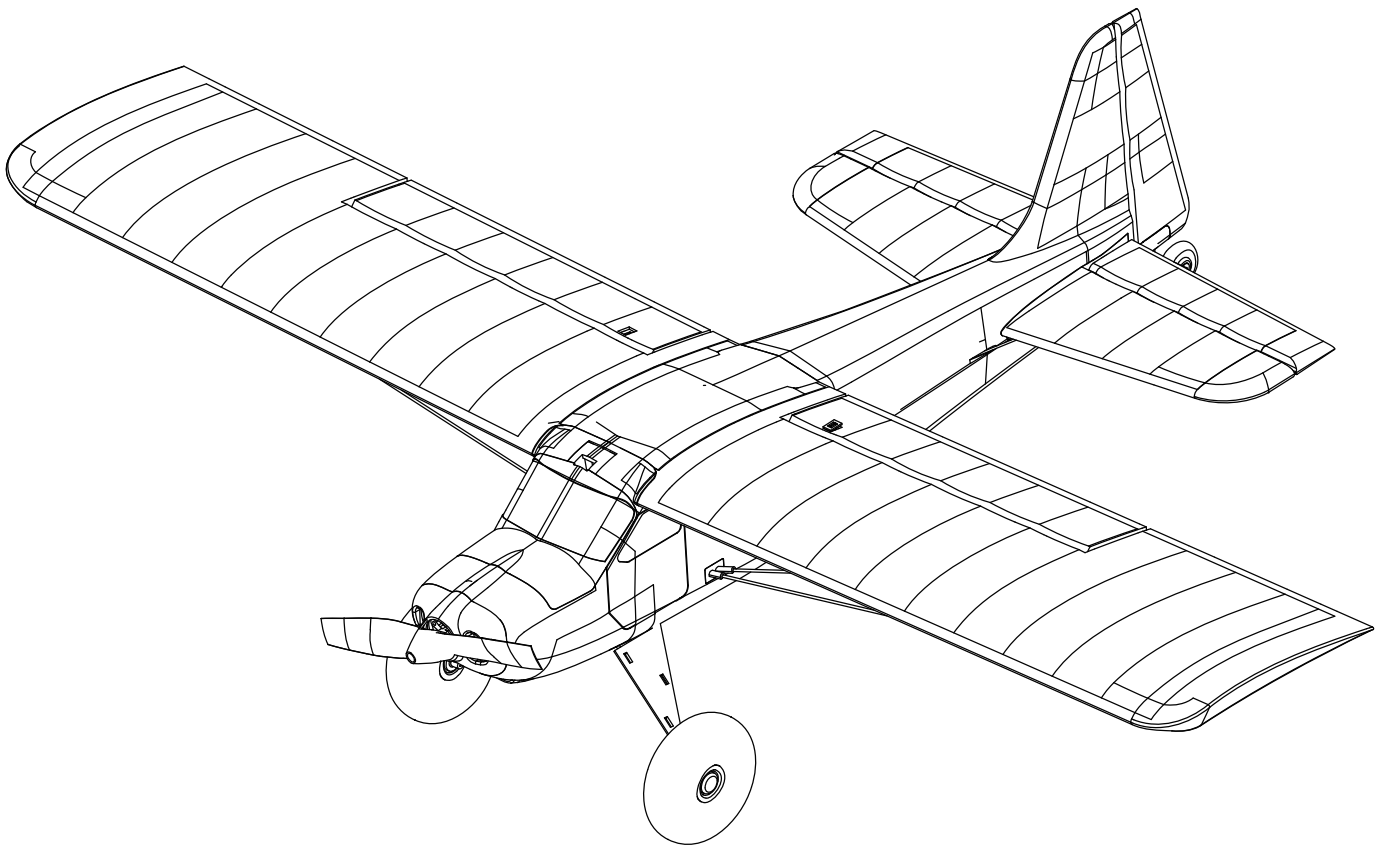


# 620mm Pioneer Operating Manual



**Warning:** This manual contains important information that will help you maintain and operate your model aircraft in a reliable and safe manner. Please read the instructions and warnings carefully prior to assembly, setup or use.

As this model aircraft is a sophisticated hobby product, it must be flown with safety and common sense in mind, failure in doing so may result in injury or property damage. This product is not intended for use by children without direct adult supervision.

## Safety precautions and warnings

As the user, you are solely responsible for the safe operation and maintenance of this product. Follow the directions and warnings listed in this manual, as well as that of supporting equipment (chargers, batteries etc.) and always use common sense.

**This is not a toy. Not for children under 14 years of age.**

- ★Always operate your model in an open area away from buildings, cars, traffic or people. Never operate near people—especially children who can wander unpredictably. Never operate in populated areas for any reason, where injury or damage can occur.
- ★Always keep a safe distance in all directions around your model to avoid collisions or injury. This model is controlled by a radio signal subject to interference from many sources outside your control. Interference can cause momentary loss of control.
- ★Never catch the aircraft while it is in flight, the structure of the fuselage was not designed and protected for this purpose.
- ★Never operate your model in bad weather, including in excessively windy or precipitating conditions.
- ★Never operate your model with low transmitter batteries.
- ★Keep your throttle quadrant in its lowest position prior and after every flight. Use the throttle cut function if able.
- ★Always use fully charged batteries and move batteries before disassembly.
- ★Avoid water exposure to all equipment not specifically designed and protected for this purpose.
- ★Avoid cleaning this product with chemicals.
- ★Never lick or place any part of your model in your mouth as it could cause serious injury or even death.
- ★Keep all chemicals, small parts and anything electrical out of the reach of children.

# Introduction

Any skill level  
 Any terrain  
 Anywhere!  
 Introducing the Arrows Hobby 620mm Pioneer

Modern beginner pilots are often faced with a daunting task: learning to fly in a limited space without an instructor. For those pilots, Arrows Hobby has the answer! Introducing the Arrows Hobby 620mm Pioneer- a micro bush-plane with BIG performance!

As a proper "all-rounder", the Pioneer has a classic high-winged tail-dragger design- allowing for predictable handling characteristics. The pre-installed ESC and flight control system eliminates the need for complicated wiring harnesses and setup. Switch between stabilized and optimized gyro flight modes and the Pioneer will suit pilots of any skill level. Oversized wheels and robust EPP foam construction allow for rough-field operations- just plug in the battery, let the gyro calibrate and fly!

With all the exciting aircraft Arrows hobby is releasing, there's no better way to start than the Arrows hobby 620mm Pioneer!

