ENJOY YOUR BOOKS

PLEASE VISIT OUR STORE FOR EVEN MORE GREAT STUFF!

WWW.EVERYTHING4LESSSTORE.COM

THANKS AGAIN AND PLEASE TAKE THE TIME TO VISIT OUR STORE.

ATTENTION! EVERYTHING ON SALE NOW!!

CRYSTAL FILTERS

The crystals used in the 880 series of receivers are constructed using a dual crystal to form a band pass filter. The centre frequency is given as 500 kHz ±250 Hz. The separation of the "Humps" is shown below.

IF Bandwidth	Dual Crystal Separation (±50 Hz)
200 Hz	160 Hz
400 Hz	300 Hz
500 Hz	400 Hz
1200 Hz	1100 Hz
3000 Hz	2600 Hz

When carrying out alignment of the IF circuits it will be noticed that on the wider crystal filters the "Humps" become more apparent - such as on the 1.2 kHz Filter.

The centre frequency is to be taken as the mean frequency between the two humps. If this is not easily assessed due to the humps not being pronounced then peak is to be used. The mean frequency of the narrowest crystal effectively determines the IF of the particular receiver. Note the permitted tolerance is 500 kHz ±250 Hz.

Adjustment of T3 may call for a slight change in the setting of C88 but the interaction is so slight that once C88 has been re-adjusted, only a minor re-adjustment of the core will be required.

Now check the response in the other positions of the Selectivity switch. It is most unlikely that there will be any serious asymmetry in the 'NARROW' and 'INTERMEDIATE' positions but in the 'BROAD' position it may prove necessary to adjust the secondary core of T8 (and possibly T1) to produce an evenly balanced 'top.' The adjustment calls for a very small change in the core position and can be made without upsetting the response in the other positions.

Alignment with a Standard Signal Generator

NOTE : In the following instructions it is assumed that the receiver is fitted with Crystals 'A' and 'C' in the 'CRYSTAL 1' and 'CRYSTAL 2' positions. When dealing with a receiver which has Crystal 'B' fitted in the 'CRYSTAL 1' position, greater care will be necessary in setting initially to the dead centre of the IF response.

Adjustments are best made with an unmodulated carrier using a valve voltmeter connected to the IF Output socket as an indicating device. If a valve voltmeter is not available, the built-in Carrier Level meter can be used but the indication will not be as clear as with the external meter. The AGC must be in operation when using the internal meter and it should be appreciated that adjustment of T8 secondary will give a dip not a rise in the meter reading since the AGC diode is fed direct from the anode of V12.

The receiver, generator and valve voltmeter should be switched on and allowed at least half-an-hour to reach operating temperature. The generator should be of known stability to avoid confusion due to frequency drift. Receiver controls should be set as follows :

Selectivity Switch	..	'CRYSTAL 1'
Mode Switch	..	'AM'
IF Gain ..	..	'Maximum'
Noise Limiter	..	'Off'
AGC	..	'Off' ('On' if using built-in Carrier Level meter).

The signal generator should be tuned to approximately 500 kc/s with its output lead connected at TP1 (see Fig. 7). Set the valve voltmeter to a suitable range (3 — 5V f.s.d.) and carefully tune the generator (modulation off) across the passband. Observe the output on the valve voltmeter and set the generator to the peak reading. The peak will be extremely sharp and it is doubtful whether the individual crystal peaks will be seen if the alignment is reasonably correct or the generator tuning rate fairly fast.

Now adjust all IF transformer cores, starting at the primary of T1 and working through to T8 secondary. Remember that T8 secondary is set to the inner of the two peaks. All cores should be adjusted for maximum reading on the valve voltmeter, the output being held at about 1·5V by means of the attenuator on the generator.

Once the circuits have been peaked to the centre of the two crystals, detune the generator and again tune very slowly through the IF passband. Careful tuning may reveal a minor lobe on the side of the response and this is an indication that adjustment of the crystal phasing capacitor (C87) is required. If there is no minor lobe, C87 should be left well alone, but if adjustment is required then proceed as follows :

Detune the generator 3 kc/s to either side of the centre frequency and note the increase in generator output required to give the same reading on the valve voltmeter (or Carrier Level meter) as was obtained at the centre frequency. C87 should be adjusted until a point is found where an equal increase is required on either side. Now check the entire response by tuning the generator very slowly through the IF passband. If no trace of side lobe can be found then C87 is set correctly and no further alignment of the filter is required.

Now switch to 'CRYSTAL 2' and carefully set the generator tuning to the centre of the two crystal peaks. Adjust the core in T3 for greatest reading on the valve voltmeter. Detune by equal amounts as before and adjust C88 if necessary in the same manner as C87. T3 may require very slight re-adjustment after adjusting C88.

A check should now be carried out on the symmetry of the response in the other positions of the Selectivity switch. It is most unlikely that there will be any serious asymmetry in the 'NARROW' and 'INTERMEDIATE' positions but in the 'BROAD' position it may prove necessary to adjust the secondary core of T8 (and possibly T1) to produce an evenly balanced 'top.' The adjustment calls for a very small change in the core position and can be made without upsetting the response in the other selectivity positions.

Checking IF Sensitivity

Test equipment required.

Standard Signal Generator covering 500 kc/s and an Output Meter matched to 2·5/3 ohms.

Connect the output of the generator at TP1 and the output meter to the external speaker terminals at the rear of the receiver. Set the receiver controls as follows :

Selectivity Switch	..	'NARROW'
Mode Switch	..	'AM'
Noise Limiter and AGC	..	'Off'
IF and AF Gains ..	..	'Maximum'
Bass Switch	..	'Max Bass'

Tune the signal generator to the centre of the IF passband (modulation 30% at 400 c/s) and adjust the attenuator for a reading of 50mW on the output meter. The IF sensitivity is such that an input of approximately 1uV is required for this output. If the sensitivity appears to be low, stage by stage checks can be made with the generator connected direct to the grid of V12 (pin 1) and via the grid capacitors C94 and C102 for V10 and V11 respectively. The following figures are given for guidance and are indicative of the average sensitivities likely to be obtained.

V10	.. ..	4uV for 50mW output.
V11	.. ..	60uV for 50mW output.
V12	.. ..	1·2mV for 50mW output.

Re-alignment of the BFO

Test equipment required: Standard Signal Generator covering 500 kc/s and Screwdriver trimming tool.

Place the Mode Switch at the 'AM' position, Selectivity Switch at 'CRYSTAL 1' and, with the AGC 'On' inject an unmodulated signal on 500 kc/s at TP1. Observe the Carrier Level meter and adjust the generator tuning for a peak reading on the meter.

Set the BFO ('Pitch') control so that the white mark on the control knob is at 12 o'clock. Check that this setting occurs with the potentiometer at half-travel.

Now move the Mode Switch to the 'CW' position and adjust L25 (see Fig. 7) for zero beat.

Once the adjustment is correct in the 'CW' position, switch to 'SSB UPPER' and place the Selectivity Switch in the 'NARROW' position. Detune the generator 1·5 kc/s LF of the centre setting and adjust the pre-set potentiometer RV5 for zero beat.

Now switch to 'SSB LOWER' and set the generator 1·5 kc/s HF of the centre setting. Adjust RV6 for zero beat.

The two pre-set potentiometers RV5 and RV6 are located on the IF/AF chassis and are marked 'U' and 'L' respectively. It should be noted that this marking is correct only when sideband inversion does not take place. Alignment should therefore be carried out with the Range switch at Range 4 or any 'odd' range except 1 and 3.

Re-alignment of the 2nd Local Oscillator Unit

Test equipment required: Phillips trimming tool and long screwdriver type trimming tool.

This unit can be accurately re-aligned by using the calibration markers provided by the built-in Crystal Calibrator. The Calibrator must be standardised against a standard frequency transmission before commencing the alignment (see Appendix 'A').

A period of at least half-an-hour (preferably an hour) should be allowed for the equipment to reach full operating temperature before standardising the Calibrator.

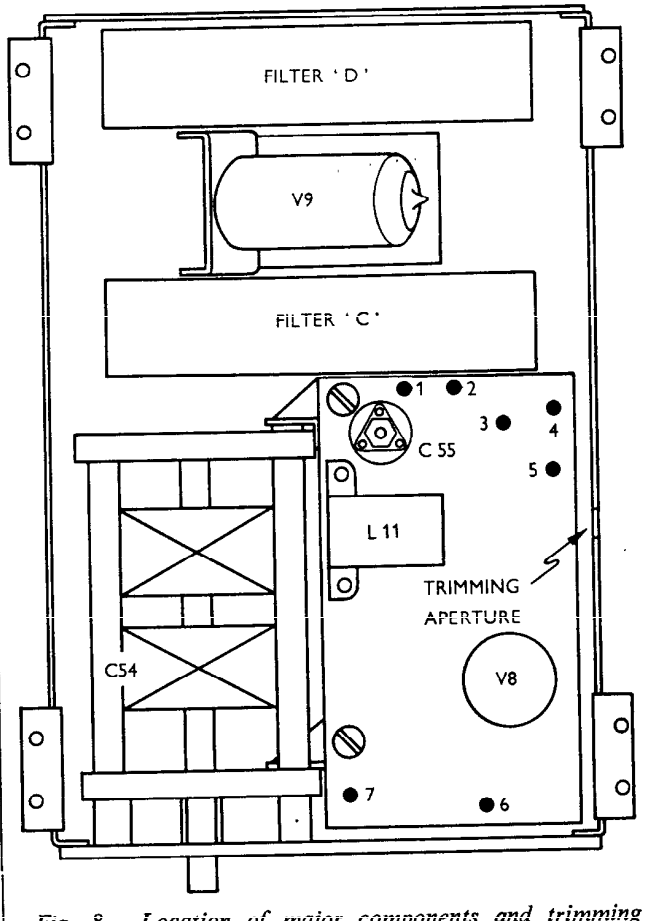


Fig. 8. Location of major components and trimming adjustments in 2nd Local Oscillator Unit.

The alignment can be carried out on either Range 3 or Range 4 and though it is immaterial which of these two ranges is employed, it is convenient to place the Range switch at Range 3 so that specific frequencies can be referred to in the text which follows.

The location of the pre-set adjustments, C55 and L11 can be seen from Fig. 8. Access to the capacitor is by removing the outer top cover of the unit (4 screws) when the trimming aperture will be clearly visible in the inner cover. L11 is adjusted through a hole in the side plate and access to this hole will call for removal of the shaped side cover in the case of a table mounting receiver.

The receiver controls should be set as follows:

Fine Tuning	..	White index at 12 o'clock.
Mode Switch	..	'CW.'
BFO ('Pitch')	..	White index at 12 o'clock.
Selectivity	..	'CRYSTAL 2.'
IF Gain ..	..	Adjust to provide suitable output.
AF Gain ..	..	Maximum.
AGC ..	..	Calibrate position ('C').
Bass Switch	..	Max Bass.

Osc. o/p at SK16 50mV ?

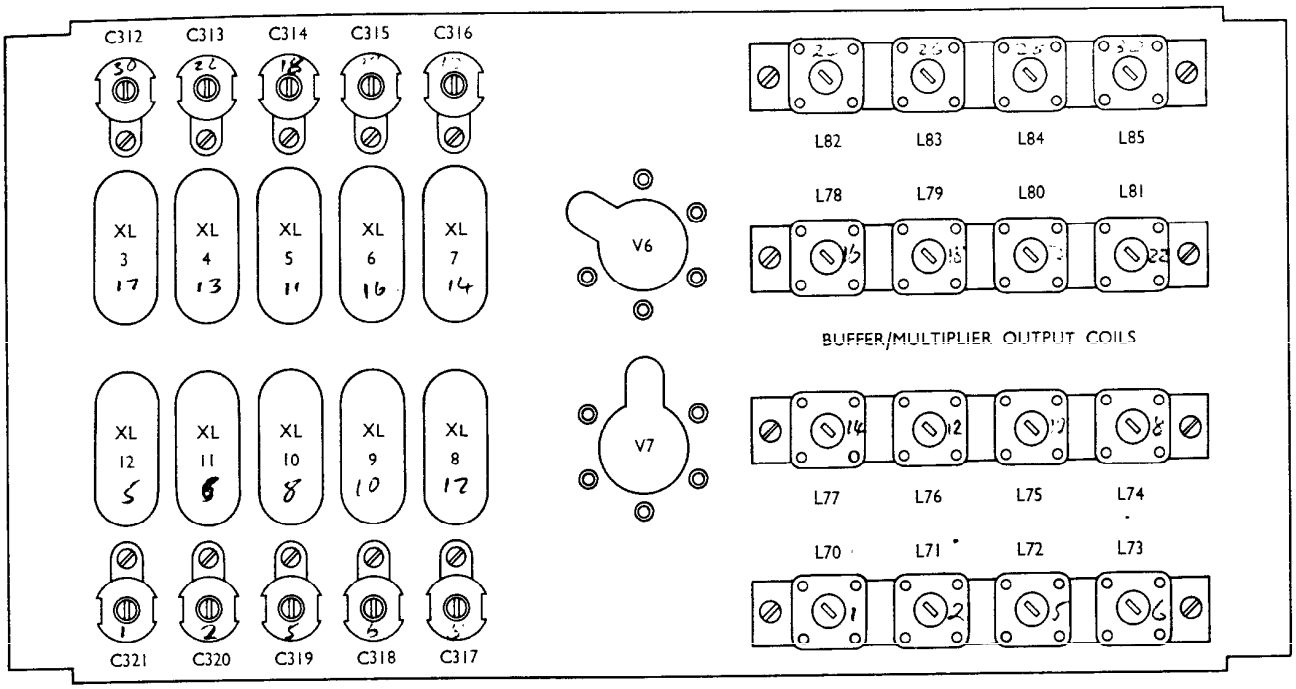


Fig. 9. Location of major components and trimming adjustments in 1st Local Oscillator Unit.

Set the Main Tuning control to precisely 3500 kc/s as indicated by the dial calibration. If the calibration is reasonably correct it should be possible to hear a beat note from the Calibrator signal. C55 should now be adjusted through the trimming aperture in the top cover so that the Calibrator signal falls to zero-beat. (C55 is adjusted with the Phillips type trimming tool).

Now set the Main Tuning at 2500 kc/s as indicated by the dial calibration. Adjust L11 through the trimming aperture in the side cover so that the Calibrator signal is at zero-beat.

Repeat the adjustment at 3500 kc/s and then check the 2500 kc/s point once again. If the re-adjustments have been of a minor nature (which will usually be the case) no further alignment will be called for at the 2500 kc/s point.

Now tune across the range and check that the dial accuracy is within 1 kilocycle at each of the other 100 kc/s points. The tuning capacitor has been carefully adjusted during manufacture to provide a straight-line-frequency characteristic and inability to meet the quoted accuracy (after setting the end points correctly) would indicate a fault in this component. If this should be the case, then it is best that the receiver is returned to the manufacturer so that the capacitor can be accurately re-tracked at the factory.

Re-alignment of the 1st Local Oscillator Unit

Test equipment required.

Signal Generator capable of tuning to 15·3 Mc/s, Valve Voltmeter and screwdriver trimming tools with medium and narrow blades.

Initial alignment of this unit calls for adjustment of all the pre-set capacitors (C312 — C321) which are used to ' zero ' the crystals accurately to their correct frequencies. It is doubtful whether it would be necessary to repeat this procedure in full in any subsequent re-alignment, but a rapid check can be carried out by making use of the internal Crystal Calibrator. This should first be checked against a standard frequency transmission to verify its accuracy (see Appendix ' A ').

NOTE : It is assumed that the 2nd Local Oscillator has been checked as detailed in the previous paragraphs.

Tune to zero-beat with any calibration marker on Range 3 or Range 4 and then (without touching the tuning) move the Range switch to each of the ranges listed in Table 5. If all the crystals are zeroed correctly, all the calibration markers will be at zero-beat. If a crystal is ' off ' frequency it will beat with the marker to produce an audible note, the frequency of which is a measure of the inaccuracy which is present.

