

OMPHOBBY®

Global Professional RC Model Brand



Installation Manual

**OMPHOBBY 106" Edge 540 Kevlar Reinforced
Balsa Airplane**

OMPHobby 106" Balsa Airplane

Parameter Specification



Item:
OMPHOBBY 106"EDGE 540

Color Option:
Green-Black/Orange/Red

WingSpan:
2690mm(108in)

Full Length:
2630mm(105in)

The Center of Gravity (CG):
Approx.170-180mm

Flight Weight:
12.5 KG

Wing Area:
127.42 m²

Wing Load:
98.1g/d m²

Wing Angle of Incidence:
0°

Motor Thrust Angles:
Down 0° & Right 3°

Gross Weight:
106" Body: 32kg
106" Wings: 11kg

Pack Dimension

106" Body: 237*49*55 cm (L*H*W)
106" Wings: 77*21*21cm(L*H*W)

Gas Power (Recommended):

120-130CC, Propeller: 28x10/28x11

Servo:

40-55Kg.cm*9 (Aileron*4, Elevato*2, Rudder*2, Throttle*1)



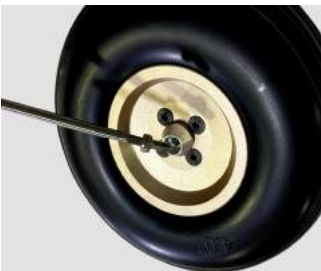
Landing gear Assembly

□ Landing Gear Installation

1. Landing gear parts



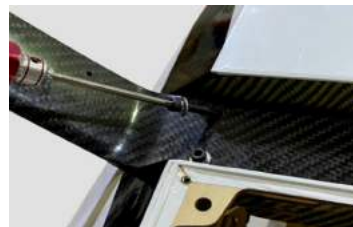
2. Install wheels, secure wheels with gasket and screw. (Apply threadlocker to screws)



3. Put the cuff through the land gear before install the wheel



4. Unscrew hexagon screws on the landing gear plate, apply threadlocker to hexagon screws, use it to secure the carbon fiber landing gear to landing gear plate.



5. Put landing gear cover plate into a slot and stick it with transparent tape.



Landing gear Assembly

- Secure the cuffs with screws. Be careful to not break the screws. If the screw seems to be difficult to insert use a drill to open up the hole. (Some people have found they prefer a dab of silicone inside the cuff hold them secure.)



Tail wheel Assembly

□ Tail Wheel Installation

Install the tail wheel assembly using washers and socket head screws. Please apply anaerobic adhesive and lock three M3 fixing screws before installation.

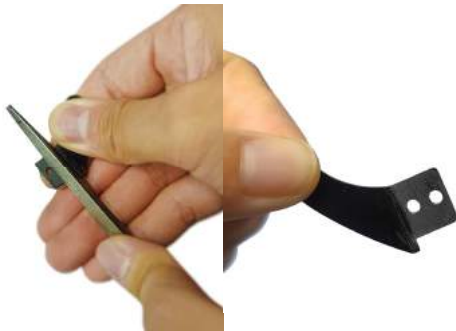


Control Horns Assembly

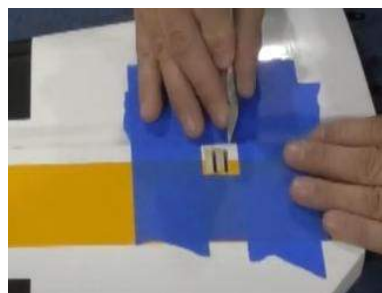
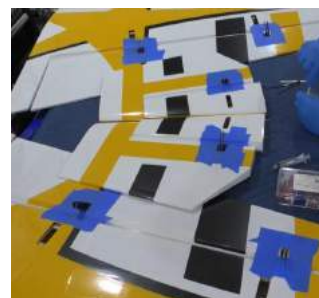
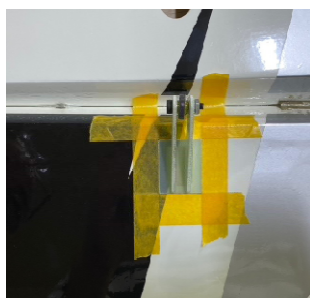
1. Carefully locate the slots which have been made on elevators, ailerons, rudder, lightly cut through the covering but not into the balsa sheeting



2. Use sand paper to scuff the root of control horns for a good glue bond. Try to insert it into the mounting slots to adjust the position first.

