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> SYMA S109G 3.5 Channel RC Helicopter User Manual

## SYMA S109G

# SYMA S109G 3.5 Channel RC Helicopter User Manual

Model: S109G

## 1. INTRODUCTION

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This manual provides essential instructions for the safe operation, setup, and maintenance of your SYMA S109G 3.5 Channel RC Helicopter. This model features a built-in gyroscope for stable flight and is designed for indoor use. Please read this manual thoroughly before operating the helicopter to ensure proper function and to prevent damage.



Image 1: The SYMA S109G 3.5 Channel RC Helicopter, a green military-style helicopter with dual rotors.

## 2. SAFETY INFORMATION

Adhere to the following safety guidelines to prevent injury or damage:

- **Indoor Use Only:** This helicopter is designed exclusively for indoor flight due to its infrared control system and susceptibility to wind.
- **Adult Supervision:** Recommended for ages 14 and up with adult supervision.
- **Clear Flight Path:** Ensure a clear area free from obstacles, people, and pets before flying.
- **Rotor Blades:** Keep fingers, hair, and loose clothing away from rotating blades.
- **Battery Safety:**
  - Do not overcharge the battery.
  - Use only the provided USB charging cable.
  - Do not expose batteries to extreme temperatures or direct sunlight.
  - If the battery is damaged or swollen, discontinue use immediately.
- **Automatic Shut-off:** The helicopter features double protection functions where the engine automatically shuts off if blades get stuck or if the aircraft impacts a surface.



## Double protection functions

The engine will automatically shut off to prevent damage, when the blades gets stuck



- ① Automatisch auszuschalten wenn Propellern sich verklemmt sind.

- ② Automatisch auszuschalten wenn das Flugzeug aufgeprallt ist.



Image 2: Diagram illustrating the helicopter's automatic shut-off feature when propellers are jammed or upon impact, enhancing safety and durability.

### 3. PACKAGE CONTENTS

Verify that all items are present in your package:

- SYMA S109G RC Helicopter
- Remote Control (requires 6x AA batteries, not included)
- USB Charging Cable
- Spare Tail Blade
- Mini Screwdriver
- User Manual (this document)



remote control not including  
6XAA battery

Image 3: Contents of the SYMA S109G package, including the helicopter, remote control, USB charging cable, and a spare tail blade.

## 4. COMPONENTS OVERVIEW

### 4.1 Helicopter

- **Main Rotors:** Provide lift.
- **Tail Rotor:** Controls yaw (left/right turning).
- **Stabilizer Bar:** Enhances flight stability.
- **Landing Skids:** Support the helicopter on the ground.
- **Charging Port:** For connecting the USB charging cable.
- **Power Switch:** Turns the helicopter on/off.
- **LED Indicator Lights:** Front lights for visibility, especially in low light.



Image 4: The SYMA S109G helicopter showcasing its super bright LED indicator lights, which aid in visibility during flight.

## 4.2 Remote Control

- **Left Stick (Throttle):** Controls altitude (up/down).
- **Right Stick (Directional):** Controls forward/backward movement and left/right turning.
- **Trim Buttons:** Fine-tune helicopter stability.
- **Power Indicator LED:** Shows remote control power status.
- **Power Switch:** Turns the remote control on/off.
- **Battery Compartment:** Holds 6x AA batteries.

## 5. SETUP

### 5.1 Charging the Helicopter Battery

1. Ensure the helicopter's power switch is in the "OFF" position.
2. Connect the small end of the USB charging cable to the helicopter's charging port.
3. Connect the large end of the USB charging cable to a USB power source (e.g., computer USB port, USB wall adapter).
4. The indicator light on the USB cable will illuminate during charging and turn off when charging is

complete.

5. Charging time is approximately 40 minutes. Do not exceed this time to prevent battery damage.
6. A fully charged battery provides 5-8 minutes of flight time.

