

1/4 SUPER CUB (A036)



**Requires : 2-stroke 0.91 or 4-stroke 1.20-1.60 engine,
5-channel radio w/ 6 standard servos**

Specifications

Wing Span	104in / 2640mm
Wing Area	1586sq in / 102.3sq dm
Flying Weight	14 lbs / 6300g
Fuselage Length	68 in / 1725mm

* 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.



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

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

1/4 SUPER CUB

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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.

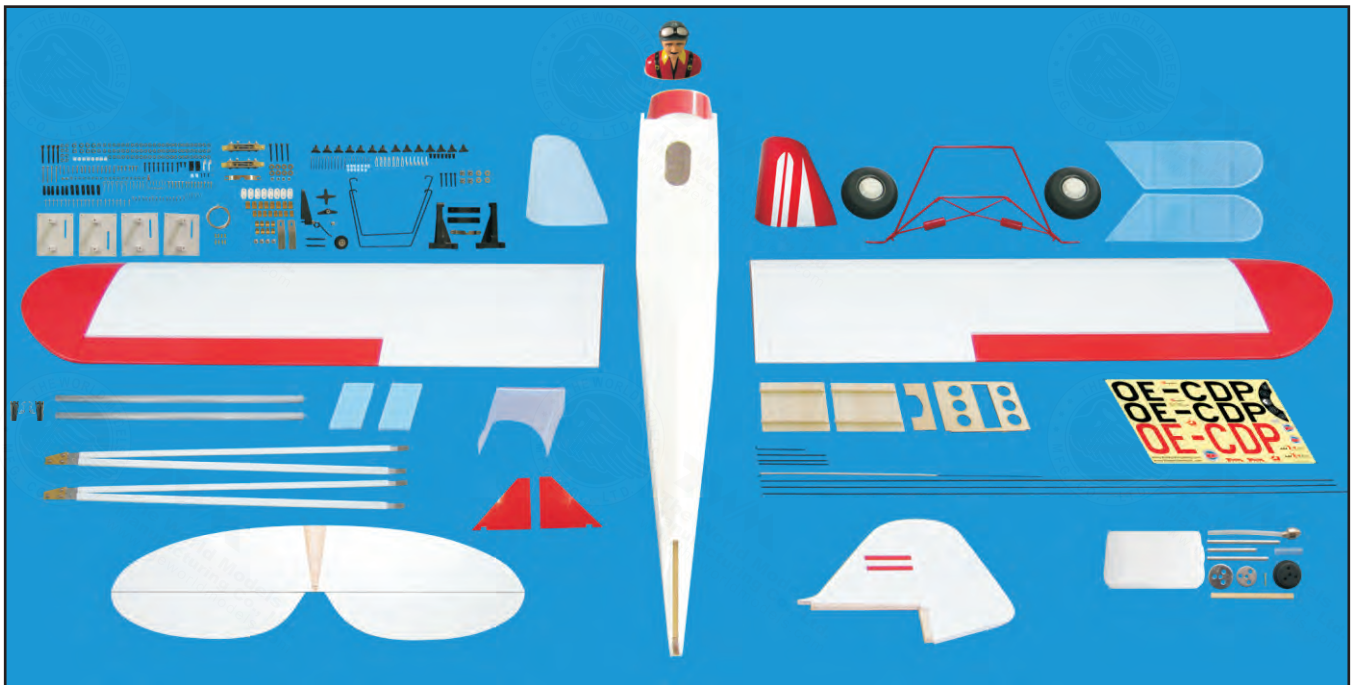


Pay close attention here!



Warning!

Do not overlook this symbol!



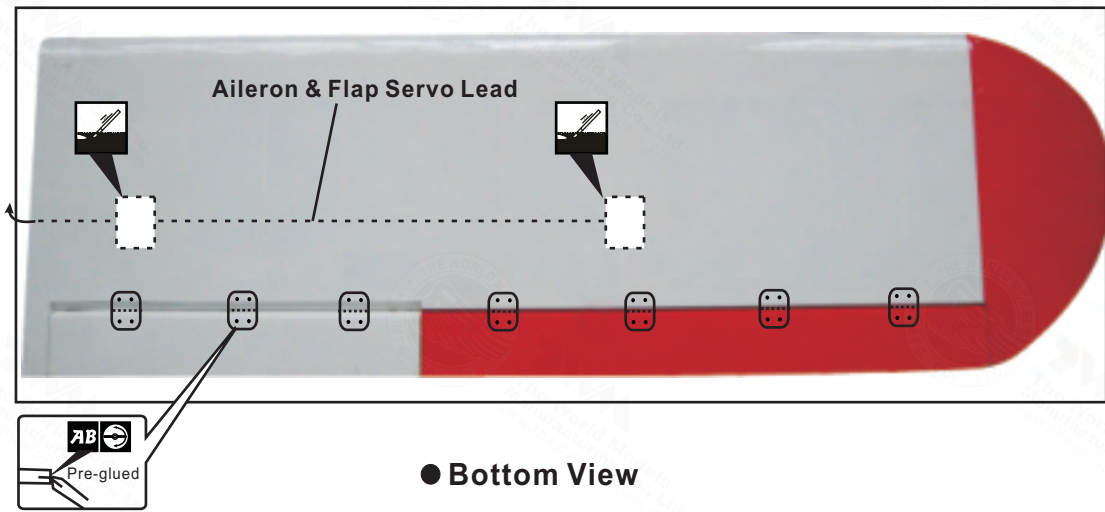
Parts List

1. MAIN WING -- 1 pair
2. PUSHROD $\varnothing 1.8 \times 120 \text{mm}$
w/ Threads (For Aileron & Flap Servo) -- 4 pcs
FUEL TUBE $\varnothing 6 \times 5 \text{mm}$ -- 8 pcs
STRAPER PL4112102 -- 4 pcs
SCREW PB2x30mm -- 12 pcs
SCREW PWA2x8mm -- 16 pcs
SERVO MOUNTING PANEL -- 4 pcs
CLEVIS PL4112103 -- 4 pcs
TRI-HORN M3x22mm(L) PL4111251 -- 4 sets
3. SCREW PM3x15mm -- 12 pcs
WASHER d3xD7mm -- 16 pcs
M3NUT -- 4 pcs
MAIN WING STRUTS -- 1 set
WING STRUT WIRE $\varnothing 3 \times 143 \times 208 \text{mm}$ -- 2 pcs
PLASTIC WIRE BRACKET PL5330030 -- 8 pcs
4. FUSELAGE -- 1 pc.
STABILIZER & ELEVATOR -- 1 set
5. VERTICAL FIN & RUDDER -- 1 set
6. TAIL GEAR ASSEMBLY 11-22LBS PL3410021 -- 1 set
PLATE (For Staying on Tail Fuselage Bottom) $1 \times 10 \times 40 \text{mm}$ -- 1 pc
7. SCREW PM3x13mm -- 2 pcs
ALUMINUM PLATE 2mm -- 2 pcs
MAIN LANDING GEAR -- 1 set
SCREW PA3x12mm -- 14 pcs
WASHER d3xD7mm -- 2 pcs
MOUNTING PLATE $12 \times 20 \text{mm}$ -- 6 pcs
8. SCREW PA1.7x8mm -- 6 pcs
SCREW PM3x13mm -- 8 pcs
WASHER d3xD7mm -- 16 pcs
M3NUT -- 8 pcs
COLLAR $\varnothing 4.6 \text{mm}$ w/ setscrew -- 4 sets
MAIN WHEEL (CUB) $\varnothing 107 \text{mm}$ -- 2 sets
PLYWOOD $3 \times 145 \times 171 \text{mm}$ (Main Landing Gear Cover) -- 2 pcs
PLASTIC WIRE BRACKET PL5330050 -- 8 pcs
9. ENGINE MOUNT PL5111080 -- 1 set
SOCKET HEAD SCREW M4x30mm -- 4 pcs
WASHER d4.2xD14.5mm -- 4 pcs
M4 BLIND NUT -- 4 pcs
10. ALUMINUM PLATE (For Engine Mount) -- 1 pc.
ANTI-VIBRATION MOUNT PL5214094 -- 1 set
INCLUDE: SOCKET HEAD SCREW M4x35mm -- 4 pcs
SCREW KM3x20mm -- 8 pcs
WASHER d4xD12mm -- 8 pcs
NYLON INSERT LOCK NUT M3 -- 8 pcs
NYLON INSERT LOCK NUT M4 -- 4 pcs
THROTTLE PUSH WIRE $\varnothing 1.2 \times 480 \text{mm}$ -- 1 pc.
PLASTIC TUBE $d2 \times d3 \times 300 \text{mm}$ -- 1 pc.
11. SCREW PWA2.6x12mm -- 4 pcs
SILICON GROMMET d1.5xD6.5mm (For Cowling) -- 4 pcs
COWLING -- 1 pc.
12. FUEL TANK 500cc -- 1 set
CABLE TIE $1.5 \times 5 \times 400 \text{mm}$ -- 1 pc.
DOUBLE-SIDED TAPE $40 \times 100 \text{mm}$ -- 1 pc.
13. SCREW PB2x16mm -- 6 pcs
FUEL TUBE $\varnothing 6 \times 5 \text{mm}$ -- 2 pcs
CLEVIS PL4112103 -- 2 pcs
TRI-HORN M3x22mm(L) PL4111251 -- 2 sets
PUSHROD $\varnothing 1.8 \times 1000 \text{mm}$ w/ Threads (For Elevator Servo) -- 2 pcs
14. SCREW PB2x16mm -- 3 pcs
FUEL TUBE $\varnothing 6 \times 5 \text{mm}$ -- 1 pc.
CLEVIS PL4112103 -- 1 pc.
TRI-HORN M3x22mm(L) PL4111251 -- 1 set
PUSHROD $\varnothing 1.8 \times 1065 \text{mm}$ w/ Threads (For Rudder Servo) -- 1 pc.
15. FLYING WIRE $\varnothing 1 \times 1300 \text{mm}$ -- 1 pc.
FLYING WIRE BRACKET PL4112600 -- 6 pcs
FLYING WIRE BRACKET CLEVIS -- 4 pcs
EYE SCREW M1.8x6x12mm -- 4 pcs
SCREW PM2x16mm -- 6 pcs
SCREW PM2x8mm -- 4 pcs
M2NUT -- 6 pcs
WASHER d2xD5mm -- 6 pcs
COPPER TUBE $d2.5 \times d3.2 \times 8 \text{mm}$ (For Rudder) -- 8 pcs
16. SIDE WINDOWS -- 1 pair
17. LINKAGE CONNECTOR $\varnothing 2.1 \text{mm}$ -- 1 set
18. PLYWOOD $3 \times 153 \times 210 \text{mm}$ (For Fuselage Servos) -- 1 pc.
FUEL TUBE $\varnothing 6 \times 5 \text{mm}$ -- 2 pcs
STRAPER PL4112102 -- 2 pcs
PUSHROD $\varnothing 1.8 \times 85 \text{mm}$ (For Elevator) -- 1 pc.
PUSHROD CONNECTOR $4 \times 9 \times 20 \text{mm}$ PL4410010 -- 1 set
SPONGE $10 \times 80 \times 200 \text{mm}$ -- 2 pcs
19. SCREW PWA2x12mm -- 4 pcs
PILOT PC001102A -- 1 set
COCKPIT BASE PANEL $3 \times 145 \times 165 \text{mm}$ -- 2 pcs
20. SCREW PWA2.3x12mm -- 4 pcs
SCREW PM2x14mm -- 2 pcs
WASHER d2xD5mm -- 4 pcs
SILICON GROMMET d1.5xD6.5mm (For Wind Shield) -- 4 pcs
M2 NYLON INSERT LOCK NUT -- 2 pcs
WIND SHIELD -- 1 pc.
MOUNTING PLATE $5 \times 15 \text{mm}$ -- 2 pcs
21. WING TUBE $\varnothing 16 \times 661 \text{mm}$ -- 2 pcs
SELF-TIGHTENING LATCHING PIN PL9120010 -- 4 pcs
WIRE $\varnothing 0.8 \text{mm}$ -- 2 pair
M3x8mm SET SCREW -- 4 pcs
22. SOCKET HEAD SCREW M3x8mm -- 2 pcs
WASHER d3xD7mm -- 4 pcs
M3 NYLON INSERT LOCK NUT -- 2 pcs
23. DECALS: A036DEC -- 1 set

