a complete product introduction, detailing the wiring harness connections for the pedal, forward/backward switch, start switch, high/low speed switch, and motor lines. It also covers remote control matching steps.

4.3. Gearbox Mounting

The gearbox is designed to integrate with the steering column of compatible ride-on cars. You may need to drill a hole through the steering column to secure the gearbox using a nut and bolt. Ensure the gearbox is firmly mounted to prevent movement during operation.

5. OPERATING INSTRUCTIONS

5.1. Remote Control Pairing

Refer to Video 1 for detailed steps on how to pair the remote control with the car's system. Typically, this involves holding a specific button on the remote for a few seconds while the car's power is on until an indicator light confirms successful pairing.

5.2. Basic Operation

- **Start Switch:** Press the start switch to power on the vehicle.
- **High/Low Speed Switch:** Select desired speed mode (High or Low) using the dedicated switch.
- **Forward/Backward Switch:** Use this switch to select forward or reverse motion.
- **Pedal:** Press the foot pedal to engage the motor and move the vehicle.

5.3. Steering Functionality

The installed gearbox provides smooth left and right steering control via the remote. The steering mechanism will

naturally stop at its maximum left or right turn, preventing over-rotation.

5.4. Performance Demonstration

The following video demonstrates the gearbox's rotational speed when powered by different battery voltages (12V, 18V, 24V), showcasing its performance capabilities.

Video 2: This video demonstrates the power wheel motor gearbox effect, showing its rotational speed when connected to 12V, 18V, and 24V batteries.

6. MAINTENANCE

To ensure the longevity and optimal performance of your JIARUIXIN 24V390 steering gearbox, regular maintenance is recommended:

- **Regular Inspection:** Periodically check all connections, screws, and mounting points for tightness and wear.
- **Cleaning:** Keep the gearbox free from dirt, dust, and debris. Use a dry cloth to wipe down the exterior. Avoid using harsh chemicals or excessive moisture.
- **Lubrication:** While the gearbox features durable composite gears and bearings (as shown in Video 3), occasional light lubrication of moving parts can help maintain smooth operation. Consult a professional if unsure.

6.1. Internal Structure and Durability

The gearbox features a robust internal structure with composite materials for enhanced durability and longer life. The pinion inside the gearbox includes a bearing to reduce resistance and protect the gears.

Video 3: This video highlights the advantages of the motor gearbox, showcasing its internal structure, including the durable composite gears and bearings designed for strength and longevity.

7. TROUBLESHOOTING

If you encounter issues with your steering gearbox, consider the following:

- **No Power:** Check all battery connections and ensure the battery is charged. Verify the start switch is functioning correctly.
- **Steering Not Responding:** Re-pair the remote control (refer to Video 1). Check the steering line connections. Ensure the steering column is not obstructed.
- **Unusual Noises:** Inspect the gears for any visible damage or debris. Ensure proper lubrication.
- **Intermittent Operation:** Check for loose wiring connections throughout the system.

If problems persist, contact customer support for further assistance.

8. WARRANTY AND SUPPORT

For warranty information, technical support, or replacement parts, please refer to the product packaging or contact the JIARUIXIN customer service directly. Keep your purchase receipt as proof of purchase.