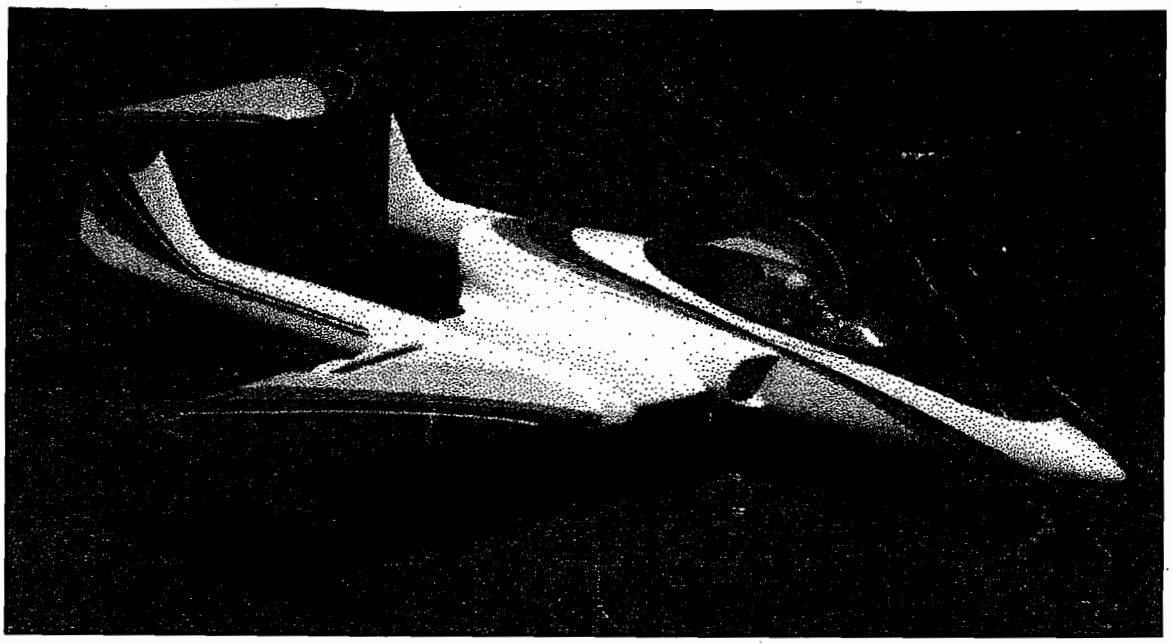
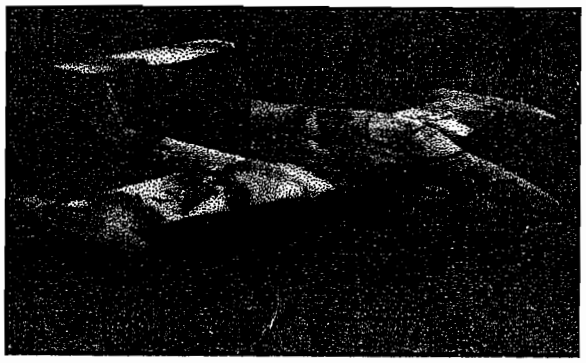
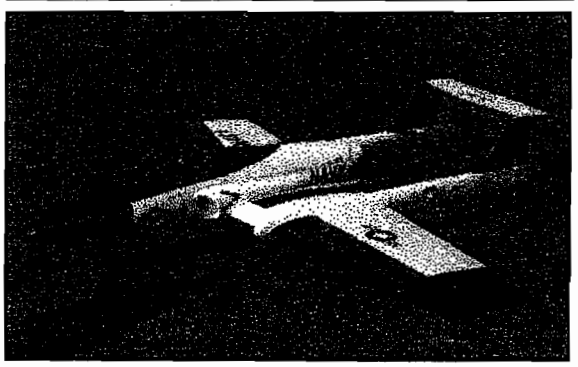
Read through this manual carefully before you begin building and follow it during construction.

BOOMERANG TORUS
ARF KIT.







Aerobatic Sport Jet for 20 to 34 lbs (P80 to P160) thrust turbines.

Specifications:
Span... 83" (2209mm.)
Span with Wingtip Tanks 90" (2286mm.)
Length...87" (2108mm.)
Weight 29 Lbs.(13.15 Kilo)
Radio Required 6 to 11 channels.
Servos.. 9 to 11, from 5 to 12 kilo torque.

Designer Alan Cardash
Boomerang Jets Ltd
Website www.boomerangjets.com

Safety Precautions

The Torus turbine model is designed for experienced modellers. This model is not recommended for beginners to R/C flying and should not be attempted by those with insufficient building and flying experience. This manual is for guidance only. If you are unsure of any model building techniques, seek help from an experienced model builder or contact Boomerang Jets Ltd for assistance. Jet models are dangerous if construction is carelessly or incorrectly carried out. As the building assembly of this kit is out of our control after point of sale, no liability is accepted by Boomerang Jets Ltd. Or Boomerang Jets USA Llc for any accident or loss, however caused. Purchase of this kit implies acceptance of these conditions by the purchaser. To decline these terms, return the unused kit to your supplier for full refund.

Note the Symbols used throughout these instructions.

Assemble left and right sides the same way.

Not supplied

Drill holes to the specified diameter (here: 2mm. shown).

Cut off shaded portion.

Apply epoxy glue.

Pay close attention here!

Ensure smooth non-binding movement while assembling.

Apply instant glue (CA glue, super glue).

Warning!

Do not overlook this symbol!

1 Wings

Assemble left and right sides the same way.

Warning!

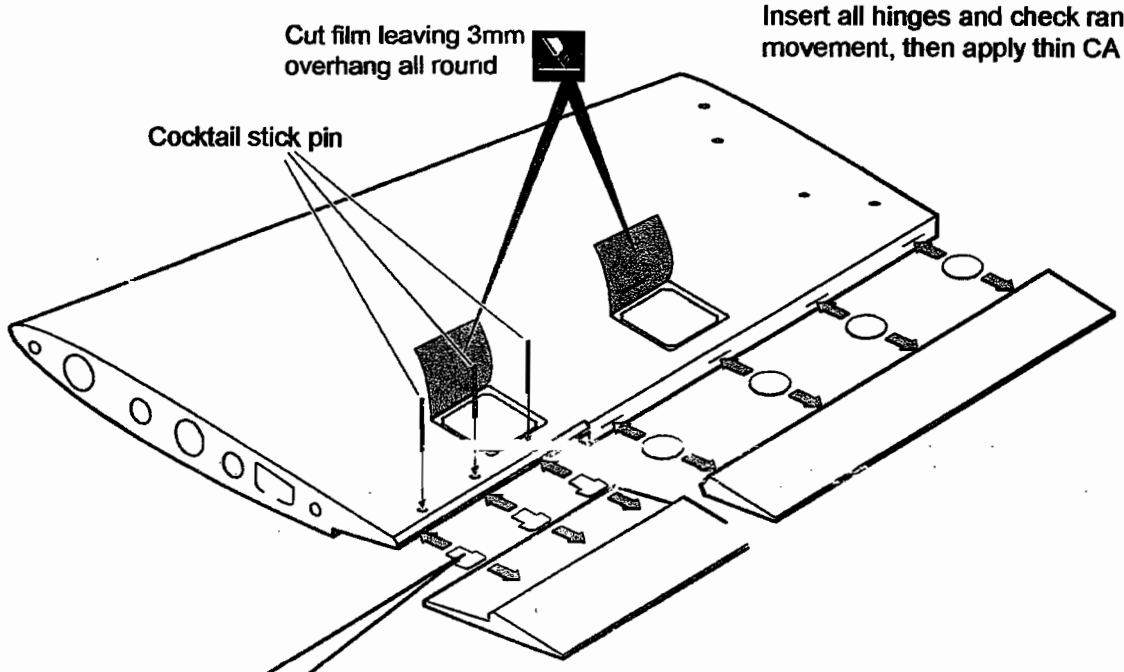
Be sure to apply thin C.A. glue to both sides of each hinge. Then pin each hinge from below using cocktail sticks, fore and aft of the hinge line. Do not pierce the top surface.

NOTES ON HORN POSITIONS

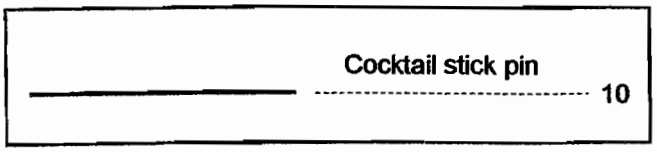
Mount the horns so the clevis holes are 1/4" (6mm) behind the hinge line for the ailerons to give differential and on the hinge line for rudders and elevators.

But on the FLAP horns, move the horn bolt rearwards about 1"(25mm.) from hinge line and re-drill the hole for the clevis back so that the hole in the plastic flag is a full 3/4" back behind the hinge line. This will allow the flap to drop almost to 90 degrees full deflection.

Insert all hinges and check range of movement, then apply thin CA glue.



Be sure to apply instant type CA glue to both sides of each hinges. (low viscosity type)

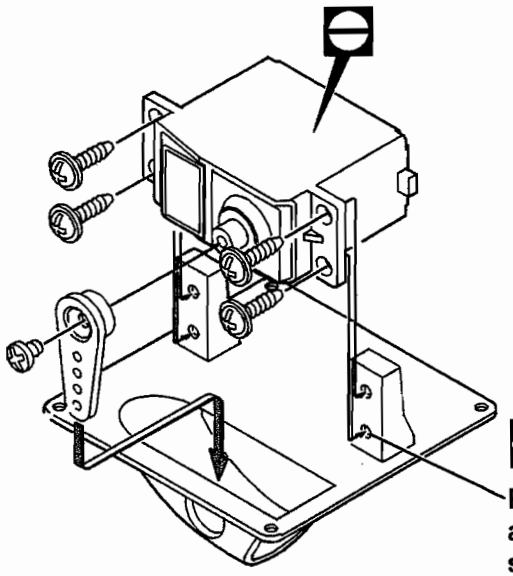


As With all ARF Kits, it is essential to make a thorough check of all glue joints and add epoxy or CA glue if required.

3 Servo Mounts

L R Assemble left and right sides the same way.

