

We look at the
latest 'L' Series RIC
from Futaba

RM EQUIPMENT REPORT



**RIPMAX
FUTABA**

FP-5LK

THE FUTABA "L" SERIES, based on the well proven "M" Series, features voltage stabilised circuitry for maximum efficiency when using drycells. The "Combo's" of the "L" Series are sold complete with drycell power pack containers (battery boxes) for initial economy but the systems are quite easily converted for use with rechargeable NiCads. A NiCad conversion set is in fact obtainable from RipMax stockists — a suitable charging unit is also offered.

Our review set is the 5-function FP-5LK and this particular unit is bristling with innovations which not so long ago were only to be found on the most expensive systems.

Transmitter

The transmitter, which is of fairly conventional



styling, is most impressive from both the quality and appearance point of view. The case, manufactured from black plastic, is attractively detailed — especially appealing to us was the switch ON-OFF and other lettering, being moulded in relief and then coloured white.

We felt that the transmitter was well-balanced, the stick lengths and positioning well-designed. The trim arms of the main controls were nicely positioned, those for the horizontal modes are situated below the sticks and inboard for the vertical modes. The arms have a ratchet action with markings on the case to note trim positions. We felt it would be an advantage to colour the trim position marks, and the trim levers, in the same manner as the ON-OFF switch, as both are black in colour — making visual positioning in low light conditions rather difficult.

Two of the stick functions, aileron and elevator, have rate switches fitted. These operate in the vertical plane and have positions marked "D" and "U". In the "D" position (up) the control can be varied for rate by adjusting the adjacent rate control pot (a small screwdriver is required). The amount of variation is from 40 per cent of full travel to 100 per cent of full travel. In the "U" position (down) the stick control works in the normal way.

The control sticks are of the now almost universal open gimbal type. The trims on the dual travel functions are electronic, the others are mechanical — in the usual way of rotating the potentiometer body. Fifth channel control is by a small switch mounted in the top of the case — in Mode 1 on the left hand side. Careful study revealed that it would not be an impossible job to change from Mode 1 to Mode 2 but it would be difficult. We would advise you order for your particular choice. It would, however, be quite easy to reposition the 5th function switch. The battery installation is worthy of note; instead of the usual 8 pencells the transmitter uses 7, the 8th space of the battery box being filled with a removeable battery shaped block. The reason for this is that if you wish to fit re-chargeable NiCads you merely remove the "dummy" battery and fit 8 NiCad



pencells. The 8th NiCad makes up for the difference in voltage between dry battery cells and NiCads i.e. NiCad pcell 1.2 volts, dry battery pcell 1.5 volts; 7 dry battery cells = 9.5 volts and 8 NiCads = 9.6 volts. An instruction leaflet pictorially describes the changeover from dry batteries to NiCads and the Tx case is designed to accept a charging socket.

Electronically, the Tx is split on two P.C. boards, one for the R.F. section and one for the Logic. The R.F. section plugs into the Logic making frequency band changes for different countries easy.

The Xtal is positioned at the rear of the case, fixed into a plastic holder — the frequency and colour being clearly discernable without removal.

The meter on the front of the case shows battery voltage — colour coded Red/Green and batteries should be replaced (or recharged) when the needle falls to the boundry between the two colours.

Receiver

Construction of the Rx follows traditional Futaba lines. It is, in fact, a 6 function unit — all the outputs are clearly marked, as is the Xtal socket.

Servos

FD33M servos are supplied as standard but all servos in the current Futaba range (except J series) are compatible.

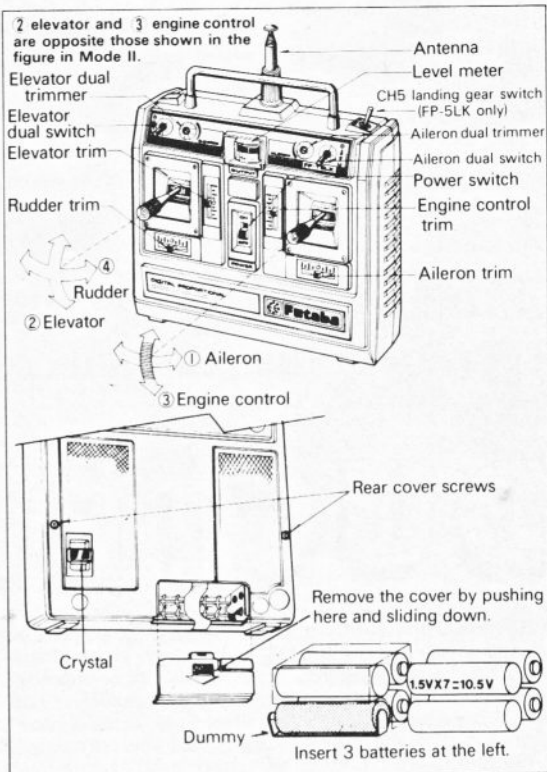
The FD33M is of conventional 3-part construction, with plastic gears in all stages except the motor pinion, which is metal. The output drive is square and a variety of output discs are supplied. On test the servo travel varied slightly for each unit but averaged out at ± 42 degrees.

Airborne power pack

A stout plastic battery box is supplied, holding four pencells, the box halves are held together securely by a centre screw, the slot of which will accept the edge of a one penny piece. The switch harness is of the familiar Futaba pattern and we were pleased to see the wires terminated on a small P.C. board inside the switch case, thus preventing strain on the switch contacts.

Accessories

The system includes a comprehensive pack of servo



mounting accessories and servo trays plus a frequency pennant.

Packaging is typical Futaba — neat and effective. Also included were an instruction leaflet and, very important, a licence application form!

Dimensions and weights

Receiver = type FP-R6L
 Size = 41mm x 59mm - 19mm
 Weight = 53 grams

Servos = Type FD33M
 Size = 20mm x 41mm x 41mm (does not include lugs and output discs).
 Length including lugs = 54mm
 Height to top of output disc = 47mm
 Weight 48 grams.