## Features

- Oversized power system: 1608-3000kv brushless motor with 7.4V 350mAh 20C battery
- Robust landing gear with balloon tires for rough field operations
- Ready to fly package includes everything you need to start flying
- High-lift STOL airframe design
- Integrated receiver and flight controller with stabilized and optimized flight modes
- Programmed from the factory, no setup required
- Robust EPP foam construction

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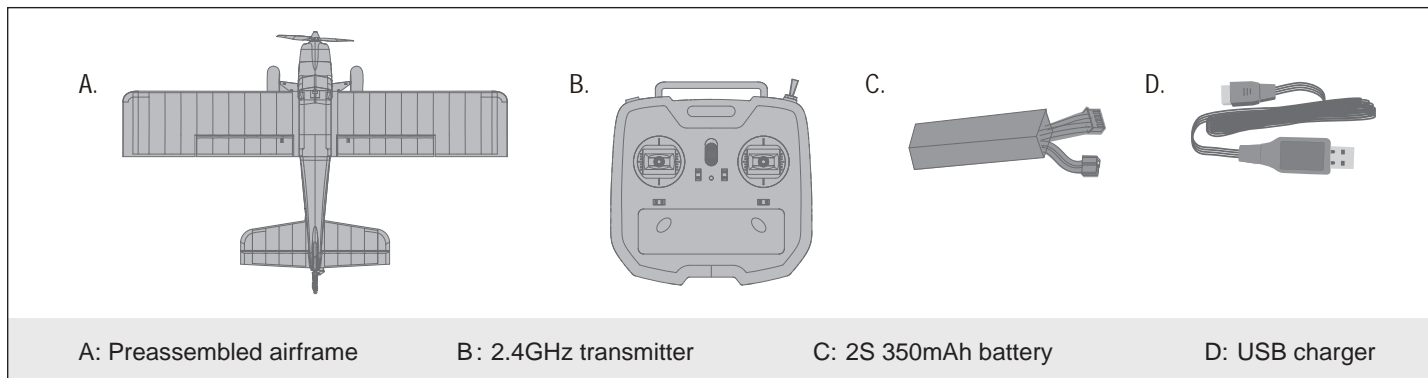
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## Specifications

Wingspan	620mm / 24.4in
Overall length	416mm / 16.4in
Flying weight	Around 105 g
Motor size	1608-KV3000
Wing load	16g/dm <sup>2</sup> (oz/in <sup>2</sup> )
Wing area	6.5 dm <sup>2</sup> (sq.in)
Servo	1.9g servo x 2 3.7g servo x 1
Recommended battery	2S 350mAh 20C

## Kit contents

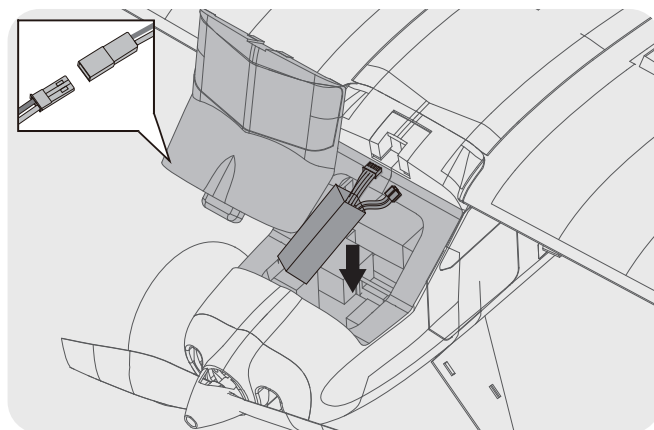
Before assembly, please inspect the contents of the kit. The photo below details the contents of the kit with labels. If any parts are missing or defective, please identify the name or part number (refer to the spare parts list near the end of the manual) then contact your local shop.



## «—— Battery installation

1. Remove the battery hatch.
2. Remove the hook and loop tape from the fuselage. Apply the looped surface to the battery.
3. Install the battery into the fuselage- securing it with the preinstalled battery straps.

*Note: The weight of each battery may vary due to different manufacturing techniques. Move the battery fore or aft to achieve the optimal center of gravity.*



## Receiver diagram

		Receiver
Aileron	1	Channel-1 — Aile
Elevator	2	Channel-2 — Elev
Rudder	4	Channel-4 — Rudd

## «—— Preflight check

### Important ESC and model information

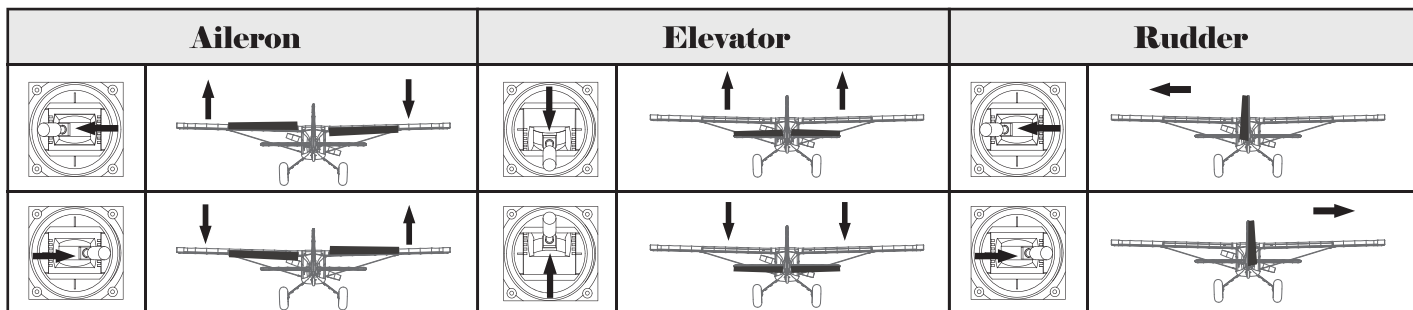
1. The ESC included with the model has a safe start. If the motor battery is connected to the ESC and the throttle stick is not in the low throttle or off position, the motor will not start until the throttle stick is moved to the low throttle or off position. Once the throttle stick is moved to the low throttle or off position, the motor will emit a series of beeps. Several beeps with the same tune means the ESC has detected the cells of the battery. The count of the beeps equals the cells of the battery. The motor is now armed and will start when the throttle is moved.
2. The motor and ESC come pre-connected and the motor rotation should be correct. If for any reason the motor is rotating in the wrong direction, simply reverse two of the three motor wires to change the direction of rotation.
3. The motor has an optional brake setting. The ESC comes with brake switched off and we recommend that the model be flown with the brake off. However, the brake could be accidentally switched on if the motor battery is connected to the ESC while the throttle stick is set at full throttle. To switch the brake off, move the throttle stick to full throttle and plug in the motor battery. The motor will beep one time. Move the throttle stick to low throttle or the off position. The motor is ready to run and the brake will be switched off.
4. Battery Selection and Installation. We recommend the 2S 350mAh 20C Li-Po battery. If using another battery, the battery must be at least a 2S 350mAh 20C battery. Your battery should be approximately the same capacity, dimension and weight as the 2S 350mAh 20C Li-Po battery to fit the fuselage without changing the center of gravity significantly.

## Preflight check



### transmitter and model setup

After assembly and prior to your first flight, make sure all control surfaces respond correctly to your transmitter by referring to the diagram below.



