Fit Vertical Fin to Fuselage

Reference: Photos

Parts required: Vertical fin

Material required: LC 3600 Resin
LC 3600 Hardener
AF 244 Glass Cloth (supplied pre cut)
Fibre Flock

Procedure:

1. Pre-fit vertical fin to top fuse using the pre drilled aligning holes. In the side of the fin at the bottom of the Right hand side, there should be a mark that has been scratched into the moulding. See Photo. This is for the rudder cable exit hole. When the vertical fin has been positioned onto the top fuse, use this mark as a drilling jig to cut through the fin & top fuse vertical fin bridge.

2. On the left hand side of the vertical fin there should also be a 25mm (1”) hole marked into the gelcoat. Drill this through both skins. This is the access hole to the nuts for the anchor position. See photo of the premarked hole. Remove Vertical fin.

3. Remove the vertical fin from the fuse & fit the rudder cable from the rear of the aircraft first.

4. Ensure that the Static vent & the clear plastic tube for the static line have been fitted up the inside of the vertical Fin and attached to the Static vent at the top. Also ensure you have the pull string sorted out for the VHF radio & Strobe wires. Your should now Prepare the vertical fin for joining by giving all joining areas a light sand. Refer to “Fit Static tube hose & strobe to vertical fin” procedure.
5. Wet joining surfaces of the Vertical Fin and Fuselage with resin/hardener and then apply paste to Fin attachment area (see Photo. Photo– Flocking the tail fin.) making sure you have a 2-3mm thick of flock. *Keep in mind it is best to have too much flock & let it squash out than not to have enough.*

![Photo: Applying flock to fin bridge.](image1)

6. After applying flock to Vertical Fin Bridge, hold the vertical fin above the horizontal stabiliser & connect the static tube using a piece of ¼” steel tube (this is to be cut of the spares card.

7. Using the pull string in the vertical fin & feed the coaxial cable through the vertical fin.
8. If you are having a strobe, attach wires to pull string & feed through.

9. This is best done with two people if possible. Prize the two skins apart on the vertical fin making sure to fit the rear first & to angle the front part of the vertical fin at about 45deg. Lower the front down making sure to keep the two halves apart & not to scrape the flock of the fin post. When vertical fin is sitting in the correct position, let the two halves spring onto the fin post.

10. Starting from the front of the vertical fin working towards the rear, locate all self tapping screws into pre drilled holes. *Please note: do not pull the self tapping screws up too tight as all the flock will squash out & you will get a rippling affect. You only need to tension the screws until the head touches the skin at first. As shown in the photo below, by using a piece of channel will stop all rippling affects. The better the finish you get here, the easier it will be when it comes time to paint.*

11. Ensure tail fin is vertical, Masking tape can be used to pull the top left or right. In the factory we use aluminium channel to keep a smooth line.

12. Clean up your mess along the joggle joint.

13. Notice small prepared area at the rear of the Fin/Fuselage join (see Photo)

14. Lay 2 layers AT 313 x 75mm fibreglass tape and finish with peel ply.

15. The Fin Spar is now glassed onto the Horizontal Stabiliser with 6 progressive layers of AF 244 cloth (see Photo) ensuring at least a 100 –150 mm overlap on the Stabiliser on each layer. Start with the smallest Piece First and working up to the largest piece. **NOTE** VHF aerial goes on AFTER these reinforcing.

   Lay:
   - 180 x 150  AF244
   - 230 x 150  AF244
   - 280 x 150  AF244
   - 380 x 150  AF244
   - 480 x 150  AF244

Remove peel cloth

Photo– Setting tail plane into position

Fit Vertical Fin to Fuselage    Page 3    12/19/01
Photo – Reinforcing Vertical fin to Horizontal Stab.
16. After resin has cured, remove straight edge or self-tapping screws from fin post & sand gelcoat off that you can see the top layer of fibreglass. This is best done with an orbital sander or bead blaster. *Please note: If you hold the vertical fin up to the light there might be peel cloth under the gelcoat. Remove peel cloth is visible.*

17. Using LC3600 laminate 2 x AF303 x 80mm wide & extend evenly across both sides of fin bridge along the full length of the join. *For a neater job apply one layer of peel cloth over the joint lamination.*