

# EXTRA 330L 60



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

**Requires : 4-channel radio w/ 5 standard servos**

## Specifications

<b>Wing Span</b>	<b>65.0 in / 1650mm</b>
<b>Wing Area</b>	<b>797 sq in / 51.4 sq dm</b>
<b>Flying Weight</b>	<b>8.2 lbs / 3720g</b>
<b>Fuselage Length</b>	<b>56.0 in / 1420mm</b>

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

# EXTRA 330L 60

## INDEX

BEFORE YOU BEGIN .....	P. 1
PARTS LIST .....	P. 2
ASSEMBLY .....	P. 3-11
SAFETY PRECAUTIONS .....	P.11

## 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) .



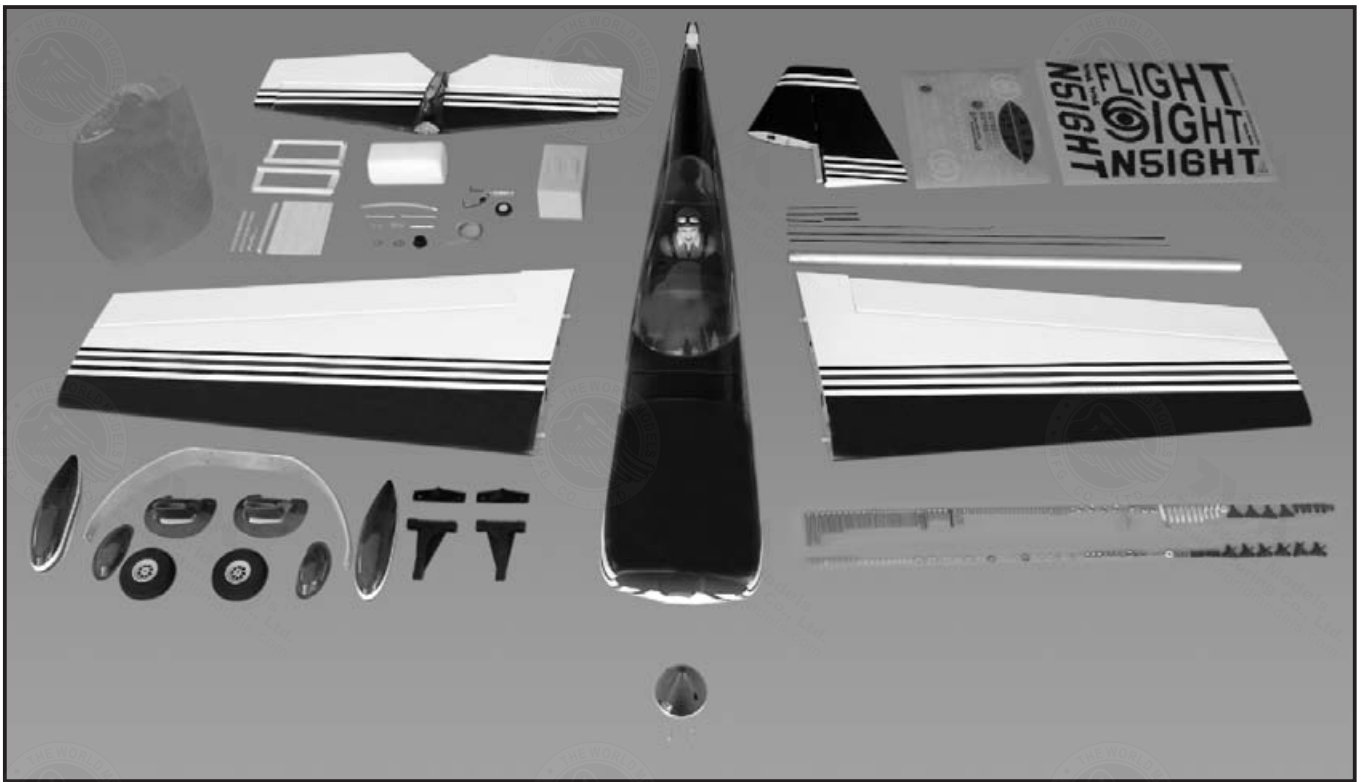
Pierce the shaded portion  
covering film.



Pay close attention here!



Do not overlook this symbol !

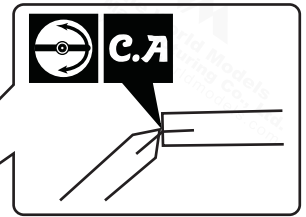
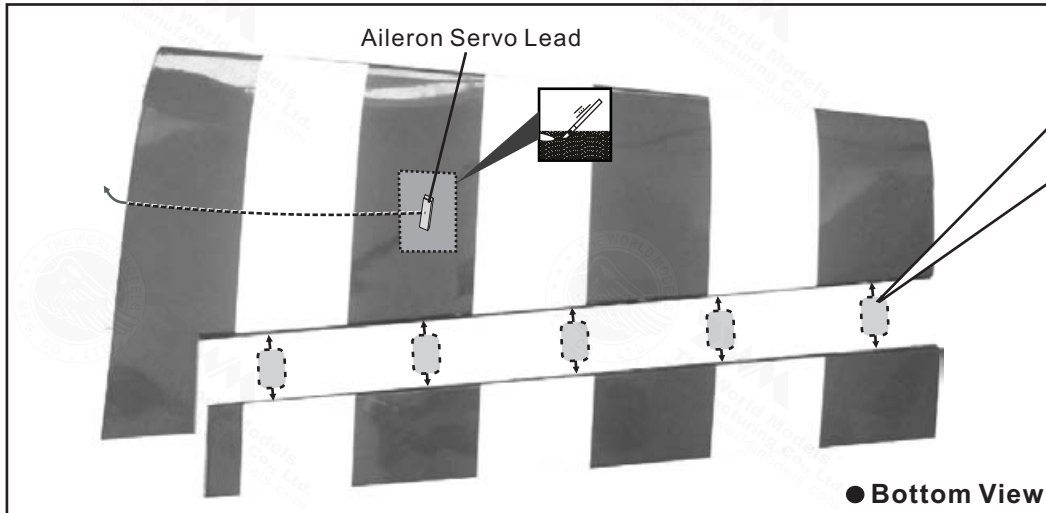


