OMPHOBBY®

Global Professional RC Model Brand



Installation Manual

OMPHOBBY 74” Edge 540 Kevlar Reinforced
Balsa Airplane

Zhuhai Edge Smart Drive Technology Co., Ltd.
www.omphobby.com

www.modellmarkt24.ch

OMPHobby 74” Balsa Airplane



OMPHobby 74” EDGE 540, not only has the low speed stability, low stall point, excellent 3D performance, but also very fast roll rate of traditional EDGE, and precise navigation control. The traditional securing method of the motor base and the landing skid base have been changed, preventing the loosening of the anti-grasping nut. Wing, wing fence, new quick disassembly design, significantly reduced the installation time. The horizontal tail and the fuselage are connected by a slot Securing design, which increases the strength of the horizontal tail and makes the installation more accurate and convenient. Each aircraft has a metal nameplate with a unique serial number.

www.modellmarkt24.ch

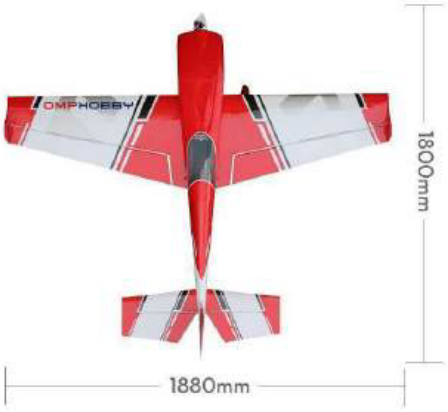
OMPHobby 74” Balsa Airplane

Parameter Specification

Item: OMPHOBBY 74" EDGE 540	Color Option: Green-Black/Red-White/ Yellow-White/Orange-White	WingSpan: 1880mm(75in)
Full Length: 1800mm(72in)	The Center of Gravity (CG): Approx.120-135mm	Flight Weight: 4.8~5.3KG
Wing Area: 70.51g/d㎡	Package Dimension: 144*56*30(L*H*W)cm	Wing Load: 68~75.1g/d㎡
Motor Thrust Angles: Down 0° & Right 2°	Wing Angle of Incidence: 0°	Gross Weight: 15.3kg

Servo:

20~35 Kg*5 (Aileron *2, Elevator*1 Rudder*1 Throttle*1)



Gas Power (Recommended):

30-35CC, Propeller: 19x8/19x9/19x10/20x8/20x9

Electric Power (Recommended):

Option 1: Motor: Sunnysky 7015, ESC: X120A,
Propeller:20x8/20x9, Lipo 8s 4000mah/12s 3300mah 3700mah 4000mah

Option 2: Motor: Sunnysky 6220, ESC: X120A,
Propeller:20x8/20x9 ; Lipo 6S 5000mah /8s 3300mah 3700mah 4000mah



www.modellmarkt24.ch

OMPHobby 74” Balsa Airplane

- **Options: Four colors for choosing:**
  Orange-White, Green-Black, Red-White,Yello-White



- **Unboxing-What’s in the Box?**





www.modellmarkt24.ch

Landing gear Assembly

➢ Landing Gear Installation

1. Landing gear parts contents are shown below.





2. Unscrew hexagon screws on the landing gear plate.
3. Apply glue to hexagon screws, use it to secure the carbon fiber landing gear to landing gear plate.
4. Put landing gear cover plate into a slot and stick it with transparent tape.





















5. Slide the cuffs over the landing gear and secure 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 dob of silicone inside the cuff hold them secure.)







www.modellmarkt24.ch

6. Install wheels, secure wheels with gasket and screw. (Apply glue to screws)









7. Install wheel cowls, tighten screws.





Tail wheel Assembly

➢ Tail Wheel Installation

1. Unscrew the screws on the fuselage
2. Install the tail wheel assembly on the fuselage using washers and socket head screws. We recommend using a thread locker on these screws.









www.modellmarkt24.ch

Wings Assembly

➢ Aileron Servo Installation

1. Carefully locate the slot which has been made on the wing tail, lightly cut through the covering but not into the balsa sheeting.
2. Use sand paper to roughen the root of control arm. Try to insert it into the mounting slot to adjust the position at first, then take it out, apply glue to the slot and the root of the control arm, insert it to the slot to secure it.

