

OMPHOBBY®

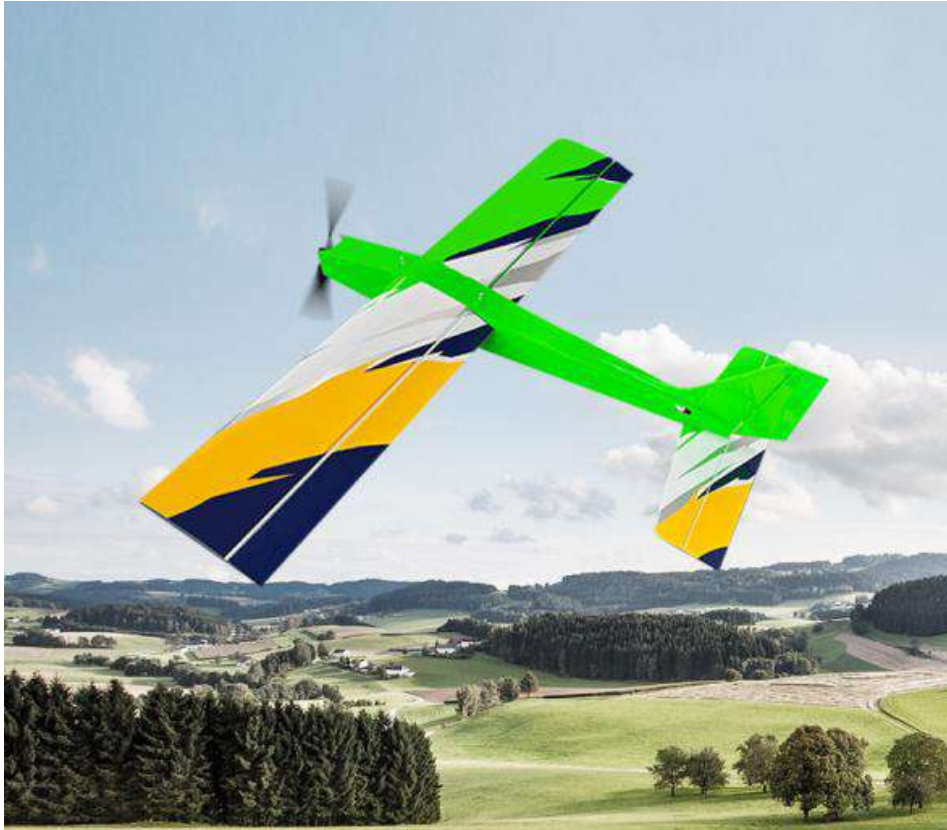
Global Professional RC Model Brand



Instruction Manual

**49" Challenger
ARF Version**

OMPHobby 49" Challenger Balsa wood Airplane



OMPHobby Challenger 49" is a sport RC model airplane built in the traditional way: balsa and film cover.

The air fighter has a slender and smooth fuselage with good route capability. At the same time, a larger control surface with strong power can easily complete P3A actions and some 3D actions.

The overall design is light and the wing load is extremely low. It is designed and positioned as an easy to use balsa airplane. In addition to high-speed precision and violence, it also has the elegance of low speed.

Novices can grow faster with this aircraft, and senior model friends can feel the precise and neat high-speed route action when flying, and also the smooth rolling axis. Everyone can find their own flying style on this plane.

The plane can use the most common 3s 2200 battery to fly and the use cost is low.

www.omphobby.com

www.ohiomodelproducts.com

OMPHobby 49" Challenger

Balsa wood Airplane



Parameter Specification

Item:	49" Challenger	Color:	Green <input type="checkbox"/> Red <input type="checkbox"/>
WingSpan:	1250mm(49in)	Full Length:	1006mm(39.6in)
Flight Weight:	1170g	The Center of Gravity (CG):	Approx.62mm
Wing Area:	27.37dm²	Wing Load:	41.8~55.7g/dm²
Wing Angle of Incidence:	2°	Motor Thrust Angles:	Down 2° & Right 4°
Pack Dimension	104*30*16 (L*H*W)cm	Gross Weight:	5.3KG
Servo: OMPHOBBY SG5 17g *4 : (Aileron*2,Elevator*1, Rudder*1) Cord/lead: 300mm*2,600mm*4 Servo Arm: 17g, 0.9"plastic servo arm			
Electric Power (Recommended): Motor: Sunnysky 2820, ESC: 40A, Propeller: Eolo 13x7E/12x6.5E, Lipo battery:3S/4S 2200-2600mah			

Recommended Settings of Dual Rates and Exponentials of Control Surfaces

	Low rate	Low rate exp	High rate	High rate exp
Aileron	60	40%	100	40%
Elevator	50	30%	100	30%
Rudder	60	30%	100	30%

OMPHobby 49" Challenger Balsa wood Airplane

➤ Package contents (ARF version)



➤ Power System (Recommended)

Motor: Sunnysky 2820, ESC: 40A, Servo: OMPHobby SG5

Propeller: Eolo 13x7E/12x6.5E,

Lipo battery: 3S/4S 2200-2600mah



Landing gear Assembly

➤ Landing Gear Installation

1. Attach the axles first with the two belts, then slot the wheels on and use the cap and the bolt on that end.



2. Underneath the fuselage, undo three bolts, then attach the landing gear



Horizontal stabilizer Assembly

1. Use a art knife cut open the hole which threading the tail wheel wire and located on horizontal stabilizer. Align the horizontal stabilizer slot with the fuselage slot and clip it into the fuselage.

