

Super Chipmunk-90 RF



0.60-0.75 cu. in. displacement 2-stroke
0.91 cu. in. displacement 4-stroke

Requires: 5-channel radio w/ 6 standard servos
(Optional inboard flap)

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.*

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.



The World Models
Manufacturing Co., LTD.
www.theworldmodels.com

FACTORY PRE-FABRICATED
 ALMOST-READY-TO-FLY (ARF) SERIES
 MADE IN CHINA

Super Chipmunk-90 RF

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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



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!



Do not overlook this symbol !



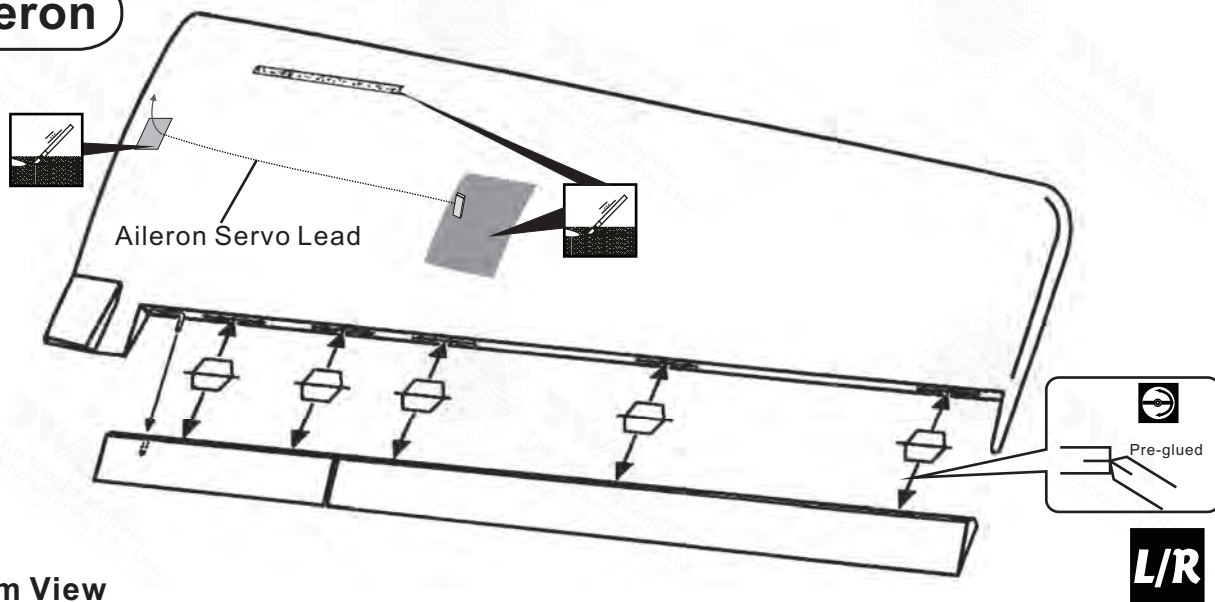
Parts List

1. MAIN WING – 1 pair
2. MAIN LANDING GEAR – 1 pair
MOUNTING PLATE 12x20mm – 4 pcs
SCREW PA2.6x10mm – 8 pcs
SCREW PM2x8mm – 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 Ø76mm – 2 pcs
WHEEL PANTS – 1 pair
MOUNTING PLATE 12x20mm – 2 pcs
4. SCREW PWA2x8mm – 8 pcs
SERVO MOUNTING PANEL (For Aileron) – 1 pair
5. SCREW PB2x16mm – 2 pcs
SCREW PB2x20mm – 4 pcs
FUEL TUBE Ø6x5mm – 4 pcs
STRAPER – 2 pcs
CLEVIS – 2 pcs
TRI-HORN M3x9mm (L) (For Aileron Servo) – 2 sets
PUSHROD Ø1.8x100mm w/ Threads (For Aileron) – 2 pcs
6. WING JOINER 9x24x223mm – 1 pc.
7. RING Ø2.3mm PL4112023 – 2 pcs
8. STRAPER – 1 pc.
CLEVIS – 2 pcs
FUEL TUBE Ø6x5mm – 3 pcs
Y-TYPE PUSHROD Ø1.8x126mm w/ Threads (For Flap) – 1 pc.
9. COVERING 20x50mm – 1 pc.
FUSELAGE – 1 pc.
10. STABILIZER & ELEVATOR – 1 set
11. VERTICAL FIN & RUDDER – 1 set
TAIL LANDING GEAR – 1 set
SCREW PA3x12mm – 2 pcs
COLLAR Ø2.1mm set/ screw – 1 set
WHEEL Ø23mm – 1 pc.
BALSA 8x20x247.5mm – 1 pc.
12. FUEL TANK 380cc PL1111380 – 1 set
DOUBLE-SIDED TAPE – 40x100mm – 1 pc.
CABLE TIE 1.5x5x400mm – 1 pc.
13. ENGINE MOUNT PL5111070 – 1 set
SOCKET HEAD SCREW M4x25mm – 4 pcs
WASHER d4xD9mm – 4 pcs
14. SCREW PM4x30mm – 4 pcs
WASHER d4xD9mm – 8 pcs
M4 NUT – 8 pcs
SPINNER Ø57mm – 1 pc.
THROTTLE PUSHWIRE Ø1.2x450mm – 1 pc.
PLASTIC TUBE d2xD3x250mm – 1 set
15. COWLING – 1 pc.
TRANSPARENT 3D TEMPLATE – 1 pc.
SCREW PWA2.6x12mm – 6 pcs
SILICON GROMMET d1.5xD6.5mm – 6 pcs
16. SCREW PB2x16mm – 6 pcs
TRI-HORN M3x22mm (L) (For Elevator) – 2 sets
FUEL TUBE Ø6x5mm – 2 pcs
CLEVIS – 2 pcs
PUSHROD 1.8x630mm w/ Threads (For Elevator) – 2 pcs
17. FUEL TUBE Ø6x5mm – 1 pc.
CLEVIS – 1 pc.
SCREW PB2x16mm – 3 pcs
TRI-HORN 3x14mm (For Rudder) – 1 set
PUSHROD Ø1.8x635mm w/ Threads (For Rudder) – 1 pc.
18. LINKAGE CONNECTOR Ø2.1mm – 1 set
19. STRAPER PL4112102 – 2 pcs
FUEL TUBE Ø6x5mm – 2 pcs
SPONGE 10x80x200mm – 2 pcs
PUSHROD CONNECTOR PL4410010 (For Elevator) – 1 set
PUSHROD Ø1.8x70mm (For Elevator) – 1 pc.
20. CANOPY – 1 pc.
PILOT PC001085A – 1 set
SCREW PWA2.3x8mm – 4 pcs
SILICON GROMMET d1.5xD6.5mm – 4 pcs
COCKPIT – 1 pc.
21. SCREW HM4x40mm – 2 pcs
WASHER d4xD15mm – 2 pcs
22. DECALS A004RFDEC – 1 set