Crystals can be zeroed quite easily (if necessary) by adjustment of the appropriate trimmer. Access to the trimmers is as detailed previously in this Section (see ' Replacement of V6 and V7 ').

Refer to Table 5 and note which trimmer requires adjustment. Identify the trimmer on Fig. 9 and then adjust for zero-beat against the Calibrator signal.

Changing the Buffer/Multiplier valve (V7) will probably necessitate readjustment of the cores in the output coils L70 — L85. The procedure is quite straightforward and the only equipment required is a valve voltmeter.

TABLE 5

Range	*Trimmer*	*Range*	*Trimmer*
1	C321	10	C316
2	C320	12	C315
5	C319	18	C314
6	C318	22	C313
8	C317	30	C312

Unplug PL1 from SKT3 and connect PL1 to the valve voltmeter (3V f.s.d.). Select the Ranges indicated in Table 6 and adjust the appropriate coils (see Fig. 9) for maximum reading on the meter.

TABLE 6

Range	*Inductance*	*Range*	*Inductance*
B 1	L70 420	2 16	L78 270
B 2	L71 320	2 18	L79 290
B 5	L72 620	2 20	L80 340
B 6	L73 570	2 22	L81 330
B 8	L74 530	2 24	L82 100
B 10	L75 490	3 26	L83 100
B 12	L76 510	2 28	L84 120
3 14	L77 145	2 30	L85 270

Now re-connect PL1 at SKT3 and tune the receiver to 14·7 Mc/s. Inject a modulated signal at the aerial socket on a frequency of 15·3 Mc/s, increasing the generator output until the signal is audible in the speaker. Remove the underside covers of the 1st Local Oscillator Unit to gain access to the rejector coil L86. Adjust this for maximum attenuation of the signal output. L77 will now require slight re-adjustment and it is suggested that alternate adjustment of L77 and L86 is carried out (adjusting both for minimum signal) until no further reduction in output is possible with either coil.

This completes the re-alignment procedure and the 1st Local Oscillator screening covers can now be replaced.

Re-alignment of the 'Tuned' IF Section

Test equipment required.

Signal Generator covering 3 Mc/s and 4 Mc/s, Output Meter matched to 2·5/3 ohms and small screwdriver type trimming tool.

Switch on the receiver and signal generator and allow at least half-an-hour for both to reach operating temperature. Remove PL1 from SKT3 and connect the output lead from the generator to SKT3. The live generator lead should be isolated with a 0·01 mfd capacitor.

With the receiver controls set as when checking the sensitivity of the 500 kc/s stages, and with the output meter connected to the 2·5 ohm terminals, select Range 3 and tune the receiver and signal generator to 3·0 Mc/s (generator modulated 30% at 400 c/s). Use a small screwdriver trimming tool to adjust the 2·5 — 3·5 Mc/s 'Tuned' IF and 2nd Mixer cores for maximum output. See Fig. 7 for the location of these trimming adjustments which are situated on the tuning platform.

Now alter the generator to 4·0 Mc/s and, without touching the receiver tuning, set the receiver Range switch to Range 4. This puts the receiver on 4 Mc/s and the 3·5 — 4·5 Mc/s cores should now be peaked for maximum output.

A sensitivity check can be carried out and should result in an output of 50mW for an input of the order 5uV (signal introduced at SKT3). Checks should be made at both alignment frequencies.

NOTE : The lower sensitivity at this point compared with that at TP1 is normal and is due mainly to the loss which occurs in Filter 'B.'

Re-alignment of the RF Section (V1, V2 and V3)

Test equipment required.

Signal Generator covering the range 1 — 30 Mc/s, Output Meter matched to 2·5/3 ohms and a small screwdriver type trimming tool.

Re-alignment of the RF Section will normally be required, only if it has been necessary to change one of the coils associated with the permeability tuning system. If care is taken in replacing the tuning platform after changing a coil then re-alignment can be restricted to the new coil which has been fitted. If however, core positions are inadvertently disturbed while the platform is out of position then it would be advisable to carry out a complete re-alignment of the 'Tuned' IF and RF Sections of the receiver.

In this case, certain cores must be adjusted by actual measurement of the depth of penetration into the former. Reference should be made to Table 7. The measurement given is taken at the end of the coil remote from the tuning platform with the tuning control set to centre scale.

Fig. 7 shows the location of all trimming capacitors and cores applicable to alignment of the RF and 'Tuned' IF Stages and these are labelled for convenience

not with the circuit reference number, but with the range to which they apply. Also shown is a grid reference system which simplifies location of the correct trimmer on the 2nd RF and 1st Mixer sub-chassis. On Fig. 7 locate the desired trimmer — say 2nd RF, Range 21 — and obtain the reference 'A — 3.' This same reference appears on the receiver sub-chassis and enables the correct trimmer to be located without error. On the tuning platform the range is indicated directly, no reference system being required.

The instructions given below are for complete re-alignment. No adjustments are necessary when a valve is replaced but partial alignment must be carried out should it be necessary to change a component associated with one of the tuned circuits. Such alignment calls only for adjustment of the particular circuit concerned and no further trimming should be attempted.

TABLE 7

Inductance	*'X'*
L33, 45 and 57	$1\frac{15}{16}$"
L32, 44 and 56	$1\frac{7}{8}$"
L31, 43 and 55	2"
L30, 42 and 54	$1\frac{7}{8}$"

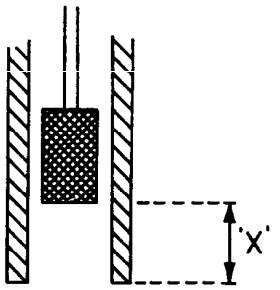


TABLE 8

Range	*Sig. Gen.*	*1st RF Stage*		*2nd RF Stage*		*1st Mixer Stage*	
		Trimmer	*Core*	*Trimmer*	*Core*	*Trimmer*	*Core*
1	1 Mc/s	NIL	L41	NIL	L53	NIL	L65*
2	2 Mc/s	NIL	L40	NIL	L52	NIL	L64
3	3 Mc/s	NIL	L39	NIL	L51	NIL	L63
4	4 Mc/s	NIL	L38	NIL	L50	NIL	L62
5	5 Mc/s	NIL	L37	NIL	L49	NIL	L61
6	6 Mc/s	NIL	L36	NIL	L48	NIL	L60
7	7 Mc/s	NIL	L35	NIL	L47	NIL	L59
8	8 Mc/s	NIL	L34	NIL	L46	NIL	L58
9	9 Mc/s	NIL	L33†	C229 (A6)	L45†	C285 (E6)	L57†
10	10 Mc/s	NIL		C228 (B6)		C284 (F6)	
11	11 Mc/s	NIL	L32†	C227 (C6)	L44†	C283 (G6)	L56†
12	12 Mc/s	NIL		C226 (D6)		C282 (H6)	
13	13 Mc/s	NIL		C225 (A5)		C281 (E5)	
14	14 Mc/s	NIL	L31†	C224 (B5)	L43†	C280 (F5)	L55†
15	15 Mc/s	NIL		C223 (C5)		C279 (G5)	
16	16 Mc/s	NIL		C222 (D5)		C278 (H5)	
17	17 Mc/s	NIL		C221 (A4)		C277 (E4)	
18	18 Mc/s	NIL	L30†	C220 (B4)	L42†	C276 (F4)	L54†
19	19 Mc/s	NIL		C219 (C4)		C275 (G4)	
20	20 Mc/s	NIL		C218 (D4)		C274 (H4)	
21	21 Mc/s	NIL		C217 (A3)		C273 (E3)	
22	22 Mc/s	NIL		C216 (B3)		C272 (F3)	
23	23 Mc/s	NIL		C215 (C3)		C271 (G3)	
24	24 Mc/s	NIL		C214 (D3)		C270 (H3)	
25	25 Mc/s	NIL		C213 (A2)		C269 (E2)	
26	26 Mc/s	NIL		C212 (B2)		C268 (F2)	
27	27 Mc/s	NIL		C211 (C2)		C267 (G2)	
28	28 Mc/s	NIL		C210 (D2)		C266 (H2)	
29	29 Mc/s	NIL		C209 (B1)		C265 (F1)	
30	30 Mc/s	NIL		C208 (C1)		C264 (G1)	

* This core is preset during initial alignment and will not require adjustment.

† These cores are adjusted by measurement of core position (see Table 7).

In carrying out complete re-alignment, first switch on the receiver and generator and allow at least half-an-hour for both to reach operating temperature. Connect a suitable Output Meter to the 2·5 ohm terminals and set the receiver controls as follows :

Selectivity Switch	'NARROW'
Mode Switch	'AM'
RF, IF and AF Gains ..	'Maximum'
AGC	'Off'
Noise Limiter	'Off'
Bass Switch	'Max Bass'

Connect the signal generator output lead to the receiver aerial socket (BNC plug) and set the tuning control so that the pointer lies on the 'megacycle point' at the centre of the scale. Check that the vernier (kilocycles) scale reads zero and once this has been set it should not be touched again throughout the complete alignment.

Set the generator modulation depth at 30% (400 c/s), select the receiver ranges and generator frequencies indicated in Table 8 and adjust the appropriate trimmers or cores for maximum output reading. The Aerial Trimmer (panel control) should be set at half-capacity when aligning Ranges 1 — 8 but on the other ranges its ability to resonate the input circuit indicates correct alignment of L30 — 33.

NOTE : The 2nd RF and 1st Mixer trimmers C207 and C263 (marked 'X' in Fig. 7) should not be touched when carrying out re-alignment. These trimmers are in circuit on all ranges and are used to balance circuit capacities during initial alignment of the receiver.

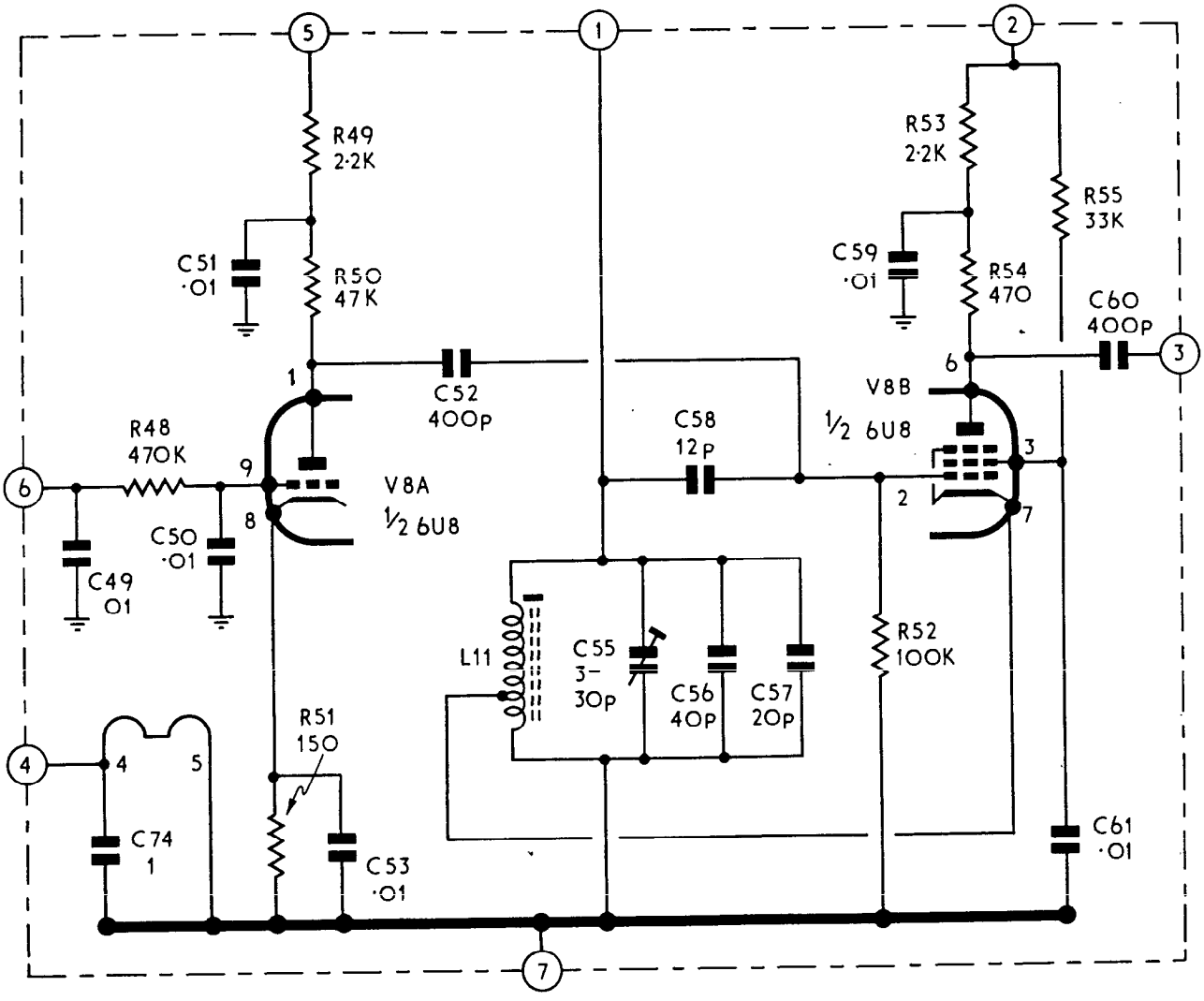


Fig. 10. Theoretical circuit of printed wiring board in 2nd Local Oscillator Unit

APPENDIX "A"

CRYSTAL CALIBRATOR UNIT

The built-in Calibrator Unit provides calibration markers at 100 kc/s intervals throughout the entire coverage of the receiver. The high stability of the 880/2 obviates the need for scale correction each time the receiver is tuned to a new frequency but at the same time it is convenient to have a means of rapidly checking the calibration accuracy so that re-alignment can be carried out immediately if any serious error is noted.

The unit employs a 100 kc/s crystal in a ' tuned-anode ' circuit in which the screen of a 6AU6 pentode is used as an anode. Harmonic output is taken from the anode circuit proper via a 10 pF blocking capacitor to pin 2 of SKT2 and thence via a 3 pF coupling capacitor to the anode of V1B.

Switching of the Calibrator is achieved by means of the AGC switch which has an additional position marked ' C.' In this position of the switch, S2a applies full HT1 to the Calibrator Unit via pin 4 of SKT2. Reduced HT is applied in the other position of the AGC switch to prevent cathode poisoning in the oscillator valve.

At the same time that HT is applied, a further section of the AGC switch (S2b) returns the cathodes of V1A and V2 direct to chassis via the 4,700 ohm resistor R16. This action takes the RF Gain control out of circuit and desensitises the RF Stages to prevent signal break-through whilst calibrating. The AGC is switched off by S2d when the Calibrator is in use.

The 100 kc/s crystal fitted in the Calibrator Unit is a close tolerance type in an evacuated envelope (B7G base). A small air spaced trimmer is connected across the crystal to permit minor adjustment of the crystal frequency when standardising the Calibrator against a standard frequency transmission (MSF, WWV, etc.).

The crystal should always be standardised before using the Calibrator to check scale accuracy. Although a close tolerance crystal is used, frequency change at the fundamental (100 kc/s) is considerably multiplied when calibrating at the higher frequencies in the tuning range.

To standardise the crystal, tune to the most convenient standard transmission, switch to ' CW ' and, with the BFO set to the centre of the IF passband, tune the signal to zero-beat. Now switch to ' calibrate ' (AGC switch to ' C '). If the crystal frequency is correct then the Calibrator signal will be at zero-beat. If not, adjust the small air trimmer (C3) which is accessible through a trimming aperture in the top of the Calibrator Unit (adjacent to the crystal holder). C3 should be set for zero-beat and under this condition the Calibrator is accurately standardised.