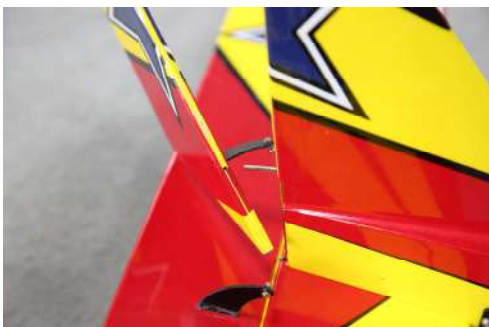
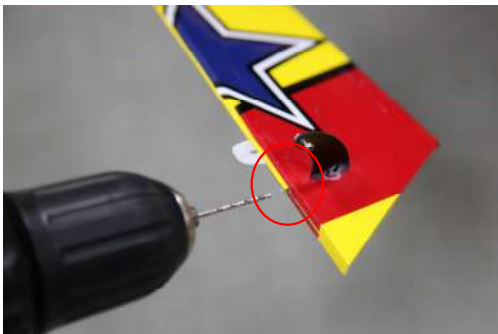


Horizontal stabilizer Assembly

2. Stick the carbon plate to the horizontal stabilizer and screw on three cross-screws.



3. Punching the hole which threading the tail wheel wire to plug in rudder; Threading the tail wheel wire from the bottom to the top; Stick the rudder into the tail wheel wire, and insert the rudder hinge into fuselage hinge slot; Use 502 gluing and fixing it.

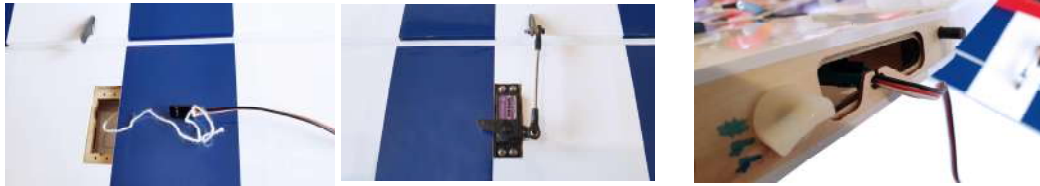


Wings, Elevator and Rudder servos Assembly

1. Gluing the control horns into the control surfaces;



2. After the control horns are fixed, install the servos;

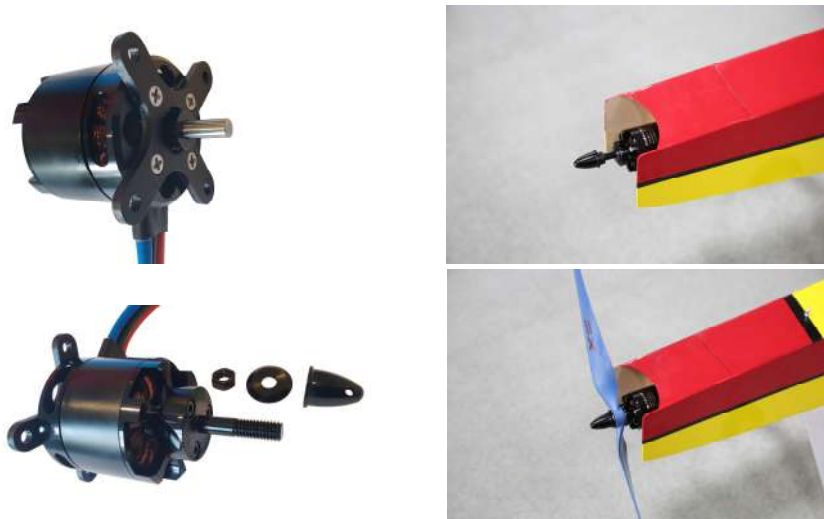


3. Install the elevator servo, rudder servo, wings servo, the rudder servo connected up with the provided push rods and ball links.



Power Systems Assembly

Taking the motor and attaching the back plate with the four screws. Take off the four bolts from the front of the fuselage and attach the motor with the three phase wires going downwards. Then install the aluminum alloy base → propeller → gasket → nut → fairing → two cross screws.



OMPHobby 49" Challenger



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For customer support outside of the USA, please contact OMPHobby in China.
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Website: www.OMPHOBBY.com

Disclaimer and Safety

- This product is not a toy. It is not recommended for children under age 14.
- Fly the airplane by abiding by local laws and rules.
- Fly the airplane in a designated location, and always maintain visual contact of the aircraft.
- Avoid flying directly over unprotected people, moving vehicles, and occupied structures.
- Read the safe code of AMA before flight. The guideline can be downloaded from the following link: www.modelaircraft.org/files/100.pdf