● COVERING:--

TOUGHLON STL 100 WHITE
TOUGHLON STL 311 FERRARI RED

1 Main Wing

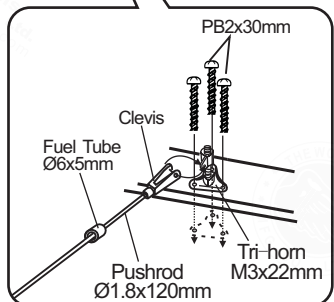
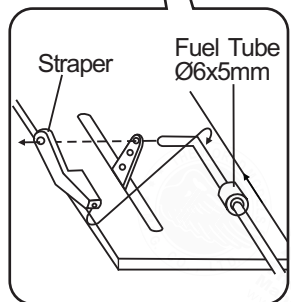
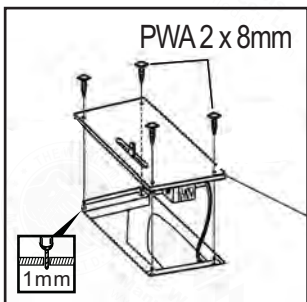
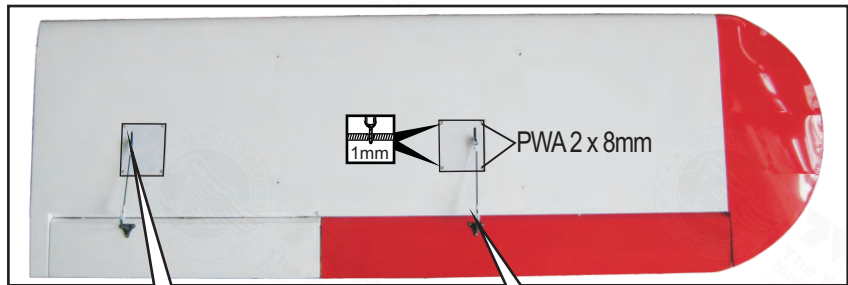
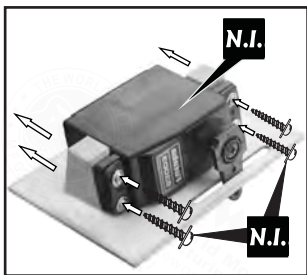
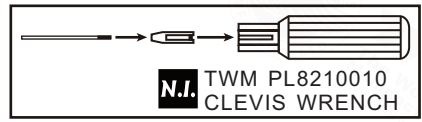


L/R

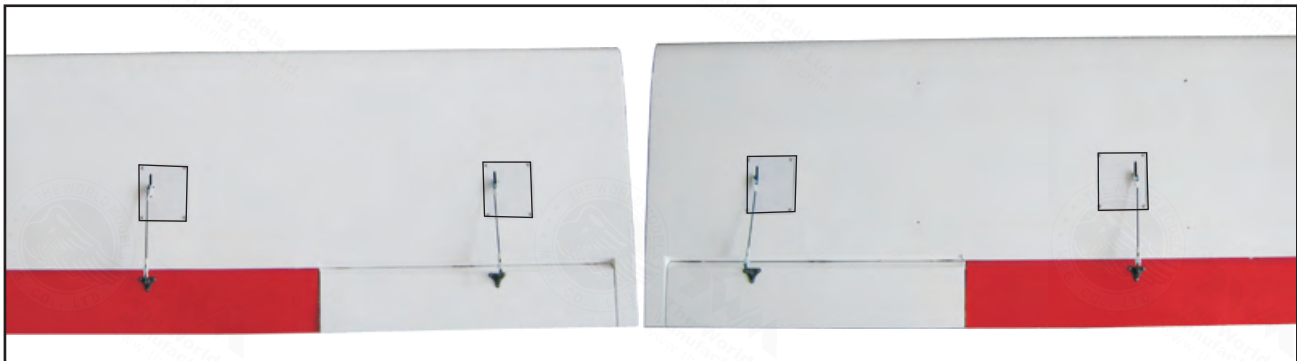
2 Aileron & Flap Servo

● Ø1mm pilot holes for The Wings Maker tri-horn are pre-drilled. Please look for pin-hole marks at under side of control surfaces.

- PB2 x 30mm Screw — 12
- PWA2 x 8mm Screw — 16



L/R



● Bottom View

3 Wing Struts

M3 x 15mm Screw

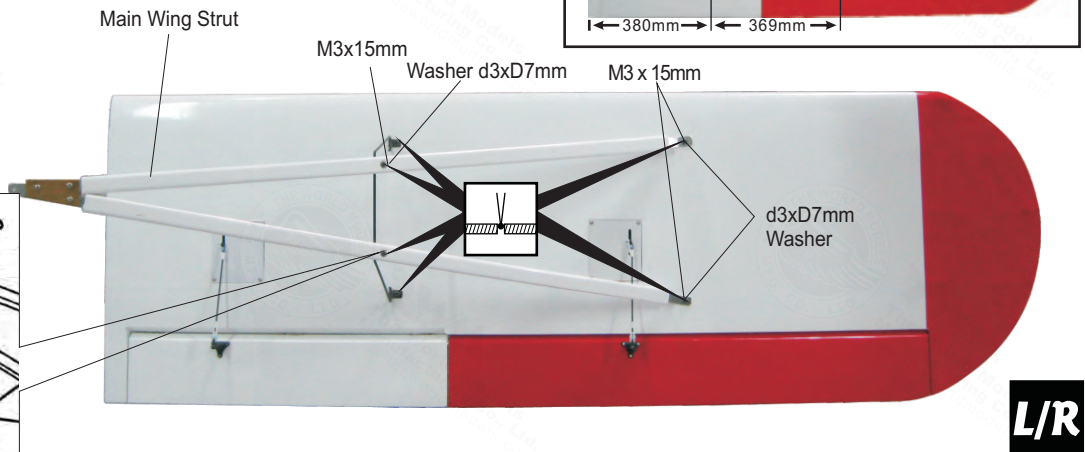
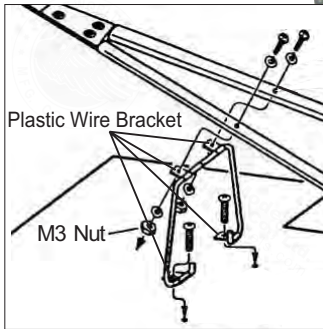
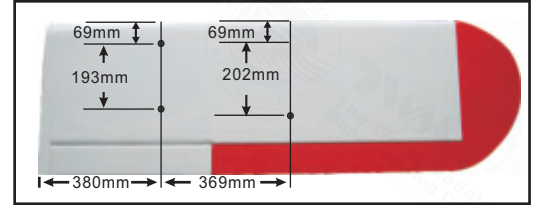
12