## Parts List

1. MAIN WING -- 1 pair
  2. SCREW PB2x25mm -- 6 pcs  
SCREW PWA2x8mm -- 8 pcs  
FUEL TUBE Ø6x5mm -- 4 pcs  
STRAPER PL4112102 -- 2 pcs  
CLEVIS PL4112103 -- 2 pcs  
TRI-HORN M3x14mm PL4111185 -- 2 sets  
PUSHROD Ø1.8x120mm w/ Threads (For Aileron) -- 2 pcs  
SERVO MOUNTING PANEL PL5310000-- 1 pair
  3. STABILIZER & ELEVATOR -- 1 set  
FUSELAGE -- 1 pc.
  4. VERTICAL FIN & RUDDER -- 1 set
  5. TAIL LANDING GEAR PL7100001 -- 1 set  
TAIL WHEEL Ø30mm -- 1 pc.  
COLLAR Ø2.1mm w/ set screw -- 1 set  
SCREW PA3x12mm -- 2 pcs
  6. SCREW PM2x25mm -- 3 pcs  
M2 NUT -- 3 pcs  
FUEL TUBE Ø6x5mm -- 2 pcs  
CLEVIS PL4112103 -- 2 pcs  
TRI-HORN M3x14mm (w/ o-Base For Rudder) PL4111185 -- 2 sets  
RIGGING COUPLER Ø1.8x27mm w/ Threads HW4201304 -- 2 pcs  
COPPER TUBE d2.5xD3.2x8mm -- 2 pcs  
WIRE Ø1x700mm (For Rudder) -- 2 pcs
  7. SCREW PB2x25mm -- 6 pcs  
FUEL TUBE Ø6x5mm -- 2 pcs  
CLEVIS PL4112103 -- 2 pcs  
TRI-HORN M3x14mm (For Elevator) PL4111185 -- 2 sets  
PUSHROD Ø1.8x600mm w/ Threads (For Elevator) -- 2 pcs
  8. MAIN LANDING GEAR HW2404045 -- 1 set  
MAIN LANDING GEAR COVER -- 1 pair  
WHEEL Ø76mm PL3111760 -- 2 pcs  
COLLAR Ø5.1mm w/ set screw -- 4 sets  
SCREW HM4x16mm -- 4 pcs  
SCREW PM5x43mm -- 2 pcs  
SCREW PWA2.3x8mm -- 14 pcs  
SCREW KA2.3x8mm -- 4 pcs  
M5 NUT -- 2 pcs  
WASHER d5xD12mm -- 4 pcs  
QUICK RELEASE NYLON RIVET PL1208042 -- 4 pcs  
WHEEL PANTS -- 1 pair  
WHEEL PANT DECORATIVE COVER -- 1 pair  
PLASTIC WHEEL COLLAR d5.1xD9x3mm -- 2 pcs  
ALUMINUM PLATE 1mm -- 2 pcs
  9. ENGINE MOUNT PL5111070 -- 1 set  
SOCKET HEAD SCREW M4x25mm -- 4 pcs  
WASHER d4xD12mm -- 4 pcs  
M4 BLIND NUT -- 4 pcs  
WOODEN DOWEL Ø5.5x8mm (For Firewall) -- 4 pcs
  10. FUEL TANK 380cc PL1111380 -- 1 set  
DOUBLE-SIDED TAPE 40x100mm -- 1 pc.  
CABLE TIE 1.5x5x400mm -- 1 pc.
  11. SOCKET HEAD SCREW M4x30mm -- 4 pcs  
WASHER d4xD9mm -- 8 pcs  
M4 NUT -- 8 pcs  
PLYWOOD 2x93.8x120mm (Engine Box Upper Plate) (F21) -- 1 pc.  
THROTTLE PUSHWIRE Ø1.2x350mm -- 1 pc.  
PLASTIC TUBE d2xD3x140mm -- 1 pc.
  12. LINKAGE CONNECTOR Ø2.1mm HW7111060 -- 1 set
  13. Balsa 6x6x41 (For Elevator & Rudder Servo Stand) (F43) -- 4 pcs  
PLYWOOD 3x57x154.6mm (For Elevator Servo) (F44A) -- 1 pc.  
Balsa 6x6x143.6mm (For Elevator Servo) (F45B) -- 1 pc.  
Balsa 6x6x150.3mm (For Elevator Servo) (F45C) -- 1 pc.  
PLYWOOD 3x61x144.6mm (For Rudder Servo) (F44) -- 1 pc.  
Balsa 6x6x131.5mm (For Rudder Servo) (F45) -- 1 pc.  
Balsa 6x6x140.7mm (For Rudder Servo) (F45A) -- 1 pc.  
COPPER TUBE d2.5xD3.2x8mm -- 2 pcs  
STRAPER PL4112102 -- 1 pc.  
FUEL TUBE Ø6x5mm -- 1 pc.  
SPONGE 60x70x160mm (For Radio Equipment) -- 1 pc.  
PUSHROD Ø1.8x100mm (For Elevator) -- 1 pc.  
RIGGING Z BEND Ø1.8x27mm (For Rudder) HW4201303 -- 2 pcs  
PUSHROD CONNECTOR 4x9x20mm PL4410010 -- 1 set
  14. COWLING -- 1 pc.  
TRANSPARENT 3D TEMPLATE -- 1 pc.  
SPINNER Ø70mm PH24W0700 / PH24B0700 -- 1 set  
SCREW PWA2.6x12mm -- 4 pcs  
SILICON GROMMET d1.5xD6.5mm -- 4 pcs
  15. WING TUBE Ø22x814mm -- 1 pc.  
WIRE Ø0.8mm -- 2 pcs  
SELF-TIGHTENING LATCHING PIN -- 2 pcs
  16. CANOPY -- 1 pc.  
PILOT PC001085A -- 1 pc.  
SCREW PM2.5x25mm -- 2 pcs  
SCREW PWA2.3x8mm -- 6 pcs  
SILICON GROMMET d1.5xD6.5mm -- 6 pcs  
WASHER d2.5xD8mm -- 2 pcs  
DOUBLE-SIDED TAPE 900mm -- 1 pc.  
PLASTIC PLATE (For Pilot Stand) -- 1 pc.
  17. DECALS: A156DEC -- 1 set
- COVERING:--**
- |                  |            |
|------------------|------------|
| TOUGHLON STL 100 | WHITE      |
| TOUGHLON STL 201 | BLACK      |
| TOUGHLON STL 241 | TURQUOISE  |
| TOUGHLON STL 360 | VIOLET     |
| TOUGHLON STL 311 | FERRARIRED |
| TOUGHLON STL 351 | DARK BLUE  |

# 1 Main Wing

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

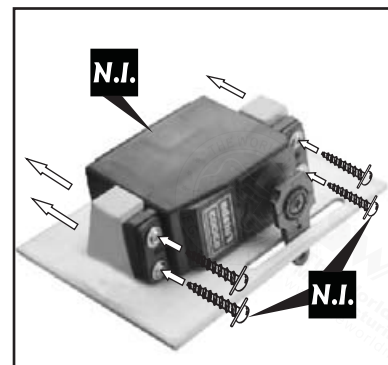
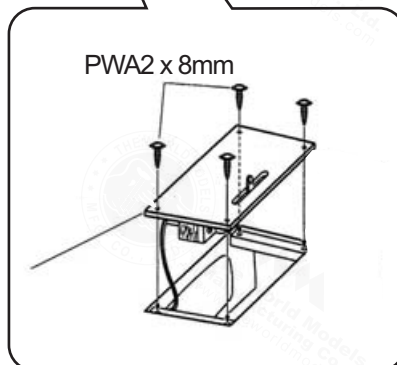
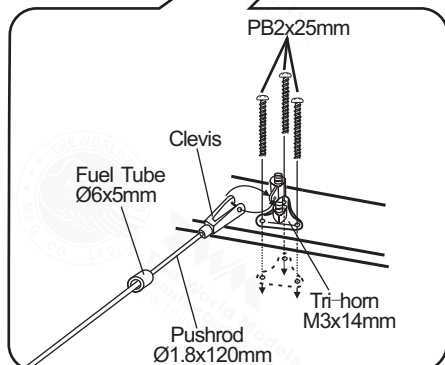
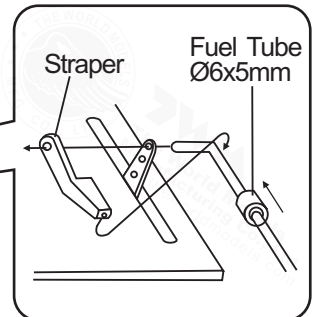
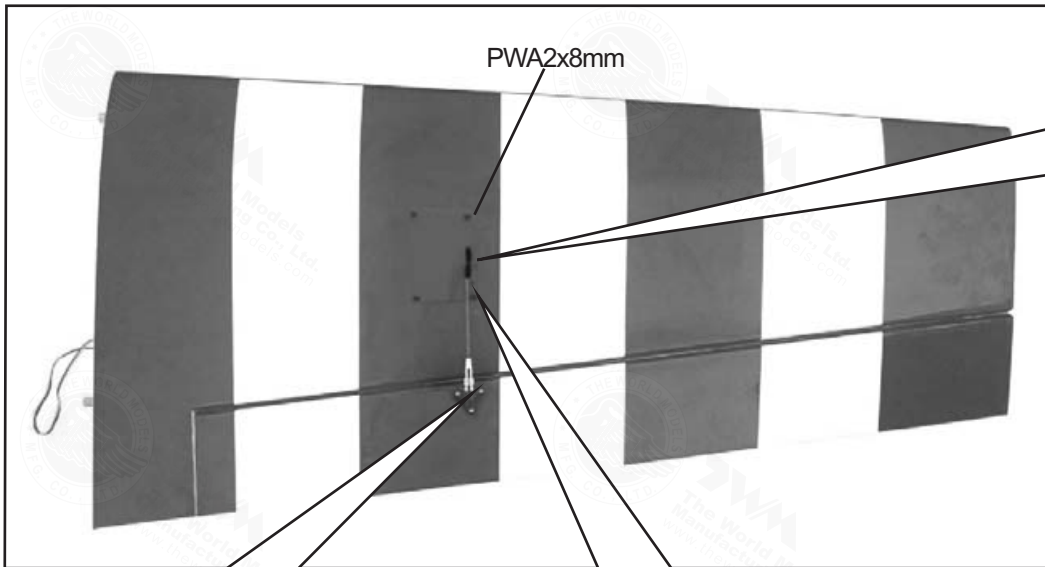


