Arrows RC

P-51 MUSTANG

AH029

INSTRUCTION MANUAL

PRO MODELS DISTRIBUTION

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.

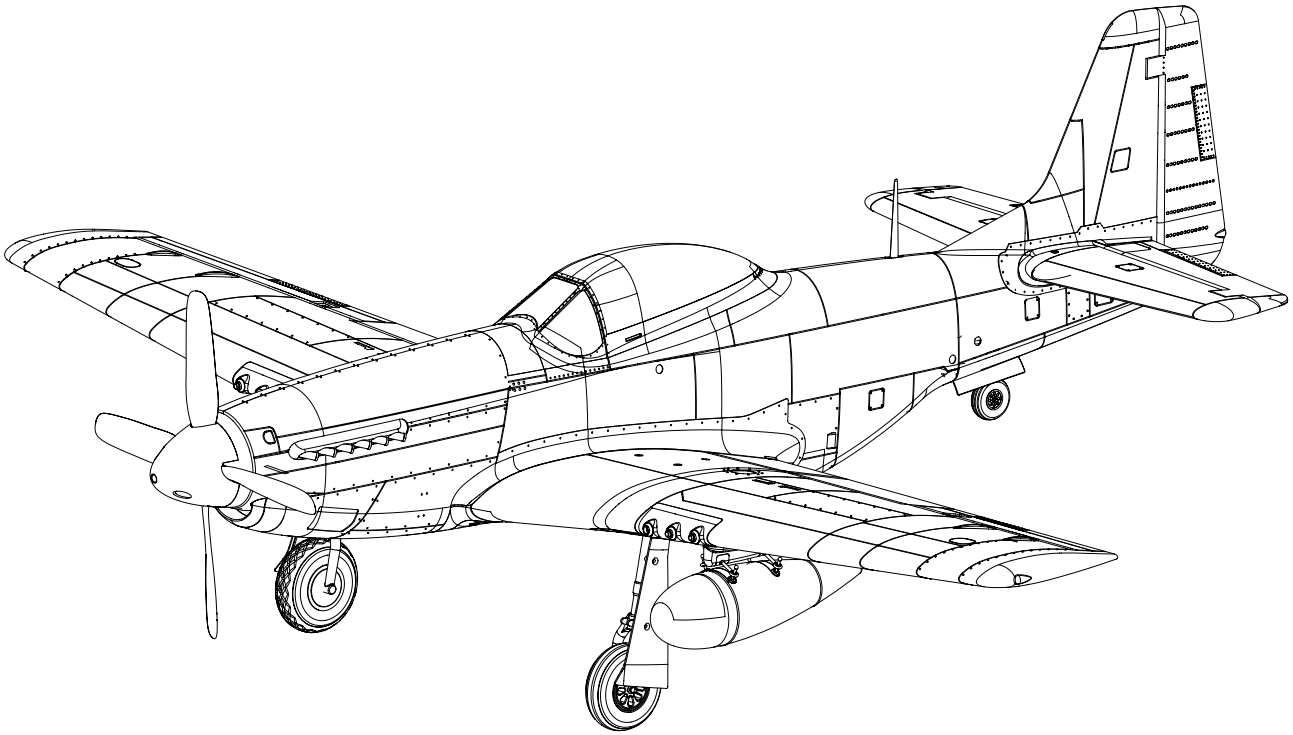
As this model aircraft is a sophisticated hobby product, it must be flown with safety and common sense in mind, failure in doing so may result in injury or property damage. This product is not intended for use by children without direct adult supervision.

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

The Arrows P-51D Mustang 850mm combines authentic detailing with cutting-edge performance to honor the legendary P-51 fighter. Its two-piece wing and reinforced structure ensure exceptional stability at high speeds, while the factory-installed 2212 KV1300 motor and four-blade propeller provide versatile power for both casual flights and intense aerial maneuvers. Constructed from durable EPO 40 foam and coated with a weather-resistant finish, it boasts stunning aesthetics and impressive resilience. Whether for relaxed takeoffs or thrilling missions, the Arrows P-51D Mustang is primed for action, delivering an unrivaled flight experience as this legend comes alive just for you!