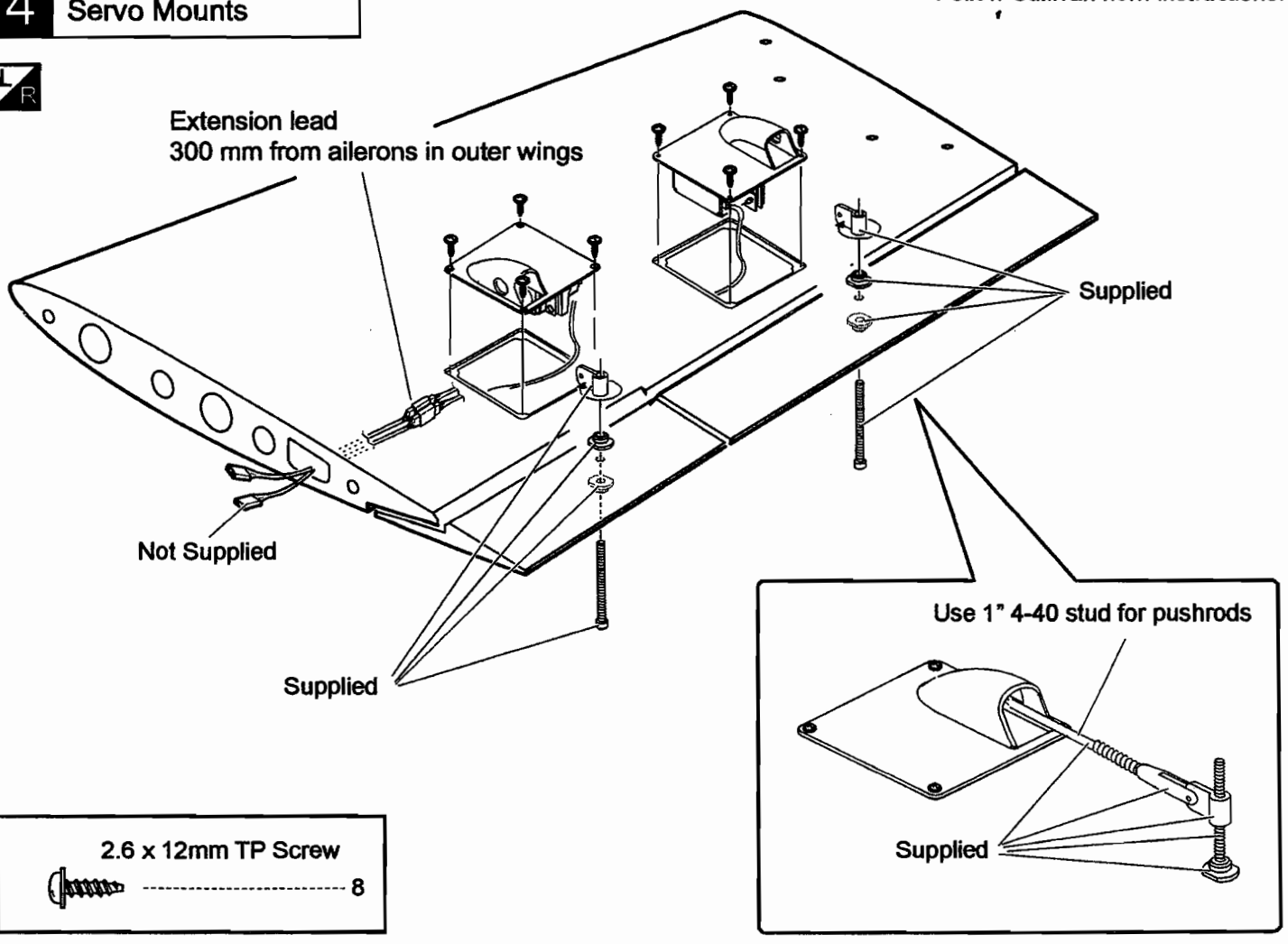
Main Wing Installation ---------- 2
Flap Servo Installation ---------- 2
Elevator Servo installation ------- 2
Rudder installation ---------- 2



4 Servo Mounts

Follow Sullivan horn instructions.

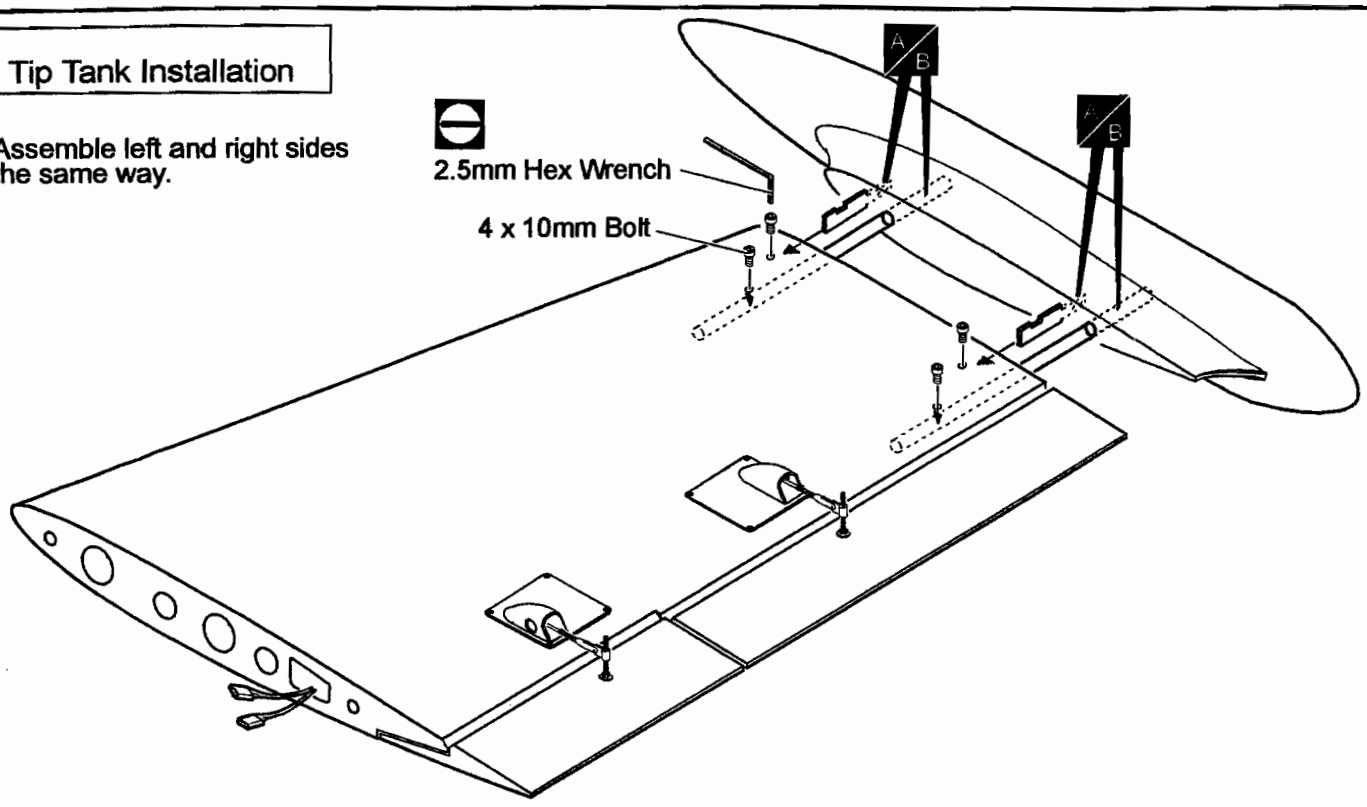
L R



2.6 x 12mm TP Screw ---------- 8

5 Tip Tank Installation

L R Assemble left and right sides the same way.



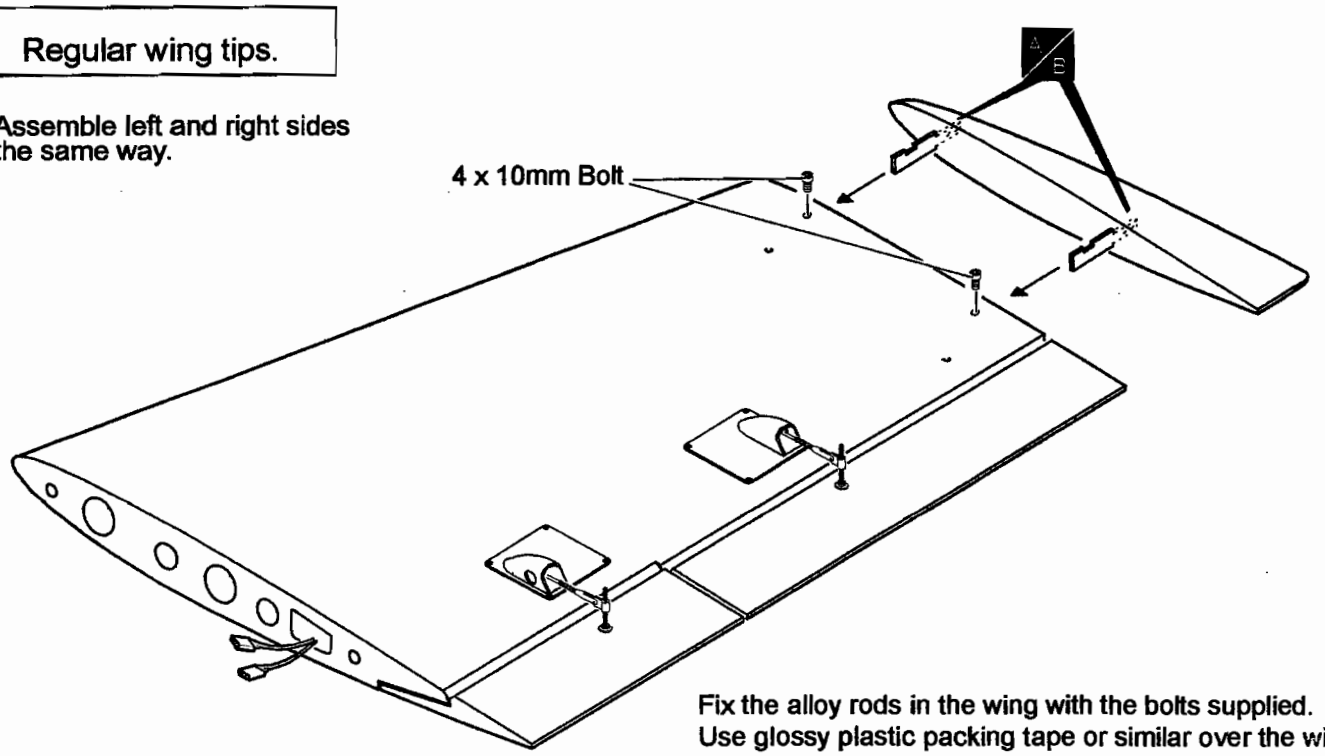

6mm ---------- 4


4 x 10mm Bolt ---------- 8


---------- 4

6 Regular wing tips.

L R Assemble left and right sides the same way.

