

Miuzei 12g servo

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

Model: 12g servo

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Miuzei 12g Digital Metal Gear Servo. Please read these instructions carefully before use to ensure optimal performance and longevity of the product. This servo is designed for use with 1/24 scale RC vehicles like the AXIAL SCX24, as well as small robots and other compatible models.

2. PRODUCT OVERVIEW

The Miuzei 12g Digital Metal Gear Servo is a high-performance steering servo featuring an all-metal gear train for enhanced durability and precision. Its digital control ensures quick and accurate response, making it an ideal upgrade for various RC applications.

Key Features:

- **12g Digital RC Servo:** Offers high sensitivity, stable performance, and low noise operation.
- **All-Metal Gear:** Provides strong load-bearing capacity, long lifespan, high precision, and wear resistance.
- **Metal Servo Horn Arm:** Includes a durable metal servo horn arm, replacing standard plastic accessories for improved reliability.
- **High Torque & Speed:** Delivers robust torque and quick operating speeds for responsive steering.
- **Wide Application:** Compatible with 1/24 SCX24 Crawler cars, helicopters, small robots, and other model applications.

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: The Miuzei 12g Digital Servo showcasing its CNC-machined all-metal gears, highlighting durability and precision.

12g mini servo



Cable length:25cm
JR/FUT universal

Working Voltage Range	4.8V	6.0V
Stall Torque	1.6kg.cm At 4.8V	2.0kg.cm At 6V
No Load Speed	0.12sec/60°At 4.8V	0.1sec/60°At 6V
Pulse width range	500 ~ 2500usec(Neutral position 1500usec)	
Rotating direction	Counterclockwise (when 1000 ~ 2000usec)	
Weight	12g±5%	
Gear type	6 Metal	
Size	23.0*11.5*24.0mm	

Image: Detailed dimensions of the 12g mini servo and a table outlining its key specifications.

Product Demonstration Video:

Your browser does not support the video tag.

Video: A demonstration of the Miuzei 12g mini servo, including a look at its all-metal gears, metal arm, torque test, angle test, and its performance in RC cars.

3. PACKAGE CONTENTS

Verify that all items listed below are included in your package:

- 1x Miuzei 12g Digital Metal Gear Servo
- 1x Metal Servo Horn Arm
- Assorted Plastic Servo Horns/Arms
- Mounting Screws
- Hex Wrench (if applicable)



| 18.5mm/0.73in |



| 23.6mm/0.93in |



| 17.5mm/0.68in |



| 17.5mm/0.68in |



| 54mm/2.1in |



| 18.5mm/0.73in |

Image: The Miuzei 12g Digital Servo along with its complete set of included accessories, such as various servo horns and mounting hardware.

4. SPECIFICATIONS

Miuzei 12g Digital 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)	0.12 sec/60°
Operating Speed (6V)	0.1 sec/60°

Parameter	Value
Pulse Width Range	500 ~ 2500 μ sec (Neutral position: 1500 μ sec)
Rotating Direction	Counterclockwise (when 1000 ~ 2000 μ sec)
Weight	12g $\pm$ 5%
Gear Type	Metal
Dimensions (L x W x H)	23.0 x 11.5 x 24.0 mm
Material	Metal