- Commemorative Collectible Finish With Significant Value.
- Realistic Scale Appearance+Extensive Simulated Parts+Detailed Decals.
- Authentic Navigation Lights (Red On Left, Green On Right).
- High-Performance Power System: 2212-KV1300 Motor, 30A ESC, And Large, Scale Four-Blade Propeller.
- Equipped With Vector Flight Control System For Enhanced Stability And Safety At High Speeds.
- Two-Piece Wing Design For Compact Packaging And Integrated Stabilizer.
- Easy Integration and Quick-Detach Assembly.
- Eco-Friendly Water-Based Paint+High-Density EPO Foam.

Specifications

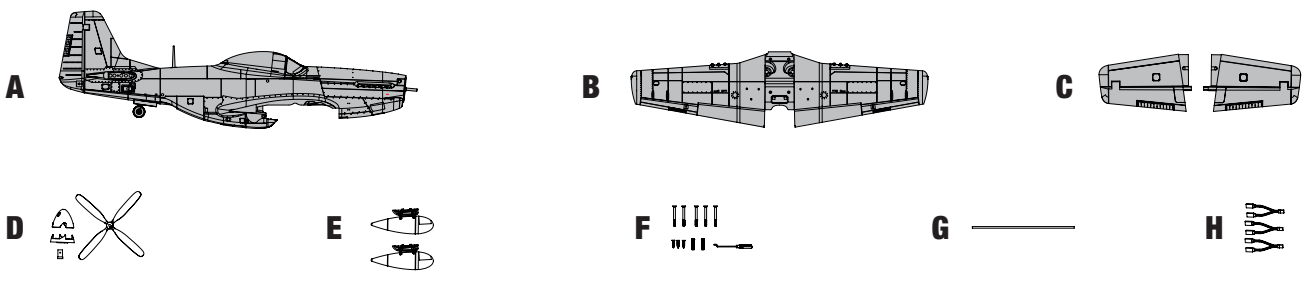
Wingspan	850mm
Lenght	745mm
Flying weight	700g
Motor size	22126-KV1300
Wing load	48.3/dm2
Wing area	14.5dm2
ESC	30A
Servo	9g (4pcs)
Recommended battery	11.1V-1300mAh 25C

Included equipment :

- **PNP version**
  2212-KV1300 Brushless Motor-Installed
  30A ESC-Installed
  4 x 9g Plastic Servos-Installed
  Vector Flight Control System-Installed
- **RTF version (PNP electronics also included)**
  6-Channel Transmitter-Included
  6-Channel Receiver-Installed
  3S 1300mAh Battery-Included
  2~3S Battery Charger-Included

Kit contents

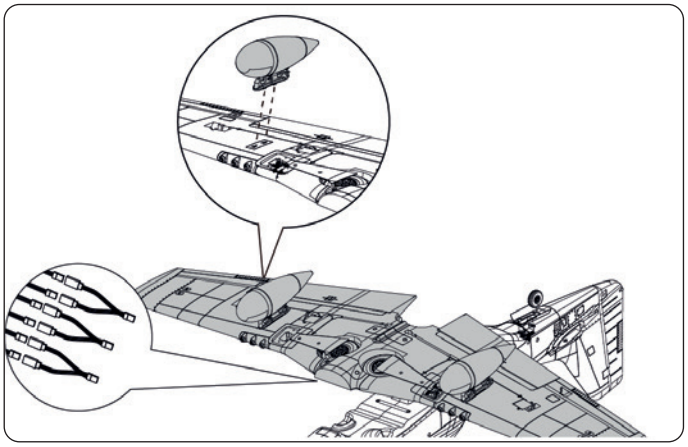
Before assembly, please inspect the contents of the kit. The photo below details the contents of the kit with labels. If any parts are missing or defective, please identify the name or part number (refer to the spare parts list near the end of the manual) then contact your local shop.

