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I put a lot of time into producing these files which is why you are met with this page when you open the file.

In order to generate this file, I need to scan the pages, split the double pages and remove any edge marks such as punch holes, clean up the pages, set the relevant pages to be all the same size and alignment. I then run Omnipage (OCR) to generate the searchable text and then generate the pdf file.

Hopefully after all that, I end up with a presentable file. If you find missing pages, pages in the wrong order, anything else wrong with the file or simply want to make a comment, please drop me a line (see above).

It is my hope that you find the file of use to you personally – I know that I would have liked to have found some of these files years ago – they would have saved me a lot of time !

Colin Hinson

In the village of Blunham, Bedfordshire.

# TRAINEE NOTE

HL 13

(TX T15149)

&

HL 14

(RX T 15150)

## PART II

This training note is issued for the guidance of trainees during training at R.A.F. Locking. No amendments will be issued in respect of modifications introduced to the equipment referred to in this note.

This note is not intended as a substitute for the relevant Air Publication and must not be regarded as authority for modifications, servicing procedures, etc.

August, 1963

TRAINEE NOTE PART II

TRANSMITTER (VFT) TYPE 15149

(HL 13)

AND

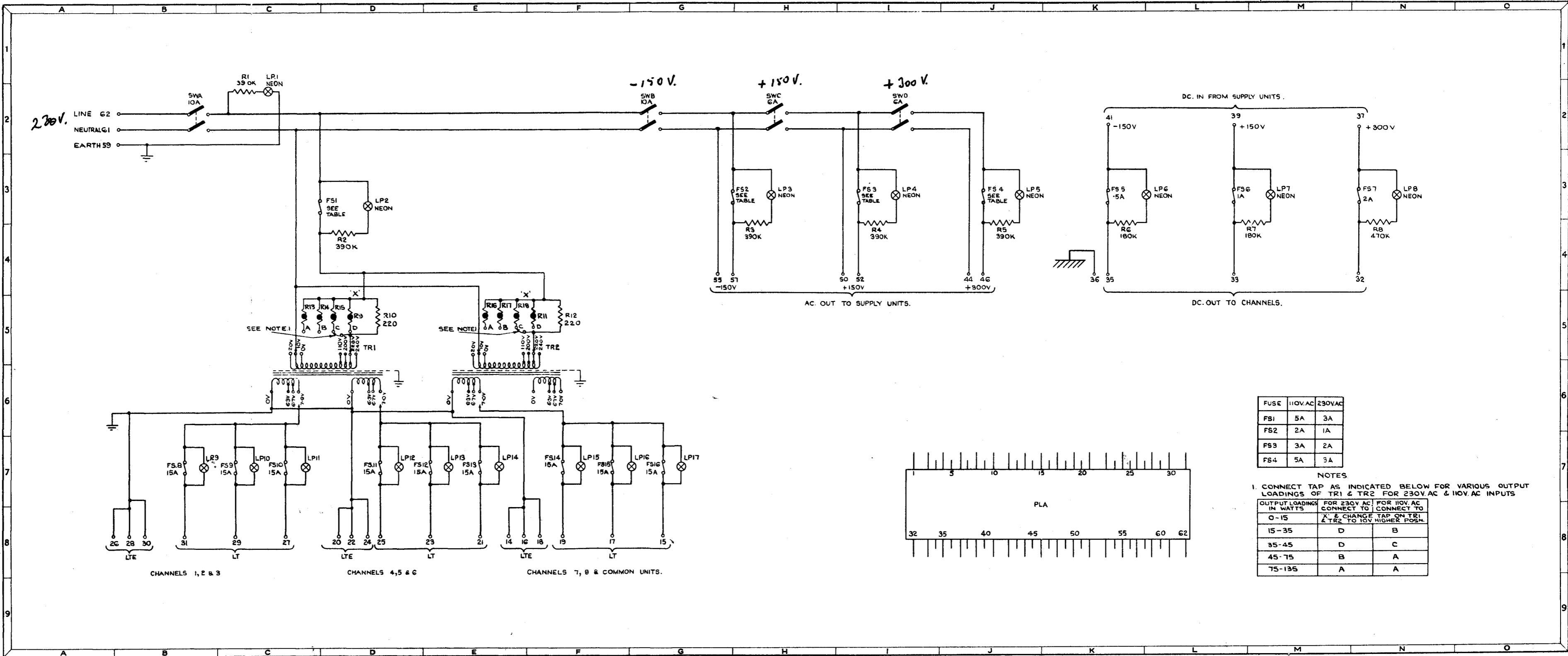
RECEIVER (VFT) TYPE 15150

(HL 14)

