

Miuzei D-MS61-2-B

Miuzei 35kg 270° Digital RC Servo Instruction Manual

Model: D-MS61-2-B

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of your Miuzei 35kg 270° Digital RC Servo. Please read this manual thoroughly before use to ensure proper function and longevity of the product.

The Miuzei 35kg 270° Digital RC Servo is designed for high-performance applications requiring precision and durability. It features a metal gearbox, high torque, and a wide rotation angle, making it suitable for various RC models and robotic projects.

2. PRODUCT OVERVIEW

2.1 Key Features

- **High Precision & Fast Response:** Equipped with a precise potentiometer and high-resolution chip for stable performance and quick response.
- **Durable Construction:** Features a high-quality metal gearbox and waterproof sealing screws. The CNC machined aluminum case enhances heat dissipation.
- **Wide Operating Voltage:** Supports 4.8V to 8.4V.
- **High Torque:** Up to 38.0 kg/cm at 8.4V.
- **270° Rotation Angle:** Controllable rotation from 0-270 degrees (at 500-2500 µsec). Can be manually rotated 360° when power is off.
- **Overvoltage & Overheat Protection:** Integrated protection mechanisms to prevent permanent damage.

2.2 Package Contents

The package includes the Miuzei 35kg Digital RC Servo and various accessories:

- Miuzei 35kg Digital RC Servo (Model D-MS61-2-B)
- 6 different shapes of servo horns, including a high-performance 25T metal adjustable servo arm.
- 500mm servo cable.

- Mounting screws and accessories.

METALL Coreless Servo

- ⚙️ Durable Steel Gear
- ⚙️ High Torque,Dual Ball Bearings
- 🔧 CNC Aluminum Case
- ⚙️ High Quality Digital Motor
- ✓ Quality assured,Long Working Life



Image 2.2.1: Miuzei 35kg Digital RC Servo with various servo horns and mounting hardware. The image also displays detailed dimensions of the servo and different horn types.

3. SPECIFICATIONS

Parameter	Value
Model Number	D-MS61-2-B
Operating Voltage	4.8V ~ 8.4V
Operating Current	2200 ~ 3200 mAh
No Load Speed (4.8V)	0.13 sec/60°
No Load Speed (8.4V)	0.10 sec/60°

Parameter	Value
Stall Torque (4.8V)	29.5 kg/cm
Stall Torque (8.4V)	38.0 kg/cm
Rotation Angle	270° (at 500 ~ 2500 μsec)
Dead Band Width	3 μsec
Dimensions (L x W x H)	40.5 x 20.5 x 37.5 mm
Weight	60 Grams
Gear Type	Metal
Motor Type	Digital Coreless
Waterproof Rating	IP66

