

# LA-Racer-40



**0.40-0.46 cu. in. displacement 2-stroke**  
**Requires: 4-channel radio w/ 5 standard servos**

### Specifications

Wing Span	54 in / 1370 mm
Wing Area	556 sq in / 35.9 sq dm
Flying Weight	5 lb / 2200 g
Fuselage Length	48 in / 1220 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.**  
 FACTORY PRE-FABRICATED  
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 MADE IN CHINA  
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# LA-Racer-40

## 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 purchase d separately !



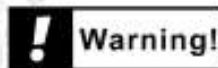
Drill holes with the specified  
diameter (here : 3mm) .



Pierce the shaded portion  
covering film.



Pay close attention here!



**Warning!**

Do not overlook this symbol !



## Parts List

1. MAIN WING – 1 pair
  2. WING JOINER 6x26x145mm – 1 pc.
  3. CLEVIS – 2 pcs  
STRAPER – 2 pcs  
FUEL TUBE Ø6x5mm – 4 pcs  
PUSHROD Ø1.8x135mm w/ Threads (For Aileron) – 2 pcs  
TRI-HORN M3x14mm (S) – 2 sets  
SCREW PM2x18mm – 6 pcs
  4. FUSELAGE – 1 pc.  
STABILIZER & ELEVATOR – 1 set  
SCREW PM3x25mm – 2 pcs  
WASHER d3xD7mm – 2 pcs
  5. VERTICAL FIN & RUDDER – 1 set
  6. MAIN LANDING GEAR – 1 set  
MAIN WHEEL Ø62mm – 2 pcs  
COLLAR Ø4.1mm w/ set screw – 4 sets  
MOUNTING PLATE 10x20mm (For Main Landing Gear) – 2 pcs  
SCREW PA3x10mm – 4 pcs
  7. TAIL LANDING GEAR – 1 set  
COLLAR Ø2.1mm w/ set screw – 1 set  
TAIL WHEEL Ø25mm – 1 pc.  
AL REINFORCEMENT PLATE – 1 pc.  
SCREW PM2x12mm – 1 pc.  
SCREW PA3x8mm – 2 pcs  
M2 NUT – 1 pc.
  8. ENGINE MOUNT PL5111030 – 1 set  
SOCKET HEAD SCREW M3x20mm – 4 pcs  
WASHER d3xD7mm – 4 pcs
  9. FUEL TANK 260cc – 1 set  
BALSA 9x9x77mm (For Fuel Tank Position Fixing) – 1 pc.
  10. LINKAGE CONNECTOR Ø2.1mm w/ set screw – 1 set
  11. PUSHROD Ø1.8x700mm w/ Threads (For Elevator) – 1 pc.  
CLEVIS – 1 pc.  
TRI-HORN M3x14mm (S) – 1 set  
FUEL TUBE Ø6x5mm – 1 pc.  
SCREW PM2x12mm – 3 pcs
  12. PUSHROD Ø1.8x700mm w/ Threads (For Rudder) – 1 pc.  
CLEVIS – 1 pc.  
TRI-HORN M3x14mm (S) – 1 set  
FUEL TUBE Ø6x5mm – 1 pc.  
SCREW PM2x12mm – 3 pcs
  13. SCREW PM3x25mm – 4 pcs  
M3 NUT – 8 pcs  
WASHER d3xD7mm – 8 pcs  
THROTTLE PUSHWIRE Ø1.2x350mm – 1 pc.  
PLASTIC TUBE d2xD3x230mm – 1 pc.
  14. STRAPER – 2 pcs  
FUEL TUBE Ø6x5mm – 2 pcs  
SPONGE 60x70x80mm – 1 pc.
  15. SCREW PM4x30mm – 2 pcs  
WASHER d4xD12mm – 2 pcs  
PLYWOOD 2x22x78mm (For Wing Protection) – 1 pc.
  16. SCREW PWA2.3x8mm – 4 pcs  
SILICON GROMMET d1.5xD6.5mm – 4 pcs  
CANOPY – 1 pc.  
DOUBLE-SIDED TAPE – 1 pc.  
PILOT PC001063 – 1 pc.
  17. SCREW PWA2.6x12mm – 4 pcs  
SILICON GROMMET d1.5xD6.5mm – 4 pcs  
COWLING – 1 pc.  
SPINNER Ø52mm – 1 set
  18. DECALS A235DEC – 1 set
- COVERING:**
- TOUGHLON STL320 ORANGE
  - TOUGHLON STL240 GREEN
  - TOUGHLON STL351 DARK BLUE
  - TOUGHLON STL201 BLACK
  - TOUGHLON STL100 WHITE
  - TOUGHLON STL422 CHECKER(ORANGE / WHITE)
  - TOUGHLON STL442 CHECKER(GREEN / WHITE)
  - TOUGHLON STL452 CHECKER(BLUE / WHITE)
  - TOUGHLON STL412 CHECKER(FERRARI RED / WHITE)
  - TOUGHLON STL402 CHECKER(BLACK / WHITE)