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COMPONENT LOCATION TABLE.									
RESIS					MISCELLANEOUS.				
REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC
R1	2C	FS1	3D	FS13	7E	LP1	3M	PLA	7J
R2	4D	FS2	3H	FS14	7F	LP2	3N		
R3	3H	FS3	3I	FS15	7F	LP3	7B	SWA	2B
R4	3I	FS4	3J	FS16	7G	LP4	7C	SWB	2C
R5	3J	FS5	3K			LP5	7D	SWC	2H
R6	3K	FS6	3L			LP6	7D	SWD	2I
R7	3L	FS7	3M	LP7	2C	LP13	7E		
R8	3M	FS8	7B	LP2	3D	LP14	7E		
R9	5D	FS9	7C	LP3	3H	LP15	7F	TR1	5D
R10	5D	FS10	7C	LP4	3I	LP16	7G	TR2	5F
R11	5F	FS11	7D	LP5	3J	LP17	7G		
R12	5F	FS12	7E	LP6	3L				



FUSE	110V AC	230V AC
FS1	5A	3A
FS2	2A	1A
FS3	3A	2A
FS4	5A	3A

NOTES

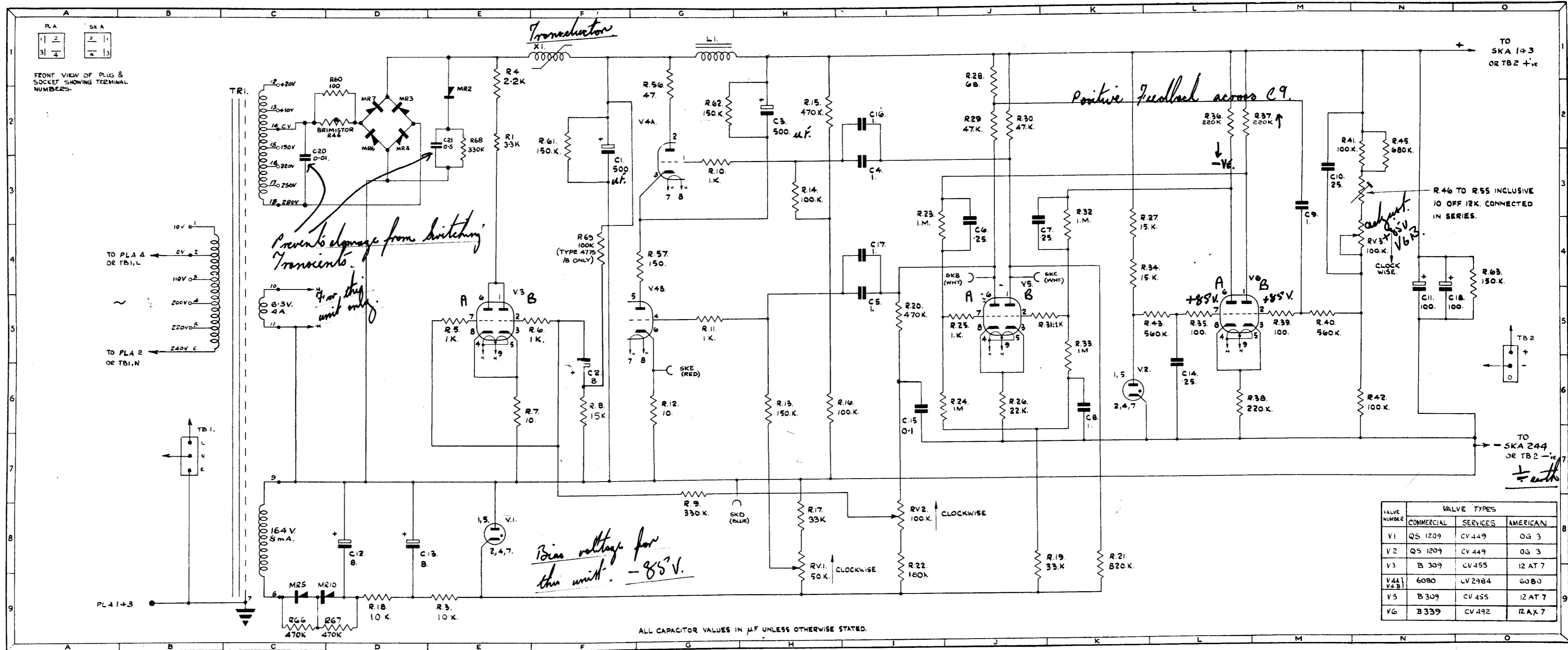
1. CONNECT TAP AS INDICATED BELOW FOR VARIOUS OUTPUT LOADINGS OF TR1 & TR2 FOR 230V AC & 110V AC INPUTS

OUTPUT LOADINGS IN WATTS	FOR 230V AC CONNECT TO	FOR 110V AC CONNECT TO
0-15	X' & CHANGE TAP ON TR1 & TR2 TO 110V HIGHER POSN.	
15-35	D	B
35-45	D	C
45-75	B	A
75-135	A	A

CIRCUIT DIAGRAM  
DISTRIBUTION UNIT  
WZ.20502/D Sh.1 Iss.3

FRONT VIEW OF PLUG & SOCKET SHOWING TERMINAL NUMBERS.