### Control throws

*The suggested control throw setting for the Pioneer are as follows (dual rate setting):*

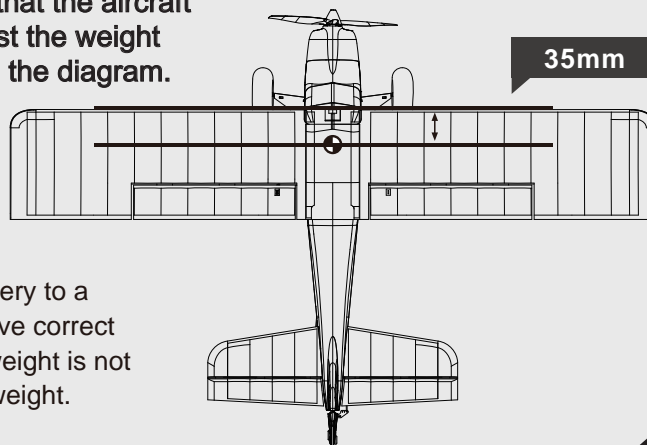
Tip: The maiden flight should always be flown using low rates, fly the aircraft until you are familiar with its characteristics prior to trying high rates. Make sure the aircraft is flying at altitude and adequate velocity prior to using high rates, as the aircraft will be sensitive to control inputs with the larger control surface movements.

	High Rate	Low Rate
<b>Elevator</b>	12mm up / down	10mm up / down
<b>Aileron</b>	12mm up / down	10mm up / down
<b>Rudder</b>	10mm left / right	8mm left / right

## Finding the center of gravity

Finding the correct center of gravity is critical in ensuring that the aircraft performs in a stable and responsive manner. Please adjust the weight distribution so the aircraft balances in the range stated on the diagram.

- Depending on the capacity and weight of your chosen flight batteries, move the battery forward or backward to adjust the center of gravity.
- If you cannot obtain the recommended CG by moving the battery to a suitable location, you can also install a counterweight to achieve correct CG. However, with the recommended battery size, a counterweight is not required. We recommend flying without unnecessary counterweight.



### Find a suitable flying site

Find a flying site clear of buildings, trees, power lines and other obstructions. Until you know how much area will be required and have mastered flying your plane in confined spaces, choose a site which is at least the size of two to three football fields - a flying field specifically for R/C planes is best. Never fly near people - especially children, who can wander unpredictably.

---

### Performing a range check

A radio range check should be performed prior to the first flight of the day. This test may assist you in detecting electronic problems that may lead to a loss of control- problems such as low transmitter batteries, defective or damaged radio components or radio interference. This usually requires an assistant and should be done at the flying site.

Always turn your transmitter on first. Install a fully charged battery in the battery bay, then connect it to the ESC. In this process, make sure that the throttle cut functionality is on, and that the throttle stick is secured in its lowest position- otherwise, the propeller/fan will engage and possibly cause bodily harm.

**Note: Please refer to your transmitter manual that came with your radio control system to perform a ground range check. If the controls are not working correctly or if anything seems wrong, do not fly the model until you correct the problem. Make certain all the servo wires are securely connected to the receiver and the transmitter batteries have a good connection.**

---

### Monitor your flight time

Monitor and limit your flight time using a timer (such as a stopwatch or on the transmitter, if available). As modern Lithium Polymer batteries are not designed to discharge completely, when the battery runs low, the ESC will lower then completely cut the power to the motors to protect the battery. Often (but not always) power can be briefly restored after the motor cuts off by holding the throttle stick all the way down for a few seconds. To avoid an unexpected dead-stick landing on your first flight, set your timer to a conservative 4 minutes. When your alarm sounds you should land right away.

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## « Flight tips

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### Take off

Point the aircraft into the wind while slowly applying power until the aircraft starts to track straight, use the rudder when necessary. When the aircraft reaches takeoff speed, ease back on the elevator stick until the aircraft is climbing at a constant rate without decelerating. Climbing at too steep of an angle at the relatively low speeds of a takeoff-climb may result in an aerodynamic stall.

---

### Flying

Always choose a wide-open space for flying your plane. It is ideal for you to fly at a sanctioned flying field. If you are not flying at an approved site always avoid flying near houses, trees, wires and buildings. You should also be careful to avoid flying in areas where there are many people, such as busy parks, schoolyards, or soccer fields. Consult laws and ordinances before choosing a location to fly your aircraft. After takeoff, gain some altitude. Climb to a safe height before trying technical manoeuvres.

### Landing

Land the aircraft when you start to feel sluggish motor response. If using a transmitter with a timer, set the timer so you have enough flight time to make several landing approaches. The model's three point landing gear allows the model to land on hard surfaces. Align model directly into the wind and fly down to the ground. Fly the airplane down to the ground using 1/4-1/3 throttle to keep enough energy for proper flare. Before the model touches down, always fully decrease the throttle to avoid damaging the propeller or other components. The key to a great landing is to manage the power and elevator all the way to the ground and set down lightly on the main landing gear. With some practice, you will be able to set the aircraft gently on its main gear and hold it that way until the speed reduces enough where the nose wheel (tricycle landing gear aircraft) or tail wheel (tail draggers) settles onto the ground.

### Maintenance

Repairs to the foam should be made with foam safe adhesives such as hot glue, foam safe CA, and 5min epoxy. When parts are not repairable, see the spare parts list for ordering by item number. Always check to make sure all screws on the aircraft are tightened. Pay special attention to make sure the spinner is firmly in place before every flight.