L/R

# 2 Aileron Servo

PB2x25mm	Screw	6
PWA2x8mm	Screw	8

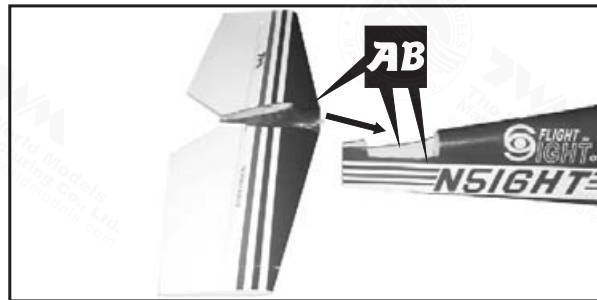
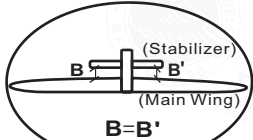
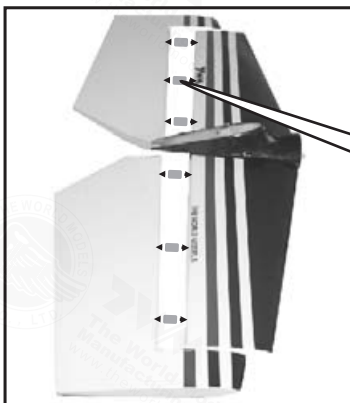
● Ø1mm pilot holes for World Models tri-horn are pre-drilled. Please look for pin-hole marks at under side of control surfaces.



L/R

### 3 Stabilizer & Elevator

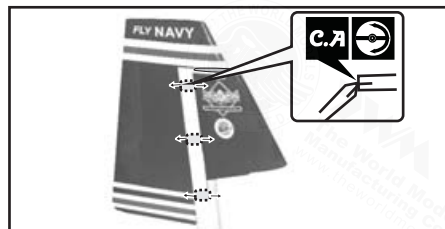
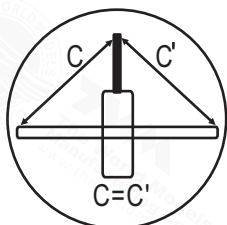
- Apply instant type CA glue to both sides of each hinge.



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

● Completed

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



● Completed

### 5 Tail Landing Gear

PA3 x 12mm Screw 2



2

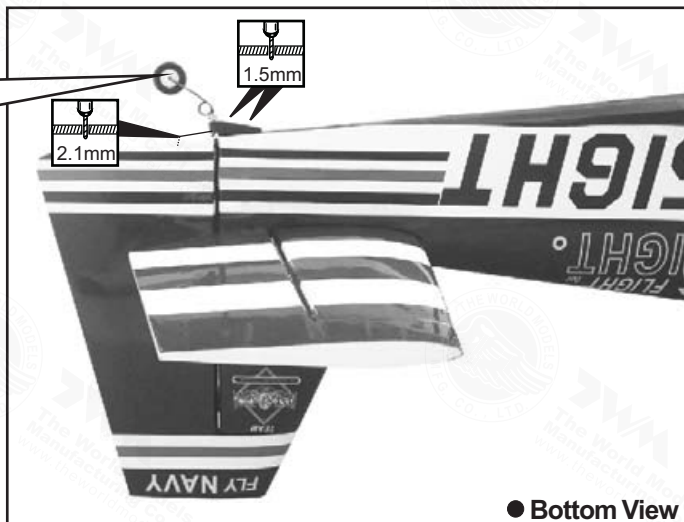


Collar 2



2

2.1mm Collar PA3 x 12mm



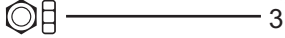
● Bottom View

## 6 Rudder Pullwire

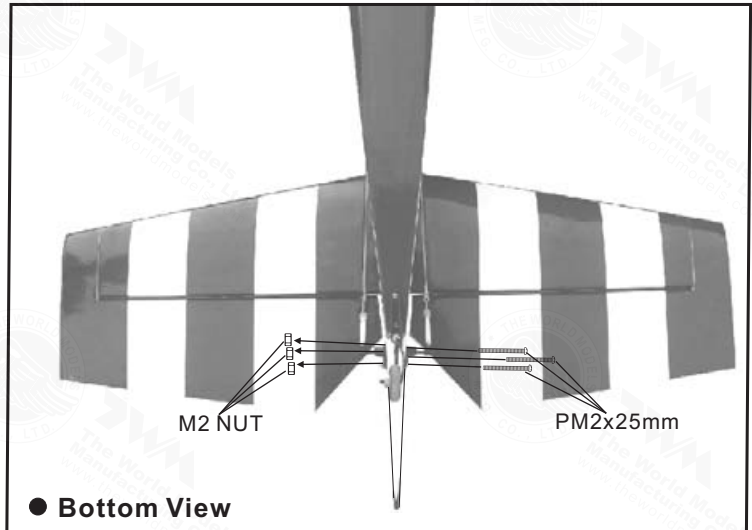
PM2x25mm Screw



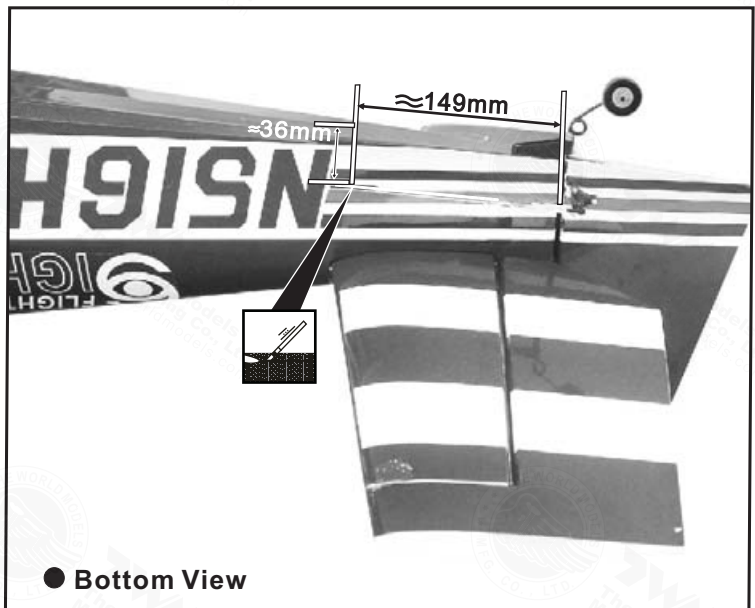
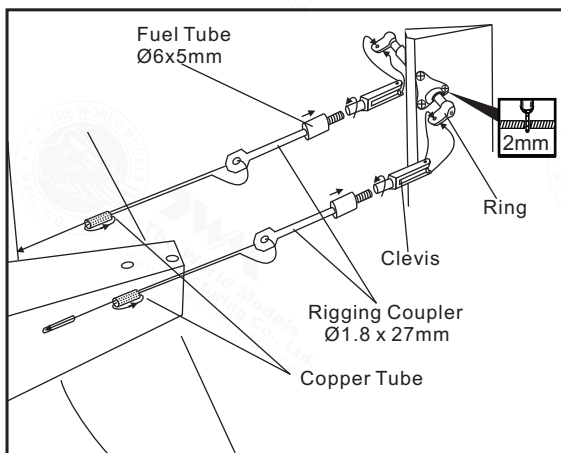
M2 Nut