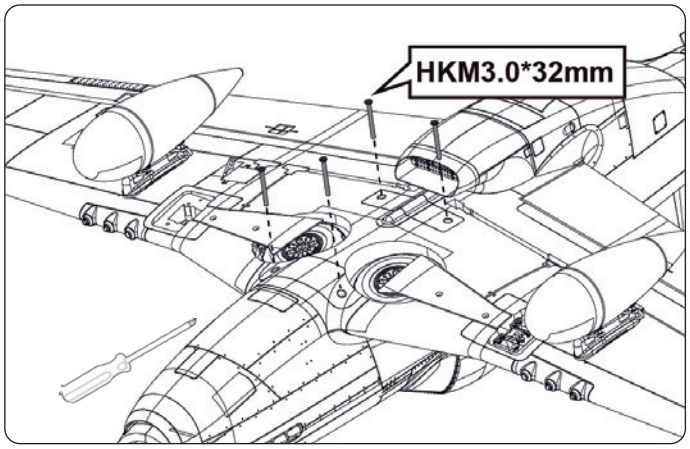


A: Fuselage
B: Main Wing Set
C: Horizontal Stabilizer
D: Spinner and propeller se
E: Auxiliary fuel tanks
F: Screws and pushrods
G: Wing tube
H: Y-harness

MODEL ASSEMBLY

Main wing and auxiliary fuel tanks installation



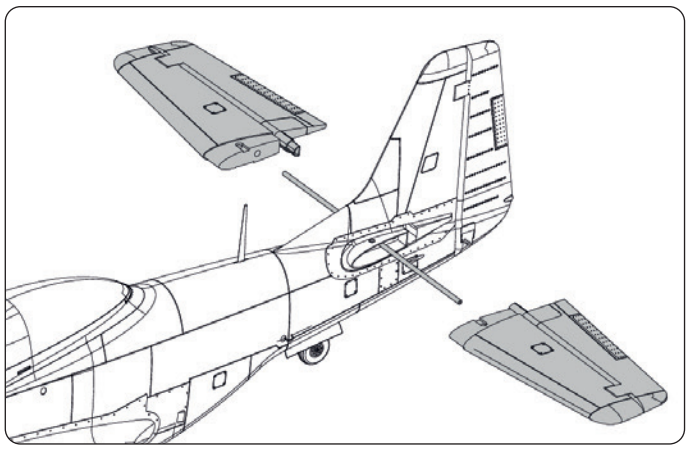


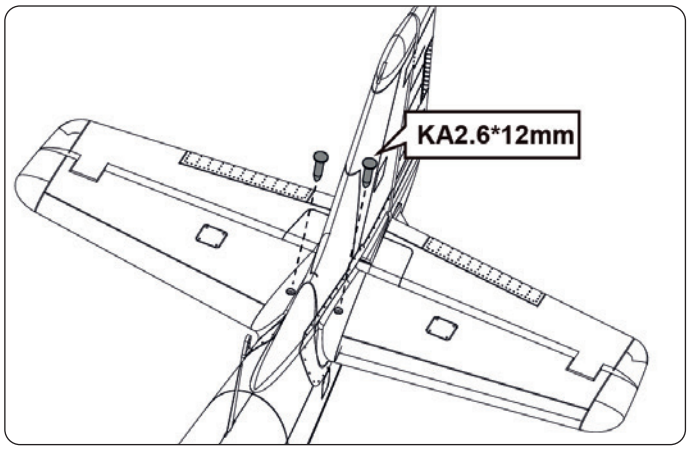
1.Slide the auxiliary fuel tanks into the rails as shown

2. Using the three included Y-harnesses, connect the two retract leads, two aileron leads and two flap leads. Insert all leads on the wing into the fuselage via the fuselage passthrough. Attach the wing onto the fuse-lage and ensure that the wires do not interfere with any of the servos.

3.Secure the wing to the fuselage with included screws as shown. Do not over tighten the screws.