## Troubleshooting

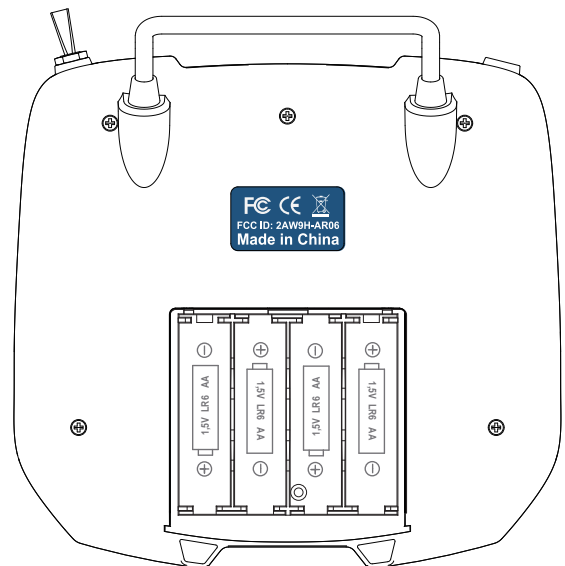
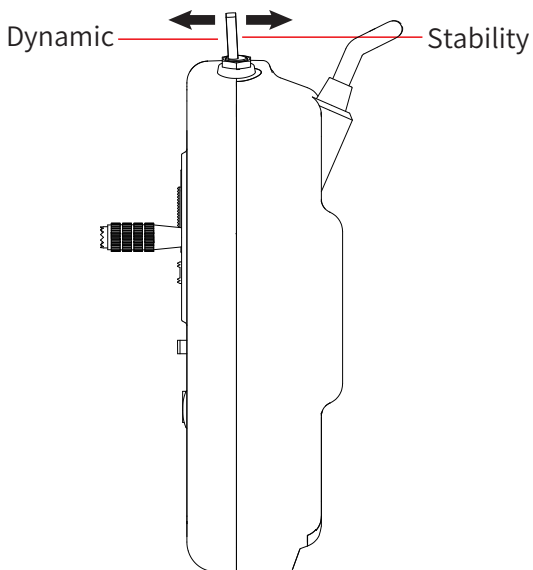
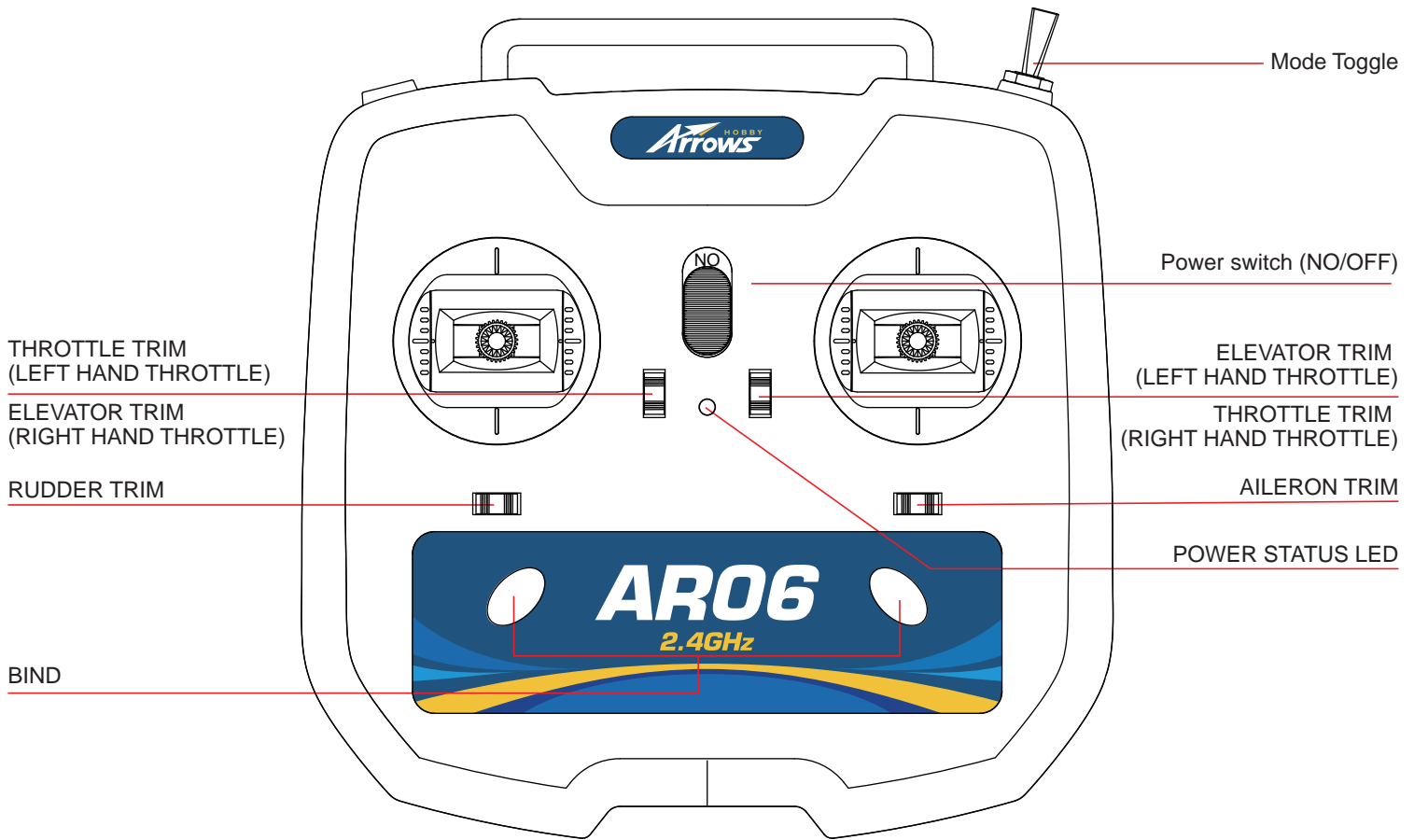
Problem	Possible Cause	Solution
Aircraft will not respond to the throttle but responds to other controls.	<ul style="list-style-type: none"> <li>• ESC is not armed.</li> <li>• Throttle channel is reversed.</li> </ul>	<ul style="list-style-type: none"> <li>• Lower throttle stick and throttle trim to lowest settings.</li> <li>• Reverse throttle channel on transmitter.</li> </ul>
Excessive vibration or propeller noise.	<ul style="list-style-type: none"> <li>• Damaged spinner, propeller, motor or motor mount.</li> <li>• Loose propeller and spinner parts.</li> <li>• Propellor installed backwards.</li> </ul>	<ul style="list-style-type: none"> <li>• Replace damaged parts.</li> <li>• Tighten parts for propeller adapter, propeller and spinner.</li> <li>• Remove and install propeller correctly.</li> </ul>
Reduced flight time or aircraft underpowered.	<ul style="list-style-type: none"> <li>• Flight battery charge is low.</li> <li>• Propeller installed backward.</li> <li>• Flight battery damaged.</li> </ul>	<ul style="list-style-type: none"> <li>• Completely recharge flight battery.</li> <li>• Replace flight battery and follow flight battery instructions.</li> </ul>
Control surfaces unresponsive or sluggish.	<ul style="list-style-type: none"> <li>• Control surface, control horn, linkage or servo damage.</li> <li>• Wire damaged or connections loose.</li> </ul>	<ul style="list-style-type: none"> <li>• Replace or repair damaged parts and adjust controls.</li> <li>• Do a check of connections for loose wiring.</li> </ul>
Controls reversed.	<ul style="list-style-type: none"> <li>• Channels are reversed in the transmitter.</li> </ul>	<ul style="list-style-type: none"> <li>• Do the control direction test and adjust controls for aircraft and transmitter.</li> </ul>
Motor loses power Motor power pulses then motor loses power.	<ul style="list-style-type: none"> <li>• Damage to motor, or battery.</li> <li>• Loss of power to aircraft.</li> <li>• ESC uses default soft Low Voltage Cutoff(LVC).</li> </ul>	<ul style="list-style-type: none"> <li>• Do a check of batteries, transmitter, receiver, ESC, motor and wiring for damage(replace as needed).</li> <li>• Land aircraft immediately and recharge flight battery.</li> </ul>

## Spare parts list



AHAM101	Fuselage	AH1.9GP	1.9g servo positive
AHAM102	Mainwing set	AH3.7GP	3.7g servo positive
AHAM103	Horizontal stabilizer	AHRX01	Receiver (three-in-one integrated) (Works only with AHTX01)
AHAM104	Battery Door		
AHAM105	Mainwing supporting bar set	AHTX01	Transmitter( Works only with AHRX01)
AHAM106	Steel set	AHBAT01	7.4V 350mah 20C Battery (JST plug)
AHAM107	Cowl	AHCHR01	Charger
AHAM108	Spinner		
AHAM109	Main landing gear set		
AHAM110	Rear landing gear set		
AHAM111	Decal set		
AHPROP010	Propeller		
AHKV3000	1608-KV3000 Motor		





Remove the battery hatch cover, place 4x "AA" cells into the battery hatch, then replace the battery hatch cover.

