



Nine Eagles™

BRAVO III

NE R/C312A C-axial Helicopter
Manual



NOTHING FLIES LIKE NINE EAGLES

■ 312A091124

Manual

Welcome to be a Nine Eagles™ Helicopter pilot!

To ensure safe use, please read this manual thoroughly before flying the helicopter. If you have never flown an RC Helicopter before, The Bravo III is your best choice!

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Introduction

NE R/C 312A Co-axial helicopter Bravo III the latest 2.4GHZ4-channels single helicopters .It has excellent control function and advanced balanced operative system with easy operation and fly stabilit . It is the best choice for the pilot to learn how to fly .

NE R/C312 the min- leisure indoor helicopters which research and developed by NineEagles™. It has the min-volume ,light- weight that can fly in small range . The pilot can absolutely enjoy this leisure sport.

THREE UNIQUE INVENTION PATENT in the world

- A. Allow Mode1 to Mode2 only by antenna***
- B. Easy installation of battery and Charge directly on the transmitter***
- C. Display screen show voltage, electricity and data when hovering, it make helicopter fly at will. if you open the transmitter switch, each heli can fly to sky in the straight line, moreover it can hover.***

Warning and FCC Information

■ *Warning and FCC Information*

The Nine Eagles™ NE R/C 312A (Bravo III) is not a toy. Children under 14 years old are strictly forbidden from flying this helicopter.

You must fly this helicopter safely.

When flying or preparing the helicopter for flight you should strictly adhere to the instructions. Ensure that yours and other people's hands, and face are kept away from the rotating parts.

Always use the helicopter indoors or in outdoor areas that are free of wind. Never fly close to or above others.

Always unplug the helicopter battery before turning off the transmitter when the helicopter is stopped.

Helicopter uses a lithium polymer battery. Always adhere to operating instructions for the lithium polymer battery to avoid accidents such as combustion or explosion.

Always use a genuine Nine Eagles™ charger and power adaptor designed for this helicopter.

Always unplug the charger and adapter from the electrical outlet after completion of each charge.

Never overcharge the battery, avoid use in direct sunlight or near fire. Ensure the battery is kept dry.

Never store or transport the battery with metal objects.

Never disassemble the battery.

Never use wet hands when in contact with the charger, battery or power adaptor.

When you fly the helicopter, keep distance from other electrical equipment, magnetic objects, wireless devices. etc, to avoid interference and accidents.

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.

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 communication. 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:

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

■ **Instructions for Disposal of WEEE by Users in the European Union**



This product must not be disposed of with other waste. Instead, it is the user's responsibility to dispose of their waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or where you purchased the product

■ **LiPo Battery Safety Guidelines**



Lithium Polymer batteries are significantly more volatile than alkaline or NiCd/NiMH batteries used in RC applications. All manufacturer's instructions and warnings must be followed closely. Mishandling of LiPo batteries can result in fire. Always follow the manufacturer's instructions when disposing of Lithium Polymer batteries.

If you are clear about charge the battery included with this product, please refer to the advice of your local hobby shop.

WARNING

Charging and discharging the batteries may cause, serious injury to persons and damage to property. The user of this battery agrees to accept responsibility for all such risks. Nine Eagles™, its affiliates, distributors, and retail partners can not control the use, application, charging or installation of this product and shall not be held responsible for any accident, injury to persons, or damage to property resulting from the use of this product. Read all safety guidelines, charging instructions, and battery disposal instructions before using batteries. Store battery packs out of the reach of children and pets. Children under the age of 18 must be supervised by a responsible adult. Children under 14 years of age should not be permitted to use this product under any circumstances. This product contains chemicals known to the State of California to cause Cancer, Birth Defects and other Reproductive Harm.

LI-PO BATTERY WARRANTY

This product is warranted against defects in original material and workmanship only. No term warranty is offered with this product. In no case shall Nine Eagles™ liability be greater than the actual retail purchase price of this product.

SPECIFIC SAFETY GUIDELINES

1. Store in a fire proof container and charge on an open fire proof surface.
2. Charge in a protected area devoid of combustibles. Never leave the charging process unattended.
3. In the event of damage carefully remove the battery to a safe place to observe for at least half an hour. Damaged batteries are likely to explode. Never attempt to charge a damaged battery, no matter how slight the damage. Dispose of damaged batteries as the instructions below.
4. Only use the Nine Eagles balanced charger designed for this battery. Never use

- chargers designed for Ni-CD batteries. If the batteries show any sign of swelling, remove them to a safe place outside as they could erupt into flames.
5. MOST IMPORTANT – Never plug in a battery and leave to charge overnight. Serious fires have resulted from this practice.
 6. Do not attempt to make your own battery packs from individual cells.