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



● Bottom View



● Bottom View

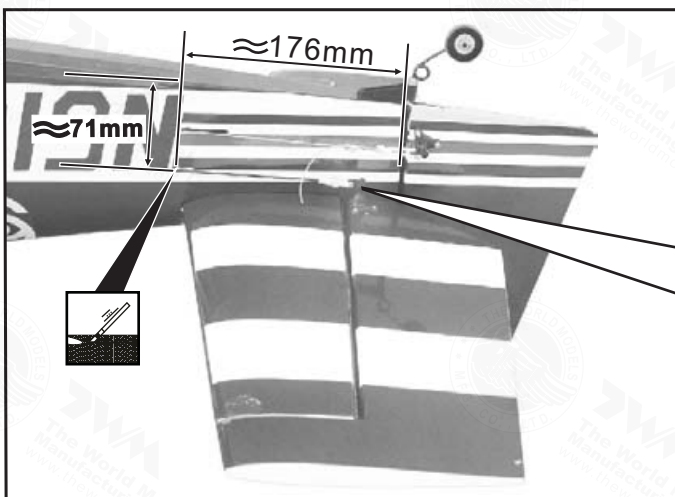
L/R

## 7 Elevator Pushrod

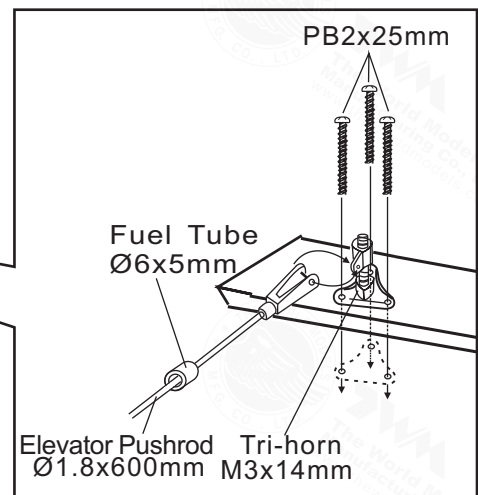
PB2x25mm Screw



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



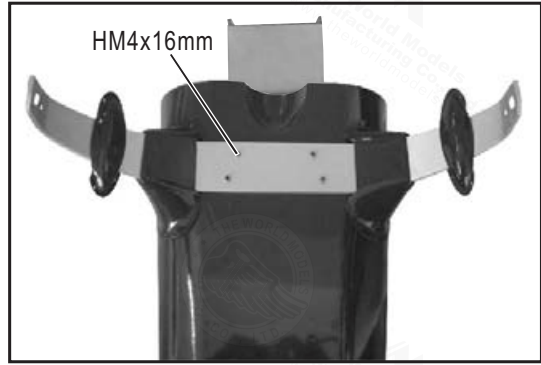
● Bottom View



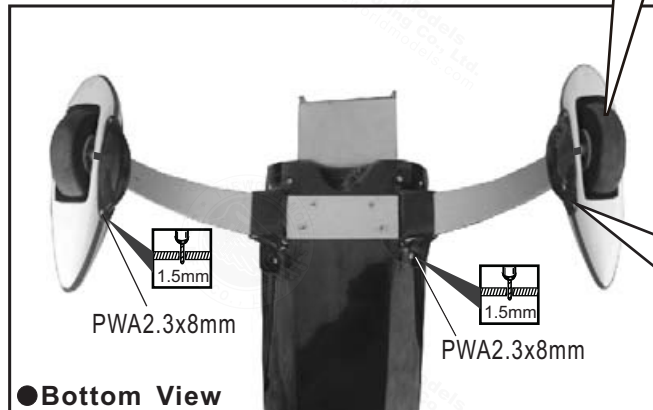
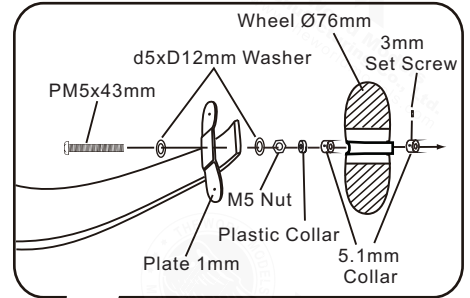
L/R

# 8 Main Landing Gear

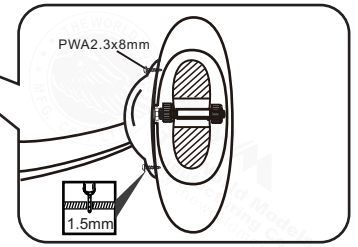
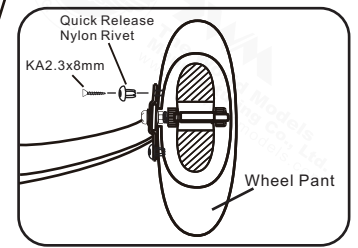
- HM4x16mm **Socket Head Screw** — 4
- PM5x 43mm **Screw** — 2
- PWA2.3x8mm **Screw** — 14
- KA2.3x8mm **Screw** — 4
- 5.1mm **Collar** — 4
- M5 **Nut** — 2
- d5xD12mm **washer** — 4
- Quick Release Nylon Rivet — 4



● Bottom View



● Bottom View



● Completed

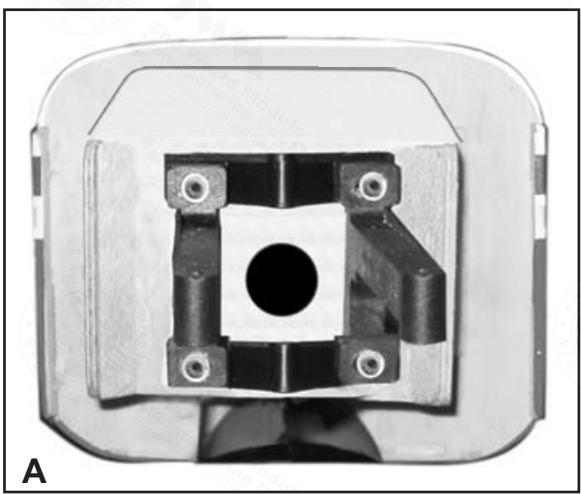
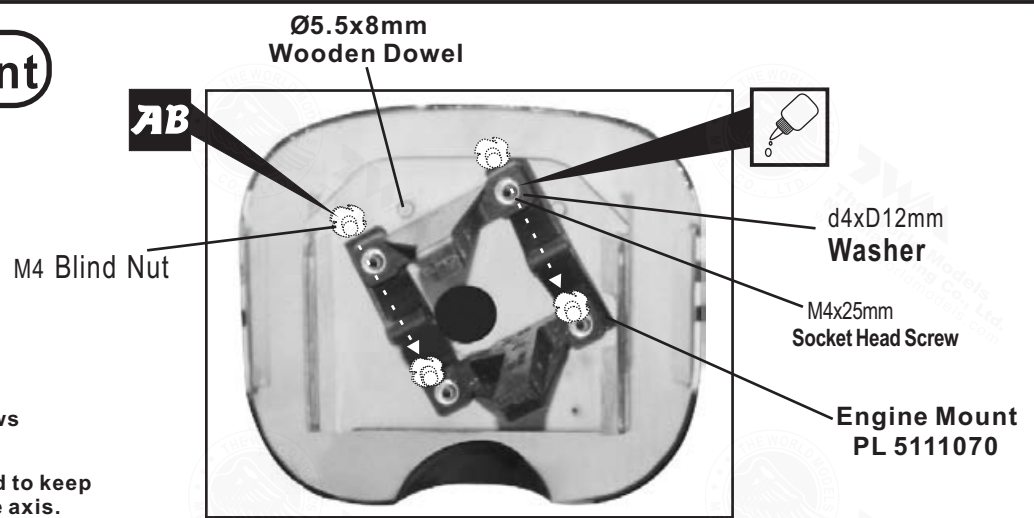
**L/R**

