Aure EP

Requires: 4-channel radio w/ 2 micro servos (2.5 kg cm torque) for ailerons & 2 standard servos, Outrunner Motor KM0283010 w/ Propeller Adaptor HW2340100, 20A brushless ESC, 3 cells 11.1V 2100 mAh Li-Po battery & charger.

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing Span</td>
<td>79 in / 2010 mm</td>
</tr>
<tr>
<td>Wing Area</td>
<td>576 sq in / 37.2 sq dm</td>
</tr>
<tr>
<td>Flying Weight</td>
<td>48 oz / 1350 g</td>
</tr>
<tr>
<td>Fuselage Length</td>
<td>48 in / 1220 mm</td>
</tr>
</tbody>
</table>

* 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.
Aure EP

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BEFORE YOU BEGIN

1 Read through the manual before you begin, so you will have an overall idea of what to do.

2 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.

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

- **Apply epoxy glue.**
- **Apply instant glue (C.A.glue, super glue.)**
- **Apply thread locker**
- **Must be purchased separately !**
- **Assemble left and right sides the same way.**
- **Ensure smooth non-binding movement while assembling.**
- **Peel off shaded portion covering film.**
- **Cut off shaded portion.**
- **Drill holes with the specified diameter (here: 3mm).**
- **Pierce the shaded portion covering film.**
- **Pay close attention here!**
- **Warning! Do not overlook this symbol !**
### Parts List

1. MAIN WING -- 1 pair
   - BALSA 3x52x64mm (For Aileron Servos) -- 1 pair
   - BALSA 7x8x13mm (For Aileron Servos) -- 4 pcs
   - SCREW PWA2x8mm -- 8 pcs
   - SCREW PB2x10mm -- 4 pcs
   - HORN PL4113101 -- 2 sets
   - PUSHROD Ø1.8x55mm w/ Threads (For Aileron Servos) -- 2 pcs
   - STRAPER PL4112102 -- 2 pcs
   - CLEVIS PL4112103 -- 2 pcs
   - FUEL TUBE d2.5xD6x5mm -- 4 pcs

2. BALSA 3x52x64mm (For Aileron Servos) -- 1 pair
   - WING JONER (A) Ø6x211mm (wire) -- 1 pc.
   - WING JONER (B) Ø4x142mm (wire) -- 1 pc.

3. SCREW PB2x30mm -- 2 pcs
   - PUSHROD Ø1.8x840mm w/ Threads (For Rudder Servo) -- 1 pc.
   - HORN PL4113101 -- 1 pc.
   - CLEVIS PL4112103 -- 1 pc.
   - FUEL TUBE d2.5xD6x5mm -- 1 pc.

4. FUSELAGE -- 1 pc.
   - RUDDER -- 1 pc.

5. SCREW PB2x10mm -- 4 pcs
   - PUSHROD Ø1.8x55mm w/ Threads (For Aileron Servos) -- 2 pcs
   - HORN PL4113101 -- 1 pc.
   - CLEVIS PL4112103 -- 1 pc.
   - FUEL TUBE d2.5xD6x5mm -- 1 pc.

6. LINKAGE CONNECTOR HW7111050 D2.1x5mm -- 1 set

7. STABILIZER & ELEVATOR -- 1 set
   - STABILIZER TUBE (A) Ø3x144mm -- 1 pc.
   - STABILIZER TUBE (B) Ø3x127mm -- 1 pc.
   - NYLON WASHER d3.1xD11x0.7mm -- 2 pcs

8. SCREW PM3x6mm -- 4 pcs
   - WASHER d3xD7mm -- 4 pcs
   - SPINNER Ø36mm -- 1 set
   - FOLDING PROPELLER SET (PL6314020) -- 1 set

9. FUEL TUBE d2.5xD6x5mm -- 1 pc.
   - SPONGE 10x50x150mm (For Radio Equipment & Battery) -- 2 pcs
   - BATTERY TIE 180mm -- 1 pc.
   - CLEVIS PL4112105 -- 1 pc.
   - DOUBLE SIDED TAPE 30x35mm -- 1 pc.

10. SOCKET HEAD SCREW HM3x16mm -- 2 pcs
    - WASHER d3xD7mm -- 4 pcs
    - PLATE 1.5x29.5x71mm -- 1 pc.

11. COCKPIT -- 1 set

12. DECALS E104SXMDEC -- 1 set

### COVERING:

- LIGHTEX SGX 100 WHITE
- LIGHTEX SGX 251 SKY BLUE
- LIGHTEX SGX 351 DARK BLUE
1 Aileron

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

![Aileron Servo Lead](image)

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.

