

SYMA AGES 14+

D44GYRO

Remote Control Quad Copter

360° EVERSION

1 INSTRUCTION MANUAL

IMPLEMENT STANDARD: GB/T26701-2011

Main characteristics

- Four-axis structure is applied, which makes the helicopter more flexible and rapid when flying. It has the characteristics of wind-resistant and can be filed indoor or outdoor.
- Built-in 6 axis gyroscope for precise hovering in the sky.
- Modular design structure is applied, more simple for assembly and convenient for maintenance.
- With 360°3D eversion function and throwing flight function.

The materials and specification mentioned in this instruction manual or the parts inside this package is for reference only. Our company won't be responsible for any adaption of the outer package. Nor shall we keep our customers informed in advance. Any information updated or changed, please be subject to our website.

PREFACE

Dear customers:
Hello!
Thank you for purchasing our flying model. Please read this instruction manual carefully in order to master the skill required quickly and operate this product more safely. In the mean time, please well keep the original of this instruction manual for future reference.

IMPORTANT INSTRUCTION

1. This product is not a toy but one precise equipment that integrating mechanics and electronics with expertise of aerodynamics and high-frequency transmitting. It requires to be correctly assembled and debugged so as to prevent the accident from being happened. The product owner should operate or control it in safe way. Please noted that we won't take any responsibility for any wrong operation as this may result in severe injury or loss of property and we can not control the operating process during the time when the user assemble or use this product.
2. This product is suitable to be used by people who has operating experience in flying model or age no less than 14 years old.
3. The flying ground we required should be the local field and legal for remote control flying.
4. Once this product is sold, we won't be responsible for any safety responsibility during the time the user operates or uses or controls this product.
5. If there is any problem occurred during the time of using, operating or repairing, please reach our sales agent for details. The sales agent that we authorized will provide you with the technical support and after-sale service.

SAFETY & CAUTIONS

This R/C flying model is a high dangerous commodity. Please make sure that it should be filed far away from the crowd. Please also pay more attention to the phenomenon such as incorrect assembly or damaged model or incorrect connection of electronic control equipment. Please also pay attention to the flying safety when operating and know more about the accident that may be happened due to your own negligence.

1. Keep it far away from the barrier or crowd.
2. Keep it far away from the moisture environment.
3. Use this product correctly and avoid operating by your own.
4. Keep it far away from the high-speed rotating part and heat source.
5. Please conform to the sequence of power ON/OFF. As the picture below shown, incorrect sequence of power ON/OFF may cause this product out of control and affect your own safety or others. Please form a good habit of switching on or switching off this product correctly.

ABOUT CONTENTS

Product included following contents:

- Quad copter
- 2.4G Remote controller
- USB charging wire
- Instruction manual
- Blade (4 pieces)

GET TO KNOW YOUR TRANSMITTER

Introduction of transmitter

Remote control installing the battery

Open the back cover at the back of the transmitter. Load 4PCS "AA" alkaline batteries correctly into the battery compartment as per the correct polarity shown on the battery compartment.

READY TO FLY YOUR QUAD COPTER

Step 1: First of all, press the ON/OFF power switch.

Step 2: Insert the power line into the quad copter and place it on the level ground.

CAUTIONS:

1. When the indicator of the transmitter appears eternal bright, however, the indicator of the helicopter appears slow flashing, this means that decoding is not successful. This time please disconnect the power both of the quad copter and transmitter, then repeat the pre-flying steps.
2. If the helicopter is tilting to one side abruptly or spinning while hovering, please switch off the power both of the quad copter and transmitter and then repeat the pre-flying steps.
3. When the indicator of the quad copter keeps flashing slowly, it means that the quad copter has entered into the low voltage protection state. This time you need to charge the helicopter.

FUNCTIONS MODE SWITCH, FINE-TUNING RESET AND LEVEL CALIBRATION

Mode switch function: Keep pressing the button B, then switch on the power of the transmitter, you can select Mode 1 or Mode 2.

Resetting function: Keep pressing the button B, then switch on the power of the transmitter. Enter into the Trimming & Resetting Mode. (It is highly suggested that the freshman should reset the trimmer first before starting the first flight.)

