Wing Jet EP

Requires: 3-channel “mixing” radio (elevator & ailerons), 2 micro servos, Ducted Fan Propulsion Unit PL6800010 and Outrunner Motor KM0283110, 30A (burst 35A) brushless ESC, 3 cells 11.1V 15C 2100 mAh Li-Po battery & charger.

Specifications

- Wing Span: 39.5 in / 1000 mm
- Wing Area: 301 sq in / 19.4 sq dm
- Flying Weight: 22 oz / 620 g
- Fuselage Length: 17.5 in / 440 mm

*Specifications are subject to change without notice.*

Warning! This model is not a toy. It is designed for maximum performance. Please seek advice if one is not familiar with this kind of electric powered precision model. Operating this model without prior preparation may cause injuries. Remember, safety is the most important thing. Always keep this instruction manual at hand for quick reference.
Check all parts. If you find any defective or missing parts contact your local dealer. Please DRY FIT and check for defects for all parts that will require CA or Epoxy for final assembly. Any parts you find to be defective after the gluing process may be difficult to remove for warranty replacement. The manufacturer will replace any defective parts, but will not extend to the parts that are good before gluing to defective parts during assembly. Warranty will not cover any parts modified by customer.

Symbols used throughout this instruction manual comprise of the following:-

- **AB**: Apply epoxy glue.
- **CA**: Apply instant glue (C.A.glue, super glue.)
- **N.I.**: Must be purchased separately!
- **L/R**: Assemble left and right sides the same way.
- **Peel off shaded portion covering film.**
- **Drill holes with the specified diameter (here: 3mm).**
- **Pay close attention here!**
- **Warning!** Do not overlook this symbol!
Parts List

1. MAIN WING -- 1 pair
2. SCREW PB2x10mm -- 4 pcs
   SCREW PA1.7x8mm -- 8 pcs
   STRAPER PL4112106 -- 2 pcs
   CLEVIS PL4112105 -- 2 pcs
   FUEL TUBE d2xD4x4mm -- 4 pcs
   HORN PL4113102 -- 2 sets
   PUSHROD Ø1.4x97mm w/ Threads (For Aileron) -- 2 pcs
   MICRO AILERON SERVO MOUNT PL5310020 -- 1 pair
3. WING JOINER Ø5x135mm -- 1 pc.
4. VERTICAL FIN -- 1 set
   SCREW PM2x20mm -- 2 pcs
   WASHER d2xD5mm -- 4 pcs
   M2 NYLON INSERT LOCK NUT -- 2 pcs
5. BATTERY TIE 200mm -- 1 pc.
   SPONGE 10x50x150mm -- 2 pcs
   DOUBLE-SIDED TAPE 30x35mm -- 1 pc.
   CABLE TIE (For Brushless ESC) 1x2.5x200mm -- 1 pc.
6. SCREW PWM3x13mm -- 4 pcs
   M3 NUT -- 4 pcs
7. SCREW PM2.5x20mm -- 2 pcs
   WASHER d2.5xD8mm -- 2 pcs
   DOUBLE-SIDED TAPE 30x35mm -- 1 pc.
   PLYWOOD 2x20x40mm (Wing Protection) -- 1 pc.
8. CANOPY -- 1 pc.
9. FIELD STAND/ LAUNCHING PAD -- 1 set
   DECALS -- 1 set

● COVERING:
   LIGHTEX SGX210000
   LIGHTEX SGX100
1. **Main Wing**

- Apply instant type CA glue to both sides of each hinge.

Aileron Servo Lead

Bottom View

2. **Aileron Servo**

- Ø1mm pilot holes for World Models tri-horn are pre-drilled.
- Please look for pin-hole marks at under side of control surfaces.

PB2x10mm Screw 4
PA1.7x8mm Screw 8

Please choose either 02L & 02R or 03L & 03R or 04L & 04R that suits your servo.
3 Main Wing

- Please apply glue to wing joiner and all surfaces in contact.