COMPONENT LOCATION TABLE.										
RESISTORS					CAPACITORS			MISCELLANEOUS		
R1	E2	R23	I3	R44	E1	C1	F2		MR1	SKB
R3	E9	R24	I6	R45	N2	C2	F5		MR2	E2 SKC
R4	E1	R25	J5	R46	N3	C3	H2		MR3	D2 SKD
R5	E5	R26	J6	R55	N4	C4	I3		MR4	D2 SKE
R6	F8	R27	K4	RV1	H9	C5	I4		MR5	C9
R7	E6	R28	J1	RV2	I8	C6	J3		MR6	D2
R8	F6	R29	J2	RV3	N4	C7	J3		MR7	D2
R9	G7	R30	J2	R56	G1	C8	K6		MR8	
R10	G2	R31	K5	R57	G4	C9	M3		MR9	
R11	G5	R32	K3	R58		C10	M3		V.1	E8
R12	G6	R33	K5	R59		C11	N5		V.2	K6
R13	H6	R34	K4	R60	D2	C12	D8		V.3	E5
R14	H3	R35	L5	R61	F2	C13	D8		V.4A	G3
R15	H2	R36	L2	R62	G2	C14	L6		V.4B	G5
R16	H6	R37	L2	R63	O4	C15	I6		V.5	J5
R17	H8	R38	L6	R64		C16	I2		V.6	L5
R18	D9	R39	M5	R65		C17	I4		TR1	
R19	J9	R40	M5	R66	C9	C18	N5		X1	F1
R20	I5	R41	N2	R67	D9	C19			L1	G1
R21	K9	R42	N6	R68	E2	C20	C2		MR10	D9
R22	I9	R43	L5	R69	F4	C21	E2			

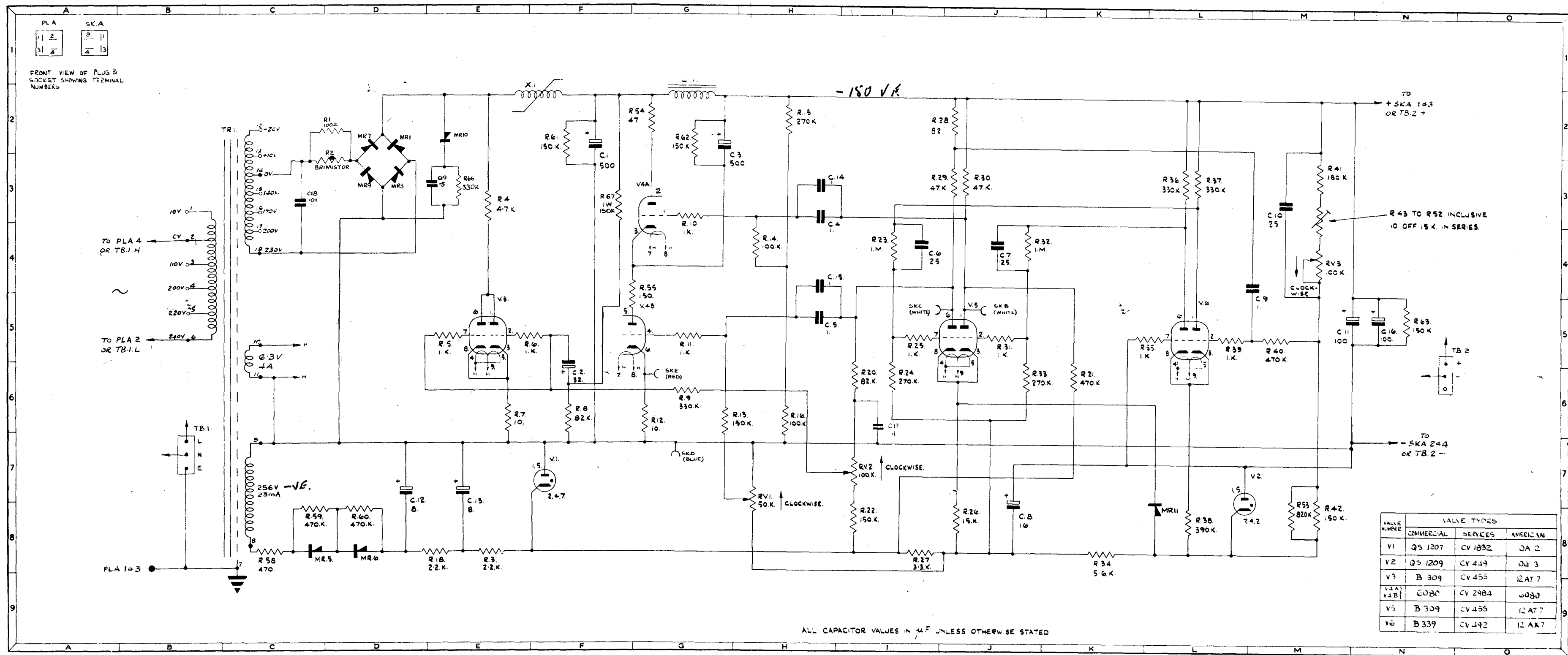


VALVE NUMBER	VALVE TYPES		
	COMMERCIAL	SERVICES	AMERICAN
V1	QS 1209	CV 449	OG 3
V2	QS 1209	CV 449	OG 3
V3	B 309	CV 455	12 AT 7
V4A V4B	6080	LV 2984	6080
V5	B 309	CV 455	12 AT 7
V6	B 339	CV 492	12 AX 7