List of Calibrator Components

C1	0·01 mfd Tubular Paper ±20% 350V DC wkg.
C2	20 pF Silvered Mica ±10% 350V DC wkg.
C3	3 — 25 pF Air Spaced Trimmer.
C4	10 pF Tubular Ceramic ±10% 350V DC wkg.
R1	22,000 ohms ±10% ½ watt.
R2	0·27 Megohm ±10% ½ watt.
R3	1 Megohm ±10% ½ watt.
V1	6AU6 (CV2524).
XL1	100 kc/s crystal ±·005% (Style ' E ').

APPENDIX "B"

LIST OF COMPONENT VALUES, TOLERANCES AND RATINGS

Capacitors

Ref.	*Value*	*Type*	*Tol.*	*Wkg. Volts*
C1	30 pF	Silvered Mica	5%	350V
C2	140 pF	Silvered Mica	5%	350V
C3	30 pF	Silvered Mica	5%	350V
C4	100 pF	Silvered Mica	10%	350V
C5	0·05 mfd	Tubular Paper	20%	350V
C5a	3 pF	Tubular Ceramic	± ½ pF	350V
C6	0·05 mfd	Tubular Paper	20%	350V
C7	0·003 mfd	Tubular Paper	20%	250V
C8	0·05 mfd	Tubular Paper	20%	350V
C9	0·05 mfd	Tubular Paper	20%	350V
C10	100 pF	Silvered Mica	10%	350V
C11	0·05 mfd	Tubular Paper	20%	350V
C12	0·05 mfd	Tubular Paper	20%	350V
C13	0·05 mfd	Tubular Paper	20%	350V
C14	100 pF	Silvered Mica	10%	350V
C15	0·05 mfd	Tubular Paper	20%	350V
C16	400 pF	Silvered Mica	2%	350V
C17	0·05 mfd	Tubular Paper	20%	350V
C18	40 pF	Silvered Mica	5%	350V
C19	90 pF	Silvered Mica	5%	350V
C20	100 pF	Silvered Mica	5%	350V
C21	40 pF	Silvered Mica	5%	350V
C22	100 pF	Silvered Mica	10%	350V
C23	0·05 mfd	Tubular Paper	20%	350V
C24	0·05 mfd	Tubular Paper	20%	350V
C25	0·05 mfd	Tubular Paper	20%	350V
C26	100 pF	Silvered Mica	10%	350V
C27	0·05 mfd	Tubular Paper	20%	350V
C28	0·01 mfd	Tubular Paper	20%	150V
C29	1500 pF	Tubular Ceramic Feed Thru'	20%	350V
C30	1500 pF	Tubular Ceramic Feed Thru'	20%	350V
C31	0·01 mfd	Tubular Paper	20%	150V
C32	0·01 mfd	Tubular Paper	20%	150V
C33	3 pF	Tubular Ceramic	± ½ pF	350V
C34	800 pF	Silvered Mica	2%	350V
C35	1500 pF	Tubular Ceramic	20%	350V
C36	0·01 mfd	Tubular Paper	20%	150V
C37	100 pF	Silvered Mica	10%	350V
C38	0·01 mfd	Tubular Paper	20%	150V
C39	6 pF	Silvered Mica	± ½ pF	350V
C40	0·01 mfd	Tubular Paper	20%	150V
C41	0·01 mfd	Tubular Paper	20%	150V
C42	1500 pF	Tubular Ceramic	20%	350V
C43	1500 pF	Tubular Ceramic Feed Thru'	20%	350V
C44	1500 pF	Tubular Ceramic Feed Thru'	20%	350V

LIST OF COMPONENT VALUES, TOLERANCES AND RATINGS

Capacitors—*continued*

Ref.	*Value*	*Type*	*Tol.*	*Wkg. Volts*
C45	1500 pF	Tubular Ceramic Feed Thru'	20%	350V
C46	1500 pF	Tubular Ceramic Feed Thru'	20%	350V
C47	1500 pF	Tubular Ceramic Feed Thru'	20%	350V
C48	1500 pF	Tubular Ceramic Feed Thru'	20%	350V
C49	0·01 mfd	Tubular Paper	20%	150V
C50	0·01 mfd	Tubular Paper	20%	150V
C51	0·01 mfd	Tubular Paper	20%	150V
C52	400 pF	Silvered Mica	5%	350V
C53	0·01 mfd	Tubular Paper	20%	150V
C54	15–150 pF	Air Spaced Variable	—	—
C55	3–30 pF	Air Spaced Trimmer	—	—
C56	40 pF	Silvered Mica	5%	350V
C57	20 pF	Tubular Ceramic (N.T.C.)	10%	350V
C58	12 pF	Silvered Mica	5%	350V
C59	0·01 mfd	Tubular Paper	20%	150V
C60	400 pF	Silvered Mica	5%	350V
C61	0·01 mfd	Tubular Paper	20%	150V
C62	40 pF	Silvered Mica	5%	350V
C63	100 pF	Silvered Mica	5%	350V
C64	130 pF	Silvered Mica	5%	350V
C65	40 pF	Silvered Mica	5%	350V
C66	1500 pF	Tubular Ceramic	20%	350V
C67	0·01 mfd	Tubular Paper	20%	350V
C68	0·01 mfd	Tubular Paper	20%	150V
C69	100 pF	Silvered Mica	10%	350V
C70	300 pF	Silvered Mica	5%	350V
C71	770 pF	Silvered Mica	5%	200V
C72	970 pF	Silvered Mica	5%	200V
C73	300 pF	Silvered Mica	5%	350V
C74	0·1 mfd	Disc Ceramic	—20% +80%	200V
C75	—	*Reference Not Allocated*	—	—
C76	0·01 mfd	Tubular Paper	20%	150V
C77	1500 pF	Tubular Ceramic Feed Thru'	20%	350V
C78	1500 pF	Tubular Ceramic Feed Thru'	20%	350V
C79	1500 pF	Tubular Ceramic Feed Thru'	20%	350V
C80	1500 pF	Tubular Ceramic Feed Thru'	20%	350V
C81	1500 pF	Tubular Ceramic Feed Thru'	20%	350V
C82	1500 pF	Tubular Ceramic Feed Thru'	20%	350V
C83	390 pF	Polystyrene	5%	125V
C84	0·05 mfd	Tubular Paper	20%	350V
C85	790 pF	Polystyrene	2%	125V
C86	790 pF	Polystyrene	2%	125V
C87	2–10 pF	Air Spaced Trimmer (Differential) ..	—	—
C88	2–10 pF	Air Spaced Trimmer (Differential) ..	—	—
C89	25 pF	Silvered Mica	10%	350V

LIST OF COMPONENT VALUES, TOLERANCES AND RATINGS

Capacitors—*continued*

Ref.	*Value*	*Type*	*Tol.*	*Wkg. Volts*
C90	100 pF	Polystyrene	5%	125V
C91	20 pF	Silvered Mica	10%	350V
C92	100 pF	Polystyrene	5%	125V
C93	0·05 mfd	Tubular Paper	20%	350V
C94	100 pF	Silvered Mica	10%	350V
C95	0·05 mfd	Tubular Paper	20%	350V
C96	0·05 mfd	Tubular Paper	20%	350V
C97	390 pF	Polystyrene	5%	125V
C98	390 pF	Polystyrene	5%	125V
C99	390 pF	Polystyrene	5%	125V
C100	390 pF	Polystyrene	5%	125V
C101	0·05 mfd	Tubular Paper	20%	350V
C102	100 pF	Silvered Mica	10%	350V
C103	0·05 mfd	Tubular Paper	20%	350V
C104	0·05 mfd	Tubular Paper	20%	350V
C105	390 pF	Polystyrene	5%	125V
C106	390 pF	Polystyrene	5%	125V
C107	390 pF	Polystyrene	5%	125V
C108	390 pF	Polystyrene	5%	125V
C109	0·05 mfd	Tubular Paper	20%	350V
C110	0·05 mfd	Tubular Paper	20%	350V
C111	0·05 mfd	Tubular Paper	20%	350V
C112	100 pF	Polystyrene	5%	125V
C113	40 pF	Tubular Ceramic	10%	350V
C114	100 pF	Polystyrene	5%	125V
C115	100 pF	Silvered Mica	10%	350V
C116	500 pF	Moulded Mica	20%	350V
C117	0·01 mfd	Moulded Mica	20%	350V
C118	0·05 mfd	Tubular Paper	20%	350V
C119	0·01 mfd	Tubular Paper	20%	150V
C120	0·01 mfd	Tubular Paper	20%	150V
C121	0·05 mfd	Tubular Paper	20%	350V
C122	10 pF	Silvered Mica	10%	350V
C123	0·01 mfd	Tubular Paper	20%	150V
C124	0·05 mfd	Tubular Paper	20%	350V
C125	0·01 mfd	Tubular Paper	20%	150V
C126	0·5 mfd	Tubular Paper	20%	150V
C127	10 mfd	Tantalum Electrolytic	20%	30V
C128	30 mfd	Tubular Electrolytic		15V
C129	0·01 mfd	Moulded Mica	20%	350V
C130	0·01 mfd	Tubular Paper	20%	150V
C131	0·05 mfd	Tubular Paper	20%	350V
C132	0·25 mfd	Metallised Paper	20%	150V
C133	0·01 mfd	Tubular Paper	20%	150V
C134	51 pF	Polystyrene	5%	125V

LIST OF COMPONENT VALUES, TOLERANCES AND RATINGS

Capacitors—*continued*

Ref.	*Value*	*Type*	*Tol.*	*Wkg. Volts*
C135	30 mfd	Tubular Electrolytic		15V
C136*	390 pF	Polystyrene	5%	125V
C137	390 pF	Polystyrene	5%	125V
C138	500 pF	Tubular Paper	20%	350V
C139	0·005 mfd	Tubular Ceramic	20%	350V
C140	40 pF	Silvered Mica	10%	350V
C141	500 pF	Tubular Paper	20%	350V
C142	0·01 mfd	Tubular Paper	20%	150V
C143	0·01 mfd	Tubular Paper	20%	150V
C144†	0·007 mfd	Silvered Mica	1%	350V
C145†	0·007 mfd	Silvered Mica	1%	350V
C146	0·001 mfd	Tubular Ceramic	20%	350V
C147	0·001 mfd	Tubular Ceramic	20%	350V
C148	0·001 mfd	Tubular Ceramic	20%	350V
C149	30 mfd	Tubular Electrolytic		15V
C150	500 pF	Tubular Paper	20%	350V
C151	0·01 mfd	Moulded Mica	20%	350V
C152	30 mfd	Tubular Electrolytic		15V
C153	0·01 mfd	Moulded Mica	20%	350V
C154	0·01 mfd	Moulded Mica	20%	350V
C155	0·25 mfd	Metallised Paper	20%	150V
C156	50 mfd	Tubular Electrolytic		450V
C157	50 mfd	Tubular Electrolytic		450V
C158	50 mfd	Tubular Electrolytic		450V
C159	0·5 mfd	Tubular Paper	20%	150V

C160 etc. — See Detached Circuits 1–5.

* May be 400pF Silvered Mica 2% 350V DC wkg.

† May be 0·007 mfd. Polystyrene 1% 125V DC wkg.

Resistors

Ref.	*Value*	*Tol.*	*Rating*
R1	0·27 Megohm ..	10%	½ watt
R2	100 ohms ..	10%	½ watt
R3	12 ohms ..	10%	½ watt
R4	3·3 Megohms ..	10%	½ watt
R5	0·1 Megohm ..	10%	½ watt
R6	0·1 Megohm ..	10%	½ watt
R7	2,200 ohms ..	10%	1 watt
R8	47,000 ohms ..	10%	1 watt
R9	15,000 ohms ..	10%	1 watt
R10	12 ohms ..	10%	½ watt
R11	0·27 Megohm ..	10%	½ watt
R12	47,000 ohms ..	10%	½ watt
R13	68 ohms ..	10%	½ watt

Ref.	*Value*	*Tol.*	*Rating*
R14	47,000 ohms ..	10%	1 watt
R15	47,000 ohms ..	10%	1 watt
R16	4,700 ohms ..	10%	½ watt
R17	2,200 ohms ..	10%	½ watt
R18	0·27 Megohm ..	10%	½ watt
R19	270 ohms ..	10%	½ watt
R20	12 ohms ..	10%	½ watt
R21	2,200 ohms ..	10%	½ watt
R22	470 ohms ..	10%	½ watt
R23	1 Megohm ..	10%	½ watt
R24	10,000 ohms ..	10%	1 watt
R25	47,000 ohms ..	10%	1 watt
R26	470 ohms ..	10%	½ watt

LIST OF COMPONENT VALUES, TOLERANCES AND RATINGS

Resistors—*continued*

Ref.	*Value*	*Tol.*	*Rating*
R27	0·27 Megohm ..	10%	½ watt
R28	68 ohms ..	10%	½ watt
R29	12 ohms ..	10%	½ watt
R30	47,000 ohms ..	10%	1 watt
R31	2,200 ohms ..	10%	½ watt
R32	1 Megohm ..	10%	½ watt
R33	12 ohms ..	10%	½ watt
R34	0·27 Megohm ..	10%	½ watt
R35	270 ohms ..	10%	½ watt
R36	0·1 Megohm ..	10%	½ watt
R37	2,200 ohms ..	10%	½ watt
R38	2,200 ohms ..	10%	½ watt
R39	3,300 ohms ..	10%	½ watt
R40	10,000 ohms ..	10%	½ watt
R41	47,000 ohms ..	10%	½ watt
R42	150 ohms ..	10%	½ watt
R43	68 ohms ..	10%	½ watt
R44	10,000 ohms ..	10%	½ watt
R45	15,000 ohms ..	10%	1 watt
R46	2,200 ohms ..	10%	½ watt
R47	2,200 ohms ..	10%	½ watt
R48	0·47 Megohm ..	10%	½ watt
R49	2,200 ohms ..	10%	½ watt
R50	47,000 ohms ..	10%	½ watt
R51	150 ohms ..	10%	½ watt
R52	0·1 Megohm ..	10%	½ watt
R53	2,200 ohms ..	10%	½ watt
R54	470 ohms ..	10%	½ watt
R55	33,000 ohms ..	10%	½ watt
R56	470 ohms ..	10%	½ watt
R57	2,200 ohms ..	10%	½ watt
R58	680 ohms ..	10%	½ watt
R59	68 ohms ..	10%	½ watt
R60	2,200 ohms ..	10%	½ watt
R61	10,000 ohms ..	10%	1 watt
R62	47,000 ohms ..	10%	1 watt
R63	0·27 Megohm ..	10%	½ watt
R64	100 ohms ..	10%	½ watt
R65	47,000 ohms ..	10%	1 watt
R66	2,200 ohms ..	10%	½ watt
R67	12 ohms ..	10%	½ watt
R68	0·27 Megohm ..	10%	½ watt
R69	100 ohms ..	10%	½ watt