Level calibration function: If quad-copter always fly to a side when starting, please re-match signal and place it on a horizontal plane. Then turn the two levers to the lower right corner (as left image) for seconds, when indicator keep light up, it finishes auto level calibration.

ILLUSTRATION ON CONTROLLING THE QUAD COPTER (MODE 2, DEFAULTED MODE WHEN STARTING)

Operating direction

Push the throttle up or down, the quad copter flies upward or downward.

Fine-tuning operation

When the quad copter keeps flying forward/backward, you can correct it by pressing under / top fine-tuning button.

Push the direction lever up or down, the quad copter flies forward or backward.

When the quad copter keeps flying to left / right side, you can correct it by pressing the right / left fine-tuning button.

Pull the direction lever left or right, the quad copter flies to left side or right side.

When the quad copter keeps rotating to left / right, you can correct it by pressing the left / right fine-tuning button.

Pull the throttle left or right, the quad copter turns to left or right.

When the quad copter keeps rotating to left / right, you can correct it by pressing the left / right fine-tuning button.

ILLUSTRATION ON HOW TO CONTROL THE QUAD COPTER (MODE 1)

Operating direction

Push the throttle up or down, the quad copter flies upward or downward.

Fine-tuning operation

When the quad copter keeps flying forward/backward, you can correct it by pressing under / top fine-tuning button.

Push the direction lever up or down, the quad copter flies forward or backward.

When the quad copter keeps flying to left / right side, you can correct it by pressing the right / left fine-tuning button.

Pull the throttle left or right, the quad copter flies to left side or right side.

When the quad copter keeps rotating to left / right, you can correct it by pressing the left / right fine-tuning button.

Pull the direction lever left or right, the quad copter turns to left or right.

When the quad copter keeps rotating to left / right, you can correct it by pressing the left / right fine-tuning button.

FLIGHT CONTROL

Low Speed: Press the High/Low speed switch for one time, the buzz will send out one sound.

High Speed: Please press High/Low speed switch once again, the buzz will send out two sounds.

3D EVERSION AND THROWING FLIGHT INSTRUCTIONS

1. When you are familiar with the basic operation, you can play some awesome & thrilling stunt operation. First of all, fly the four-axial aircraft to the height of more than 3 meters, press the 3D Eversion switch on the right above of the transmitter, then push the right rudder (in any direction) and then you can make 360 degree 3D tumbling operation in any direction and make successive tumbling stunt performance as well.
2. Using 6 axis gyroscope, quad-copter bring you more fun. Throw out the quad-copter or push up throttle lever when it rolling, the quad-copter could hover smoothly in the sky.

7. Headless function:

1. Forward definition
 1. Turn on power switch of remote control.
 2. After aircraft connects with power supply, place the switch in "ON" position, adjust the direction pointed by aircraft's handpiece and regard it as the dead ahead in headless situation.
 3. Push the accelerator's push rod of remote control to the highest point and pull back to the lowest point. When remote control pops, it indicates that frequency modulation and forward definition have already finished.
2. Switch to headless function and general function
 1. After frequency modulation, the aircraft defaults to general pattern. The indicator light on aircraft is long bright state. After pressing down headless function switch on the top left of master remote controller for 2 seconds, remote control will give out "DDD...", it means that it enters into headless state. After pressing for 2 seconds and hearing long "D", it means that it exits headless state. (In headless mode, four indicators on the aircraft flicker slowly for once within four seconds)
 2. In headless state, the operator has no need to recognize the position of aircraft's headpiece, and he just needs to control the aircraft in accordance with the direction of remote control's operating rod.
3. Correcting forward direction
 1. After aircraft crashes in headless state, if there is deviation in head direction, it just needs to adjust the aircraft's direction again, pull remote control's accelerator and operating rod to bottom left simultaneously. When indicator light on the aircraft flickers for slow three seconds, it means that correction is done.

BATTERY CHARGING

Battery charging
Take out the USB charging wire, connect one end to the quad copter, then insert the USB port of the USB charging wire to the USB port of the computer (or the USB port of the power adapter) to charge the battery. During the time of charging, the red indicator of the USB will be ON. When it is fully charged, the red indicator will be OFF.

