SPECTRA
Synthesized RF Module manufactured by Hitec

Congratulations! You now own the world's most versatile RF module. With it, you have access to all 50 channels allotted to the 72MHz aircraft band. From channel 11 (72.010MHz) to channel 60 (72.990MHz), all you do is dial in the channel frequency and the Spectra will do the rest.

The Spectra Advantage

A. The Modula Approach

Until now, all programmable, synthesized radio systems required you to purchase both the transmitter and receiver from the original manufacturer as an integrated package. To add additional flight packs, you needed to purchase compatible receivers from that original manufacturer. This can probe to be an expensive proposition to say the least. When you factor in the fact that the airborne system is the most vulnerable to loss or damage, you realize that this is not the best solution for multi-channel operation. By integrating the channel synthesizer with the RF module, you avoid exposing your investment to unnecessary risk and you can utilize your existing airborne equipment. This represents a significant savings.

B. Radio Flexibility

The Hitec RCD Spectra is a direct replacement for the RF module of the Prism 7 and Eclipse radio and will work on both the PPM (FM) mode and the PCM mode.

C. Frequency Safeguards

Because the Spectra is designed to be completely removed from the transmitter prior to a channel change, there is no chance of broadcasting an unwanted signal during the channel change procedure.

CAUTION Although the dials are clearly marked 1st digit and 2nd digit to correspond with the proper channel number, it is imperative that no confusion occurs in dialing in the new channel number. Transposition of the channel numbers (such as dialing in Ch. 13 instead of Ch. 31) could result in interfering with another radio already in operation. The results could be dangerous to the airplane and any bystanders.

Instructions

- Installation and Operation

To install in your Hitec Radio, make sure the power switch is in the "off" position. Remove the single channel RF module by pressing the top and bottom tabs and then gently pull the module out of the socket. On the side of the Spectra module you will find two rotary dials marked 1st digit and 2nd digit. With the supplied plastic screwdriver, carefully turn the slots in each dial corresponding to the channel number you now wish to transmit on. Do not push down on the dials as this may cause damage to the unit. Next, change your receiver crystal to match the channel you have selected for your transmitter. (Note: If using an RCD Platinum or supreme receiver, use only genuine Hitec RCD dual conversion crystals). Plug in the Spectra module in place of the old module. Push all the way in until you hear a click to ensure that all contacts are in place. Now, after checking that no one else is on your frequency, turn on the transmitter and perform a quick range check with the antenna collapsed. Walk away at least 50 feet from the airplane and have someone observe the servo movement while you move the sticks. Lastly, make sure that your frequency flag matches your new channel.

WARNING The is a one second delay in activation of the RF signal at the instant the transmitter power is first turned on. As a safety measure you are cautioned to hold or restrain the movement of your model aircraft for a few seconds time until the control system link is established.

- Specification

A. Frequency Range:	72.010 – 72.990Mhz
B. RF Output Power:	400mW
C. Modulation:	2.8KHz +/- 200Hz
D. Current Drain:	180mA +/- 20mA

- Care and Operation

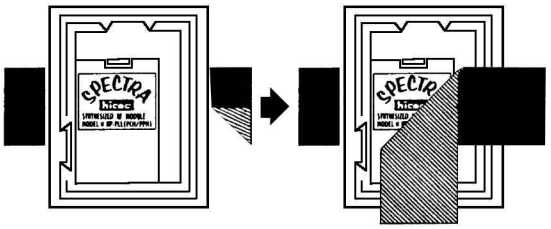
A. Care of system: Please prevent excessive moisture, fuel and dust from entering the Spectra module. Avoid excessive force when turning the channel dials.

B. Prior to changing frequencies, please check to make sure no one else in the vicinity is operating on the channel you wish to change to. If your flying club uses the frequency pin system, please obtain the correct pin before making the actual channel change.

C. PCM preparation: Your Spectra RF module will work with both PPM (FM) and PCM modulations. Please verify that your transmitter is programmed accordingly and that your receiver matches the transmitter designation. No changes are necessary to the Spectra other than matching the correct frequency.

- Spectra Part Numbers
- RCD4400: For Hitec Prism and Eclipse
- RCD5500: For Hitec Challenger & Master series

Note: Please note that the RCD4400 and the RCD5500 are identical in size and appearance. However, the two modules are not interchangeable since the encoders are exactly opposite from one another. Also note that the RCD5500 is a smaller case that the original Master/Challenger series RF modules. In order to secure the module firmly in place, we have included Velcro strips to attach to the back of the transmitter. Please see detailed drawing below.



Receiver Crystals

A. If you are using Hitec RCD Platinum or Supreme Receivers as part of your airborne pack, it is necessary to use Hitec RCD dual conversion crystals to make your receiver channel changes.

B. If you are using other brands of receivers, please use the factory recommended brand of receiver crystals, as these are usually custom made for each brand of receiver.

- Frequency Chart

72.01 CH11	72.21 CH21	72.41 CH31	72.61 CH41	72.81 CH51
72.03 CH12	72.23 CH22	72.43 CH32	72.63 CH42	72.83 CH52
72.05 CH13	72.25 CH23	72.45 CH33	72.65 CH43	72.85 CH53
72.07 CH14	72.27 CH24	72.47 CH34	72.67 CH44	72.87 CH54
72.09 CH15	72.29 CH25	72.49 CH35	72.69 CH45	72.89 CH55
72.11 CH16	72.31 CH26	72.51 CH36	72.71 CH46	72.91 CH56
72.13 CH17	72.33 CH27	72.53 CH37	72.73 CH47	72.93 CH57
72.15 CH18	72.35 CH28	72.55 CH38	72.75 CH48	72.95 CH58
72.17 CH19	72.37 CH29	72.57 CH39	72.77 CH49	72.97 CH59
72.19 CH20	72.39 CH30	72.59 CH40	72.79 CH50	72.99 CH60

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( )RCD4400 = For Hitec Prism and Eclipse
( )RCD5500 = For Hitec Challenger and Master Series

Frequency range=Ch. 11 (72.010) through Ch. 60 (72.990)MHz/all 50 channel