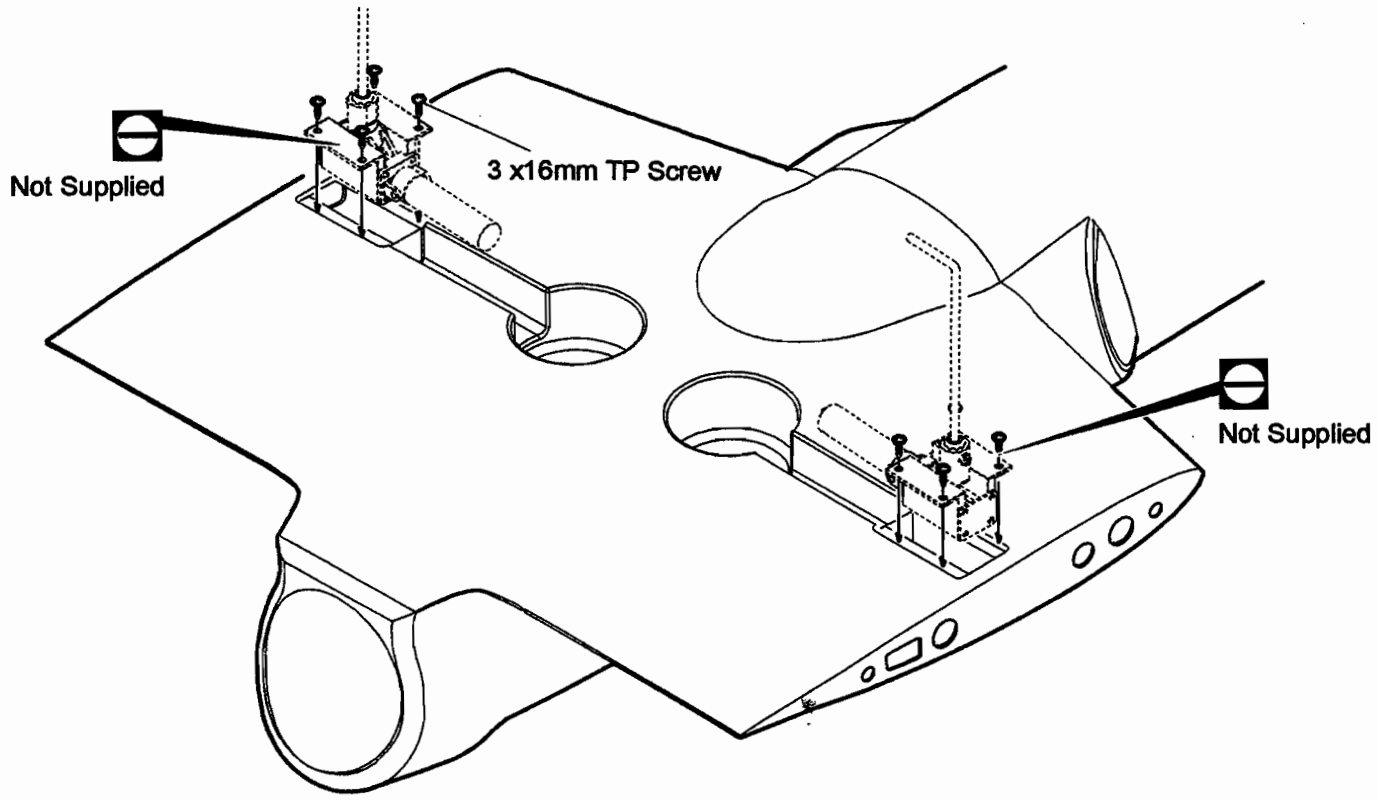


Fix the alloy rods in the wing with the bolts supplied. Use glossy plastic packing tape or similar over the wing to ensure release, then use 5 minute epoxy glue in the wing tips. Line up and press the tip home while the glue sets. Then slack off the bolts and release the tip with the tabs in place.


---------- 4

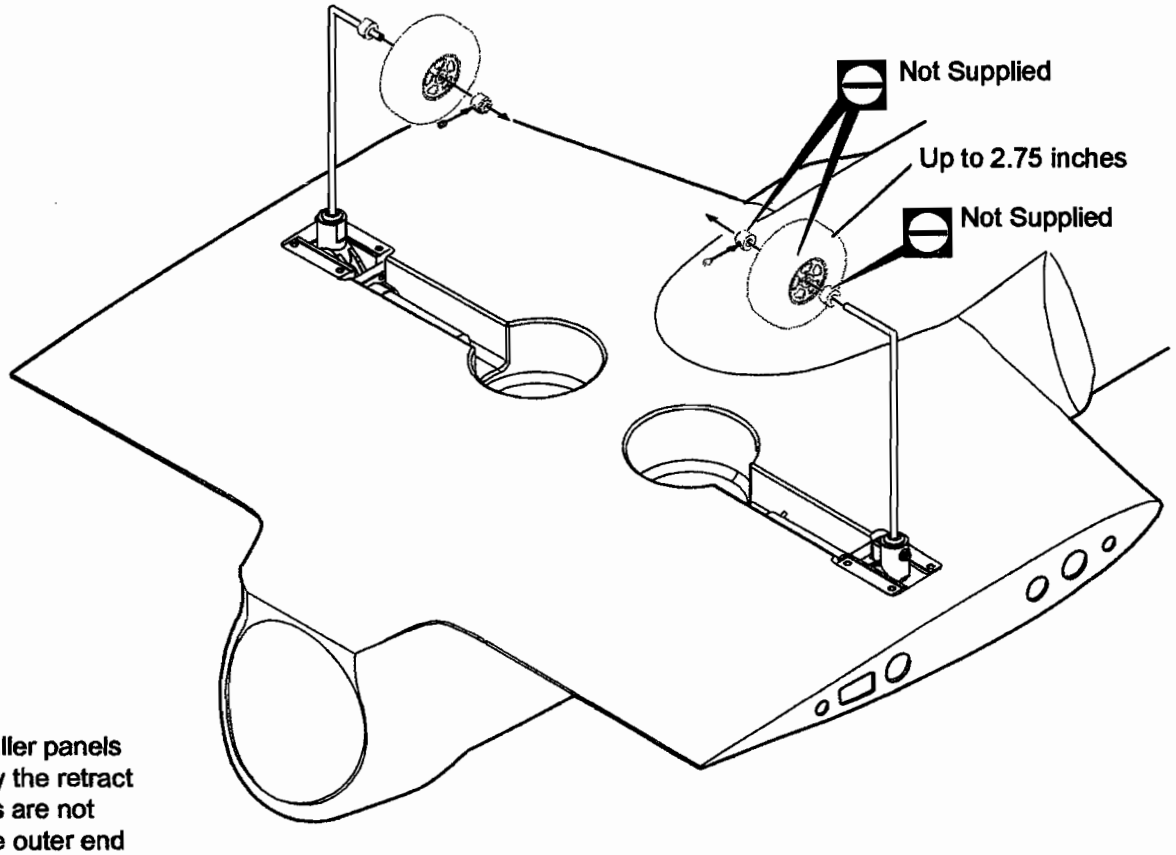

4 x 10mm Bolt ---------- 4

7 Mounting Retracts



3 x16mm TP Screw ---------- 8

8 Mounting Retracts

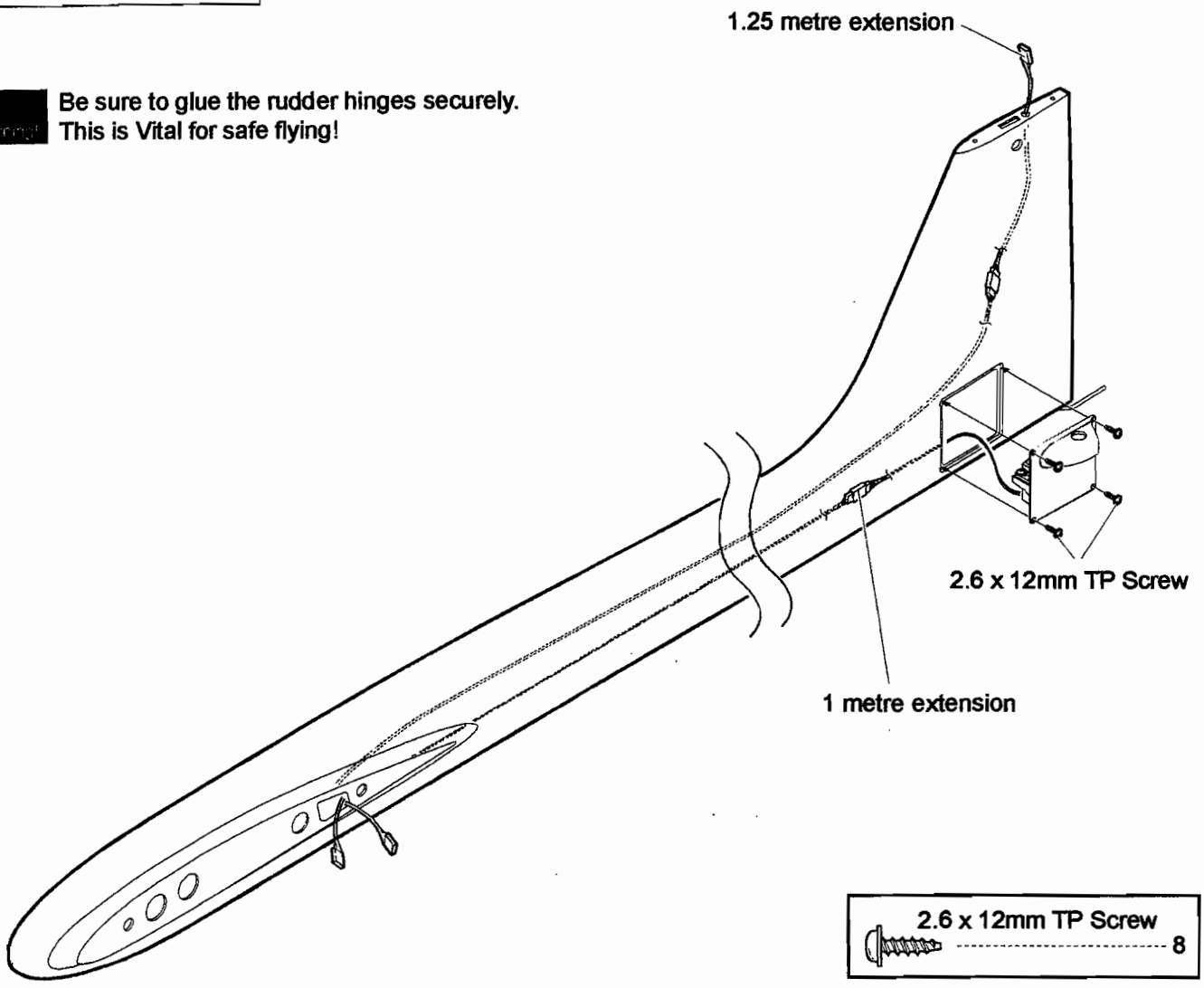


Use plywood filler panels supplied to tidy the retract wells if retracts are not mounted at the outer end of the rails.