If the battery pack involved in a crash or is otherwise damaged

1. Remove the pack from the model.
2. Inspect the pack for damage to the wiring or connections
3. If necessary, disassemble the pack and dispose of any damaged cells

Disposal of Li-PO batteries

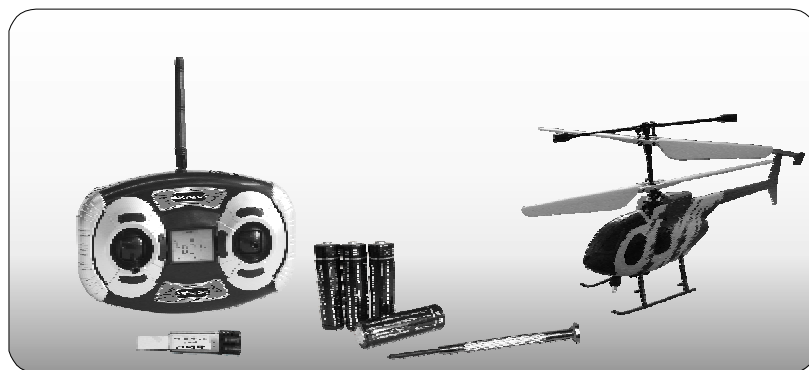
1. Put the pack in a safe open area and connect a moderate resistance across the cell terminals until the cell is completely discharged.
CAUTION: The pack may get extremely hot during the discharge
2. Puncture the plastic envelope and immerse in salt water for several hours.
3. Place in your rubbish bin.

Specification

Model No:	NE R/C 312A
Rotor Diameter:	7.40"(188mm)
Overall Length:	8.62"(219mm)
Weight:	1.09oz(31g)
Power System:	ϕ 7mmMotor x2pcs
Battery:	1-cell 3.7V 110mAh Li-PO

Product List

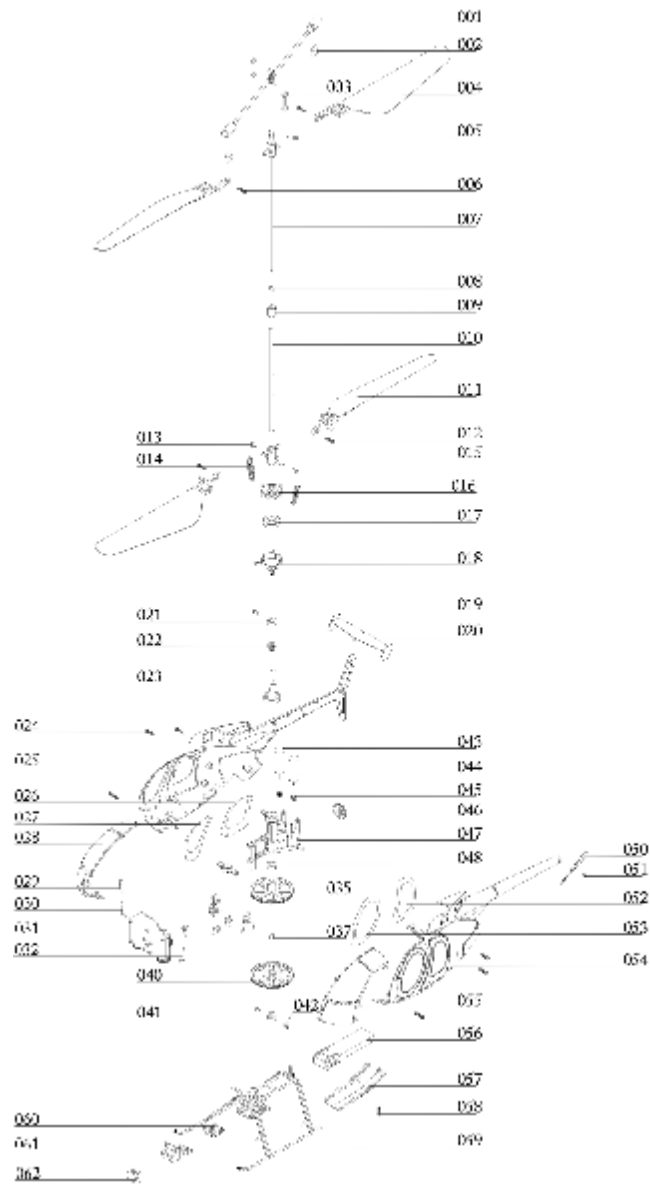
Description	QTY
Bravo III	1
2.4GHz Transmitter	1
Li-Po Battery	1
AA Battery	4
Screwdriver	1



Warrant: *NineEagles guarantees all the helicopters have been strictly inspected, tested before export from factory. Please contact your local distributor to get the technology support to purchase the spare parts and replacement. We have the detail exploded rawing to help you identify the broken spare parts.*

