Table 2: Components		C18	15p ceramic
		C19,54	47uF 16v axial electro
R1,3	68R 5% carbon film.	C20	47n monolithic ceramic
R2, 4, 9, 10, 14, 18, 41, 44, 45	100R 5% carbon film.	C22	luF 16v radial electro
R5, 28, 32, 73	1MO 5% carbon film.	C23,28,56	10uF 16v radial electro
R6	220R carbon film 1 watt	C24	22n ceramic
R7, 8, 13, 17, 22, 40, 55, 60	220R 5% carbon film.	C25.29	100uF 16v radial electro
R11,20,71	470R 5% carbon film.	C27.32	22p ceramic
R12, 24, 48, 58	560R 5% carbon film.	C30	100n monolithic ceramic
R 15, 19	150R 5% carbon film.	C33.53	4.7uF 16v radial electro
R21	2K2 5% carbon film.	C42	100p ceramic
R23, 35, 36, 38, 43, 64, 68	100K 5% carbon film.	C46	390 ceramic
R25,27	15K 5% carbon film.	C48 51	270n ceramic
R26,67,69	220K 5% carbon film.	C40 52	150p ceramic
R29	2R2 5% carbon film.	C55	220n polycarbonate/polyester
R30, 31, 72, 50	4K7 5% carbon film.	0.00	And perferience perfecter
R33, 34, 52, 59, 66, 70	1K0 5% carbon film.	VC23	3.60pF 10mm Film trimmer
R37, 46, 61, 62, 63, 65	10K 5% carbon film.	VC2,5	Coope commercial a manager
R39	6K8 5% carbon film.	ICI	LM390N (14 pin)
R42	47K 5% carbon film.	IC2	741C/ 741S (8 pin)
R47	390R 5% carbon film.	01	1310
R49	22R 5% carbon film.	02	VN2222LM
R51,54,57	27K 5% carbon film.	0371112	BC237/238/BC107/108 etc
R53,56	39K 5% carbon film.	04 5 6 910	38K45/38K51
日本 日		010	BC307/BC308
All resistors 0.25 watt except R6		013	2SK 55
D70 : 1 8	T-11	Q15	
R13 is used with Active	riffer only.	D145678	1N4148 1N914
RV2	100k ALPS log pot	D2 3 9	BA 379
RV3	220R 10mm carbon preset	DE, 9, 9	
RV4	4k7 ALPS linear pot.	¥23	10 7MHz HC/18 II
RV5	10k 10mm carbon preset	112,0	10.1.1.1.1.1.1.0.1.0.0
RV6	100k 10mm carbon preset	DBMI	SBL-1 / SBL1-8 (Mini Circuits)
RV7	10k ALPS lin pot.	DDMI	
RV8	1MO ALPS lin pot.	FI	10 7MHz 10M15A 15kHz Bwidth
CI		F2	10 7MHz 10M22D Nikko Denshi
C1 C2 2 9 10 11 14 15 17 24 25	10-		SCHWIND TOWNED WIRKO DOUBIN
20 42	10p ceramic	MI	100/2001A FSD meter
30,43	IOn ceramic		TOO, BOOMTT TEE MICHCI
C4,9,12,13,16,26,31,39,41,45,	IOOn ceramic	Also required:	
47,50,57,58,59,60		Dicast Box	RS Components type 509-995
C5, 6, 7, 21, 36, 37, 40, 44	in ceramic	Speaker	4-8 ohms
		10 off	miniature ferrite beads

## Alignment

It is perfectly possible to align the IF from off-air signals using an aerial, or you may use a signal generator, either connected to the RF input pin using coaxial cable. Bear in mind that with a likely impedance mismatch at the RF input, signals are going to be reduced. Also, unless you have a good ATU on an aerial, image and IF breakthrough problems may exist for the moment. To avoid damage to the cores, the correct trimming tool for the IF transformer must be used (one is supplied with the kit).

1) Connect a suitable LO source to the LO pin, and antenna or sig gen to RF pin. You can align the IF at any signal frequency you like, say around 5-8MHz, as you will always find signals here at any time of the day or night.

2) Apply power, turn up the volume a bit and adjust the VFO until something can be heard. If you can't hear anything, adjust VC3 slightly while tuning, as this oscillator may be outside the filter passband. Once you find a signal, carefully peak all the IF transformers (except the one with the black core, and IFT7 and 8) for maximum signal strength, using the S-meter. The latter will have to be 'zeroed' using RV5 with no signal input, and later set to FSD using a strong signal with RV6.

Once 'signals hit the end stop, either reduce the signal generator injection, or find a weaker signal. Once you are sure everything is peaked up, leave well alone. If your sig gen is calibrated you should be able to hear a signal of 0.5uV or better into 50 ohms.

3) Adjust VC3 for either a natural sounding recovered SSB signal, or set to 10.6985MHz using a frequency counter (measured at point M).
4) Check that the AGC DECAY pot

4) Check that the AGC DECAY pot has the desired effect. As the rotation is increased, the S Meter should drop much more slowly once a signal goes. Fast decay is used for CW slow for SSB. It will also be possible to switch off the AGC at a later date for use under certain circumstances.

Decreasing the IF GAIN should not affect the signal strength until the S-meter reading increases above that of the signal (it is correct for the S-meter reading to increase as the gain is decreased due to the nature of the circuit).

## Noise blanker

As the blanker is a wideband device, it isn't possible to successfully align it using off-air signals from an antenna as you have no guarantee the signal you are peaking is at exactly 10. 7MHz. Nor do we advise injecting 10. 7MHz direct into it — it is a very high gain circuit and the high level of 10. 7MHz RF