Horizontal stabilizer installation





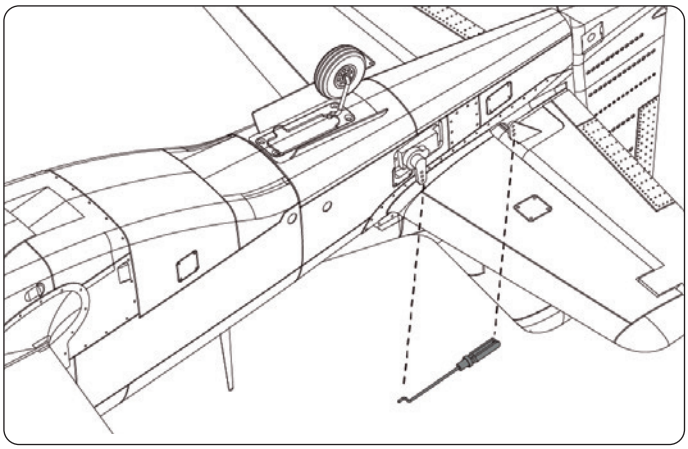
1. Slide the horizontal stabilizer spar into the slot near the rear of the fuselage.

2. Install the two pieces (left and right) horizontal stabilizer as shown. Ensure the control horn faces down.

3. Secure the two horizontal tail pieces in place using the included screws.

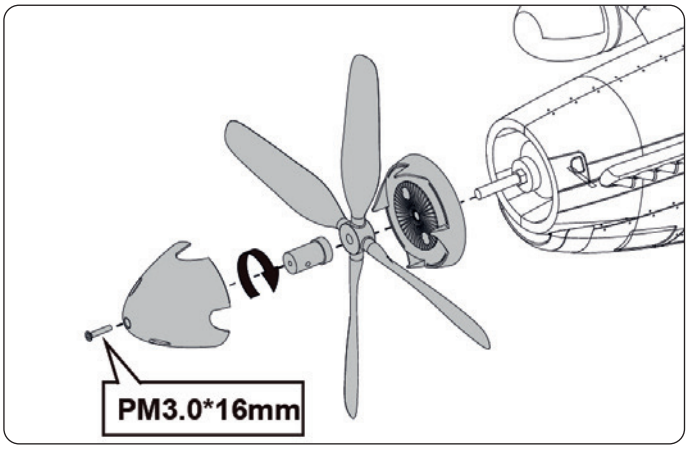
MODEL ASSEMBLY

Pushrod installation



1. Connect the elevator servo to the elevator using the included pushrod.

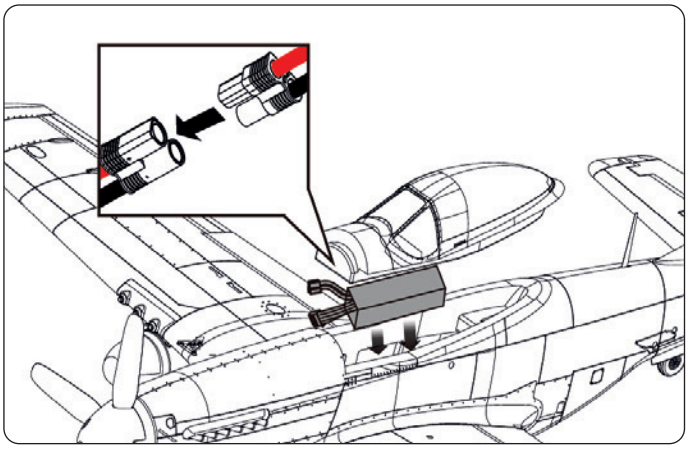
Propeller and spinner installation



1. Assemble the propeller and spinner as shown below.

Note:The motor should rotate clockwise when viewing the plane from the rear.

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.

Receiver diagram

The cables from the servo connection board must be connected to your receiver in the order shown. Then insert the cables into the cavity behind the battery hatch.

