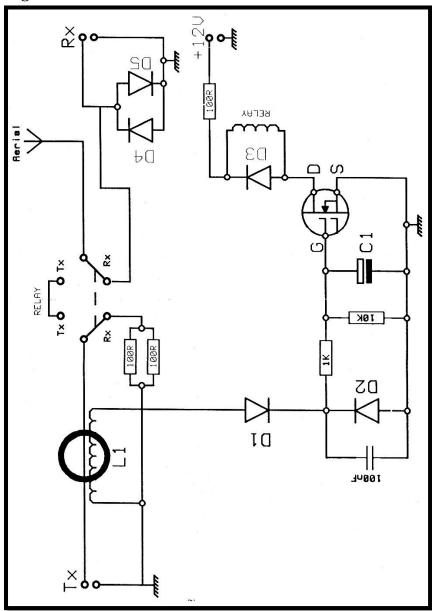
*Fig 3.* 







## RF Actuated Changeover



This design was originally provided By Rev. George Dobbs (SK) for the RSGB magazine DIY Radio. Kanga Products were asked to provide a kit of parts for the project. The circuit is fairly straight forward, with the transmitted RF sensed by transformer L1, which is fed to a pair of diodes then to TR1which acts as a high speed switch. *See Fig 3* 

## Construction

Firstly identify all components against the list if you find that a part is damaged or missing then please contact Kanga Products for a replacement. Carefully note the positions of the 7 terminal pins. Use a hot soldering iron to press the head of the pin until it reaches the track, check that the pin is vertical on the component side then solder the head to the track. See Fig 1. Next fit the relay to the board. This can only go one way and will then provide a base to find placement for the other components. It is essential that the diodes are fitted as marked. See Fig 2. Also that TR1 is fitted correctly for the unit to work, flat side facing C2. It should be noted that the wire link of L1 (5 turns with the wire provided) should pass through the hole of the toroid. The minimum power levels that this unit will work at on Top Band (1.8 - 2Mhz) is approx 500mW, it will switch less on the higher HF bands with a minimum of 100mW on 10m (28Mhz) The maximum power handling is 5 watts. With a 47µF capacitor at C1 the hang time is about one second, C1 maybe reduced for those that require full break-in.

## **Components**

D1, 2, 3, 4	1N4148		
D3	1N4004	(1N4003/4 can be supplied)	
R1A, R1B	100Ω	1 Watt	
R2	1ΚΩ	.25W	
R3	10ΚΩ	.25W	
R4	100Ω	.25W	To be fitted for 5 volt relay
C1	100nF	104	
C2	47μF	Electrolytic (Observe Polarity)	
TR1	2N7000		
Relay	5 volt or 12volt can be supplied		
Wire Link	To be fitted for 12 volt relay		
L1	Red or Black Toroid can be supplied)		

Misc. Parts: Wire for L1, PCB, Vero Pins

The kit will be provided with either a 5v or 12v Relay, both work equally well. The only difference is that if you have a 5v relay, you will need to fit a current limiting 100 ohm resistor R4 (provided), in series with the coil. If a 12v relay is provided, this resistor should be replaced with a wire link (provided).

Fig 1.

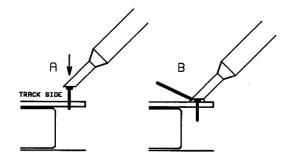


Fig. 2