9 Rudder Servo

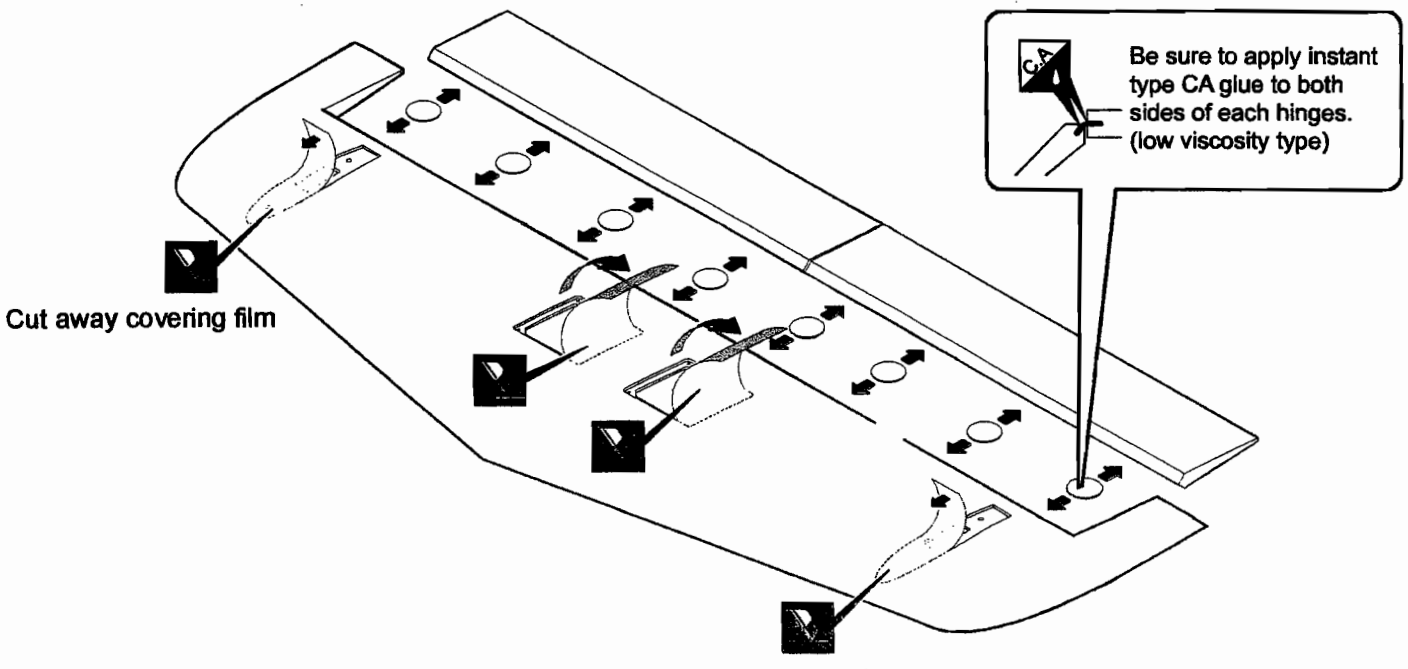
L R

Be sure to glue the rudder hinges securely.
This is Vital for safe flying!