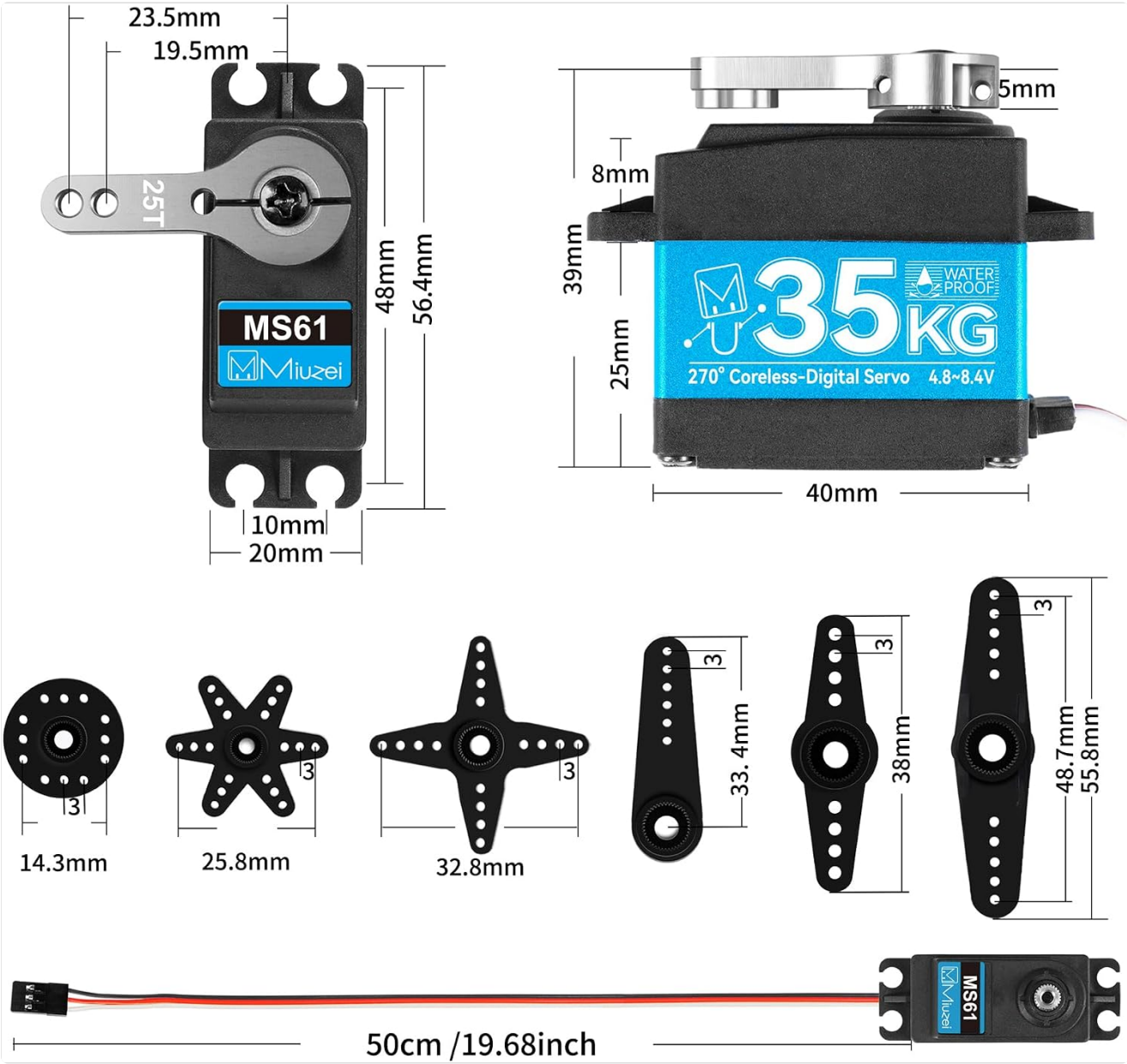


Image 3.1: Detailed specifications of the Miuzei 35kg Digital RC Servo, highlighting quick response and high precision for stable performance.

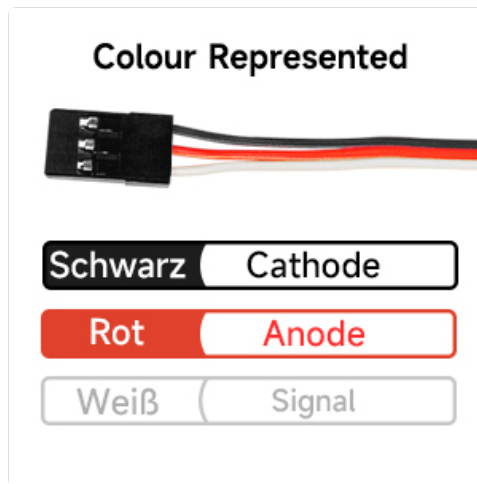


Image 3.2: Wiring diagram for the servo. Black wire is Cathode (Ground), Red wire is Anode (Power), and White wire is Signal.

4. SETUP AND INSTALLATION

4.1 Mounting the Servo

1. Identify the appropriate mounting location on your RC model, robot arm, or other application.
2. Secure the servo using the provided mounting screws. Ensure the servo is firmly attached to prevent movement during operation.
3. Attach the desired servo horn to the servo output shaft. The 25T metal servo arm is recommended for applications requiring high strength.

4.2 Wiring Connection

1. Connect the servo's three-wire cable to your receiver or control board.
2. Ensure correct polarity:
 - **Black Wire:** Ground (GND)
 - **Red Wire:** Power (VCC, 4.8V-8.4V)
 - **White Wire:** Signal (PWM)
3. Verify that the power supply to the servo is within the specified operating voltage range (4.8V-8.4V).

