

SYMA X12S-B

SYMA X12 Nano Quadcopter Instruction Manual

Model: X12S-B

1. INTRODUCTION

Thank you for purchasing the SYMA X12 Nano Quadcopter. This compact and agile drone is designed for both beginners and experienced pilots, offering stable flight characteristics and easy maneuverability. Please read this manual thoroughly before operating the quadcopter to ensure safe and correct usage.

2. SAFETY PRECAUTIONS

- Always operate the quadcopter in open, clear areas, away from people, animals, and obstacles.
- Do not fly near high-voltage lines, buildings, or crowded places.
- Keep hands and face away from rotating propellers.
- Ensure the battery is fully charged before each flight.
- Do not expose the battery to extreme temperatures or direct sunlight.
- Adult supervision is recommended for users under 14 years of age.
- Turn off the quadcopter and remote control when not in use.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- SYMA X12 Nano Quadcopter
- 2.4G Remote Control Transmitter
- USB Charging Cable
- Spare Main Blades (4 PCS)
- Instruction Manual (this document)

4. PRODUCT OVERVIEW

4.1 SYMA X12 Nano Quadcopter

The SYMA X12 is a 4-channel, 6-axis gyroscope equipped nano quadcopter, providing stable flight and agile performance. Its compact size makes it suitable for indoor flying.

4.2 Remote Control Transmitter

The 2.4G remote control allows for precise command over the quadcopter. Familiarize yourself with its layout:



Image 1: SYMA X12 Nano Quadcopter Remote Control. This image displays the white and red remote control for the SYMA X12 Nano Quadcopter. It features two main joysticks, a central power button with the SYMA logo, and two directional pads for trim adjustments. The 2.4G frequency indicator is visible in the center. The design is ergonomic, resembling a game controller.

- **Left Joystick:** Controls throttle (up/down) and yaw (rotate left/right).
- **Right Joystick:** Controls pitch (forward/backward) and roll (sideward left/right).
- **Power Button:** Located centrally, used to turn the remote control on/off.
- **Left Trim Buttons (Directional Pad):** Adjusts yaw trim.
- **Right Trim Buttons (Directional Pad):** Adjusts pitch and roll trim.
- **Top Left Button:** Speed mode selection.
- **Top Right Button:** 360° Eversion (flip) function.

5. SETUP

5.1 Battery Charging

1. Connect the quadcopter's 3.7V 100mAH Li-poly battery to the USB charging cable.
2. Plug the USB cable into a USB power source (e.g., computer USB port, USB wall adapter).
3. Charging time is approximately 40 minutes. The indicator light on the USB cable will change (e.g., turn off or change color) when charging is complete.
4. The remote control can also be used to charge the quadcopter battery. Refer to the remote control's battery compartment for specific instructions on this method.

5.2 Battery Installation

- **Quadcopter:** Carefully insert the charged battery into the battery compartment on the quadcopter and connect the power plug.
- **Remote Control:** Open the battery compartment on the back of the remote control and insert the required batteries (not included, typically AA or AAA). Ensure correct polarity.

5.3 Binding Procedure

1. Place the quadcopter on a flat, level surface.
2. Turn on the quadcopter. The indicator lights will flash.
3. Turn on the remote control.
4. Push the left joystick (throttle) all the way up, then all the way down.
5. The quadcopter's lights will stop flashing and become solid, indicating a successful binding.

6. OPERATING INSTRUCTIONS

The SYMA X12 offers 4-channel control for comprehensive flight maneuvers. The flying distance is approximately 20 meters, with a flight time of about 4 minutes per charge.

6.1 Basic Flight Controls

- **Throttle (Left Joystick Up/Down):** Increases or decreases altitude.
- **Yaw (Left Joystick Left/Right):** Rotates the quadcopter clockwise or counter-clockwise.
- **Pitch (Right Joystick Up/Down):** Moves the quadcopter forward or backward.
- **Roll (Right Joystick Left/Right):** Moves the quadcopter sideward left or right.

6.2 Trim Adjustments

If the quadcopter drifts in any direction during hover, use the trim buttons on the remote control to correct its flight path. Press the trim button opposite to the direction of drift.

6.3 Speed Mode Selection

Press the top left button on the remote control to cycle between two available speed modes (low and high), suitable for different skill levels and environments.

6.4 360° Eversion (Flip)

To perform a 360° flip, press the top right button on the remote control, then quickly push the right joystick in the desired flip direction (forward, backward, left, or right). Ensure sufficient altitude before attempting this maneuver.

6.5 Throw Out to Fly

The SYMA X12 features a "throw out to fly" function. After binding, gently toss the quadcopter into the air and immediately apply throttle to initiate flight. This feature is enabled by its 6-axis gyroscope for stable recovery.

7. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the quadcopter and remote control. Avoid using water or solvents.

- **Propeller Replacement:** If a propeller is damaged, replace it with a spare blade. Ensure the correct propeller (A or B) is installed on the corresponding motor.
- **Storage:** Store the quadcopter and remote control in a cool, dry place when not in use. Remove batteries from the remote control during long-term storage.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Quadcopter does not respond to remote control.	Not bound, low battery, remote control off.	Perform binding procedure. Charge quadcopter battery. Check remote control batteries and power.
Quadcopter drifts during flight.	Improper trim settings, uncalibrated gyroscope.	Adjust trim buttons. Place quadcopter on a level surface and recalibrate the gyroscope (refer to specific instructions in the full manual if available, usually involves holding both joysticks down and to the right/left).
Short flight time.	Battery not fully charged, old battery.	Ensure battery is fully charged (approx. 40 mins). Consider replacing the battery if it's old.
Propellers not spinning.	Obstruction, damaged motor, loose connection.	Check for hair or debris tangled in propellers. Inspect motors and connections. Replace damaged propellers.

9. SPECIFICATIONS

Model Number: X12S-B

Brand: SYMA

Channels: 4CH

Frequency: 2.4G

Gyroscope: 6-axis

Battery: 3.7V 100mAH Li-poly

Charging Time: Approximately 40 minutes

Charging Method: USB & Controller

Flying Time: Approximately 4 minutes

Flying Distance: Approximately 20 meters

Product Dimensions: 22.1 x 3.81 x 9.91 cm

Item Weight: 286 g

Recommended Age: 14 years and up

Skill Level: Beginner

10. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the retailer where the product was purchased or visit the official SYMA website. Keep your purchase receipt as proof of purchase.