Exploded View

■ Exploded View of Bravo III



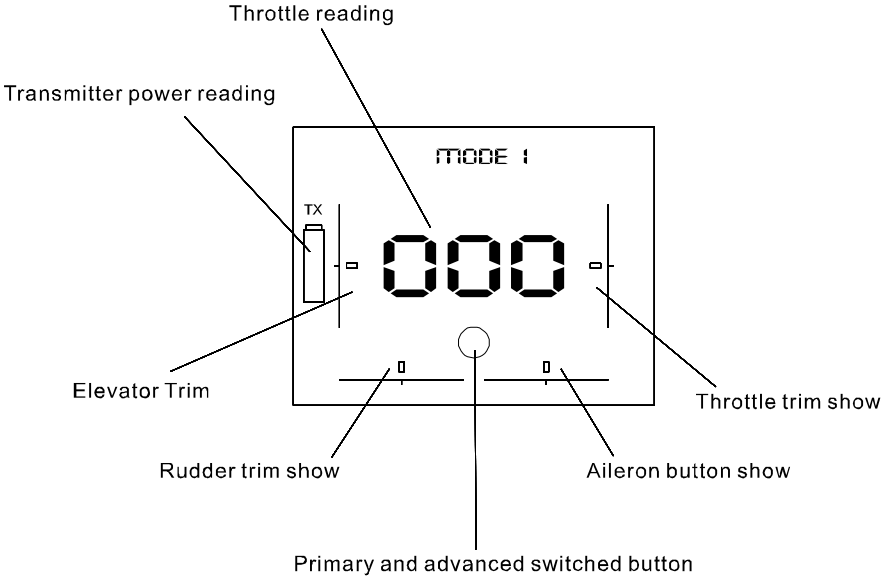
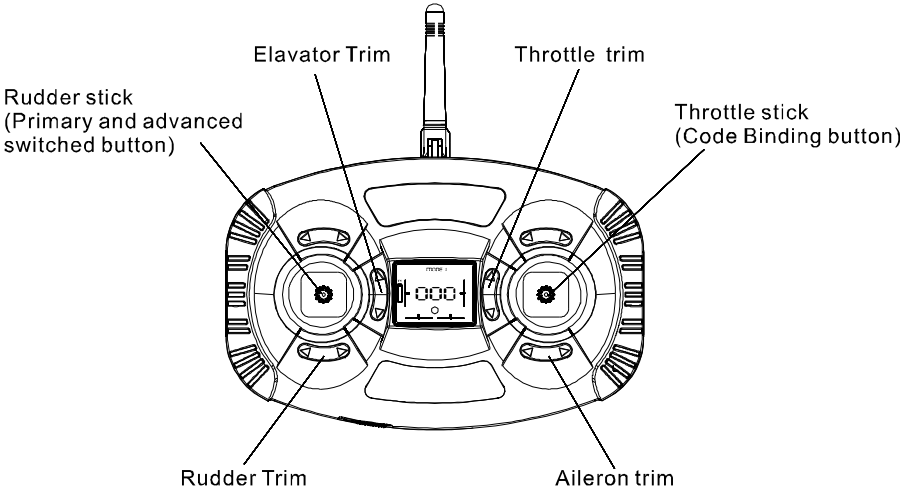
■ Part list

NO	Materiel apellation	Description	Unit	Qty
	NE4312001	Cabin Set		
025		Right cabinet	PCS/SET	1
054		Left cabinet	PCS/SET	1
055		Left hood	PCS/SET	1
028		Right hood	PCS/SET	1
053		Left front window	PCS/SET	1
027		Right front window	PCS/SET	1
052		Left rear window	PCS/SET	1
026		Right rear window	PCS/SET	1
046		Nozzle	PCS/SET	1
020		Horizontal tail	PCS/SET	1
050		Tail blade	PCS/SET	1
051		Tail nut	PCS/SET	1
057		Battery cover	PCS/SET	1
	NE4312002	Rotor Bades Set		
004		Upper rotor	PCS/SET	2
011		Lower rotor	PCS/SET	2
	NE4312003	Fly bar set		
001		Fly bar	PCS/SET	1
002		Weight Block	PCS/SET	2
007		Inner shaft	PCS/SET	1
015		Under shape holder	PCS/SET	1
	NE4312004	Swashplate		
016		Upper swashplate	PCS/SET	1
018		Lower swashplate	PCS/SET	1
017		Bearing MR106	PCS/SET	1
	NE4210008	Outter shaft set		
009		Bearing housing	PCS/SET	1
010		Outer shaft	PCS/SET	1
	NE4312005	Mai frane set		
047		Main frame	PCS/SET	1
023		Sliding chute	PCS/SET	1
	NE4210010	Gear set		
035		Upper gear	PCS/SET	1
040		Lower gear	PCS/SET	1
	NE4312006	Ball linkage rod set		
003		Uppert ball linkage rod	PCS/SET	2
014		Middle ball linkage rod	PCS/SET	2

