

**FINE TRIMMER VARIABLE EQUALISER UNIT EQ5/519**

### Introduction

The EQ5/519 provides fine control of gain and of correction for chrominance/luminance gain and delay inequalities on television circuits. It is constructed on a CH1/12A chassis fitted with a modified rear bracket to enable msa plugs to be used.

### General Specification

Basic Loss (at l.f.)	5.9 dB $\pm$ 0.1 dB
Input and Output Impedances	75 ohms
<i>Available Correction</i> (in conjunction with a 6 dB amplifier)	
L.F. Gain	0 $\pm$ 1dB in 0.2 dB steps
Gain at 4.43 MHz, w.r.t. 10 kHz	0 $\pm$ 10% in 2% steps
Delay at 4.43 MHz, w.r.t. 10 kHz	0 $\pm$ 15 ns in 15 ns steps

### General Description

The EQ5/519 consists of 5 sections:—

1. A constant-resistance attenuator with a centre-position loss of 1 dB. Adjustment is by means

of SC which provides 0.2 dB steps over a range of  $\pm$  1 dB.

2. A constant-resistance Bode equaliser for correction of chrominance/luminance gain inequalities. Correction is switched by SB in 2% steps and is zero at the centre position of the switch.
3. A constant-resistance phase equaliser for correction of chrominance/luminance delay inequalities. Three degrees of correction, -15ns, zero and +15ns, are provided by SA.
4. A printed circuit for an equaliser to correct for input tie line losses<sup>2</sup>. This equaliser may have up to 3 sections with a total basic l.f. loss not exceeding 3 dB.
5. An input pad to bring the total basic loss of section 4 to 3.1 dB.

The EQ5/519 is normally supplied with the input pad giving a 3.1-dB loss and with the equaliser of section 4 unequipped but with straps across Ro. The combined l.f. loss of sections 1, 2 and 3 with the switches in the central positions is 2.8 dB.

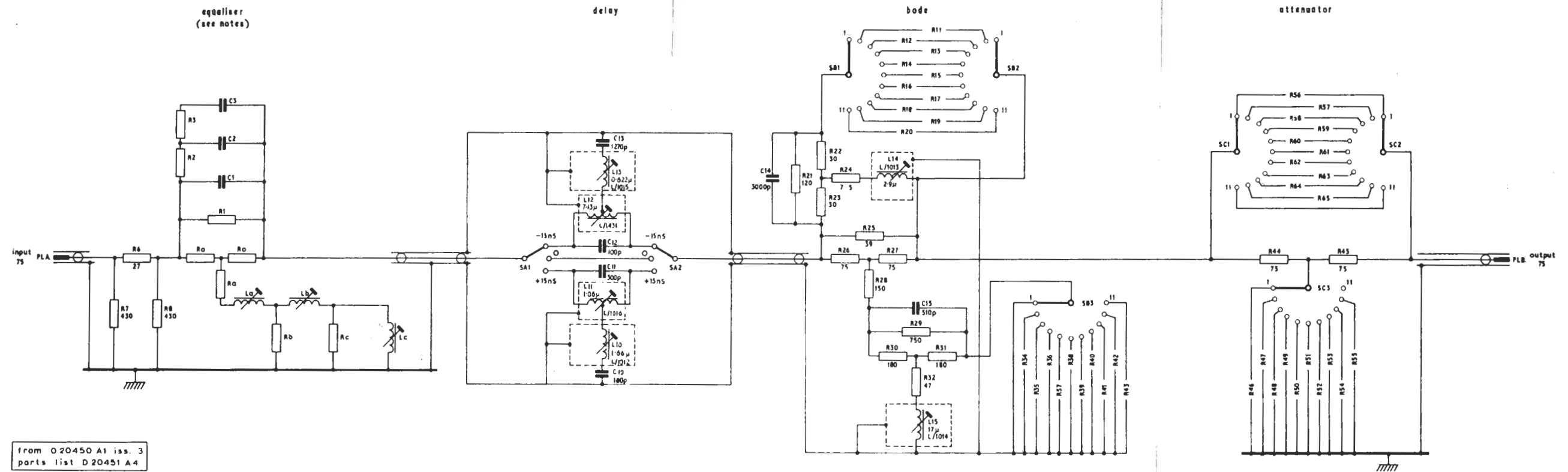
### Maintenance

Maintenance is not required.

### Reference

1. Designs Department Specification No. 6.140(68)
2. Designs Department Technical Memorandum No. 8.255(68)

AIB 3/71



from O20450 A1 iss. 3  
parts list D20451 A4

Note  
equaliser values to be determined  
on installation in accordance with  
drawings D21131 A4, D21132 A4

EQ5/519/11

SWITCH POSN	CCT REF	A VALUE	B VALUE	ACTUAL VALUE COL A & B IN PARALLEL	SWITCH SB ENGRAVING	SWITCH POSN	CCT REF	A VALUE	B VALUE	ACTUAL VALUE COL A & B IN PARALLEL
1		NC			-10%	1		LINK		
2	R11	240			-0%	2	R34	24		
3	R12	110			-0%	3	R35	51		
4	R13	68			-0%	4	R36	62		
5	R14	47			-0%	5	R37	120		
6	R15	33	560	5%	0%	6	R38	180		
7	R16	22			+2%	7	R39	270	4.3k	250
8	R17	10	820	15%	0%	8	R40	360		
9	R18	10	240	9.6	+6%	9	R41	620	11k	500
10	R19	10	10	5.0	+6%	10	R42	1.1k		
11	R20	1.0			+10%	11	R43	5k		

SWITCH POSN	CCT REF	A VALUE	B VALUE	ACTUAL VALUE COL A & B IN PARALLEL	SWITCH SC ENGRAVING	SWITCH POSN	CCT REF	A VALUE	B VALUE	ACTUAL VALUE COL A & B IN PARALLEL
1	R46	300			-1.0dB	1	R56	39	39	19.5
2	R47	330			-0%	2	R57	33	36	17.3
3	R48	750	750	375	-0%	3	R58	15		
4	R49	430			-0%	4	R59	17		
5	R50	510			-2%	5	R60	11		
6	R51	620			0%	6	R61	18	18	9.0
7	R52	1.3k	2k	781	+2%	7	R62	12	18	7.2
8	R53	1.1k			+4%	8	R63	11	11	5.5
9	R54	1.6k			+6%	9	R64	3.6		
10	R55	2.3k			+8%	10	R65	1.8		
11		NC			+1.0%	11		LINK		

Fig. 1 Circuit of the Variable Equaliser EQ5/519