

Super Combo M424 QUADCOPTER V2

INSTRUCTION MANUAL

ALIGN

“ ¥ » © ®

RM42401AT



RTF
READY TO FLY

2.4G
AFHDS

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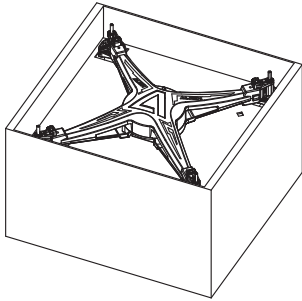
OPTION EQUIPMENT
¥A«

Thank you for buying ALIGN products. The M424 V2 is the latest technology in Rotary RC models. Please read this manual carefully before assembling and flying the new M424 V2 Quadcopter. We recommend that you keep this manual for future reference regarding tuning and maintenance.

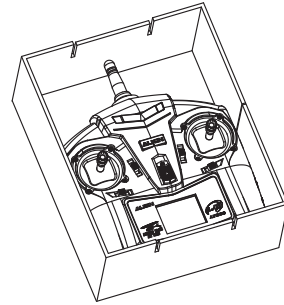
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 a a » a · ¶ i ½«± ° ¾² a¹ □ , ± □ i ¶ ©¾ s □ « i
 ½° , ¾» © i « □ ° ± ± " · □ a s i □ ½ ± s « °³
 » © i s □ « ° i

3. PACKAGE ILLUSTRATION ¥,»©

ALIGN



Quadcopter set
¾²



Transmitter
»±¼

4. STANDARD EQUIPMENT ¼,°¥

ALIGN



M424 V2 Quadcopter
M424 V2 ¥



Rotor blade x 4
± x 4



AT100 Transmitter
AT100»±¼



Ni-MH chargeable battery
(AA size) x 4
¥ AA(3) x 4



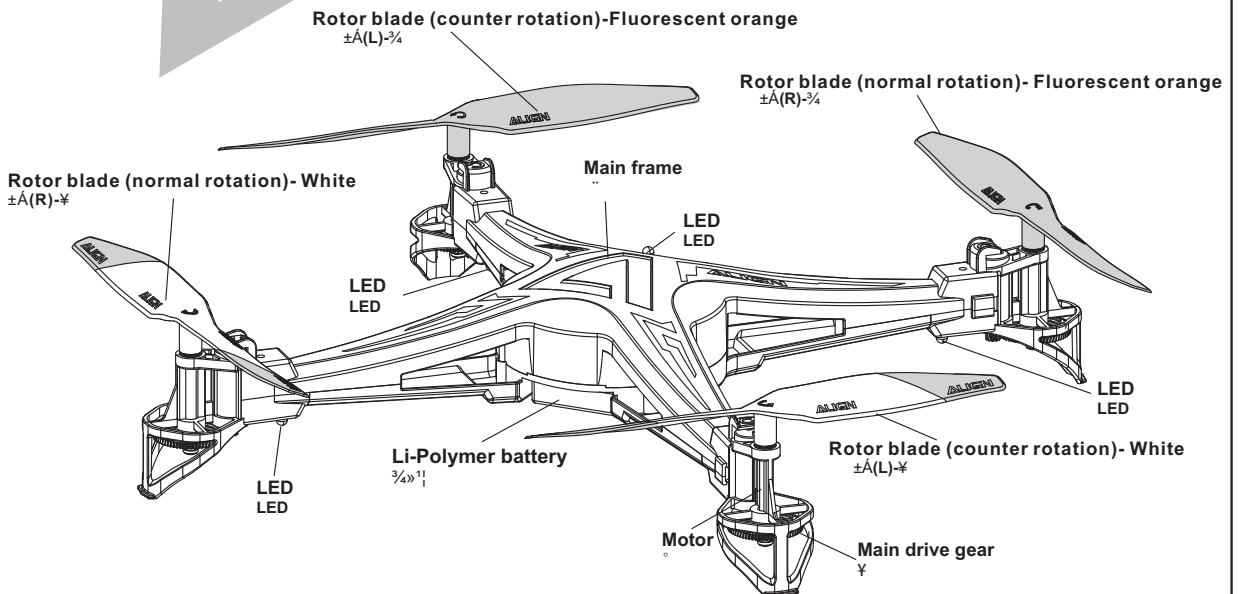
CH240 Li-Po charger x 1
USB cable x 1
CH 240 Li-Po ¥¼³¼
USB±½