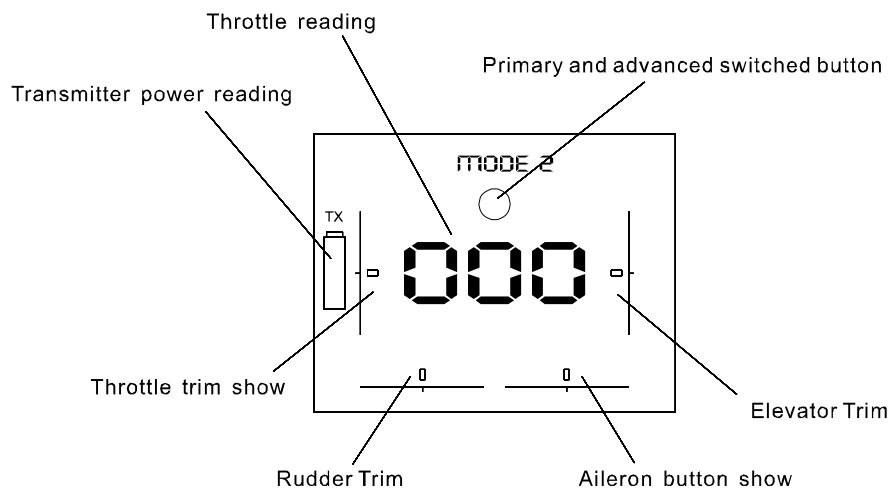
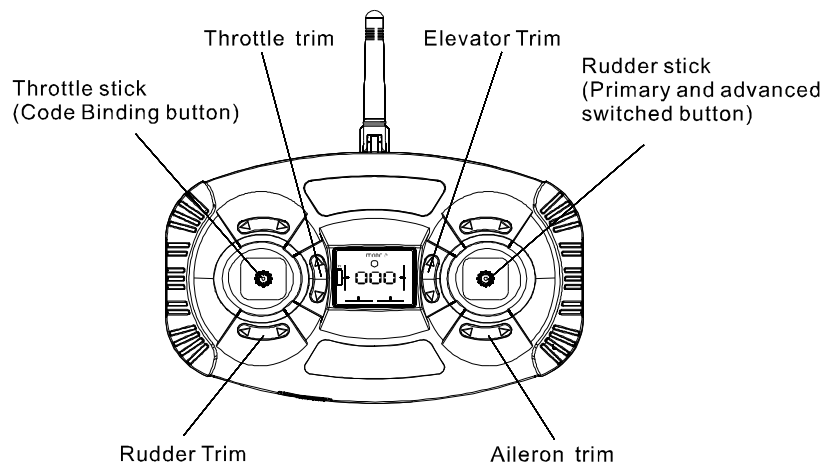
NO	Materiel apellation	Description	Unit	Qty
029		Lower connecting plastic set	PCS/SET	2
030		Push and pull wire	PCS/SET	1
032		Right push and pull wire	PCS/SET	1
	NE4312007	Landing skid mount set		
059		Landing skids	PCS/SET	1
060		Battery needle 2	PCS/SET	2
061		Power switch mounting plate	PCS/SET	1
062		Power switch	PCS/SET	1
	NE4210016	Bearing set		
022		Bearing MR63	PCS/SET	1
048		Bearing MR63	PCS/SET	1
008		Copper sheath	PCS/SET	1
037		Copper sheath	PCS/SET	1
	NE4210017	Fixed circle set		
021		Outer shaft fixed ring	PCS/SET	1
041		Inner shaft fixing set	PCS/SET	1
	NE4312008	Screw set		
019		Screw ST1.3 X 5PA	PCS/SET	1
024		Screw ST1.3 X 5PA	PCS/SET	6
058		Screw ST1.3 X 5PA	PCS/SET	1
006		Screw ST1.3 X 5PA	PCS/SET	2
012		Screw ST1.3 X 5PA	PCS/SET	2
013		Screw PM1.2 X2.5	PCS/SET	2
042		Screw PM1.2 X2.5	PCS/SET	2
	NE4902003	Motor set		
044		Motor1	PCS/SET	1
043		Motor2	PCS/SET	1
045		Motor and gear	PCS/SET	2
056	NE4901001	Battery set	PCS/SET	
031	NE4606001	Recover set	PCS/SET	
005		Fixed pin balance bar	PCS/SET	1

Transmitter Control Identification

When the transmitter is at MODE1:



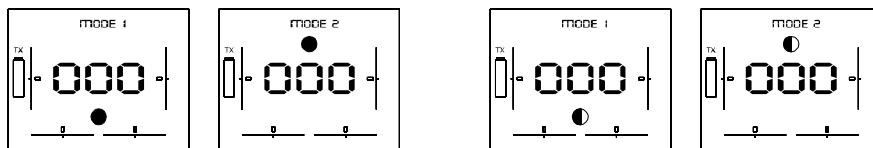
When the transmitter is at MODE2:



■ Set up the Primary and Advanced Control Switch

We have set up the primary and advanced control model to meet the different fan requirement.

