



## Product Maintenance

We consider product maintenance and development an important matter, and have gathered together a number of tips and ideas aimed at helping you profit from our experience and that of other model flyers. This sheet also covers a number of basic changes to the kit contents.

### 1. The print error gremlin has struck ...

#### In the parts list:

Part 42 (2 x) is 70 mm long, not 63 mm as stated in the parts list.

#### In the instructions:

Paragraph 2                      Part number 26 is 25  
Paragraph 7                      Fig. 5 is Fig. 11

### 2. Motor bulkhead, No. 22

It has proved a good idea to reinforce the corners of the motor bulkhead 22 with the scrap wood removed from part 20.

#### Scrap wood

### 3. Attaching the canopy

In the course of assembling the first few production models we have established that one adhesive and one method of fixing the canopy is particularly effective.

Cut the canopy to size, trim it to fit, then mark its position by drawing two lines on the top surface using a felt-tip pen. We recommend a clear contact cement (e.g. Pattex transparent) as adhesive: apply glue to both joint surfaces and allow it to air-dry. Install the canopy frame and secure it with the rubber band. Now open out the canopy and place it over the frame, centre it using the alignment marks and press it into place.

### 4. Tailwheel

When landing on a hard surface, and especially in a sidewind, our SkyCat shows a tendency to skew round. This problem can be eliminated by shortening the tailwheel outrigger as shown. On grass the problem does not arise.

### 5. Sequence of assembly

If the model's flying characteristics are to be really good it is important to keep the tail boom perfectly straight when assembling the model. A good method of ensuring this is to invert the fuselage and press it down on a flat surface (table) immediately after fitting the servos and gluing the wooden rail 40 in place, as shown in Fig. 8. Align the fuselage with the edge of the table, and leave it in that position until the hot-melt adhesive has set hard.

Now move on to the stage shown in Fig. 10: place the fuselage on its back again and glue the wing in place. This is the most reliable method of keeping the fuselage straight.

#### One more tip:

Enlarge the opening in the fuselage for the aileron servo lead, and tie a length of thread to the lead. Run the thread through the servo lead opening before applying the hot-melt glue, as this avoids any possible problem with recalcitrant cables when fitting the parts together, when you have to work very quickly. Now return to Fig. 9 (fitting parts 05, 06, 07).

### 6. Motor cowl, glow version

You will need to cut away the top surface of the cowl to clear the motor; the actual size of the opening varies. Use this template as a starting point.

### 7. Centre of Gravity, control surface travels

During testing of production models we have found that a CG position of **90-95 mm** gives generally more pleasant flying characteristics than the position stated in the instructions. The control surface travels should also be corrected as follows:

Measured at the widest part of the chord:

<b>Ailerons</b>	up	22 mm
	down	20 mm
<b>Elevator</b>	up	12 mm
	down	12 mm
<b>Rudder</b>	left	30 mm
	right	30 mm

"Expo" on the rudder makes ground take-off easier.

### 8. Tuning measures

If you decide to fit a more powerful motor, you should note certain points about the model and perhaps make modifications. The model is made of an **extremely resilient** material, and is therefore very **unlikely to break**. In fact, fractures in the normal sense are almost impossible. At worst the material may tend to tear when over-stressed. However, these positive qualities also have their price. At high airspeeds, especially in gusty conditions, the model may flex in the air; this is not dangerous, as the model remains fully controllable, but it does look unsightly.

To fly the model in the manner for which it was designed you need to fit a large-diameter propeller with relatively low pitch, as this promotes a constant airspeed and gives good pulling power through all manoeuvres.

However, **if you wish to fling the model about**, you certainly can, but it is advisable to reinforce the wing and the tailplane. A good method is to glue a thin-walled GRP or CFRP tube in the tailplane and/or the wing using hot-melt glue; the slots are not present as standard, and you have to cut them yourself.

**Tailplane:** before gluing the tailplane to the fuselage, cut a slot about 5 x 5 x 300 mm as shown, and glue a 4 mm Ø glass or carbon tube in it using hot-melt glue.

An **alternative** method is to brace the tailplane externally as shown; this method is used on many full-size aerobatic machines.

**Wing:** we suggest cutting a slot about 8 x 10 mm wide and 700 mm long in the underside of the wing, into which an 8 mm Ø carbon tube (or similar) can be glued.

**These modifications are just suggestions for extending the model's flight envelope; they are not really necessary for "normal" flying.**

If you want more - you can have it.