Ref.	*Value*	*Tol.*	*Rating*
R70	47,000 ohms ..	10%	1 watt
R71	2,200 ohms ..	10%	½ watt
R72	12 ohms ..	10%	½ watt
R73	2,200 ohms ..	10%	½ watt
R74	0·1 Megohm ..	10%	½ watt
R75	0·1 Megohm ..	10%	½ watt
R76	1 Megohm ..	10%	½ watt
R77	2·2 Megohms ..	10%	½ watt
R78	0·1 Megohm ..	10%	½ watt
R79	150 ohms ..	10%	½ watt
R80	0·1 Megohm ..	10%	½ watt
R81	1 Megohm ..	10%	½ watt
R82	4,700 ohms ..	10%	½ watt
R83	0·1 Megohm ..	10%	½ watt
R84	8,200 ohms ..	10%	½ watt
R85	1 Megohm ..	10%	½ watt
R86	2,200 ohms ..	10%	½ watt
R87	10,000 ohms ..	10%	½ watt
R88	470 ohms ..	10%	½ watt
R89	1,000 ohms ..	10%	½ watt
R90	4,700 ohms ..	10%	1 watt
R91	470 ohms ..	10%	½ watt
R92	22,000 ohms ..	10%	1 watt
R93	470 ohms ..	10%	½ watt
R94	0·47 Megohm ..	10%	½ watt
R95	3,300 ohms ..	10%	½ watt
R96	0·1 Megohm ..	10%	½ watt
R97	47 ohms ..	10%	½ watt
R98	0·47 Megohm ..	10%	½ watt
R99	0·1 Megohm ..	10%	½ watt
R100	220 ohms ..	10%	½ watt
R101	0·1 Megohm ..	10%	½ watt
R102	22,000 ohms ..	10%	½ watt
R103	33,000 ohms ..	10%	½ watt
R104	10,000 ohms ..	10%	½ watt
R105	1,000 ohms ..	10%	½ watt
R106	1,000 ohms ..	10%	½ watt
R107	47,000 ohms ..	10%	1 watt
R108	6,800 ohm (nom.)	10%	½ watt
R109	47,000 ohms ..	10%	1 watt
R110	10,000 ohms (nom.)	10%	½ watt
R111	10,000 ohms ..	10%	1 watt
R112	3,300 ohms ..	10%	½ watt

LIST OF COMPONENT VALUES, TOLERANCES AND RATINGS

Resistors—*continued*

Ref.	*Value*	*Tol.*	*Rating*
R113	1 Megohm ..	10%	½ watt
R114	1 Megohm ..	10%	½ watt
R115	1 Megohm ..	10%	½ watt
R116	0·47 Megohm ..	10%	½ watt
R117	3,300 ohms ..	10%	½ watt
R118	0·1 Megohm ..	10%	½ watt
R119	2·2 Megohms ..	10%	½ watt
R120	0·47 Megohm ..	10%	½ watt
R121	680 ohms ..	10%	½ watt
R122	4,700 ohms ..	10%	1 watt
R123	47,000 ohms ..	10%	1 watt
R124	4,700 ohms ..	10%	1 watt
R125*	10 ohms ..	5%	3 watt
R126	3,300 ohms ..	10%	½ watt
R127	0·1 Megohm ..	10%	½ watt
R128	2·2 Megohm ..	10%	½ watt
R129	0·47 Megohm ..	10%	½ watt
R130	820 ohms ..	10%	½ watt
R131	4,700 ohms ..	10%	1 watt
R132*	3,300 ohms ..	5%	6 watt
R133	10,000 ohms ..	10%	1 watt
R134*	3,300 ohms ..	5%	6 watt
R135	0·27 Megohm ..	10%	½ watt
R136	10,000 ohms ..	10%	½ watt
R137*	140 ohms ..	5%	4½ watt
R138*	140 ohms ..	5%	4½ watt

R139 etc. — See Detached Circuits 1–5.
* — Wirewound.

Potentiometers

Ref.	*Value*	*Type*
RV1	10,000 ohms	Wirewound
RV2	20,000 ohms	Carbon
RV3	10,000 ohms	Wirewound
RV4	1,000 ohms	Carbon
RV5	1,000 ohms	Carbon
RV6	1,000 ohms	Carbon
RV7	20,000 ohms	Carbon
RV8	0·47 Megohm	Carbon
RV9	0·5 Megohm	Carbon
RV10	5 ohms	Wirewound

APPENDIX "C"

TABLE OF VOLTAGE VALUES

The following ' Table of Voltage Values ' will prove useful in the event of the receiver developing a fault which necessitates carrying out voltage checks.

All readings are typical and were taken with a meter having a sensitivity of 20,000 ohms/volt and an applied mains voltage of 240V. A nominal tolerance of 10% will apply to readings taken with a meter of the sensitivity quoted above and this tolerance should be increased accordingly when using meters of lower sensitivity.

Readings should be taken under ' no-signal ' conditions with controls set as follows. The Remote Tuning and Desensitising links must be in position.

Range switch	Range 15.
Mode switch	' AM.'
AGC switch	' Off.'
RF and IF Gains	Maximum.
AF Gain	Minimum.
Fine Tuning and BFO (Pitch) ..	Centre scale.

Readings are taken between the point indicated and chassis.

CW/SSB Detector (V17)

This stage is inaccessible for direct voltage checks. Voltages can be checked on leads entering the unit as follows :

(i) **Anode feed** (measured across C131)
190V with Mode switch at ' AM.'
180V with Mode switch at ' CW ' or ' SSB.'

(ii) **Screen feed** (measured across C132)
102V with Mode switch at ' CW ' or ' SSB.'

(iii) **Diode control voltage** (measured at R102)
' CW ' : 11 — 26V for full swing of BFO (Pitch) control. (Nominally 15V at centre setting).

' SSB ' : In the range 12 — 19V depending on the Range in use and the sideband selected.

HT Voltages

HT1 : 225V.
HT2 : 195V.
HT3 : 108V (stabilised).
HT4 : 108V (stabilised).
Unsmoothed HT (measured across C158) : 260V.

Valve	*Anode*	*Screen*	*Cathode*
V1A	95V	—	1·25V[1]
V1B	180V	(g_1 : 93V)	95V
V2	215V	42V[2]	0·27V[3]
V3	174V	19V	0·26V
V4	202V	75V	0·7V
V5	177V	19V	0·23V
V6	64V	97V	0V
V7	94V	88V	1·0V
V8A	26V[4]	—	0·12V
V8B	100V	76V	0V
V9	187V	—	5·2V
V10 & 11	207V	88V[5]	1·35V[6]
V12	195V	195V	1·42V
V13A	—	—	—
V13B	—	—	15V[7]
V14	—	—	—
V15A	168V	—	2·0V
V15B	172V	—	2·0V
V16A	210V	—	3·7V
V16B	115V	—	2·5V
V17	See separate note.		
V18A & B	77V	—	3·5V
V19	215V	208V	9·5V
V20	217V	212V	10·5V
V21 & 22	108V	—	—

[1] 8·6V with RF Gain at minimum.
[2] 57V with RF Gain at minimum.
[3] 8·3V with RF Gain at minimum.
[4] 20 — 32V for full swing of Fine Tuning control.
[5] 202V with IF Gain at minimum.
[6] 30V with IF Gain at minimum.
[7] 6V with AGC switch in ' SSB ' position.

APPENDIX "C"

TABLE OF VOLTAGE VALUES

The following ' Table of Voltage Values ' will prove useful in the event of the receiver developing a fault which necessitates carrying out voltage checks.

All readings are typical and were taken with a meter having a sensitivity of 20,000 ohms/volt and an applied mains voltage of 240V. A nominal tolerance of 10% will apply to readings taken with a meter of the sensitivity quoted above and this tolerance should be increased accordingly when using meters of lower sensitivity.

Readings should be taken under ' no-signal ' conditions with controls set as follows. The Remote Tuning and Desensitising links must be in position.

Range switch	Range 15.
Mode switch	' AM.'
AGC switch	' Off.'
RF and IF Gains	Maximum.
AF Gain	Minimum.
Fine Tuning and BFO (Pitch) ..	Centre scale.

Readings are taken between the point indicated and chassis.

CW/SSB Detector (V17)

This stage is inaccessible for direct voltage checks. Voltages can be checked on leads entering the unit as follows :

(i) **Anode feed** (measured across C131)
190V with Mode switch at ' AM.'
180V with Mode switch at ' CW ' or ' SSB.'

(ii) **Screen feed** (measured across C132)
102V with Mode switch at ' CW ' or ' SSB.'

(iii) **Diode control voltage** (measured at R102)
' CW ' : 11 — 26V for full swing of BFO (Pitch) control. (Nominally 15V at centre setting).

' SSB ' : In the range 12 — 19V depending on the Range in use and the sideband selected.

HT Voltages

HT1 : 225V.
HT2 : 195V.
HT3 : 108V (stabilised).
HT4 : 108V (stabilised).
Unsmoothed HT (measured across C158) : 260V.

Valve	*Anode*	*Screen*	*Cathode*
V1A	95V	—	1·25V[1]
V1B	180V	(g_1 : 93V)	95V
V2	215V	42V[2]	0·27V[3]
V3	174V	19V	0·26V
V4	202V	75V	0·7V
V5	177V	19V	0·23V
V6	64V	97V	0V
V7	94V	88V	1·0V
V8A	26V[4]	—	0·12V
V8B	100V	76V	0V
V9	187V	—	5·2V
V10 & 11	207V	88V[5]	1·35V[6]
V12	195V	195V	1·42V
V13A	—	—	—
V13B	—	—	15V[7]
V14	—	—	—
V15A	168V	—	2·0V
V15B	172V	—	2·0V
V16A	210V	—	3·7V
V16B	115V	—	2·5V
V17	See separate note.		
V18A & B	77V	—	3·5V
V19	215V	208V	9·5V
V20	217V	212V	10·5V
V21 & 22	108V	—	—

[1] 8·6V with RF Gain at minimum.
[2] 57V with RF Gain at minimum.
[3] 8·3V with RF Gain at minimum.
[4] 20 — 32V for full swing of Fine Tuning control.
[5] 202V with IF Gain at minimum.
[6] 30V with IF Gain at minimum.
[7] 6V with AGC switch in ' SSB ' position.

APPENDIX "D"

LIST OF SPARES

Inductors		Ref. No.
L1 — L4	Not available separately — see Filter ' A.'	
L5 — L10	Not available separately — see Filter ' B.'	
L11	2nd Local Oscillator Coil	D2410A
L12 — L17	Not available separately — see Filter ' C.'	
L18	2nd Local Oscillator Cathode Follower O/P Coil	D2411A
L19 — L24	Not available separately — see Filter ' D.'	
L25	BFO Coil	D2745
L26 — L29	Not available separately — see Filter ' E.'	
L30	1st RF Coil — Ranges 18 — 30 (L)	D2402
L31	1st RF Coil — Ranges 14 — 17 (K)	D2400
L32	1st RF Coil — Ranges 11 — 13 (J)	D2398
L33	1st RF Coil — Ranges 9 & 10 (I)	D2396
L34	1st RF Coil — Range 8 (H)	D2394
L35	1st RF Coil — Range 7 (G)	D2393
L36	1st RF Coil — Range 6 (F)	D2392
L37	1st RF Coil — Range 5 (E)	D2391
L38	1st RF Coil — Range 4 (D)	D2390
L39	1st RF Coil — Range 3 (C)	D2389
L40	1st RF Coil — Range 2 (B)	D2388
L41	1st RF Coil — Range 1 (A)	D2387A
L42	2nd RF Coil — Ranges 18 — 30 (L)	D2401
L43	2nd RF Coil — Ranges 14 — 17 (K)	D2399
L44	2nd RF Coil — Ranges 11 — 13 (J)	D2397
L45	2nd RF Coil — Ranges 9 & 10 (I)	D2395
L46	2nd RF Coil — Range 8 (H)	D2394/1
L47	2nd RF Coil — Range 7 (G)	D2393/1
L48	2nd RF Coil — Range 6 (F)	D2392/1
L49	2nd RF Coil — Range 5 (E)	D2391/1
L50	2nd RF Coil — Range 4 (D)	D2390/1
L51	2nd RF Coil — Range 3 (C)	D2389/1
L52	2nd RF Coil — Range 2 (B)	D2388/1
L53	2nd RF Coil — Range 1 (A)	D2386
L54	1st Mixer Coil — Ranges 18 — 30 (L1)	D2401
L55	1st Mixer Coil — Ranges 14 — 17 (K1)	D2399
L56	1st Mixer Coil — Ranges 11 — 13 (J1)	D2397
L57	1st Mixer Coil — Ranges 9 & 10 (I1)	D2395
L58	1st Mixer Coil — Range 8 (H1)	D2394/1
L59	1st Mixer Coil — Range 7 (G1)	D2393/1
L60	1st Mixer Coil — Range 6 (F1)	D2392/1
L61	1st Mixer Coil — Range 5 (E1)	D2391/1
L62	1st Mixer Coil — Range 4 (D1)	D2390/1
L63	1st Mixer Coil — Range 3 (C1)	D2389/1
L64	1st Mixer Coil — Range 2 (B1)	D2388/1
L65	1st Mixer Coil — Range 1 (A)	D2473A
L66	Tuned IF Coil — Range ' A ' (2·5 — 3·5 Mc/s), (M)	D2403
L67	Tuned IF Coil — Range ' B ' (3·5 — 4·5 Mc/s), (N)	D2404
L68	2nd Mixer Coil — Range ' A ' (2·5 — 3·5 Mc/s), (M)	D2403/1
L69	2nd Mixer Coil — Range ' B ' (3·5 — 4·5 Mc/s), (M)	D2404/1
L70 — L73	Buffer/Multiplier O/P Coils (5, 6, 8 & 10 Mc/s)	D2827
L74 — L77	Buffer/Multiplier O/P Coils (12, 14, 16 & 18 Mc/s)	D2828
L78 — L81	Buffer/Multiplier O/P Coils (20, 22, 24 & 26 Mc/s)	D2829
L82 — L85	Buffer/Multiplier O/P Coils (28, 30, 32 & 34 Mc/s)	D2830
L86	Buffer/Multiplier Rejector Coil	D2592B

		Ref. No.
Chokes		
CH1	LT Choke	D2413
CH2	LT Choke	D2413
CH3	Screen Choke	D2412
CH4	HT Choke	D2414
CH5	HT Choke	D2414
CH6	HT Choke	D2414
CH7	LT Choke	D2413
CH8	HT Choke	D2414
CH9	LT Choke	D2413
CH10	Filter Choke	D2412
CH11	HT Smoothing Choke	D2451
Transformers		
T1	1st 500 kc/s IF Transformer	D2405C
T2	Crystal Filter Unit (500 kc/s). Supplied complete with crystal screening can but less crystal	D2734
T3	Crystal Filter Unit (500 kc/s). Supplied complete with crystal screening can but less crystal	D2734
T4	2nd 500 kc/s IF Transformer	D2406C
T5	3rd 500 kc/s IF Transformer	D2406C
T6	4th 500 kc/s IF Transformer	D2406C
T7	5th 500 kc/s IF Transformer	D2406C
T8	6th 500 kc/s IF Transformer	D2407A
T9	Audio Filter Unit	D2735
T10/T11	Combined 2·5/600 ohms Output Transformer	D2736
T12	Mains Transformer	5339/1P
RF Filters		
Filter 'A'	Aerial Filter	D2738
Filter 'B'	1st IF Filter	D2419
Filter 'C'	2nd L.O. Interstage Filter	D2417A
Filter 'D'	2nd L.O. Output Filter	D2418A
Filter 'E'	Aerial Filter (Ranges 14 — 17)	D2416

NOTE: Filter Units are supplied complete and pre-aligned. Individual filter coils are not available separately.