Li-Polymer battery x 1
¾»¹ x 1
3.7V 530mAh/20C

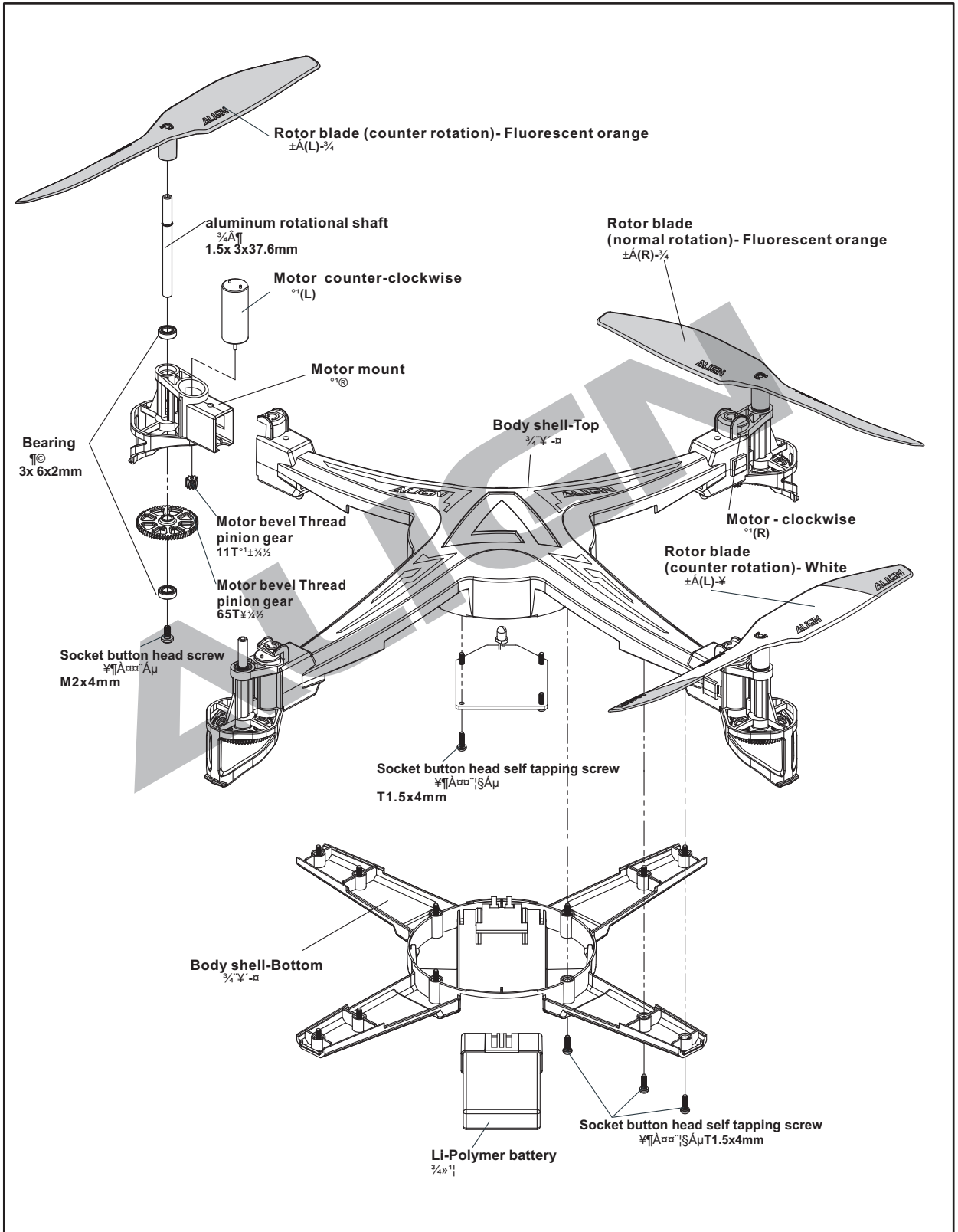
5. QUADCOPTER NOMENCLATURE ¥

ALIGN



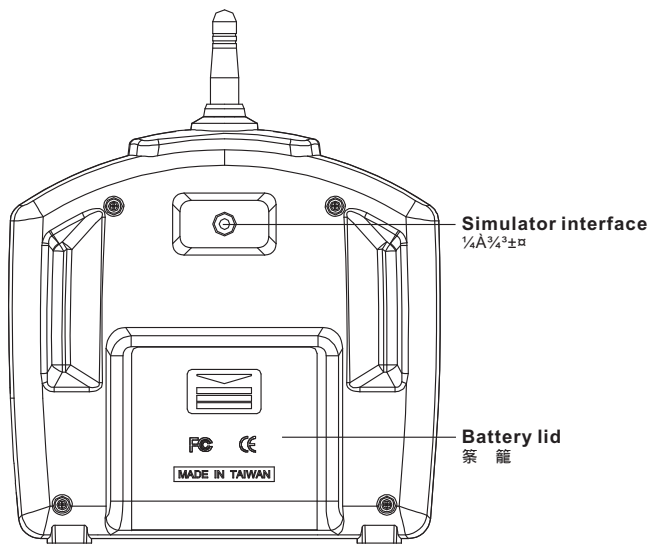
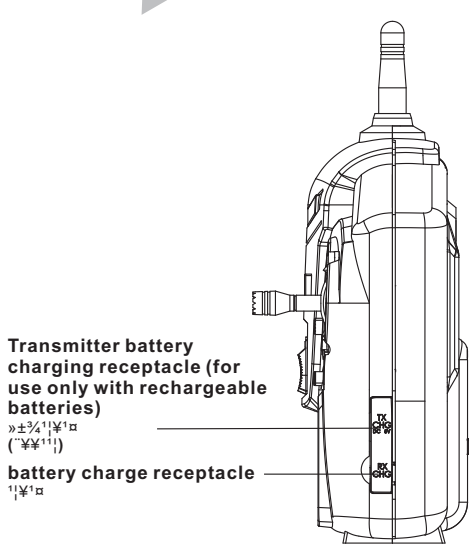
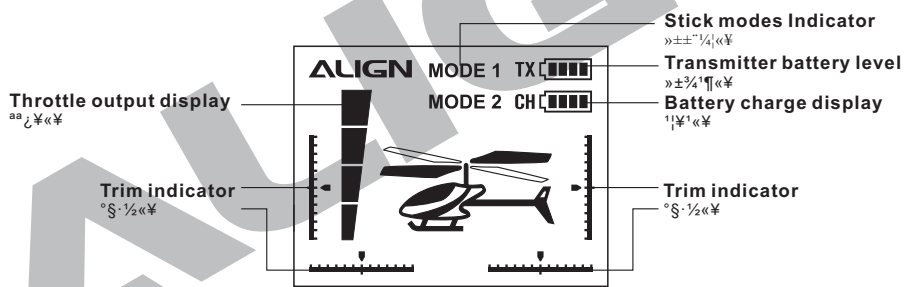
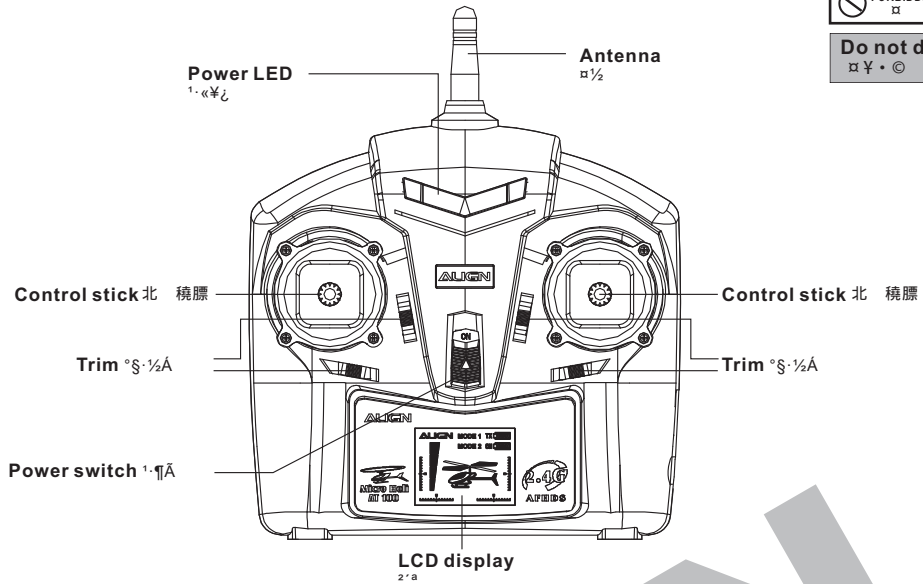


More parts information and specification please refer to Parts Quick Finder at Align Cart.
<http://shop.align.com.tw/partfinder.php>
 \$!~A¹¥;³@;½°¼ ALIGN Cart;



