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Miuzei 12g servo

Miuzei 12g Digital Metal Gear Servo for AXIAL SCX24 RC Vehicles - Instruction Manual

1. INTRODUCTION

This instruction manual provides essential information for the proper installation, operation, and maintenance of your Miuzei 12g Digital Metal Gear Servo. Designed for precision and durability, this servo is an ideal upgrade or replacement part for various remote-controlled models, including the 1/24 AXIAL SCX24 crawler cars, RC helicopters, and small robots.

2. PRODUCT FEATURES

- **High Sensitivity Digital Control:** Ensures precise and responsive steering.
- **All-Metal Gear Construction:** Provides strong load-bearing capacity, extended lifespan, high precision, stability, low noise operation, and wear resistance.
- **High Torque Performance:** Delivers robust power for demanding applications.
- **Wide Application:** Compatible with 1/24 SCX24 Crawler cars, RC helicopters, small robots, and other models.
- **Metal Servo Horn Included:** Replaces original plastic accessories for enhanced durability.

CNC-Machined All-Metal Gear

- Strong load-bearing capacity
- Long lifespan
- High precision and stability
- Low noise operation
- Wear resistance



Computer Numerical Control(CNC)



Image 2.1: The Miuzel 12g Digital Servo features CNC-machined all-metal gears for durability and precision.



Image 2.2: The servo provides precise angle control, crucial for RC vehicle maneuverability.

3. PACKAGE CONTENTS

Verify that all components are present in the package:

- Miuzei 12g Digital Metal Gear Servo
- Metal Servo Horn
- Assorted Plastic Servo Arms (various shapes)
- Mounting Screws
- Hex Wrench



Image 3.1: Included components: 12g servo, metal servo horn, various plastic servo arms, and mounting hardware.

4. SPECIFICATIONS

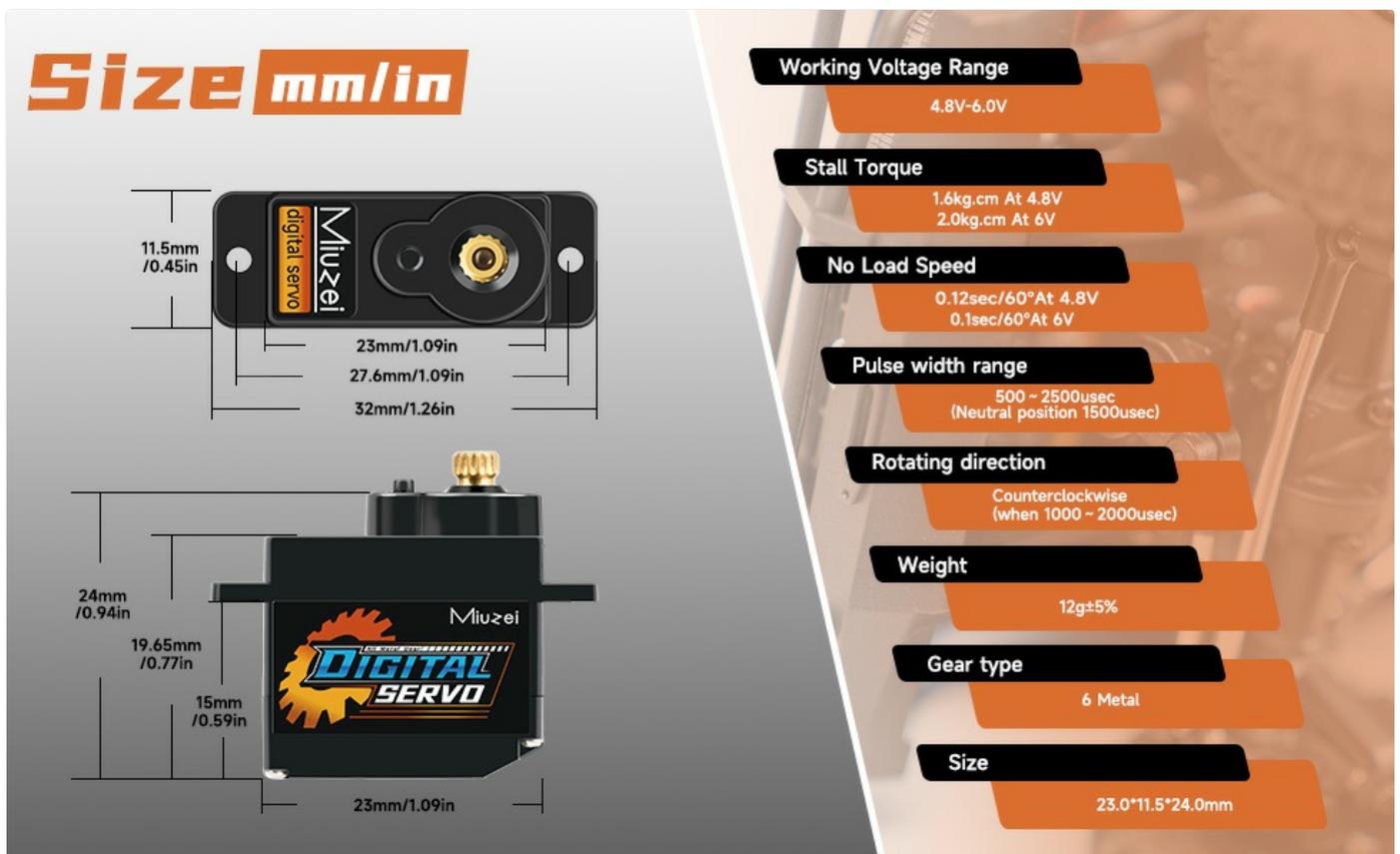


Image 4.1: Detailed specifications for the Miuzei 12g Digital Servo.