CIRCUIT DIAGRAM, IPOWER UNIT TYPE 4775/B (+300V)  
WZ. 18:720/D Sh. 1 Iss. 6

FRONT VIEW OF PLUG & SOCKET SHOWING TERMINAL NUMBERS

COMPONENT LOCATION TABLE.											
RESISTORS				CAPACITORS				MISCELLANEOUS			
ITEM	LOC	ITEM	LOC	ITEM	LOC	ITEM	LOC	ITEM	LOC	ITEM	LOC
R.1	D1	R.23	I.4	R.45	M.3	C.1	F.2	MR1	D2	SKB	5J
R.2	D3	R.24	I.6	R.46	M.5	C.2	F.6	MR2		SKC	5I
R.3	E.8	R.25	I.5	R.47	M.3	C.3	G.2	MR3	D3	SKD	1G
R.4	E.3	R.26	J.8	R.48	M.3	C.4	H.3	MR4		SKE	6G
R.5	E.5	R.27	I.8	R.49	M.3	C.5	H.5	MR5	C8	MR11	L8
R.6	E.5	R.28	J.2	R.50	M.3	C.6	I.4	MR6	D.8		
R.7	E.6	R.29	J.3	R.51	M.3	C.7	J.4	MR7	D.2		
R.8	F.6	R.30	J.3	R.52	M.3	C.8	J.8	MR8			
R.9	G.6	R.31	J.5	R.53	M.8	C.9	M.4	MR9	D.3		
R.10	E.6	R.32	J.4	R.54	G.2	C.10	M.3	MR10	E.2		
R.11	G.5	R.33	J.6	R.55	G.5	C.11	N.5	V.1	F.7		
R.12	G.6	R.34	K.8	R.56		C.12	D.7	V.2	L.7		
R.13	G.6	R.35	K.5	R.57		C.13	E.7	V.3	E.5		
R.14	H.4	R.36	L.3	R.58	C.8	C.14	H.3	V.4A	G.3		
R.15	H.2	R.37	L.3	R.59	C.8	C.15	H.4	V.4B	G.5		
R.16	H.6	R.38	L.8	R.60	D.8	C.16	N.5	V.5	J.5		
R.17		R.39	L.5	R.61	F.2	C.17	I.6	V.6	L.5		
R.18	E.8	R.40	M.5	R.62	G.2	C.18	C.3	TR1			
R.19		R.41	M.3	R.63		C.19	E.5	X.1	F.2		
R.20	I.6	R.42	M.8	R.64	H.7			L.1	G.2		
R.21	K.6	R.43	M.3	R.65	I.7						
R.22	I.6	R.44	M.3	R.66	E.3	R.67	F.4				
R.24		R.65	E.4	R.66	E.3	R.67	F.4				

