

## Wing and 'V' tail incidence

Whilst the wing incidence is usually set at 0 deg the 'V' tail incidence can be way off. The tail incidence needs to be reset to -1 deg so that in straight and level the elevator carries no up trim. It is ok to have 0 deg if -1 seems a bit radical.

Before doing anything to the incidence check the rigging of the airframe. The tail should be square to the wing in the horizontal and vertical planes. Use a stringline and eyeball the airframe to establish this

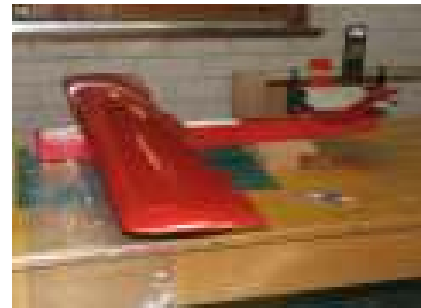
Set the airframe up to check the incidence. Screw the wing on and set it at 0 deg. Check the firewall is at 0 deg.

It will be.

If not the wing seat will need to be relieved in the right place.



To measure the incidence of the 'V' tail use a heavy, perfectly square flat plate placed horizontal in the 'V'. Here a 200 x 200 floor tile is being used. A piece of MDF cut perfectly square will also work. Be sure it is heavy enough not to move.



The incidence meter is used as if the tile were a wing. Be sure the tailpiece is screwed firmly in place.



To adjust the incidence carve out the 'V' block in the fuse and/or add balsa shim. This Viper had 1.5 degrees of positive. The front of the block was carved out about 1.5mm and .8mm shims added to the rear to get -1 deg.

This is a jiggery pokey process as the rigging of the airframe can get out of line as the incidence is adjusted. This is due to the 'V' getting trimmed to the wrong angle. So, check the rigging as you change the incidence. Be patient and prepared to screw the tail on and off several times to get it correct.



It is a good idea to epoxy the 'V' tail in place.

- i) There is not much glue holding it to that little block and tail halves have been known to break off in flight.
- ii) The incidence can change if the tail is removed and refitted, but not if it is glued.

Remove the covering at the base of the 'V' and use 30 min epoxy. Use the flat plate, the incidence meter and mounting screws to get the incidence set when gluing.

Also check that the airframe rigging is in line as the 'V' tail is set in place. Once everything is exact leave the glue to set.