TOUGHLON:--

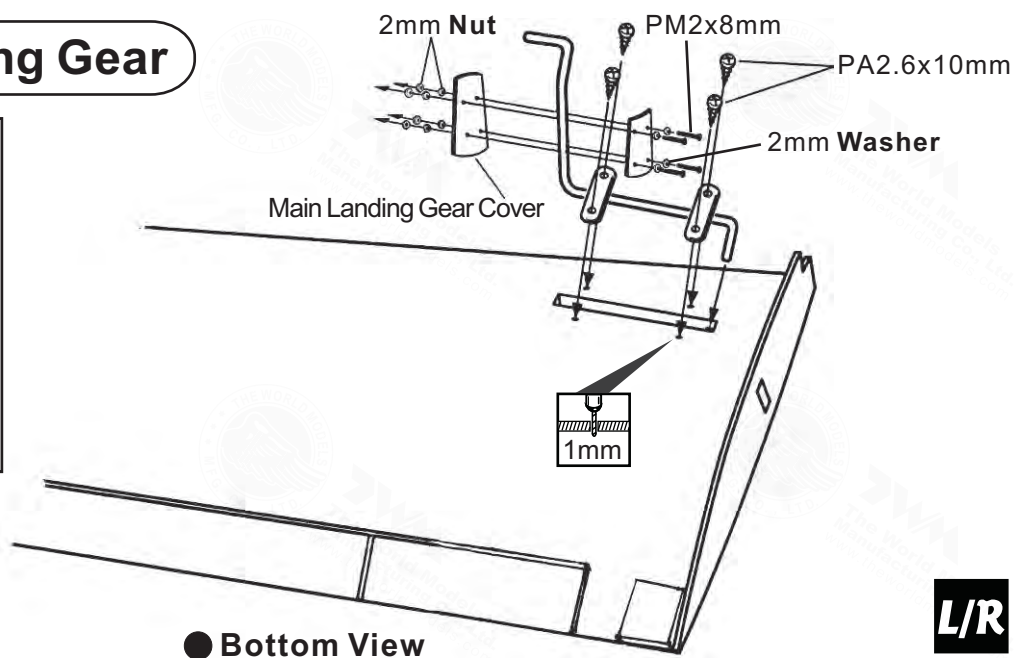
TOUGHLON STL 100 WHITE
TOUGHLON STL 312 BRIGHT RED
TOUGHLON STL 350 CORSAIR BLUE
TOUGHLON STL 004RWIG
TOUGHLON STL 004RFUS

1 Aileron



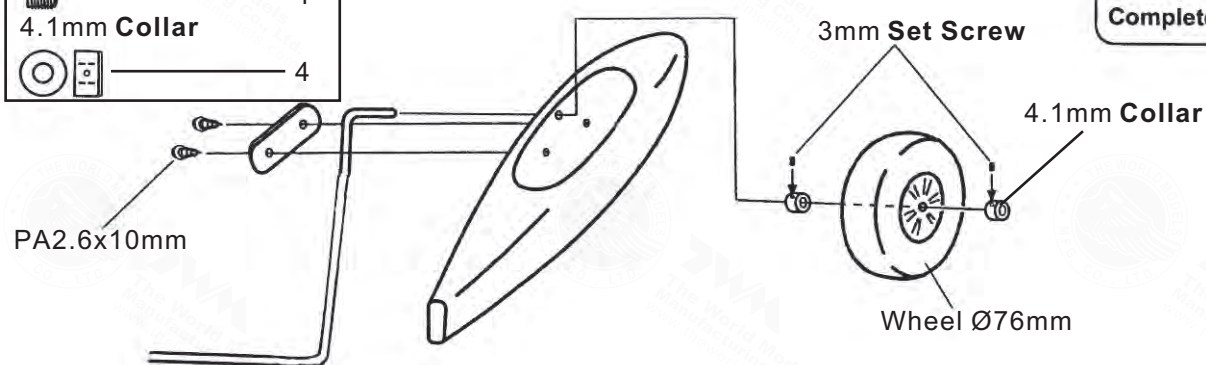
2 Main Landing Gear

PA2.6x10mm Screw	8
PM2x8mm Screw	8
2mm Washer	16
2mm Nut	8



3 Landing Gear

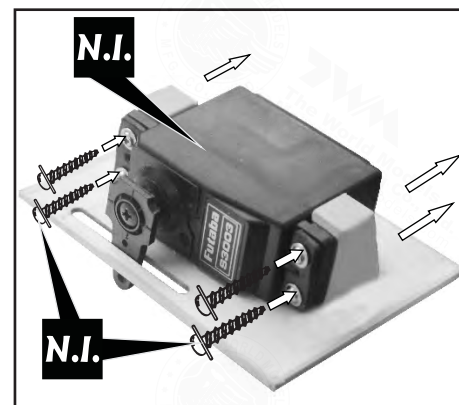
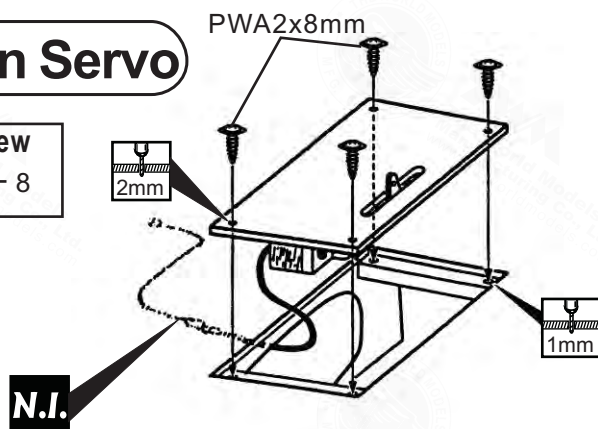
PA2.6x10mm Screw	4
3mm Set Screw	4
4.1mm Collar	4



4 Aileron Servo

PWA2 x 8mm Screw

8



L/R

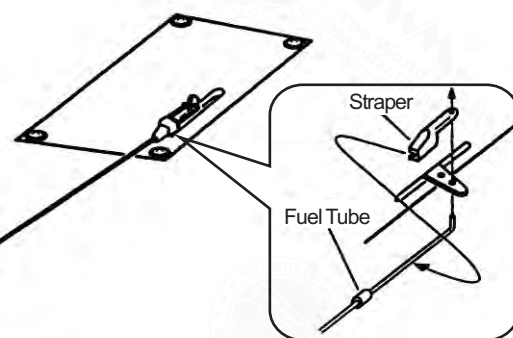
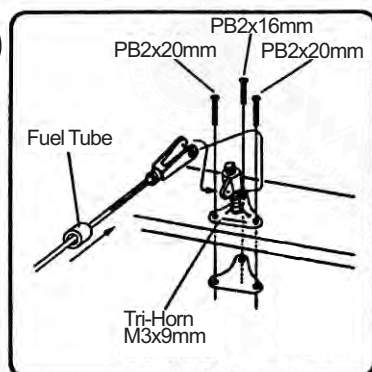
5 Aileron Servo

