

Tai Ji - 40S



0.40 cu. in. displacement 2-cycle
0.52 cu. in. displacement 4-cycle
 Radio required: 5 channels, 6 servos airplane radio

Specifications

Wing Span	55.0 in / 1400mm
Wing Area	584 sq. in. / 37.7 sq. dm
Flying Weight	5.5 lbs / 2600 g
Fuselage Length	55 in. / 1400mm

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.



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Tai Ji - 40S

INDEX

BEFORE YOU BEGIN	P. 1
PARTS LIST	P. 2
ASSEMBLY	P. 3-10
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 be difficult to extend to the good parts that are good before gluing to defective parts during assembly.
- 3 Symbols used throughout this instruction manual comprise of the following:--

AB

Apply epoxy glue.

C.AApply instant glue.
(C.A. glue , super glue.)**L/R**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: 3 mm).**N.I.**

Must be purchased separately!



Pay close attention here!

**Warning!**Pierce the shaded portion
covering film.

Do not overlook this symbol!

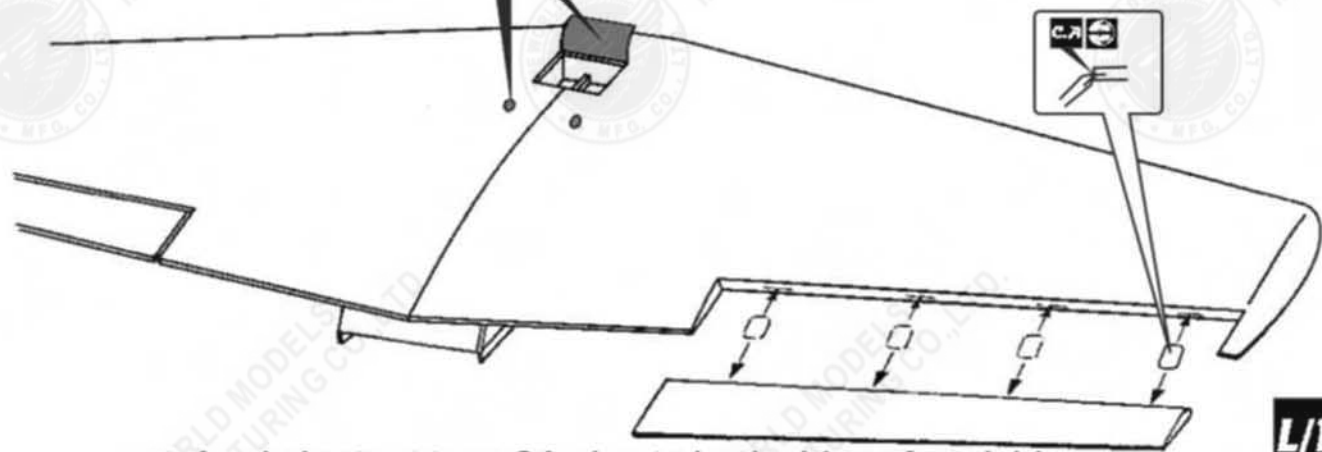


Parts List

1. FUSELAGE -- 1 pc.
2. MAIN WING -- 1 pair
3. STABILIZER & ELEVATOR -- 1 set
4. VERTICAL FIN & RUDDER -- 1 set
5. CANOPY -- 1 set.
6. COWLING -- 1 pc.
7. PILOT (#PC001050B) 1 pc.
8. SPINNER $\varnothing 57\text{mm}$ -- 1 pc.
9. ENGINE MOUNT PL5111-050 -- 1 set
10. FUEL TANK 320cc -- 1 set
11. SPONGE 10x80x200mm (For Radio Equipment) -- 2 pcs
12. TAIL LANDING GEAR -- 1 set
13. MAIN WHEEL $\varnothing 50\text{mm}$ -- 2 pcs
14. TAIL WHEEL $\varnothing 23\text{mm}$ -- 1 pc
16. PUSH ROD, PUSH WIRE & PULL WIRE:--
 COPPER TUBE $d2.0 \times D2.4 \times 8\text{mm}$ (For Rudder) -- 4 pcs.
 METAL ROD $\varnothing 1.8 \times 27\text{mm}$ (For Rudder) -- 2 pcs.
 METAL ROD $\varnothing 1.8 \times 27\text{mm}$ w/Threads (For Rudder) -- 2 pcs
 METAL ROD $\varnothing 1.8 \times 90\text{mm}$ w/Threads (For Aileron) -- 2 pcs
 METAL ROD $\varnothing 1.8 \times 120\text{mm}$ (For Elevator) -- 1 pc
 METAL ROD $\varnothing 1.8 \times 175\text{mm}$ w/Threads (For Elevator) -- 1 pc