FORBIDDEN

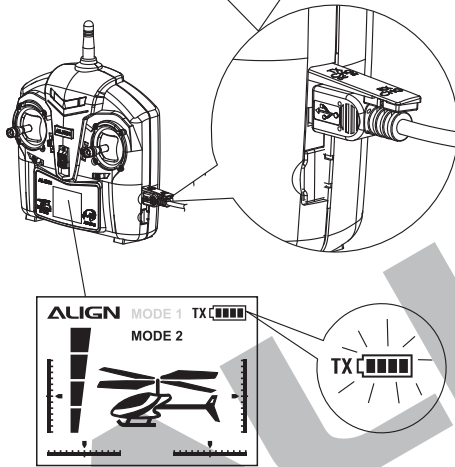
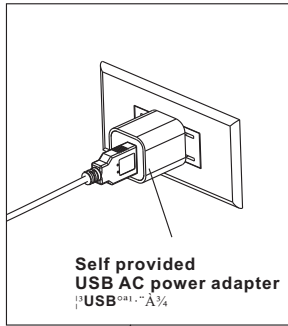
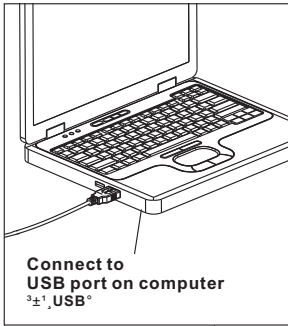
Do not disassemble



CHARGING METHOD FOR TRANSMITTER'S NI-MH BATTERIES

METHOD 1

METHOD 2



AT100 transmitter is capable of charging its internal AA Ni-MH batteries. Please ensure the AA batteries in the transmitter are rechargeable before attempting to charge.

After connecting the transmitter as shown in diagram, power up transmitter, TX will be flashing on the display indicating charging is in progress. Once charging is complete, the TX battery indicator will stop flashing and display 4 bars.

In order to reduce power consumption, charging process can be done with transmitter powered off. To check for charging status display, the transmitter can be powered back on.

AT100 is capable of charging its internal AA Ni-MH batteries. Please ensure the AA batteries in the transmitter are rechargeable before attempting to charge.

11. BATTERY AND CHARGER SPECIFICATION

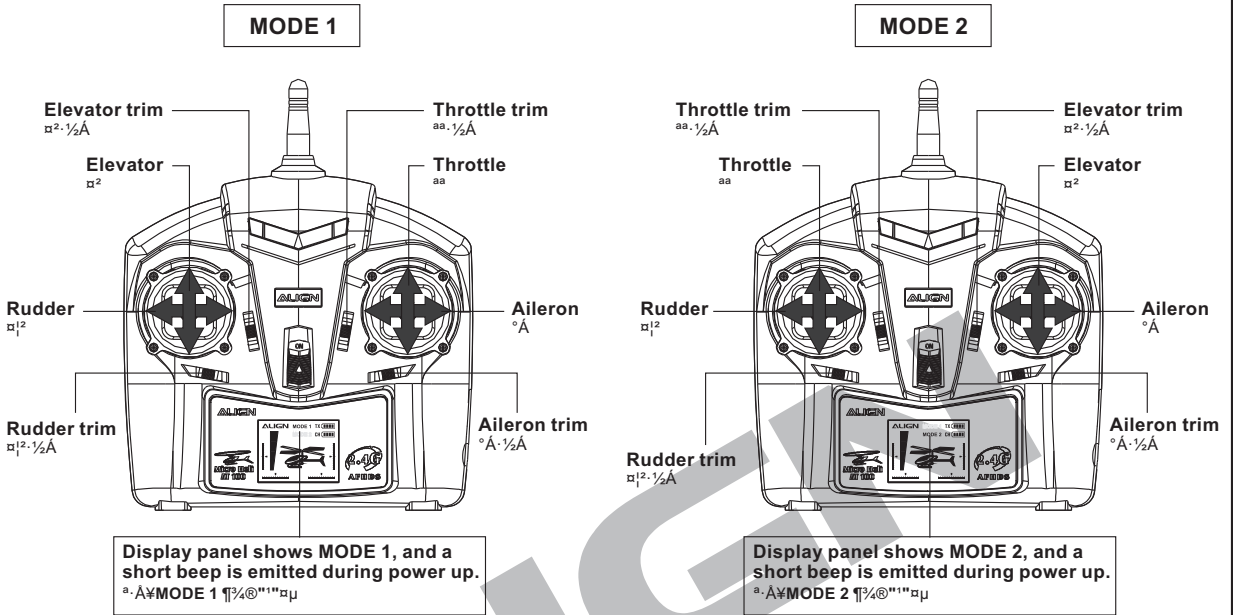
BATTERY USAGE AND CHARGE DURATION REFERENCE

Battery type	Battery Specification	Usage Duration		Charge Time
Li-Po battery	3.7 V 530mAh	Quadcopter Flight Time	Approx. 7 Minutes	Approx. 50 Minutes (Charging current approx. 0.5A) 50 (0.5A)
Carbon-Zinc (Non Rechargeable)	1.5 V (GP 15G R6P)	Transmitter Operation Time	18 Hours	Non Rechargeable
Ni-MH chargeable battery	1.2 V 1600mAh	Transmitter Operation Time	53 Hours	Charged through transmitter, approx. 7 hours (Charging current approx. 0.3A) 7 (0.3A)

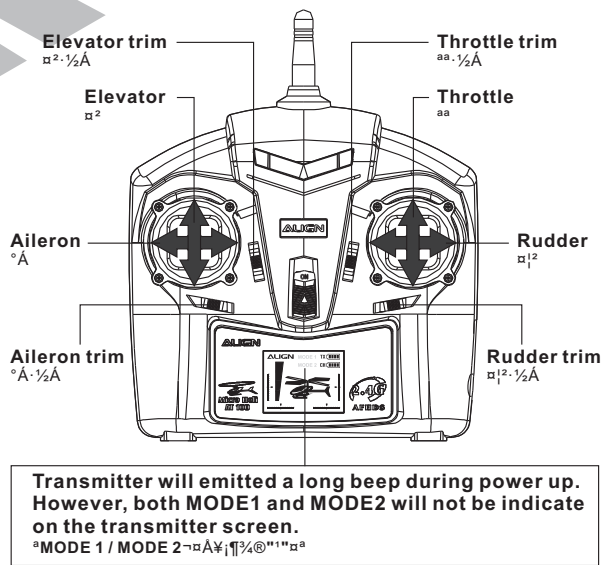
MODE1 is commonly used in Asia where throttle stick is on the right hand side, where MODE2 (throttle stick on left side) is more common amongst western countries. MODE 3 is same as MODE 1 with throttle stick on the right hand side but the position of ALL and RUD are reversed. Please set the transmitter MODE based on your preference.

MODE 1 MODE 2 MODE 3

Note: Amongst the 4 axis of the transmitter control sticks, the axis that does not spring back to center is the throttle stick.