d3xD7mm Washer

16

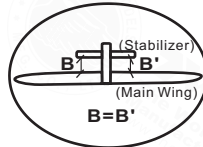
M3 Nut

4

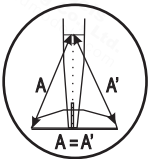
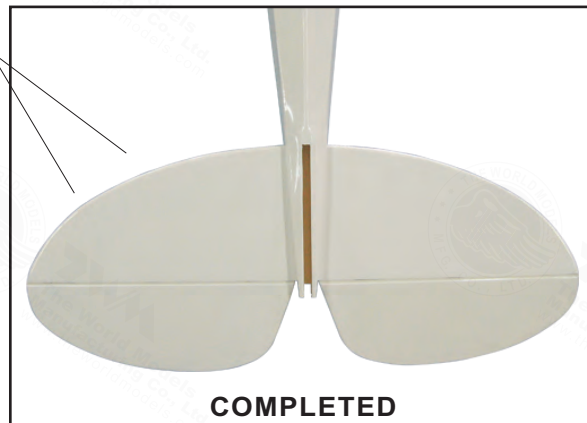
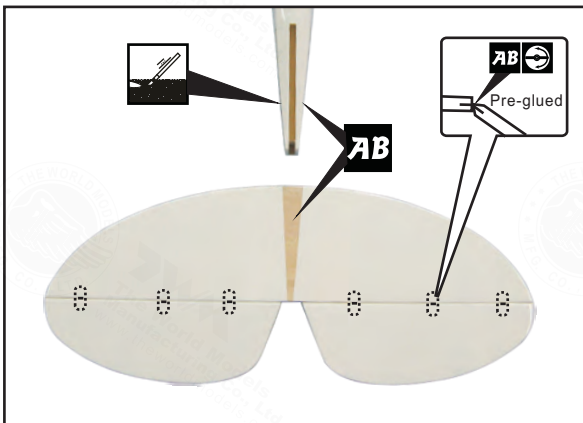


● Bottom View

4 Stabilizer & Elevator

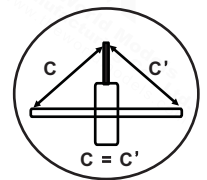
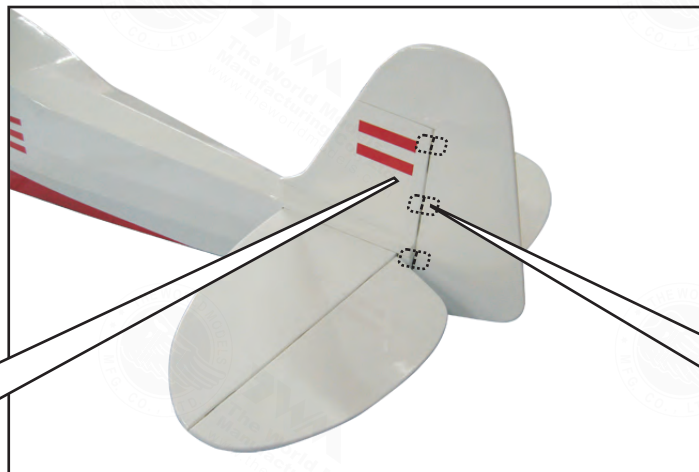
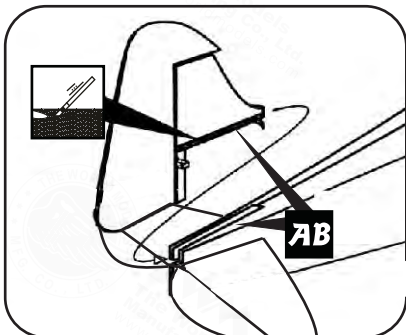


Temporary install the main wing, adjust leveling of the stabilizer to make it as parallel to the main wing as possible.



L/R

5 Vertical Fin & Rudder



COMPLETED

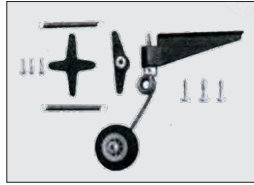
6 Tail Landing Gear

PA3x14mm Screw

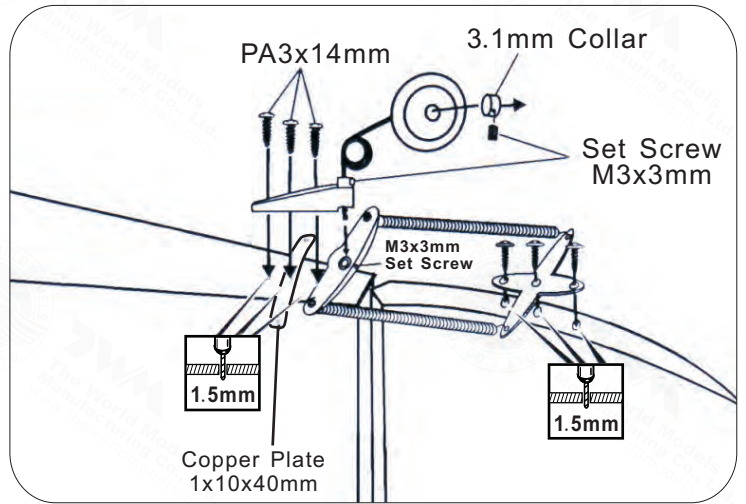
3

PWA2x12mm Screw

3



● Bottom View



7 Main Landing Gear

PA3 x12mm Screw

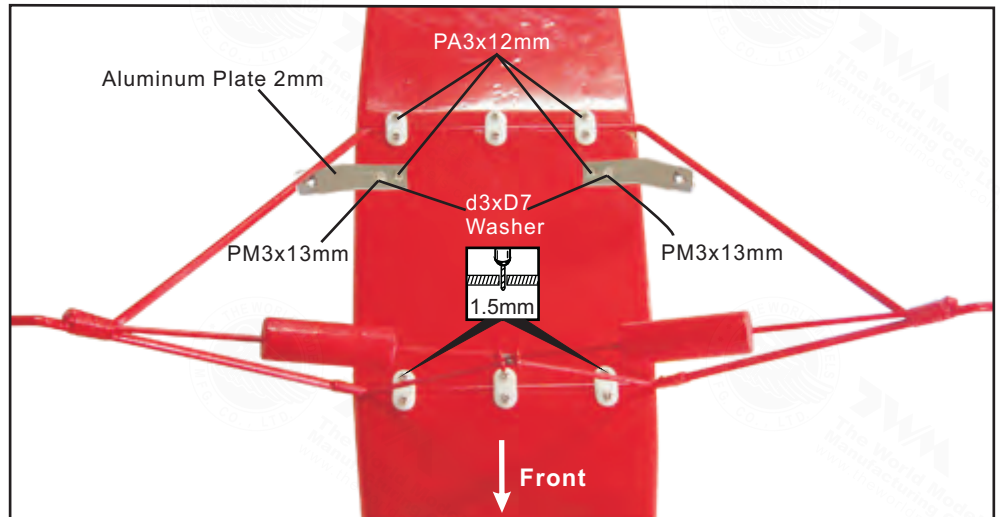
14

PM3 x 13mm Screw

2

d3xD7mm Washer

2



● Bottom View

8 Main Landing Gear

PA1.7 x 8mm Screw

6

PM3 x 13mm Screw

8

d3xD7mm Washer

16

M3 Nut

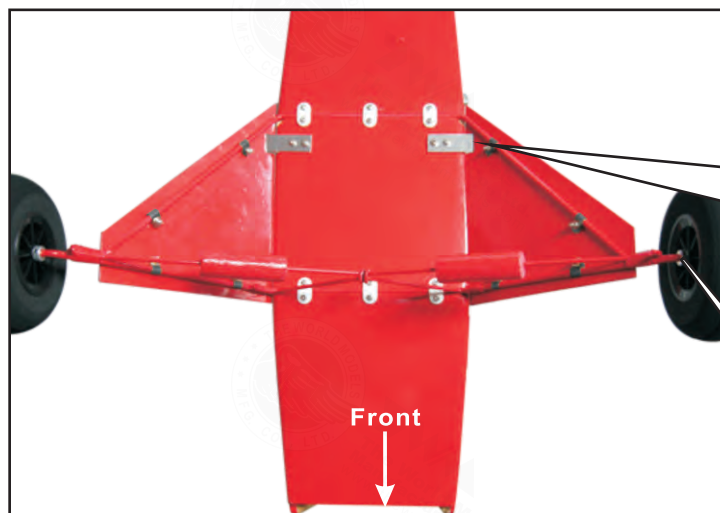
8

3mm Set Screw

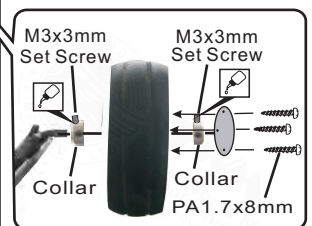
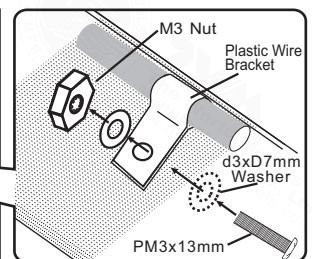
4