### 1 Main Wing

- Please install aileron servos at bottom of wing

Aileron servo lead

AB

L/R

### 2 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.

Completed

Wing Joiner 6 x 26 x 145mm

AB

### 3 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.

PM2x18mm Screw

6

straper

1.5mm

PM2x18mm

Fuel Tube Ø6x5mm

Clevis

Pushrod Ø1.8x135mm

2mm

Tri-horn M3x14mm

Bottom View

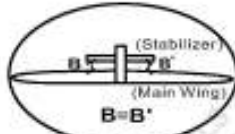
L/R

## 4 Stabilizer / Elevator

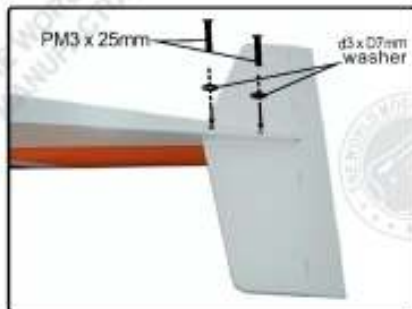
PM3 x 25mm Screw 2  
 d3 x D7mm Washer 2



Use thread locker when tightening screw. Don't use excessive force as you are dealing with balsa.

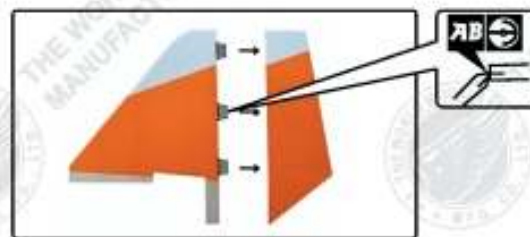
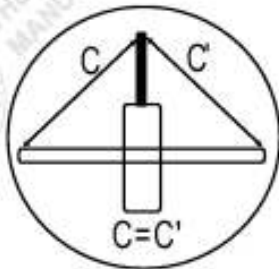


Temporary install the main wing, adjust leveling of the stabilizer to make it as parallel to the main wing as possible.