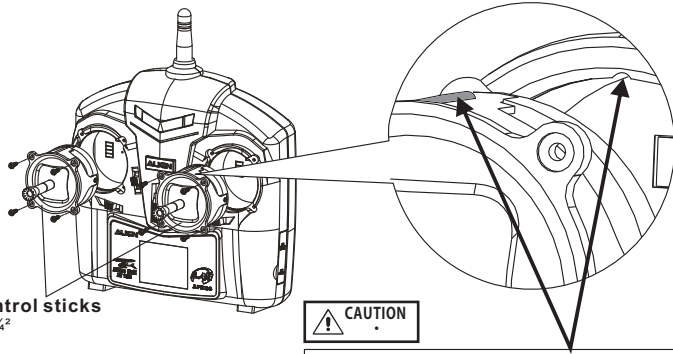


MODE 3



The control stick mode has been set at the factory. For switching to other modes, please follow instructions below.

SWITCHING BETWEEN MODE1 AND MODE2 MODE 1 »MODE 2 変換



Control sticks
± 1/4

CAUTION

Pay attention to the rails when installing the control sticks.
杆 叫猿種旧瑾よ 葵非旧瑾 抖 杆

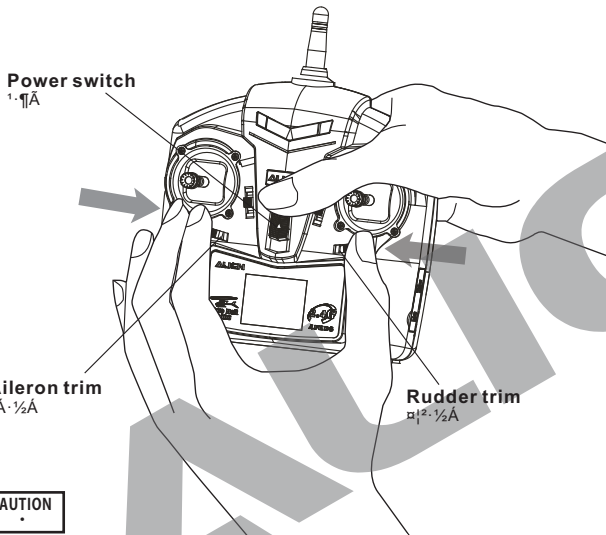
Loosen up the 8 screws holding the two control sticks, and swap the control sticks to change between MODE1 and MODE2.

叫豎北 標 : 8 蓋臉搗股炸 二传北 標家館 ち 传 MODE 1 の MODE 2 : 巨 家

This transmitter has trim memory capability. When the control stick modes are changed, all trims are retained so there is no need to re-trim.

¥ ± ° ¥ ± ± ± ± ±
° ± ± ¥ ° ° ± ± ±

SWITCHING BETWEEN MODE 3 MODE 3 変換



Power switch
1. 1A

Aileron trim
° 1/4 A

Rudder trim
1/4 A

CAUTION

MODE3 setting needs to be set with the control sticks in MODE1 position, which means throttle is on the right hand side.
MODE 3 ¥ MODE 1 1/4 ± ± ° MODE 3 3aaa ± 1/4 - ¥ A 1, i

Using thumb and pointer fingers, hold the aileron and rudder trim tabs toward the middle while turning on the transmitter power. Transmitter will emit a long beep indicating MODE3 has been set. However, both MODE1 and MODE2 will not be indicate on the transmitter screen.

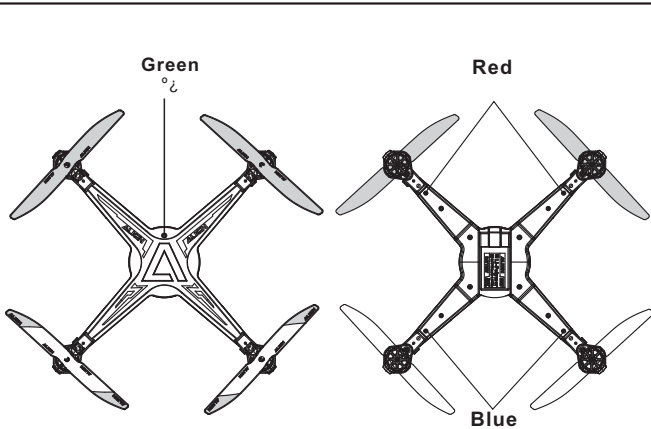
After transmitter is switched to mode 3, the mode will be retained every time when powered up, as indicated by a long beep.

To change MODE setting back to MODE1, just repeat the above procedure. Transmitter will emit a short beep indicating MODE1 has been set.

After transmitter is switched to MODE 1, the mode will be retained every time when powered up, as indicated by a short beep.

虫も 豎捌段 よ 捺 : 稷結齡 い丁崩帝い
锁帝 も 豎察方炸阡 崩炸察方 换北竟
積祇 "雇" x m ボ 秬 MODE 3 獅
MODE 1 MODE2 い陪ボ
ち传MODE 3 换北竟積癩拘 MODE 3 -
炸诀常積"雇" x
瓊瓊ち传 MODE 1 瓊 狡 瓊 : 芭 换
北竟積祇 "雇" 秬 m ボ p MODE 1
ち传MODE 1 换北竟積癩拘 MODE 1 -
炸诀常積"雇" 秬

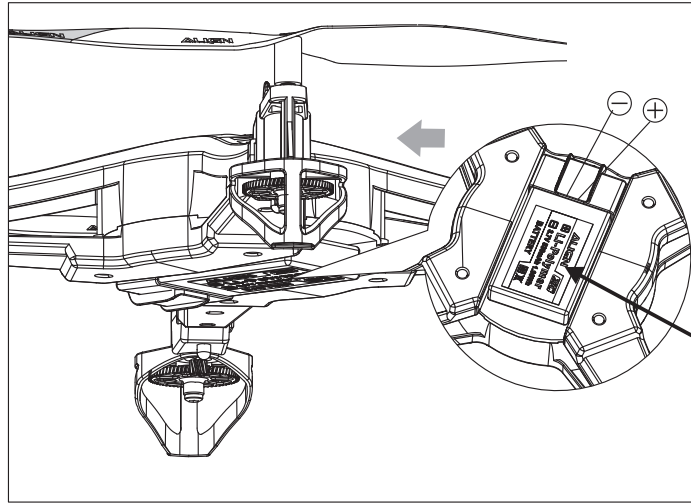
13.LED INDICATOR



LED Indicator aa ¥	LED status c, A ¥	
Power on Initializing 1/4 ° © □	LED Fast flashing 4 seconds. LED 3° A 4 7	
Binding successful 1 A ¥	steady lit « «	
Binding failed 1 A ¥ ±	Slowly single flash 033°	
Voltage warning S 1 A A ¥	Double Flashes A °	

If there are frequency interference preventing completion of radio binding, please re-binding the radio of transmitter and receiver.