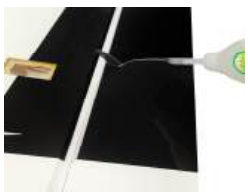




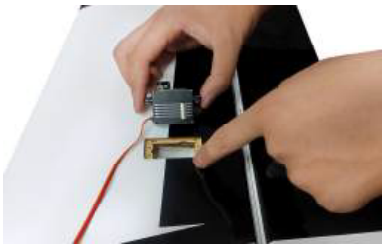
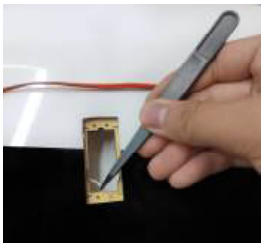
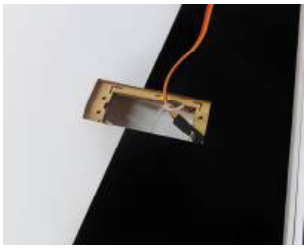






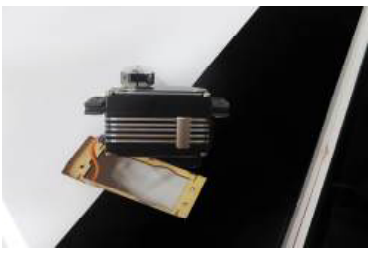



3. Pull out the white polyester thread from the servo hole with tweezers, tie up with aileron servo connector.

4. Find the other head of white polyester thread from wing side, pull it until aileron servo is placed in servo hole.





www.modellmarkt24.ch

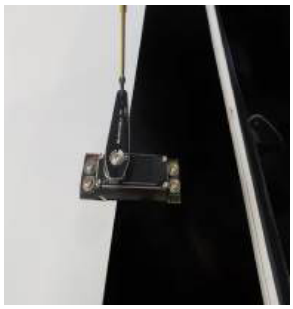
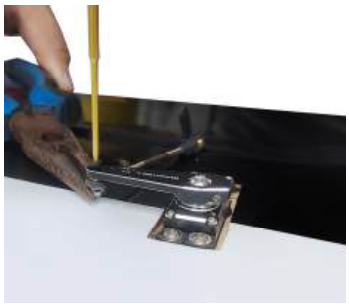
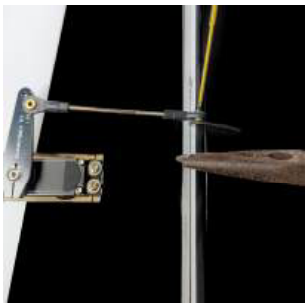
Wings Assembly

5. Remove black rubber ring from the wing side,pass aileron servo wire into the black rubber ring and secure it to the original position.





6. Secure aileron servo arm and control arms with ball head pull rod, put the cup head hexagonal screw, gasket, ball head on servo arm, secure it with iron pliers, adjust the ball head pull rods to proper length.
7. Secure screw, washer, ball head to control arm, control arm is at 90 degrees against servo.
8. Check the degrees between servo arm and control arms.



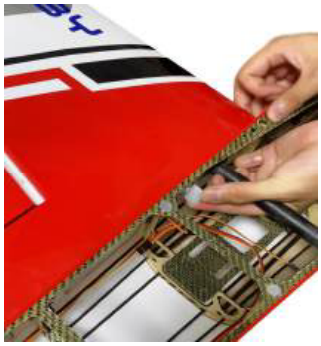

Remark: There are two ways to install the rudder servo, one is to install it inside the fuselage, the other is to install it at the tail of the fuselage. It is optional.
Install the rudder servo inside the fuselage below the canopy, double pull with steel wire and use V-shaped servo horn. It is better to use 2.5" double servo arm.

www.modellmarkt24.ch

Wings Assembly

9. Assemble the wing tube into the fuselage then install wings, turn white screws to secure the wings.





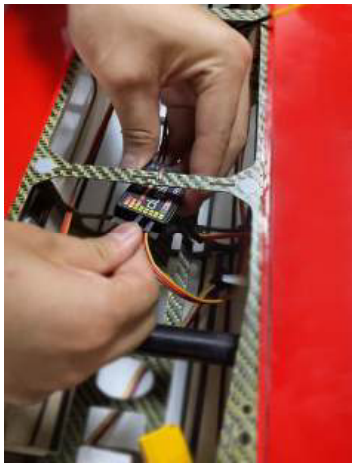
10. Unscrew the retaining screws on the wing, install wingtip.