4.6mm Wheel Collar

4



● Bottom View



L/R

9 Engine Mount

M4x30mm
Socket Head Screw



D4.2xD14.5mm Washer



M4 Blind Nut



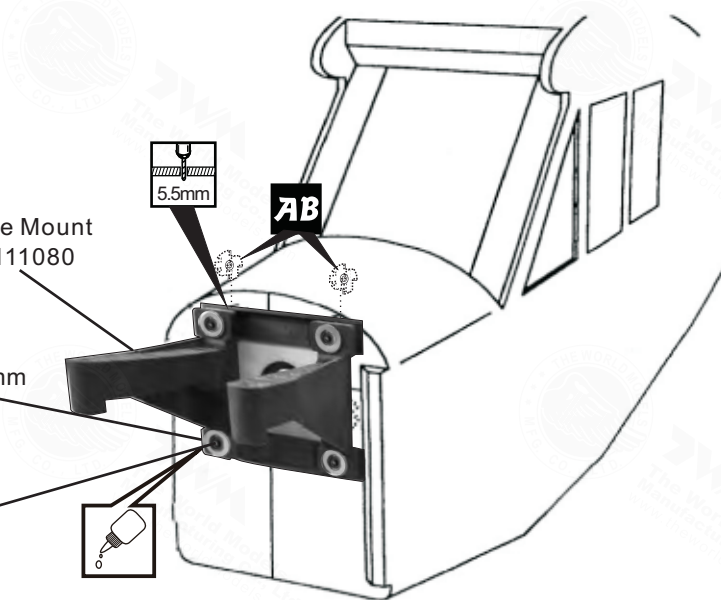
Socket Head Screw
M4 x 30mm

Engine Mount
PL 5111080

Washer
d4.2xD14.5mm



AB



10 Engine

M4x35mm
Socket Head Screw



d4xD12mm Washer



M4 NYLON INSERT LOCK Nut

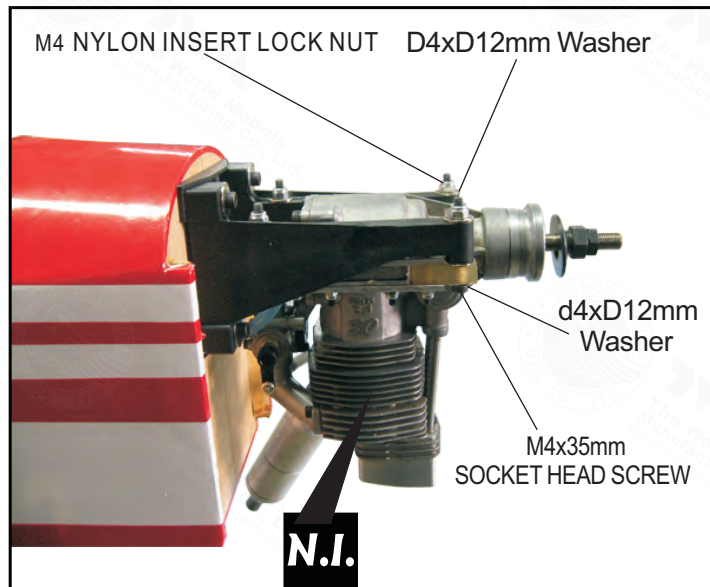


M4 NYLON INSERT LOCK NUT D4xD12mm Washer

d4xD12mm
Washer

M4x35mm
SOCKET HEAD SCREW

N.I.



ANTI-VIBRATION MOUNT INSTALLATION

1 Copper Tube d4.1xD5x67.2mm



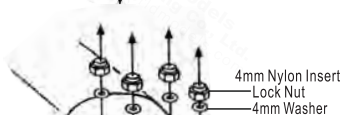
Copper Tube
d3.1xD4x7.2mm

L/R

! Make sure the rounded
edges are facing the
shock absorbing
SILICON PAD.

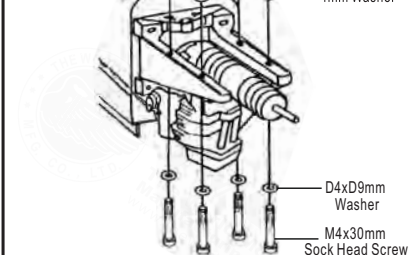
M3 Nylon Insert
Lock Nut

2



4mm Nylon Insert
Lock Nut
4mm Washer

D4xD9mm
Washer
M4x30mm
Sock Head Screw



● Installed Engine Position

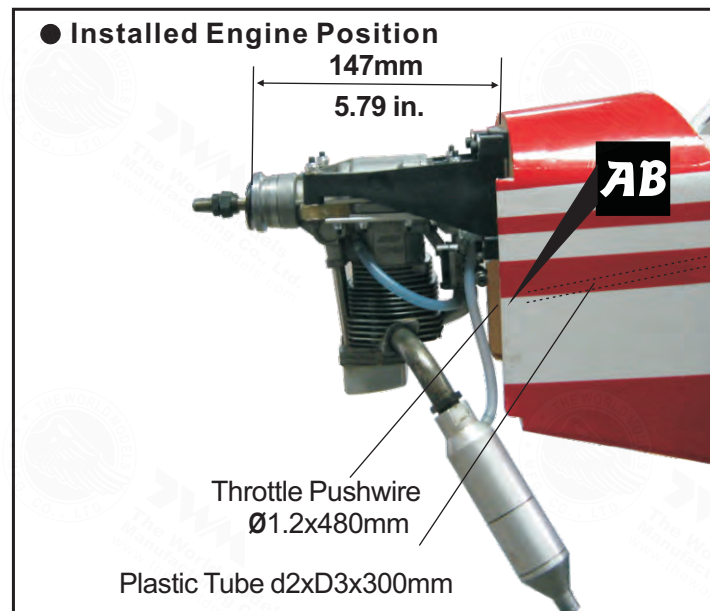
147mm

5.79 in.

AB

Throttle Pushwire
Ø1.2x480mm

Plastic Tube d2xD3x300mm



11 Cowling

PWA2.6x12mm Screw



4

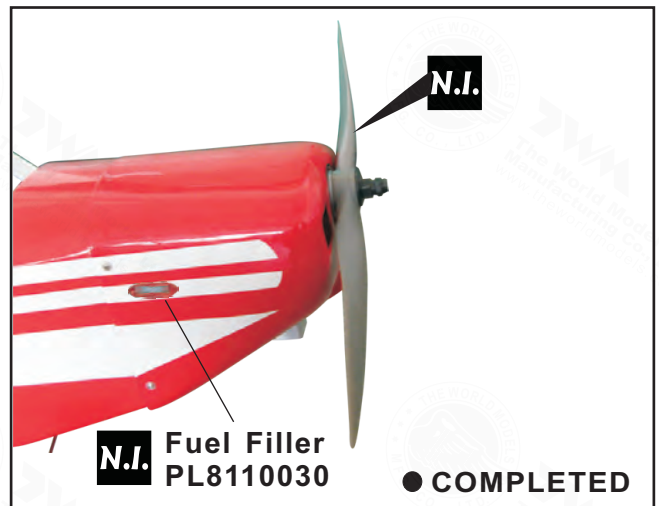
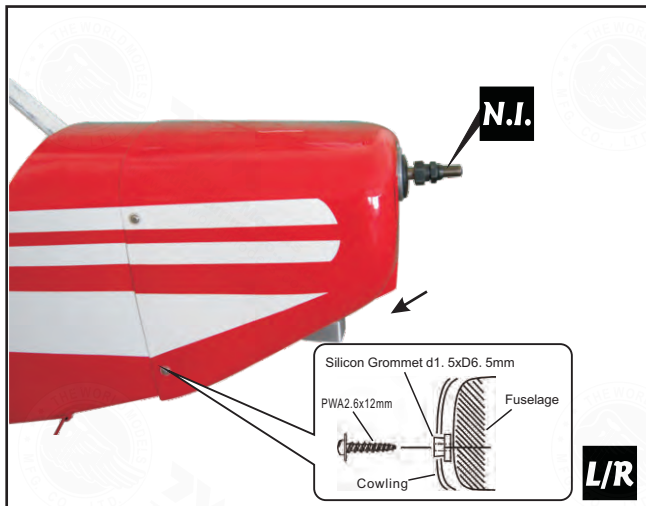
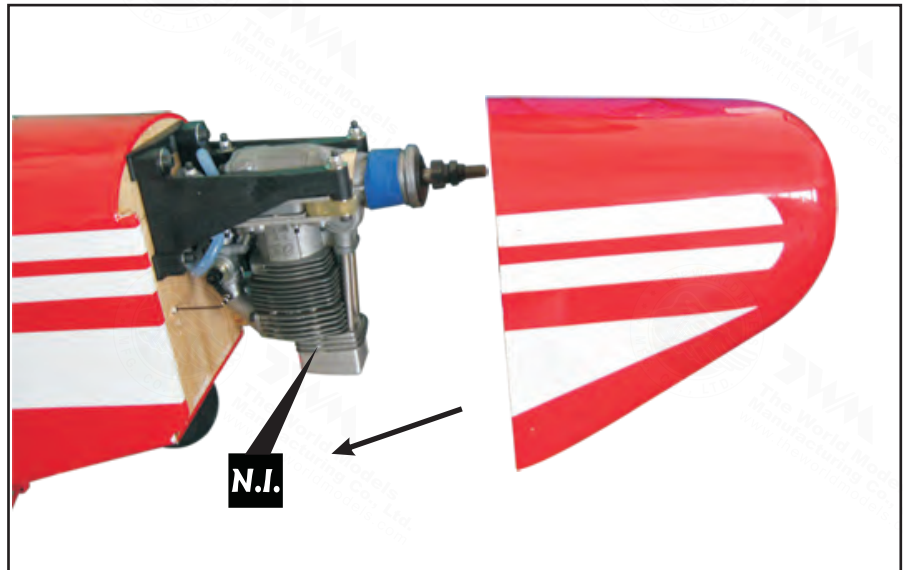
d1.5xD6.5mm Silicon Grommet