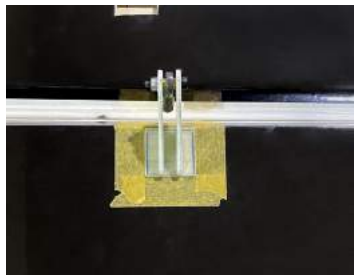


3. Put the control horns reinforcing piece, drop the horns in the holes, positioned correctly when the horns are directly above the hinge line, then stick masking tape around the reinforcing piece as shown in the picture, cut about 1mm inside with a knife and remove the covering, below to expose the pre-cut slots.



Control Horns Assembly

4. Apply epoxy inside the pre-cut slots, and coat the horns with epoxy as shown.
5. Fit the horns into the locking plate and then insert them into the pre-cut slots. Align the right and left sides before the epoxy cures. Wipe away excess epoxy with rubbing alcohol.

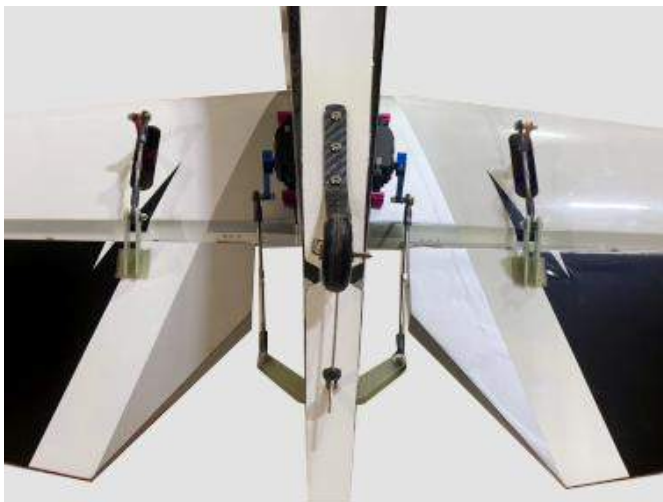
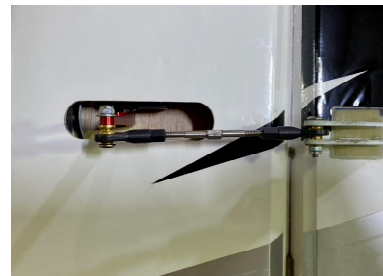


Servo Assembly

□ Elevator Servo Assembly

Install servos as shown with the servo label facing toward the rear of the fuselage.

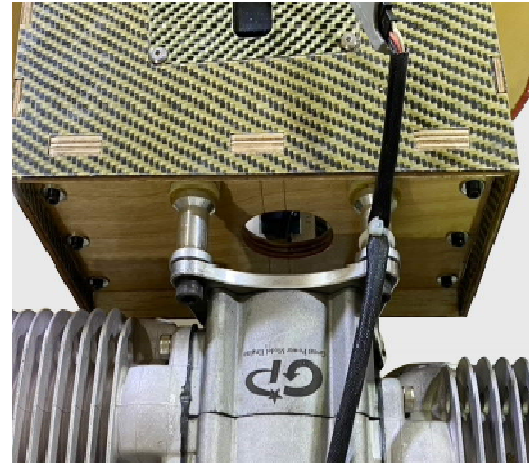
Install the servo arm in the vertical position. Adjust the pushrod length so that the servo and elevator are both in the neutral position.



