

RESTRICTED
RECEPTION SET R5232

DATA SUMMARY

NOTE: - This equipment was previously catalogued as "Receiver Dual Diversity ISB AWA Type C95160".

1. This equipment is a Signal Project store designed to receive two independent sideband channels, each 6 kc/s wide.
2. It consists of two standard racks RF and AF respectively, each mounting a number of sub-units indicated in table 1.

3. Frequency:

(a) RF range: 1.6 to 30 Mc/s in four ranges:-

- 1.6 to 3.2 Mc/s
- 3.2 to 6.8 Mc/s
- 6.8 to 14 Mc/s
- 14 to 30 Mc/s

(b) IF passbands: Output 1st mixer: 2.5 to 3.5 Mc/s
" 2nd " : 7.2 to 7.3 Mc/s
" 3rd " : 990 to 1,020 kc/s
" 4th " : 100 kc/s carrier and sidebands

4. Height 7 ft 2 in, Width 21 in, Depth 12 in each rack; Weight 470 lb.

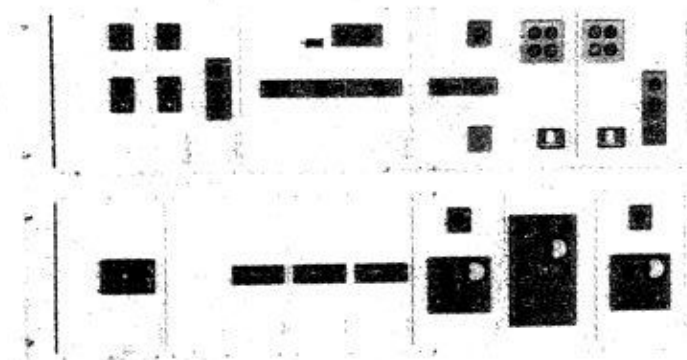


TABLE 1

RF Back Type G95162	Qty	AF Back Type G95163	Qty
Unit		Unit	
Filter Unit type 4Q97161	1	Filter Unit 2Q97161	1
ISB Carrier Tuning Monitor - type A95178	1	containing:-	
Noise Generator type R95172	1	Crystal filter boxes 3Q85890	2
Rejection Filter type Q95179	1	" " " 5Q85190	2
RF Amplifier type J95166	2	" " " 6Q85190	2
1 Mc/s Oscillator type J95165	1	" " " 7Q85190	
containing:-		Detector Unit and Audio	2
Crystal Oscillator type 95177	1	Amplifier G95169	1
Frequency Changer type 95167	1	Monitor G95168	3
AFC Unit P95170	1	Power Supplies 1H95164	
100 kc/s Amplifier and AGC unit - G95171	2	Voltage Regulator STABILAC	1
Filter Unit 5Q97161	1	3SR1000	
containing:-			
Crystal filter boxes 1Q85190	2		

5. Performance:

(a) Sensitivity: One (1) uV input for 16 dBm output.

(b) Selectivity: The passband is flat within ± 1.5 dB from 100 c/s to 6 kc/s (3.5 kc/s if 3.5 kc/s filters are used). Frequencies greater than 500 c/s outside the passband are down to at least 60 dB.

5. Performance (contd.)

- (c) Noise factor: Does not exceed 6 dB up to 14 Mc/s and does not exceed 8 dB up to 30 Mc/s.
- (d) AFC characteristics: Frequency drift of ± 3 kc/s can be accommodated, the residual error being reduced to substantially zero.
- (e) AGC characteristics: A change of +80 dB on an input of 1 μ V does not give more than 5 dB increase in output.
- (f) Impedances: Input 75 Ω unbalanced; Output 600 Ω balanced.
- (g) Second harmonic distortion does not exceed 0.5% of the fundamental from 200 to 6,000 c/s. Third harmonic distortion does not exceed 0.3% of the fundamental from 200 to 6,000 c/s.

6. Power Requirements:

Input after regulation is 200 to 260 V, single phase, 50 c/s. The regulator gives required output between 200 to 260 V within accuracy of 1% for variations of input voltage from 40 V below to 20 V above nominal input voltage and all variations of load from zero to full load over range of 45 to 55 c/s. Power consumption 450 W.

7. Values:

Value	Qty	Value	Qty	Value	Qty
AV36A	1	6BB6	4	5U4G	3
Z77	6	6AL5	4	12AT7	2
6AV6	21	A2087	1	OC3/VR105 (CV686)	2
6AE8	12	6BV7	2	807	1
6AQ5	7	6X4	2	1CP1	1
6BA6	10	5AS4	1	(CV2302)	
(CV138)		(CV453)		(CV575)	
(CV2524)		(CV283)		(CV455)	
(CV1862)		(CV493)			
(CV454)					

8. Cat No: Z1/AWA/C95160

9. Associated Publications:

7610-010-1583 Instruction Book No 95160R, RECEIVER DUAL DIVERSITY ISB,
AWA Type C95160
Complete Equipment Schedule No 1788/1
RAEME Maintenance Scale AUST/TO/381.

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