PB2x16mm Screw

2

PB2x20mm Screw

4

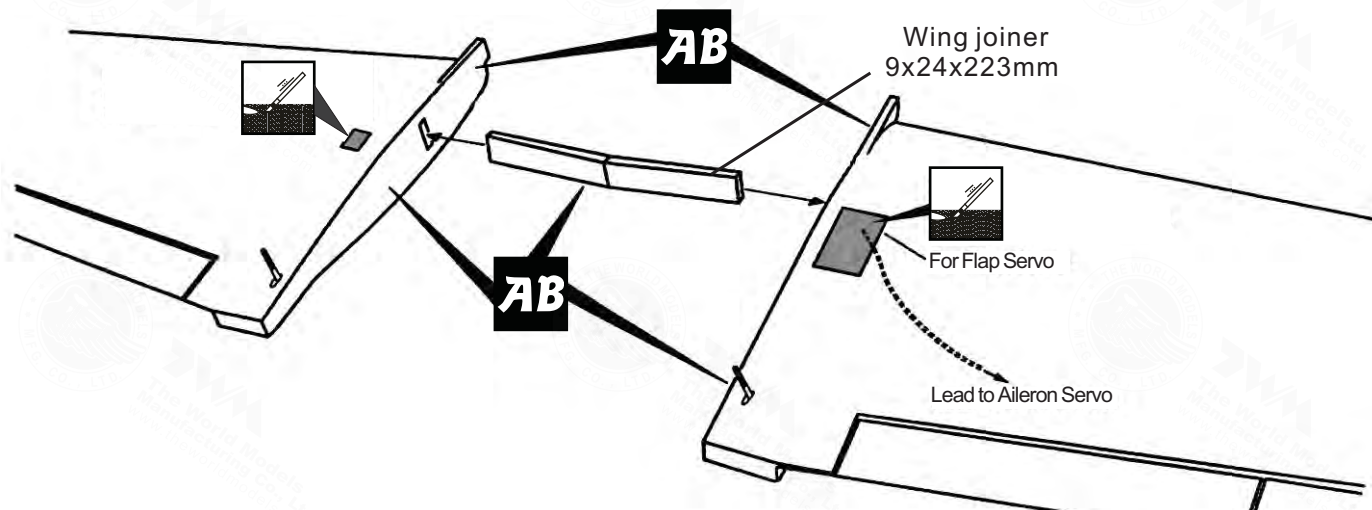


Ø1mm pilot holes for World Models tri-horn pre-drilled. Please look for pin-hole marks at under side of control surfaces.

L/R

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.



7 Flap Servo

N.I.