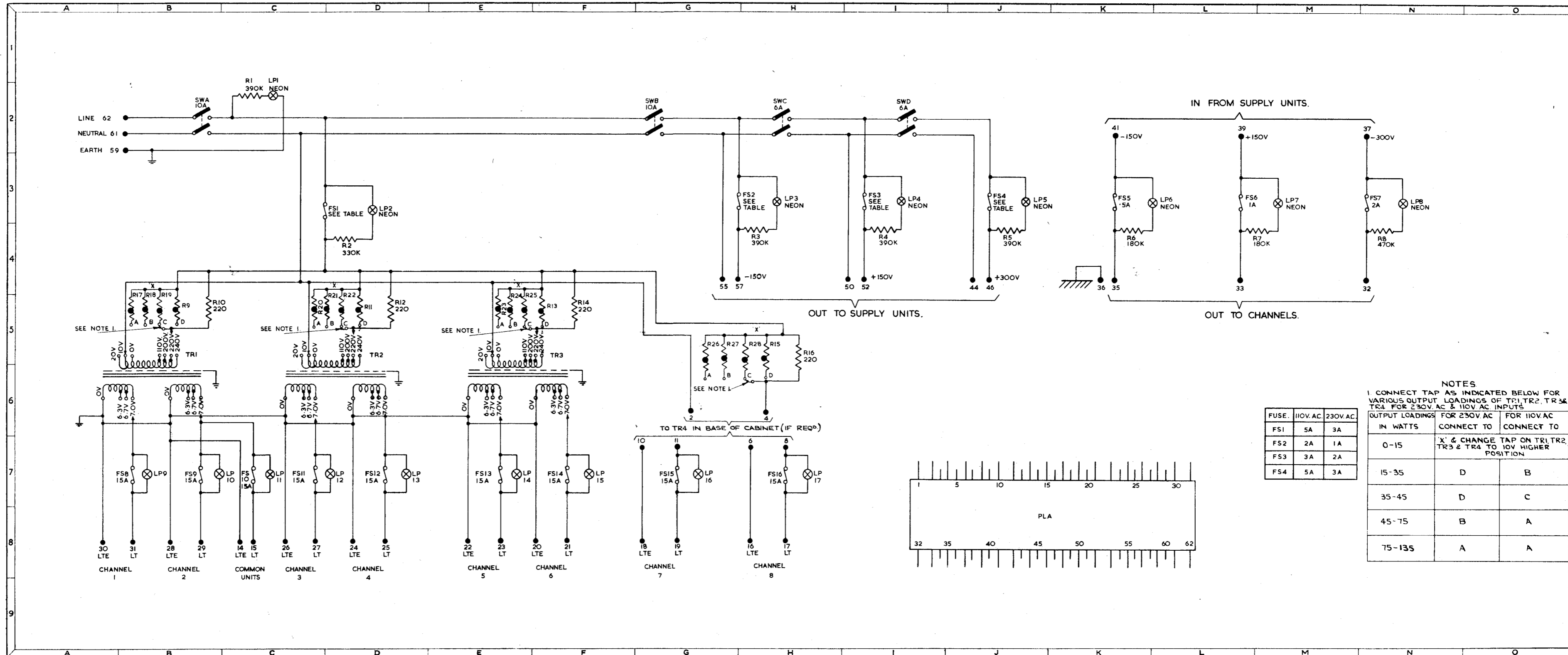


VALVE NUMBER	VALVE TYPES		
	COMMERCIAL	SERVICES	AMERICAN
V1	6X5 1207	CV 1832	JA 2
V2	6X5 1209	CV 449	OG 3
V3	B 309	CV 455	12AT 7
V4A V4B	6080	CV 2984	6080
V5	B 309	CV 455	12AT 7
V6	B 339	CV 192	12AX 7

ALL CAPACITOR VALUES IN µF UNLESS OTHERWISE STATED

CIRCUIT DIAGRAM, POWER UNIT TYPE 4774/C (-150V)  
WZ. 18718/D Sh. 1 Iss. 5

COMPONENT LOCATION TABLE.													
RESISTORS.							MISCELLANEOUS.						
R1	2C	R11	5D	FS1	3D	FS11	7C	LP4	3I	LP14	7E	TR1	5B
R2	4D	R12	5D	FS2	3H	FS12	7D	LP5	3I	LP15	7F	TR2	5D
R3	4H	R13	5F	FS3	3I	FS13	7E	LP6	3L	LP16	7G	TR3	5F
R4	4I	R14	5F	FS4	3J	FS14	7F	LP7	3M	LP17	7H		
R5	4J	R15	5H	FS5	3K	FS15	7C	LP8	3M				
R6	4K	R16	5H	FS6	3L	FS16	7H	LP9	7B	SWA	2B		
R7	4M			FS7	3N			LP10	7C	SWB	2G		
R8	4N			FS8	7B	LP1	2C	LP11	7C	SWC	2H		
R9	5B			FS9	7B	LP2	3D	LP12	7D	SWD	2I		
R10	5B			FS10	7C	LP3	3H	LP13	7E				