 METAL ROD $\varnothing 1.8 \times 180\text{mm}$ w/Threads (For Elevator) -- 1 pc
 PLASTIC TUBE $d2 \times D3 \times 50\text{mm}$ (For Ruder) -- 2 pcs
 PLASTIC TUBE $d2 \times D3 \times 800\text{mm}$ (For Elevator) -- 2 pcs
 WIRE $\varnothing 0.8 \times 750\text{mm}$ (For Rudder) -- 2 pcs
 WOODEN ROD $\varnothing 8 \times 580\text{mm}$ (For Elevator) -- 1 pc
17. THROTTLE PUSH WIRE $\varnothing 1.2 \times 410\text{mm}$
 w/Plastic tube $d2 \times D3 \times 240\text{mm}$ -- 1 set
18. WOODEN PARTS : --
 Balsa $8 \times 8 \times 74.5\text{mm}$ (For Fixing Fuel Tank) -- 1 pc.
 Balsa $5 \times 5 \times 57\text{mm}$ (For Servos Stand) -- 4 pcs.
 Balsa $8 \times 10 \times 60\text{mm}$ (For Rudder Servo Stand) -- 2 pcs.
 PLYWOOD $3 \times 57 \times 91\text{mm}$ (Elevator Servo Stand) -- 2 pcs.
 PLYWOOD $3 \times 60 \times 88\text{mm}$ (Elevator Servo Stand) -- 2 pcs.
19. PLASTIC PARTS : --
 CLEVIS -- 6 pcs
 HORN -- 4 sets
 HORN (w/o-Base For Rudder) -- 2 sets
 STRAPER -- 3 pcs
 SLEEVE (For Belly Pan) -- 2 pcs
 SILICON GROMMET $d1.5 \times D6.5\text{mm}$
 (For Cowling & Canopy) -- 10 pcs
20. METAL PARTS : --
 LINKAGE CONNECTOR 2.1mm -- 3 sets
 COLLAR 2.1mm w/set screw -- 1 set
 COLLAR 4.1mm w/set screw -- 2 sets
 NUT 2mm -- 2 pcs
 NUT 3.5mm -- 8 pcs
 SCREW PA3 x 12mm -- 2 pcs
 SCREW PM2 x 16mm -- 4 pcs
 SCREW PM2 x 20mm -- 6 pcs
 SCREW PM3.5 x 30mm -- 4 pcs
 SCREW PM4 x 25mm -- 4 pcs
 SCREW PM4 x 35mm -- 2 pcs
 SCREW PWA2.3 x 8mm -- 6 pcs
 SCREW PWA2.6 x 12mm -- 4 pcs
 WASHER $d3.5 \times D8\text{mm}$ -- 8 pcs
 WASHER $d4 \times D9\text{mm}$ -- 4 pcs
 WASHER $d4 \times D15\text{mm}$ -- 2 pcs
21. FUEL TUBE $\varnothing 6 \times 5\text{mm}$: -- 9 pcs
 HEAT-SHRINK TUBE $\varnothing 8 \times 40\text{mm}$ -- 2 pcs
22. DECALS (P/N:ST200 058) -- 1 set

1 Main Wing

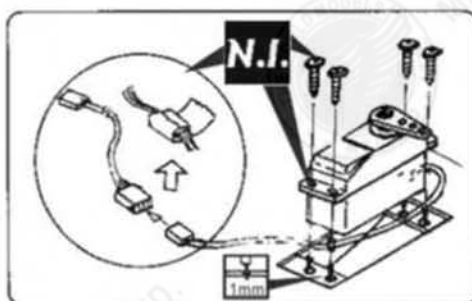
Peel off shaded portion covering film



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

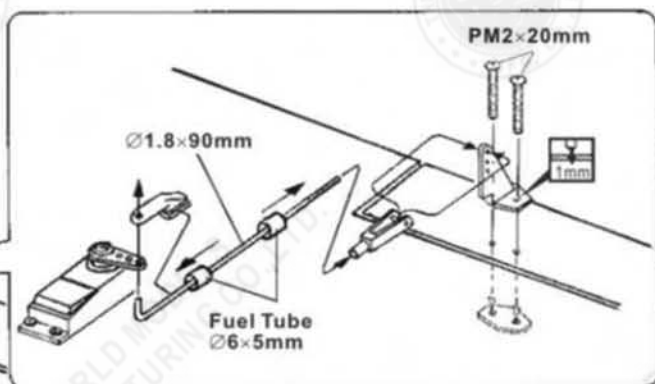
2 Aileron Servo

Peel off shaded portion covering film.