1.5mm

8 Flap Servo

Straper

Fuel Tube

Clevis
Ring

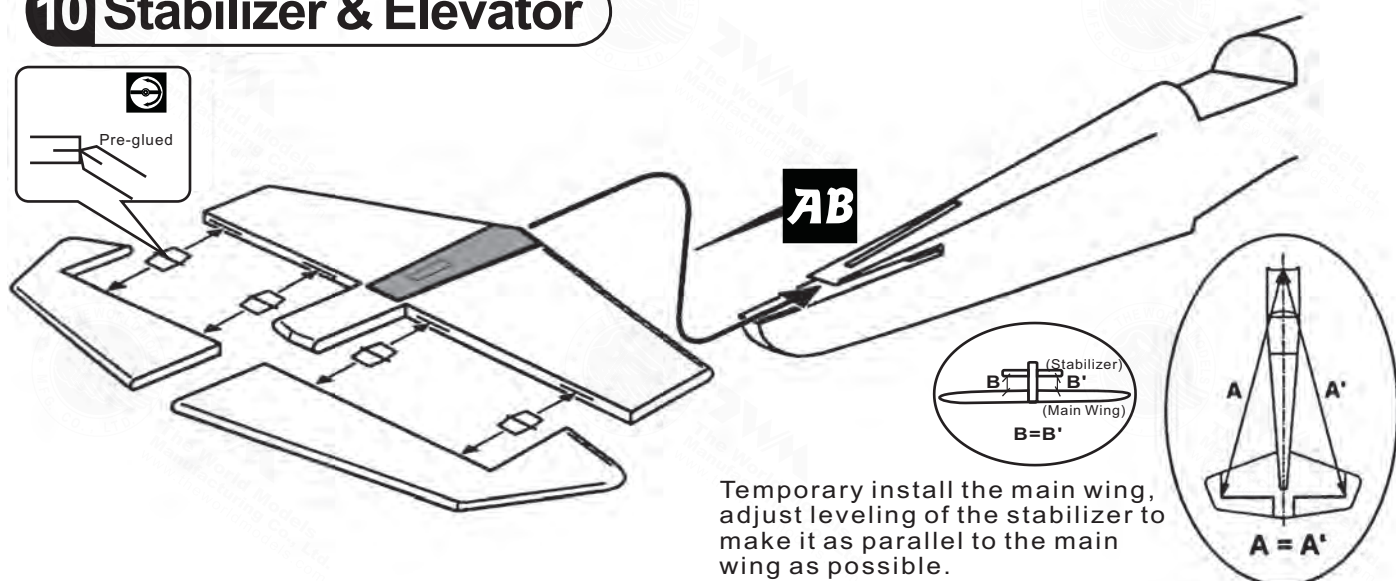
9 Fuselage

AB

AB

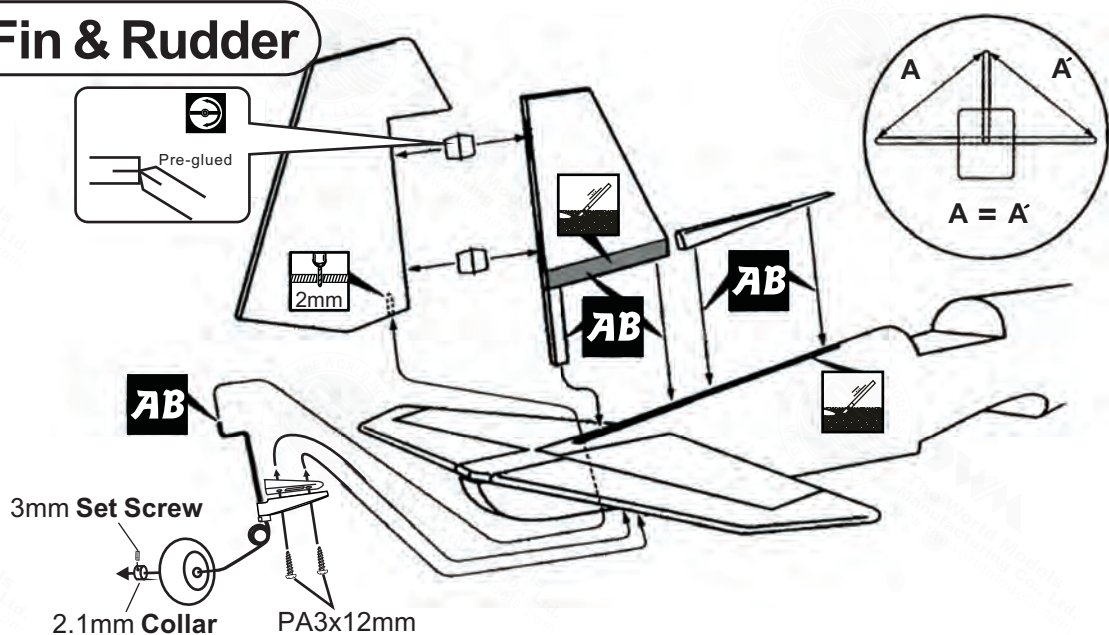
Covering 20x250mm

10 Stabilizer & Elevator

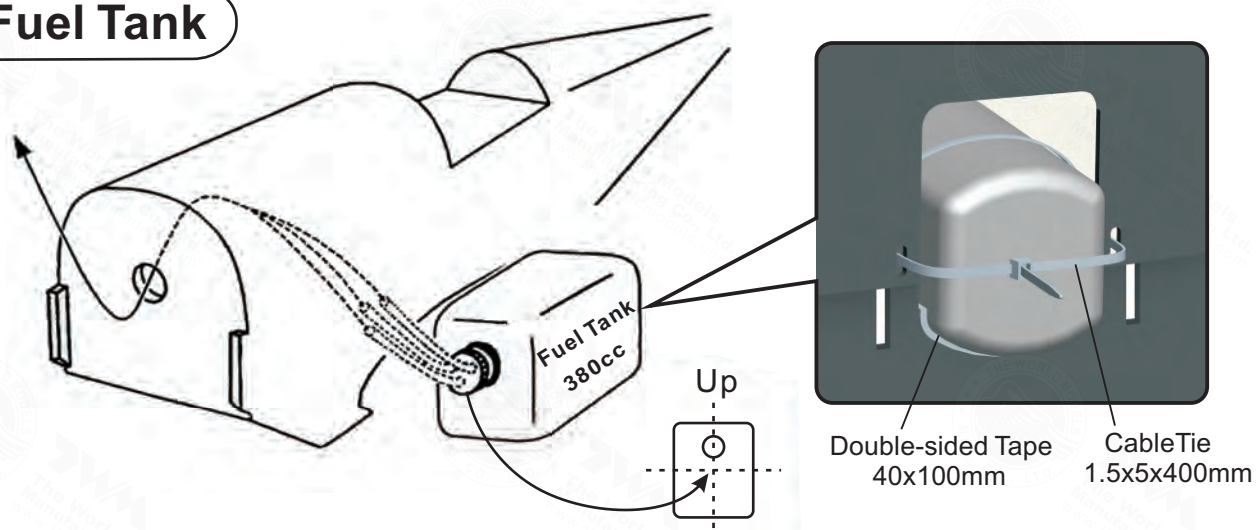


11 Vertical Fin & Rudder

- | | |
|----------------|---|
| PA3x12mm Screw | 2 |
| 3mm Set Screw | 2 |
| 2.1mm Collar | 2 |



12 Fuel Tank



13 Engine Mount

M4x25mm **Socket Head Screw**

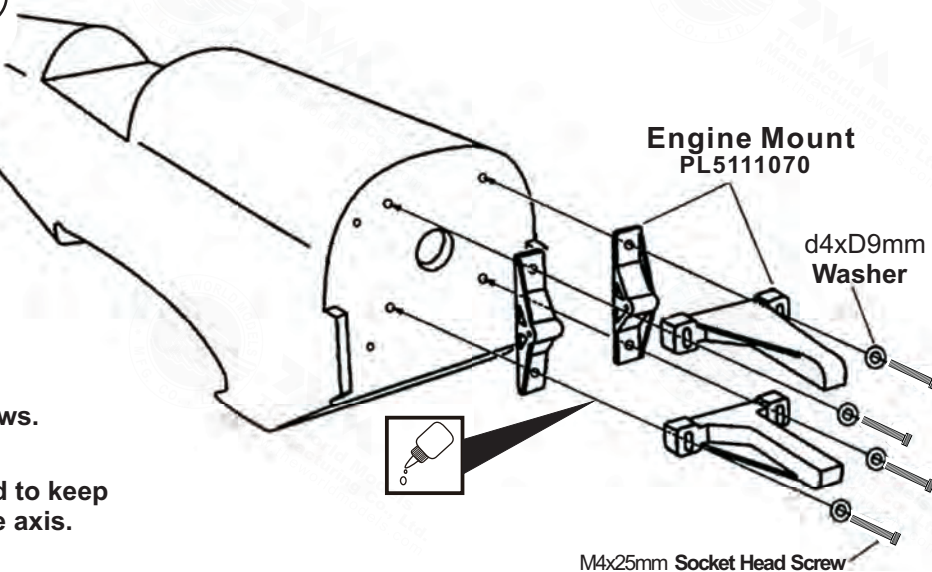
4

d4xD9mm **Washer**

4

● Apply thread locker to screws.