# 9 Engine Mount

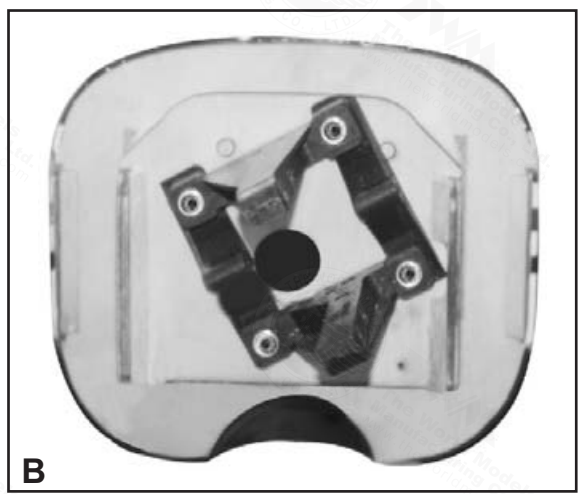
- M4x25mm **Socket Head Screw** — 4
- d4xD12mm **Washer** — 4
- M4 **Blind Nut** — 4

● Apply thread locker to screws

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

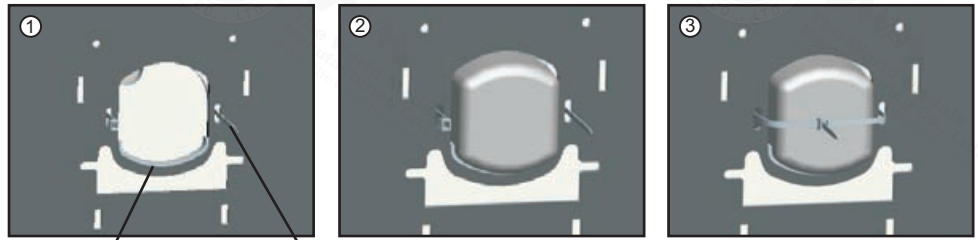


A: Inverted mount



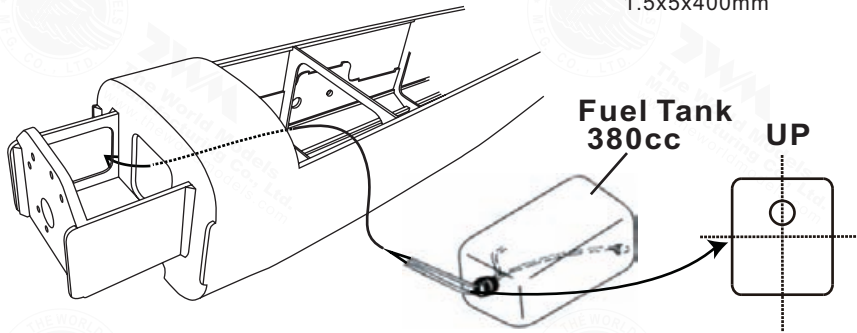
B: Inclined mount

# 10 Fuel Tank



Double-sided Tape  
40x100mm

Cable Tie  
1.5x5x400mm



Fuel Tank  
380cc

UP



● Completed

# 11 Engine

M4x30mm Socket Head Screw

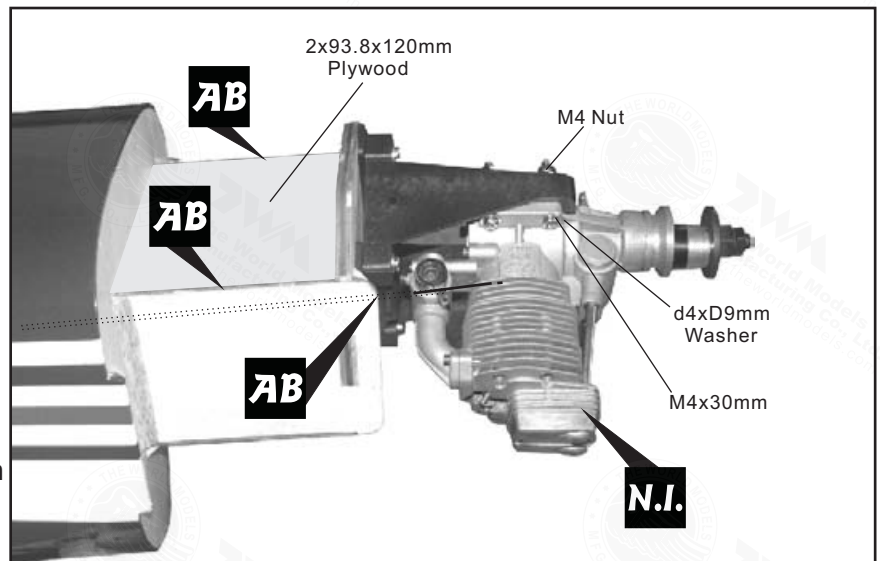
 4

d4xD9mm Washer

 8

M4 Nut

 8



2x93.8x120mm  
Plywood

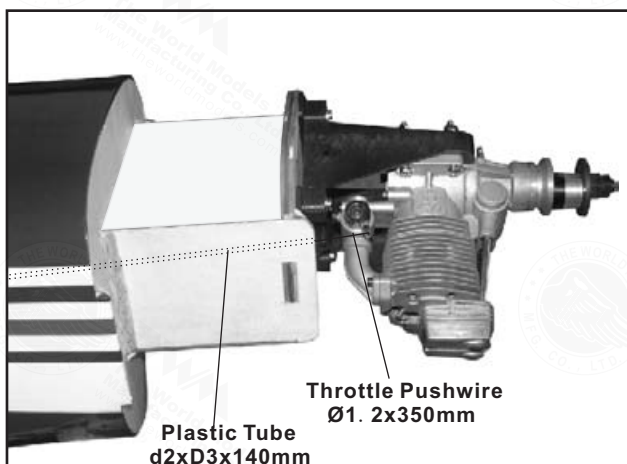
M4 Nut

d4xD9mm  
Washer

M4x30mm

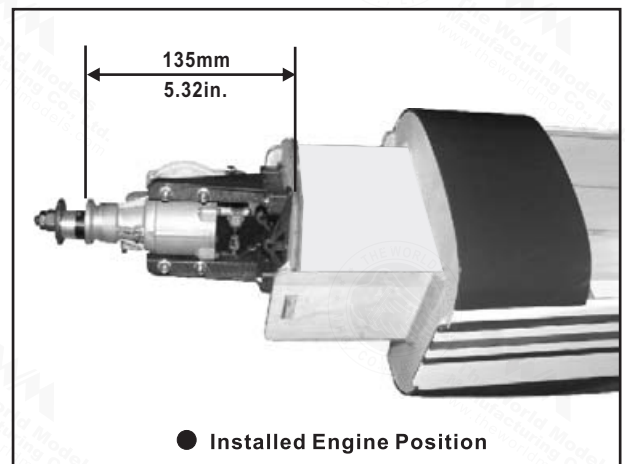
N.I.

**!** Illustration is for inverted mounting. You can mount the engine upright or sideways simply by rotation the engine mount. Thrust angles will not be affected.