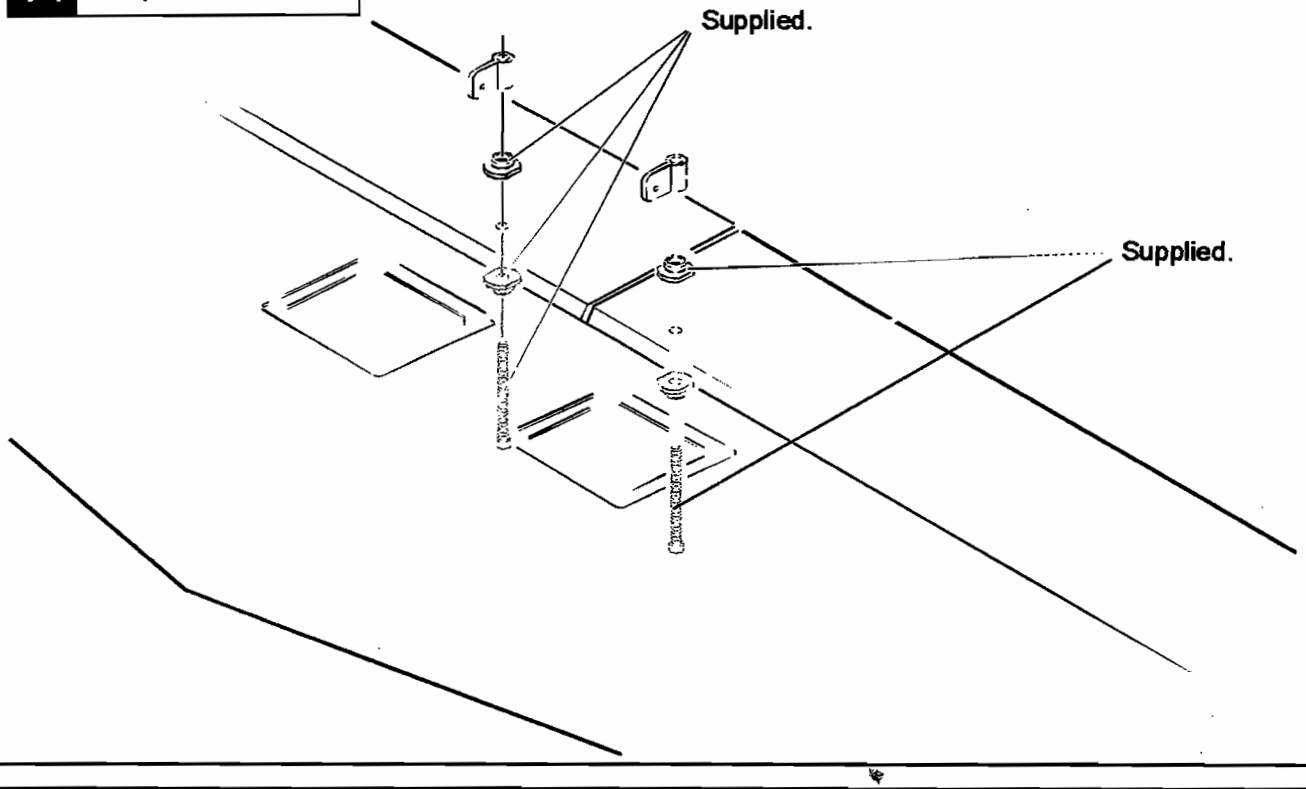


2.6 x 12mm TP Screw ---------- 8

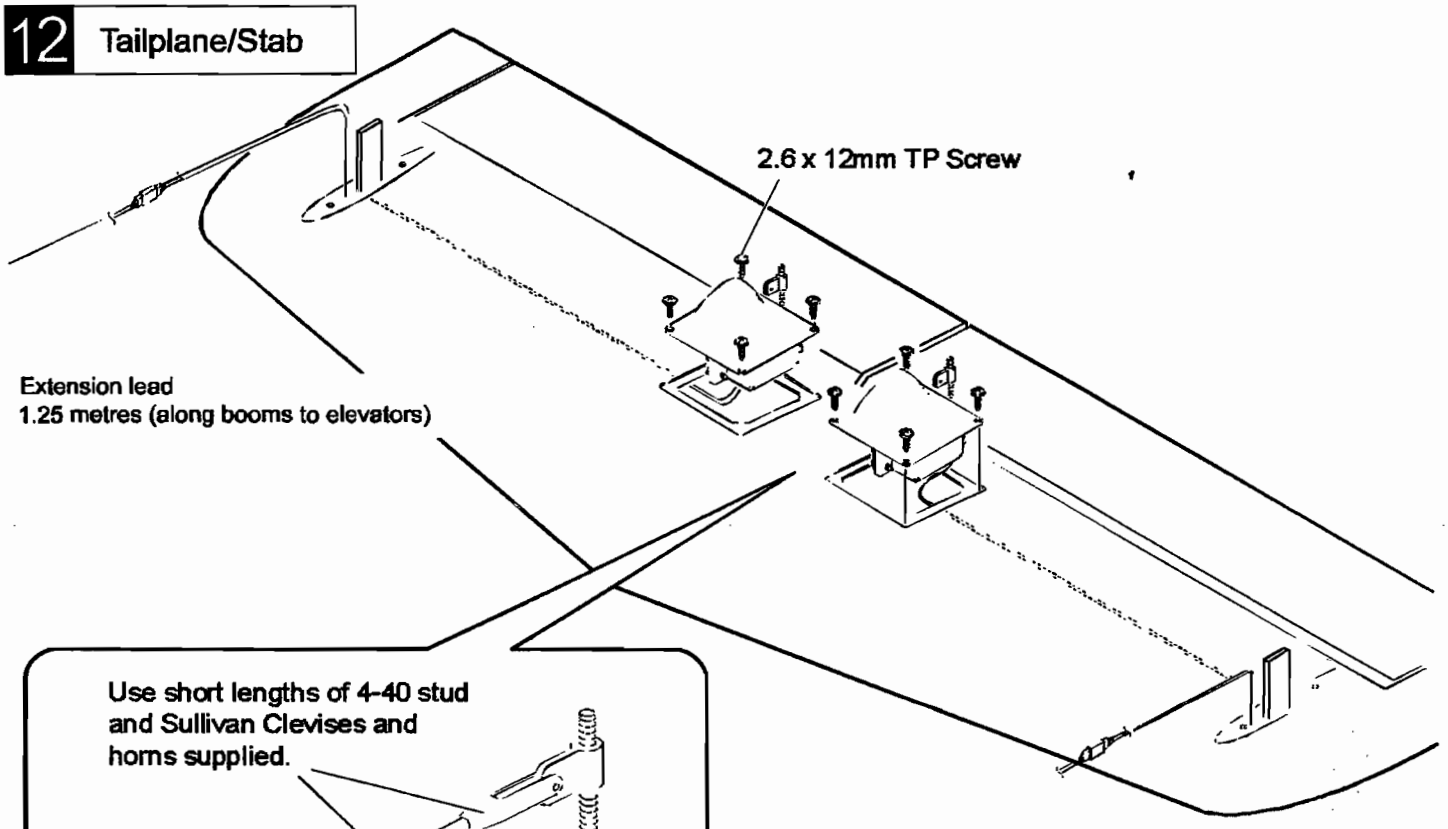
10 Tailplane/Stab

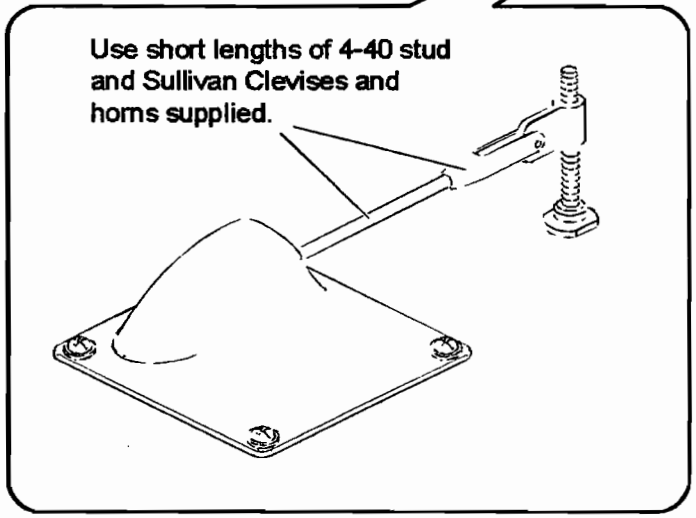


11 Tailplane/Stab



12 Tailplane/Stab

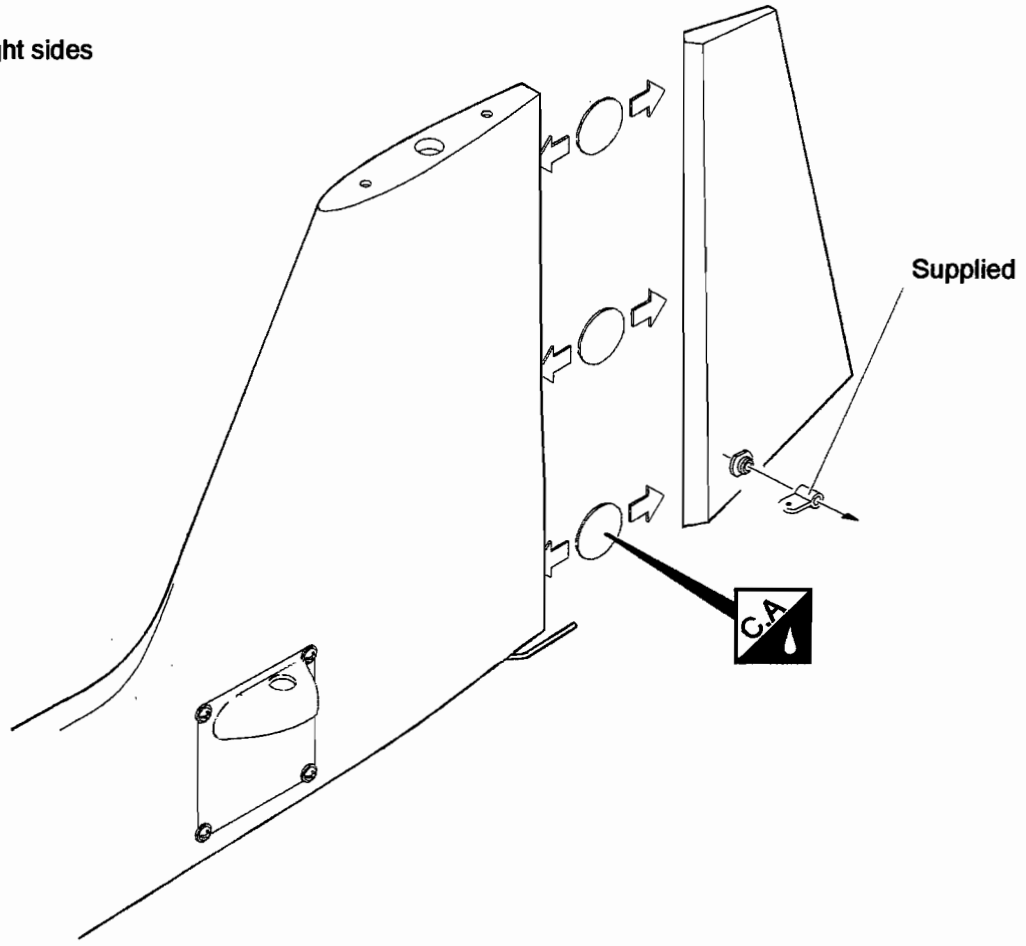


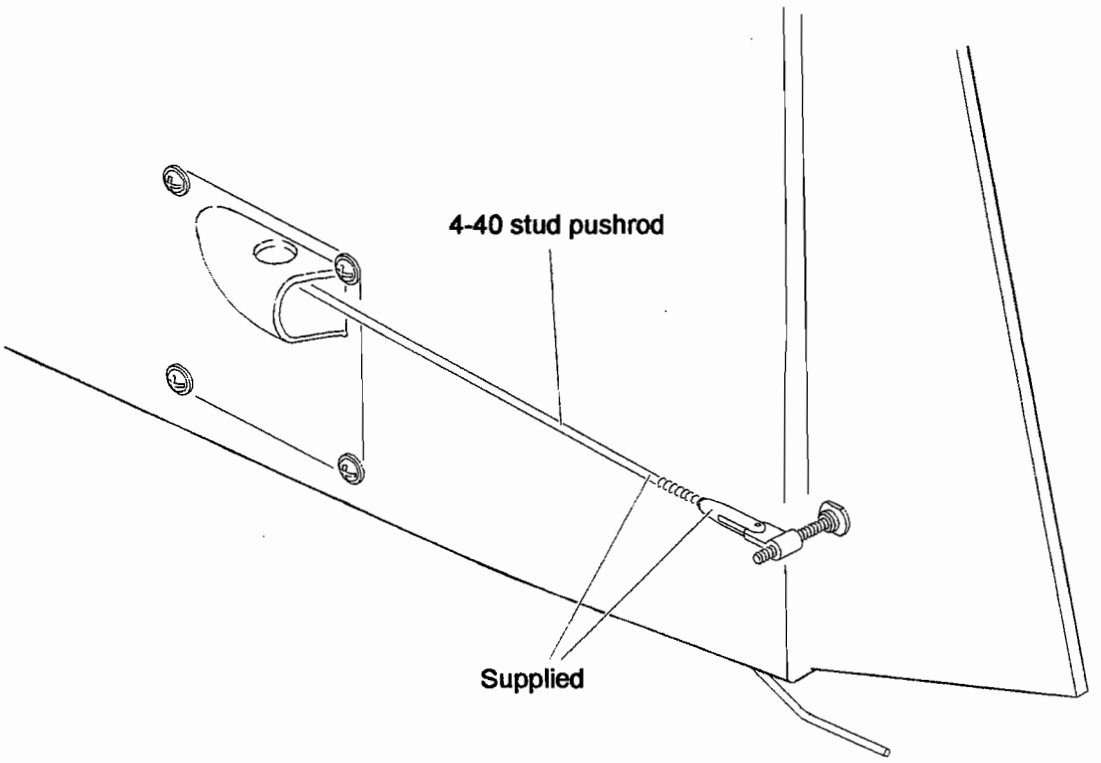


2.6 x 12mm TP Screw 8

13 Rudders

Assemble left and right sides the same way

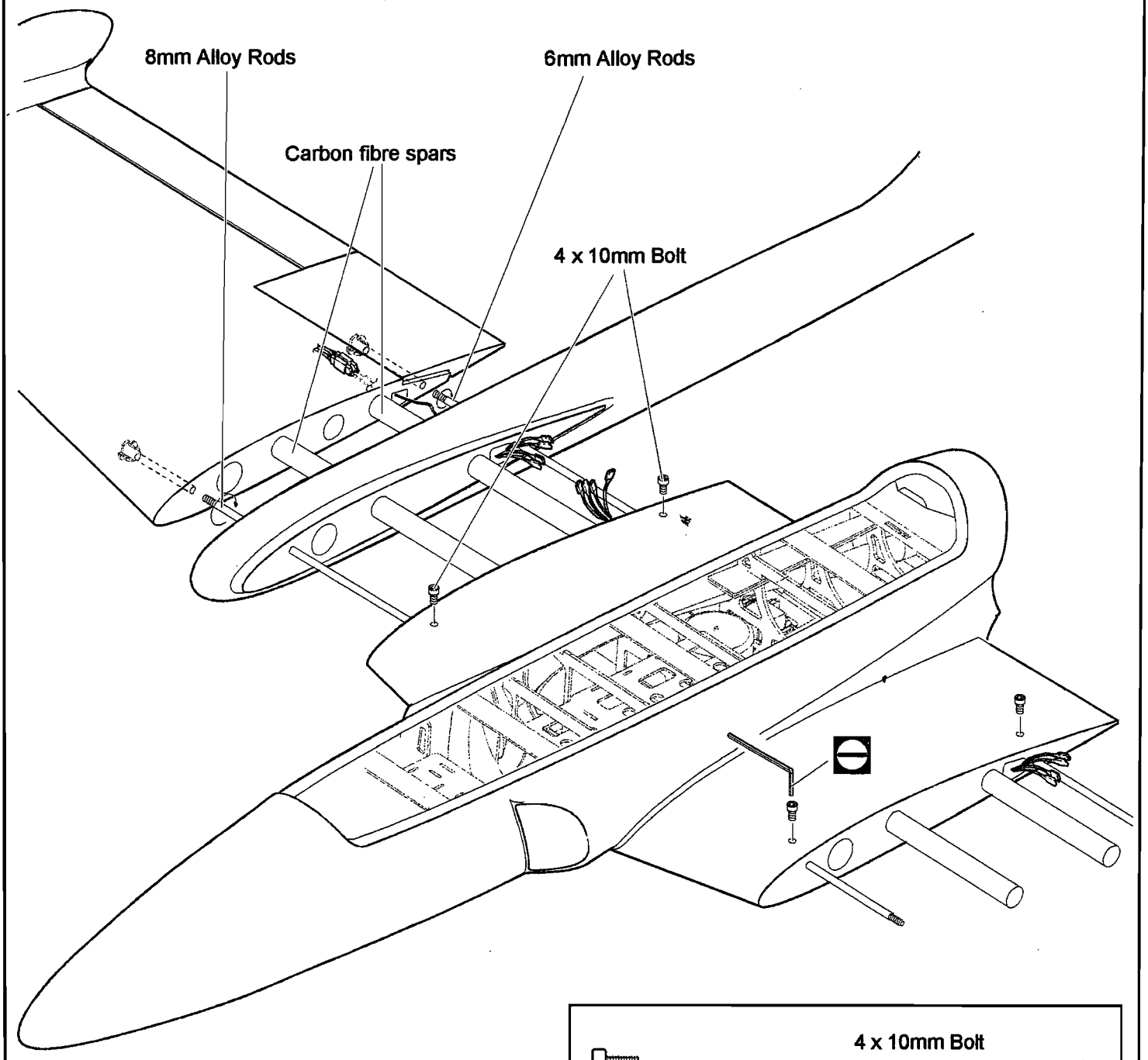


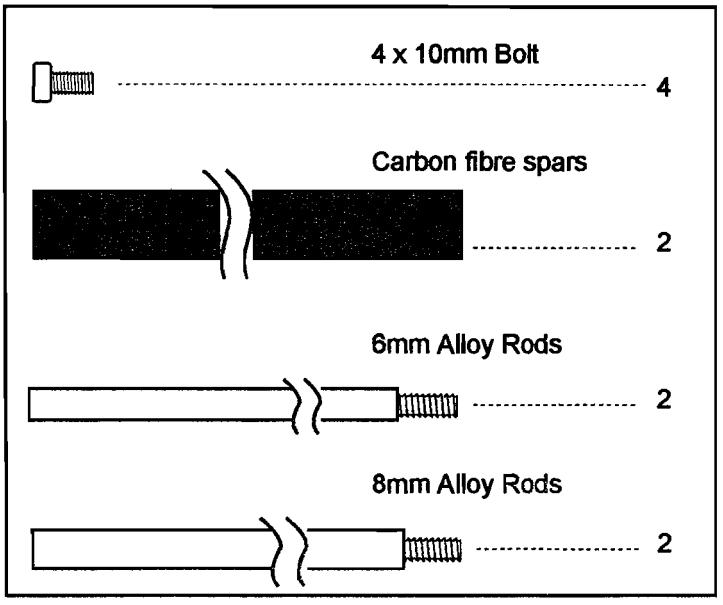


Assemble left and right sides the same way

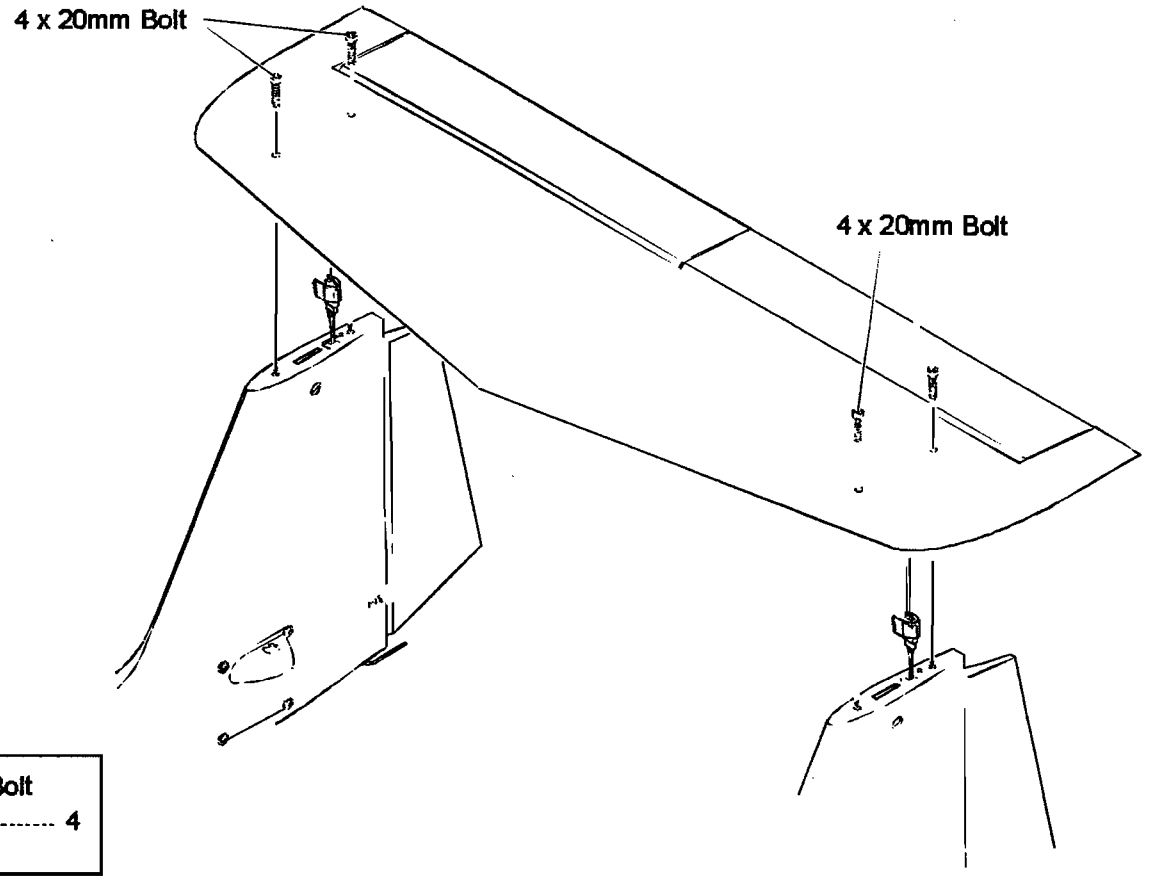
14 Assembly

L R Assemble left and right sides the same way