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



14 Engine

PM4x30mm **Screw**

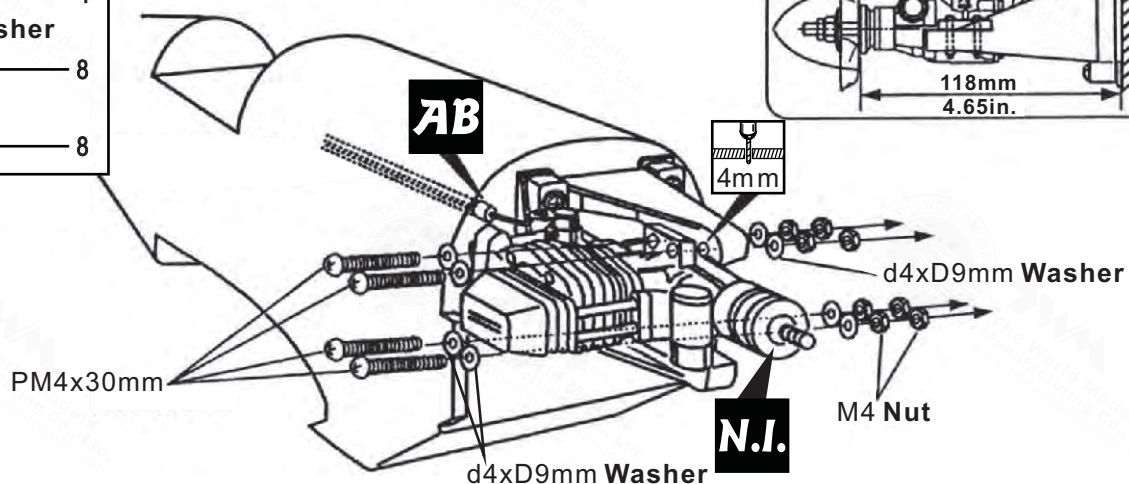
4

d4xD9mm **Washer**

8

M4 **Nut**

8



15 Cowling

PWA2.6x12mm **Screw**

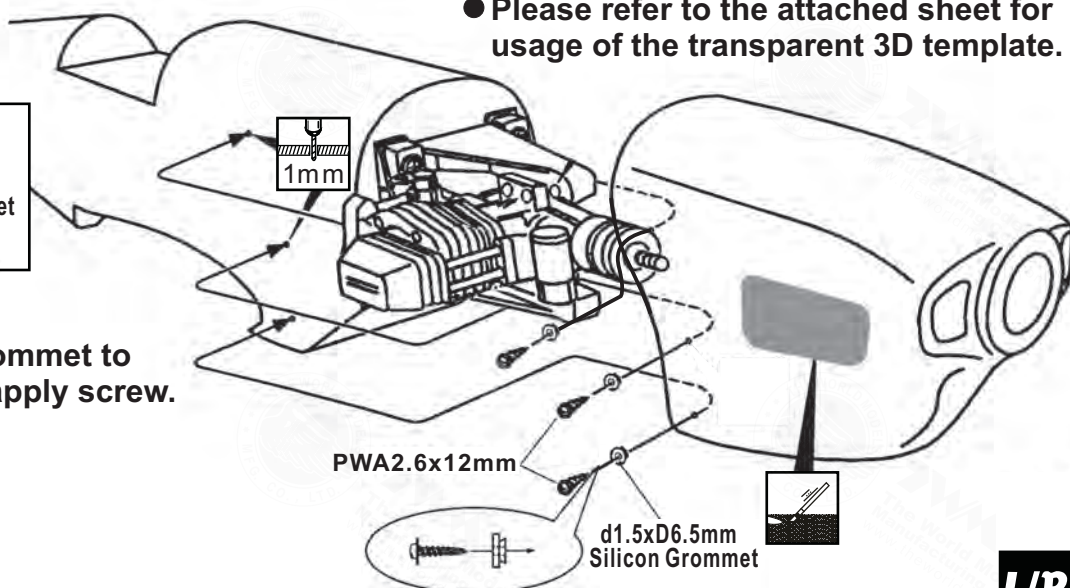
6

d1.5xD6.5mm **Silicon Grommet**

6

● First insert the grommet to the cowling then apply screw.

● Please refer to the attached sheet for usage of the transparent 3D template.



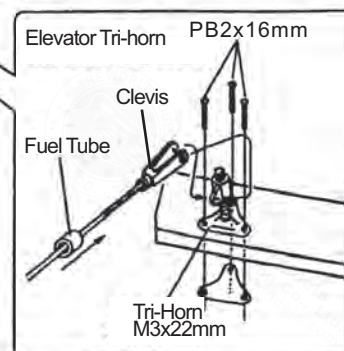
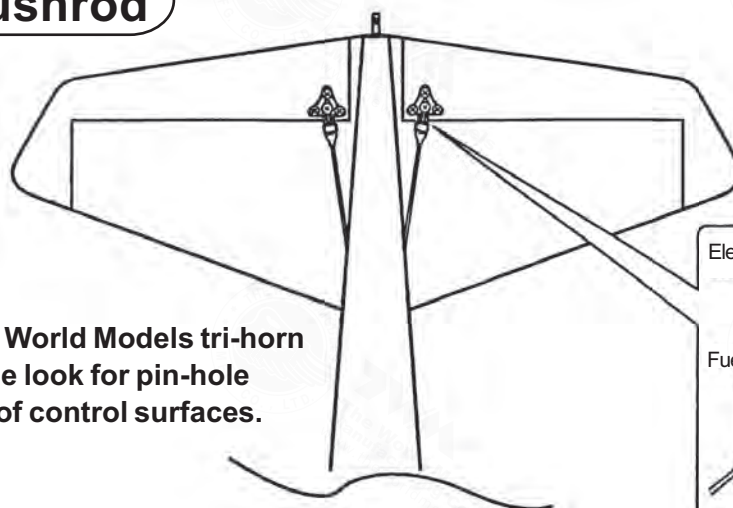
L/R

16 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.

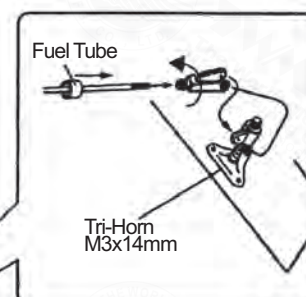
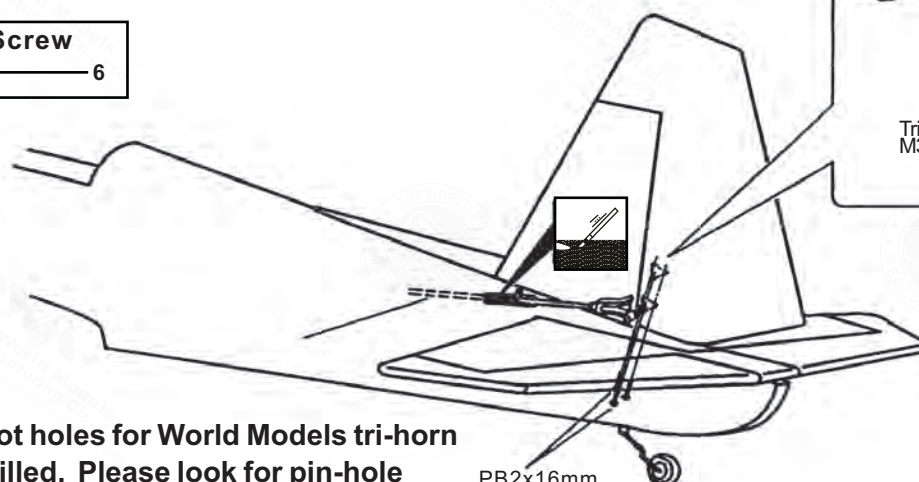
L/R