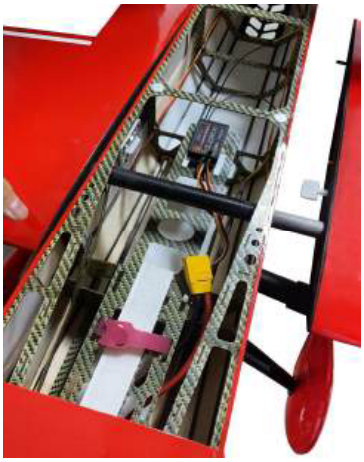






Connect Receiver and Battery





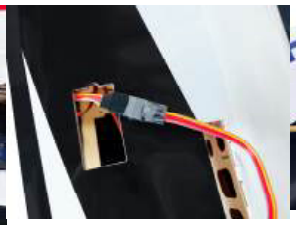
www.modellmarkt24.ch

Elevator Assembly

➢ Elevator Servo Installation

1. Find a 60-core extension cable on the fuselage, tear off the sticker, then connect it with elevator servo.
2. Find the white polyester thread in the fuselage frame, gently pull it until the servo is placed into the opened servo hole.
3. Run the elevator servo extension wires through the conduit located inside the fuselage and then place the extension wires into frame holes.
4. Secure the servo using the screws.










➢ Horizontal Tail Installation

1. Carefully locate the slot which has been made on horizontal tail, lightly cut through the covering but not into the balsa sheeting.






www.modellmarkt24.ch

Elevator Assembly

➢ Horizontal Tail Installation

2. Use sand paper to roughen the root of control arm. Try to insert it into the mounting slot to adjust the position at first, then take it out, apply glue to the slot and the root of the control arm, insert it to the slot to secure it.



3. Remove the secured plate used for filling the horizontal tail slot, insert the horizontal tail into fuselage, please take note that it must be fully inserted into the fuselage.



4. Insert secured plate to fill the horizontal tail slot, use 502 gluing the gap all around the horizontal tail.



www.modellmarkt24.ch

Elevator Assembly

➢ Horizontal Tail Installation

5. After the glue is dried, assemble the servo arm and control horn with ball head pull rod, secure the cup head hexagonal screw, gasket, ball head to the servo arm, secure it with iron pliers, adjust the ball head pull rods to proper length.
6. Secure screw, washer, ball head to control horn.
7. Check the angle between the servo arm and control arm. (Make sure the control horn is at 90 degrees against servo.)



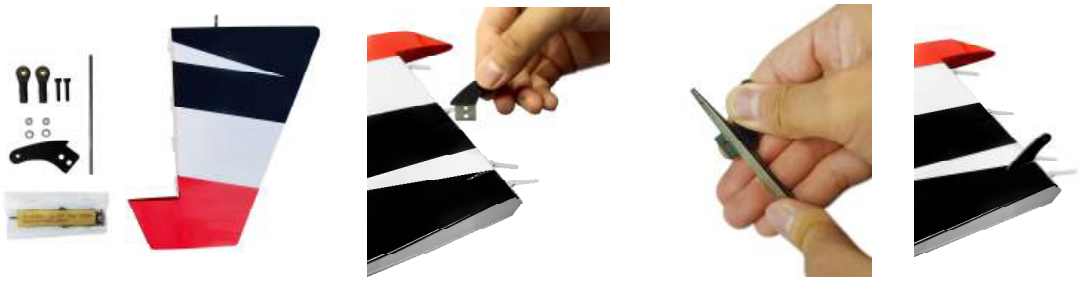


www.modellmarkt24.ch

Rudder Assembly

➢ Rudder Installation

1. Carefully locate the slot which has been made on the vertical tail, lightly cut through the covering but not into the balsa sheeting.
2. Grind the root of control arms, try it first to insert it into the slot to adjust the position, then take it out, apply glue to the slot and the root of the control horn, insert it to the slot to secure it .



