

Post-Paint>General

Objectives of this section:

This is the beginning of the *Post-Paint* section of the Constructors Manual.

At this point you should have a shiny white painted fuselage and a large number of painted aircraft parts along with boxes of upholstery, wiring and instrumentation in your workshop. The task at hand now is to assemble all of these parts into a complete and flyable aircraft, and the sequence of assembly can make this process either enjoyable or painful depending on how you choose to proceed.

The suggested sequence that follows is exactly the same as we use in our factory and in general it involves leaving the wings off until the very last, which will save you a lot of ducking and bumps on the head. The wings have been pre-fitted at the end of *Pre-Paint* so you know that they will fit correctly, but we suggest that you forego the final fitting until last.

That beautiful shiny white paint should be left for at least 5 days to cure before starting on reassembly – fresh 2-pack paint is surprisingly vulnerable to marking until it is fully cured and such marks can be difficult to touch up, so it is far better to let all the painted surfaces sit and cure fully before starting work. Patience *will* be rewarded in this case.

During this paint curing time we suggest that you start by fitting the panel mounted throttle to the instrument panel housing and assembling and wiring up the instrument panel, all of which is done out of the aircraft on the workbench.

The assembly sequence then is to fit all of the upholstery apart from the seat covers: firewall, console, floor/sides/roof, etc, electrical wiring can then be fitted and terminated, then install all of the controls and the static and pitot systems, brake system and fuel system (all of which have all been pre-fitted during *Pre-Paint*).

The instrument panel housing is now fitted, engine control cabling is connected, the instrument panel is fitted to the housing and the seat covers are fitted.

Moving back to the empennage, the elevator and rudder are fitted and the trim system is installed, although the ventral fin will be left off until final adjustments are made.

Finally the doors and door seals can be fitted and the interior is complete.

Now we can move to complete the engine bay and fit the propeller and spinner and fit the cowlings. The front and main wheel spats are also fitted at this time.

Now that the fuselage is complete the wings can be assembled (aileron cables, ailerons and flaps) and fitted to the fuselage and the fairings are fitted. This completes Construction.

Now you are into *Testing*: rigging checks can be performed and final adjustments can be made as required. The ventral fin can now be fitted.

A weight and balance check can be conducted, then the fuel tank levels can be calibrated and then interior placards and decals can be affixed.

Registration markings and stripes are fitted at this time along with all fairings.

A thorough pre-flight checklist must now be completed and the aircraft can be prepared for a test flight.

Each of the foregoing tasks will now be described in detail.