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

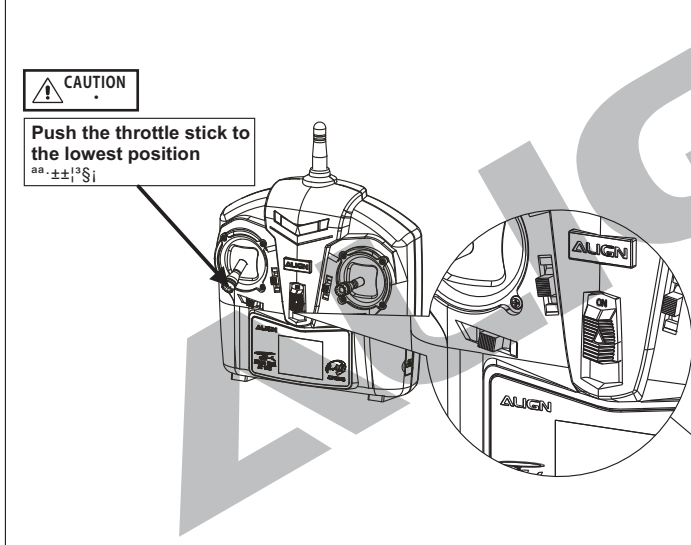


STEP 1

With the quadcopter placed on level surface push the lipo battery pack in the direction shown in diagram until fixed into position. At this time avoid moving the quadcopter so the radio and gyro system can initialize and the green LED on the receiver board will be start flashing.

CAUTION

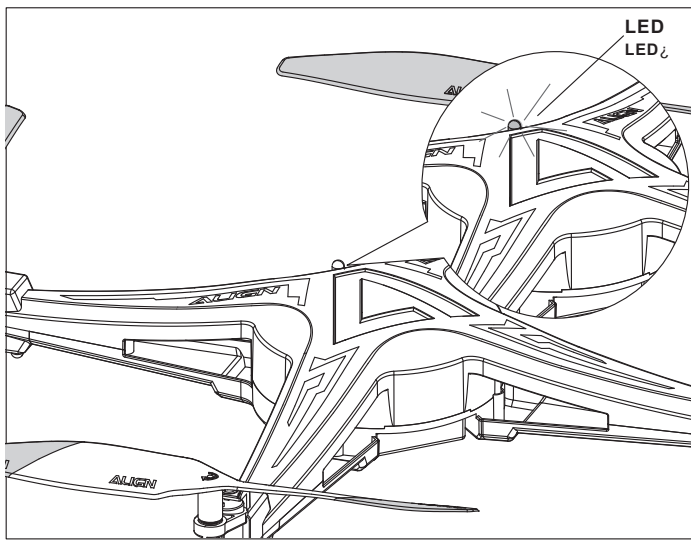
Electrode surface of battery face up.



STEP 2

With throttle control stick at lowest position, turn on radio transmitter to start the binding process.

ON/OFF



STEP 3

The green LED on receiver board will blink during radio initialization, and becomes steady after 4 seconds, indicating successful radio binding. If it continues to blink, radio binding has failed and needs to be restarted. After the radio binding is done, you don't need to re-bind it anymore.



Motor should not be run without loading main or tail rotor blades to avoid motor burnout.

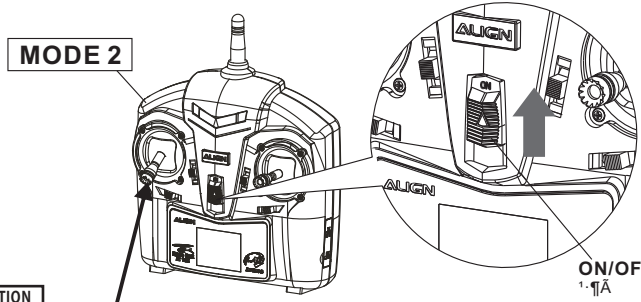
° ¼ ¥ " ± ° ¥ ± © § ± ¼ ¥ § ° .

STEP 1 "Æ1

With the throttle control stick all the way down, turn on transmitter power.

±ªª·±±|³§«¼¥¶»±¼¹·;

MODE 2



ON/OFF
¹·¶Ä

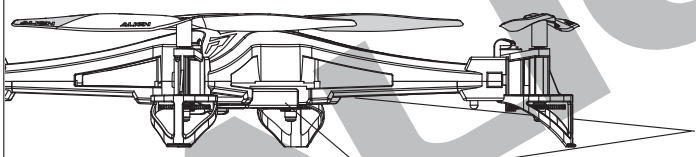


Push the throttle stick to the lowest position
ªª·±±|³§i

STEP 2 "Æ2

With the quadcopter placed on level surface, push the Li-Po battery pack in the direction shown in diagram until fixed into position. At this time avoid moving the quadcopter so the radio and gyro system can initialize, as indicated by the flashing red LED on receiver board.

½±¥¶|¼, ©¥©¹, «¼±Li-Po¹|
¹¹¥ª±¼¹|@|©¹|@¹²°
¼¹¹»±¼¹Ä»ªÄ»Ä¹²³Ä¹



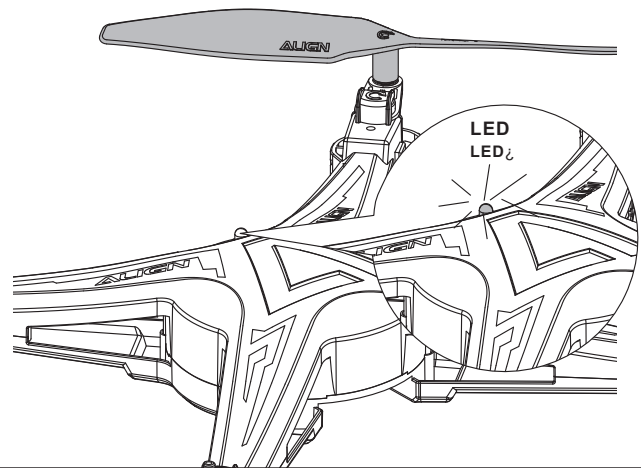
Li-Polymer battery
¼¹¹¹
3.7V 530mAh/20C

STEP 3 "Æ3

The green LED on receiver board will blink during radio initialization, and becomes steady after 4 seconds, indicating successful radio binding. If it continues to blink, radio binding has failed and needs to be restarted. (Refer to P.12: Binding of radio transmitter and receiver)

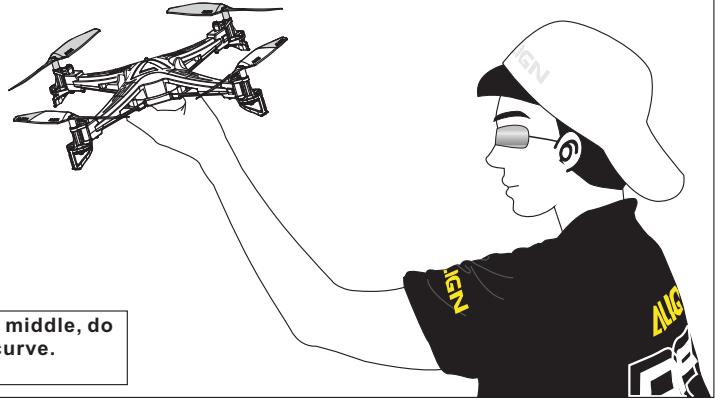
¹Ä²±¹ªªº¹LED·ºÄ¹¬4¬«LED««
ª¥¹Ä¹¥; LED²«ÄºÄª¥¹Äª±;
¥¶¹¹Ä¹(º¼P.12 »±¼¹»±|¼¹Ä¹)

LED
LED



When testing the function of Quadcopter, hold the copter firmly, do not exceed half throttle, always keep copter away from your face / head.