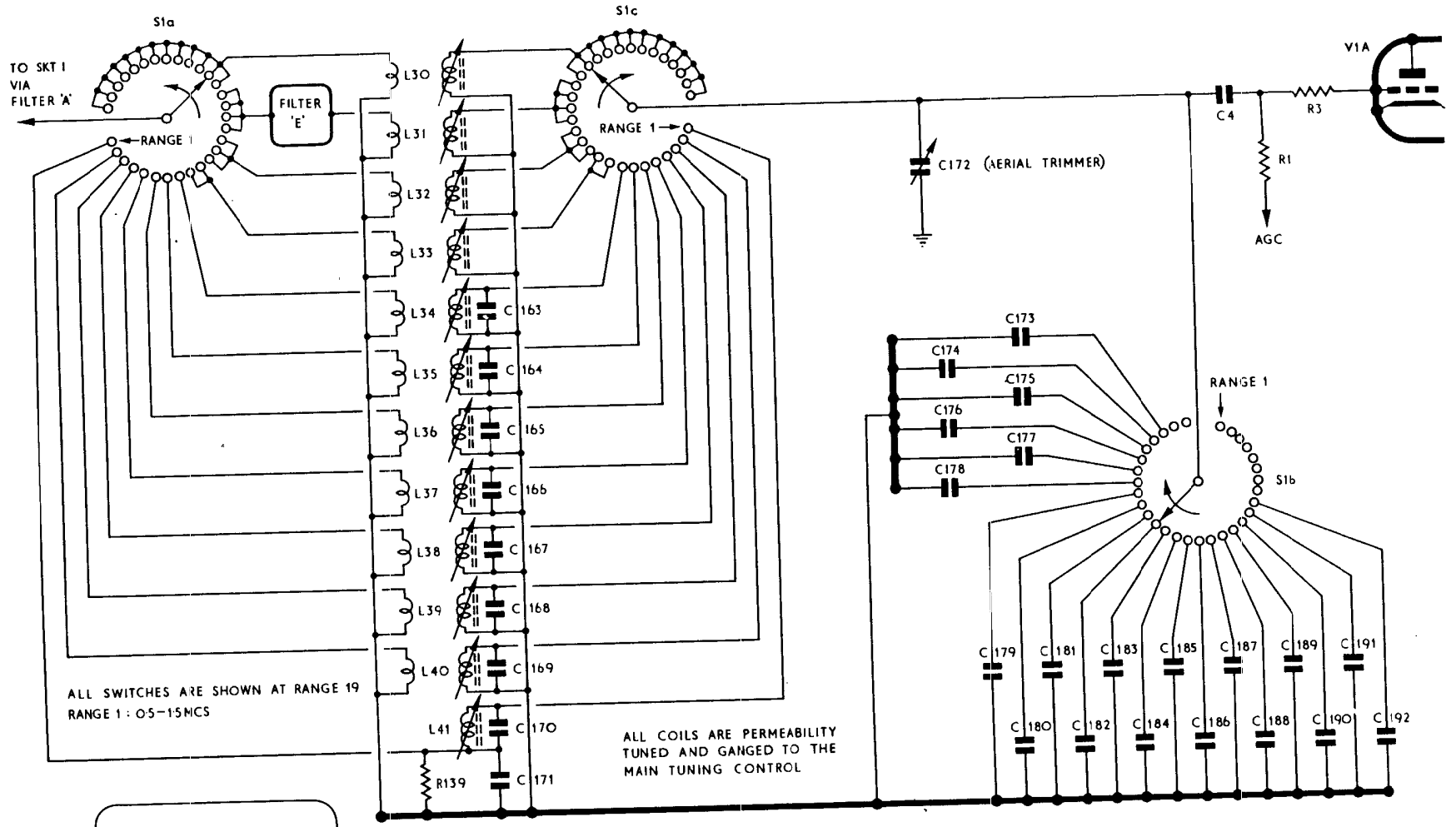
Crystals		
XL1	'A' Dual crystal 500 kc/s ±·05%, separation 300 c/s ±50 c/s	6061P
	'B' Dual crystal 500 kc/s ±·05%, separation 1100 c/s ±50 c/s	6062P
XL2	'B' Dual crystal 500 kc/s ±·05%, separation 1100 c/s ±50 c/s	6062P
	'C' Dual crystal 500 kc/s ±·05%, separation 2600 c/s ±50 c/s	6063P
XL3	Inter Services Style 'D' Crystal Unit 17 Mc/s	6064P
XL4	Inter Services Style 'D' Crystal Unit 13 Mc/s	6065P
XL5	Inter Services Style 'D' Crystal Unit 11 Mc/s	6066P
XL6	Inter Services Style 'D' Crystal Unit 16 Mc/s	6067P
XL7	Inter Services Style 'D' Crystal Unit 14 Mc/s	6068P
XL8	Inter Services Style 'D' Crystal Unit 12 Mc/s	6069P
XL9	Inter Services Style 'D' Crystal Unit 10 Mc/s	6070P
XL10	Inter Services Style 'D' Crystal Unit 8 Mc/s	6071P
XL11	Inter Services Style 'D' Crystal Unit 6 Mc/s	6072P
XL12	Inter Services Style 'D' Crystal Unit 5 Mc/s	6073P
Variable Capacitors, Trimmers and Associated Items		
C172	Aerial Trimmer	D1919E
	Spindle for Aerial Trimmer	5608P
	Extension Spindle for Aerial Trimmer	5609P
	Coupler for above	D2469A
C54	2nd L.O. Tuning Capacitor	D2715
	Coupler for 2nd L.O. Tuning Capacitor	D2463A
C55	Concentric Trimmer 3 — 30 *p*F (2nd L.O. Unit)	6074P
	Ceramic Tube Trimmers (RF, Mixer, 1st L.O. Unit)	6075P

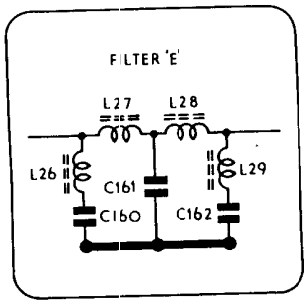
		Ref. No.
Potentiometers		
RV1	10,000 ohms wirewound	5937P
RV2	20,000 ohms carbon	5938P
RV3	10,000 ohms wirewound	5937P
RV4	1,000 ohms carbon, pre-det	6076P
RV5	1,000 ohms carbon, pre-set	6076P
RV6	1,000 ohms carbon, pre-set	6076P
RV7	20,000 ohms carbon	5938P
RV8	0·47 Megohm carbon, pre-set	6077P
RV9	0·5 Megohm carbon	4103PA
RV10	5 ohms wirewound, pre-set	6078P
Switches		
S1	**Wavechange**	
	Wafer (single pole 30 way)	5414P
	Switch rod	5928P
S2	**AGC/Calibrator**	
	4 pole 5 way complete	5935P
S3	**Selectivity**	
	Wafer (2 pole 5 way)	5393P
	Switch rod	5626P
	Clicker Mechanism	5625P
	Coupler	5627P
S4	**Noise Limiter**	
	Toggle type, SPST	4771P
S5	**Mode**	
	4 pole 4 way complete	5935/1P
S6	**AF Filter**	
	Toggle type DPDT	4772P
S7	**Bass**	
	2 pole 4 way complete	5936P
S8	**Monitor Speaker**	
	Toggle type, SPST	4771P
S9	**Mains**	
	Toggle type, DPDT	4772P
Control Knobs		
Main Tuning (Kilocycles)		D2831
Wavechange (Megacycles)		5817P
Selectivity, RF Gain, AF Gain, etc.		5816P
Plugs		
PL1 — PL4	Coaxial	6079P
PL5/6	12-way (female)	6080P
PL 'a'—'e'	6-way (male). Chassis interconnection	6081P
PL 'f'—'k'	6-way (female). Chassis interconnection	6082P
PL 'l'	2-way (female) Dial lamp connector	6083P
Aerial Plug	Coaxial	6084P
Sockets		
SKT1	Coaxial	6085P
SKT2	B7G (Calibrator Socket)	6086P
SKT3 — SKT7	Coaxial	6087P
SKT8	Coaxial	6085P
SKT9	12-way (male)	6088P
SKT 'a'—'e'	6-way (female). Chassis interconnection	6082P
SKT 'f'—'k'	6-way (male). Chassis interconnection	6081P
SKT 'l'	2-way (male). Dial lamp connector	6089P
JK1	Audio Input	6090P
JK2	Telephone Output	6091P

	Ref. No.
Cores	
RF and 1st IF Coils	
L30 — L37, L42 — L49 & L54 — L61	6092P
L38, L39, L50, L51, L62, L63 & L66 — L69	6093P
L41 & L53	6094P
Remaining coils and 500 kc/s IF Transformers	
L11	6095P
L18	6096P
L25	6097P
L70 — L85	6098P
L86	6095P
T1 — T8	6096P
Drive Assembly	
Complete drive assembly	LP2634

NOTE : This mechanism cannot be assembled without special assembly jigs. Replacement will be on an exchange basis in which a complete drive mechanism will be despatched on receipt of a faulty unit.

Calibrator Unit		
XL1	Crystal, 100 kc/s ±0·005%	6099P
L1	Coil	D2178
C3	Trimmer	3909PC
PL1	Plug (B7G type)	6100P
Miscellaneous		
Protecting handles (panel)		5826P
Protecting handles (small)		5923P
Scale Plate with Pointer Carrier Strip		D2714
Pointer Assembly		D2841
Vernier Dial (Kilocycles)		5563PA
Wavechange Dial (Megacycles) : L.H.		5895P
Wavechange Dial (Megacycles) : Centre		5561PA
Wavechange Dial (Megacycles) : R.H.		5896P
Glass Window		5922P
Scale Escutcheon		5918P
Festoon Bulbs (6V, 3W)		3131P
Panel Escutcheon		5621PA
Rear cover		5924P
Bottom cover		5924/2P
Lid (Table Model)		5925P
Top cover (Rack Model)		5939P
Shaped side cover : L.H.		5622/1P
Shaped side cover : R.H.		5622P
Drive cover		5926P
Loudspeaker (2", 3 ohms)		6101P
Loudspeaker grille		5933P
Carrier Level Meter		5931P
Clip for meter		5932P
Finger plate (front panel)		5919P
Finger plate (I.F.)		5920P
Finger plate (P.U.)		5921P
Terminal (as used for Diversity AGC, etc.)		6102P
Fuseholder		6103P
Fuses		6104P
Flexible coupler (2nd Local Oscillator Unit)		D2463A
Flexible coupler (Platform drive)		D2469A

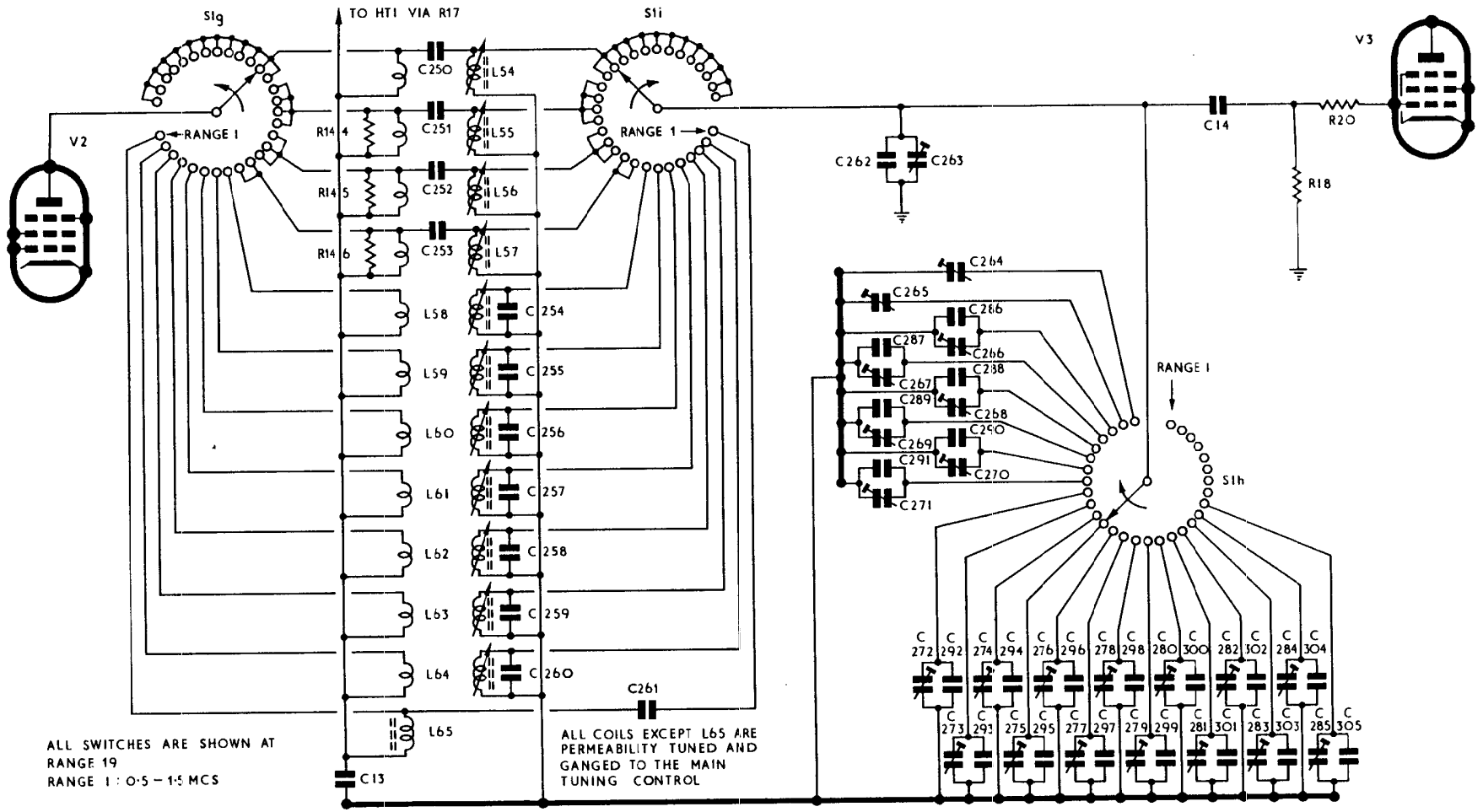




COMPONENT VALUES, TOLERANCES AND RATINGS.

C160	60 pF Silvered Mica ±5% 350V DC wkg.
C161	250 pF Silvered Mica ±5% 350V DC wkg.
C162	60 pF Silvered Mica ±5% 350V DC wkg.
C163	195 pF Silvered Mica ±1% 350V DC wkg.
C164	225 pF Silvered Mica ±1% 350V DC wkg.
C165	275 pF Silvered Mica ±1% 350V DC wkg.
C166	340 pF Silvered Mica ±1% 350V DC wkg.
C167	425 pF Silvered Mica ±1% 350V DC wkg.
C168	540 pF Silvered Mica ±1% 200V DC wkg.
C169	640 pF Silvered Mica ±1% 200V DC wkg.
C170	640 pF Silvered Mica ±1% 200V DC wkg.
C171	0·002 mfd Polystyrene ±5% 125V DC wkg.
C172	3·5–54 pF Air Spaced Variable.
C173	10 pF Silvered Mica ±1 pF 350V DC wkg.
C174	20 pF Silvered Mica ±5% 350V DC wkg.
C175	20 pF Silvered Mica ±5% 350V DC wkg.
C176	30 pF Silvered Mica ±5% 350V DC wkg.
C177	40 pF Silvered Mica ±5% 350V DC wkg.
C178	50 pF Silvered Mica ±5% 350V DC wkg.
C179	60 pF Silvered Mica ±5% 350V DC wkg.
C180	70 pF Silvered Mica ±5% 350V DC wkg.
C181	90 pF Silvered Mica ±5% 350V DC wkg.
C182	100 pF Silvered Mica ±5% 350V DC wkg.
C183	120 pF Silvered Mica ±1% 350V DC wkg.
C184	40 pF Silvered Mica ±5% 350V DC wkg.
C185	50 pF Silvered Mica ±5% 350V DC wkg.
C186	70 pF Silvered Mica ±5% 350V DC wkg.
C187	90 pF Silvered Mica ±5% 350V DC wkg.
C188	70 pF Silvered Mica ±5% 350V DC wkg.
C189	100 pF Silvered Mica ±5% 350V DC wkg.
C190	130 pF Silvered Mica ±1% 350V DC wkg.
C191	110 pF Silvered Mica ±5% 350V DC wkg.
C192	150 pF Silvered Mica ±1% 350V DC wkg.
R139	560 ohms ±10% ½ watt.