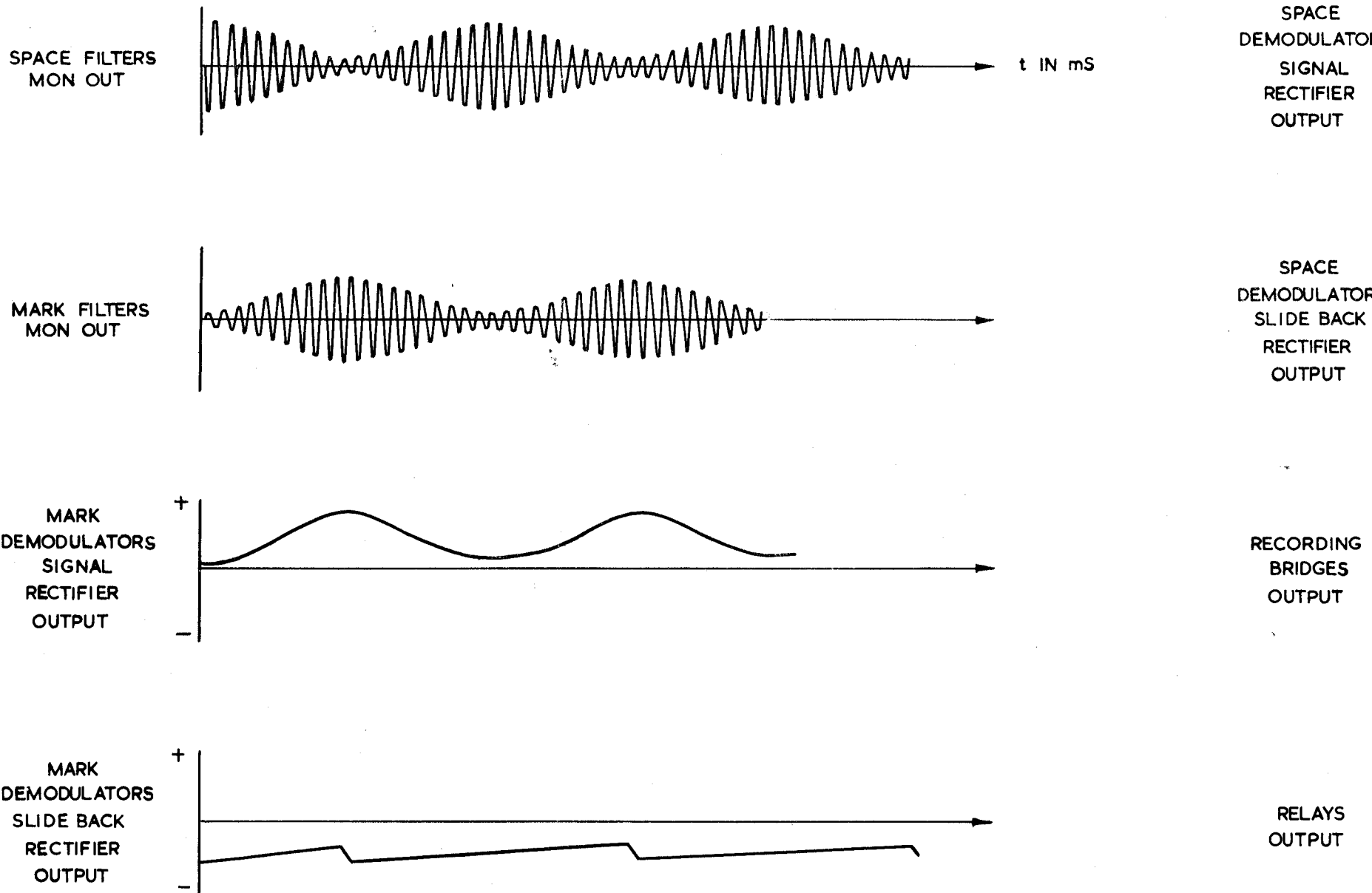


FUSE.	110V. AC.	230V. AC.
FS1	5A	3A
FS2	2A	1A
FS3	3A	2A
FS4	5A	3A

NOTES  
1. CONNECT TAP AS INDICATED BELOW FOR VARIOUS OUTPUT LOADINGS OF TR1, TR2, TR3 & TR4 FOR 230V. AC & 110V. AC INPUTS

OUTPUT LOADINGS IN WATTS	FOR 230V. AC	FOR 110V. AC
0-15	X' & CHANGE TAP ON TR1, TR2, TR3 & TR4 TO 10V HIGHER POSITION	
15-35	D	B
35-45	D	C
45-75	B	A
75-135	A	A

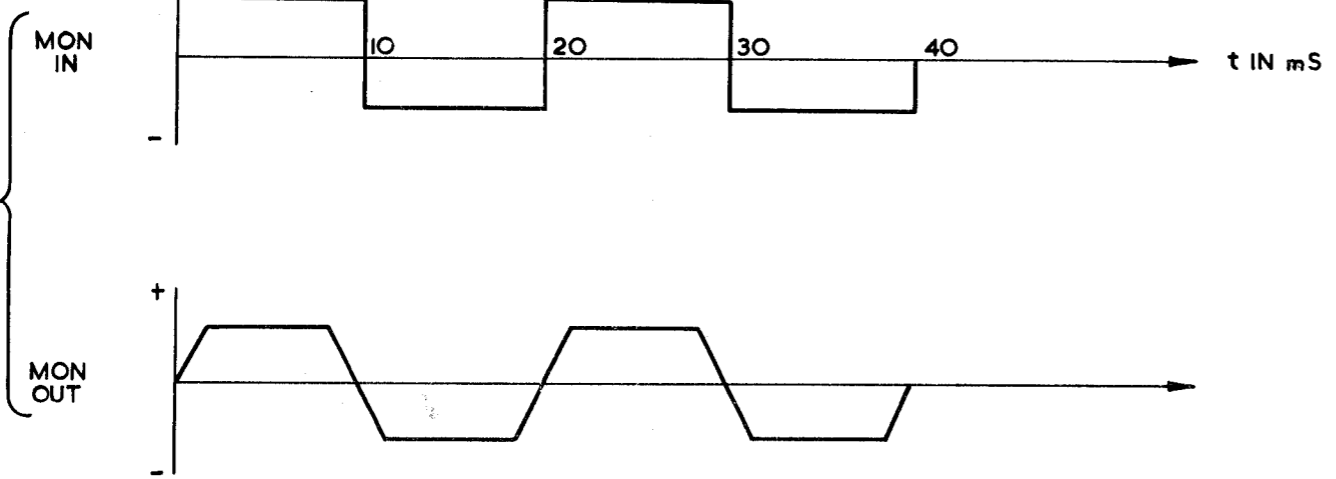
CIRCUIT DIAGRAM  
DISTRIBUTION UNIT  
WZ.20504/D Sh.1 Iss.3