✎, ¥¶|||¼; °§@; ¼°¥§|¼¶; ªª¤ ¶¶'¼¥; ¥±¼¶»ÄÄ²; |



CAUTION

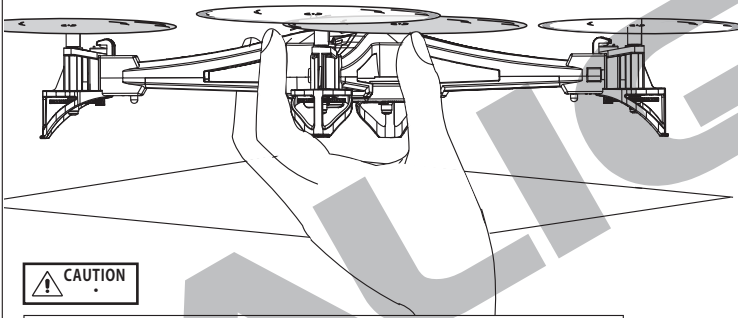
During testing, throttle stick need to be in the middle, do not exceed 50% output position on the pitch curve.

✎, @; ªª¤ ¶¶'¼¥; |

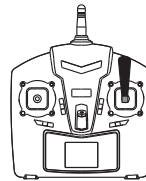
STEP 4-1

Throttle stick up, quadcopter will rise.

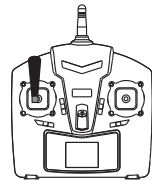
ªª. ±@; ª±@; ¶¶|||¼; °·@ª²; |



Throttle



MODE 1



MODE 2

CAUTION

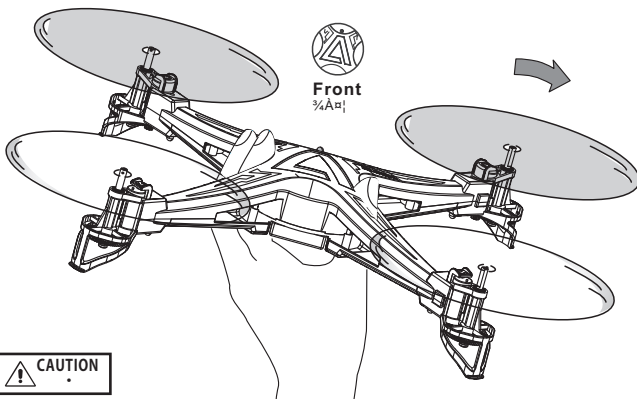
During testing, throttle stick need to be in the middle, do not exceed 50% output position on the pitch curve.

✎, @; ªª¤ ¶¶'¼¥; |

STEP 4-2

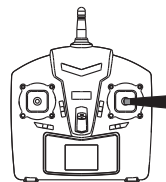
Aileron stick right, quadcopter will tilt right.

°Ä. ±@; ¥±@; ¶¶|||¼; °·¥¶; |

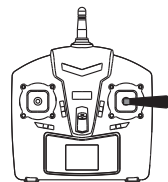


Front
¾Ä²; |

Aileron °



MODE 1



MODE 2

CAUTION

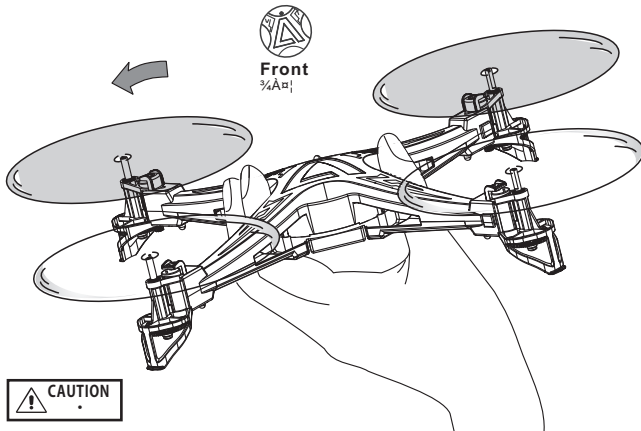
During testing, throttle stick need to be in the middle, do not exceed 50% output position on the pitch curve.

✎, @; ªª¤ ¶¶'¼¥; |

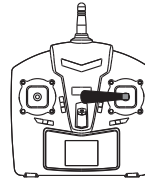
STEP 4-3 步骤4-3

Aileron stick left, quadcopter will tilt left.

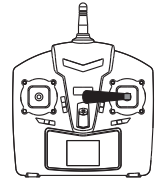
摇杆左移，飞行器将向左倾斜。



AILERON 摇杆



MODE 1



MODE 2



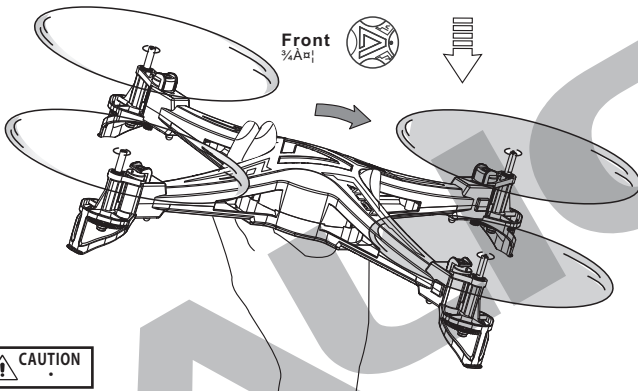
During testing, throttle stick need to be in the middle, do not exceed 50% output position on the pitch curve.

测试时，油门杆需在中间位置，不得超过油门曲线50%的输出位置。

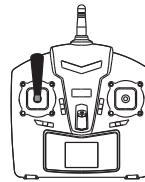
STEP 4-4 步骤4-4

Elevator stick up, quadcopter will tilt forward.