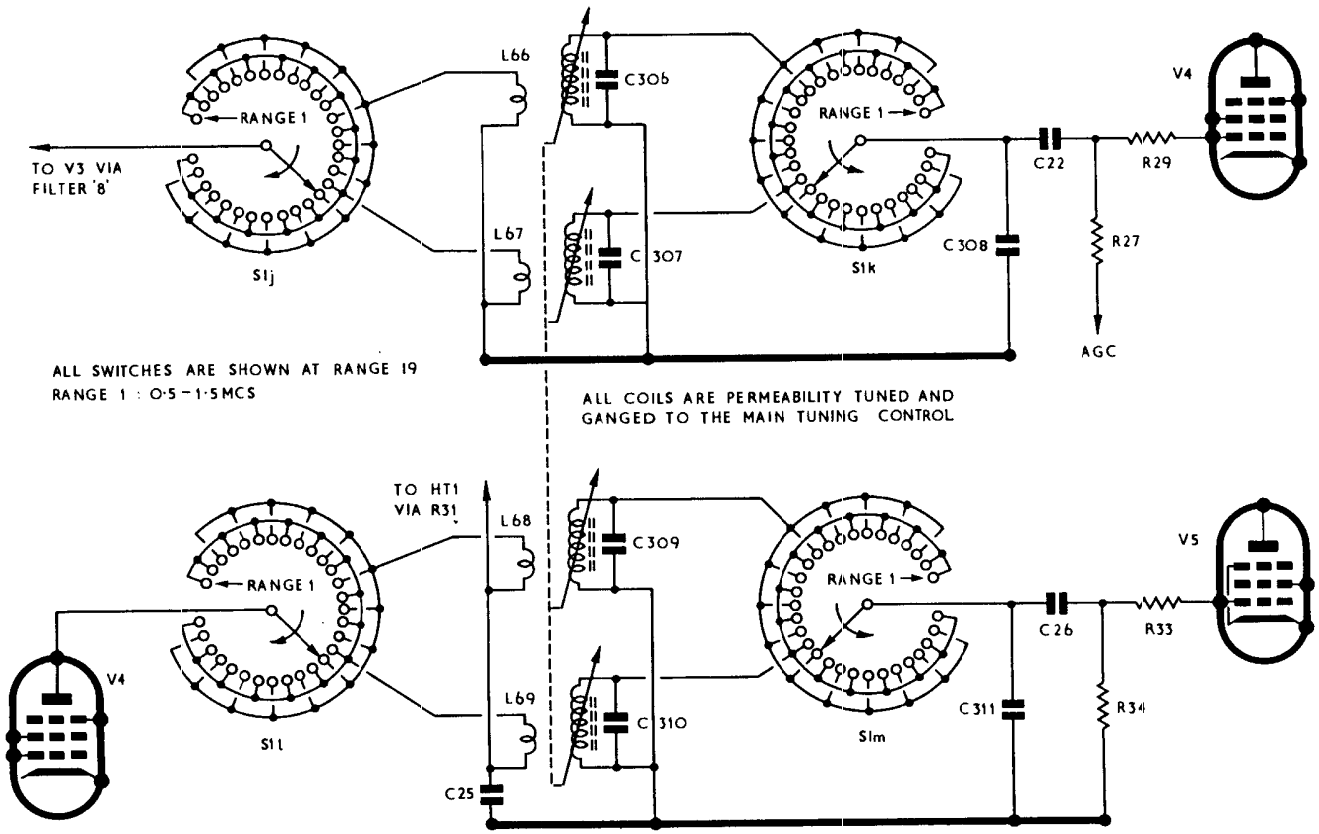
DETACHED CIRCUIT No. 1



COMPONENT VALUES, TOLERANCES AND RATINGS.

C250 25 pF Silvered Mica ±5% 350V DC wkg.
C251 25 pF Silvered Mica ±5% 350V DC wkg.
C252 6 pF Silvered Mica ±1 pF 350V DC wkg.
C253 6 pF Silvered Mica ±1 pF 350V DC wkg.
C254 195 pF Silvered Mica ±1% 350V DC wkg.
C255 225 pF Silvered Mica ±1% 350V DC wkg.
C256 275 pF Silvered Mica ±1% 350V DC wkg.
C257 340 pF Silvered Mica ±1% 350V DC wkg.
C258 425 pF Silvered Mica ±1% 350V DC wkg.
C259 540 pF Silvered Mica ±1% 200V DC wkg.
C260 640 pF Silvered Mica ±1% 200V DC wkg.
C261 500 pF Tubular Paper ±20% 350V DC wkg.
C262 10 pF Silvered Mica ±1 pF 350V DC wkg.
C263–C285 1–22 pF Ceramic Tube Trimmers.
C286 10 pF Silvered Mica ±1 pF 350V DC wkg.
C287 20 pF Silvered Mica ±5% 350V DC wkg.
C288 20 pF Silvered Mica ±5% 350V DC wkg.
C289 30 pF Silvered Mica ±5% 350V DC wkg.
C290 40 pF Silvered Mica ±5% 350V DC wkg.
C291 50 pF Silvered Mica ±5% 350V DC wkg.
C292 60 pF Silvered Mica ±5% 350V DC wkg.
C293 70 pF Silvered Mica ±5% 350V DC wkg.
C294 90 pF Silvered Mica ±5% 350V DC wkg.
C295 100 pF Silvered Mica ±5% 350V DC wkg.
C296 120 pF Silvered Mica ±1% 350V DC wkg.
C297 40 pF Silvered Mica ±5% 350V DC wkg.
C298 50 pF Silvered Mica ±5% 350V DC wkg.
C299 70 pF Silvered Mica ±5% 350V DC wkg.
C300 90 pF Silvered Mica ±5% 350V DC wkg.
C301 70 pF Silvered Mica ±5% 350V DC wkg.
C302 100 pF Silvered Mica ±5% 350V DC wkg.
C303 130 pF Silvered Mica ±1% 350V DC wkg.
C304 110 pF Silvered Mica ±5% 350V DC wkg.
C305 150 pF Silvered Mica ±1% 350V DC wkg.
R144 6,800 ohms ±10% ½ watt.
R145 6,800 ohms ±10% ½ watt.
R146 6,800 ohms ±10% ½ watt.

DETACHED CIRCUIT No. 3



DETACHED CIRCUIT No. 4

COMPONENT VALUES, TOLERANCES AND RATINGS.

C306 275 pF Silvered Mica ±1% 350V DC wkg.
C307 225 pF Silvered Mica ±1% 350V DC wkg.
C308 25 pF Silvered Mica ±10% 350V DC wkg.

C309 275 pF Silvered Mica ±1% 350V DC wkg.
C310 225 pF Silvered Mica ±1% 350V DC wkg.
C311 25 pF Silvered Mica ±10% 350V DC wkg.

DETACHED CIRCUIT No. 5 (SEE BELOW)

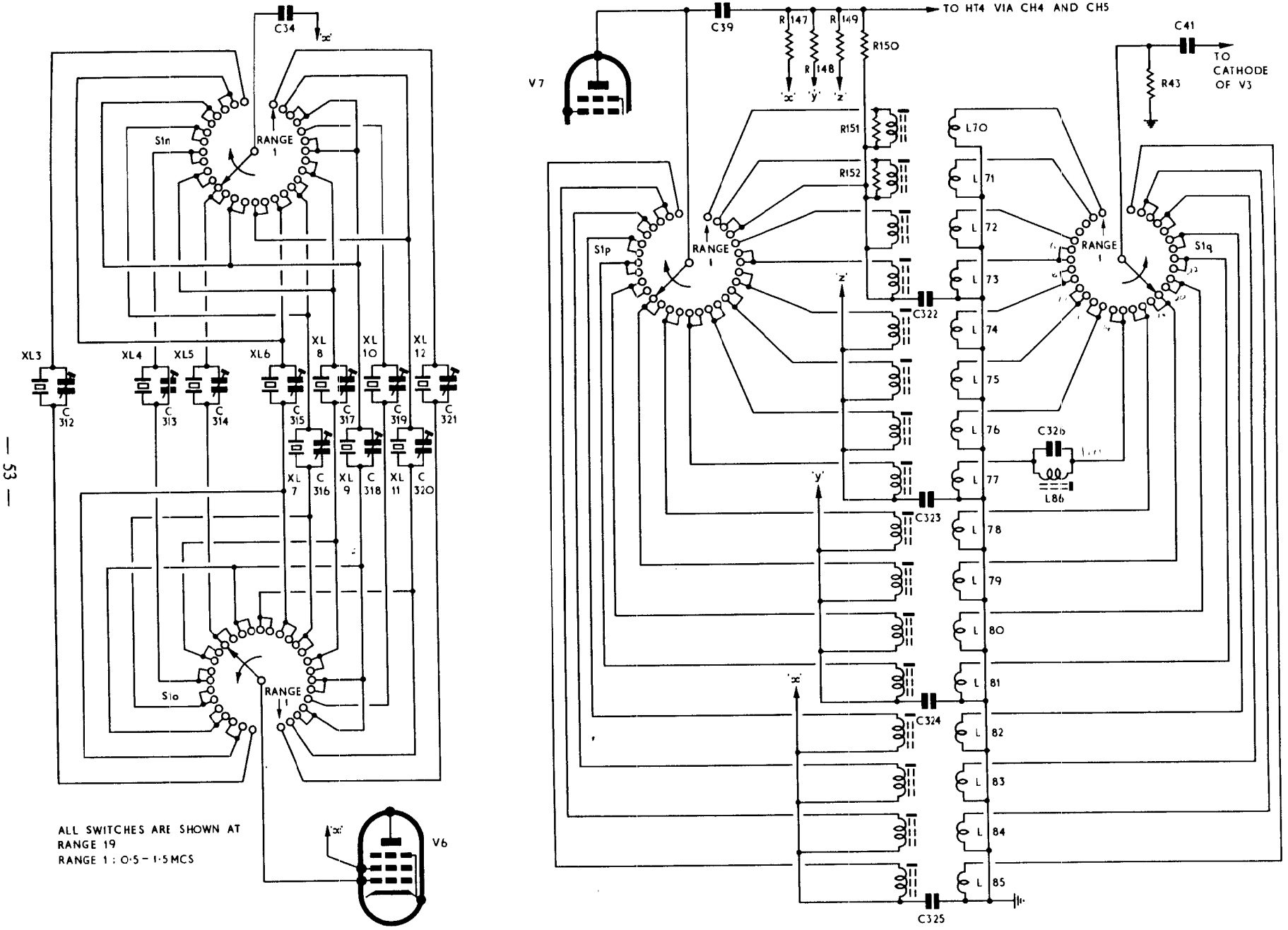
COMPONENT VALUES, TOLERANCES AND RATINGS.

C312 1–22 pF Ceramic Tube Trimmer.
C313 1–22 pF Ceramic Tube Trimmer.
C314 1–22 pF Ceramic Tube Trimmer.
C315 1–22 pF Ceramic Tube Trimmer.
C316 1–22 pF Ceramic Tube Trimmer.
C317 1–22 pF Ceramic Tube Trimmer.
C318 1–22 pF Ceramic Tube Trimmer.
C319 1–22 pF Ceramic Tube Trimmer.
C320 1–22 pF Ceramic Tube Trimmer.
C321 1–22 pF Ceramic Tube Trimmer.

C322 0·01 mfd Tubular Paper ±20% 150V DC wkg.
C323 0·01 mfd Tubular Paper ±20% 150V DC wkg.
C324 0·01 mfd Tubular Paper ±20% 150V DC wkg.
C325 0·01 mfd Tubular Paper ±20% 150V DC wkg.
C326 40 pF Silvered Mica ±10% 350V DC wkg.

R147 2,200 ohms ±10% ½ watt.
R148 2,200 ohms ±10% ½ watt.
R149 2,200 ohms ±10% ½ watt.
R150 2,200 ohms ±10% ½ watt.
R151 10,000 ohms ±10% ½ watt.
R152 10,000 ohms ±10% ½ watt.

XL3 17 Mc/s Inter-Services Style 'D' Crystal Unit.
XL4 13 Mc/s Inter-Services Style 'D' Crystal Unit.
XL5 11 Mc/s Inter-Services Style 'D' Crystal Unit.
XL6 16 Mc/s Inter-Services Style 'D' Crystal Unit.
XL7 14 Mc/s Inter-Services Style 'D' Crystal Unit.
XL8 12 Mc/s Inter-Services Style 'D' Crystal Unit.
XL9 10 Mc/s Inter-Services Style 'D' Crystal Unit.
XL10 8 Mc/s Inter-Services Style 'D' Crystal Unit.
XL11 6 Mc/s Inter-Services Style 'D' Crystal Unit.
XL12 5 Mc/s Inter-Services Style 'D' Crystal Unit.


C34
'x'
S1n
RANGE
1
XL3
XL4
XL5
XL6
XL 8
XL 10
XL 12
C 312
C 313
C 314
C 315
C 317
C 319
C 321
XL 7
C 316
XL 9
C 318
XL 11
C 320
S1o
RANGE
1
ALL SWITCHES ARE SHOWN AT
RANGE 19
RANGE 1 : 0·5 – 1·5 MCS
'x'
V6
V7
C39
R 147
R 148
R 149
R150
'x'
'y'
'z'
TO HT4 VIA CH4 AND CH5
C41
TO
CATHODE
OF V3
R43
R151
R152
L70
L 71
L 72
L 73
L 74
L 75
L 76
L 77
L 78
L 79
L 80
L 81
L 82
L 83
L 84
L 85
S1p
RANGE
1
'z'
C322
'y'
C323
'x'
C324
C325
S1q
RANGE
1
C32b
L86

ADDENDUM

The frequency response of the line output channel has been improved by the addition of decoupling capacitors across the cathode resistors of V18B and V20.

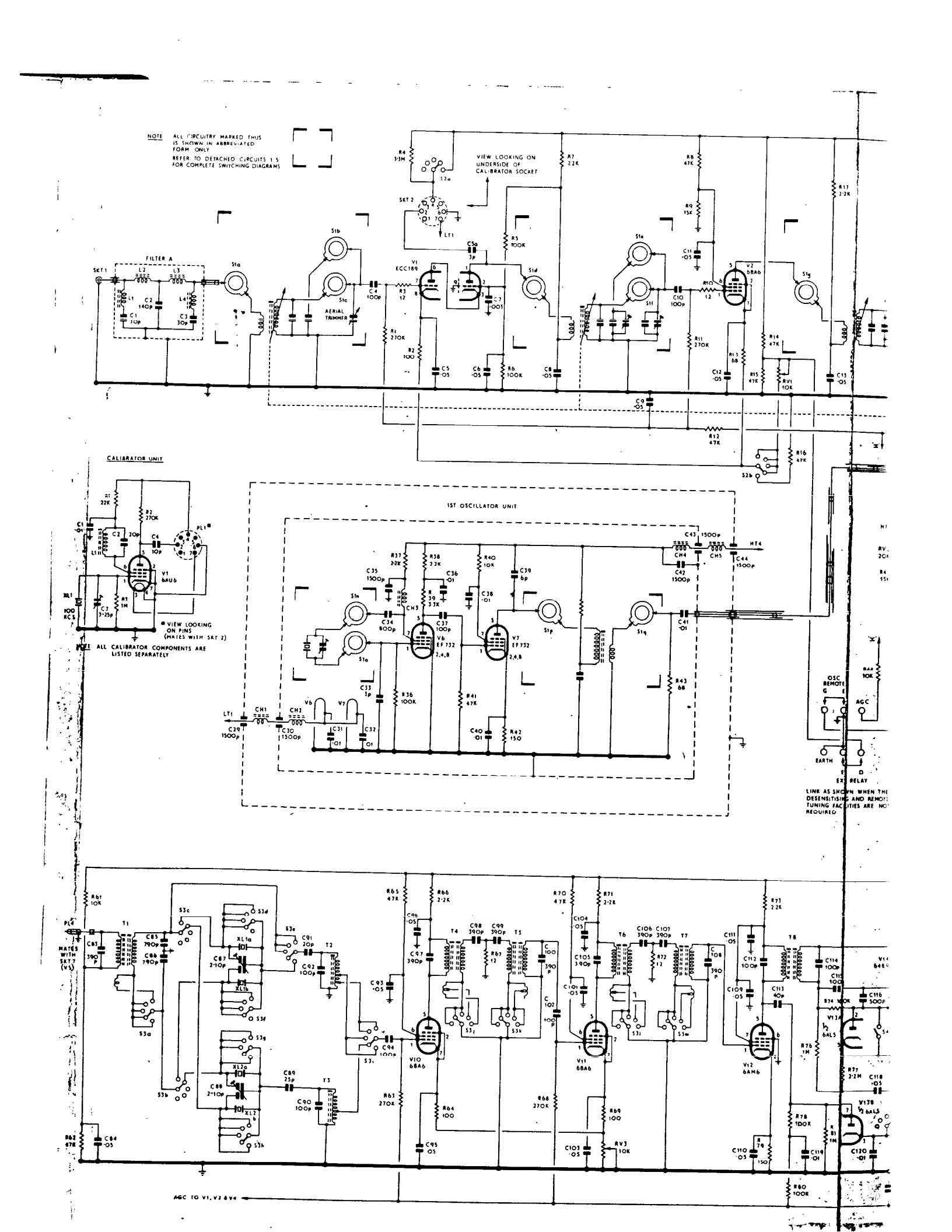
These additional components should be shown on the Main Circuit Diagram as C153a (across R126) and C154a (across R130).