4 Vertical Fin

- Install and arrange the equipment as shown in the picture.

5 Battery & ESC

- Install and arrange the equipment as shown in the picture.
6 Ducted Fan Propulsion Unit with 28/31 Motor

- Make sure TWM logo on ducted fan stays on top of fuselage.
- Make sure rotating motor casing is not in contact with wirings or anything.

Optional Parts

- Outrunner Motor 28/31 KM0283110
- Ducted Fan Propulsion Unit PL6800010

1. M3x6mm Socket Head Screw
   - 4
2. PM2x5mm Screw
   - 3
3. PWM3x13mm Screw
   - 4
4. M3 NUT
   - 4

ESC Ducted Fan TWM KP0011310

Completed

Center Line

Up

M3 NUT

Make sure TWM logo on ducted fan stays on top of fuselage.
**7 Receiver**

- PM2.5x20mm Screw: 2
- d2.5xD8mm Washer: 2
- Double-Sided Tape
- N.I. Receiver
- Antenna Lead

**8 Canopy**

Completed
The field stand can be used as a launching-pad if you are flying on paved runways. Place the Wing Jet on the stand, point it into the wind, check your controls and advance the throttle. When the Wing Jet gets enough air speed, pull the elevator gently and the Wing Jet will fly off the field stand and get airborne gracefully.

If you are flying on grass fields and could not use the field stand as a launching pad, you will need to hand launch the Wing Jet.

For the first hand launch flight, we recommend having an assistant to hand launch the Wing Jet for you. Ask your assistant to hold the Wing Jet by the fuselage, pointed into the wind, while you check the correct control surface response. Fully advance the throttle to start the motor and once the ducted fan is at full power, the hand launcher should gently push the plane into the air at a level attitude. Don't use excessive force as it is not necessary, and don't throw the model up the sky as it will cause the model to stall before gaining air speed. Make sure the Wing Jet is being launched into the wind and be alert to make corrections to keep the model flying straight and level into the wind.

When the Wing Jet has gained enough air speed, gently pull the elevator and let the Wing Jet climb to a higher safe altitude. Reduce the throttle to slow the Wing Jet while maintaining altitude. The Wing Jet should fly well about half throttle. You may add power when turning, climbing or doing loops. Learn how the Wing Jet behaves and adjust the trims for level flight.

To avoid overheating of ducted fan motor and battery, we recommend you use full power intermittently. This will also give you longer flying time and extend the battery life.
10 Control Throws

- Adjust the control throws as shown in the diagram. These throws are good for general flying. You can adjust according to your personal preference.

Aileron/ Elevator

- Please note that the mixing function of your radio will add up the control throws of aileron and elevator input. A control throw of 6mm for the aileron or elevator alone will give you up to 12mm throw if you input aileron and elevator throw at the same time.

11 C.G.

The ideal C.G. position is 70mm (2.75in) behind the leading edge measured at where the wing meets the fuselage. In order to obtain the C.G. specified, add weight to the fuselage or move the battery position. Check the C.G. before flying.

Warning!

Important Safety Precautions

# First time flyer should never fly by himself / herself. Assistance from experienced flyer is absolutely necessary.

# Pre-flight adjustment must be done before flying, it is very dangerous to fly a badly pre-adjusted aircraft.

# Wing Jet EP is specially designed to be powered by KM0283110 Outrunner Motor.

# Make sure the air field is spacious, never fly the plane too close to people and never get too close to a running propeller. Extreme caution should be exercised when working with electric powered models. Make sure the propeller is cleared of all objects, especially your hands before connecting the battery to the model. Make sure you understand the operation of the ESC (Electronic Speed Control) by studying the ESC manual. Once you plug in the battery for electric powered model, always treat the propeller as a rotating one, as accidental movement of the throttle stick will spin the propeller and could cause injuries.