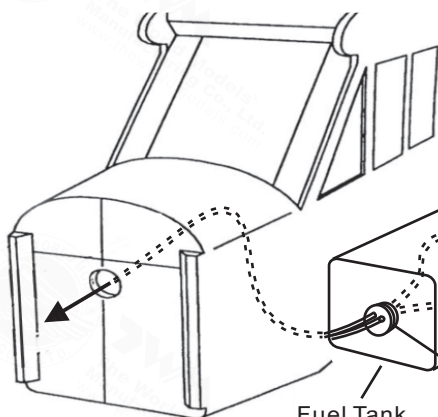
4

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

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



12 Fuel Tank



Fuel Tank
500cc

Cable Tie
1.5x5x400mm



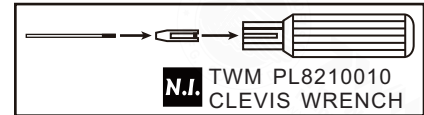
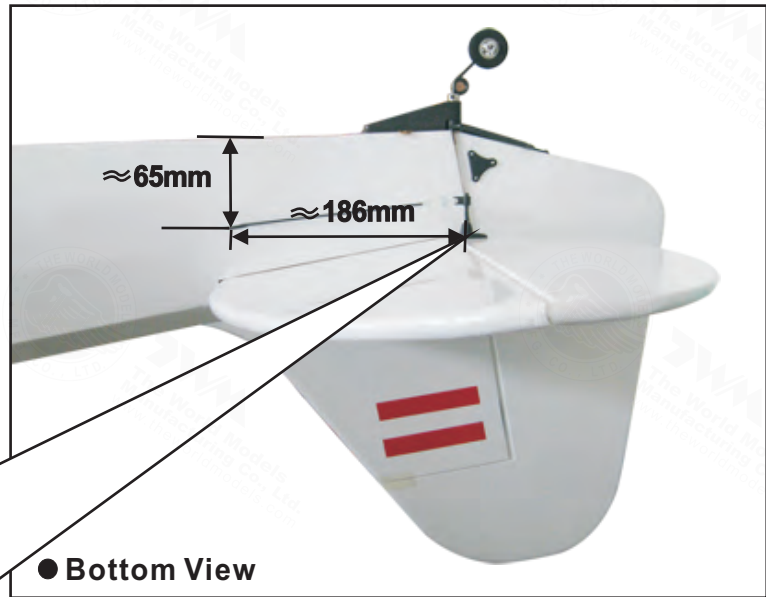
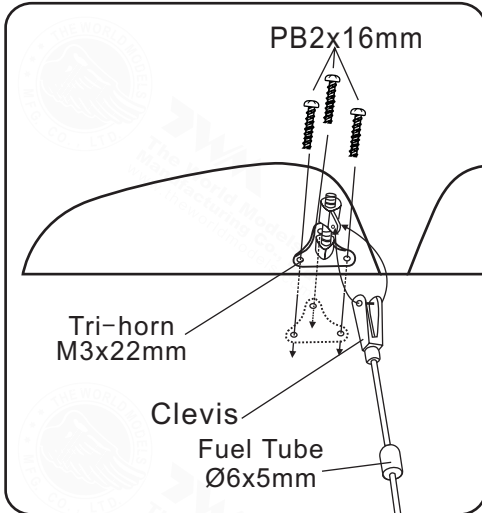
● INSIDE VIEW

Double-sided Tape
40x100mm

13 Elevator Pushrod

● Ø1mm pilot holes for The Wings Maker tri-horn are pre-drilled. Please look for pin-hole marks at under side of control surfaces.

PB2x16mm Screw

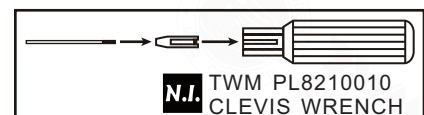
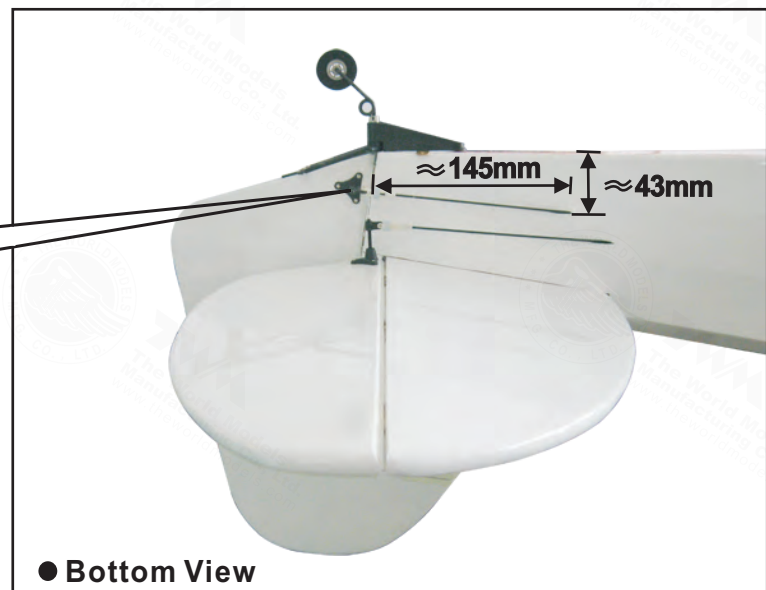
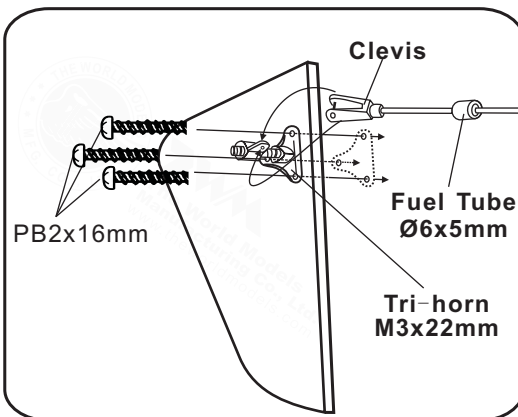
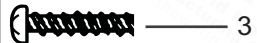


L/R

14 Rudder Pushrod

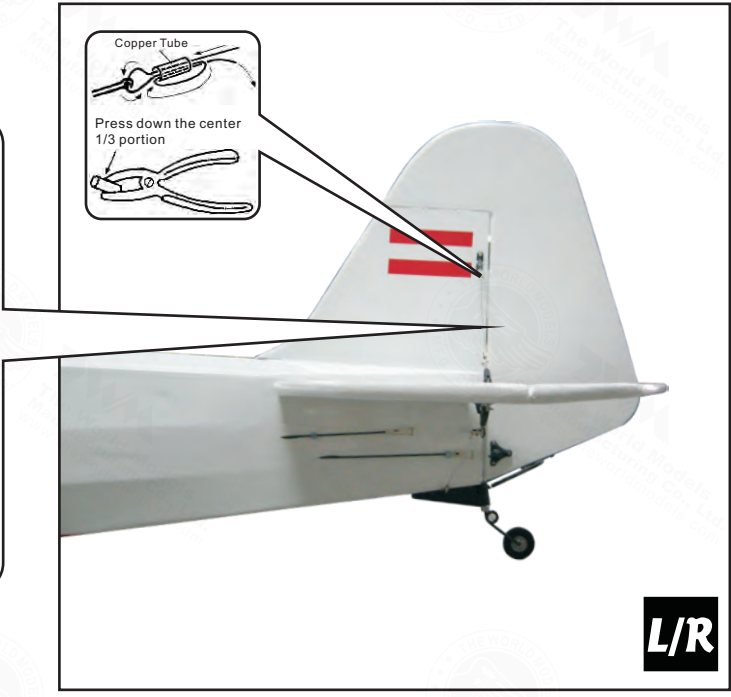
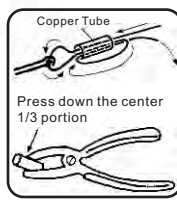
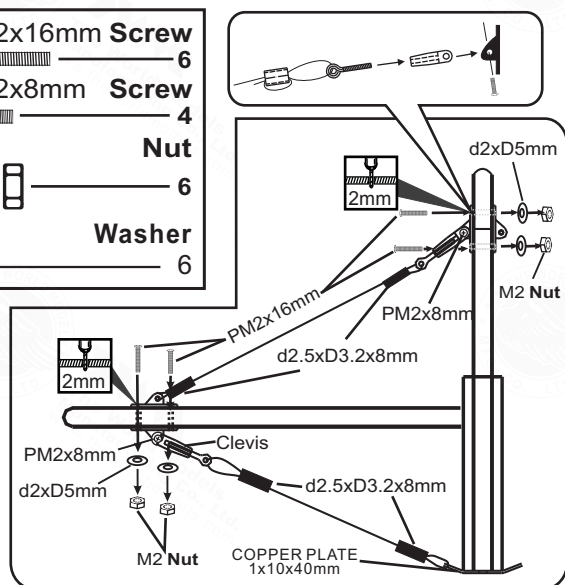
● Ø1mm pilot holes for The Wings Maker tri-horn are pre-drilled.

