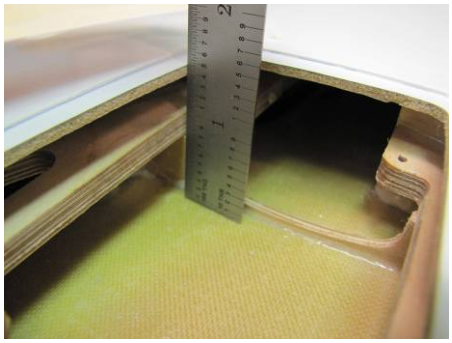
WINGS

MAIN GEAR INSTALLATION

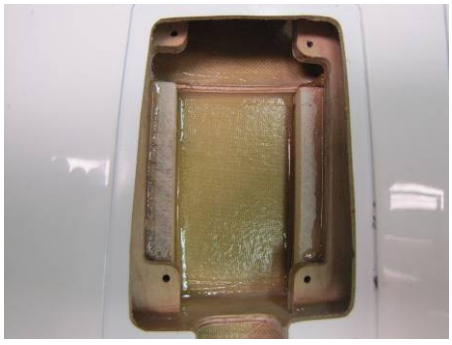
The addition of these balsa support blocks will protect the upper wing skin in the event of a broken flex plate.

- Cut one of the1/2” x 3/4” x 3-1/4” end grain balsa blocks to a length of 3”. It may be necessary to adjust the length slightly. This is to be placed between the ply rails and wing skin as shown.

- Use a ruler to measure the height to which the block will need to be cut to. Note that the heights are not the same when measured at the root side verses the tip side.



- Use a band saw to cut the block to the correct height. The fit should not be tight since this would cause the upper wing skin to flex and affect the appearance.
- Repeat these steps for the aft ply rail.
- Scuff the wing skin with #80 grit sandpaper for the best glue adhesion.
- Glue the blocks into position as shown. Use BVM Q-Poxy (BVM #PA-SR-0025) or any 5 minute epoxy.



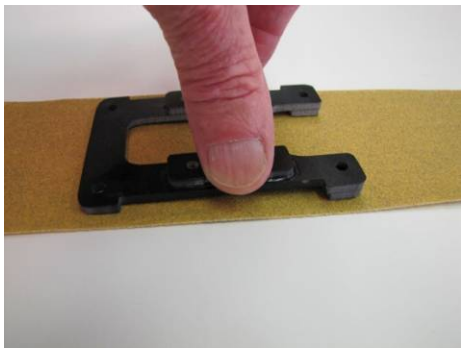
- The main gear flex plates are assembled into left and right assemblies from the parts shown using Slo-Zap CA. First scuff all mating surfaces. Use drill bits to align mating holes.

PARTS

BOTTOM VIEW

BACK SIDE VIEW

- Sand the backside on a flat surface until the shims and outboard end of the plate are completely touched by the sandpaper. This creates the correct retract angle for the strut and wheel.



- Use a Perm-Grit countersink to dimple the .089” drilled holes on both sides of the plates, then tap for #4-40 threads.

- Chamfer this edge on the backside to ease retract and tubing installation.

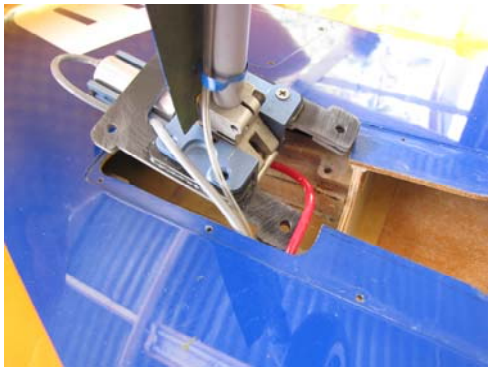
ASSEMBLING THE WHEELS, STRUTS, AND AXLES

- The sequence in the photo is the axle, wheel, brake, and strut is assembled. The two nylon washers prevent the tire from rubbing the strut under compression and side loads. After the assembly is completed, snug down the setscrew on the bottom of the strut with a 1/16" Allen wrench just enough to leave a faint mark on the axle.
- Grind a flat spot similar to the nose gear axle.

INSTALLING AND ALIGNING THE MAIN GEAR

- Temporarily fit and remove the landing gear assembly into the wing. It will be necessary to open the flanges as marked around the retract unit and the wheel well a small amount to allow easy installation and removal. Use a Dremel sanding drum for this task.
- The final position is set by the CNC Machined cover plate.
- Once the alignment of the main gear is correct and the wheel retracting into the wheel well, simply tighten the (4) 4-40 bolts and add a drop of ZAP to the CF washer and the flex plate.
- Adjust the main wheel toe-in to be between ½° and 1 °for good ground handling.

- Remove the retract from the flexplate. Cut and install (2) sets of 20" red, gray, and clear airlines onto the retract assembly. The red line is for "Retracts up", gray is for "Gear down", and the clear is for the brake line in the wing. (Blue brake line will be used in the fuselage.) The photo shows a left retract unit, the gray line is always kept on the front of the retract unit. The clear brake line is also adjacent the front side of the strut.

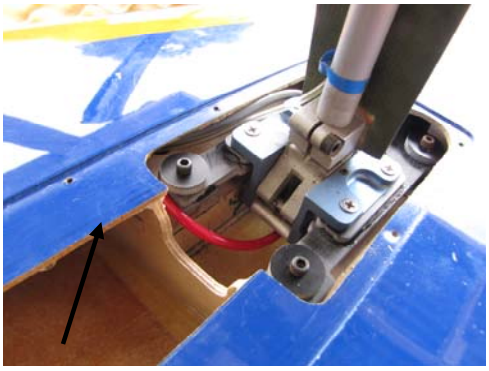


NOTE: Strut Cover installation is covered in the next section.

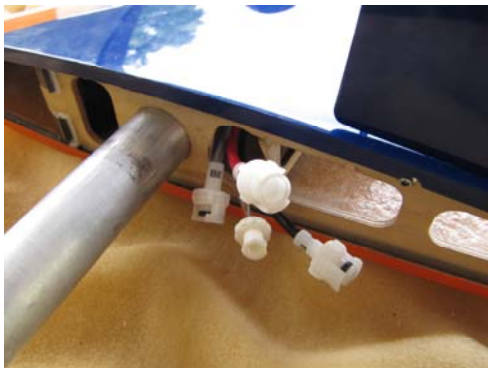
Helpful hint: To aid in the installation of the airline over the brass nipple; this method work well:

Carefully warm the end of the tube with a heat gun, then spray a small amount of CA kicker in the tube and press it on the nipple.

- Route the (3) airlines through the slot in the rib R2.



- Pull the (3) gear and (1) door airlines through the circle hole just behind the main spar. Trim the airlines as shown and install the twist lock connectors. Put the male end on the red line and the female end on the gray line. This will help to avoid confusion while assembling the model at the field. Use the smaller twist connector for the brake line.



- Re-install the retract assembly