Product Review

Hitech Optic 6chPCM radio system by Stephen Green

When purchasing a radio control system buying more than you actually think you are ever going to need is good advice. You may be just starting out now with a .40 powered four channel trainer and you may be thinking I will never use all those functions but it wont be long before you are after something faster. It won't matter if it is powered by internal combustion or electricity, sleek models take longer to slow down and crow braking is just one function that will make that task easier.

The Hitech Optic 6 computer radio with eight model memories with mixing for power gliders and helicopters is a radio that would be a good choice beginners or established sport flyers wanting to upgrade. The Optic 6 is supplied as a complete system with 4 ball raced servos and rechargeable nicad batteries.

Modellers who already have a Hitech radio may not wish to buy another charger therefore a 240 volt charger is not supplied but is available at extra cost This review is with their new Q pcm dual conversion receiver with the optional synthesized transmitter module and you can also order the radio with an FM ppm receiver.

Change the channel with two rotary dials on the optional synthesised transmitter module. Behind is the new dual conversion PCM receiver.

Synthesised frequency module.

This optional module replaces the standard PCM unit supplied and offers frequency selection. It is simple to use, just refer to the chart that is supplied and adjust the two rotary switches and that is it. Take 36.530 for example, the code is 53 so the first dial is set to 5 and the second to 3. Change to 36.430 and the first dial is set to 4 and the second to 3.

If you are considering upgrading to a computer set this feature will allow you to still the older airborne system with the new set. The frequency shift function is there to cater fort the two methods of transmitting so you need to check what type the brand of receiver uses.

Hitech and Futaba use "P" (positive shift) and Multiplex, JR and Sanwa utilise "N" (negative) and this is clearly covered in the book. Make sure you select the right type because the radio still may work but the range could be significantly affected. I tried changing the frequency and the shift to work with Hitech J,R and Futaba receivers, no problems it was easy.

Fail-safe

This is easy to set by holding the controls to the desired position and press both data keys. The unit should beep then you should test it by switching the radio off and observing the controls. The factory default has the fail-safe inhibited and the fail-safe settings are recorded in each model memory and this is a good feature if you end up flying a number of models and if one has a FM receiver you do not have to programme it each time you change models. Anyone who test flies models will tell you the majority of computer radios they see are under utilised and one reason for that may be the instructions have been pretty ambiguous.

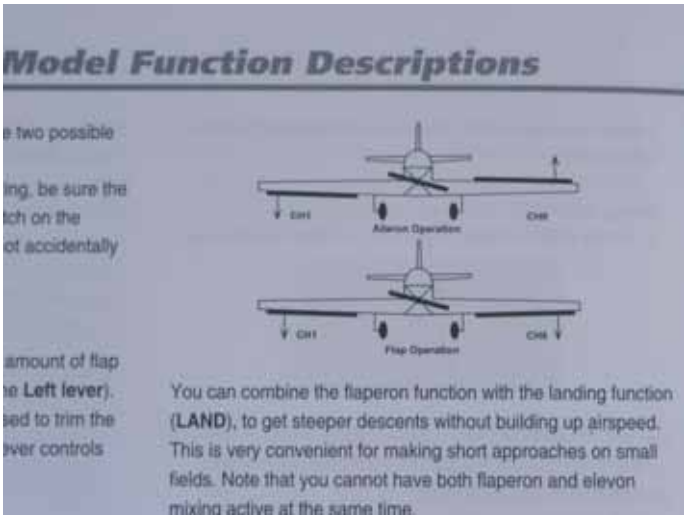
Although I cannot read these as a beginner the manner in which the information is provided could enable someone with not much experience to arrive at the field or the hobby shop with the model set up pretty well first time, even crow mixers. They would also know why they want them because it is covered in the book.

The selection chart matches the last two numbers of the each frequency. #43 = 36.430 mHz

Instructions

The instruction manual is first class and loaded with useful information. Each function has an explanation of what it is used for , how to set it up and how to avoid pitfalls and in many cases such as mixing for example, the consequence if you select too much control throw. Each section shows what should be on the screen and where appropriate, the way controls should look. I thought the flight trimming chart for aircraft and helicopters was excellent, maybe they could sell it separately.

The instruction book is a work of art and should help raise the standrad of new models when they arrive at the hobby shop of flying field. There is a lot of helpful mixing info for the sport flyer to get the most out of the model.



Mixers

The range of factory set mixers is quite comprehensive making this radio capable of flying most planes, gliders and helicopters. Crow mix and camber control will give you an insight to the world of performance gliders as will the four flight modes. These modes can also allow a pilot to set up and venture into the world of an aerobatic helicopter. Power models type include Vtail, deltas and range of flaperon functions are a great aid to slow down a sleek or heavy ship that comes in hot. Two free mixers are also there, typically used for knife edge flight and the Optic also has an inbuilt mixer to operate two elevator servos individually leaving the two free mixers available.

Two of the manyuseful mixing options available with this system

Timers.

Three timers are available two of them programmable with the other a cumulative total TX time. In power models for example the first could be set for the usual flight time and just in case you extend the flight the second could be for how long the engine will run on a full tank at full throttle. They are also useful in gliders, say for getting past your longest thermal flight. Both of these timers count down and can start from a maximum of sixty minutes.

Transmitter.

The compact transmitter feels quite solid to hold and a bright blue light and an audible beep alerts you when the power is switched on. The sticks are adjustable in length and tension and trims are digital and it can be configured for modes one and two.

The auxillary functions are controlled by way of one three position switch, another two position unit and two for dual rates on elevator and rudder plus the other for aileron. The two sliders are set into each side and a throttle cut button plus the spring loaded trainer switch are set on top. On the back is the charge and trainer jacks plus a removable RF module and battery pack.

Receiver and servos.

The receiver is a seven channel dual conversion unit with PCM fail-safe and has a green power indicator light with removable crystal on top. Both battery packs are sealed units with 600mAh nicad cells and the on off switch has a separate charge lead.
The Optic 6 comes with four standard 3.5kg ball raced servos which make more accurate centring easier to achieve. In addition to the usual servo hardware, although not relevant for electric power a piece of foam rubber to wrap around the receiver for vibration protection is included..

The flight mode program and switch can be used for better performance.

Summary.

This radio would be suitable for a beginner or an established sport flyer wanting to upgrade. The availability of mixers opens the future possibility of trying many different types of models. With the rapid increase in ARF and constant price reductions people are now trying out new models all the time.

Whether it is a power model glider or a helicopter a radio system such as the Hitech Optic 6 won't limit the choices available.

The Hitech Optic 6 is distributed to hobby shops by

Model Engines Australia.

44 Downing St Oakleigh Vic 3166
Tel 03 9569 4440
fax 03 9569 0930
www.modelengines.com.au