PB2x16mm Screw



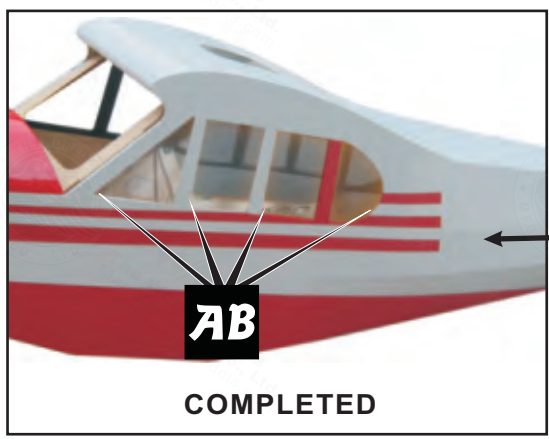
15 Flying Wire

PM2x16mm Screw	6
PM2x8mm Screw	4
M2 Nut	6
3mm Washer	6

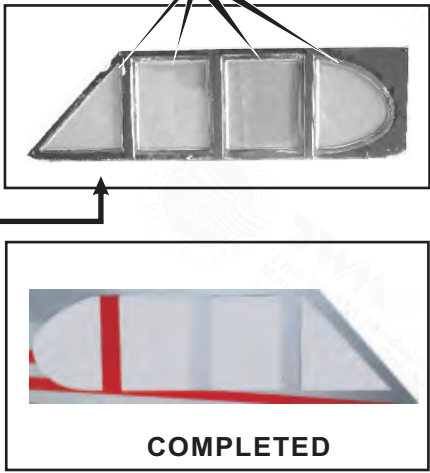


16 Windows

Window A



Window B

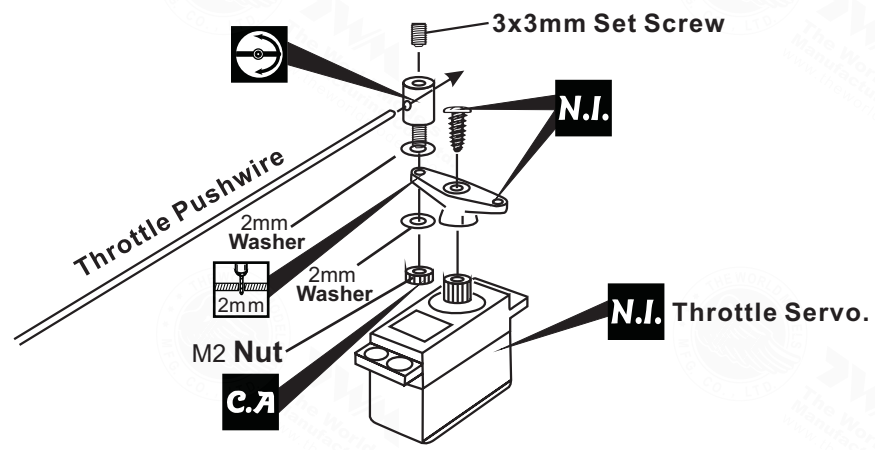


Securely glue the windows to the fuselage.

L/R

17 Servo Set

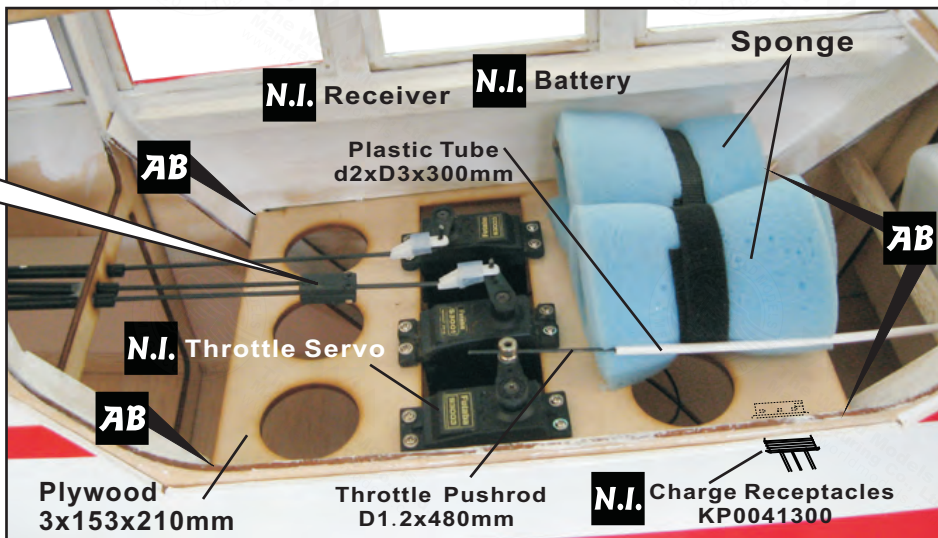
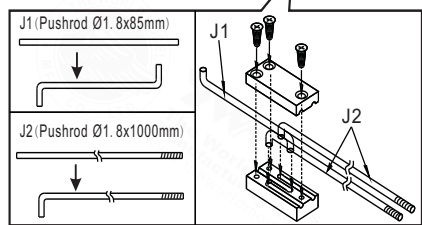
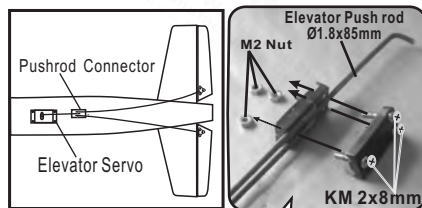
3x3mm Set Screw	1
Linkage Connector	1
M2 Nut	1
2mm Washer	2



Please refer to the attached sheet for linkage connector installation.

18 Radio Equipment

● Install and arrange the servos as shown in the diagram.



19 Pilot

PWA 2x12mm Screw



PWA 2x12mm Screw



PC001102A



20 Wind Shield

PWA2.3x12mm Screw



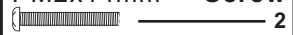
d1.5x6.5mm Silicon Grommet



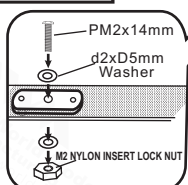
M2 NYLON INSERT LOCK NUT



PM2x14mm Screw



d2xD5mm Washer



d1.5xD6.5mm silicon Grommet

PWA2.3x12mm

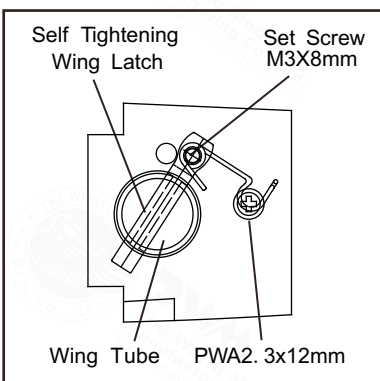
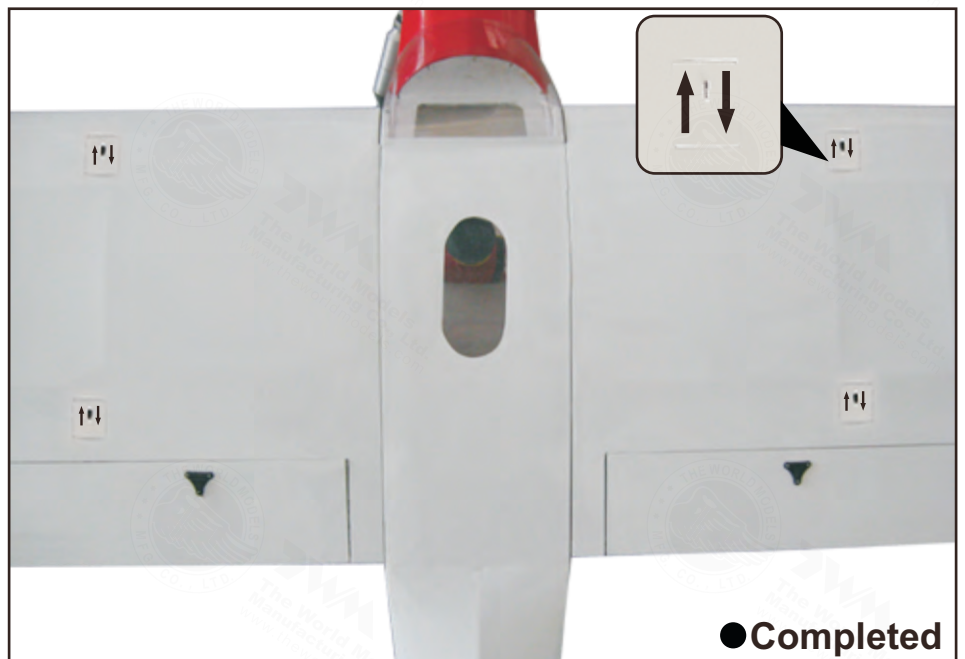
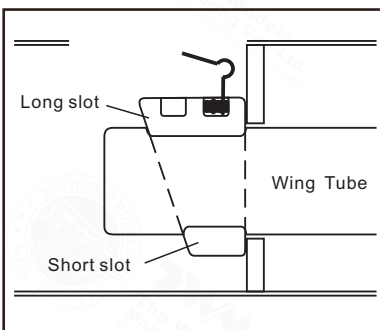
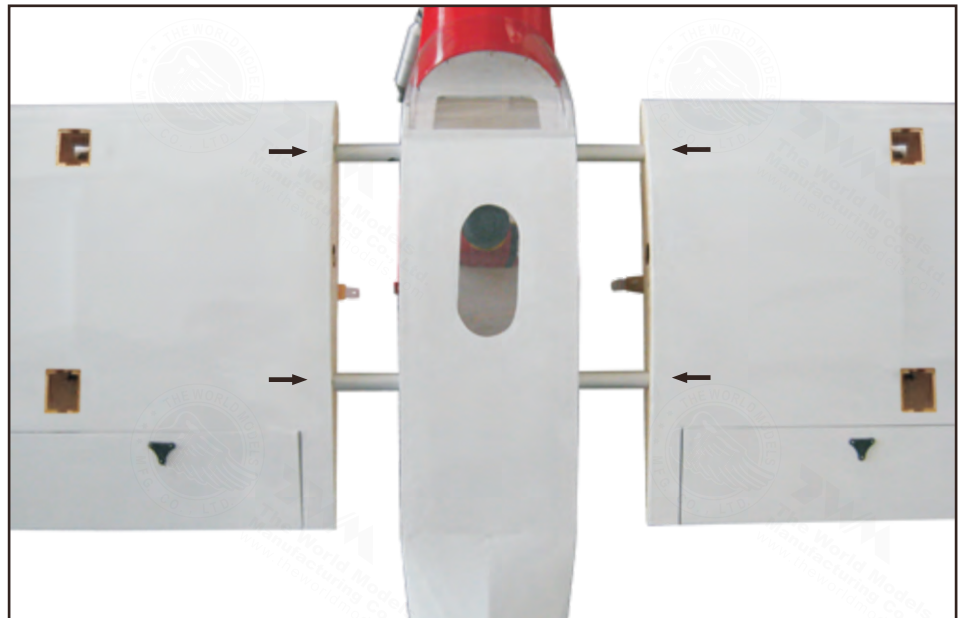
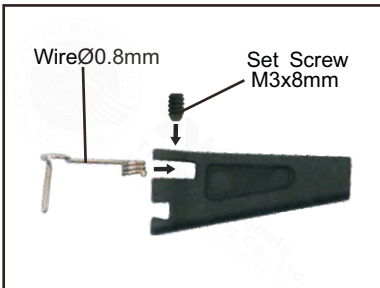
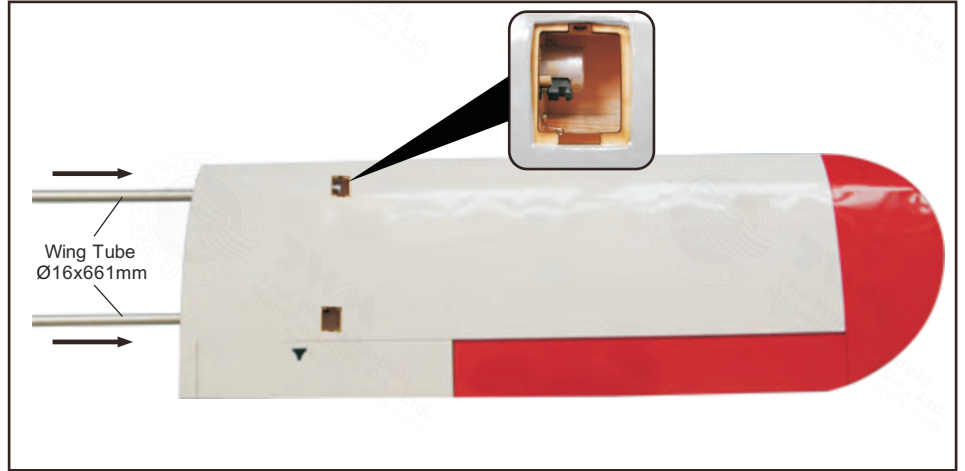