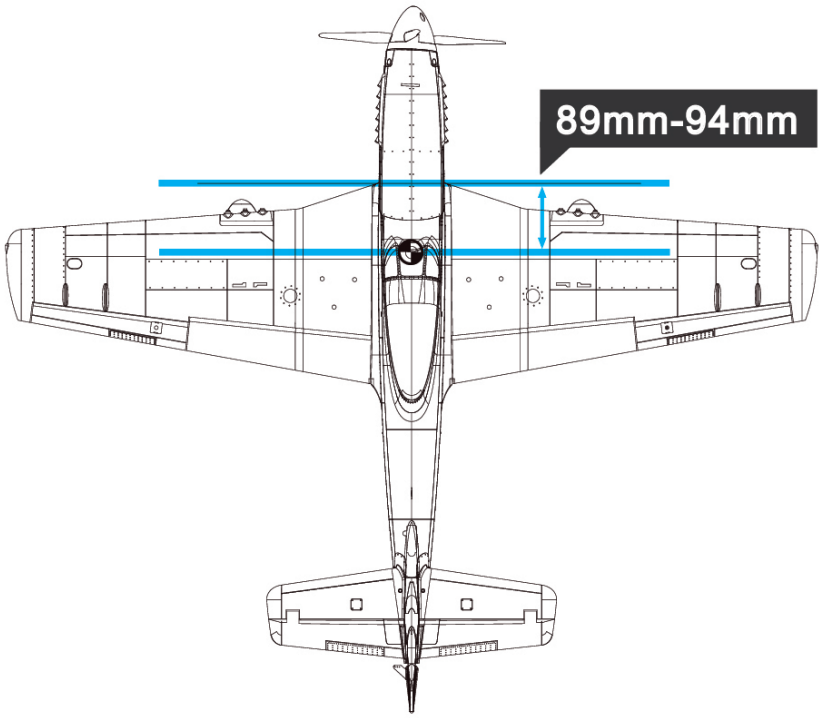
Note that the LEDs can be powered from any free channel on the receiver.

		RECEIVER
Aileron	1	Channel-1 (Aile.)
Elevator	2	Channel-2 (Elev.)
Throttle	3	Channel-3 (Thro.)
Rudder	4	Channel-4 (Rudd)
Gear	5	Channel-5 (Gear)
Flaps	6	Channel-(Flaps)

CENTRE OF GRAVITY

IMPORTANT : It is essential to find the right centre of gravity to guarantee the aircraft's stability and responsiveness. Please adjust the weight distribution (move the battery) so that the aircraft is balanced within the range shown in the diagram.

- Depending on the capacity (i.e. weight) of the flight batteries chosen, move the battery forwards or backwards to adjust the centre of gravity.
- If you cannot achieve the recommended CG by moving the battery to a suitable location, you can also install a ballast to achieve the correct CG. However, with the recommended battery, additional ballast is not necessary. We recommend flying without unnecessary weight.



PREFLIGHT CHECK

Important ESC and model information

1. The controller supplied with the model has a safe start feature. If the motor battery is connected to the controller and the throttle is not in the 'OFF' position, the motor will not start until the throttle is moved to the 'OFF' position. Once the throttle has been moved to the 'OFF' position, the engine will emit a series of beeps, meaning that the controller has detected the battery cells. The number of beeps is equal to the number of battery cells. The procedure is complete and the engine starts when the throttle is operated.
2. The motor and controller are pre-connected and the motor rotation should be correct. If, for any reason, the motor rotates in the wrong direction (the aircraft moves backwards), simply reverse two of the three motor wires to change the direction of rotation.
3. The motor has an optional brake. The controller is supplied with the brake deactivated and we recommend flying the model with the brake deactivated. However, the brake may be accidentally activated if the motor battery is connected to the controller while the throttle is at full throttle. To deactivate the brake, move the throttle stick to the full throttle position and connect the engine battery. The engine will beep. Move the throttle lever to the low speed or stop position. The engine is ready to run and the brake is deactivated.
4. Battery Selection and Installation. We recommend at least a 11.1V 1300mAh 25C Li-Po battery.
   If you will use another battery, it should be approximately the same capacity, dimension and weight as the 11.1V 1300mAh 25C Li-Po battery to fit the fuselage without changing the centre of gravity significantly.