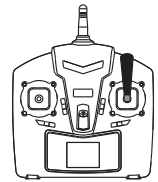
摇杆上移，飞行器将向前倾斜。



ELEVATOR 摇杆



MODE 1



MODE 2



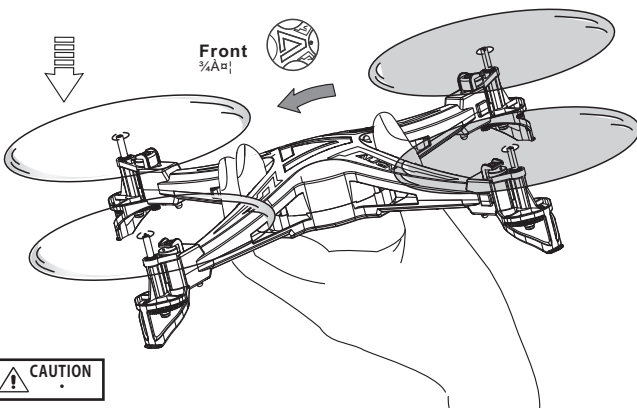
During testing, throttle stick need to be in the middle, do not exceed 50% output position on the pitch curve.

测试时，油门杆需在中间位置，不得超过油门曲线50%的输出位置。

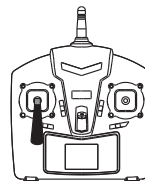
STEP 4-5 步骤4-5

Elevator stick down, quadcopter will tilt backward.

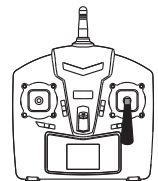
摇杆下移，飞行器将向后倾斜。



ELEVATOR 摇杆



MODE 1

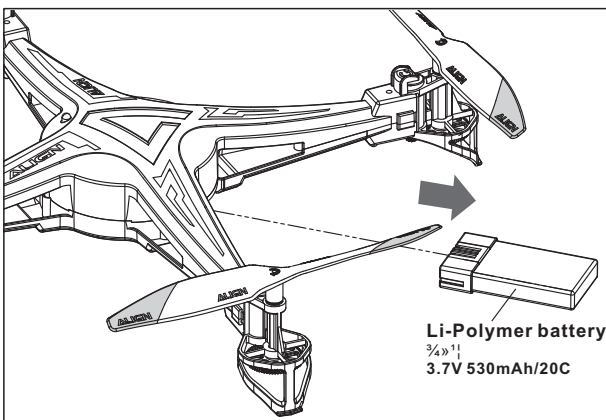


MODE 2



During testing, throttle stick need to be in the middle, do not exceed 50% output position on the pitch curve.

测试时，油门杆需在中间位置，不得超过油门曲线50%的输出位置。



STEP 5

Remove the quadcopter battery safely at the conclusion of flight. This should be made into a post flight habit to avoid unforeseeable problems.

μS;@i½±¥¶||%¼||¥~¶¼½¼!
 ¶²ºi¥S³i¿¼i



Warning: If left connected in the helicopter for long duration, the battery may be damaged due to over-discharge, or even become fire hazards.

¶¥~¶¼±%¼i¶i@i½·Äi~¶i³i
 °¼¿¿Äi

STEP 6

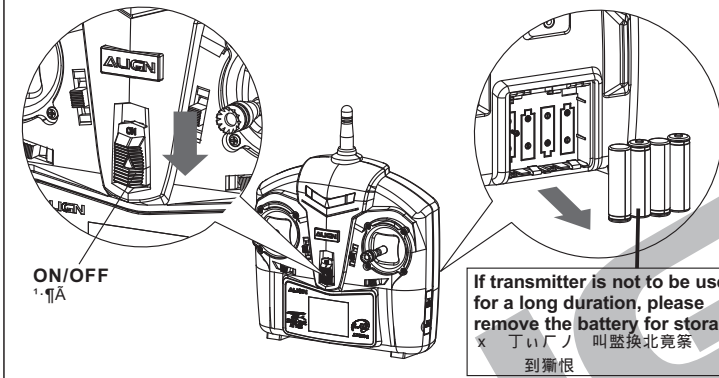
Turn off the transmitter. If transmitter is not to be used for a long duration, please remove the battery for storage.

閩超祗角竟察方 x 丁いΓノ 叫監換北竟察
 到獮恨



Warning: If the AA batteries are left in the transmitter, potential leakage could occur which may damage the transmitter, and create fire hazards.

¶¥~¶¼±%¼i¶i²i·Ä»±¼i~¶i
 ³i°¼¿¿Äi



16.FLIGHT MODES



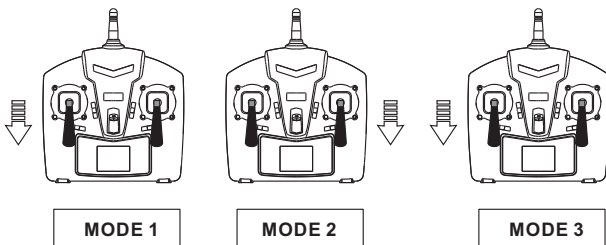
M424 V2 Quadcopter contains two flight modes; advance mode and standard mode. In advance mode, M424 V2 is more aerobatic with faster response, suitable for advanced pilots. In standard mode, M424 V2 has more mellow control response, suitable for beginner pilots.

The two flight modes is switched through elevator stick following the method below. Flight mode defaults to standard mode during power up.

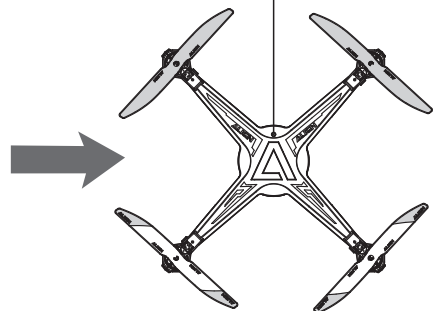
M424 V2 ¶¶i¼~³ººi¼i¶°S¼»°S¼i
 i°S¼iM424 V2²iS¶i¶iÄ·S¼i¶¶i°¶i
 i°S¼iM424 V2²iS¶i¶iÄ·i¼i¶¶i²²i
 °ºi¼~³ºi±¾±¼±°i¶i¥¶i¶i²i¶i¼i¶i¹³²i°S¼i

SWITCHING OF FLIGHT MODES

keep elevator at lowest position for 5 seconds.
 ¶±@i³S5~i



Fast flashing of LED
 LED¿S³ºÄ



Keep throttle at lowest point, then keep elevator at lowest position for 5 seconds. The LED on M424 V2 will flash rapidly. Release the elevator stick to complete switching of flight mode.

²²i«²SÄi¶«±°³S°~5~i±μM424 V2²iLED¿·S³ºÄi@¶i±SSi¼i²i

PLEASE PRACTICE SIMULATION FLIGHT BEFORE ACTUAL FLYING

Do not attempt to fly the quadcopter until control methods is fully understood. Please practice repetitively on computer flight simulators to familiarize with all directional controls.