1. Turn on the transmitter ,check the present model of transmitter .if the mode is advanced the illustration as left, if the primary mode the illustration as right .



Advanced mode

Primary mode

2. Press the button to switch the mode of the primary and advanced.

Note: *This throttle curve in the low rate mode is also different than it is in the high rate mode. This makes it much smoother and easier to control the throttle when in the low rate mode.*

The advanced mode is suitable for the experienced pilot. We suggest you choose the primary mode when you first flight the helicopter.

■ Transmitter Mode Switch Function

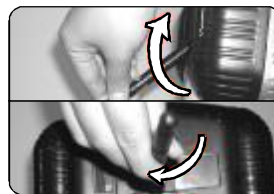
In order to meet the different customer requirement, we use the transmitter with the mode switch function, it can switch between the left and right hand.

Please go ahead the following process to switch the mode from Mode2 to Mode1 :

1. Turn off the transmitter.



PICTURE 1



PICTURE 2



PICTURE 3

2. Turn off the fixed nut on the antenna and clip.(PICTURE 1)
3. Reverse the antenna 90 degree , circumrotate the antenna shaft 180 degree, then make the antenna to cling another side of transmitter.(PICTURE 2)

4. Re-install the nut and the fix clip on the antenna.(PICTURE 3)
5. Turn off the transmitter and to be the mode1 operation check.

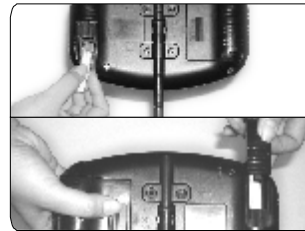
■ **Battery Charging**

A. Ensure the transmitter contains batteries with enough power.

B. Take off the battery cover of the transmitter.



C. Slide the Li-PO battery into the slot on the transmitter until you make the connection successfully , the green indicator on the charger will illuminate.



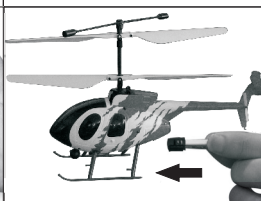
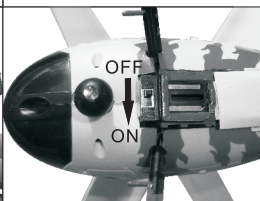

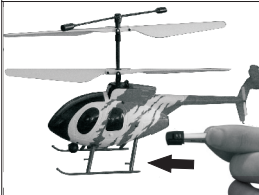
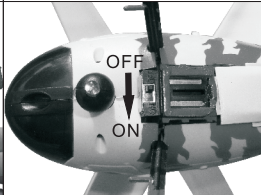



D. When the battery is fully charged the green light will be off.


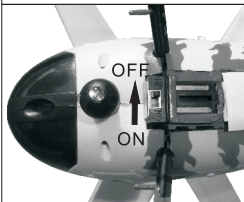


How to Fly

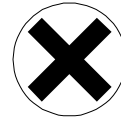
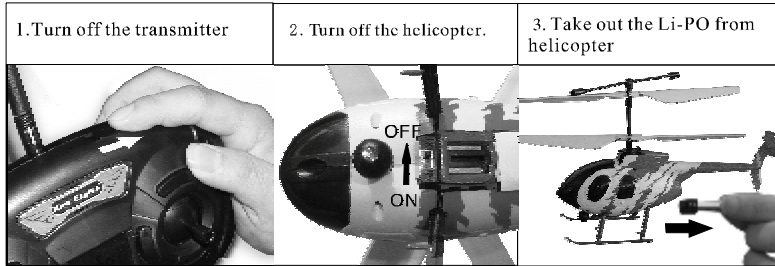
1. Take off the transmitter cover
2. Install four of the included AA batteries in the transmitter
3. Turn on the power , check if there is any content on LCD.
4. Slide the Li-Po battery into the battery slot on frame of helicopter (usually with the label on the battery facing outward). However, be sure to check proper alignment and polarity before proceeding to the next step.