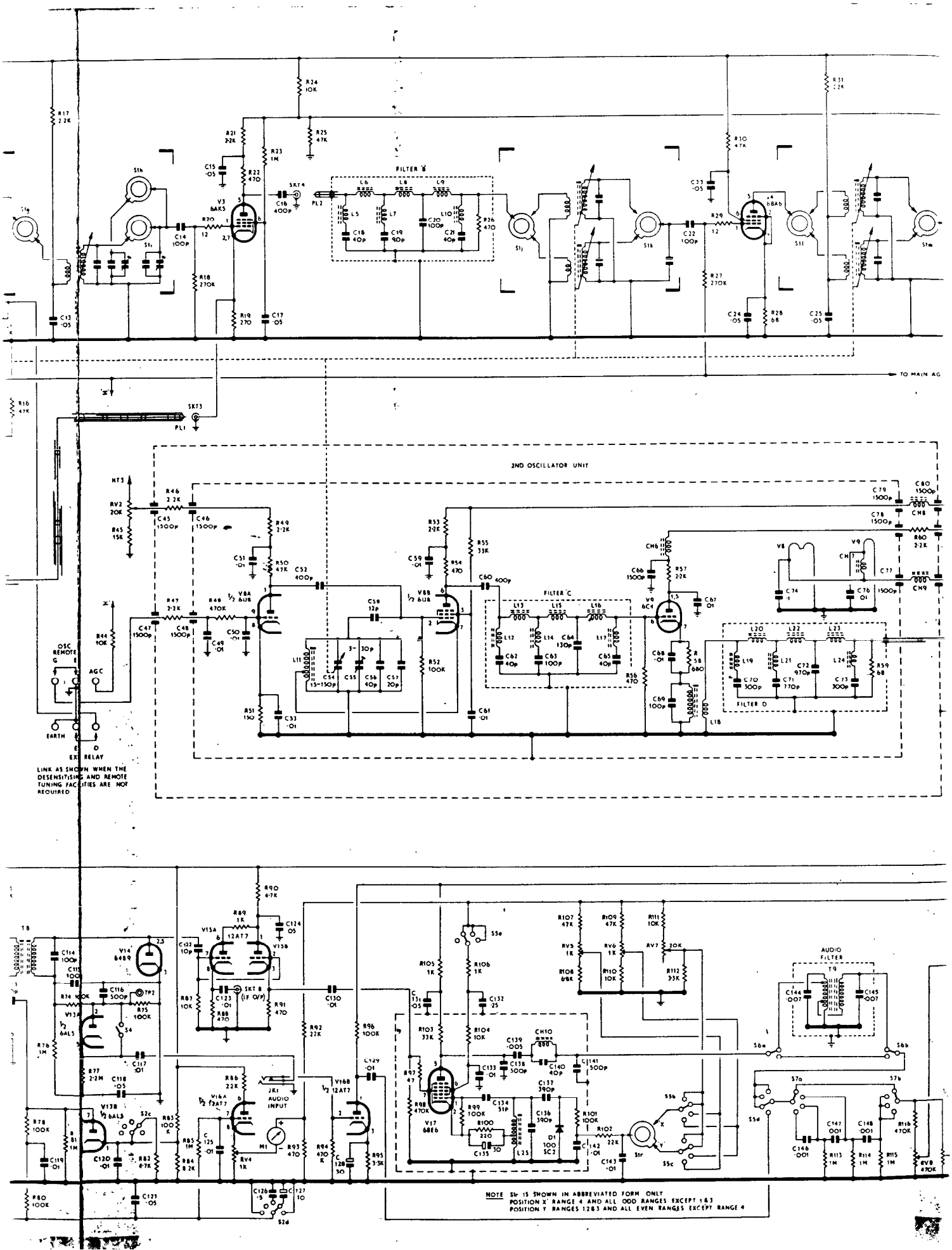
C153a 0·01 mfd Tubular Paper ±20% 150V DC wkg.
C154a 0·1 mfd Disc Ceramic +80% —20% 200V DC wkg.

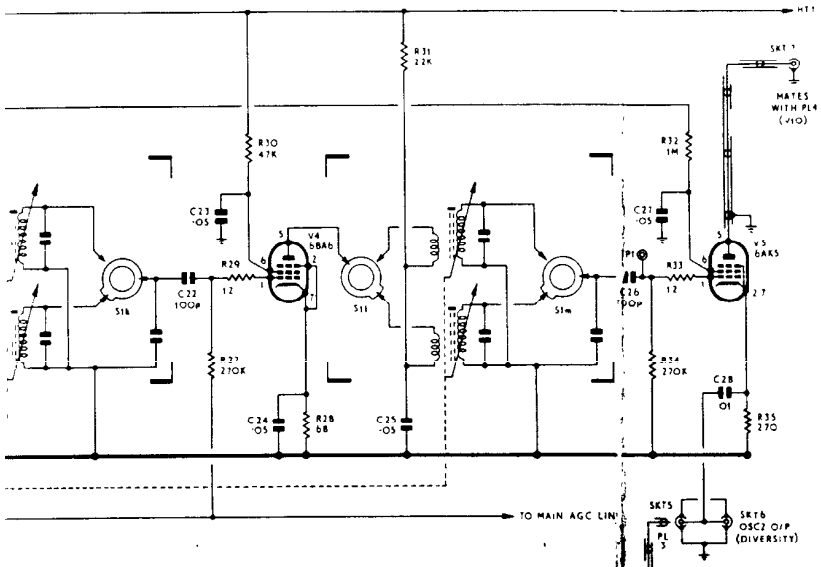
880/2

880/2

V1	ECC 189	CV 5331	1ST RF AMP
V2	6BA6	CV 454	2ND RF AMP
V3	6AK5	CV 850	1ST MIXER
V4	6BA6	CV 454	TUNED IF AMP
V5	6AK5	CV 850	2ND MIXER
V6	5840	CV 3929	XTAL OSC EF732
V7	5840	CV 3929	BUFFER/ISOL EF732
V8	6U8	CV 5065	VFO/REACTANCE
V9	6C4	CV 133	VFO/BUFFER
V10	6BA6	CV 454	500Kc/s 1ST AMP
V11	6BA6	CV 454	" 2ND AMP
V12	6AM6	CV 138	" 3RD AMP
V13	6AL5	CV 140	NL/AGC
V14	6849	CV 469	AM. DET
V15	12AT7	CV 455	IF OUTPUT/DET. CATHODE FOLLOWER
V16	12AT7	CV 455	METER CTL/AF AMP
V17	6BE6	CV 453	CW/SSB DET
V18	12AU7	CV 491	LINE MON AF AMP
V19	6AM5	CV 136	MON OUTPUT
V20	6AM5	CV 136	LINE —"—
V21	OB2	CV 1833	VOLTAGE STAB.
V22	OB2	CV 1833	—"—

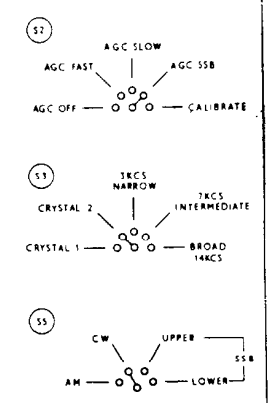

NOTE ALL CIRCUITRY MARKED THUS IS SHOWN IN ABBREVIATED FORM ONLY
REFER TO DETACHED CIRCUITS 1.5 FOR COMPLETE SWITCHING DIAGRAMS
VIEW LOOKING ON UNDERSIDE OF CALIBRATOR SOCKET
FILTER A
AERIAL TRIMMER
CALIBRATOR UNIT
1ST OSCILLATOR UNIT
* VIEW LOOKING ON PINS (MATES WITH SKT 2)
NOTE ALL CALIBRATOR COMPONENTS ARE LISTED SEPARATELY
OSC REMOTE
AGC
EARTH
EX RELAY
LINK AS SHOWN WHEN THE DESENSITISING AND REMOTE TUNING FACILITIES ARE NOT REQUIRED
MATES WITH SKT 7 (V5)
AGC TO V1, V3 & V4


2ND OSCILLATOR UNIT
FILTER 'B'
FILTER 'C'
FILTER 'D'
AUDIO FILTER
TO MAIN AG
OSC REMOTE
AGC
EARTH
RELAY
LINK AS SHOWN WHEN THE DESENSITISING AND REMOTE TUNING FACILITIES ARE NOT REQUIRED
AUDIO INPUT
NOTE S1r IS SHOWN IN ABBREVIATED FORM ONLY
POSITION 'X' RANGE 4 AND ALL ODD RANGES EXCEPT 1&3
POSITION 'Y' RANGES 1283 AND ALL EVEN RANGES EXCEPT RANGE 4

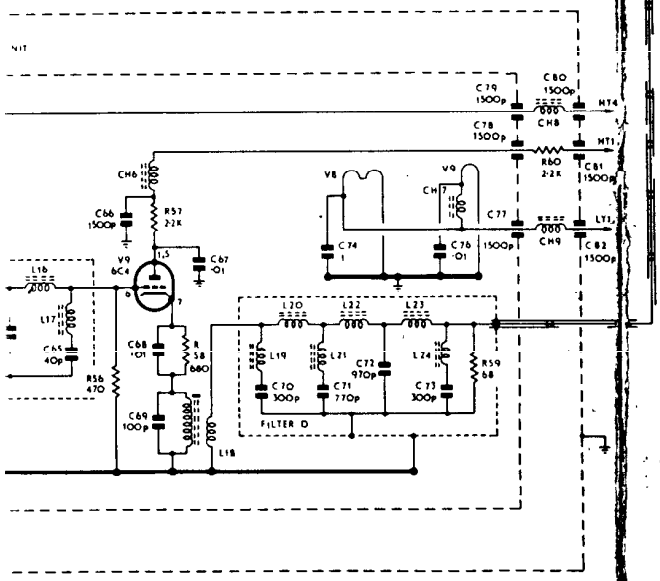


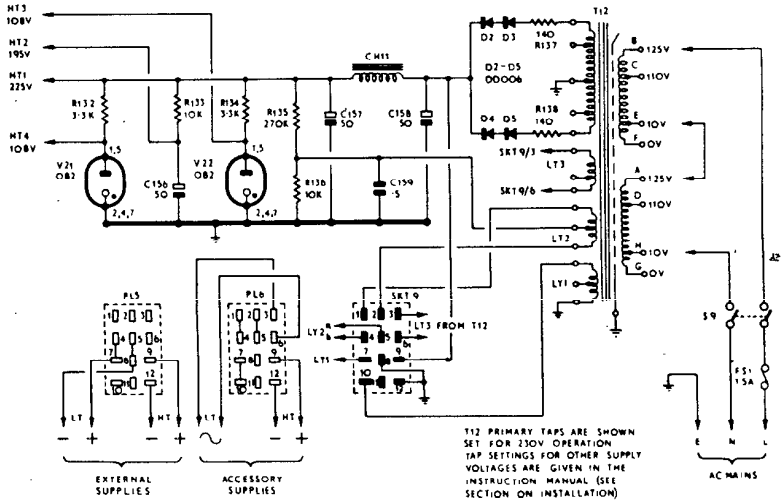
CONTROL FUNCTIONS	
S1	WAVECHANGE
S2	AGC/CALIBRATOR
S3	SELECTIVITY
S4	NOISE LIMITER
S5	SIGNAL MODE
S6	AUDIO FILTER
S7	BASS FILTER
S8	MONITOR SPEAKER
S9	MAINS
RV1	RF GAIN
RV2	FINE TUNING
RV3	IF GAIN
RV4	METER ZERO
RV5	CARRIER INSERTION (USB)
RV6	CARRIER INSERTION (LSB)
RV7	BFO PITCH
RV8	AF GAIN (LINE)
RV9	AF GAIN (MONITOR)
RV10	DIAL LAMP BRILLIANCY

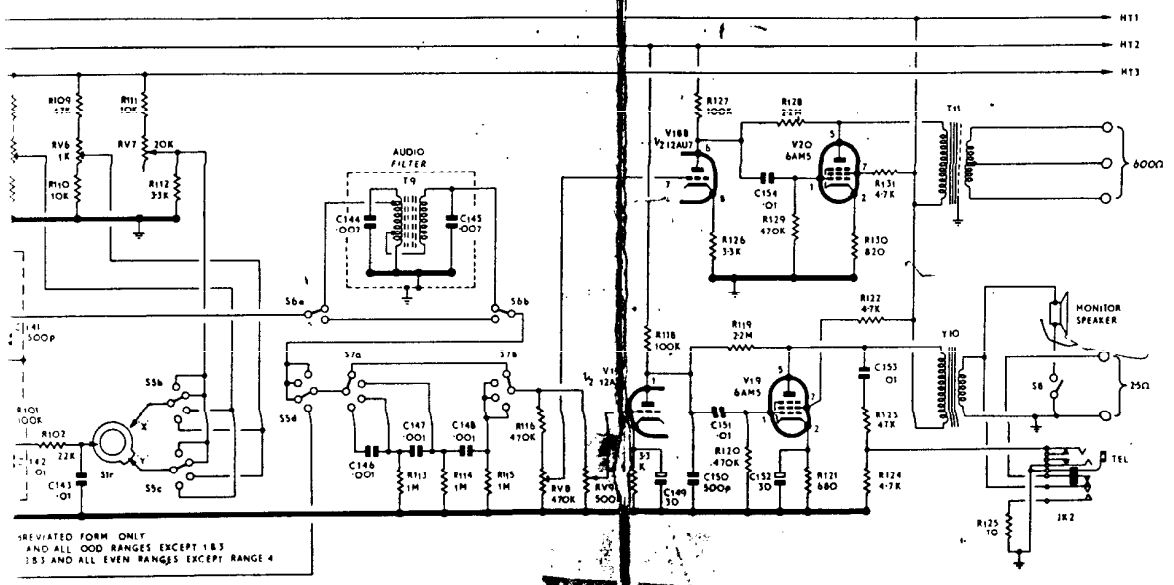
SWITCH POSITIONS

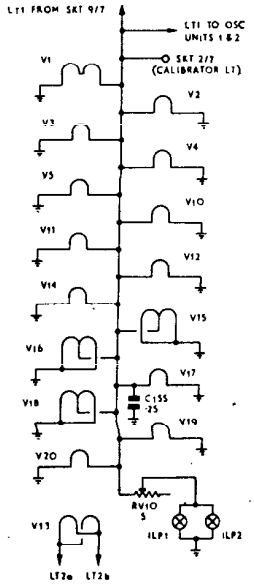


S4 IS SHOWN AT 'ON', S6 AT 'IN' AND S7 AT 'MAXIMUM BASS'. S8 AND S9 ARE SHOWN AT 'OFF'