3 Aileron Servo

PM 2x20mm Screw
4



4 Main Landing Gear

KA3×14mm Screw

3mm Set Screw

4.1mm Collar

KA3×14mm

3mm Set Screw

4.1mm Collar

KA3×14mm

3mm Set Screw

4.1mm Collar

KA3×14mm

3mm Set Screw

4.1mm Collar

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3mm Set Screw

4.1mm Collar

KA3×14mm

3mm Set Screw

4.1mm Collar

KA3×14mm

3mm Set Screw

4.1mm Collar

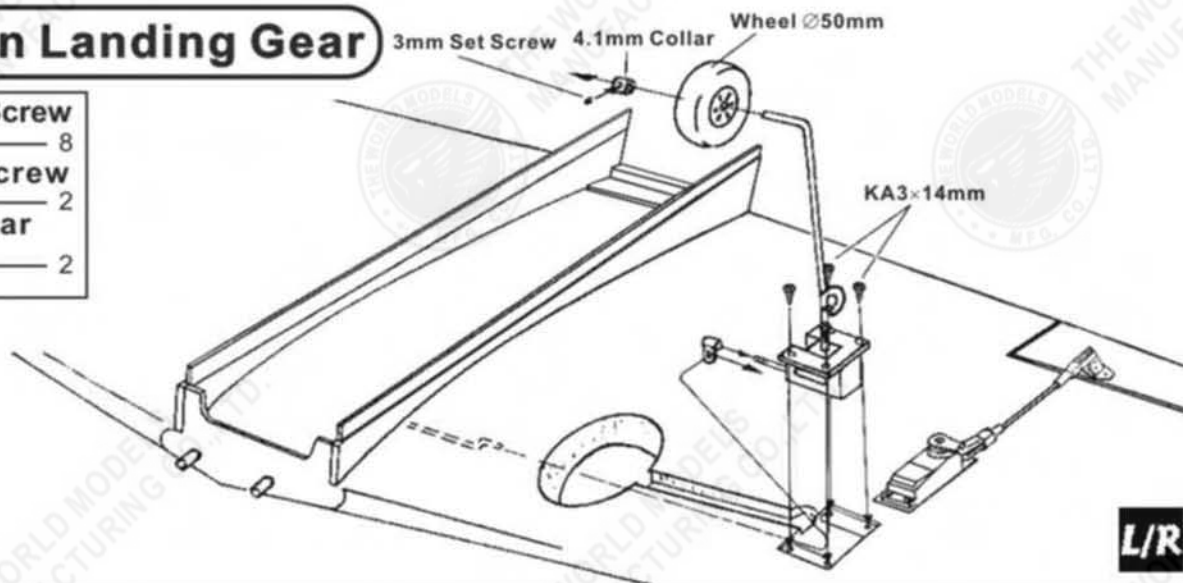
KA3×14mm

3mm Set Screw

4.1mm Collar

KA3×14mm

3mm Set Screw 4.1mm Collar Wheel \varnothing 50mm



5 Landing Gear Servo

LINKAGE CONNECTOR

3mm Set Screw

Linkage Connector

2mm Nut

2mm Washer

2mm Washer

2mm Washer

2mm Washer

2mm Washer

2mm Washer

2mm Washer

2mm Washer

2mm Washer

2mm Washer

2mm Washer

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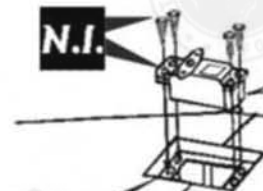
2mm Washer

2mm Washer

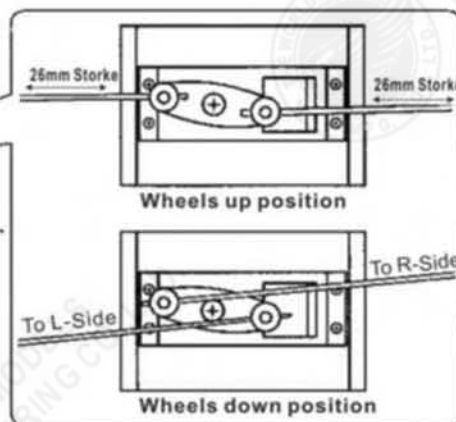
2mm Washer

2mm Washer

N.I.



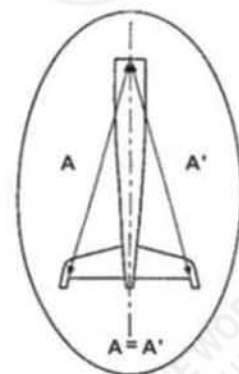
1.5mm



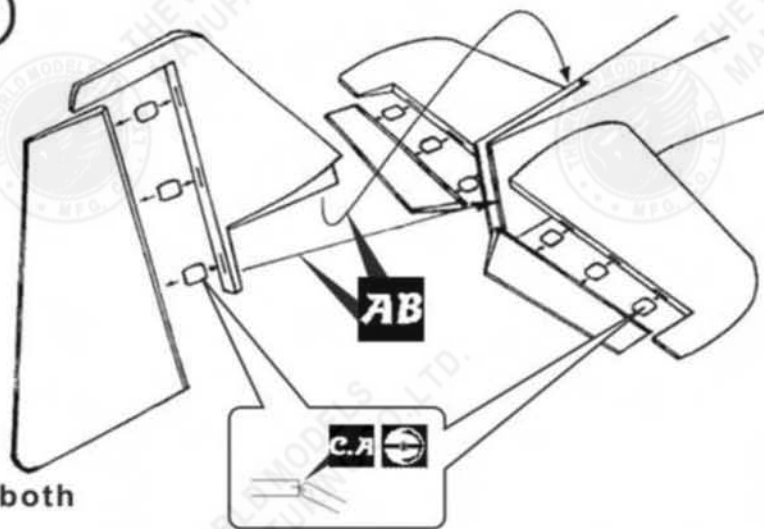
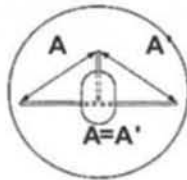
6 Stabilizer