## Basic parameters

1. Transmitting power: less than or equal to 70mW
2. Transmission frequency: 2401 MHz---2479 MHz
3. Ground control range: greater than 300 meters
4. Transmitter power supply requirements: DC+6V (4 AA batteries)
5. Receiver power supply requirements: DC+6V

## Functionality

1. This aircraft is equipped with Vector, an advanced flight control system. The two different flight modes (Stability and Dynamic) can be toggled via the 2 position switch located on the left shoulder of the transmitter.

**Stability mode:** Allows for the aircraft to automatically level its wings when no user input is given. This mode is perfect for beginners or as a safety function during loss of orientation. The aircraft will maintain level flight at half throttle, and slowly increase in nose up attitude when the throttle is advanced above 50 percent.

**Dynamic mode:** Dynamic mode gives pilots full control over the aircraft without making any control inputs unless the attitude upset is caused by factors such as wind gusts.

## Operation instructions

### Binding

Connect the battery to the aircraft, turn on the transmitter and simultaneously press the two bind buttons to enter binding mode.

### Transmitter warnings

1. After the transmitter is powered on, an audible signal is given every minute to assist the pilot in keeping track of flight time. The green status LED indicates that the transmitter is operating normally.
2. When low on power, the transmitter will beep constantly and the status LED will turn red.
3. If the throttle stick isn't at 0 when the transmitter is powered on, the transmitter will beep constantly and the status LED will turn red.

## Power and calibration

1. Set the aircraft on a level surface, turn on the transmitter and then power on the aircraft.
2. Wait for the Vector system to self calibrate (rapid red LED flash).
3. After calibration (3 seconds), the aileron and elevator servos will cycle 3 times, indicating successful calibration.
4. Vector status LED:

Stability mode: LED flashes rapidly

Dynamic mode: LED stays on

## 重要提示：

1. 在组装、调整及飞行前请务必认真阅读产品说明书以熟知产品的特性。请严格按照说明书提示进行飞机的组装、调整及飞行。
2. 模型不是玩具，具有一定的危险性，操作者需要具备一定的飞行经验，初学者请在专业人士指导下操作。
3. 禁止十四岁以下儿童在任何情况下操作、飞行。

## 警告

- ★作为用户，您对本产品的安全操作和维护负全部责任。请始终严格遵照产品指导说明及安全警告操作本产品及其相关配置（例如遥控器、充电器、电池等）。
- ★本产品由无线电遥控器控制，在飞行过程中，可能会受到外界强信号源干扰而导致失控，甚至坠机，因此在飞行过程中务必始终与飞机保持一定的安全距离，避免意外碰撞、受伤。
- ★请勿随意暴露置放模型飞机的电子产品，尤其是电池，存放时请务必保证周围三米之内无易燃易爆物体。
- ★在任何情况下，都务必保证油门杆处于起始位、发射机处于通电状态时，才能连接模型飞机内部的动力电池。
- ★在任何情况下，都不要尝试用手去回收飞行中的模型飞机，必须要等模型飞机降落停稳以后，再进行回收。
- ★请勿在公路、人群、高压线密集区、机场附近及其它法律法规明确禁止飞行的场合飞行。
- ★请勿在雷雨、大风、大雪或者其它恶劣气象环境下飞行。
- ★请勿将相关化工类产品、零部件、电子部件等置于儿童可触及的范围。
- ★请勿将本产品尤其是未经特别设计和保护的电子件暴露于潮湿的环境中，以免造成损坏。
- ★请勿将本品任意处置于口中，以免造成人身伤亡。
- ★请勿在发射机电池低电量的情况下操纵模型飞机。
- ★请勿在配件未充分冷却的情况下触碰或移动。
- ★请勿使用化学制剂擦拭清洁本产品。
- ★务必保证飞机在整个操作过程中始终在视线范围和遥控控制距离内。
- ★务必保证在拆卸飞机之前移除电池。
- ★务必保证所使用的电池是满电状态。
- ★务必保证所使用的所有线束完好无损。

## 飞行前准备

1. 开箱检查包装内物品是否有损坏或遗漏。
2. 通读此飞机说明书以及其相关配置说明书（如遥控器、电池和充电器）。
3. 确保遥控器和使用的电池都是满电状态（请严格遵从配件原厂家说明书）。
4. 遥控器设置（请严格遵从遥控器厂家的说明书）。
5. 严格遵从本说明书指导组装飞机，确保螺丝、卡扣、夹头、插销等紧固件全部安装到位，舵角摇臂连接可靠。（暂不安装螺旋桨）。
6. 安装满电状态的电池，并通过挪动电池在电池舱里的前后位置，调整飞机重心（CG）至说明书推荐位置。
7. 通电测试确保所有的操纵钢丝活动自如。
8. 通电测试确保所有的舵面正确响应遥控器输入指令。
9. 根据所需调整舵面行程（首飞推荐使用出厂设置行程）。
10. 桨机安装螺旋桨，确保螺旋桨组件安装到位，且转动方向正确。
11. 寻找一个安全空旷远离建筑和人群的场地，根据场地实际情况，做具体飞行计划。

## 飞机简介

一款不挑场地的初学者飞机!

一款轻易玩转的初学者飞机!

一款里程碑式的初学者飞机!

Arrows Hobby 620mm 拓荒者, 来了!