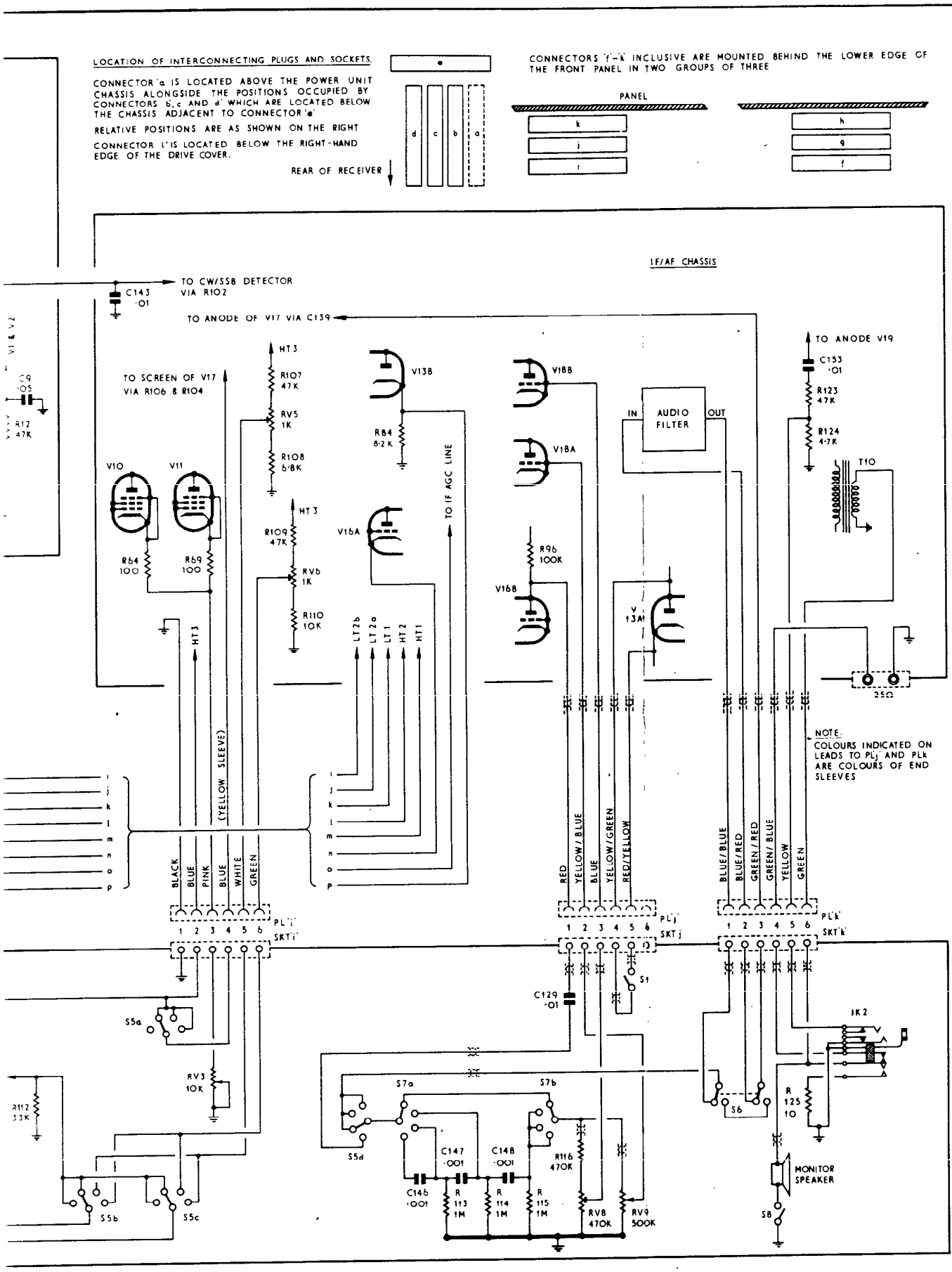




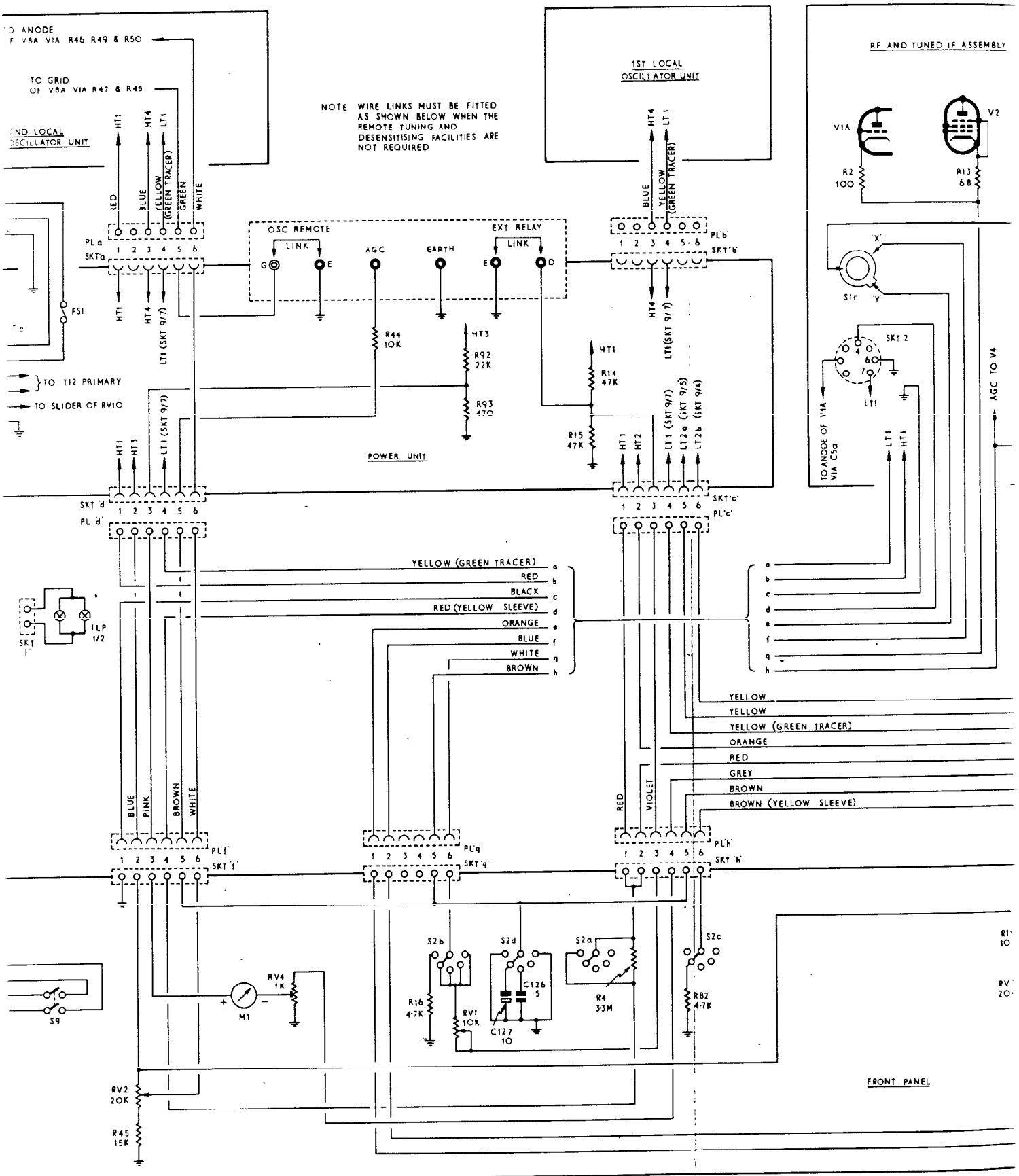




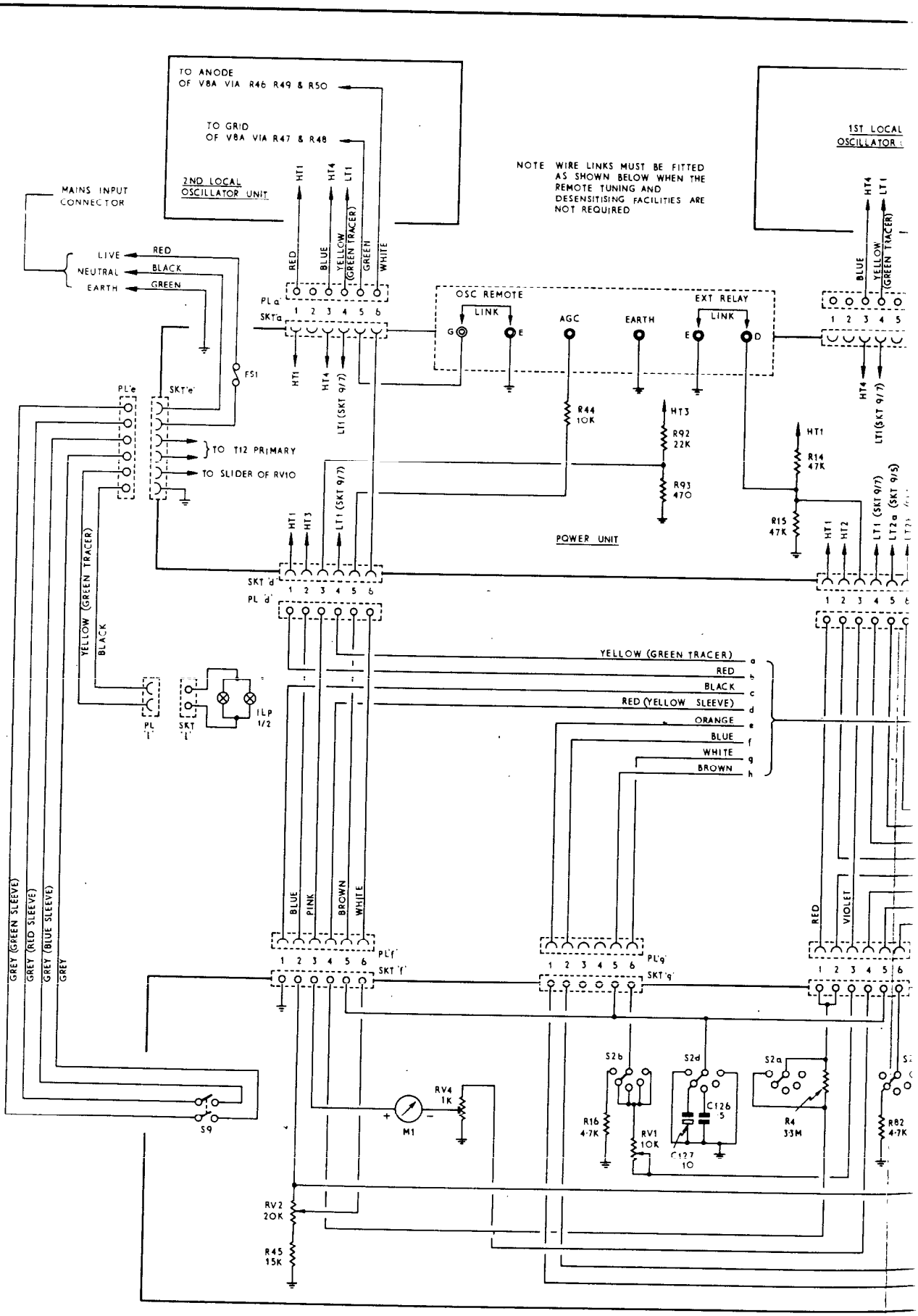
REVIATED FORM ONLY
AND ALL ODD RANGES EXCEPT 1 & 3
3 & 5 AND ALL EVEN RANGES EXCEPT RANGE 4


LOCATION OF INTERCONNECTING PLUGS AND SOCKETS.
CONNECTOR 'a' IS LOCATED ABOVE THE POWER UNIT CHASSIS ALONGSIDE THE POSITIONS OCCUPIED BY CONNECTORS 'b', 'c' AND 'd' WHICH ARE LOCATED BELOW THE CHASSIS ADJACENT TO CONNECTOR 'a'
RELATIVE POSITIONS ARE AS SHOWN ON THE RIGHT
CONNECTOR 'L' IS LOCATED BELOW THE RIGHT-HAND EDGE OF THE DRIVE COVER.
REAR OF RECEIVER
CONNECTORS 'f'–'k' INCLUSIVE ARE MOUNTED BEHIND THE LOWER EDGE OF THE FRONT PANEL IN TWO GROUPS OF THREE
PANEL
IF/AF CHASSIS
TO CW/SSB DETECTOR VIA R102
C143 ·01
TO ANODE OF V17 VIA C139
TO SCREEN OF V17 VIA R106 & R104
HT 3
R107 47K
RV5 1K
R108 6·8K
V10
V11
R64 100
R69 100
R109 47K
RV6 1K
R110 10K
V13B
R84 8·2K
V16A
TO IF AGC LINE
V18B
V18A
V16B
R96 100K
V13A
IN
AUDIO FILTER
OUT
TO ANODE V19
C153 ·01
R123 47K
R124 4·7K
T10
25Ω
LT2b
LT2a
LT1
HT2
HT1
(YELLOW SLEEVE)
BLACK
BLUE
PINK
BLUE
WHITE
GREEN
RED
YELLOW/BLUE
BLUE
YELLOW/GREEN
RED/YELLOW
BLUE/BLUE
BLUE/RED
GREEN/RED
GREEN/BLUE
YELLOW
GREEN
PLi
SKTi
PLj
SKTj
PLk
SKTk
NOTE.
COLOURS INDICATED ON LEADS TO PLj AND PLk ARE COLOURS OF END SLEEVES
S1
C129 ·01
S5a
RV3 10K
R112 33K
S5b
S5c
S5d
S7a
S7b
C146 ·001
C147 ·001
C148 ·001
R 113 1M
R 114 1M
R 115 1M
R116 470K
RV8 470K
RV9 500K
S6
JK2
R 125 10
MONITOR SPEAKER
S8

MODEL 880/2.



CHASSIS INTERCONNECTIONS –


TO ANODE OF V8A VIA R46 R49 & R50
TO GRID OF V8A VIA R47 & R48
2ND LOCAL OSCILLATOR UNIT
MAINS INPUT CONNECTOR
LIVE
NEUTRAL
EARTH
RED
BLACK
GREEN
NOTE WIRE LINKS MUST BE FITTED AS SHOWN BELOW WHEN THE REMOTE TUNING AND DESENSITISING FACILITIES ARE NOT REQUIRED
OSC REMOTE
LINK
AGC
EARTH
EXT RELAY
LINK
1ST LOCAL OSCILLATOR
TO T12 PRIMARY
TO SLIDER OF RV10
POWER UNIT
R44 10K
R92 22K
R93 470
R14 47K
R15 47K
FS1
S9
M1
RV4 1K
RV1 10K
RV2 20K
R45 15K
R16 4·7K
R4 33M
R82 4·7K
C126 5
C127 10
S2b
S2d
S2a
YELLOW (GREEN TRACER)
RED
BLACK
RED (YELLOW SLEEVE)
ORANGE
BLUE
WHITE
BROWN
GREY (GREEN SLEEVE)
GREY (RED SLEEVE)
GREY (BLUE SLEEVE)
GREY
VIOLET
PINK

ENJOY YOUR BOOKS

PLEASE VISIT OUR STORE FOR EVEN MORE GREAT STUFF!

WWW.EVERYTHING4LESSSTORE.COM

THANKS AGAIN AND PLEASE TAKE THE TIME TO VISIT OUR STORE.

ATTENTION! EVERYTHING ON SALE NOW!!

HOT SALE!