AB

AB



7 Vertical Fin/Rudder



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

8 Tail Landing Gear

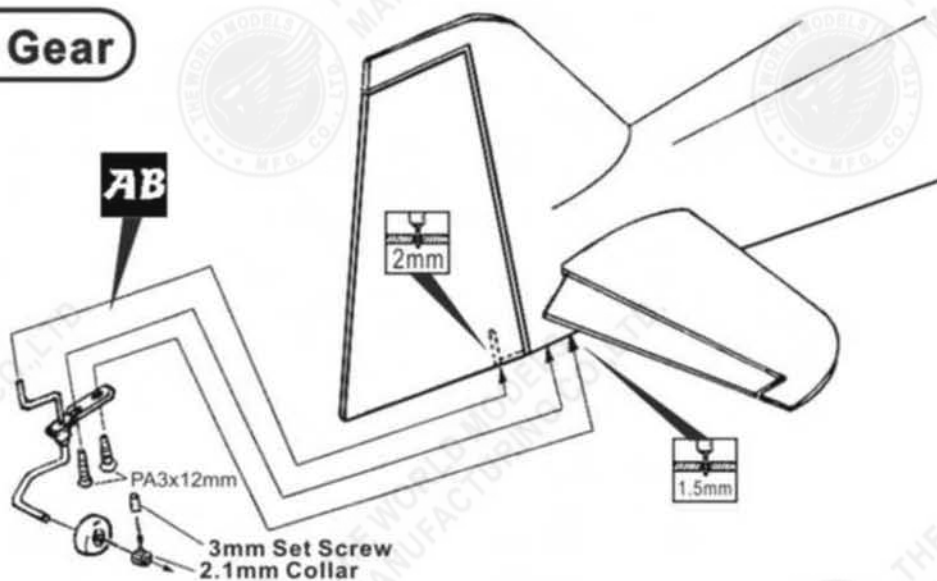
PA3×12mm Screw

3mm Set Screw

2.1mm Collar

2.1mm Collar

2.1mm Collar



9 Engine Mount

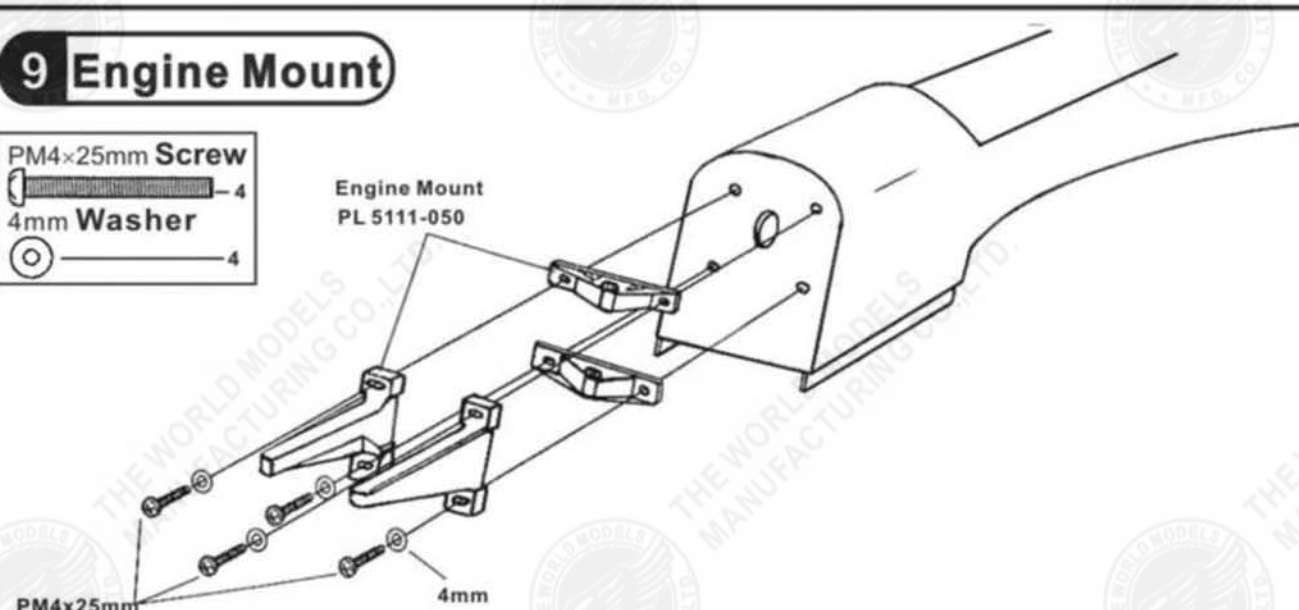
PM4×25mm Screw

4mm Washer

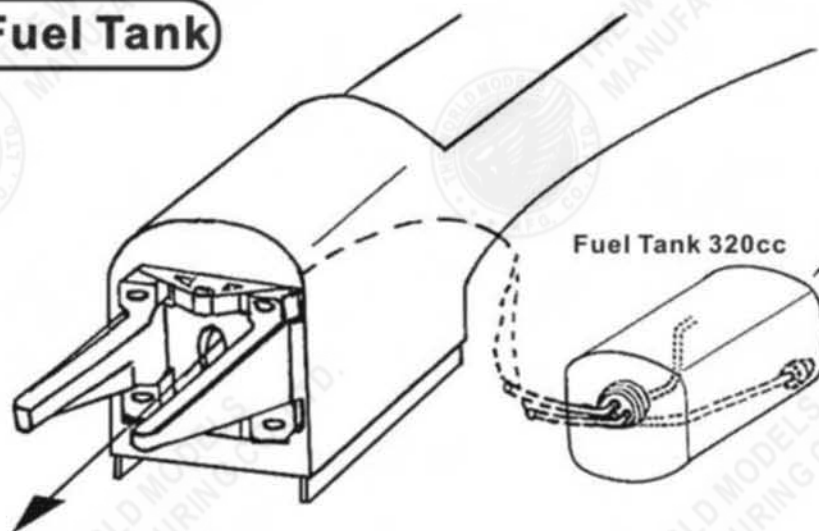
4mm Washer

4mm Washer

Engine Mount
PL 5111-050



10 Fuel Tank



Install Balsa & Plywood for fixing fuel tank
Balsa 8-8-74.5mm

Fuel Tank

● Bottom View