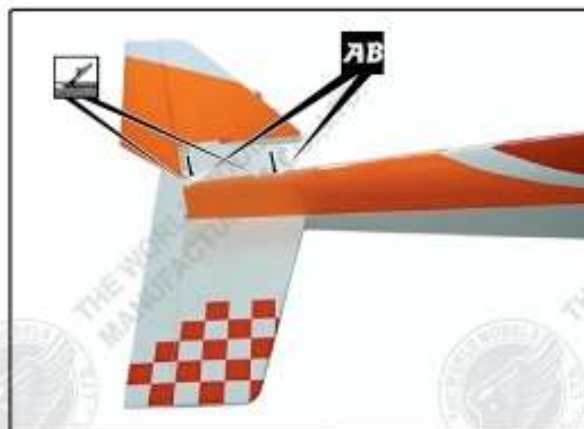


● Bottom View



## 5 Vertical Fin & Rudder

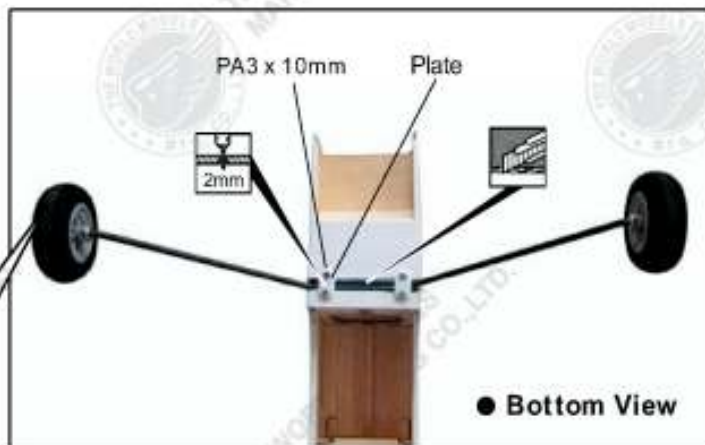
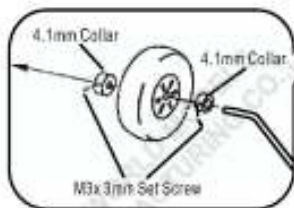


Completed



## 6 Main Landing Gear

- 4.1mm Collar  — 4
- PA3 x 10mm Screw  — 4



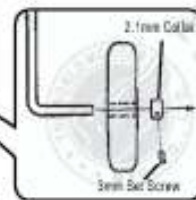
L/R

## 7 Tail Landing Gear

- PA3 X 8mm Screw  — 2
- PM2 x 12mm Screw  — 1
- M2 Nut  — 1
- 2.1mm Collar  — 1



PA3 X 8mm





## 8 Engine Mount

M3 x 20mm Socket Head Screw

4

d3 x D7mm Washer

4

- Apply thread locker to screws.

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

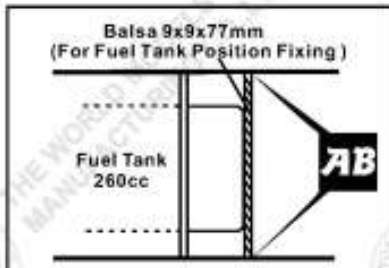
M3 x 20mm

d3xD7mm  
Washer

Engine Mount  
PL5111030



## 9 Fuel Tank



Balsa 9x9x77mm  
(For Fuel Tank Position Fixing)

Fuel Tank  
260cc

**AB**

Fuel Tank  
260cc

Balsa 9x9x77mm  
(For Fuel Tank  
Position Fixing)

**AB**

• Bottom View

## 10 Servo Set

3x3mm Set Screw

1

Linkage Connector

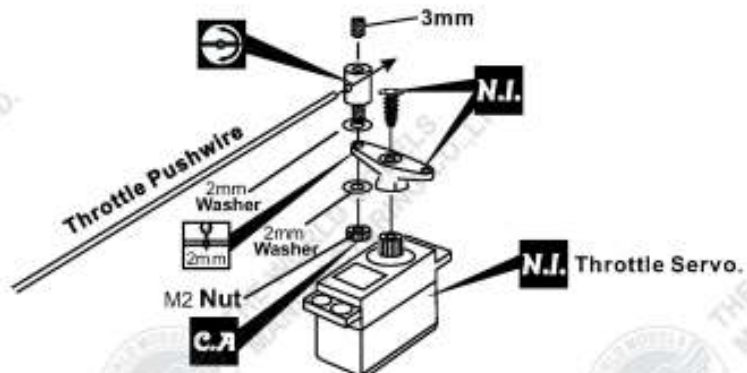
1

M2 Nut

1

2mm Washer

2



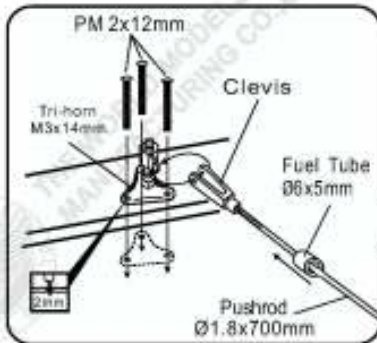
**!** Please refer to the attached sheet for linkage connector installation.