3. Remove 4 hinges which are inserted in the rudder. Inject AB glue into the holes, apply glue to 4 hinges with appropriate length from its bottom,then insert 4 hinges into the rudder.
4. Inject AB glue into the holes in fuselage, apply glue to the other end of hinges with appropriate length, then insert it into fuselage.



www.modellmarkt24.ch

Rudder Assembly

6. Apply grease or engine oil on all joints between rudder and fuselage, and around the hinges, to avoid affecting the sensitivity of rudder after glue dried.
7. Tie rudder with masking tape while glue is still wet to prevent loosening.
8. Make sure the shaft is in the middle position, and keep the gap between rudder and fuselage within 1mm.





9. Find the center position to secure the tail wheel bracket to rudder, drill a hole, secure the tail wheel bracket with screws. (No need to fully screwed in)
10. After the glue is dried, secure the servo arm and control arms with a ball head pull rod.
11. Make sure the angle of servo and control horns is 90° and 180°oblique, ensure rudder is symmetrical to the 2 sides of fuselage.

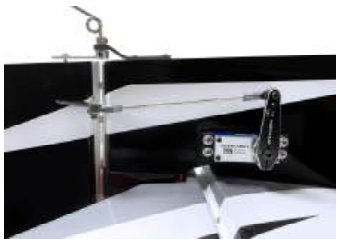










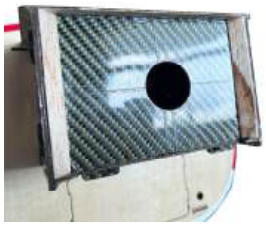


www.modellmarkt24.ch

Gas Engine Assembly

➢ Gas Engine Installation

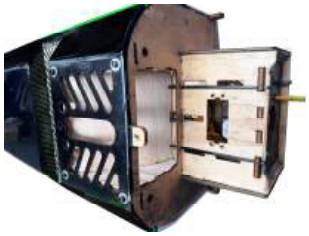
1. Paste double-sided tape on the back of the engine perforated plate
2. The four lines of the mounting plate are aligned with the tension lines on the firewall
3. Drill holes with a 5mm drill bit (the specific size of the drill bit depends on the size of the screw hole of the engine or motor mounting post used)






4. Lightly tap with a screwdriver to remove the throttle servo mounting position and the fuselage air outlet wooden board.
5. Use a utility knife to open the air outlet.
6. Use a utility knife to open the outlet of the exhaust plate.
7. After the guide plate is installed in place, install the exhaust plate with screws, as shown in the figure



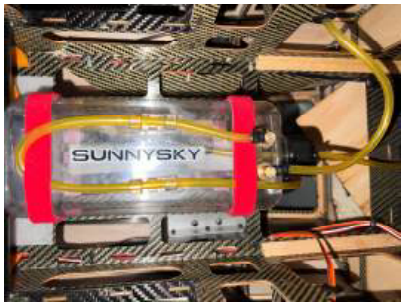



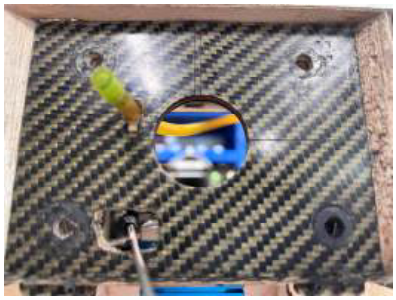
www.modellmarkt24.ch

Gas Engine Assembly

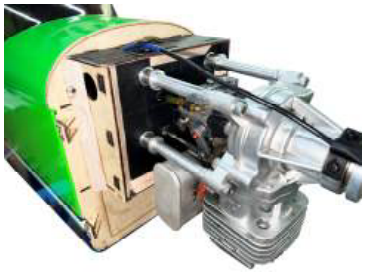
➢ Gas Engine Installation

8. The fuel tank first fixes the bottom with velcro, then use the magic cable tie to tie it according to the direction in the picture.
9. The installation direction and height of the throttle servo depend on different engines, the figure uses DLE35RA.
10. According to the carburetor tie rod and carburetor oil inlet, open the oil pipe hole and the tie rod hole.