11 Engine

PM3.5×30mm Screw

d3.5×D8mm Washer

3.5mm Nut

3.5mm Nut

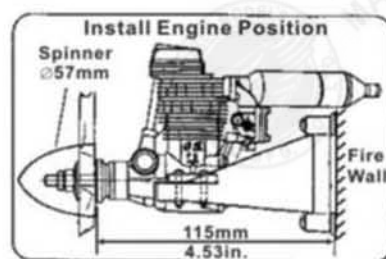
3.5mm Nut

3.5mm Nut

Plastic tube
d2×D3×240mm

Throttle Pushwire
∅1.2×410mm

● Apply thread locker to screws.



Install Engine Position

Spinner
∅57mm

115mm

4.53in.

Fire Wall

12 Elevator Pushrod

1.8×120mm

Heat-shrink Tube

∅1.8×180mm

5mm

∅1.8×175mm

1.8×180mm

8×580mm

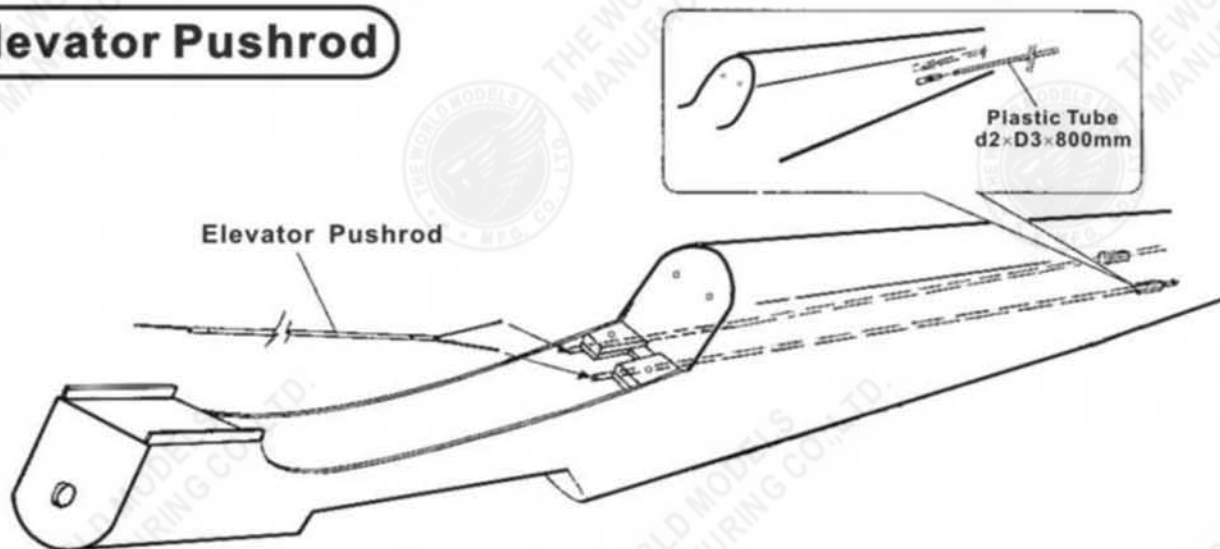
1.8×175mm

Fuel Tube
∅6×5mm

Be careful not to scorch the heat-shrink tube!

