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 engine 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.

Specifications

- **Wing Span**: 64.0 in / 1620 mm
- **Wing Area**: 682 sq in / 44.0 sq dm
- **Flying Weight**: 7 lbs / 3300 g
- **Fuselage Length**: 53.0 in / 1340 mm

* Specifications are subject to change without notice.*
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**
- **Ensure smooth non-binding movement while assembling.**
- **Assemble left and right sides the same way.**
- **Cut off shaded portion.**
- **Peel off shaded portion covering film.**
- **Must be purchased separately!**
- **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
2. MAIN LANDING GEAR – 1 pair
   MOUNTING PLATE 12x20mm – 4 pcs
   SCREW PA2.6x10mm – 8 pcs
   SCREW PM2.3x8mm – 8 pcs
   MAIN LANDING GEAR COVER – 2 sets
   WASHER 2mm – 16 pcs
   M2 NUT – 8 pcs
3. SCREW PA2.6x10mm – 4 pcs
   COLLAR Ø4.1mm set/ screw – 4 sets
   WHEEL Ø7.6mm – 2 pcs
   WHEEL PANTS – 1 pair
   MOUNTING PLATE 12x20mm – 2 pcs
4. SCREW PWA2.6x8mm – 8 pcs
   SERVO MOUNTING PANEL (For Alleron) PL5310000 – 1 pair
5. SCREW PB2x16mm – 2 pcs
   SCREW PB2x20mm – 4 pcs
   FUEL TUBE Ø6x5mm – 4 pcs
   STRAPER PL411102 – 2 pcs
   CLEVIS PL41112103 – 2 pcs
   TRI-HORN M3x39mm (L) (For Alleron Servo) PL4111131 – 2 sets
   PUSHROD Ø1.8x100mm w/ Threads (For Alleron) – 2 pcs
6. WING JOINER 9x24x223mm – 1 pc.
7. RING Ø2.6mm PL4112026 – 2 pcs
8. STRAPER PL4112102 – 1 pc.
   CLEVIS PL41112103 – 2 pcs
   FUEL TUBE Ø6x5mm – 3 pcs
   Y-TYPE PUSHROD Ø1.8x126mm w/ Threads (For Flap) – 1 pc.
9. STABILIZER & ELEVATOR – 1 set
   FUSELAGE – 1 pc.
10. VERTICAL FIN & RUDDER – 1 set
    TAIL LANDING GEAR – 1 set
    SCREW PAX3x12mm – 2 pcs
    COLLAR Ø2.1mm set/ screw – 1 set
    WHEEL Ø22mm – 1 pc.
    BALSA 8x9x24.5mm – 1 pc.
11. FUEL TANK 380cc PL1111380 – 1 set
    CABLE TIE (For Fuel Tank) 1.5x5x400mm – 1 pc.
    DOUBLE-SIDED TAPE 40x100mm – 1 pc.
12. ENGINE MOUNT PL5111070 – 1 set
    SOCKET HEAD SCREW M4x25mm – 4 pcs
    WASHER d4x8mm – 4 pcs
13. SOCKET HEAD SCREW M4x30mm – 4 pcs
    WASHER d4x8mm – 8 pcs
    M4 NUT – 8 pcs
    SPINNER Ø57mm PL2111057 – 1 pc.
    THROTTLE PUSHWIRE Ø1.2x40mm – 1 pc.
    PLASTIC TUBE d2x25x250mm – 1 set
14. COWL-ING – 1 pc.
    TRANSPARENT 3D TEMPLATE – 1 pc.
    SCREW PWA2.6x12mm – 6 pcs
    SILICON GROMMET d1.5xD6.5mm – 6 pcs
15. SCREW PB2x16mm – 6 pcs
    TRI-HORN M3x22mm (L) (For Elevator) PL4111251 – 2 sets
    FUEL TUBE Ø6x5mm – 2 pcs
    CLEVIS – 2 pcs
    PUSHROD 1.8x625mm w/ Threads (For Elevator) – 2 pcs
16. FUEL TUBE Ø6x5mm – 1 pc.
    CLEVIS PL41112103 – 1 pc.
    SCREW PB2x16mm – 3 pcs
    TRI-HORN 3x14mm (For Rudder) PL4111185 – 1 set
    PUSHROD Ø1.8x35mm w/ Threads (For Rudder) – 1 pc.
17. LINKAGE CONNECTOR Ø2.1mm – 1 set
18. STRAPER PL4112102 – 2 pcs
    FUEL TUBE Ø6x5mm – 2 pcs
    SPINNER 60x70x115mm (For Radio Equipment) – 1 pc.
    PUSHROD CONNECTOR PL4410010 (For Elevator) – 1 set
    PUSHROD Ø1.8x60mm (For Elevator) – 1 pc.
    PLYWOOD 6x107x132mm – 1 pc.
    BALSA 8x8x154mm – 2 pcs
    PLYWOOD 3x3x153.5mm – 2 pcs
19. CANOPY – 1 pc.
    PILOT PC001085A – 1 set
    SCREW PWA2.3x8mm – 4 pcs
    SILICON GROMMET d1.5xD6.5mm – 4 pcs
20. SCREW HM4x35mm – 2 pcs
    WASHER d4x15mm – 2 pcs
21. DECALS A004RFD – 1 set

