



The Knebworth Trainer Package

A suitable aeroplane / engine combination is essential if learning to fly is to be an enjoyable, quick and economical experience. We have found that the ARC Ready 2 is probably the most suitable first aircraft currently available for this purpose. For those wanting an aircraft built on more traditional lines, i.e. out of wood, we would suggest the Kite Mk4, now re-issued by Flair. Don't be fobbed off with other aircraft just because a retailer happens to have it in stock and don't go for a Spitfire just yet, save that for model number six or seven or

The attributes that make the Ready 2 such a good trainer include:

- ✓ Good value for money ~ £70
- ✓ Superb flying characteristics
- ✓ Medium wing loading - Which means the aeroplane will fly well in a range of wind conditions but does not get blown about by the slightest breeze
- ✓ Rugged - The fuselage is a strong plastic moulding and the flying surfaces are plastic covered foam cores. More than one Ready 2 has been recovered from an "arrival" in the top of a tree with no damage
- ✓ Steerable tricycle undercarriage - Which leads to good and easy ground handling
- ✓ Quick and easy to assemble - It is hard (though not impossible!) to get it wrong
- ✓ Can use twin aileron servos - This provides a wing flap capability which extends the flight envelope as you become more experienced
- ✓ Aerobatic - You won't be bored with it as soon as you have learnt to fly. It will do continuous loops, continuous bunts (outside loops), continuous inverted flight, rolls, spins, inverted spins, stall turns. Is that enough?

We have found that the ideal engine for the Ready 2 is the current Irvine 46, the one with the red crankcase. This engine provides an adequate amount of power to give the aeroplane a wide range of flying speeds, enables it to climb steeply and enables the aircraft to carry a payload such as a small camera should you be that way inclined once you can fly.

Other items you will need in addition to the aeroplane and engine include:

1. Six function (minimum) computer radio set - (Don't fall into the trap of buying a basic four channel non-computer set to start with. The additional cost of a computer radio can be minimal and you WILL want the added flexibility and controls once you get started. The four channel basic set is always false economy because its re-sale value will be negligible and you will then have to get a more capable set once you get your second and subsequent aircraft. Futaba radio is recommended primarily because this will enable you to be trained using the buddy box facility. Most if not all of the people in the Club who will instruct you use Futaba gear themselves. If you purchase another make of equipment it will not be compatible and you will have to provide two transmitters and the buddy lead!

2. Engine starter & battery - The Irvine engine is very easy to hand start, particularly when run in, but there is a knack to it which just complicates things when you first start flying.
3. Glow stick and charger or Power panel & glow clip (the power panel will enable the starter battery to be used to power the glow plug and enable an electric fuel pump to be easily controlled).
4. Fuel pump, manual or electric, and tube
5. Fuel (Model Technics Contest 10 or, as recommended by Irvine, MT Irvine 5%)
6. Spare glow plug (of the right type!) & plug spanner
7. Propeller & spare
8. 30 Minute Epoxy & Medium Cyano adhesives

In addition you will of course need normal tools such as pliers, cutters, scalpel, Junior hacksaw, files, drills etc

Hints & Tips for building your Ready 2

- Always roughen the mating plastic surfaces with medium or coarse glass paper prior to gluing with 30 minute epoxy (don't use 5 minute epoxy as does not set as hard and is not as strong).
- You will need to remove a small amount of material from the inside surfaces of the engine bearers to enable the engine to sit down on the bearers correctly. This can be quite awkward due to the toughness of the material but it must be done, don't force the bearers apart to make the engine fit.
- Do not use self tapping screws to secure the engine to the bearers. Instead mark out and drill clearance holes for suitable size bolts and use washers and stiff or lock nuts to ensure the engine stays put. (Make sure that the holes are in the right place fore and aft to ensure that the propeller will be clear of the nose of the fuselage)
- Make sure that the moulding that retains the wing retaining nut in the fuselage former is securely glued in with epoxy and that the brace (that is part of the fuselage where the former goes) is securely glued to the former. The retaining nut housing may move out of position if this is not done and it will be impossible to tighten the wing bolt to hold the wing securely (as one of our members has found out!)
- Finish the aircraft with different colours top and bottom to aid orientation recognition when flying. Disorientation is probably the biggest killer of R/C model aircraft! The aircraft should be painted sparingly with car acrylic sprays - don't go too mad with the paint.
- Preparation before painting is essential. The surface to be painted must be abraded slightly with 'Wet & Dry' paper and cleaned off, degreased with warm water and detergent (don't use solvents - you will melt the aeroplane) and finally dried thoroughly. For added piece of mind you can use Halfords Plastic Bumper Primer prior to the finishing colour if you wish.
- Assembling the fuel tank support bar is much easier if you do it BEFORE installing the undercarriage bulkhead. The bar really needs extra support and a couple of screws through from the outside help. Also it is a good idea to provide a thin sheet platform secured to the top of the bar with epoxy otherwise the tank just has to balance on the bar which isn't very satisfactory.
- Study the instructions carefully. If they are in Italian, turn them over. We know of at least one person who didn't find the English version until the instructions were folded up and put away after the model was finished!
- If required Mainly Models in Hitchin will supply a complete "Knebworth Trainer" package at an attractive price to get you started. They can also provide reasonably priced flight training and certification if you can't wait for a Club instructor to be available.

Good luck and happy flying