1. Place the quadcopter in a clear open field and the tail of quadcopter point to yourself.
2. Practice to operate the throttle stick(as below illustration) and repeat practicing i "Throttle high/low", "Aileron left/right", "Rudder left/right", and "Elevator up/down".
3. The simulation flight practice is very important, please keep practicing until the fingers i move naturally when you hear operation orders being call out.



1. ±¥¶§¨©ª«¬®¯°±²³´µ¶·¸¹º»¼½¾¿À ÁÂ ÃÄ Å Æ Ç È É Ê Ë Ì Í Î Ï Ñ Ò Ó Ô Õ Ö × Ø Ù Ú Û Ü Ý Þ ß à á â ã

1. ±¥¶§¨©ª«¬®¯°±²³´µ¶·¸¹º»¼½¾¿À ÁÂ ÃÄ Å Æ Ç È É Ê Ë Ì Í Î Ï Ñ Ò Ó Ô Õ Ö × Ø Ù Ú Û Ü Ý Þ ß à á â ã
2. ¼½¾¿À ÁÂ ÃÄ Å Æ Ç È É Ê Ë Ì Í Î Ï Ñ Ò Ó Ô Õ Ö × Ø Ù Ú Û Ü Ý Þ ß à á â ã
3. ¼½¾¿À ÁÂ ÃÄ Å Æ Ç È É Ê Ë Ì Í Î Ï Ñ Ò Ó Ô Õ Ö × Ø Ù Ú Û Ü Ý Þ ß à á â ã

| Mode 1 | Mode 2 | Illustration ¥ | | Mode 1 | Mode 2 | Illustration ¥ | |
|--------|--------|---------------------|-------------------------------------|--------|--------|--------------------|---|
| | | Aileron ° | Move left ¥

Move right ¥
 | | | Throttle aa |
Ascent □ □

Descent □ □ |
| | | Elevator □ / |
Fly backward

Fly forward | | | Rudder □ |
Turn left ¥ ±

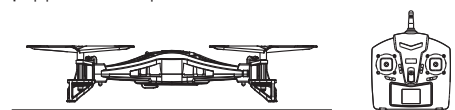
Turn right ¥ ± |

FLIGHT ADJUSTMENT AND NOTICE FOR BEGINNERS



- i Check if the screws are firmly tightened.
- i Check if the transmitter and receivers are fully charged.

When arriving at the flying field.



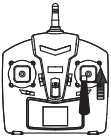
- i Make sure that no people or obstructions in the vicinity.
- i This is a basic flight action. You must first practice hovering for flying safety.
- i Hovering means keeping the quadcopter keep the tail pointed at,)in mid air in a fixed position since the, yourself while practicing hovering quadcopter's direction is easier to recognize.
- i Please stand approximately quadcopter.



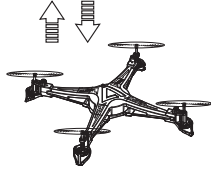
STEP THROTTLE CONTROL PRACTICE

aa±1/2²

Mode 1



Mode 2



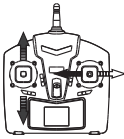
When the quadcopter begins to lift-off the ground, slowly reduce the throttle to bring the quadcopter back down. Keep practicing this action until you control the throttle smoothly.

When the quadcopter begins to lift-off the ground, slowly reduce the throttle to bring the quadcopter back down. Keep practicing this action until you control the throttle smoothly.

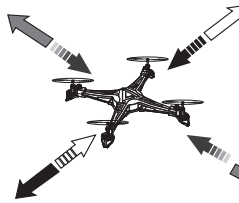
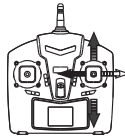
STEP AILERON AND ELEVATOR CONTROL PRACTICE

°Á©±1/2²

Mode 1



Mode 2



1. Raise the throttle stick slowly.
2. Move the quadcopter in any direction back, forward, left and right, slowly move the aileron and elevator sticks in the opposite direction to fly back to its original position.

1. Raise the throttle stick slowly.
2. Move the quadcopter in any direction back, forward, left and right, slowly move the aileron and elevator sticks in the opposite direction to fly back to its original position.



If the nose of the quadcopter moves, please lower the throttle stick and land the helicopter. Then move your position diagonally behind the helicopter 2M and continue practicing.

If the quadcopter flies too far away from you, please land the quadcopter and move your position behind 2M and continue practicing.

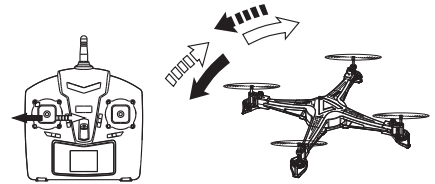
If the nose of the quadcopter moves, please lower the throttle stick and land the helicopter. Then move your position diagonally behind the helicopter 2M and continue practicing.

If the quadcopter flies too far away from you, please land the quadcopter and move your position behind 2M and continue practicing.

STEP RUDDER CONTROL PRACTICING

□123/4§1/2²

1. Slowly raise the throttle stick.
2. Move the nose of the quadcopter to right or left, and then slowly move the rudder stick in the opposite direction to fly back to its original position.



1. Slowly raise the throttle stick.
2. Move the nose of the quadcopter to right or left, and then slowly move the rudder stick in the opposite direction to fly back to its original position.

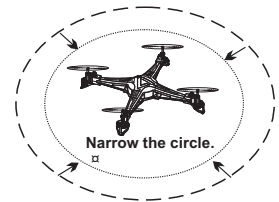
STEP

After you are familiar with all actions from Step1 to 3, draw a circle on the ground and practice within the circle to increase your accuracy.

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You can reduce the size of the circle as you become familiarized with the control reflexes.

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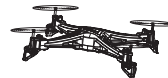


Direction change and hovering practice STEP

§Áaa3/4□1/2²°Ä

After you are familiar with Step1 to 4, stand at side of the quadcopter and continue practicing Step1 to 4. Then repeat the Step1 to 4 by standing in front of the helicopter.

After you are familiar with Step1 to 4, stand at side of the quadcopter and continue practicing Step1 to 4. Then repeat the Step1 to 4 by standing in front of the helicopter.



ALIGN

Specifications & Equipment / ° :

M424 V2

Length / ¾^a: 240mm

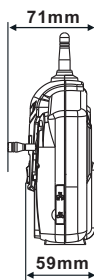
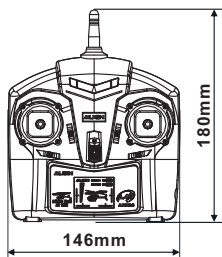
Height / ¼^o: 50mm

Propeller width / §±Á^a®: 135mm

Weight(Without Battery) / ^a¾: 82g

Flying Weight / ¥°: Approx. 96g

AT 100



M424 V2

