Hitec RCD HS-65MG

Hitec HS-65MG Mighty Feather Metal Gear Servo Instruction Manual

Model: HS-65MG | Brand: Hitec RCD

Introduction

The Hitec HS-65MG is a high-performance micro servo designed for precision and durability. It features shock-resistant metal gears and a top-ball bearing for extended operational life and accurate centering. This servo delivers 31 ounces/inches (2.2 kg.cm) of torque at 6 volts, making it suitable for demanding applications such as high-performance micro helicopters, electric park flyers, and 1/18 scale remote control cars.



Image: The Hitec HS-65MG servo unit, showcasing its compact design and included white servo horn.

What's in the Box

- Hitec HS-65MG Servo Unit

Safety Information

- Use the servo away from direct heat sources to prevent damage.
- Avoid touching the servo's moving parts or gears while it is operating to prevent injury.

Features

- **Motor Type:** 3 Pole
- **Bearing Type:** Top Ball Bearing for enhanced precision and longevity

- **Gears:** Durable Metal Gears for shock resistance and strength
- **Speed (4.8V/6.0V):** 0.14 / 0.11 sec @ 60 degrees
- **Torque oz./in. (4.8V/6.0V):** 25 / 31
- **Torque kg./cm. (4.8V/6.0V):** 1.8 / 2.2
- **Dimensions (Inches):** 0.92 x 0.45 x 0.94
- **Dimensions (Millimeters):** 23.37 x 11.43 x 23.88
- **Weight (Ounces):** 0.44
- **Weight (Grams):** 12.47



Image: Detailed view of the robust metal gears within the HS-65MG servo, highlighting their construction for durability.

Setup

1. **Mounting the Servo:** Securely mount the HS-65MG servo into your model using appropriate servo mounts and screws. Ensure the servo is firmly seated to prevent movement during operation.

2. **Connecting to Receiver:** Connect the servo's three-wire connector (typically brown, red, orange/yellow) to the corresponding channel on your RC receiver. Ensure correct polarity: brown for ground, red for positive voltage, and orange/yellow for signal.
3. **Attaching Servo Horn:** Select the appropriate servo horn for your application. Attach it to the servo output shaft, ensuring it is centered before tightening the retaining screw. For initial setup, it is recommended to power on the receiver and servo, allow the servo to center, then attach the horn in the desired neutral position.



Image: The HS-65MG servo with its dimensions (23.6mm x 11.6mm x 24mm) and weight (11.9g) clearly labeled, aiding in proper installation planning.

Operating

The HS-65MG servo operates on a standard RC PWM signal. It is compatible with most modern RC receivers and transmitters. Ensure your power source (receiver battery or BEC) provides the correct voltage, typically 4.8V to 6.0V, for optimal performance. The servo's movement corresponds to the signal pulse width received from the receiver, translating control inputs into precise mechanical motion.

Maintenance

- **Gear Inspection:** Periodically inspect the metal gears for any signs of wear, damage, or foreign debris. Clean as necessary.
- **Cleaning:** Keep the servo casing clean and free from dirt, dust, and moisture. Use a soft, dry cloth for cleaning. Avoid using solvents or harsh chemicals.
- **Cable Integrity:** Check the servo cable for any cuts, fraying, or damage. Damaged cables can lead to intermittent

operation or complete failure.

Troubleshooting

Problem	Possible Cause	Solution
Servo not responding	Incorrect connection, insufficient power, faulty receiver channel.	Verify servo connection to receiver. Check battery voltage and power supply. Test with a different receiver channel or servo.
Servo jitters or twitches	Electrical interference, loose connection, worn gears.	Ensure proper shielding of wires. Check all connections for tightness. Inspect gears for wear.
Incorrect centering	Improper servo horn attachment, mechanical binding, trim settings.	Re-center servo and reattach horn. Check for any obstructions preventing full movement. Adjust transmitter trim settings.
Weak or slow response	Low voltage, excessive load.	Ensure adequate power supply (e.g., fully charged battery). Reduce mechanical load on the servo if possible.

Specifications

Specification	Detail
Product Dimensions	0.92 x 0.45 x 0.94 inches (23.37 x 11.43 x 23.88 mm)
Item Weight	0.48 ounces (13.6 grams)
Manufacturer	HRP Distribution
ASIN	B000G6F0A8
Item Model Number	HRC32065S
Date First Available	December 17, 2004
Motor Type	3 Pole
Bearing Type	Top Ball Bearing
Gear Type	Metal Gear
Speed (4.8V)	0.14 sec/60°
Speed (6.0V)	0.11 sec/60°
Torque (4.8V)	25 oz./in. (1.8 kg.cm)
Torque (6.0V)	31 oz./in. (2.2 kg.cm)



Image: A detailed specification chart for the HS-65MG servo, showing speed, torque, weight, and dimensions at different voltages.

Warranty

Hitec RCD provides a **1-Year Warranty** for the HS-65MG servo against manufacturing defects from the date of purchase. Please retain your proof of purchase for warranty claims. For detailed warranty terms and conditions, refer to the official Hitec RCD website or contact their customer support.



Image: Official Hitec 1 Year Warranty badge, indicating product coverage.

Support

For further assistance, technical support, or inquiries regarding your Hitec HS-65MG servo, please visit the official Hitec RCD website or contact their customer service department. Contact information can typically be found on the manufacturer's website under the "Support" or "Contact Us" sections.

© 2026 Hitec RCD. 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