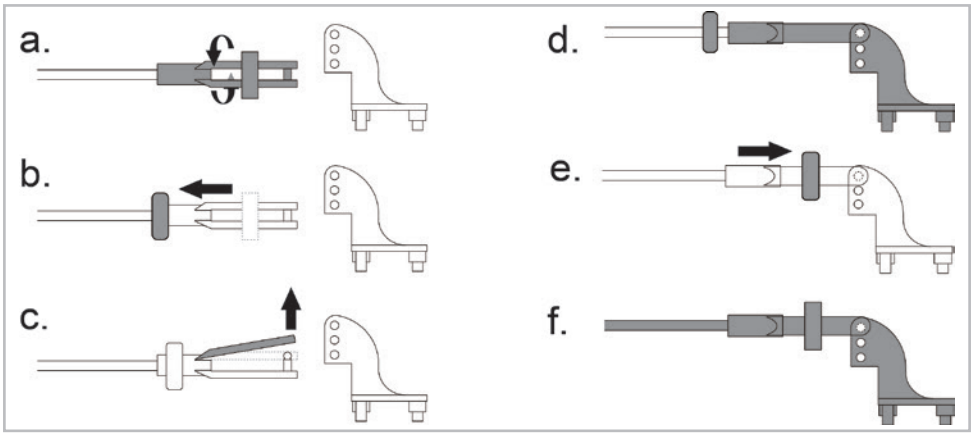
Control setup

The suggested control travel settings (elevator, rudder, ailerons) for the aircraft are as follows (dual rate setting):

Tip: The first flight should always be made at low speed. Fly your aircraft until you are familiar with its characteristics before trying high speeds. Make sure the aircraft is flying at the correct altitude and speed before changing the Dual Rate to high rates, as the aircraft will be sensitive to the controls when the control surface movements are greater.

	High rate	Low Rate
Elevetor	16mm Up/Down	10mm Up/Down
Aileron	12mm Up/Down	8mm Up/Down
Rudder	27mm Left/Right	20mm Left/Right

Clevis installation



a. Screw the clevis onto the threaded rod (if not already done at the factory)

b. Pull the silicon ring from the clevis to the linkage.

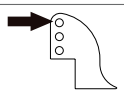
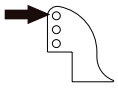
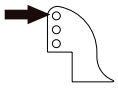
c. Carefully spread the clevis

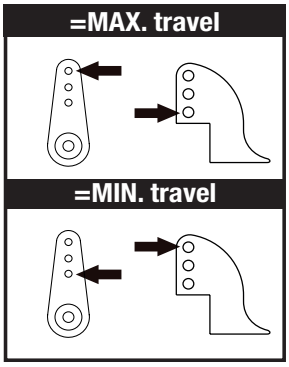
d. Insert the clevis pin into the desired hole in the control horn (first hole recommended to begin).

e. Move the silicone ring to secure the clevis on the control horn..

CONTROL HORN AND SERVO ARM SETTINGS

1. The table shows the factory settings for the control horns and servo arms. Fly the aircraft with the factory settings before making any changes.
2. After a few flights, you will be able to adjust the positions of the control rods to obtain the desired control response.

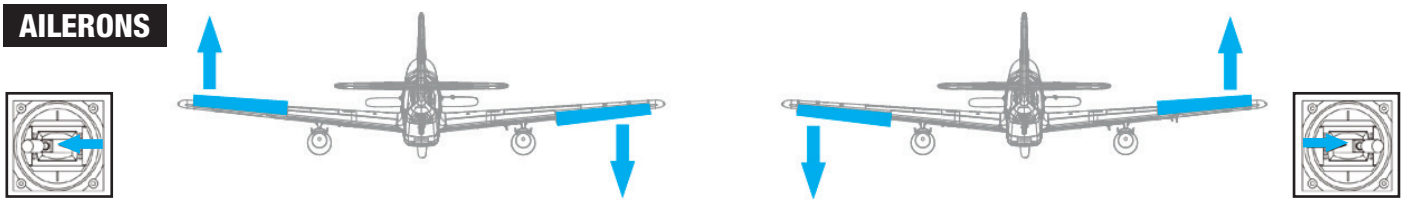
FIRST FLIGHTS SETTINGS	Control Horn	Servo Arm
Elevator		
Rudder		
Ailerons		