Start process:

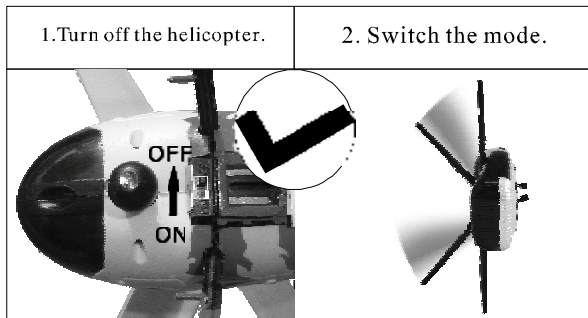
1. Turn on the transmitter.	2. Slide the Li-PO battery into the slot on the helicopter.	3. Turn on the helicopter.	
			
1. Slide the Li-PO battery into the slot on the helicopter.	2. Turn on the helicopter.	3. Turn on the transmitter.	
			

Shut down process:

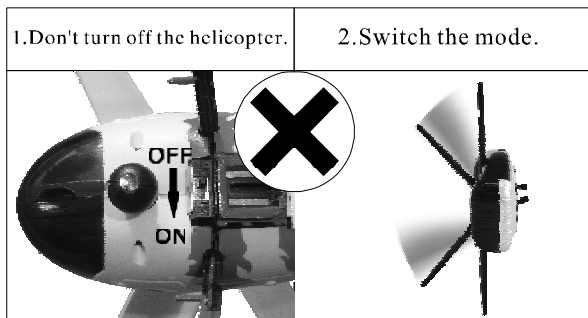
1. Turn off the helicopter.	2. Take out the Li-PO from helicopter	3. Turn off the transmitter	
			



Switch the mode process:



Right operation



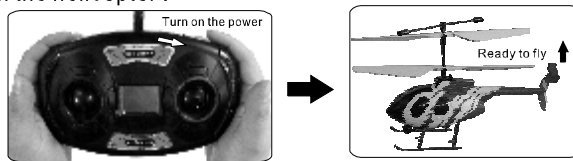
Misoperation

Warning: Fail to comply with any of the instruction of this manual to misoperation, it could lead to unnecessary injury.

Set the throttle stick on the lowest position, Donot touch the sticks when turn on the power, The transmitter has the automatic calibration function to guarantee the helicopter is on the best status.

I. The Right Operation

1. Set the throttle stick on the lowest position, release the throttle stick and control stick, Meanwhile turn on the power.
2. After the transmitter calibrates itself automatically . You can turn on the helicopter .



II. The Wrong Operation



1. Set the control stick on the most right position, Meanwhile turn on the power.
2. After the transmitter calibrates itself automatically
The system will wrongly consider the most right place as suitable place.
3. While you release the control stick, control stick will automatically return to the middle place. System will give the wrong order to instruct helicopter to turn left.
4. While you turn on the helicopter, The helicopter will roll over to left.



1. Set the control stick on the most left position, Meanwhile turn on the power.
2. After the transmitter calibrates itself automatically
The system will wrongly consider the most left place as suitable place.
3. While you release the control stick, control stick will automatically return to the middle place. System will give the wrong order to instruct helicopter to turn right.
4. While you turn on the helicopter, The helicopter will roll over to right.



1. Set the control stick on the most front position, Meanwhile turn on the power.
2. After the transmitter calibrate automatically and all the dots on the display return to the middle position. The system will wrongly consider the most front place as suitable place.
3. While you release the control stick, control stick will automatically return to the middle place. System will give the wrong order to instruct helicopter to move back.
4. While you turn on the helicopter, The helicopter will reverse.



1. Set the control stick on the most back position, Meanwhile turn on the power.
2. After the transmitter calibrate automatically and all the dots on the display return to the middle position. The system will wrongly consider the most back place as suitable place.
3. While you release the control stick, control stick will automatically return to the middle place. System will give the wrong order to instruct helicopter to forward.
4. While you turn on the helicopter, The helicopter will forward.



1. Set the control stick on the lower-left corner, Meanwhile turn on the power.
2. After the transmitter calibrate automatically and all the dots on the display return to the middle position. The system will wrongly consider the most left place as suitable place.
3. While you release the control stick, control stick will automatically return to the middle place. System will give the wrong order to instruct helicopter to turn right rotation.
4. While you turn on the helicopter, The helicopter will turn right rotation.

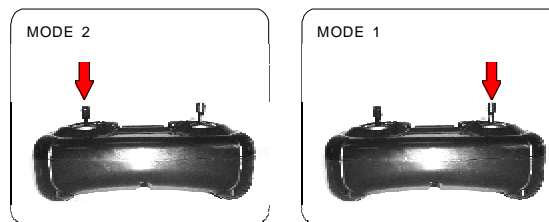


1. Set the control stick on the lower right corner, Meanwhile turn on the power.
2. After the transmitter calibrate automatically and all the dots on the display return to the middle position. The system will wrongly consider the most left place as suitable place.
3. While you release the control stick, control stick will automatically return to the middle place. System will give the wrong order to instruct helicopter to turn left rotation.
4. While you turn on the helicopter, The helicopter will turn left rotation.