17 Rudder Pushrod

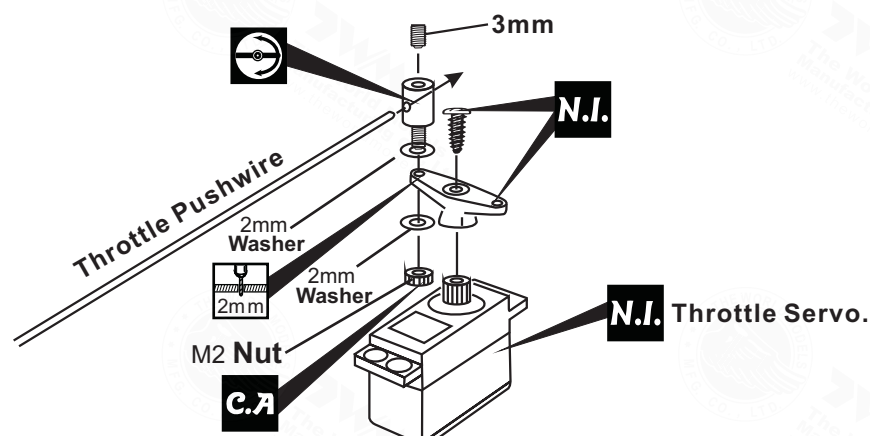
PB2x16mm Screw
6

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



18 Servo Set

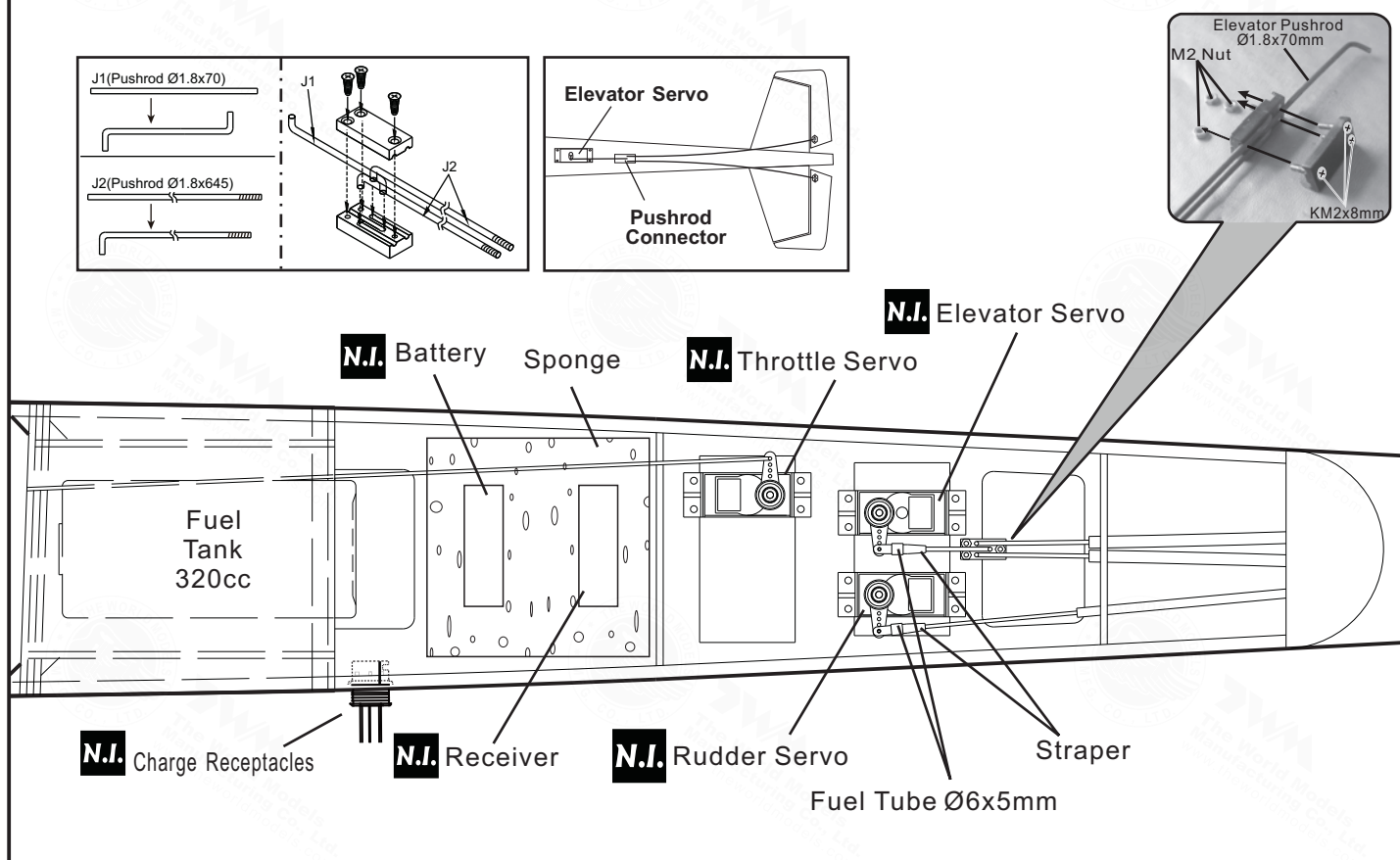
3x3mm Set Screw 1
Linkage Connector 1
M2 Nut 1
2mm Washer 1
2mm Washer 2



Please refer to the attached sheet for linkage connector installation.