TOUGHLOWN:--
TOUGHLOWN STL 100 WHITE
TOUGHLOWN STL 312 BRIGHT RED
TOUGHLOWN STL 350 CORSAIR BLUE
TOUGHLOWN STL 004RWIG
TOUGHLOWN STL 004RFUS
1. Aileron Servo Lead

2. Main Landing Gear
   - PA2.6x10mm Screw x 8
   - PM2x8mm Screw x 8
   - 2mm Washer x 16
   - 2mm Nut x 8

3. Landing Gear
   - PA2.6x10mm Screw x 4
   - 3mm Set Screw x 4
   - 4.1mm Collar x 4

Wheel Ø76mm
4 Aileron Servo

- Wing joiner (9x24x223mm)
- PWA2 x 8mm Screw
- PB2 x 16mm Screw
- PB2 x 20mm Screw

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

5 Aileron Servo

- Fuel Tube
- Tri-Horn M3 x 9mm

6 Main Wing

- Please dry fit wing joiner into left and right wing to make sure they fit with the proper dihedral angle, mark the wing joiner if necessary. Apply epoxy glue to both sides of all surfaces in contact. Use a stick to apply the glue to inner side of wing joiner sleeve, and apply the glue to wing joiner before putting them together. Wing joiner not glued properly will lead to wing failure and plane crash.
Temporary install the main wing, adjust leveling of the stabilizer to make it as parallel to the main wing as possible.
**10 Vertical Fin & Rudder**

- PA3x12mm Screw
- 3mm Set Screw
- 2.1mm Collar

**11 Fuel Tank**

- DOUBLE-SIDED TAPE 40x100mm
- CABLE TIE 1.5x5x400mm

**12 Engine Mount**

- M4x25mm Socket Head Screw
- d4xD9mm Washer

- Apply thread locker to screws.

- Blind nuts are off-centered to keep the spinner at the fuselage axis.
13 Engine

- **M4x30mm Screw**: 4
- **d4xD9mm Washer**: 8
- **M4 Nut**: 8

Installed Engine Position

- **Spinner Ø57mm**: 118mm 4.65in.
- **Fire Wall**:

M4x30mm

14 Cowling

- **PWA2.6x12mm Screw**: 6
- **d1.5xD6.5mm Silicon Grommet**: 6

- **First insert the grommet to the cowling then apply screw.**

L/R

15 Elevator Pushrod

- **PB2x16mm Screw**: 6

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

L/R
16 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.

17 Servo Set

- Please refer to the attached sheet for linkage connector installation.

18 Radio Equipment

- Install and arrange the servo as shown in the diagram.
19 Canopy

- PWA2.3 X 8mm Screw: 4
- d1.5 x D6.5mm Silicon Grommet: 4

20 Main Wing

- HM4x35mm Screw: 2
- d4xD15mm Washer: 2

21 Wing Setting

Adjust the wing and fuselage configuration as shown in the diagrams.
### 22 Control Throws

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

- **Elevator**
  - 25mm
- **Rudder**
  - 50mm
- **Flap**
  - 20mm
- **Wing Top**
  - 13mm
- **Aileron**
  - 25mm

### 23 C.G.

The ideal C.G. position is 105mm (4.13in) 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.

### Important Safety Precautions

**Warning!**

- **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.**
- **Super Chipmunk-90 RF** is specially designed to be powered by **2C 0.60-0.75 or 4C 0.91** engine, using a more powerful engine does not mean better performance. In fact, over powered engine may cause severe damage and injuries.
- **Make sure the air field is spacious, never fly the plane too close to people and never get too close to a running propeller.**
- **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.
Usage of the transparent 3D template

This transparent 3D template is used for position guidance of the actual cutting of the pre-painted cowling.

1. Simply cut the transparent 3D template to fit your engine and exhaust pipe, then slide onto the actual cowling and use as template to mark the openings required for final cutting.

2.

3.

4.
Optional Parts

**ACCESSORIES**

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<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
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</thead>
<tbody>
<tr>
<td>KW0011800</td>
<td>180mm</td>
<td>1 set</td>
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<tr>
<td><strong>180mm Extension</strong></td>
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<tr>
<td>KW0021800</td>
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<td><strong>180mm Y-Cord</strong></td>
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<td>KP0041300</td>
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<tr>
<td><strong>Charge Receptacles</strong></td>
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<tbody>
<tr>
<td>MS911450</td>
<td>600 x 240 x 350</td>
<td>1 pc</td>
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<td><strong>Field Stand</strong></td>
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**Fuel Filler**

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<tr>
<td>PL8110030</td>
<td>15 x 22 x 49mm</td>
<td>1 x 1 pc</td>
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**Clevis Wrench**

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<tr>
<td>PL8210010</td>
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<tr>
<td><strong>Special tool for clevis installation. Suitable for standard and small (EP) clevis.</strong></td>
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**Standard Servo**

<table>
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<tbody>
<tr>
<td>SV2031</td>
<td></td>
<td>1 set</td>
</tr>
</tbody>
</table>
| **Speed : 0.17 sec / 60° @4.8V**
| **0.14 sec / 60° @6.0V**
| **Torque : 3.2kg.cm / 44.8 oz - in @4.8V**
| **4.1kg.cm / 57.4 oz - in @6.0V**
| **Size : 40.6 x 20 x 37mm / 1.60 x 0.79 x 1.46 in**
| **Weight : 39.4 g / 1.39 oz** |