初学者往往面临这样的烦恼 片刻的娱乐时间, 有限的场地环境, 生疏的操作技术.....拓荒者带着他的飞行控制系统, 让你烦恼一扫而光。

这是一款“内外兼修”的飞机。在外型上, 拓荒者采用上单翼布局, 后三点起落架, 使起降更易上手; 接收机模块集成电调和飞行控制系统, 免除复杂的接线问题, 使飞机在自动校平 (自稳)、优化 (增稳) 两种模式之间自由切换, 可以满足新手玩家常需的飞行需求; EPP 耐摔泡沫材料, 比重轻、韧性强, 超大尺寸轮胎便于粗糙路面起降, 出厂完成全部组装工作, 玩家在保证电池电量充足的情况下, 只需通电完成自检 (3 秒), 即可起飞。

这是一款“小材大用”的飞机。Arrows Hobby 在研发专业级浆机、涵道机的路上做了个急转弯, 以大道至简的设计思路, 孵化出这款小比例初学者飞机。其研发的重要意义, 就是给航模爱好者, 尤其是青少年爱好者, 展露浩瀚航模世界的一角, 这是航模领域当之无愧的“敲门砖”, 也是通往更高级别航模必不可少的跳板。

Arrows Hobby 620mm 拓荒者, 让天空触手可得。

### 特征:

- 高配置动力系统: 动力十足的 1608-KV3000 无刷电机, 7.4V 350mAh 20C 电池
- 接收机模块集成飞控和电调, 拥有自动校平 (自稳)、优化 (增稳) 两种模式, 可以满足新手玩家常需的飞行需求。
- 超大尺寸轮胎起落架, 可在草地和碎石路地面环境完成起降。
- 组装调试好出货, 玩家只需通电等待 3s 自检以后即可起飞。
- RTF 版本, 到手充电即飞。
- 坚固耐用的 EPP 泡沫材料。
- 螺旋桨初学者飞机的优选之作

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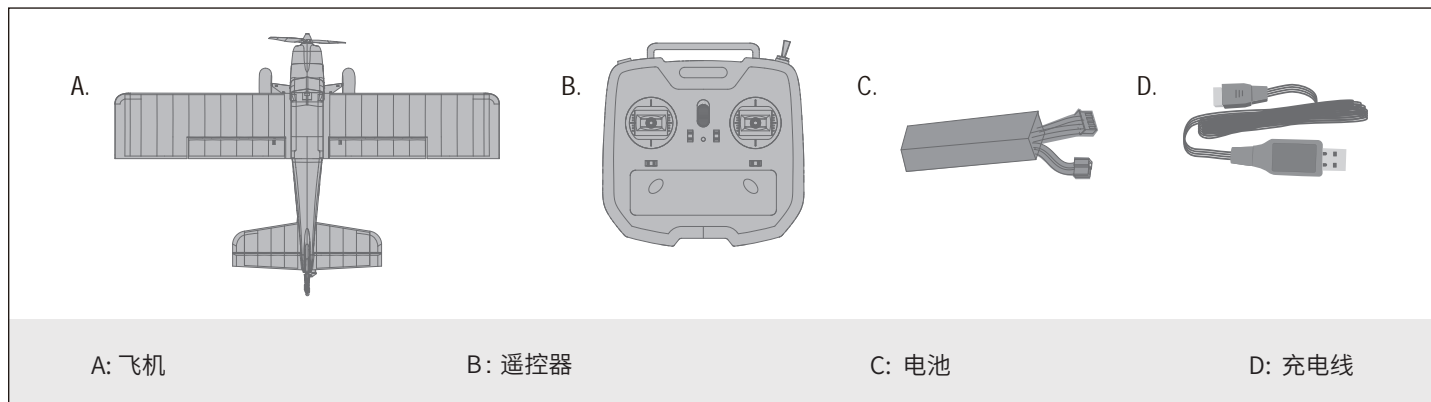
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## 产品基本参数

机身长	416 毫米
翼展	620 毫米
飞行重量	大约 105 克
电机	1608-KV3000
翼载荷	16g/dm <sup>2</sup>
翼面积	6.5dm <sup>2</sup>
舵机	1.9 克塑胶舵机 *2 3.7 克塑胶舵机 *1
电池	2S 350mAh 20C

**! 注意:** 此处各项参数, 均是使用本公司配件测试得出, 如果使用他厂配件, 会有所差异。使用他厂配件时所产生的问题, 我司将无法给予技术支持。

## 产品包装清单

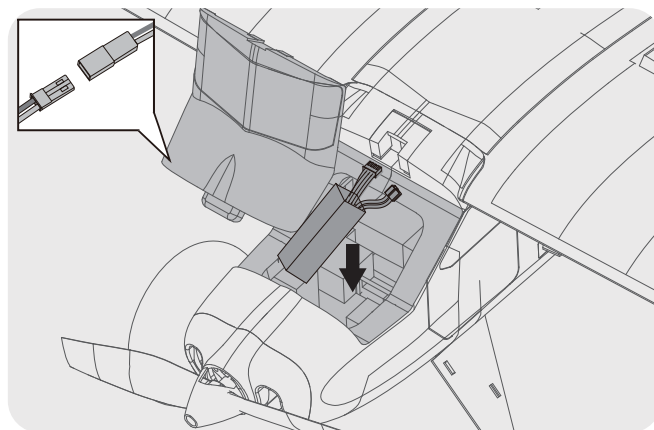


## 电池安装

如图所示，安装厂家推荐型号电池至电池舱，使用所附魔术带或魔术贴固定。

### 注意：

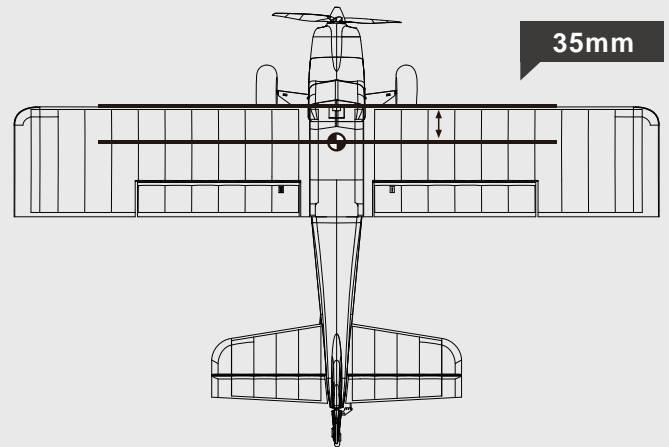
1. 电池与电调连接前，务必确定油门杆处于低位。
2. 启动油门前，务必确定没有任何人或物体处于螺旋桨的转动直径以内。
3. 由于不同电池厂家生产的电池重量有轻微差异，需要调整电池在舱内的前后位置来平衡飞机的重心位置。



## 接收机连接示意图

		Receiver
副翼	1	Channel-1 —Aile
平尾	2	Channel-2 —Elev
垂尾	4	Channel-4 —Rudd

本产品的重心在机翼前缘向后 35mm 的位置。玩家需要通过移动电池在电池舱里的前后位置或者使用配重块来调整重心。请务必确保，在调整飞机重心的时候，飞机处于组装完毕待飞的状态。



## —— 重要产品相关信息

1. 本产品随附的电调处在安全启动模式。安全启动模式，意即如果电机、电池已连接至电调，但油门杆不在低油门位置或关闭位置，电机不会启动，只有将油门杆移至低油门位置或关闭位置，电机才会启动。油门杆移至低油门位置或关闭位置时，电机将发出一系列哔声。几声相同的哔声表示电调已检测到电池。哔声的数量等于电池的节数。此时，电机已准备就绪，并将随着油门移动开始启动。
2. 电机和电调已预连接，需要观察电机转动方向是否正确，如方向不正确，只需换插三条电机与电调连接线中的任意两条，即可改变电机转动方向。
3. 电池的选择和安装。我们推荐使用 2S 350mAh 20C 锂电池。如果使用其他电池，电池的容量不能低于推荐电池容量，且电池的尺寸和重量应与推荐电池相同，以保证适配机身电池舱，且不会显著改变重心。