Throttle Pushwire  
Ø1.2x350mm

Plastic Tube  
d2xD3x140mm

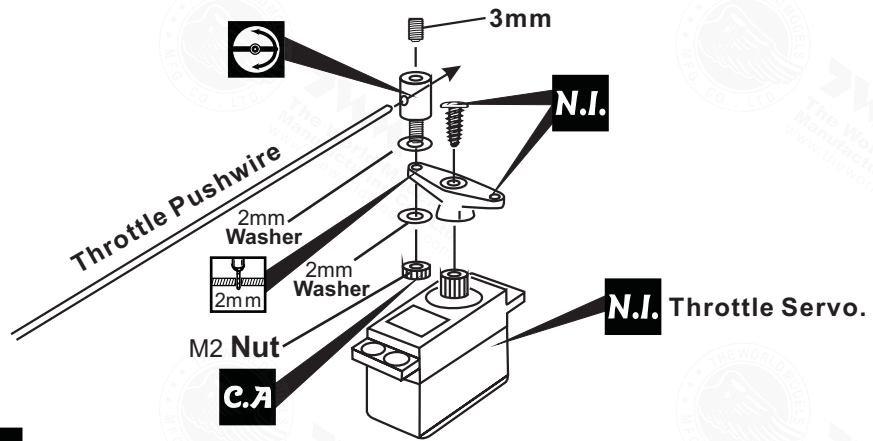


● Installed Engine Position



## 12 Servo Set

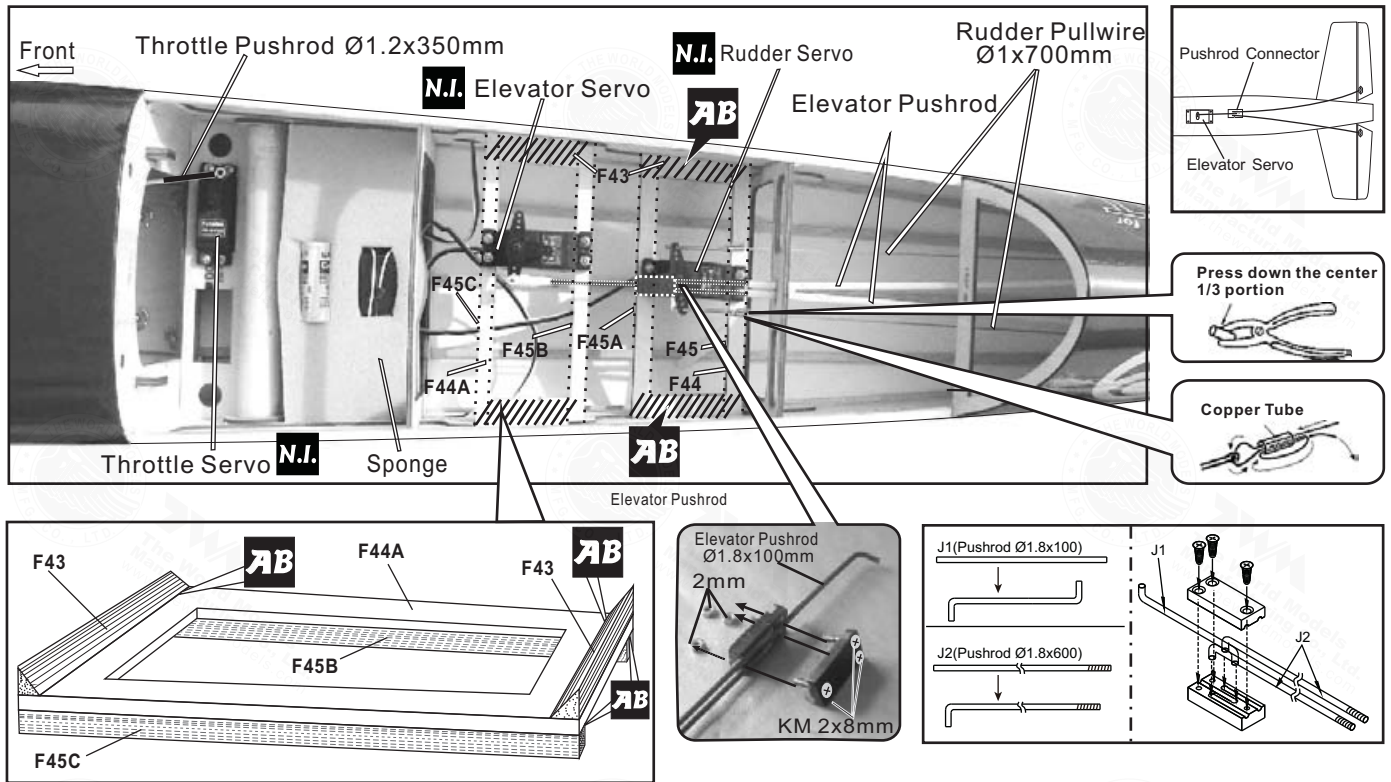
3 x 3mm Set Screw	1
Linkage Stopper	1
M2 Nut	1
2mm Washer	2



**!** Please refer to the attached sheet for linkage connector installation.

## 13 Radio Equipment

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

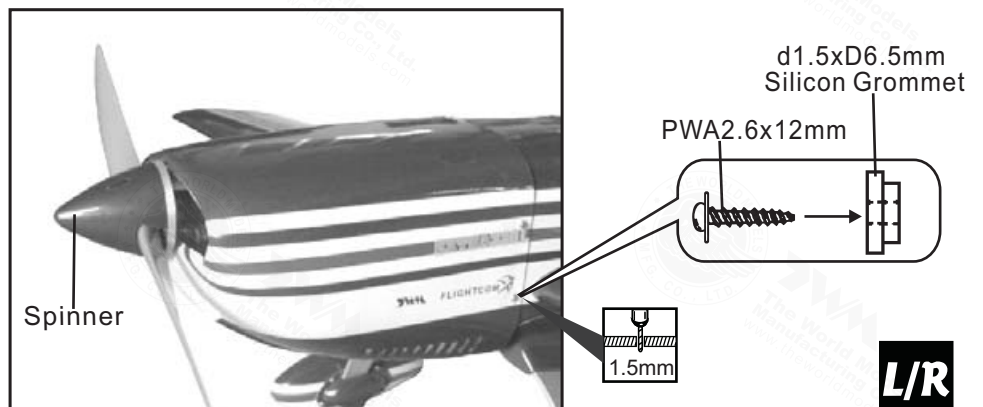


## 14 Cowling

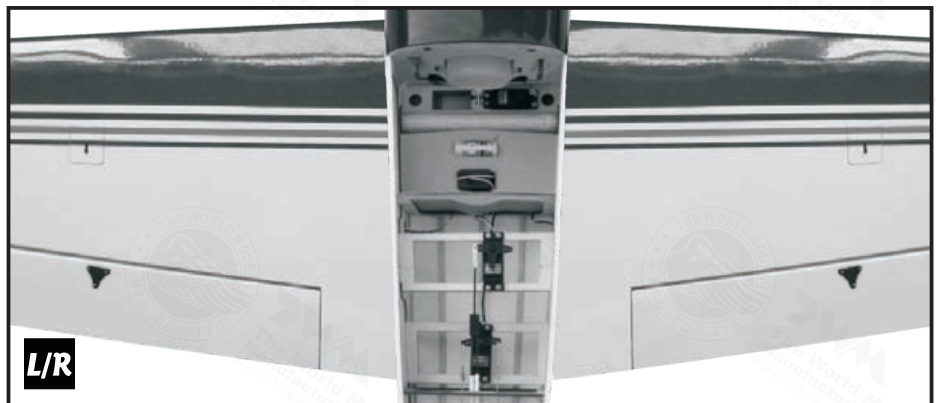
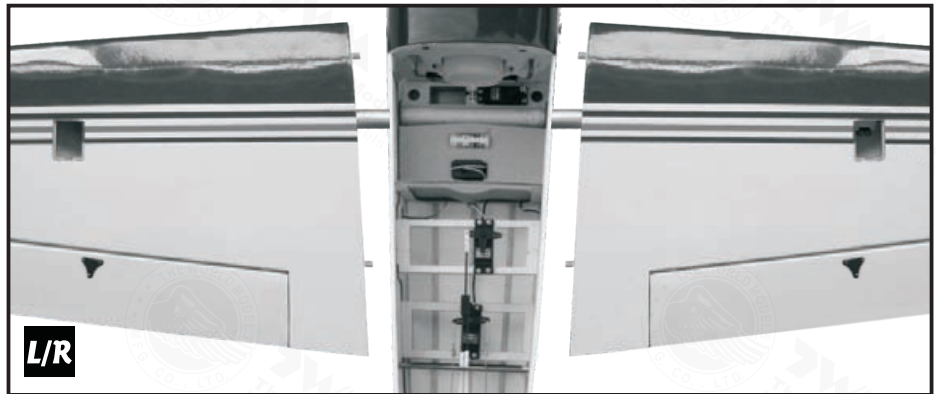
● First insert the grommet to the cowling then apply screw.