Engine and the throttle servo installation

Measure the length of the engine from the firewall to the prop thrust washer. Measure the distance required for the prop thrust washer to clear the front of the cowl by $\frac{1}{4}$ " to $\frac{1}{2}$ " then mark the firewall position on the engine mount.

Or use the engine mounting hole board from spare parts bag to mark and drill the holes.

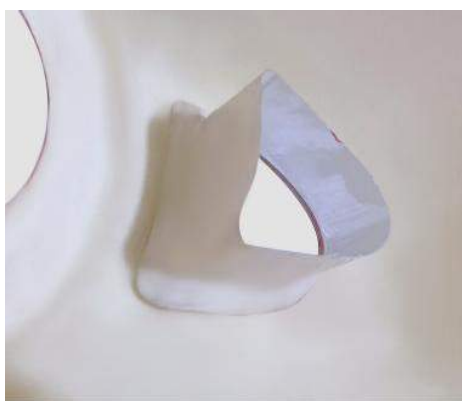
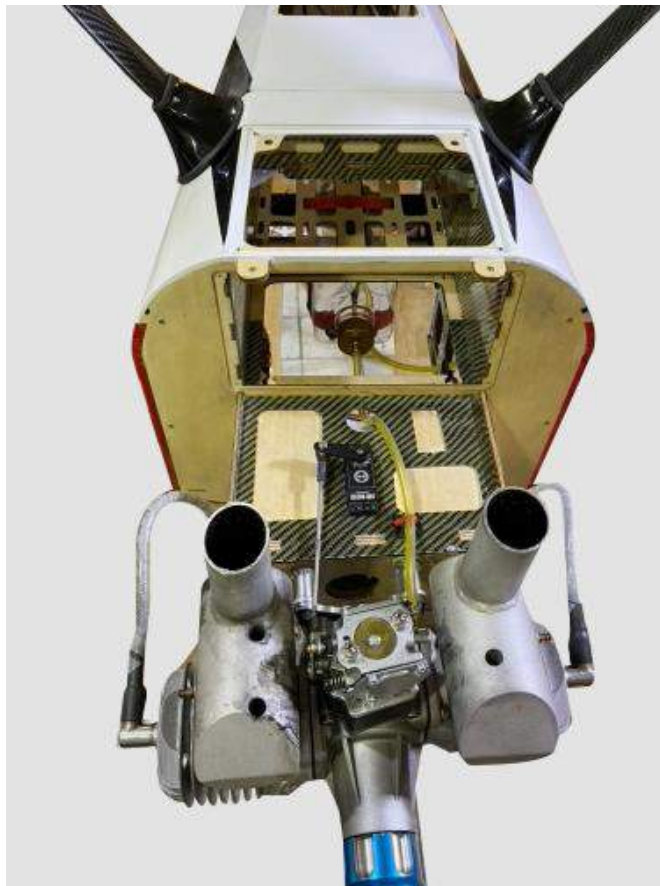