■ Helicopter and transmitter binding

We have bind the helicopter and transmitter before export the cargos from factory. If you need re-bind the code ,please take the following step.

1. Press the binding button.



2. Proper operation of the transmitter by switching the power switch on. The LCD glitter while the transmitter beeps.
3. Make sure to slide the Li-Po battery into helicopter while binding end.
4. After binding, LCD of transmitter stop glittering enter the normal operation.

Note: You can't bind the transmitter and receiver until the throttle set up on the zero graduation and the green light solid green. If the LED light flashes, please set up the throttle to zero graduation then the Helicopter can normally bind.





Operation Test

Trim adjustments

Before your first flight, make sure your trim levers are in the middle position except the throttle trim. The throttle trim is required to always be at the lowest or the helicopter blades won't stop spinning when the throttle stick is pulled all the way back.



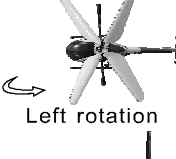

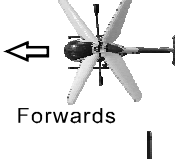

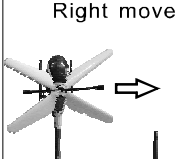

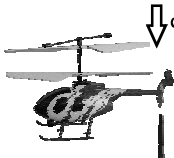

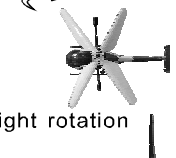



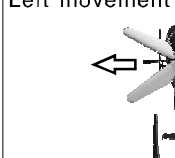

NOTE: Before pushing the throttle stick to take off the helicopter make sure the throttle trim is lower than its middle position and the throttle stick is at the bottom. Only in this case, the helicopter can take off.

(In Mode 2)



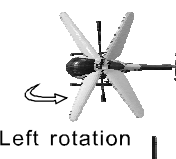

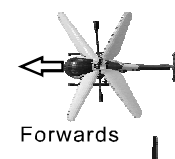

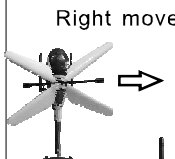



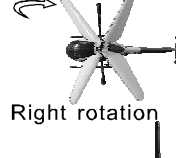



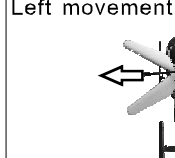

Throttle Trim Adjustment	
<p>If your rotors start to spin without adding any throttle intuit or if they do not spin when you do add throttle, your throttle trim needs to be adjusted. If the rotor start to spin without any throttle, slide the throttle trim lever down until they stop. If they do not spin, even when you add throttle, push the throttle trim lever until the blades start spinning when the throttle is pushed forward.</p>	
Yaw(Rudder) Trim Adjustment	
<p>If while hovering, your Helicopter's nose begins to rotate when no yaw control input is being added, you will need to adjust the yaw trim. If nose rotates to the left, push the yaw trim lever to the right until it stops. If nose rotates to the right push the yaw trim lever to the left until it stops.</p>	
Pitch(Elevator) Trim Adjustment	
<p>If while hovering, your Helicopter begins to move forward or back when no pitch control input is being added, you will need to adjust the forward/back pitch trim lever. If it moves forward, push the pitch trim lever down until it stops. If it moves backward, push the pitch trim lever up until it stops.</p>	
Roll(Aileron) Trim Adjustment	
<p>If your Helicopter begins to move left or right when no roll control is being added, you will need to adjust the roll trim lever. If it moves left, push the roll trim lever to the right until it stops. If it moves right, push the roll trim lever to the left until it stops.</p>	

■ Operation skills

Mode 1

Throttle	Rudder	Elevator	Aileron
 up 	 Left rotation 	 Forwards 	 Right movement 
 down 	 Right rotation 	 Backwards 	 Left movement 

Mode 2

Throttle	Rudder	Elevator	Aileron
 up 	 Left rotation 	 Forwards 	 Right movement 
 down 	 Right rotation 	 Backwards 	 Left movement 

Choosing a Flying Area

When you are ready for your first flight, you will want to select a relatively open indoor area that is free of people and obstructions. And while it is possible for experienced pilots to fly the Bravo III in relatively small indoor areas with great success due to its size and controllability, we strongly recommend an area with at least 10-feet by 10-feet of floor space and no less than 8-foot ceilings when making your first few flights.