PWA2.6X 12mm Screw	4
d1.5 x D6.5mm Silicon Grommet	4

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



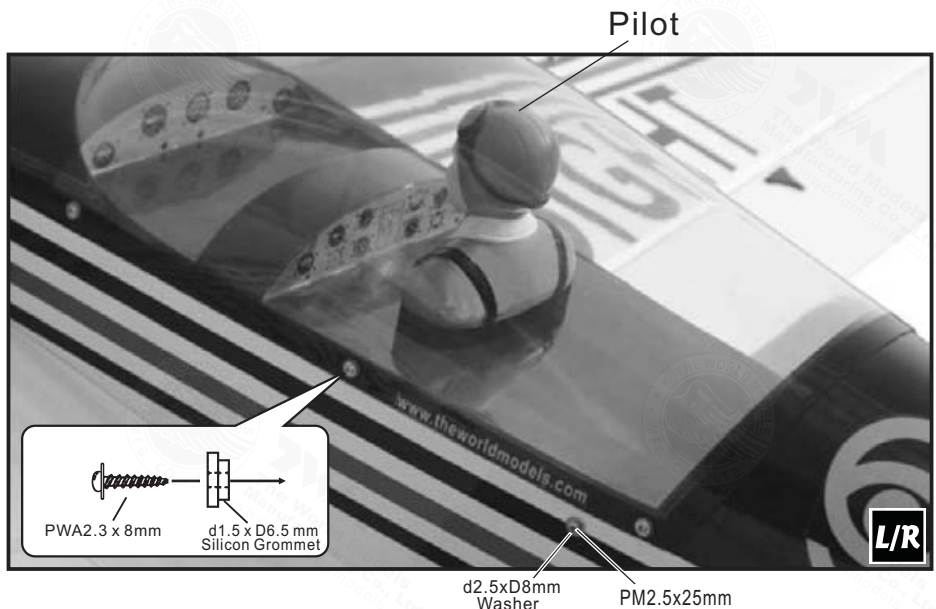
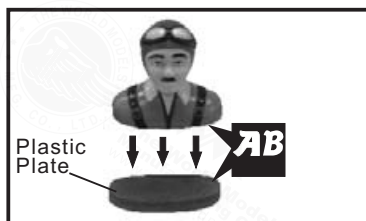
# 15 Main Wing



# 16 Canopy & Pilot

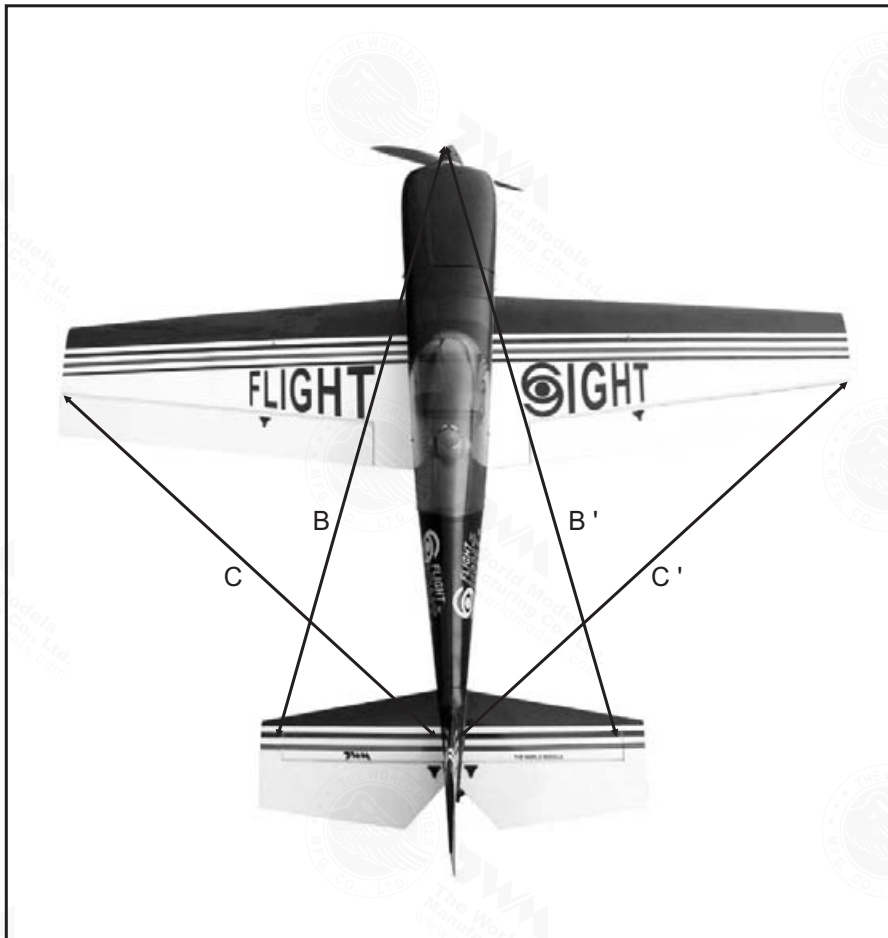
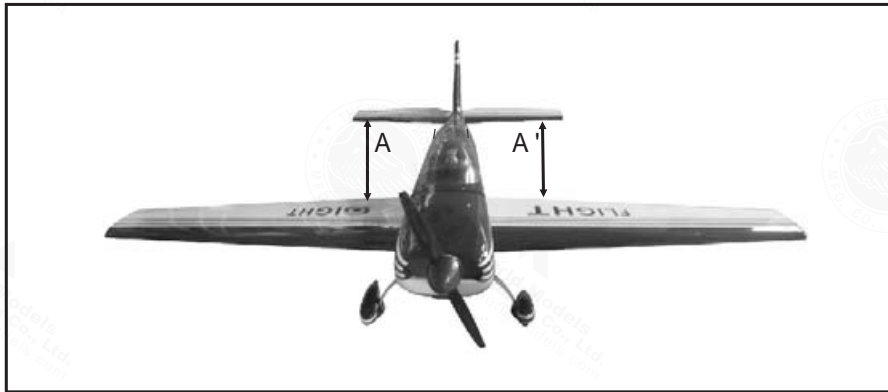
● First insert the grommet to the canopy then apply screw.

- |                |                 |   |
|----------------|-----------------|---|
| PM2.5x25mm     | Screw           | 2 |
| PWA2.3x8mm     | Screw           | 6 |
| d1.5 x D6.5 mm | Silicon Grommet | 6 |
| d2.5xD8mm      | Washer          | 2 |



# 17 Wing Setting

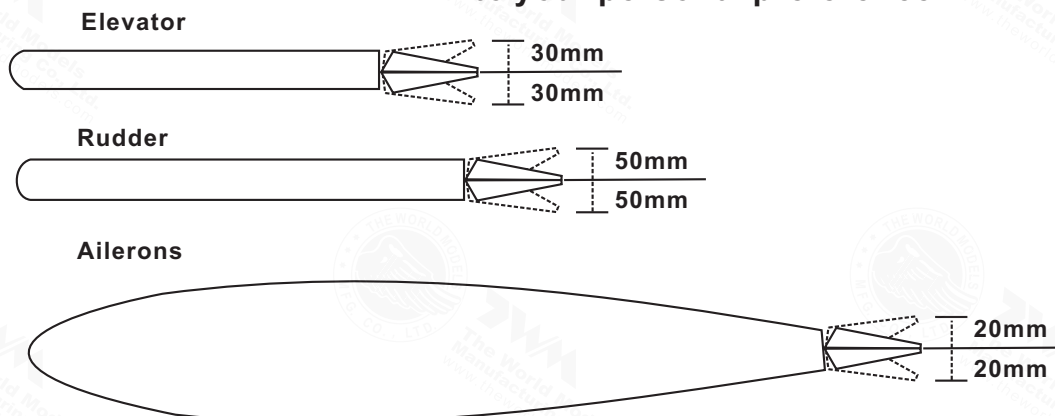
● Adjust the wing and fuselage configuration as shown in the diagrams.