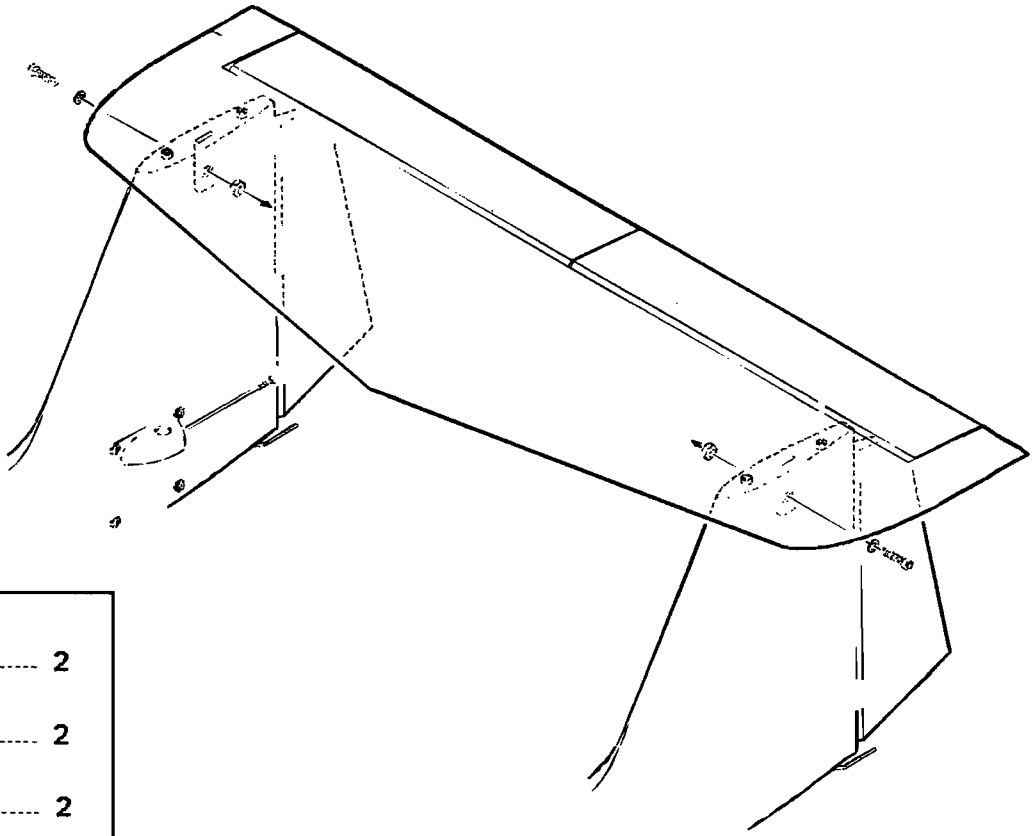
15 Tail Assembly



4 x 20mm Bolt ---------- 4

16 Additional safety fitting to stabilisor

With tailplane (Stab.) firmly screwed down, pass a 3.6mm drill through the holes in the fins and drill a hole through the metal tongue projecting down from the Stab. Remove the Stab and tap the new hole in the tongue out to 4mm thread. Repeat the process through the other fin. During assembly apply the 4mm X16mm bolt through the fins and the tongues and lock in place with the 4mm nylock nuts and washers supplied. If a 4mm tap is not available drill the hole in the tongue out to 4mm and assemble the same way.