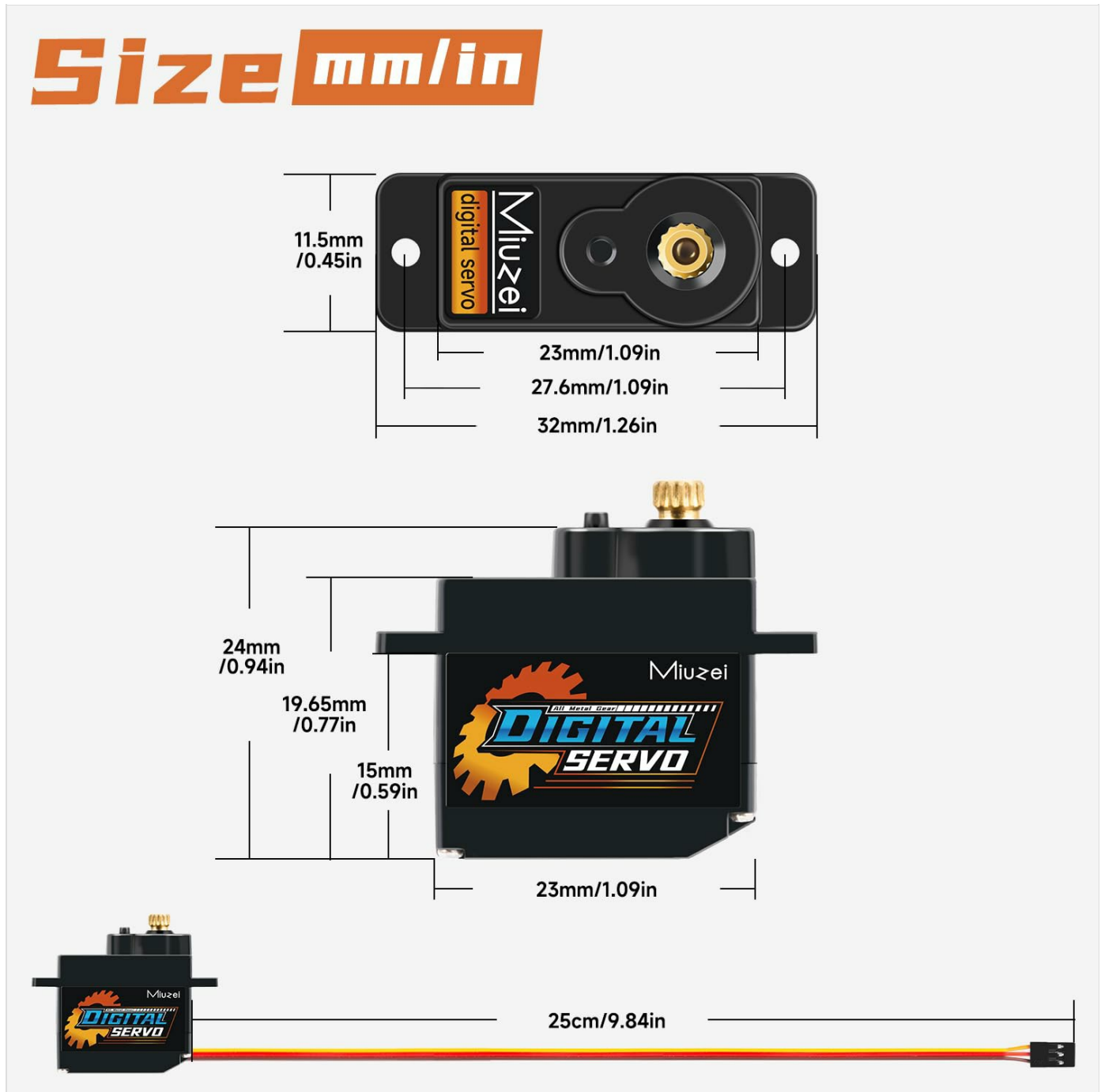


Image: A technical drawing illustrating the precise dimensions of the Miuzei 12g Digital Servo.

5. SETUP AND INSTALLATION

Follow these general steps for installing your Miuzei 12g Digital Servo. Specific installation may vary depending on your RC model.

1. **Prepare Your Model:** Ensure your RC vehicle or robot is powered off and the battery is disconnected. Remove the existing servo (if any) from its mounting location.
2. **Mount the Servo:** Place the Miuzei 12g servo into the designated servo mount. Use the provided screws to secure it firmly. If replacing a stock SCX24 servo, note that some users report needing longer screws or a spacer due to the Miuzei servo's depth. Minor trimming of the servo mount for wire clearance may also be necessary.
3. **Attach Servo Horn:** Select the appropriate servo horn (metal or plastic) for your application. Attach it to the servo output shaft. Ensure the horn is centered before securing it with the small screw.
4. **Connect Linkage:** Connect the steering linkage from your model to the servo horn. Adjust the linkage length as needed to achieve proper steering geometry and prevent binding.
5. **Connect to Receiver/Controller:** Plug the servo's 3-pin connector into the appropriate channel on your RC receiver or control board. Ensure correct polarity (signal, positive, negative).
6. **Initial Test:** Reconnect the battery and power on your RC system. Carefully test the servo's movement. If the servo moves in the wrong direction, reverse the channel on your transmitter or control software.

Note: For optimal performance and to prevent damage, ensure the servo operates freely without any mechanical binding throughout its full range of motion.

6. OPERATING INSTRUCTIONS

The Miuzei 12g Digital Metal Gear Servo is controlled by standard PWM signals from your RC receiver or microcontroller. Its digital nature provides precise and responsive control.

- **Power On:** Ensure your RC system (transmitter and receiver) is powered on before powering the model with the servo.
- **Control Input:** Use your transmitter's steering wheel or joystick to control the servo's position. The servo will move to the commanded angle quickly and hold its position firmly due to its high torque and metal gears.
- **Angle Range:** The servo supports a pulse width range of 500 to 2500 μsec , allowing for a wide steering angle. The neutral position is typically at 1500 μsec .
- **Applications:** This servo is suitable for steering in 1/24 scale RC crawler cars, providing precise control over challenging terrains. It can also be used in small robotic projects requiring accurate angular positioning.

Precise angle control

4.8V 0.12sec/60°(At no load)

6V 0.1sec/60°(at no load)



Image: The servo in an RC crawler, illustrating its precise angle control during operation.



Image: Examples of where the Miuzel 12g Digital Servo can be used, such as RC planes, DIY projects, RC cars, and RC boats.

7. MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your servo.

- **Keep Clean:** Periodically clean the servo's exterior to remove dirt, dust, and debris, especially after use in dusty or muddy conditions.
- **Check Gears:** Inspect the metal gears for any signs of wear, damage, or foreign objects. While durable, extreme impacts can cause damage.
- **Lubrication:** The gears are pre-lubricated. Avoid excessive lubrication, but if necessary, use a small amount of plastic-safe grease on the gear teeth.
- **Wiring Inspection:** Check the servo wire for cuts, pinches, or loose connections. Secure any loose wiring.
- **Storage:** Store the servo in a dry, cool place away from direct sunlight and extreme temperatures.

8. TROUBLESHOOTING

If you encounter issues with your Miuzei 12g Digital Servo, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Servo not responding	No power, incorrect wiring, faulty receiver/controller, damaged servo.	Check power supply and connections. Verify wiring polarity. Test with a different receiver/controller or servo tester. Replace if damaged.
Servo jitters or twitches	Interference, low voltage, loose connections, mechanical binding.	Ensure proper power supply. Check all connections. Remove any obstructions causing binding. Move away from sources of electrical interference.
Servo moves in wrong direction	Transmitter/controller channel reversed.	Reverse the servo channel on your RC transmitter or control software.
Servo lacks strength/torque	Low voltage, excessive load, worn gears.	Ensure adequate power supply (4.8V-6.0V). Reduce mechanical load if possible. Inspect gears for wear.
Servo makes grinding noise	Damaged gears, foreign object in gears, excessive load.	Disassemble carefully to inspect and clean gears. Replace damaged gears. Ensure no mechanical binding.

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 contact Miuzei customer service through the retailer where the product was purchased or visit the official Miuzei website. Please retain your proof of purchase for warranty claims.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question