21 Main Wing

M3 x 8mm **Set Screw**

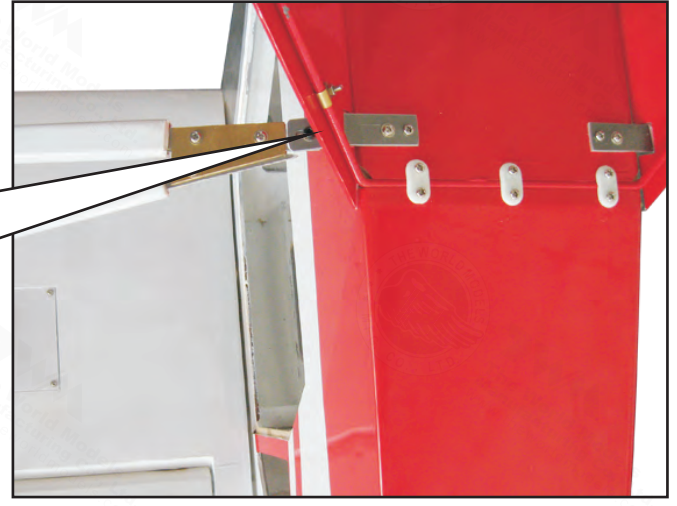
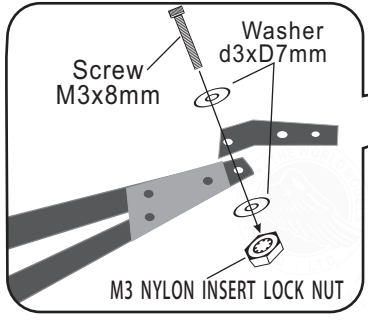


L/R



22 Wing Struts

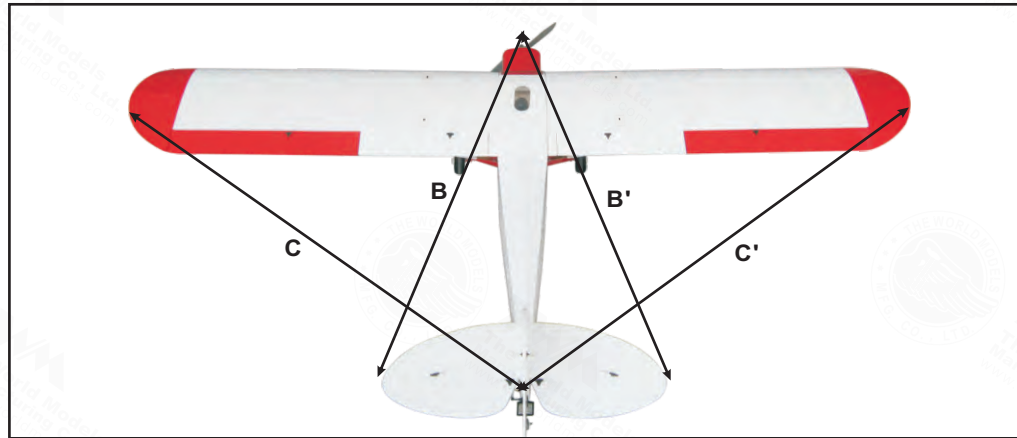
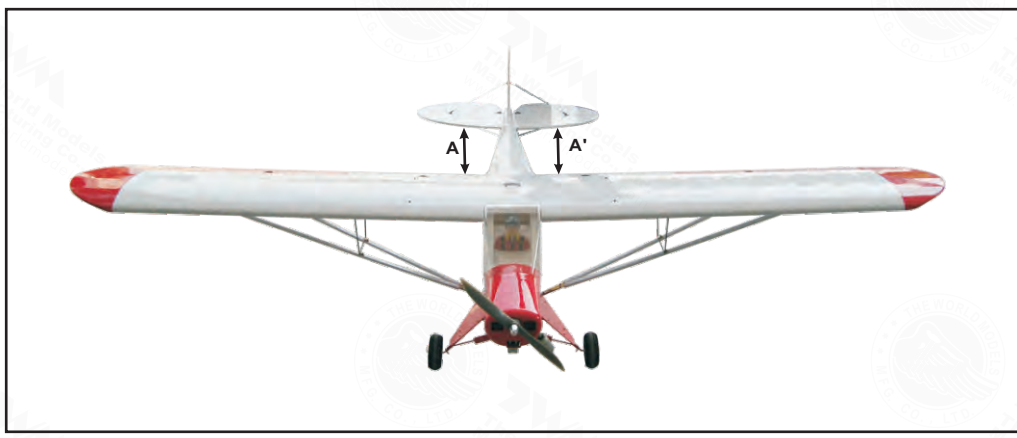
- M3 x 8mm Socket Head Screw — 2
- d3xD7mm Washer — 4
- M3 Nylon Inert Lock Nut — 2



L/R

23 Wing Setting

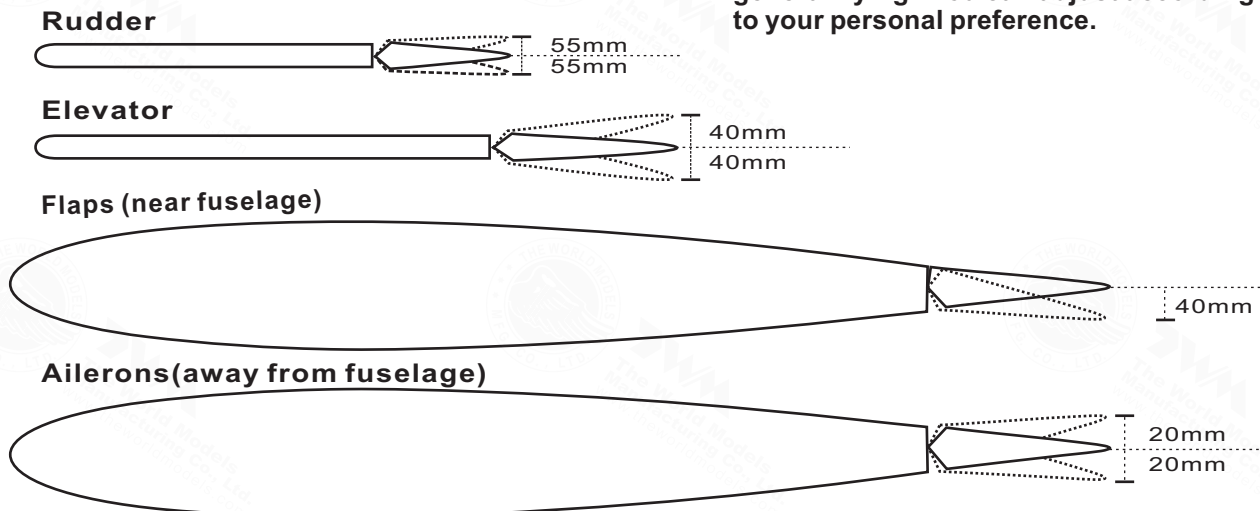
- Adjust the wing and fuselage configuration as shown in the diagrams.



A = A'
B = B'
C = C'

24 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.



25 C.G.

The ideal **C.G.** position is **102mm (4.0in.)** 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.