11. The oil pipe hole should be enlarged, and a circle of electrical tape is wrapped around the outside to protect the oil pipe.
12. Snap the cowl up to open the heat dissipation vent and the exhaust pipe exhaust port




www.modellmarkt24.ch

Gas Engine Assembly

13. CDI can be installed inside the top plate of the firewall, apply low-strength screw glue to the screws.





14. Stick the masking tape on the fuselage, and use a marker pen to mark the position of the fixing screw of the cowl, the cowl must be snapped into place, otherwise it may cause inaccurate installation





15. Fix the cowl firmly with masking tape, drill screw holes with a hole saw, tighten the screws to complete the cowl installation

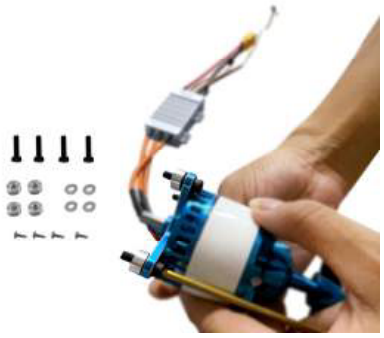




www.modellmarkt24.ch

Electric Power Assembly

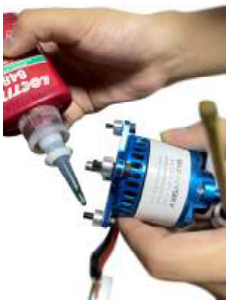


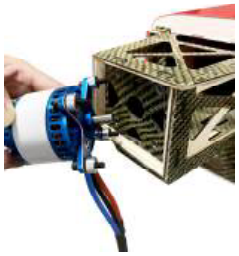


➢ Motor Installation

1. Unscrew socket head screws from the head plate of fuselage.
2. Put the screws into motor mount and put aluminum columns to the other side of screws.
3. Apply glue to the screws and install motor to motor holder.









➢ ESC Installation

1. Attach the connected ESC to ESC holder with double-sided tape and Secure with cable ties.
2. Tie the wires of ESC and motor with fastening strap.











www.modellmarkt24.ch

Cowl Part Assembly

- **Cowl , Propeller, Spinner Installation**

1. Install cowl to fuselage (please take note that motor must be in center position)
2. Remove the propeller spinner adapter and screw gasket, install the aluminum spinner back-plate, propeller, propeller spinner adapter and screw gasket in succession.



3. Secure the spinner with screws, please pay attention that spinner must be located in the centre position of the cowl, and spinner edge is parallel to the cowl, gap is about 1.5mm.
4. Secure the cowl with screws, two screws for each of two sides.secure



www.modellmarkt24.ch

OMPHOBBY®



Parameter Specification

Item:	74” EDGE 540	Color:	Green☐ Red☐ Yellow☐ Orange☐
WingSpan:	1880mm(75in)	Full Length:	1800mm(72in)
Flight Weight:	4.8~5.3KG	The Center of Gravity (CG):	Approx.120-135mm
Wing Area:	70.51g/dm²	Wing Load:	68~75.1g/dm²
Wing Angle of Incidence:	0°	Motor Thrust Angles:	Down 0° & Right 2°
Package Dimension	144*56*30(L*H*W)cm	Gross Weight:	15.3kg
Servo: 20~35 Kg*5 (Aileron *2, Elevator*1 Rudder*1 Throttle*1)			
Gas Power (Recommended): 30-35CC, Propeller: 19x8/19x9/19x10/20x8/20x9			
Electric Power (Recommended): Option 1: Motor: Sunnysky 7015, ESC: X120A, Propeller:20x8/20x9, Lipo 8s 4000mah/12s 3300mah 3700mah 4000mah Option 2: Motor: Sunnysky 6220, ESC: X120A, Propeller:20x8/20x9 ; Lipo 6S 5000mah /8s 3300mah 3700mah 4000mah			

Recommended Settings of Dual Rates and Exponentials of Control Surfaces

	Rate	EXP	Direction	Throw
Aileron	High	35~40%	Up	36~39°
	Low	40~45%	Down	20~26°
Elevator	High	38~45%	Up	45~53°
	Low	45~55%	Down	30~35°
Rudder	High	38~45%	Up	42~50°
	Low	45~55%	Down	28~32°

www.modellmarkt24.ch

OMPHobby 74” Balsa Airplane



For customer support in the USA, please contact Ohio Model Products in Ohio.
Tel: +1-614-733-9488 (9am -5pm, ET)
Email: support@omphobby.com
Website: www.OhioModelProducts.com

For customer support outside of the USA, please contact OMPHobby in China.
Email: store@omphobby.net
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 aircra ft.
- 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 foll owing link: www.modelaircraft.org/files/100.pdf

www.modellmarkt24.ch