## 11 Elevator Pushrod

PM2 x 12mm Screw



- $\varnothing 1\text{mm}$  pilot holes for World Models tri-horn are pre-drilled. Please look for pin-hole marks at under side of control surfaces.

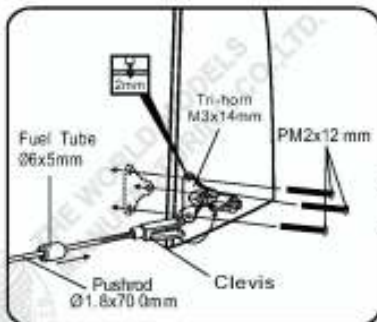


## 12 Rudder Pushrod

PM2 x 12mm Screw



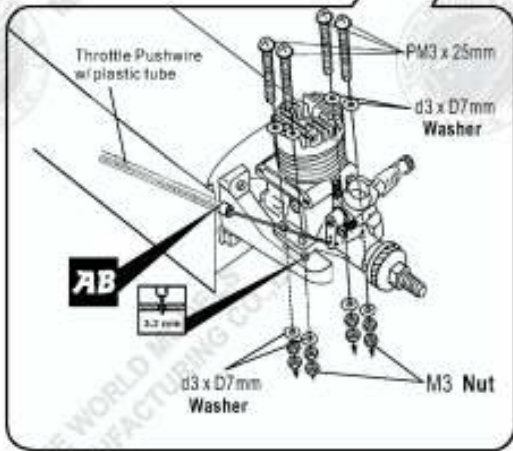
- $\varnothing 1\text{mm}$  pilot holes for World Models tri-horn are pre-drilled. Please look for pin-hole marks at side of control surfaces.