![Bottom View](image)

3 Main Wing

![Completed](image)
4 Rudder

![Diagram of Rudder]

- **Completed**

5 Rudder Pushrod

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

- **PB2x30mm Screw**
  - 2

- **PB2x30mm**
- **Pushrod 1.8x840mm**
- **Clevis**
- **Fuel Tube Ø2.5xD6x5mm**

6 Servo Set

- **3 x 3mm Set Screw**
  - 3
- **Linkage Connector**
  - 1
- **M2 Nut**
  - 1
- **2mm Washer**
  - 2

**Rudder pushwire**

**3 x 3mm Set Screw**

![Diagram of Rudder Servo]

- **Please refer to the attached sheet for linkage connector installation.**
7 Stabilizer & Elevator

Temporary install the main wing, adjust leveling of the stabilizer to make it as parallel to the main wing as possible.

Bottom View

Bottom View

Bottom View

completed

8 Outrigger Motor

Don't over-tighten the PM2 screws, let the propeller blades align themselves when spinning.

- PM2x12mm Screw: 2
- PA2.6x8mm Screw: 2
- PM3x6mm Screw: 4
- d3xD7mm Washer: 4

Outrigger Motor

N.J. TWM KP0011310

TWM KC202SA02A

Brushless ESC

PM2x12mm

PM3x6mm

Washer d3xD7mm

PM2x12mm

PA2.6x8mm

M5 Nut

Completed

E104SXMPO26391105 P.5
9 Radio Equipment

- Linkage Connector
- Elevator Servo
- Fuel Tube d2.5xD6x5mm
- Double Sided Tape
- Clevis
- N.I. Brushless ESC
- N.I. Battery Tie 180mm
- Battery
- Sponge
- Elevator Pushrod
- Rudder Pushrod
- N.I. Rudder Servo
- N.I. Receiver
- N.I.

10 Main Wing

- HM3x16mm Socket Head Screw 2
- d3xD12mm Washer 2
- Washer d3xD12mm
- HM3x16mm Socket Head Screw
- Plate 1.5x29.5x71mm
- N.I.

11 Cockpit

- Cockpit
- Completed
Wing Setting

- Adjust the wing and fuselage configuration as shown in the diagrams.
13 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.

Elevator

- 20mm

Rudder

- 53mm

Aileron

- 15mm

14 C.G.

- The ideal C.G. position is 75mm (2.95 in.) 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.

# Aure EP is specially designed to be powered by KM0283010 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.
Drill 2mm hole at servo horn.

Insert linkage connector into servo horn.

Make sure shoulder of screw is cleared from servo horn.
Add washer to reduce play if necessary.

Tighten up the round nut against the shoulder. Apply CA or permanent thread locker.

After fastening the round nut, make sure that the linkage connector can rotate freely.

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)

3 - Pin EZ Connector

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>KP0011310</td>
<td>40A Max. Current</td>
<td>1 set</td>
</tr>
</tbody>
</table>

-ideal for electric models

Propeller Adaptor Wrench

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>HW3111400</td>
<td></td>
</tr>
</tbody>
</table>

- Small Clevis
- Large Clevis

Special tool for clevis installation. Suitable for standard and small (EP) clevis.

Clevis Wrench

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL8210010</td>
<td></td>
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</tbody>
</table>

Brushless ESC

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>KC2025A02A</td>
<td>24x45x111mm</td>
<td>1 pc</td>
</tr>
</tbody>
</table>

- Voltage Range: 5.6 ~ 16.8V
- Current: 25A continuous
- Current (Burst, <10 seconds): 35A
- Weight: 24 g
  (with wires and connector)
- BEC: 5V / 2A
- Low Voltage Cut-off: /
- Light weight with low internal resistance for high current operation
- BEC function for Li-ion / Li-poly
  2 ~ 4 cells; Nimh / Nicd 5 ~ 12 cells operation.
- Low battery voltage auto cut off to reserve power to the servos.
- Safe start up motor.

2 - Pin EZ Connector

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>KP0011210</td>
<td>40A Max. Current</td>
<td>1 set</td>
</tr>
</tbody>
</table>

-ideal for electric models

Propeller Adaptor

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>HW2340100</td>
<td>d3xD5</td>
<td>1 set</td>
</tr>
</tbody>
</table>

Outrunner 28/30

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>KM0283010</td>
<td></td>
</tr>
</tbody>
</table>

- Max speed: 12000 rpm
- Kv (rpm/V): 1015
- Operating Power: 180W
- Operating Voltage: 6-12V
- Operating Current: 15A
- Peak Current: 20A (max. 15 sec.)
- Internal Resistance: 95 m ohms
- Diameter: 28mm
- Length: 30mm
- Weight: 60g
- Shaft Diameter: 3mm
- Shaft Length: 14.8 mm
- Mounting Screw: M3
- Distance of Mounting Holes:
  Front (16mm and 19mm)
Ducted Fan  Pattern  Warbirds  Funfly  Scale  Electric  Sports  Glider  Trainer  Boat  Accessories  Covering  (Lightex / Toughlon)