Miuzei 12g Digital Metal Gear Servo Specifications

Parameter	Value
Working Voltage Range	4.8V - 6.0V
Stall Torque (4.8V)	1.6 kg/cm
Stall Torque (6V)	2.0 kg/cm
Operating Speed (4.8V, no load)	0.12 sec/60°
Operating Speed (6V, no load)	0.1 sec/60°
Pulse Width Range	500 ~ 2500 usec (Neutral position 1500 usec)
Rotating Direction	Counter-clockwise (when 1000 ~ 2000 usec)
Weight	12g ±5%
Gear Type	Metal
Dimensions (L x W x H)	23.0 x 11.5 x 24.0 mm
Cable Length	25 cm (JR/FUT universal)



Image 4.2: Physical dimensions of the Miuzei 12g Digital Servo.

5. INSTALLATION GUIDE

Follow these general steps for installing the Miuzei 12g Digital Metal Gear Servo into your RC model. Specific installation may vary based on your model's design (e.g., AXIAL SCX24).

1. **Preparation:** Ensure your RC model is powered off and the battery is disconnected.
2. **Remove Old Servo (if applicable):** Carefully disconnect the old servo's wire from the receiver and unmount it from the chassis.
3. **Mount New Servo:** Place the Miuzei 12g servo into the designated servo mount. Use the provided screws to secure it. *Note: Some models, like the SCX24, may require an aftermarket servo mount or minor modifications for optimal fit due to size differences compared to stock servos.*
4. **Attach Servo Arm:** Select the appropriate servo arm (metal or plastic) for your application. Attach it to the servo spline. Ensure the arm is centered before tightening the screw.
5. **Connect to Receiver:** Plug the servo's 3-pin connector into the designated steering channel (usually Channel 1) on your RC receiver. Ensure correct polarity (signal, positive, negative).
6. **Test and Adjust:** Reconnect the battery and power on your RC system. Test the steering function. If the steering is not centered or the travel is incorrect, adjust the trim settings on your transmitter or recalibrate the servo endpoints.

6. OPERATION

The Miuzei 12g Digital Metal Gear Servo operates based on pulse width modulation (PWM signals) from your RC receiver. When powered and connected, it translates these signals into precise angular movements of the servo arm.

- **Power On Sequence:** Always power on your transmitter first, then your RC model. Power off your RC model first, then your transmitter. This prevents unexpected servo movements.
- **Steering Control:** Use your transmitter's steering wheel or stick to control the servo's movement. The digital nature of this servo provides quick and accurate response.
- **Angle of Rotation:** The servo is designed for a specific range of motion (typically 180 degrees). Avoid forcing the servo arm beyond its mechanical limits, as this can cause damage.

Your browser does not support the video tag.

Video 6.1: This video demonstrates the Miuzei 12g Digital Servo's torque capabilities and angle test, followed by examples of its application in RC vehicles navigating challenging terrains.



Image 6.2: The Miuzei 12g Digital Servo is suitable for a variety of applications, including RC planes, DIY projects, RC cars (like the SCX24), and RC boats.

7. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your servo:

- **Keep Clean:** Regularly clean the servo exterior to prevent dirt and debris from entering the casing, especially around the output shaft.
- **Check Wiring:** Inspect servo wires for any cuts, pinches, or loose connections. Damaged wiring can lead to intermittent operation or failure.
- **Inspect Gears:** Periodically check the servo gears for wear or damage. While metal gears are durable, extreme impacts can cause issues.
- **Avoid Overloading:** Do not continuously operate the servo under excessive load, as this can lead to overheating and premature wear.
- **Storage:** Store the servo in a dry, cool environment away from direct sunlight and extreme temperatures.

8. TROUBLESHOOTING

Common Issues and Solutions

Problem	Possible Cause	Solution
Servo not responding	No power, incorrect connection, faulty receiver/transmitter, damaged servo.	Check power supply and connections. Ensure transmitter and receiver are bound and functioning. Test with another servo if possible.
Servo jitters or twitches	Interference, low battery voltage, loose connection, worn gears.	Check for sources of electrical interference. Ensure battery is fully charged. Secure all connections. Inspect gears for damage.
Servo does not center correctly	Transmitter trim settings, incorrect servo arm installation, mechanical binding.	Adjust transmitter trim. Re-install servo arm ensuring it's centered. Check for any obstructions preventing full movement.
Weak or slow response	Low battery voltage, excessive load, worn gears.	Charge battery. Reduce load on the servo. Inspect and replace worn gears if necessary.

9. WARRANTY AND SUPPORT

Miuzei products are manufactured to high-quality standards. For warranty information, technical support, or assistance with your Miuzei 12g Digital Metal Gear Servo, please refer to the contact information provided with your purchase or visit the official Miuzei website.

For further assistance, you may also contact the seller directly through the platform where the product was purchased.

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