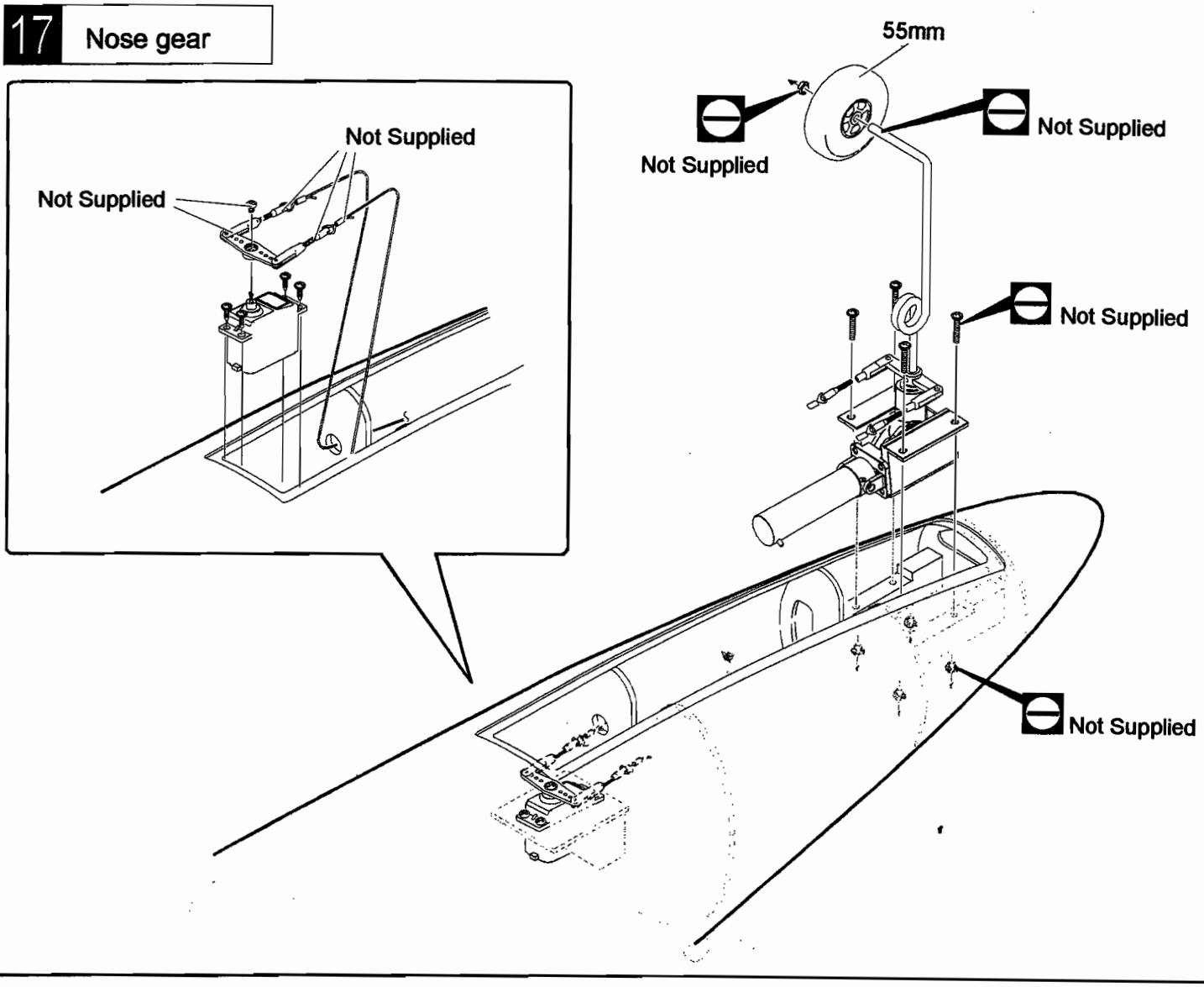


4mm Washer ---------- 2

4mm Lock Nut ---------- 2

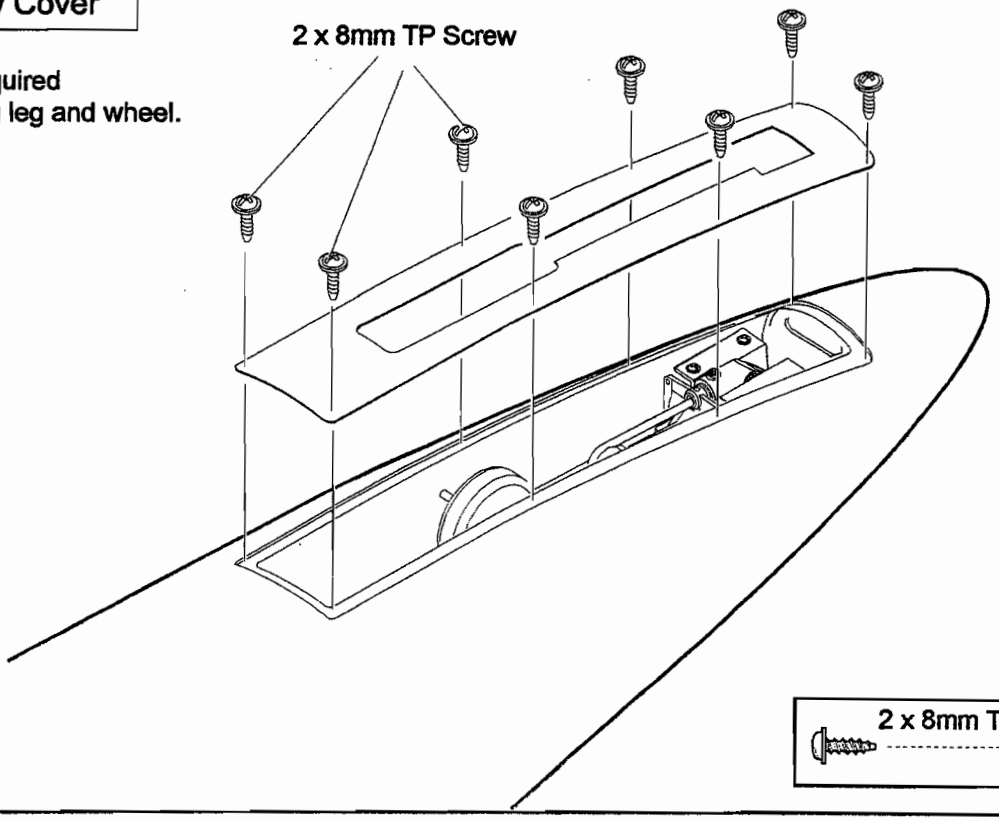
4 x 16mm Screw ---------- 2

17 Nose gear



18 Noseleg Bay Cover

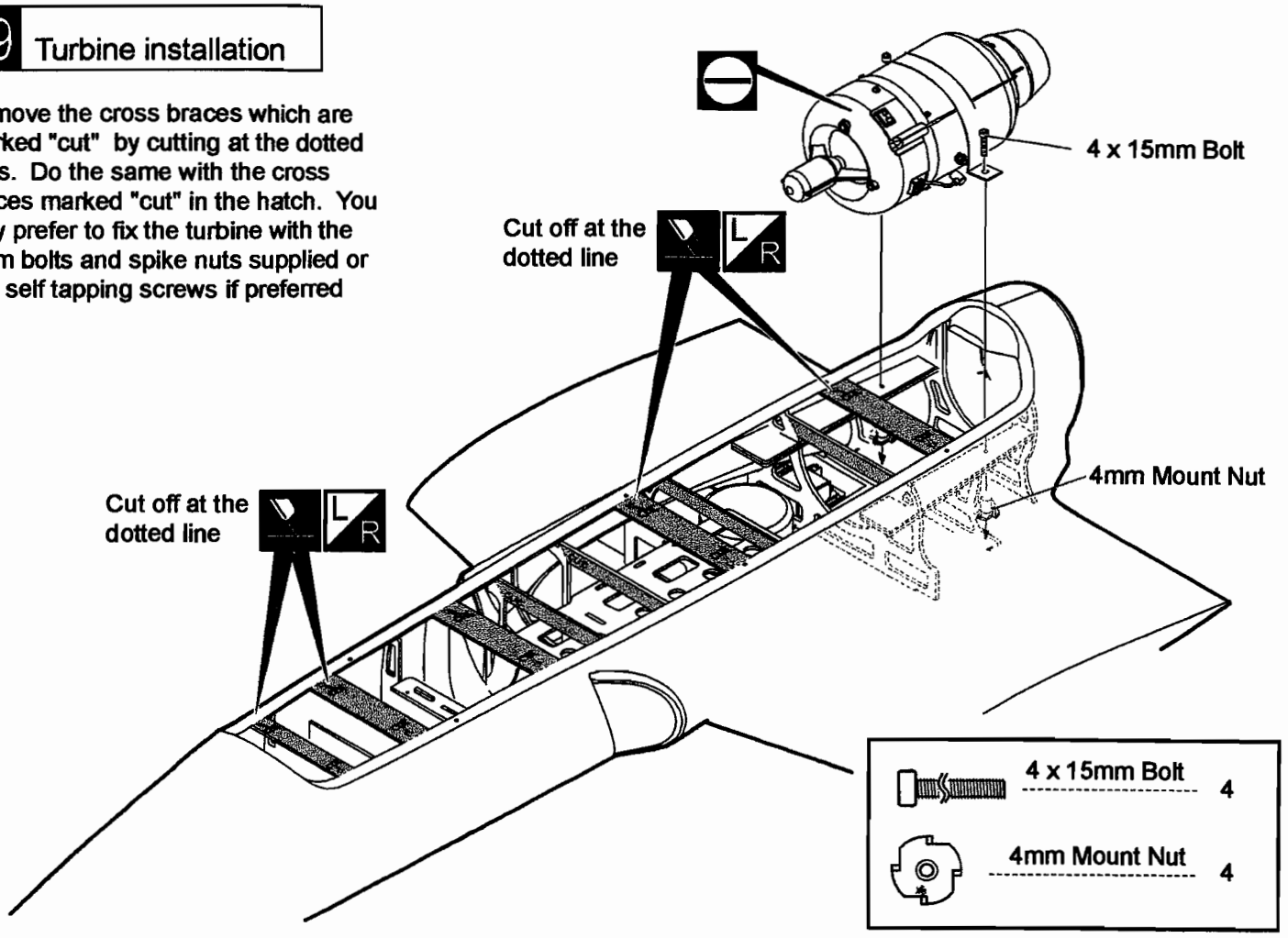
Trim the cover as required
to clear the retracting leg and wheel.



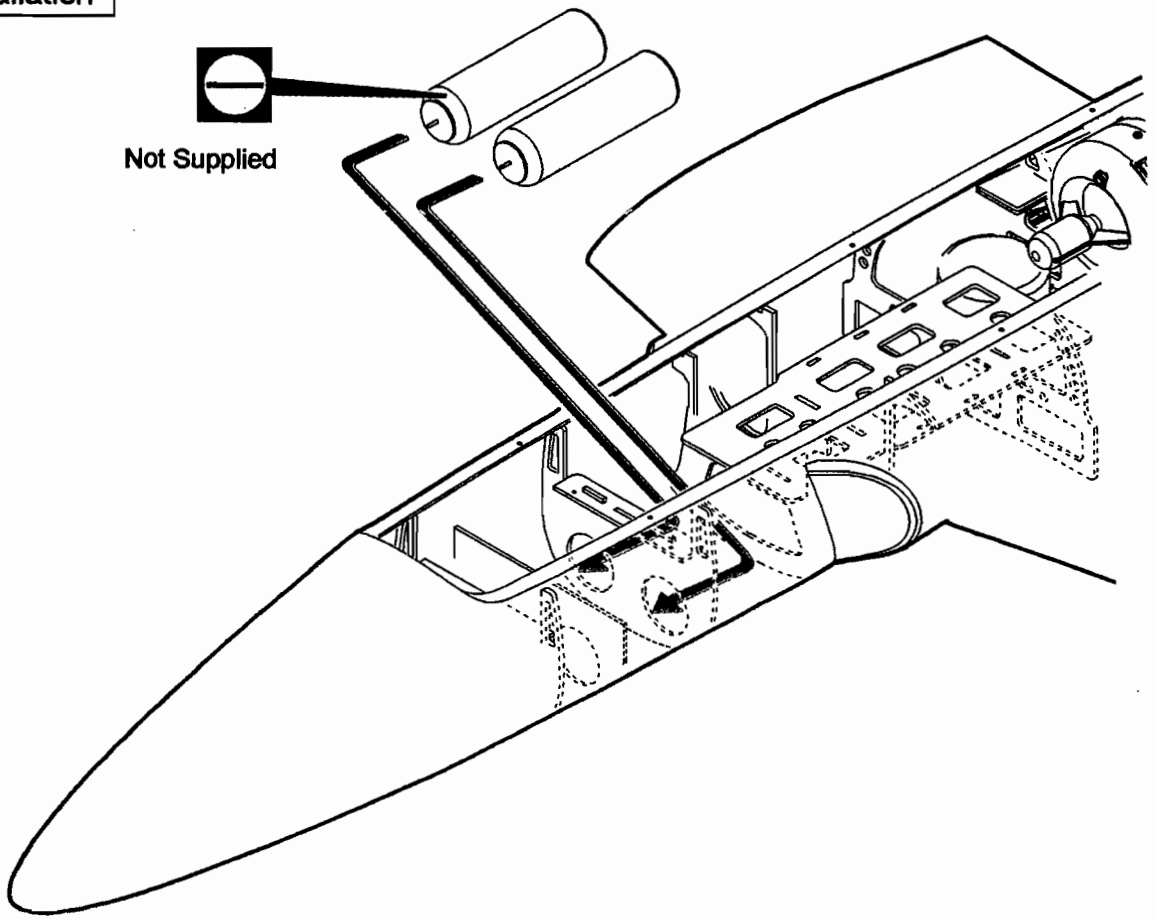
2 x 8mm TP Screw 8

19 Turbine installation

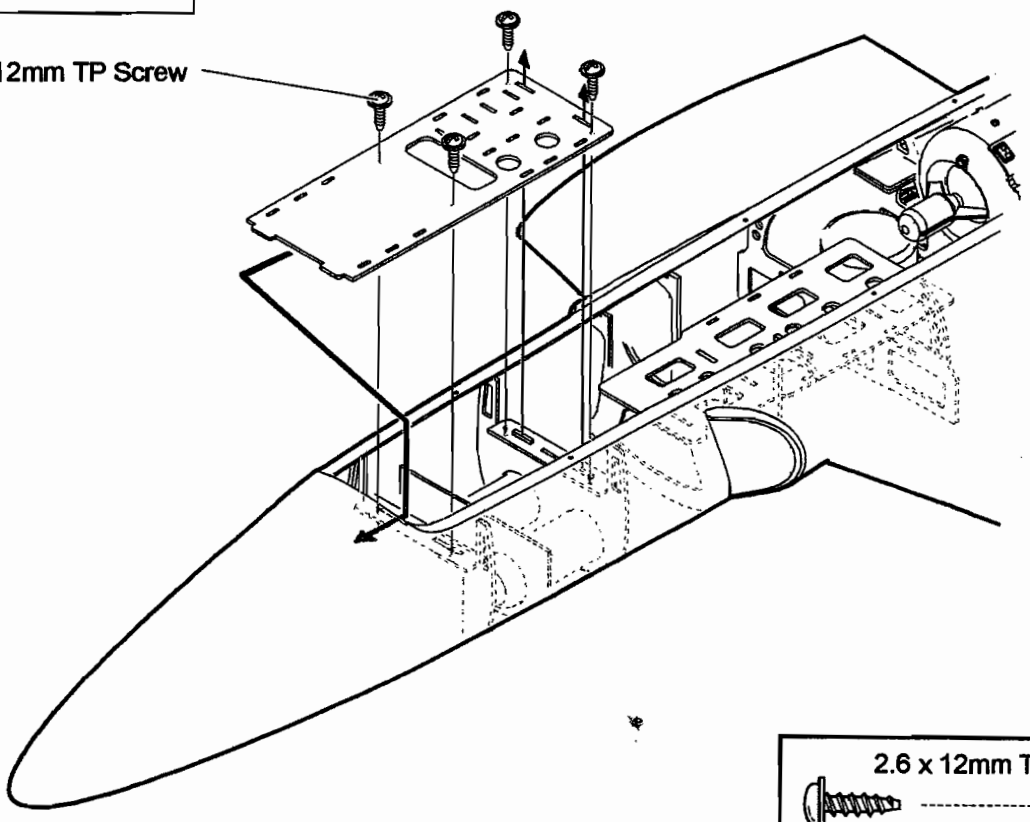
Remove the cross braces which are marked "cut" by cutting at the dotted lines. Do the same with the cross braces marked "cut" in the hatch. You may prefer to fix the turbine with the 4mm bolts and spike nuts supplied or use self tapping screws if preferred