19 Radio Equipment

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



20 Canopy

PWA2.3 X 8mm Screw



4

d1.5 x D6.5mm Silicon Grommet

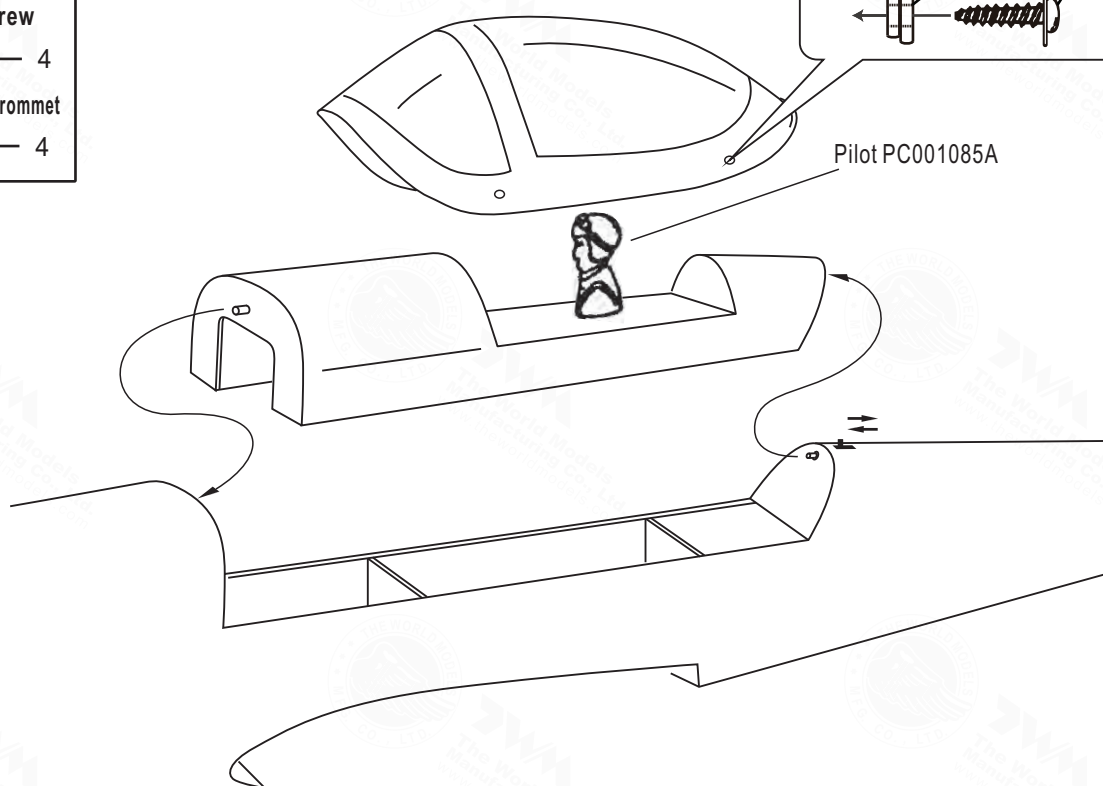


4

Silicom Grommet d1.5xD6.5mm

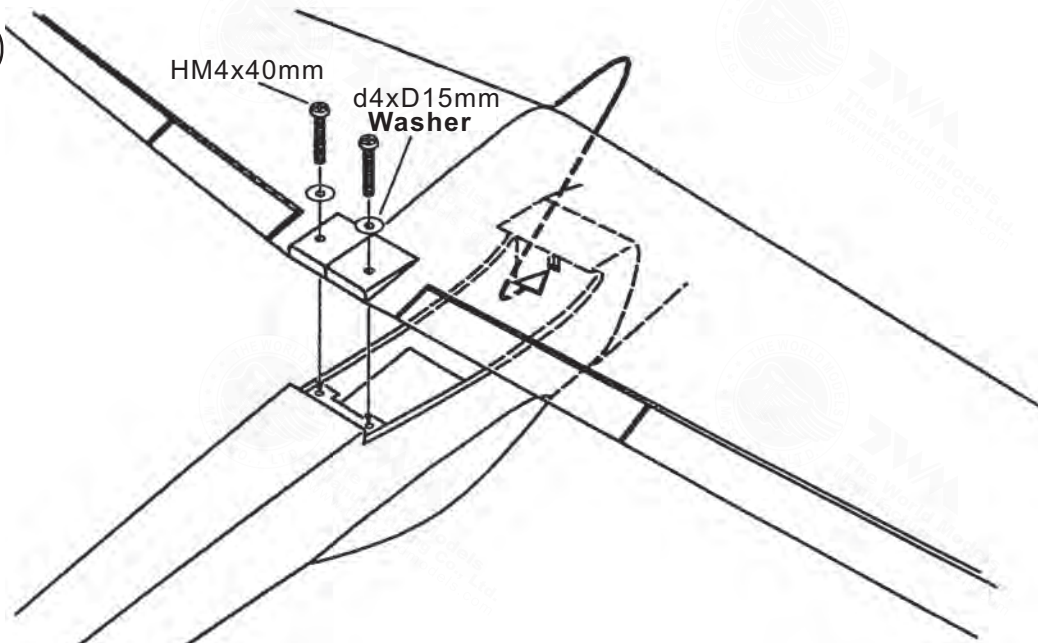


Pilot PC001085A



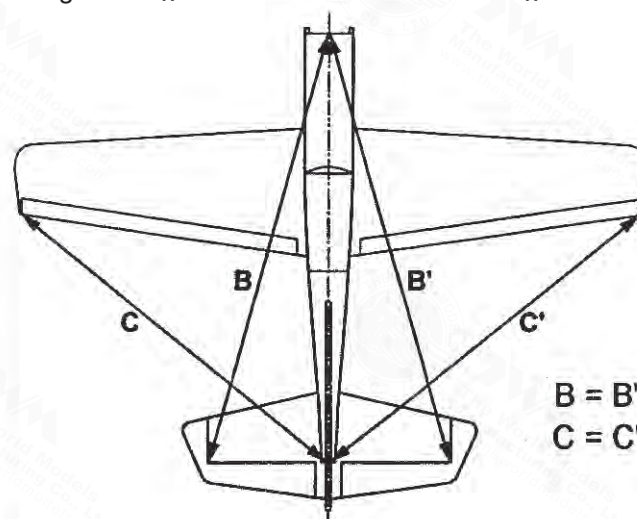
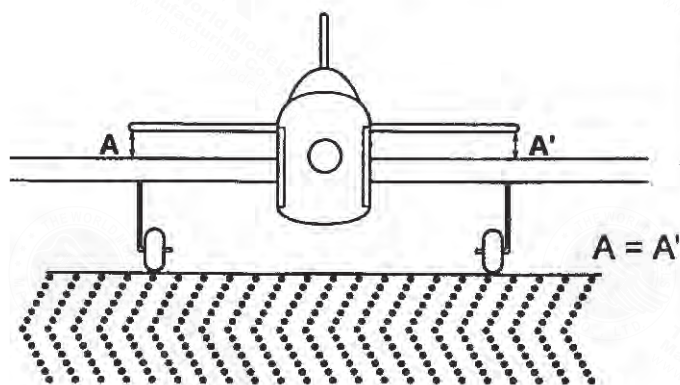
21 Main Wing

HM4x40mm Screw — 2
d4xD15mm Washer — 2



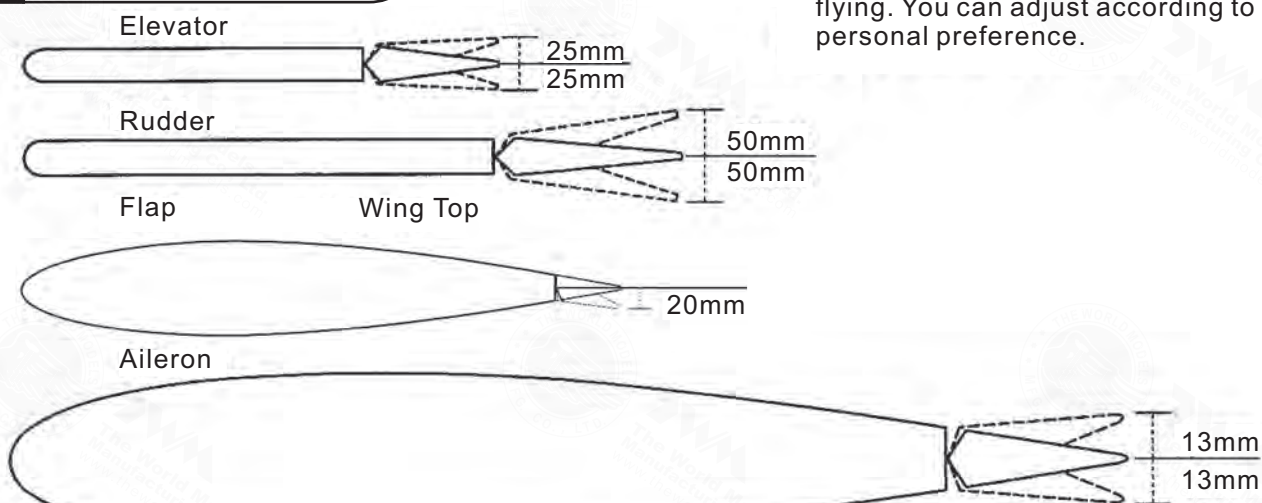
22 Wing Setting

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



23 Control Throws

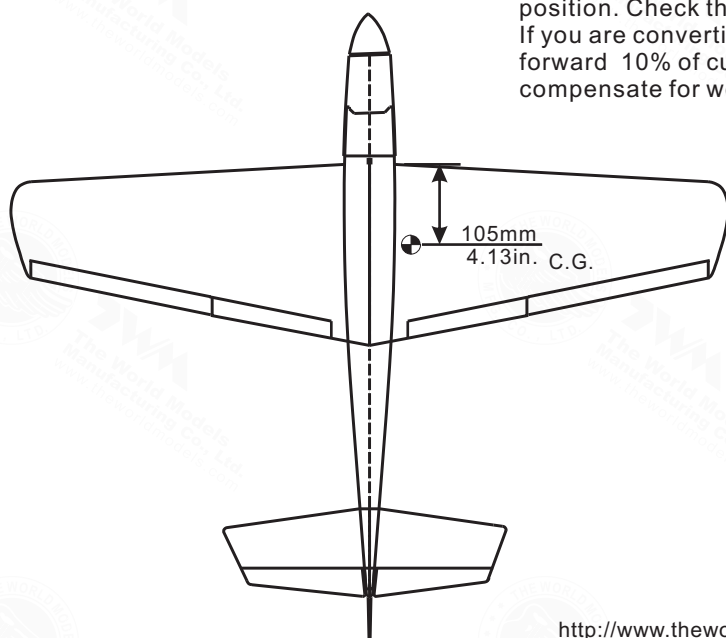
Adjust the control throws as shown in the diagram. Throws are good for general flying. You can adjust according to your personal preference.