$A = A'$     $B = B'$     $C = C'$

## 18 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.



## 19 C.G.

The ideal C.G. position is 120mm (4.8 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.



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

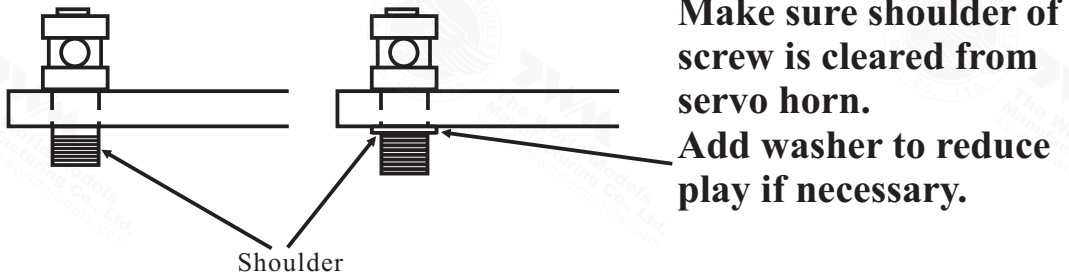
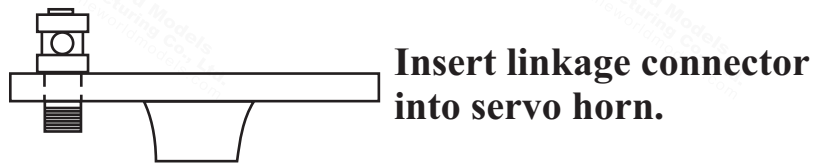
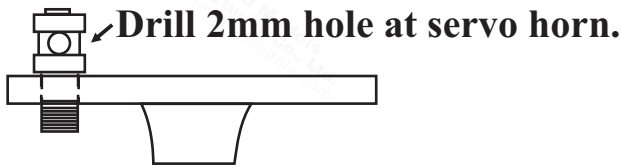
## ! Warning!

### 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.
- # **EXTRA 330L 60** 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



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: \_\_\_\_\_

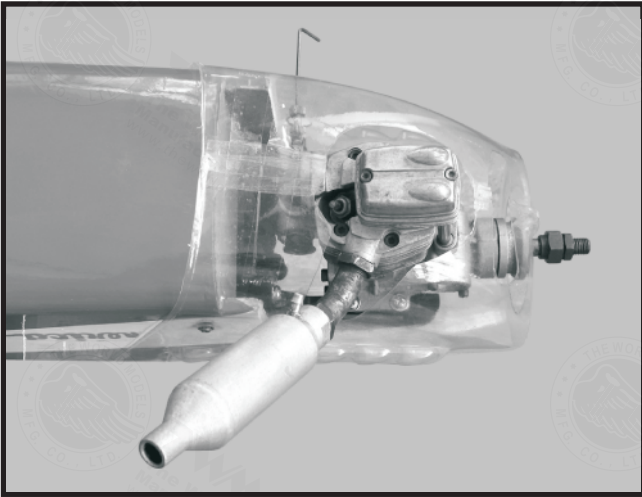
Please call AirBorne Models at 925 371 0922 for any assistance in filling this form. Thank you very much for purchasing our product.

# Usage of the transparent 3D template



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

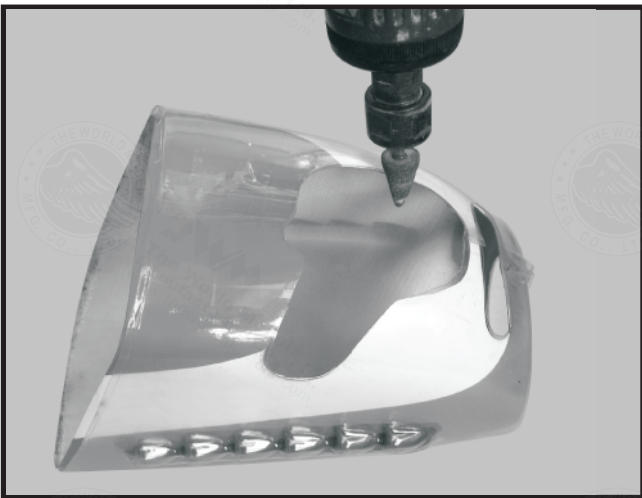
1



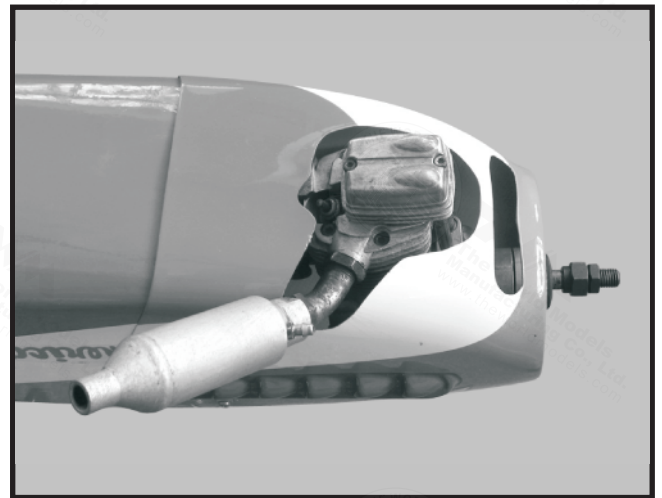
2



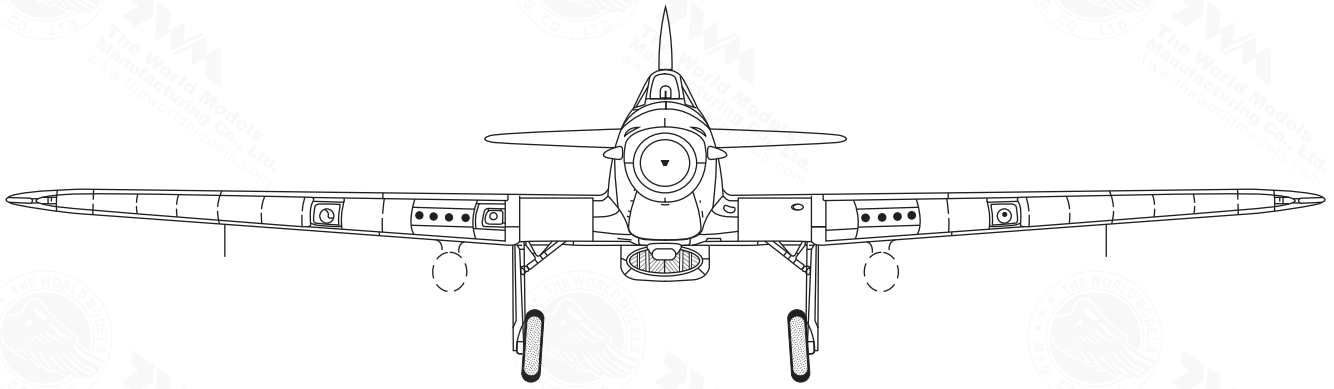
3



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**

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