Cut out from paperboard or cardboard as a template for vent hole



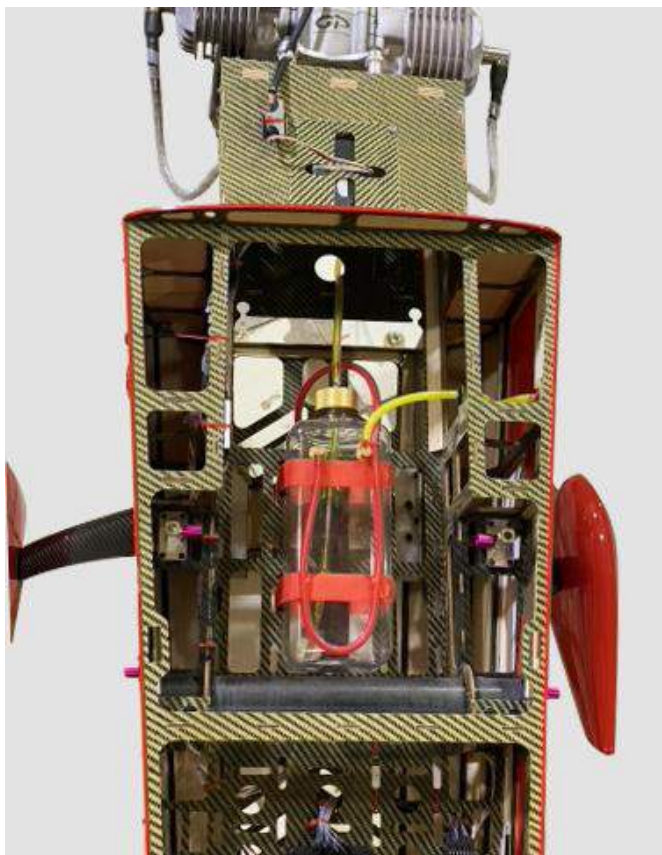
Engine and the throttle servo installation

Before installing the air deflector, please clamp the cowl to determine the gap with the cylinder and trim it, then use epoxy glue to fix



Engine and the throttle servo installation

Oil circuit installation diagram



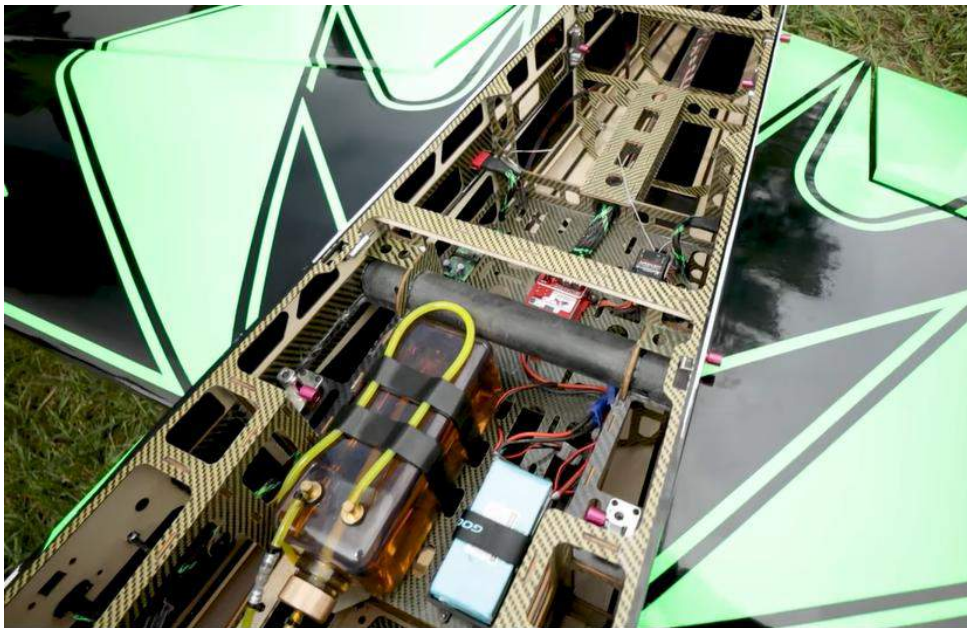
Use an electric soldering iron to open the covering over the vent holes



Recommended Settings of Dual Rates and Exponentials of Control Surfaces

	Low rate	Low rate exp	High rate	High rate exp
Aileron servo	10-20°	30-50%	35-40°	60-70%
Elevator	15-25°	30-50%	45-55°	60-70%
Rudder	30-40°	35-55%	40-55°	65-75%

The preferred CG for this plane is at 170mm back from the leading measured at the wingtip



OMPHobby 106" Balsa Airplane



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For customer support outside of the US
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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