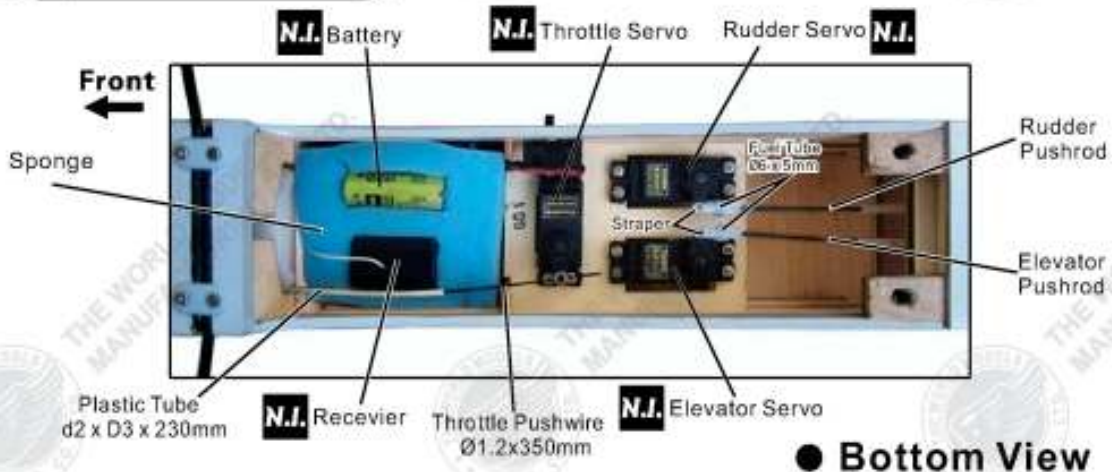
### 13 Engine

PM3 x 25mm Screw	4
d3 x D7mm Washer	8
M3 Nut	8



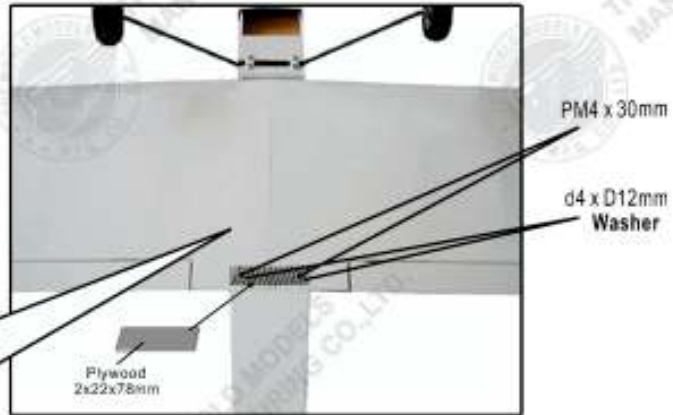
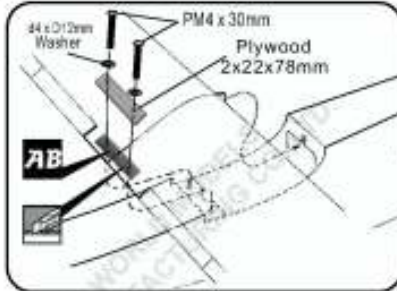
### 14 Radio Equipment