## 5.2 Installing Remote Control Batteries

1. Using a screwdriver, open the battery compartment on the back of the remote control.
2. Insert 6 new AA batteries, observing the correct polarity (+/-).
3. Close the battery compartment and secure it with the screw.

## 5.3 Pairing the Remote Control

1. Turn on the helicopter's power switch. The helicopter's lights will flash.
2. Place the helicopter on a flat, level surface.
3. Turn on the remote control's power switch. The remote control's indicator light will flash.
4. Move the left throttle stick all the way up, then all the way down.
5. The helicopter and remote control indicator lights will become solid, indicating successful pairing.
6. The helicopter is now ready for flight.

# 6. OPERATING INSTRUCTIONS

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Always operate the helicopter in a spacious indoor area, away from fans, air conditioners, and open windows that could create drafts.

## 6.1 Basic Flight Controls

- **Take-off / Increase Altitude:** Gently push the left throttle stick upwards.
- **Land / Decrease Altitude:** Gently pull the left throttle stick downwards.
- **Forward Flight:** Push the right directional stick upwards.
- **Backward Flight:** Pull the right directional stick downwards.
- **Turn Left:** Push the right directional stick to the left.
- **Turn Right:** Push the right directional stick to the right.
- **Hovering:** Adjust the left throttle stick to maintain a stable altitude. Use the trim buttons if the helicopter drifts without input.



Image 5: A child operating the SYMA S109G helicopter indoors, demonstrating its ease of use for beginners.

## 7. MAINTENANCE

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- **Cleaning:** Use a soft, dry cloth to clean the helicopter. Do not use water or chemical cleaners.
- **Blade Inspection:** Regularly check rotor blades for damage. Replace any cracked or bent blades with genuine SYMA spare parts.
- **Storage:** When not in use, store the helicopter and remote control in a cool, dry place, away from direct sunlight. Remove batteries from the remote control if storing for extended periods.
- **Flexible Propellers:** The helicopter features flexible propellers made from ABS material, designed for durability and long service life.



## Long service life

Thanks to study ABS material and flexible fan blade



Image 6: Close-up of the SYMA S109G's flexible propeller, highlighting its durable ABS material construction for extended use.

## 8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Helicopter does not respond to remote control.	Not paired, low battery in helicopter or remote, out of range.	Re-pair the helicopter and remote. Charge helicopter battery. Replace remote control batteries. Ensure helicopter is within 8 meters of the remote.
Helicopter flies erratically or drifts.	Uncalibrated gyroscope, damaged blades, drafts.	Ensure helicopter is placed on a flat surface during pairing. Check blades for damage and replace if necessary. Fly in an area free of drafts. Use trim buttons for fine adjustments.
Helicopter does not lift off.	Low helicopter battery, main rotors obstructed.	Charge helicopter battery fully. Ensure main rotors are free to spin.

Problem	Possible Cause	Solution
Helicopter crashes frequently.	Lack of experience, flying in too small an area.	Practice basic controls in a large, open indoor space. Reduce throttle input for smoother flight.

## 9. SPECIFICATIONS

Feature	Detail
Model	S109G
Channels	3.5 Channel
Control Type	Infrared (IR) Remote Control
Gyroscope	Built-in Gyro
Battery Type	3.7V 150mAh Li-Poly (Lithium Polymer)
Charging Time	Approximately 40 minutes
Flight Time	5-8 minutes
Flying Distance	Approximately 8 meters
Motor Type	Brushed
Dimensions (L x H x W)	8.7 in (220.98mm) x 2.8 in (71.12mm) x 3.9 in (99.06mm)
Weight	14.08 ounces
Recommended Age	14+ with adult supervision
Material	Polymer (ABS)

## 10. WARRANTY AND SUPPORT

The SYMA S109G RC Helicopter comes with **No Warranty** as per manufacturer specifications. For technical support or inquiries regarding spare parts, please refer to the retailer where the product was purchased.