Once you have properly trimmed your helicopter and become familiar with its handling and capabilities, you will be able to fly in other smaller, less open areas.

Note: *Bravo III is designed and intended to be flown INDOORS ONLY.*

Flight Training

■ Operation Procedures

1. Place the Helicopter in the middle of the room, you should always stand approximately 2m (6ft) from the helicopter and behind the tail. Make sure the helicopter and transmitter have been set up and adjusted in accordance with this handbook. Switch the Transmitter on, connect the battery, and check once more that the servos are operating correctly before proceeding.
2. Now you are ready to start learning to fly. The control diagrams on the front few pages can help you trim and fly the helicopter.
3. Initially you do not need to worry about how to operate your Helicopter skillfully. Through practice, you will become more confident operating the controls and adjusting the throttle. When your fingers respond to the movements of the helicopter spontaneously, you are ready for more advanced flying. Please note the direction described here if you are facing the tail of the helicopter.
4. Push the throttle up gradually until the Helicopter starts to become light and then carefully move the throttle stick further until it lifts off. Observing the helicopter's response, correct any movement if necessary. Don't fly too high, keep its height above the floor at about 0.5m (1.6ft). If there is any instability, shaking, or if the helicopter is out of control, please land at once. The only thing

hat helps at this stage is to practice and then practice some more.

5. Take off from the Ground. The helicopter can take off after trimming. Push the throttle stick up, the rotating speed will increase. Push the throttle stick up firmly before the helicopter takes off the ground. When the helicopter takes off, slow down the speed and keep the helicopter about 0.5 meters high above ground. Observe how the helicopter is moving and trim it until it is at its best.

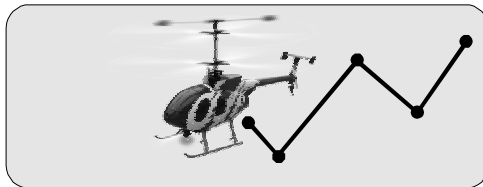
6. The beginner should concentrate their effects on vertical control and the direction control. First, you should control the throttle stick. After the helicopter takes off, slowly push the stick up or down. And control the sticks to keep the tail facing you.

7. Do not fly the lower than 0.3 meters high above the ground, because the airflow under the rotating blades may cause the ground effect and failure flying

8. After you have learned how to take off and hover the helicopter, it is better to learn other movements in safe conditions.

■ Practice

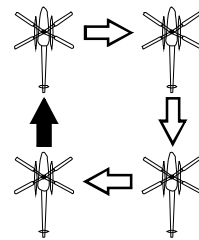
Frog jump(control the power immediately after taking off),



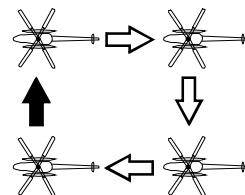
- ▲ Extend the time of the frog jump
- ▲ Hover around the tail
- ▲ Learn the right/left, forward/backward flying
- ▲ 360 degree rotation circle flying
- ▲ Box pattern practice

1) With the tail towards you, fly the Helicopter in a box pattern. Slide the helicopter sideways, forwards and backwards instead of turning the helicopter.

2) Repeat the box pattern facing the side of the helicopter.



Pilot
1) Box Pattern

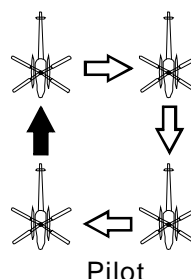


Pilot
2) Box Pattern

3) Repeat the box pattern with the front of the helicopter facing you.

▲ "8" shape flying

▲ Flight route flying



3) Box Pattern

Notify Items

- 1). Please stop flying when you feel the battery is running low. This is indicated by poor response from the Helicopter .
- 2). Always unplug the helicopter battery immediately and then turn off the transmitter when you are finished flying.
- 3). when the helicopter has crash some objection ,please loose the throttle ASAP to avoid some damage (please check the spare parts ASAP when the crash happened. You can purchase the spare parts from the Nine eagles local distributor when you change the broken spare parts).
- 4). If you do not use the helicopter for a long time ,please keep 50% power of the Li-PO Battery ,and take the batteries out of the transmitter.

Miscellaneous

Repairs and Maintenance

A wide range of genuine Nine Eagles™ parts and accessories are available from your local Nine Eagles supplier. Please review the enclosed Parts List Brochure to see what is available.

Clubs and Associations

Nine Eagles™ supports the model flying community around the world. We encourage you to meet new friends and learn to fly through your local club or association. Contact them through your local Hobby Retailer.

Troubleshooting

For the latest troubleshooting advice, please contact your local hobby store

Feedback

If you have any suggestions for modifications or future designs, we would like to hear from you. Please free to contact us at sales@nineeagle.com

NOTHING FLIES LIKE NINE EAGLES



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