TRANSMITTER AND MODEL SETUP

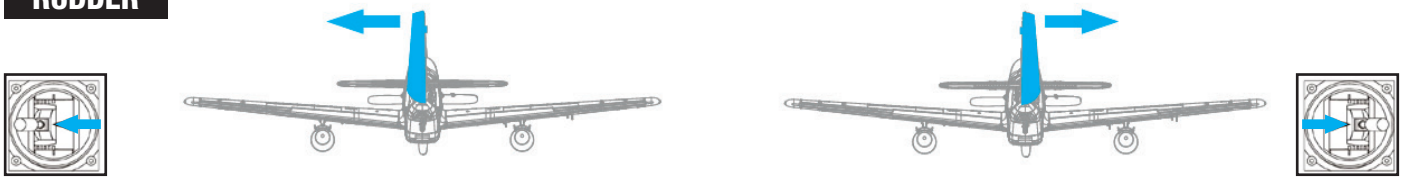
After assembly and prior to your first flight, make sure all control surfaces respond correctly to your transmitter by referring to the diagram below.

AILERONS



ELEVATOR

RUDDER



BEFORE FLYING THE MODEL

Find a suitable flying site

Find a flying site free of buildings, trees, power lines and other obstacles. Until you know how much surface area you'll need and you've mastered flying your plane in confined spaces, choose a site the size of two or three football pitches - the best being a flying site specially designed for radio-controlled planes. Never fly near people, animals or vehicles...

Performing a range check

A radio range check should be carried out before the first flight of the day. This test can help you detect electronic problems that could lead to loss of control - problems such as low transmitter batteries, faulty or damaged radio components or radio interference. This test generally requires the intervention of an assistant and should be carried out at the flight site. To do this, move the aircraft away from 300M and operate the transmitter controls and check that the aircraft responds correctly.

BEFORE FLYING THE MODEL

Always power up your transmitter first. Make sure that the throttle stick is in the down position (otherwise the engine will start immediately which may cause injury and damage). Install a fully charged battery in the aircraft, then connect it to the controller.

Note: Please refer to the transmitter manual supplied with your radio control system for a ground range check. If the controls are not working properly or if anything seems amiss, do not fly the model until the problem has been rectified. Make sure that all the servo wires are properly connected to the receiver and that the transmitter batteries are correct.

Monitor your flight time

Monitor and limit your flight time using a timer (such as a stopwatch or on the transmitter, if available). Modern lithium polymer batteries are not designed to be completely discharged, so when the battery is low, the ESC reduces and then completely cuts power to the motors to protect the battery. Often (but not always), power can be briefly restored after motor cut-off by holding the throttle stick fully down for a few seconds. To avoid an emergency landing on your first flight, set your timer for a conservative 4 minutes. When the alarm sounds, you must land immediately.

FLIGHT TIPS

TAKE OFF

Point the aircraft into the wind, roll the aircraft while gradually increasing power until the aircraft starts to climb (use the rudder if necessary to correct the trajectory). When the aircraft reaches take-off speed, gradually pull back on the elevator stick until the aircraft climbs at a constant rate without decelerating. Climbing too steeply at too low a speed will result in an aerodynamic stall and an abrupt return to the ground!