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



## 15 Main Wing

PM4 x 30mm Screw — 2  
d4 x D12mm Washer — 2



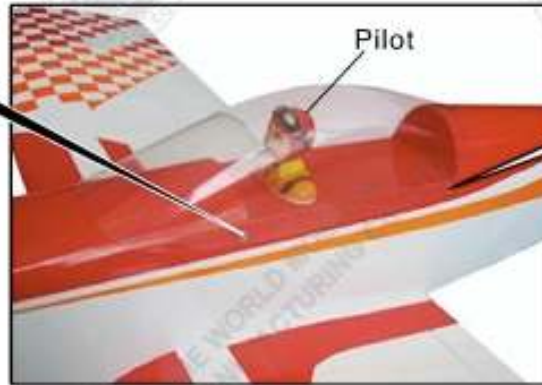
● Bottom View

## 16 Canopy & Pilot

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



Apply double-sided tape



PWA2.3 X 8mm  
Silicon Grommet  
d1.5 x D6.5mm

L/R

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

## 17 Cowling

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

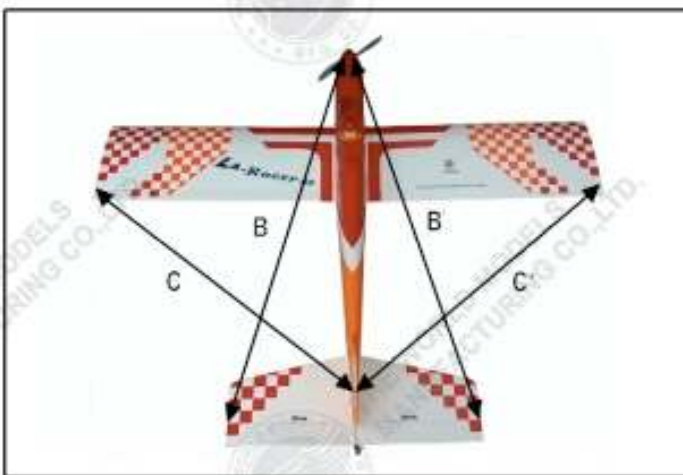


PWA2.6 X 12mm  
Silicon Grommet  
d1.5 x D6.5mm

L/R

## 18 Wing Setting

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



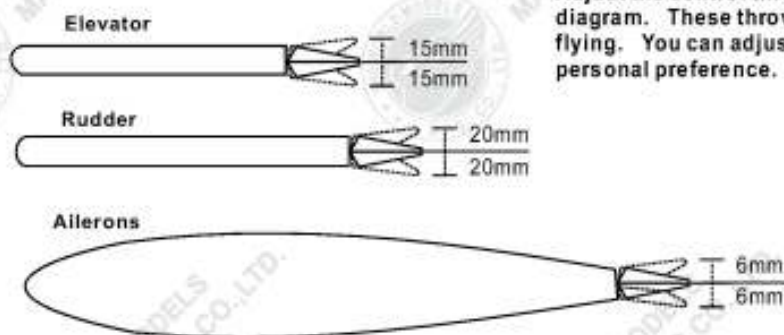
$A=A'$

$B=B'$

$C=C'$



## 19 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.

## 20 C.G.



The ideal C.G. position is 85mm (3.35 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.

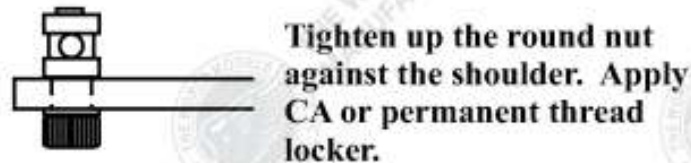
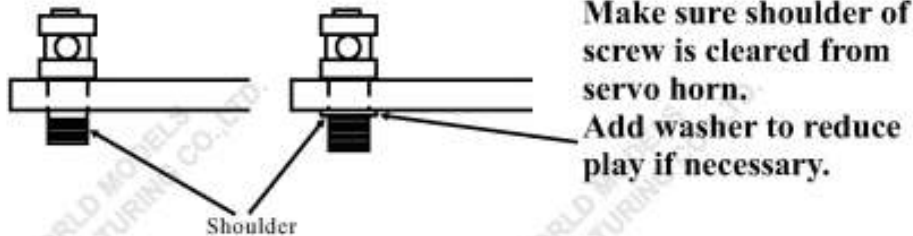
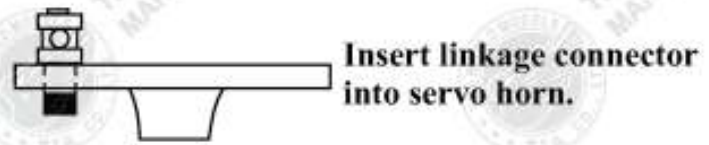
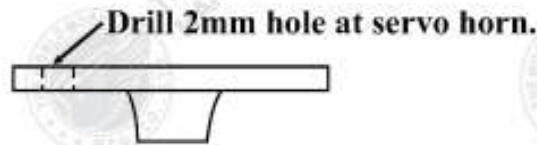
## ! Warning!

### 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.
- # **LA-Racer-40** is specially designed to be powered by **2C 0.40-0.46** 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.

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### 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, 2403 Research Drive, Livermore, CA 94550 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: \_\_\_\_\_

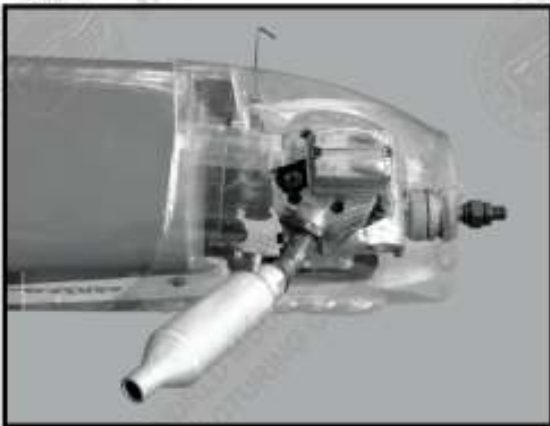
Please call AirBorne Models at 925 371 0922 for any assistance in filling this form. Thank you very much for purchasing our product.

## 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.





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