Caution:

1. When using the computer for charging, please remember to pull out the charging line before shutting down the computer.
2. Please pay attention to aim correctly to the correct polarity when connecting the USB wire with the battery. Please make sure the polarity should not be upside down.

Charging it for 60-70 minutes and you can fly about 6-7 minutes!

CAUTIONS WHEN CHARGING

1. When charging, please put this product on the dried or ventilated area and keep it far away from heat source or explosive product.
2. When charging, please remove the batteries from the quad copter. All the charging process should be under the guidance of the adult so as not to cause accident.
3. When finish flying, please do not charge the battery which surface temperature is still not cooled down. Otherwise it may cause swollen battery or even cause fire disaster.
4. During the process of battery charging, falling down or striking by the outer force should be avoided. Otherwise it may cause short-circuited within the battery and thus may cause danger.
5. In order to make sure safety, please make sure that you need to use the original USB charging wire that made from our factory. When the battery is used for a long time or appears aging or swollen, please replace them timely.
6. When the batteries are fully charged, if you do not remove it from the charger for a long time, the battery may discharge automatically, which may cause battery exhaustion. When the battery voltage that the charger has tested is lower than the rated voltage, the charger will re-charge the battery until it is fully charged. Charging or discharging too often or repeated charging or discharging may reduce the using life of the batteries.

BATTERY REPAIR & MAINTENANCE

1. Battery should be put in the dried or ventilated place with environment temperature about 18-25 C.
2. In order to enhance the using life of the battery, please avoid repeat charging or excessive discharging.
3. When the battery needs to be stored for a long time, please charge the battery first. That is to say, charge the battery for about 50-60% of the volume and then well store it.
4. If you do not use it for more than 1 months, it's highly recommended that you need to check the battery voltage every month so as to make sure the voltage no less than 3V. Otherwise please do by following No. (3) mentioned.

TROUBLE SHOOTING

Symptom	Reason	Troubleshooting
No response from the aircraft	1. Matching frequency is not successfully made. 2. Insufficient power with the aircraft or transmitter.	1. Re-Matching: First of all, switch on the power of the transmitter, then switch on the power of the aircraft and place it on the level ground, finally pushing the throttle lever to the highest and then pull it back to the starting position. 2. Replace the battery of the transmitter or charge the aircraft.
The reaction of aircraft is not smart or intermittent signal.	1. Insufficient power with the transmitter. 2. Antenna of the aircraft is snapped off.	1. Replace the batteries inside the transmitter. 2. Re-welding the antenna.
The aircraft can not make hovering or tilt flying to one side.	1. The aircraft is not placed on the level ground when Matching frequency. 2. The trimmer key on the transmitter is not reset.	1. Re-Matching frequency. 2. Reset the trimmer key on the transmitter, details please kindly check Page3 Functional Adjusting of Flying Resetting. 3. Level calibration

PARTS (OPTIONAL)

Below are the parts available for your kindly selection. In order to facilitate our customers for placing an order, we specially offer all kinds of parts for your kindly selection. You can buy these parts via our local agent as well.

D44-01 Window hood	D44-02 Fuselage	D44-03 Blades	D44-04 Lampshades
D44-05 Rotor protection box	D44-06 Body connecting parts	D44-07 Gear	D44-13A Motor A
D44-13B Motor B	D44-14 Battery	D44-15A Front lights circuit board	D44-15B Circuit board

BREAKDOWN & DIAGRAM

Code	Description	Quantity	Code	Description	Quantity	Code	Description	Quantity
01	Tail trim	1	07	Gearbox	4	13	Battery	1
02	Plating	1	08	Reversing motor	2	14	Battery Cover	1
03	Transparent cover	1	09	Rotating blade	2	15	Headlight covers	1
04	Spindle	4	10	Reversing blade	2	16	Headlight	1
05	Rotating motor	2	11	Circuit board	1	17	After Shade	1
06	Motor cover	4	12	Main body	1	18		

MAIN PARAMETER

Length of fuselage: 140mm
Width of fuselage: 155mm
Height of fuselage: 35mm

Code of main engine: Ø6
Battery: 3.7V/200mah

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

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CE, RoHS, RECYCLE, etc.

SPECIFICATIONS AND COLORS OF CONTENTS MAY VARY FROM PHOTO.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions : (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.