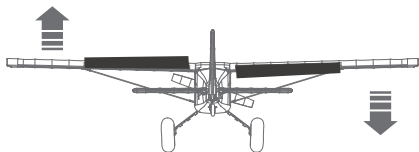
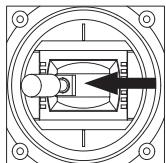
## 舵面测试

在计划飞行之前，需要使用遥控器测试每个舵面的工作情况，确保摇杆动作与各个舵面动作的对应关系如下图所示：

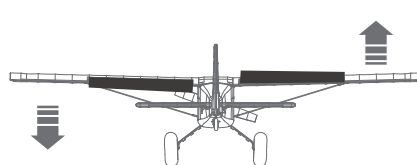
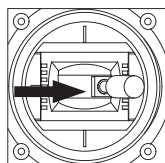
**注意：**在舵面调试中，请务必将油门摇置于最低位，并将桨拆下，以免电机意外启动发生事故。

### 副翼

副翼摇杆  
向左运动

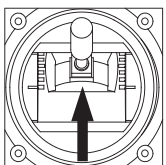


副翼摇杆  
向右运动

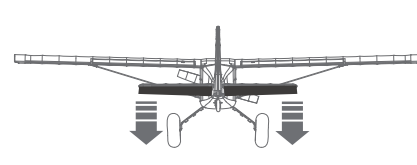
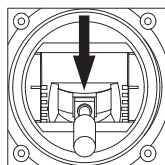


### 升降舵

升降摇杆  
向上运动

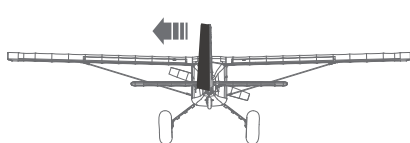
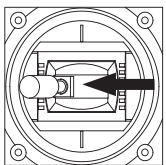


升降摇杆  
向下运动

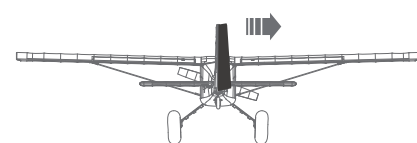
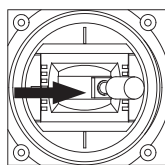


### 方向舵

方向摇杆  
向左运动



方向摇杆  
向右运动



## 舵面行程

本产品舵面行程参数如右图所示：

请注意，舵量越大，模型飞机的动作响应越快，动作幅度越大。首飞建议使用小舵量。然后根据个人情况以及对模型飞机的熟知程度调整舵量。

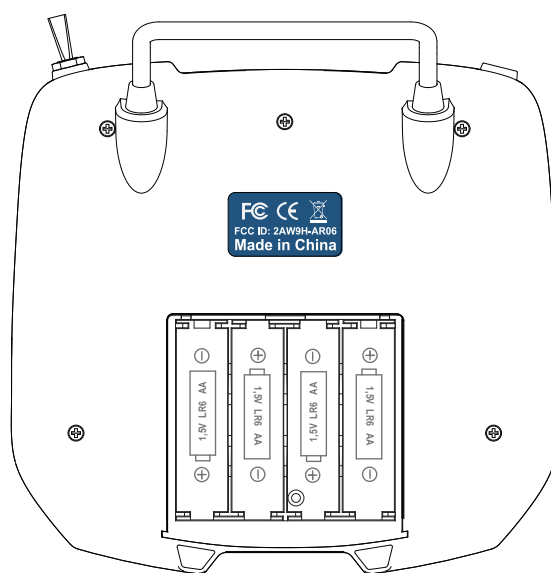
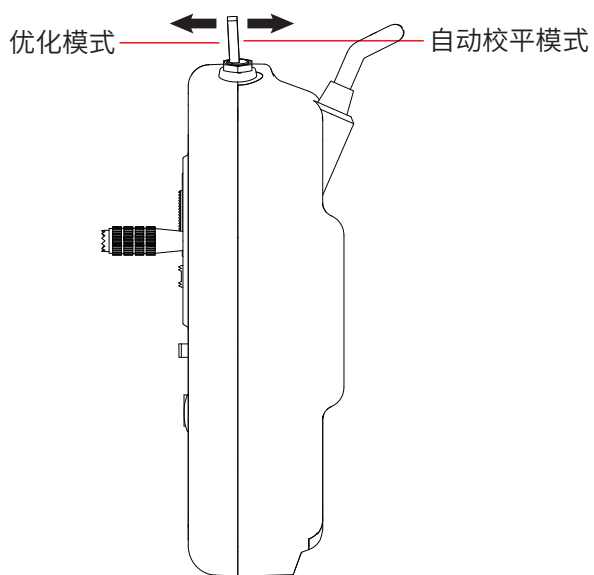
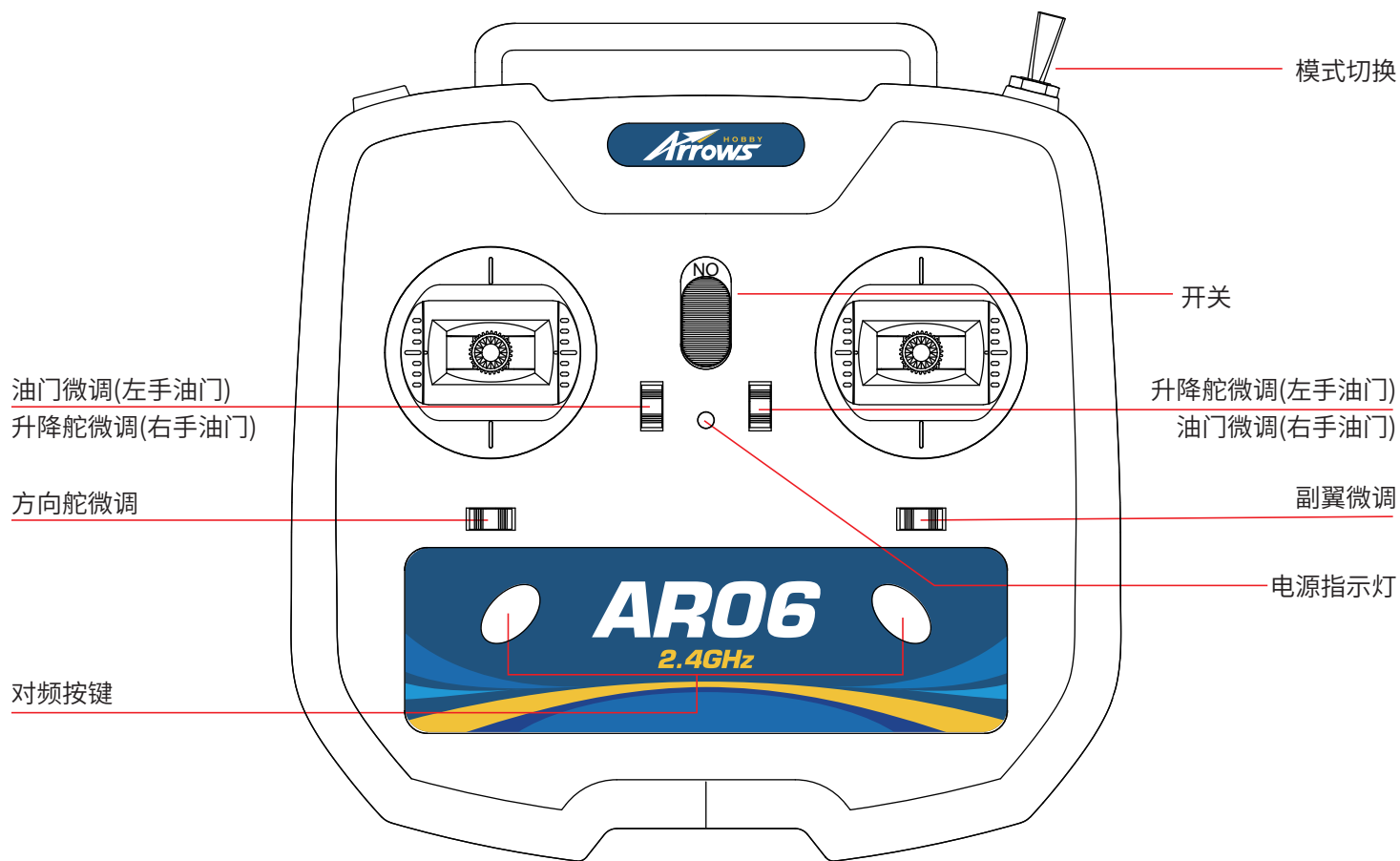
	大	小
方向舵	12mm 左 / 右	10mm 左 / 右
升降舵	12mm 上 / 下	10mm 上 / 下
副翼舵	10mm 上 / 下	8mm 上 / 下