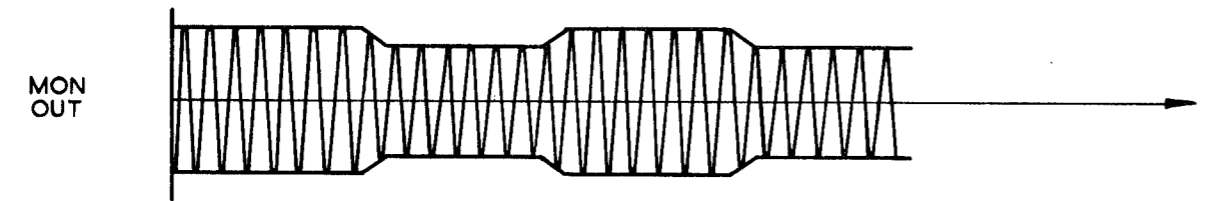
TYPICAL WAVEFORMS  
 AT MONITOR POINTS  
 WZ.21871/D Sh.1 Iss.1



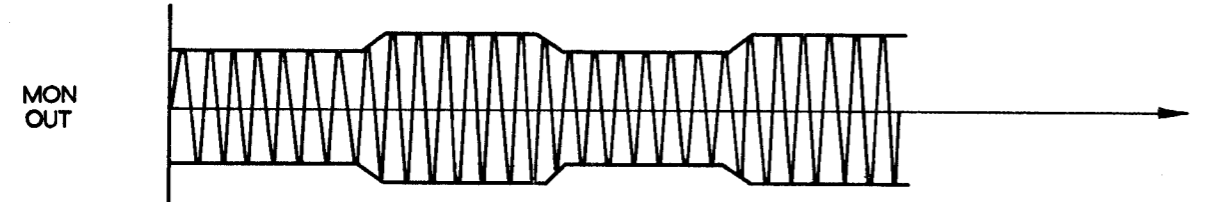
TRANSMITTER  
INPUTS



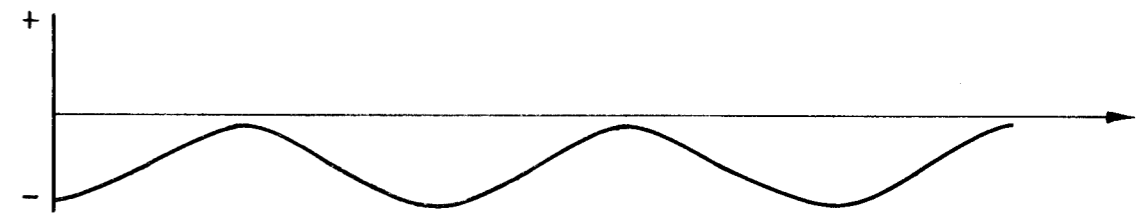
SPACE  
OSCILLATORS



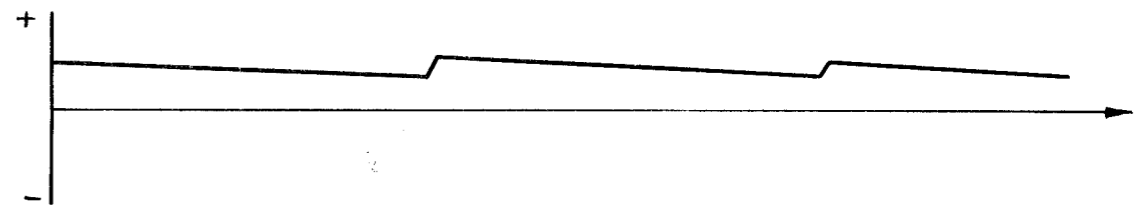
MARK  
OSCILLATORS



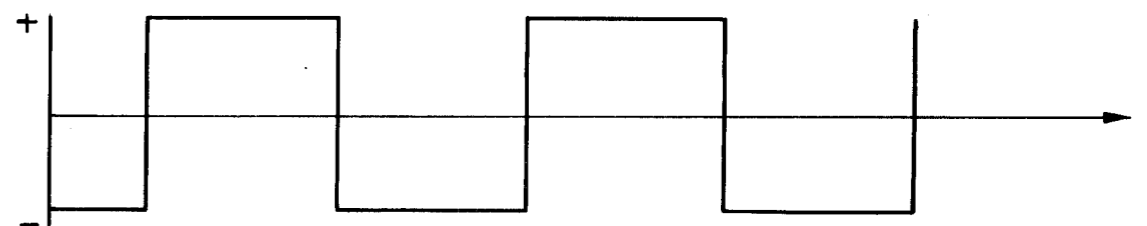
SPACE  
DEMODULATORS  
SIGNAL  
RECTIFIER  
OUTPUT



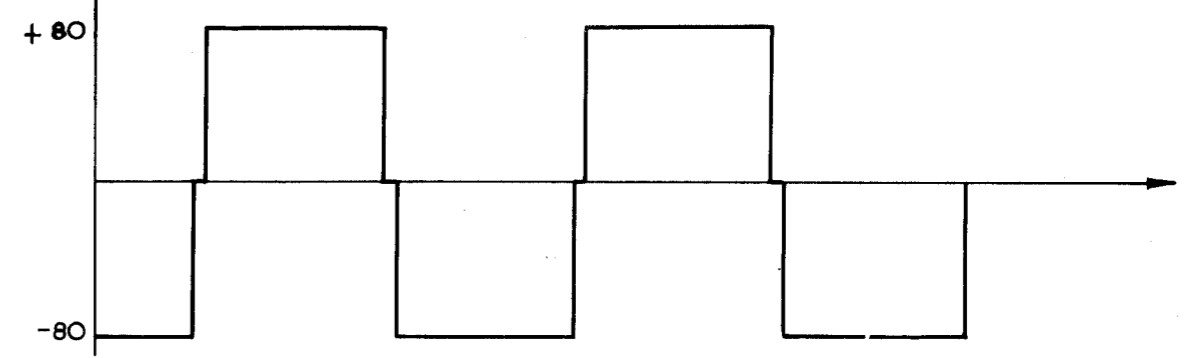
SPACE  
DEMODULATORS  
SLIDE BACK  
RECTIFIER  
OUTPUT