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

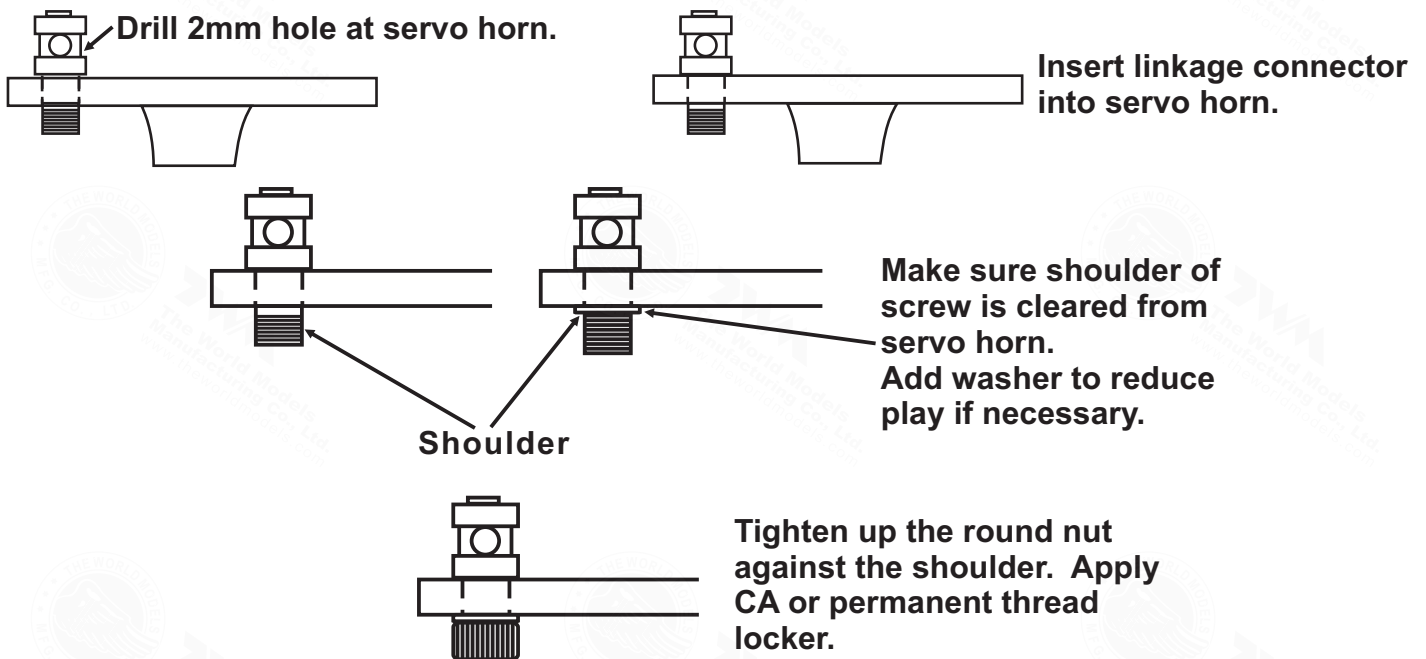
! Warning!

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.
- # **1/4 SUPER CUB** is specially designed to be powered by **2C 0.91** or **4C 1.20-1.60**, 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



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: _____

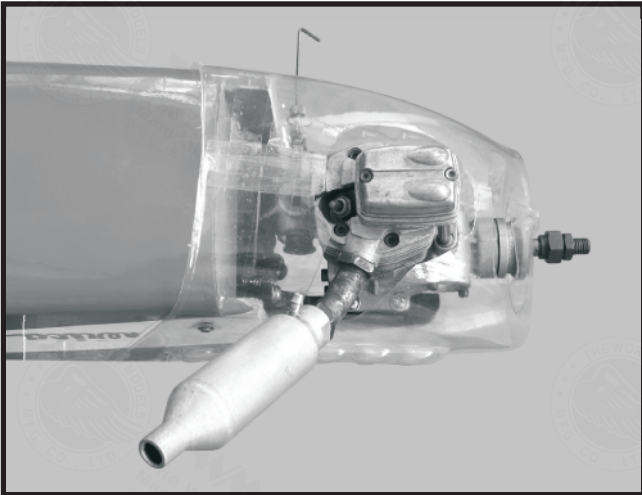
Please call AirBorne Models at 925 371 0922 for any assistance in filling this form. Thank you very much for purchasing our product.

Usage of the transparent 3D template



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

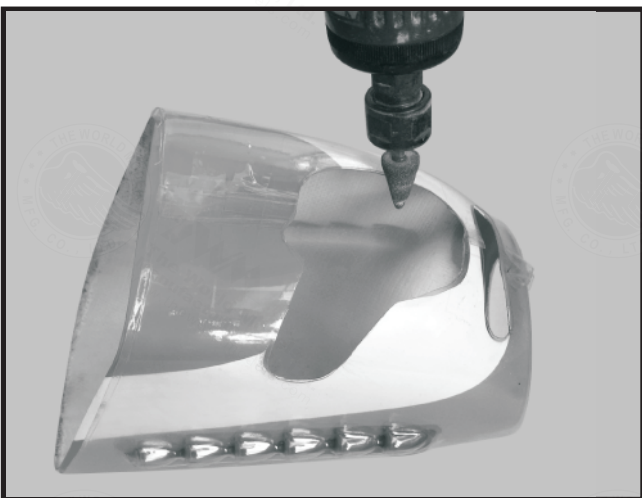
1



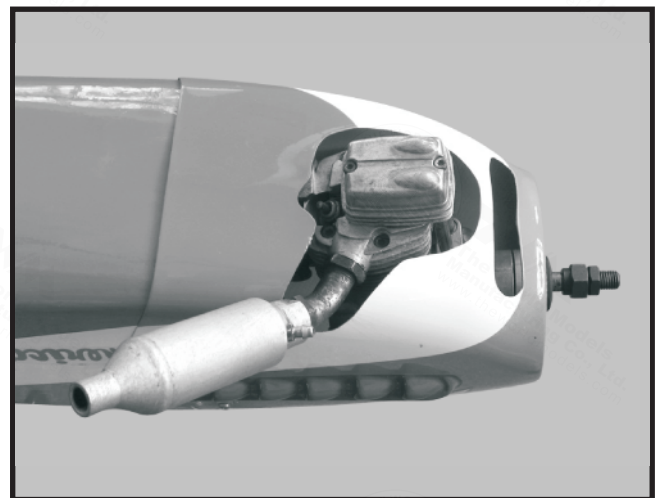
2



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.

Optional Parts

(ACCESSORIES)

180mm Extension

Code No.	Size	Package
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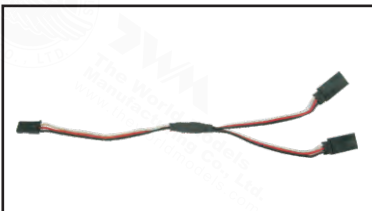
KW0011800 180mm 1 set



180mm Y-Cord

Code No.	Size	Package
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KW0021800 180mm 1 pc

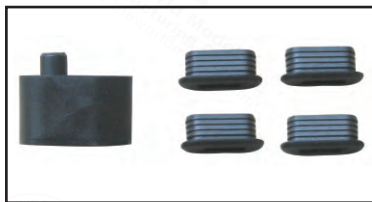


For park flyers of small electric models

Charge Receptacles

Code No.	Size	Package
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KP0041300



Field Stand

Code No.	Size	Package
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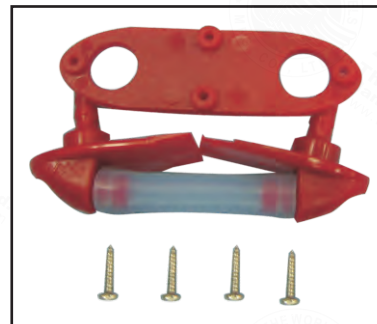
MS9111430 600 x 240 x 310mm 1 pc



Fuel Filler

Code No.	Size	Package
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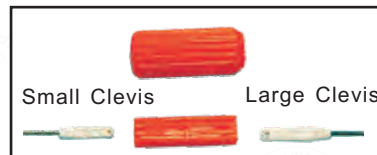
PL8110030 15 x 22 x 49mm 1 x 1 pc



Clevis Wrench

Code No.	Size	Package
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PL8210010 1 set



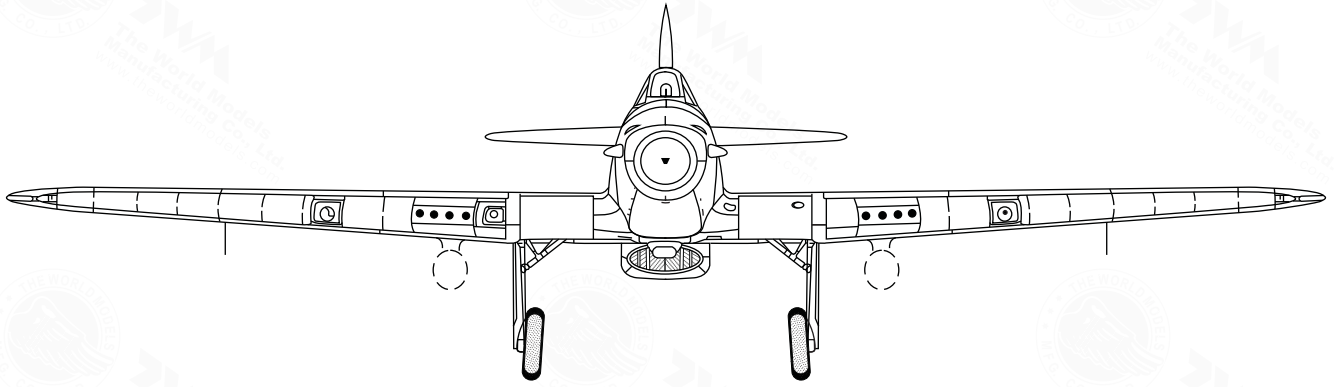
Special tool for clevis installation. Suitable for standard and small (EP) clevis.

Standard Servo

Code No



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



Ducted Fan

Pattern

Warbirds

Funfly

Scale

Electric

Sports

Glider

Trainer

Boat

Accessories

Covering

(Lightex / Toughlon)



TWM

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