20 Air bottle installation

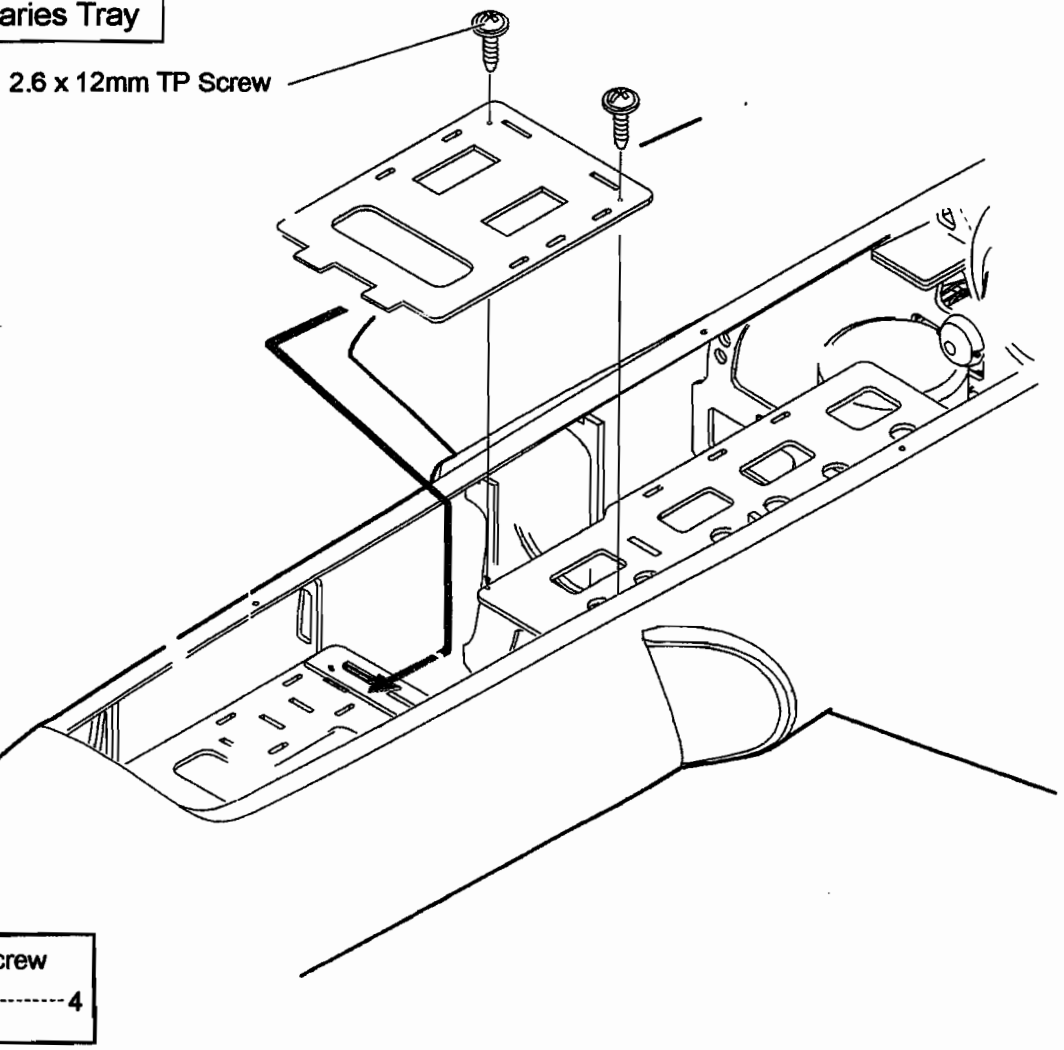


21 Battery and RX



2.6 x 12mm TP Screw ---------- 4

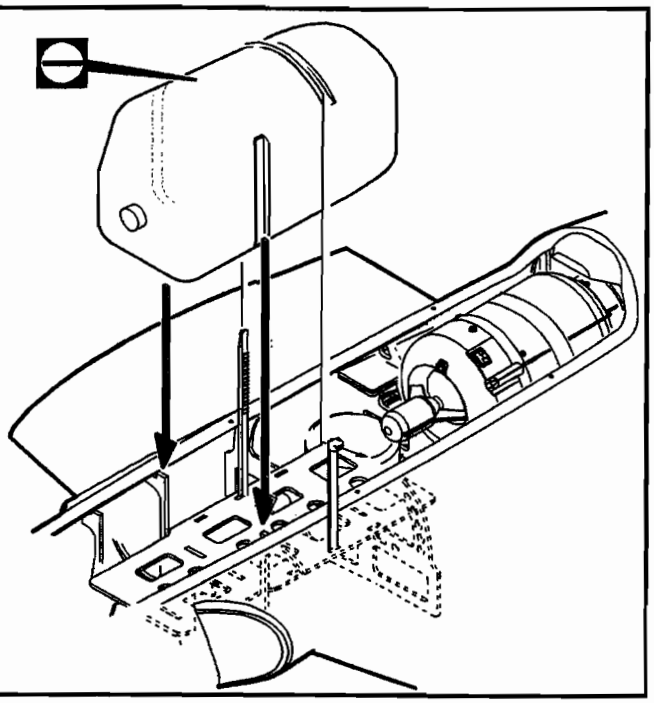
22 Fuel and Ancillaries Tray



2.6 x 12mm TP Screw ---------- 4

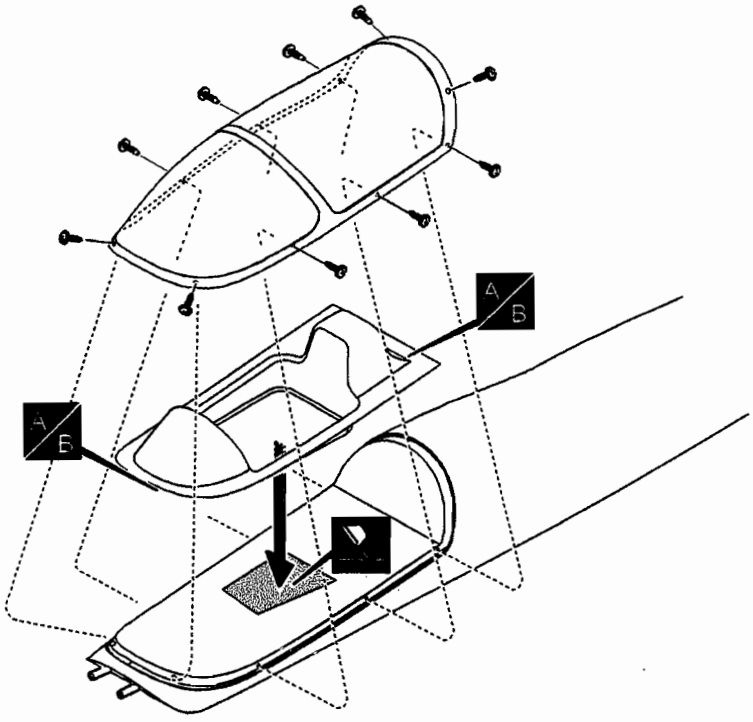
23 Fuel Tank

It is essential to use Velcro double sided Straps or large tie wraps through the vertical parts of the formers to fix the fuel tank.



24 Cockpit/Canopy

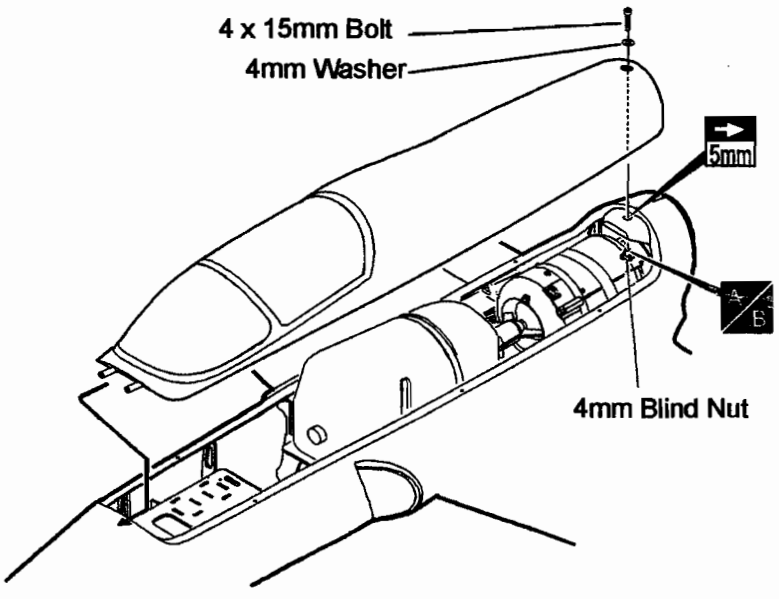
Cut out the cockpit floor to take the pilot seat and glue it in place.



2.6 x 12mm TP Screw ---------- 10

25 Top Hatch

Trim or adjust the dowels if necessary to ensure a good hatch fit. With hatch in place, drill through at rear of hatch and F/G fuselage tab to position the blind nut.Check the fit of 4mm. bolt/hatch, glue blind nut in place under the tab.



4mm Blind Nut ---------- 1

4mm Washer ---------- 1

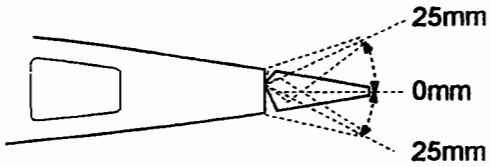
4 x 15mm Bolt ---------- 1

26 Setting Up

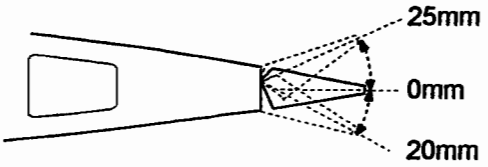
Shift the location of the receiver and battery pack as needed to obtain the specified CG.

Carefully install the receiver and battery pack to ensure that they will not shift during flight.

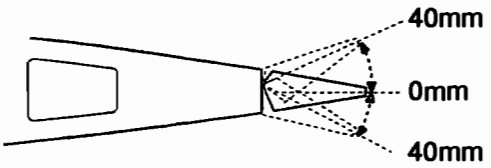
Set the travel to the values show below for the first flights. You can increase these later for aerobatics if desired.



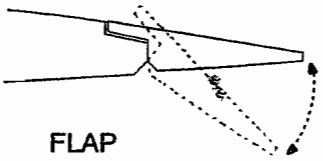
ELEVATOR



AILERON

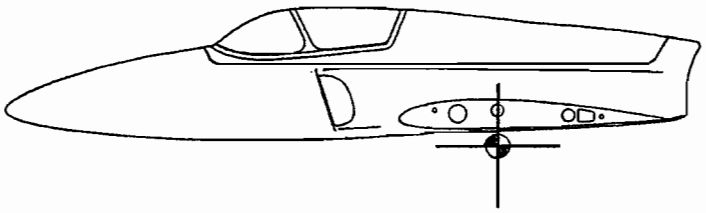


RUDDER



FLAP

The flap should drop as near to 90 degrees as possible



For your first flights, take the CG with the model "dry" all assembled with the retracts down and the hatch removed. If you are using lightweight batteries you will need to add up to 16 ounces of weight in the nose. The CG should be at the centre of the front carbon fibre wing spar.