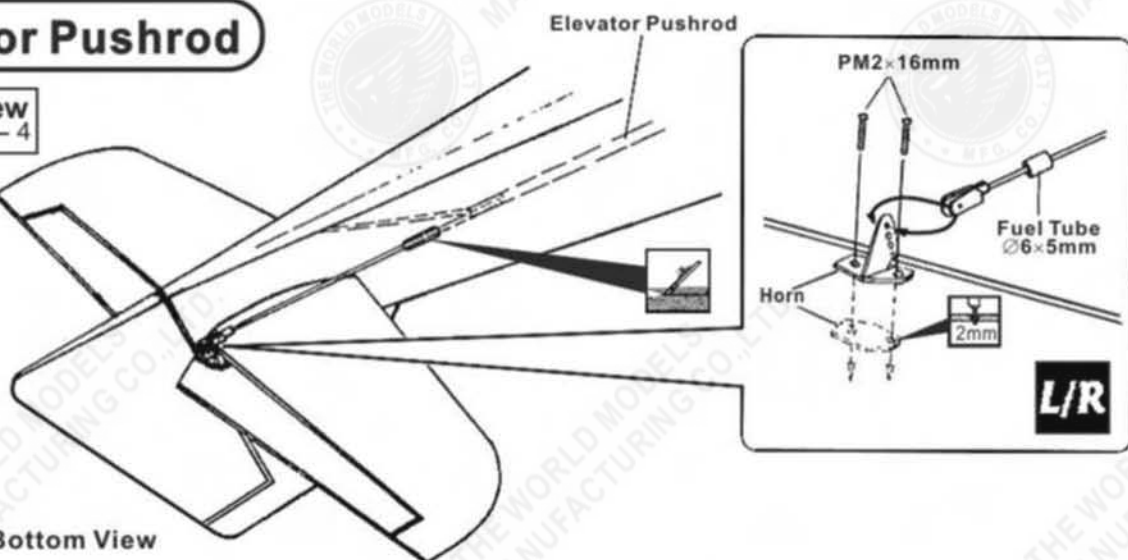
Completed

13 Elevator Pushrod



14 Elevator Pushrod

PM 2×16mm Screw



15 Servo Set

LINKAGE CONNECTOR

3mm Set Screw

1

Linkage Connector

1

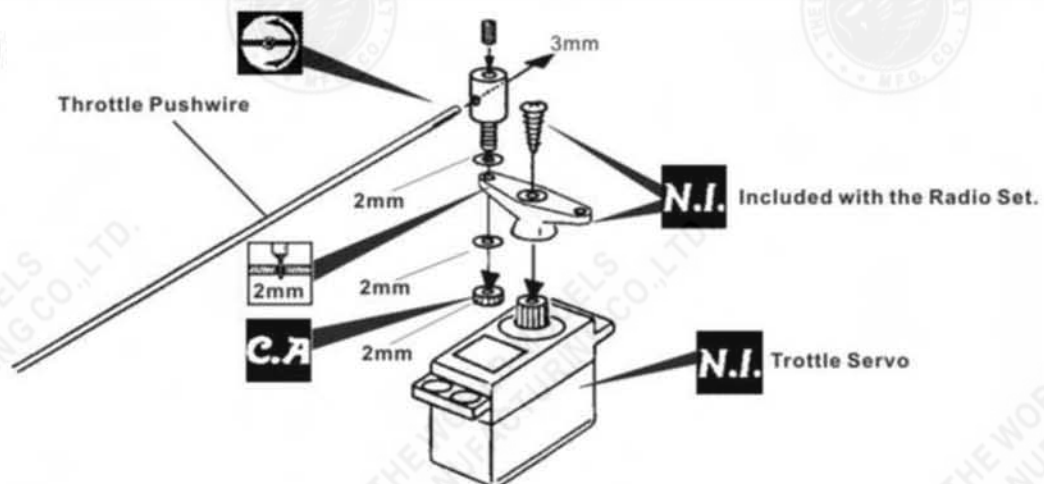
2mm Nut

1

2mm Washer

1

2



! Please refer to attached sheet for linkage connector installation.

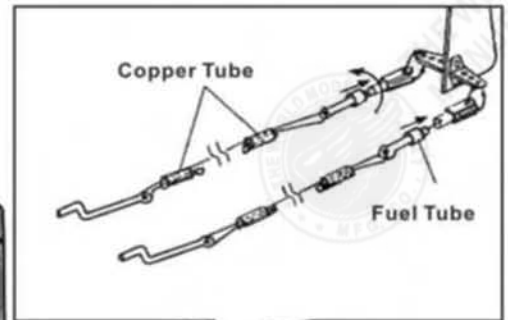
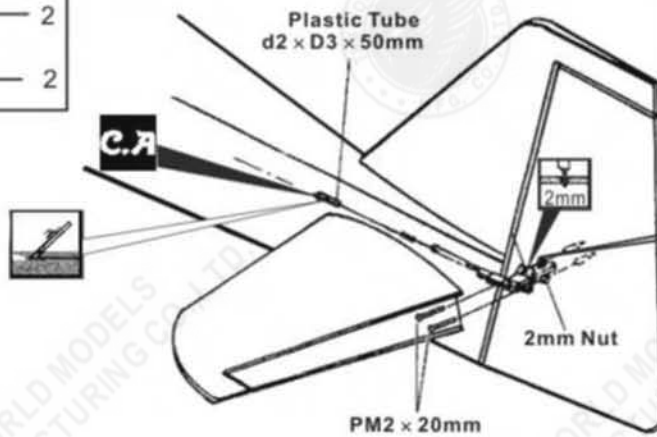
16 Rudder Pushwire