问题	问题原因	解决方式
油门推杆无响应，但舵机有响应	<ul style="list-style-type: none"> <li>——电调未连接电机</li> <li>——油门通道反向</li> </ul>	<ul style="list-style-type: none"> <li>——降低油门推杆和油门微调设定</li> <li>——反过来重新装油门通道</li> </ul>
桨的噪音过大或者震动过大	<ul style="list-style-type: none"> <li>——桨罩、桨、电机、电机架坏了</li> <li>——桨或者桨罩的小部件松动了</li> <li>——桨装反了</li> </ul>	<ul style="list-style-type: none"> <li>——更换损坏的配件</li> <li>——把桨、桨夹和桨罩的小部件拧紧</li> <li>——反过来重新装桨</li> </ul>
飞行时间变短，飞机无力	<ul style="list-style-type: none"> <li>——电池电量低</li> <li>——桨装反了</li> <li>——电池坏了</li> </ul>	<ul style="list-style-type: none"> <li>——重新给电池充电</li> <li>——依照电池说明书更换新的电池</li> </ul>
飞舵面不动，或者动作响应较慢	<ul style="list-style-type: none"> <li>——舵面、舵角、连接杆、舵机坏了</li> <li>——连接线坏了或者接头松了</li> </ul>	<ul style="list-style-type: none"> <li>——更换或者维修坏了的配件</li> <li>——检查所有连接线，确保所有接头无松动现象</li> </ul>
舵面反向	<ul style="list-style-type: none"> <li>——遥控器发射机通道反向</li> </ul>	<ul style="list-style-type: none"> <li>——检查通道控制（舵面）方向，调试飞机舵面和遥控器的舵面控制杆</li> </ul>
电机无力	<ul style="list-style-type: none"> <li>——电机或电池坏了</li> <li>——电调用了不合适的低压保护装置</li> </ul>	<ul style="list-style-type: none"> <li>——检查电池、发射机、接收机、电调、电机是否有损坏（如有，请及时更换）</li> <li>——立刻操控飞机降落，重新给电池充电</li> </ul>

配件列表

AHAM101	机身	AH1.9GP	1.9g 塑胶正向舵机
AHAM102	主翼	AH3.7GP	3.7g 塑胶正向舵机
AHAM103	平尾	AHRX01	接收机（三合一集成）
AHAM104	电池舱盖	AHTX01	发射器（专用）
AHAM105	主翼撑杆	AHBAT01	7.4V 350mah 20C 电池（JST 插头）
AHAM106	钢丝组（含平尾联动钢丝）	AHCHR01	充电器
AHAM107	机头罩		
AHAM108	桨罩		
AHAM109	主起落架组		
AHAM110	尾轮		
AHAM111	贴纸		
AHPROP010	桨		
AHKV3000	KV3000 电机		





取下电池盖并把 4 节 AA 电池，按极性装入电池盒内，然后把遥控器电池盖盖上。

## 遥控器基本参数

1. 发送功率：小于或等于 70mW
2. 发送频率：2401 MHz---2479MHz
3. 地面控制范围：大于 300 米
4. 发射机供电要求：DC+ 6V (4 节 AA 电池)
5. 接收机供电要求：DC+ 6V

## 功能介绍

1. 飞控系统配有自动校平、优化 2 种飞行模式，使用遥控器上的一个 2 段开关来切换模式。

**自动校平模式**——此飞行模式是专为初学者设计的，但也可用作更高级飞行员的紧急模式。在未有新指令输入的情况下，自动校平模式通过机载传感器，来使飞机保持水平的飞行姿态。遥控器油门摇杆在 50% 位置飞机保持平飞状态，摇杆高于 50% 的位置，飞机的爬升角度会随着摇杆位置的高度变大。

**优化模式**——此飞行模式利用高精度陀螺仪，可在不干预摇杆操作的前提下，有效消除阵风和湍流的影响，以保持稳定的飞行姿态。

## 操作步骤

### 飞机对频操作

1. 飞机接上电池后，打开遥控器，同时长按遥控器面板上的两个对频键约 3 秒进入对频，对频成功（已经完成对频的可忽略此步骤）。

### 遥控器提醒功能

1. 遥控器开启以后，每分钟“滴”一声为计时功能，电源指示灯绿色常亮。
2. 电池电量不足时，指示灯红灯闪烁，并带有“滴滴滴滴”短促警告声。
3. 遥控器开启以后，如果油门摇杆不在最低位时，指示灯红灯闪烁，并带有“滴滴滴滴”短促警告声。

## 通电与校正

1. 将飞机置于水平面上，遥控器开启，飞机通电。
2. 等待飞控系统自动校准（LED 灯快速闪烁）。
3. 校准后（约 3 秒），副翼和升降舵分别连续上下动作 3 次，表示上电自检通过。
4. 飞控系统 LED 灯状态：LED 灯快速闪烁表示自动校平模式、LED 灯常亮表示优化模式。



**MADE IN CHINA**