24 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.

If you are converting this model to electric, please move the C.G. forward 10% of current C.G. distance from leading edge to compensate for weight of fuel.



<http://www.theworldmodels.com/para/instruction/instructionManuals.php>

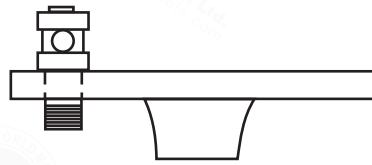
! Warning!

Important Safety Precautions

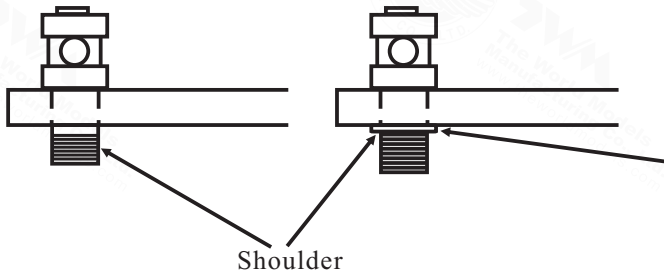
- # First time flyer should never fly by himself / herself. Assistance from experienced flyer is absolutely necessary.
- # Pre-flight adjustment must be done before flying, it is very dangerous to fly a badly pre-adjusted aircraft.
- # *Super Chipmunk-90 RF* is specially designed to be powered by **2C 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.

LINKAGE CONNECTOR

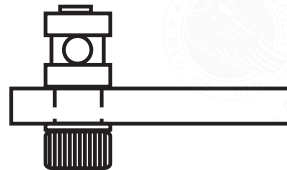
HW7111050 & HW7111060



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: _____

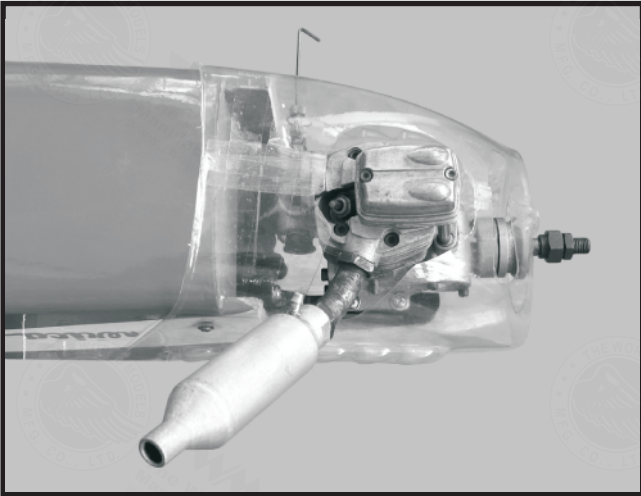
Please call AirBorne Models at 925 371 0922 for any assistance in filling this form.
Thank you very much for purchasing our product.

Usage of the transparent 3D template



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

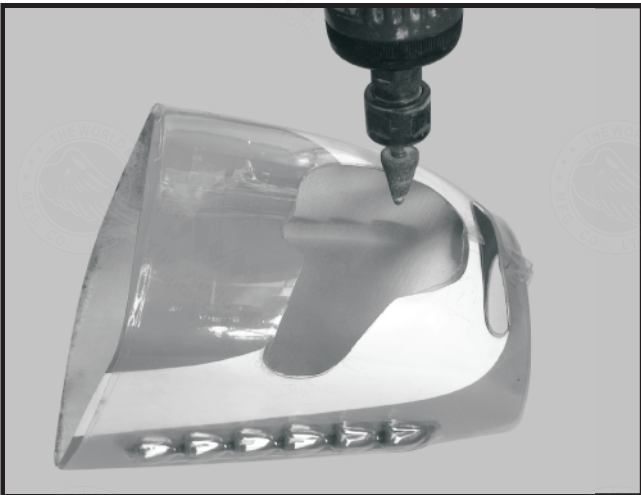
1



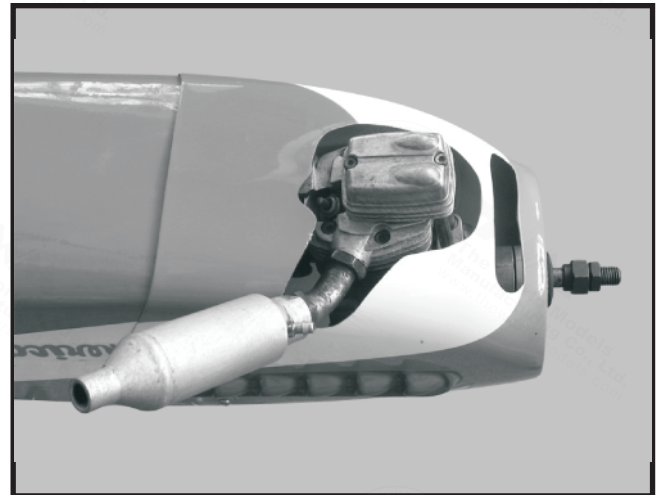
2



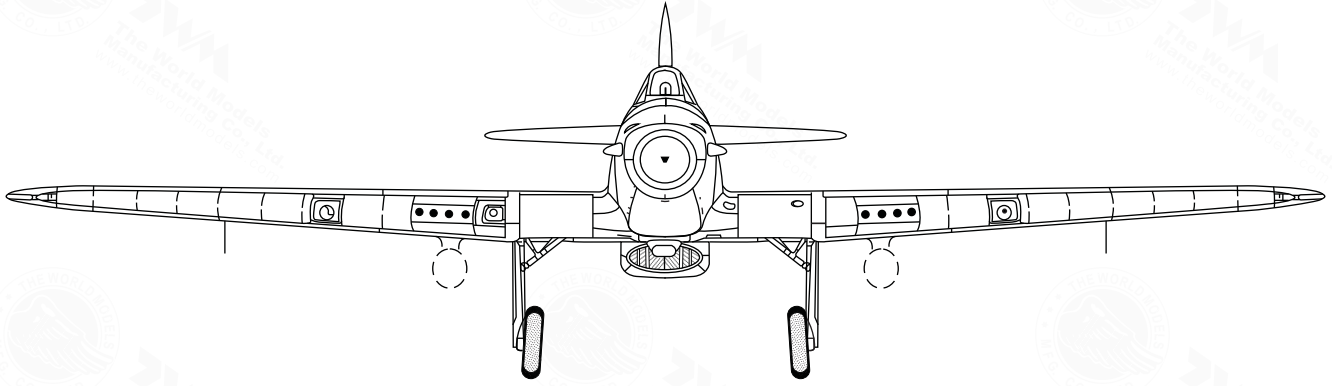
3



4



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.



Ducted Fan

Pattern

Warbirds

Funfly

Scale

Electric

Sports

Glider

Trainer

Boat

Accessories

Covering

(Lightex / Toughlon)



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