PM 2x20mm Screw

2

2mm Nut

2



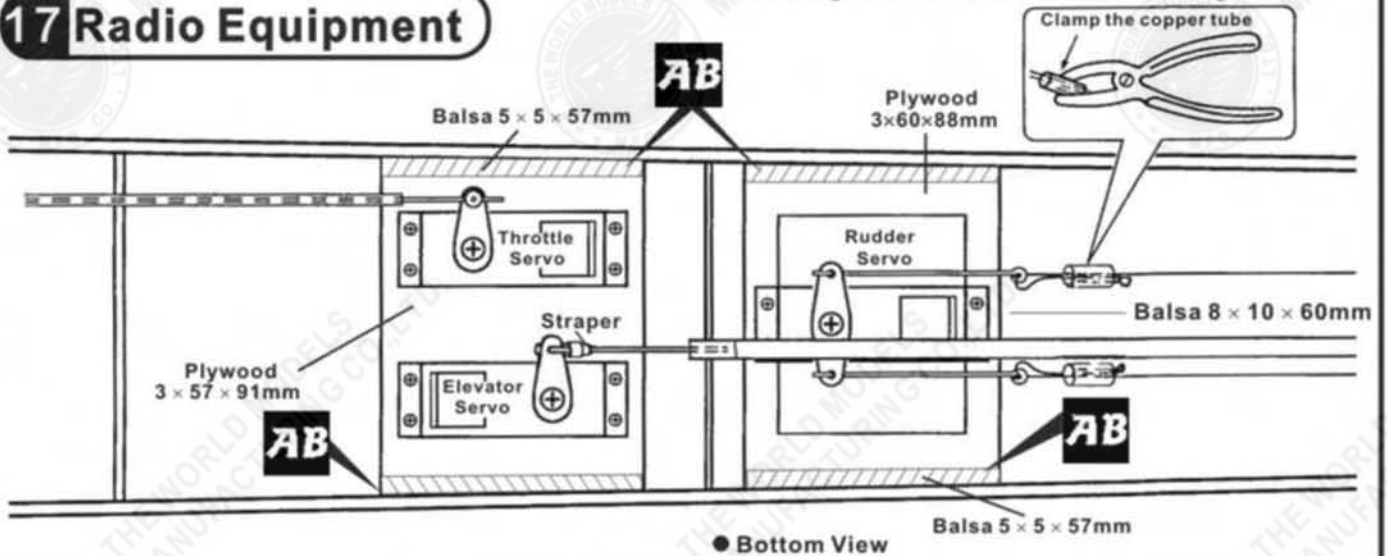
Copper Tube

Fuel Tube

PM2 x 20mm

17 Radio Equipment

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



Clamp the copper tube

AB

Balsa 5 x 5 x 57mm

Plywood
3x60x88mm

Throttle
Servo

Rudder
Servo

Straper

Balsa 8 x 10 x 60mm

Plywood
3 x 57 x 91mm

AB

Elevator
Servo

AB

● Bottom View

Balsa 5 x 5 x 57mm

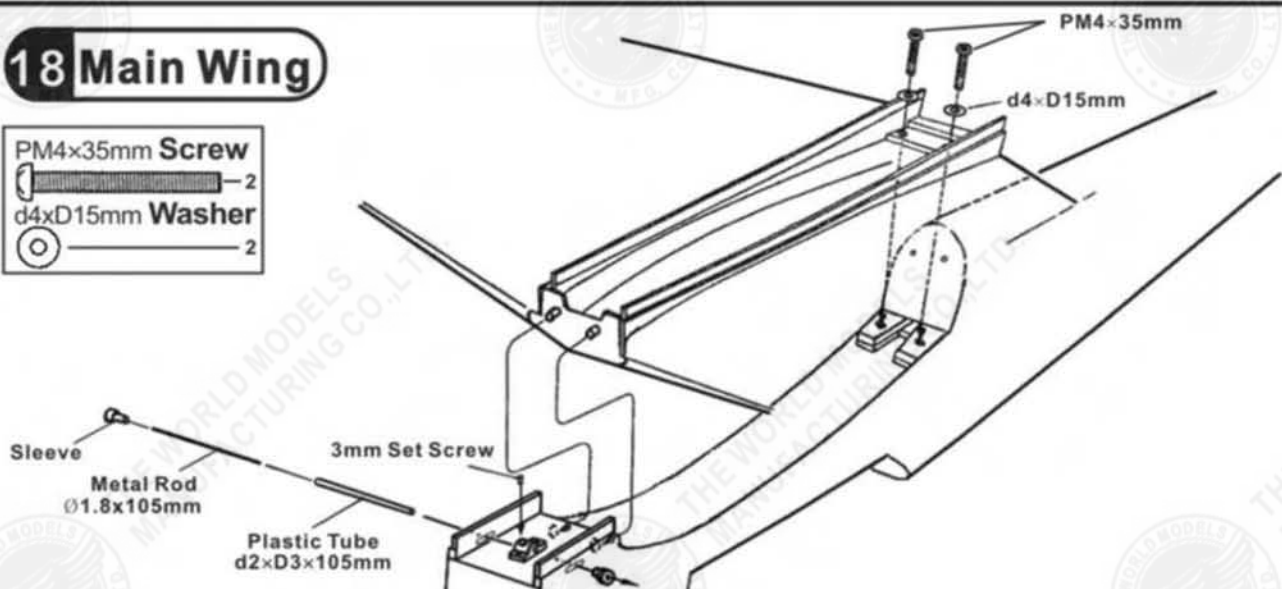
18 Main Wing

PM4x35mm Screw

2

d4xD15mm Washer

2



PM4x35mm

d4xD15mm

Sleeve

Metal Rod
Ø1.8x105mm

3mm Set Screw

Plastic Tube
d2xD3x105mm

19 Cowling

PWA2.6 x 12 mm Screw



4

d1.5 x D6.5 mm Silicon Grommet

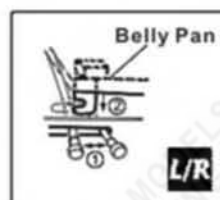


4

Silicon Grommet
d1.5xD6.5mm

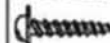