FLYING

Always choose an open area to fly your aircraft. Ideally, you should fly at an approved airfield. If you are not flying at an approved site, always avoid flying near houses, trees, power lines and buildings. You should also take care not to fly in busy areas, such as parks and sports grounds. Check the laws and ordinances before choosing the place where you want to fly your aircraft. After take-off, increase your altitude. Climb to a safe height before attempting 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

Foam repairs must be carried out using foam adhesive, such as hot-melt adhesive, cyano foam adhesive and 5-minute epoxy adhesive. When parts are not repairable, consult the spare parts list to order them. Always check that all the screws on the aircraft are tight.

Before each flight, take particular care to ensure that the propeller is securely in place.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Aircraft will not respond to the throttle but responds to other controls.	• ESC is not armed. • Throttle channel is reversed.	• Lower throttle stick and throttle trim to lowest settings. • Reverse throttle channel on transmitter.
Excessive vibration or propeller noise.	• Damaged spinner, propeller, motor or motor mount. • Loose propeller and spinner parts. Propellor installed backwards.	• Replace damaged parts. • Tighten parts for propeller adapter, propeller and spinner. • Remove and install propeller correctly.
Reduced flight time or aircraft underpowered.	• Flight battery charge is low. Propeller installed backward. Flight battery damaged.	• Completely recharge flight battery. • Replace flight battery and follow flight battery instructions.
Control surfaces unresponsive or sluggish.	• Control surface, control horn, linkage or servo damage. • Wire damaged or connections loose.	• Replace or repair damaged parts and adjust controls. • Do a check of connections for loose wiring.
Controls reversed.	• Channels are reversed in the transmitter.	• Do the control direction test and adjust controls for aircraft and transmitter.
Motor loses power Motor power pulses then motor loses power.	• Damage to motor, or battery. • Loss of power to aircraft. • ESC uses default soft Low Voltage Cutoff(LVC).	• Do a check of batteries, transmitter, receiver, ESC, motor and wiring for damage(replace as needed). • Land aircraft immediately and recharge flight battery.
LED on receiver flashes slowly.	• Power loss to receiver.	• Check connection from ESC to receiver. • Check servos for damage. • Check linkages for binding.

SPARE PARTS LIST

AHAB101	Fuselage	AHShaft001	Motor shaft
AHAB102	Main wing set	AHBoard002	Motor board
AHAB103	Horizontal stabilizer	AHKV850	Brushless motor 3536-KV850
AHAB104	Cockpit	AHESC40A	40A ESC
AHAB105	Auxiliary fuel tank	AHSER9GP	9g gear servo positive
AHAB106	Spinner		
AHAB107	Main landing gear set		
AHAB108	Main landing gear system		
AHAB109	Rear landing gear set		
AHAB110	Linkage rod		
AHAB111	Horizontal stabilizer spar		
AHAB112	Screw set		
AHAB113	Decal sheet		
AHRE002	E-retract		
AHPROP002	Propeller		
AHMount001	Motor mount		

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DECLARATION OF CONFORMITY

1. Manufacturer Information

- Manufacturer Name : DongGuan Arrows RC Technology Co., Ltd

- Manufacturer Address : Unit 1, Building. 1,No. 4 Huiyuan Road, Wangniudun town, Dongguan

- Authorized Representative Name (if applicable) : Issac Le

2. Product Information

- Product Name : AH029 - P-51 MUSTANG

- Product Model/Type Identification : Refer to the attached product information sheet.

3. Declaration

We, the undersigned, hereby declare under our sole responsibility that the product complies with the essential requirements of the following EU regulations.

4. Applicable Regulations and Standards

- EU Regulation Number and Title :

Radio Equipment Directive: 2014 / 53 / EU

EMC Directive: 2014 / 30 / EU

Toy Safety Directive, 2009/48/EC

- Harmonized Standards and Other Means of Compliance :

EN 301 489-1 V2.2.3

EN 301 489-17 V3.2.4

EN 300 328 V2.2.2

EN 62479:2010

EN 62368-I:2014+AII:2017

EN IEC 61000-6-3: 2021 EN IEC 61000-6-1: 2019

IEC 62133:2012

Name and Position of the Signatory : Issac Lee. Sales Re

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