5. OPERATING INSTRUCTIONS

5.1 Basic Operation

The Miuzei 35kg Digital RC Servo operates based on Pulse Width Modulation (PWM) signals from your RC receiver or microcontroller (e.g., Arduino). The pulse width determines the servo's position.

- **Standard Pulse Width:** Typically, a pulse width of 1500 μsec corresponds to the center position (90°).
- **Rotation Range:** The servo supports a 270° rotation angle, usually achieved with pulse widths ranging from 500 μsec to 2500 μsec .
- **Power Off:** When power is removed, the servo can be manually rotated 360 degrees.



Image 5.1.1: Visual representation of the 270-degree control angle of the servo.

5.2 Application Scenarios

This servo is versatile and suitable for a wide range of applications:

- RC Cars (1/10, 1/8 scale)
- Mini Drift Cars, Racing Cars
- Robotic Arms and Humanoid Robots
- Aircraft Models and Drones
- Climbing Vehicles
- Boats and Ship Models
- DIY Projects requiring precise angular control



Image 5.2.1: Examples of where the Miuzei 35kg Digital RC Servo can be used, such as robots, aircraft models, RC cars, manipulators, and ship models.

Application Scenario



Image 5.2.2: The Miuzei 35kg Digital RC Servo shown in an outdoor setting with an RC car, emphasizing its IP66 waterproof capabilities for robust outdoor use.

6. MAINTENANCE

- **Regular Inspection:** Periodically check the servo for any signs of wear, especially on the gears and housing.
- **Cleaning:** Keep the servo clean from dust, dirt, and debris. Use a soft, dry cloth. For stubborn dirt, a slightly damp cloth can be used, but ensure no moisture enters the internal components.
- **Lubrication:** The metal gears are pre-lubricated. Avoid excessive lubrication unless necessary, and use only appropriate servo gear grease.
- **Wiring Check:** Ensure all wiring connections are secure and free from damage.
- **Storage:** Store the servo in a dry, cool place away from direct sunlight and extreme temperatures.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
---------	----------------	----------

Problem	Possible Cause	Solution
Servo not responding	No power, incorrect wiring, faulty signal, damaged servo.	◦ Check power supply voltage and connection. ◦ Verify wiring polarity (Black-GND, Red-VCC, White-Signal). ◦ Test with a known good signal source (e.g., servo tester). ◦ Inspect for physical damage.
Servo jitters or vibrates	Insufficient power, noisy signal, mechanical binding, worn gears.	◦ Ensure adequate power supply (current and voltage). ◦ Check signal cable for interference or damage. ◦ Ensure no mechanical obstruction is preventing smooth movement. ◦ Inspect gears for wear.
Servo does not reach full 270° rotation	Incorrect PWM signal range, mechanical obstruction, servo limits.	◦ Adjust the PWM pulse width range on your controller (e.g., 500-2500 µsec). ◦ Check for any physical obstructions limiting the servo arm's movement. ◦ Confirm the servo is rated for 270° operation.
Servo overheats	Overload, continuous stall, insufficient ventilation, high ambient temperature.	◦ Reduce load on the servo. ◦ Avoid continuous stalling. ◦ Ensure adequate airflow around the servo. ◦ Check for short circuits or excessive current draw.

Quick Response High Precision Ensure Stable Performance

Servo Size:

40,0x20,0x40,0mm

Totzonenbreite:

3 usec

Operat Voltage:

4,8V-8,4V

No Load Speed:

0.13sec/60° at 4.8V

0.10sec/60° at 8.4V

Peak Stall Torque:

29.5kg.cm at 4.8V

40.0kg.cm at 8.4V

Rotation Angle

270°(At 500~2500usec)



Image 7.1: The servo features stable protection against overvoltage (5 seconds) and overheat (70°C) to prevent permanent damage.

8. WARRANTY AND SUPPORT

Miuzei products are manufactured to high-quality standards. For warranty information or technical support, please refer to the official Miuzei website or contact your retailer. Please have your model number (D-MS61-2-B) and purchase details ready when seeking support.

For further assistance, you may visit the [Miuzei brand page on Amazon](#).

© 2023 Miuzei. All rights reserved.

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