PWA2.6x12mm

20 Belly Pan



21 Canopy

PWA2.3 x 8 mm Screw



6

d1.5 x D6.5 mm Silicon Grommet



6

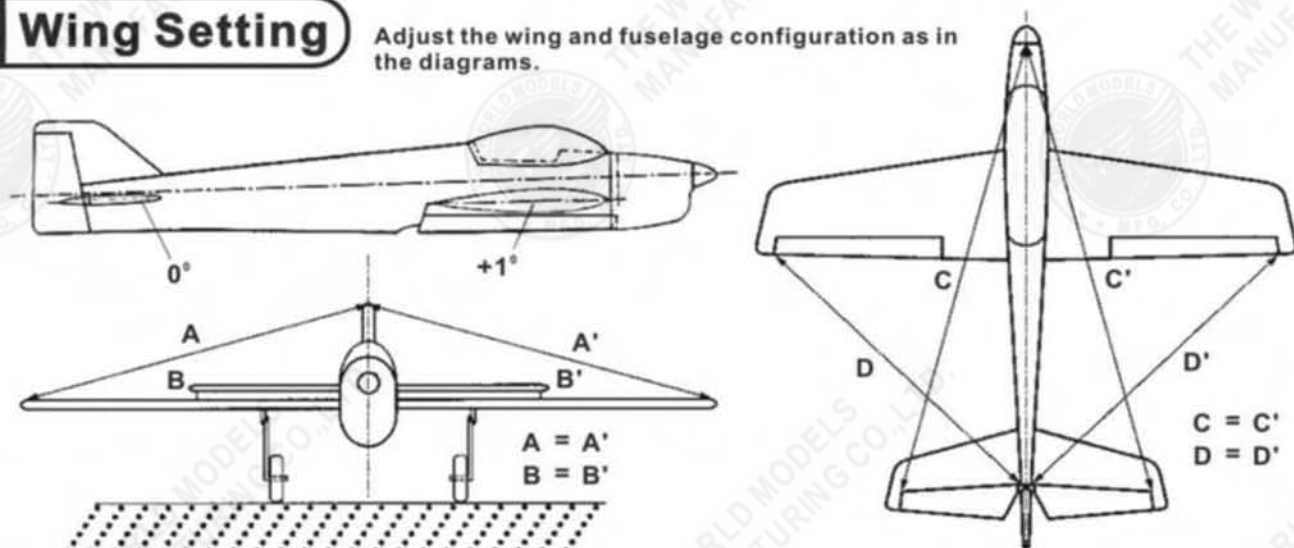
Silicon Grommet
d1.5xD6.5mm

PWA2.3x8mm

Pilot

22 Wing Setting

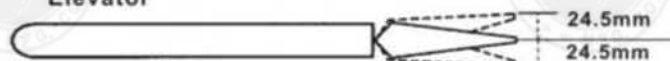
Adjust the wing and fuselage configuration as in the diagrams.



23 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.

Elevator



Rudder



Aileron



24 C.G.

The ideal C. G. Position is 135mm(5.31in.) 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.
- #**Tai Ji - 40S** is specially designed to be powered by **2C 0.40** or **4C 0.52** 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.
- #Check and re-tighten up all factory assembled screws, use thread locker if applicable.

A084S0401