# If you find wrinkles on the covering as a result of weather changes, you can use hot iron to remove the wrinkles. Please begin with lower temperature setting and gradually raise the temperature until the wrinkles are gone. Too hot an iron may damage the covering. Don't use hot iron near the seams or edges, hot iron will melt the glue and shrink the covering at the same time, causing the seams to pull away.

# Check and re-tighten up all factory assembled screws, use thread locker if necessary.
Product Registration Form (US Customers)

We would like to share with you any relevant information regarding your model, including product news and free upgrade parts when applicable. Please fill in the following and send to AirBorne Models, 4749-K, Bennett Drive, Livermore, CA 94551 USA.

1. Name:__________________________________________________________
2. Address:________________________________________________________
3. Phone #:____________________ E-mail:______________________________
4. Model:__________________________________________________________
   Wing QC#__________ Fuselage QC#______________________________
   (QC numbers are stamped on wing and fuselage)
5. Date of Purchase:_________________________________________________
6. Store Name:____________________________________________________

Please call AirBorne Models at 925 371 0922 for any assistance in filling this form. Thank you very much for purchasing our product.
## Optional Parts

### ACCESSORIES

<table>
<thead>
<tr>
<th>Optional Parts</th>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>180mm Extension</strong></td>
<td>KW0011800</td>
<td>180mm</td>
<td>1 set</td>
</tr>
<tr>
<td><strong>Micro Servo</strong></td>
<td>SV2031</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Clevis Wrench</strong></td>
<td>PL8210010</td>
<td>1 set</td>
<td></td>
</tr>
<tr>
<td><strong>Ducted Fan Propulsion Unit without Motor</strong></td>
<td>PL6800010</td>
<td>1 pc</td>
<td></td>
</tr>
<tr>
<td><strong>Outrunner 28/31(for ducted) (3-cell Li-po)</strong></td>
<td>KM0283110</td>
<td>1 pc</td>
<td></td>
</tr>
<tr>
<td><strong>Ducted Fan Propulsion Unit Booster Cone</strong></td>
<td>PL6800011</td>
<td>1 set</td>
<td></td>
</tr>
<tr>
<td><strong>3 - Pin EZ Connector</strong></td>
<td>KP0011310</td>
<td>40A Max. Current</td>
<td>1 set</td>
</tr>
<tr>
<td><strong>2 - Pin EZ Connector</strong></td>
<td>KP0011210</td>
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- **Operating Voltage/Current:** 12V/30V (35A Burst)
- **Thrust:** Approx. 560g
- **Weight:** 60g (without motor)
- **Diameter:** 67mm
- **Outer casing diameter:** 74mm
- **Color:** Black

### Additional Information:

- **Speed:** 0.1 sec / 60° @4.8V
- **Torque:** 1.6kg.cm / 22.2 oz - in @4.8V
- **Size:** 22.4 x 11.4 x 20.0mm
- **Weight:** 7.8 g / 0.28 oz
- **Cable Length:** 125mm

### Turbo Outrunner for ducted fan (4-cell Li-po)

<table>
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</thead>
<tbody>
<tr>
<td><strong>KM0283120</strong></td>
<td>1 pc</td>
<td></td>
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</tbody>
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- **Kv(rpm/V):** 3030
- **Operating Power:** 660W
- **Operating Voltage:** 6-15V
- **Operating Current:** 45A
- **Peak Current:** 60A (max. 15 sec.)
- **Internal Resistance:** 28 m ohms
- **Diameter:** 28mm
- **Length:** 31mm
- **Weight:** 60g
- **Shaft Diameter:** 3mm
- **Shaft Length:** 14.8mm
- **Mounting Screw:** M3 (Front) and M2 (Back)
- **Distance of Mounting Holes:** 16mm and 19mm (Front)

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To be used with Ducted Fan Propulsion Unit code no. PL6800010 to enhance performance.