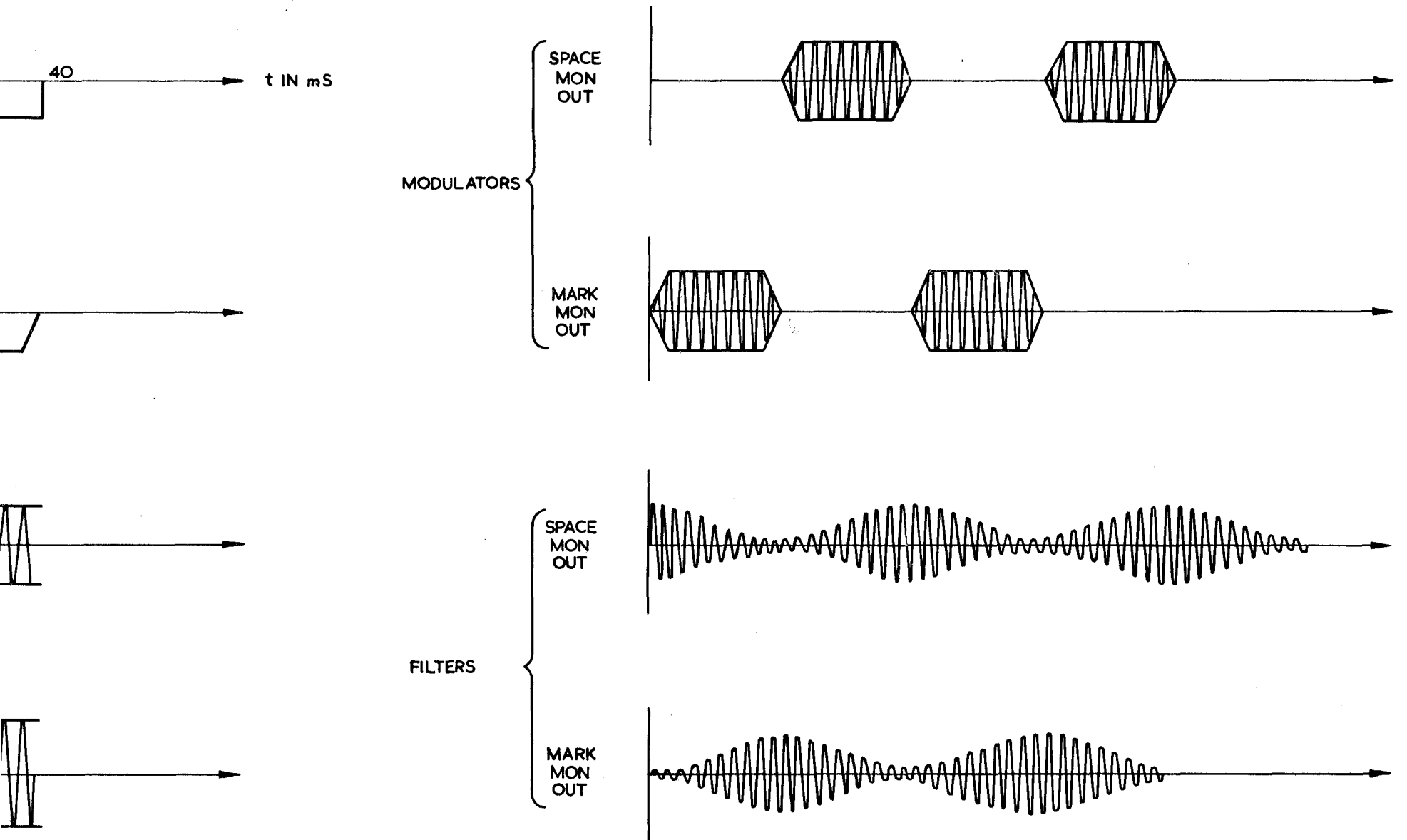
RECORDING  
BRIDGES  
OUTPUT



RELAYS  
OUTPUT



TYPICAL WAVEFORMS  
MONITOR POINTS  
WZ.21870/D SI Iss.1



TYPICAL WAVEFORMS AT  
 MONITOR POINTS  
 WZ.21870/D Sh.1 Iss.1

TRANS INPUT  
WZ 20697/B SH.1

OSC SPACE  
WZ 20091/B SH.1

OSC MARK  
WZ 20091/B SH.1

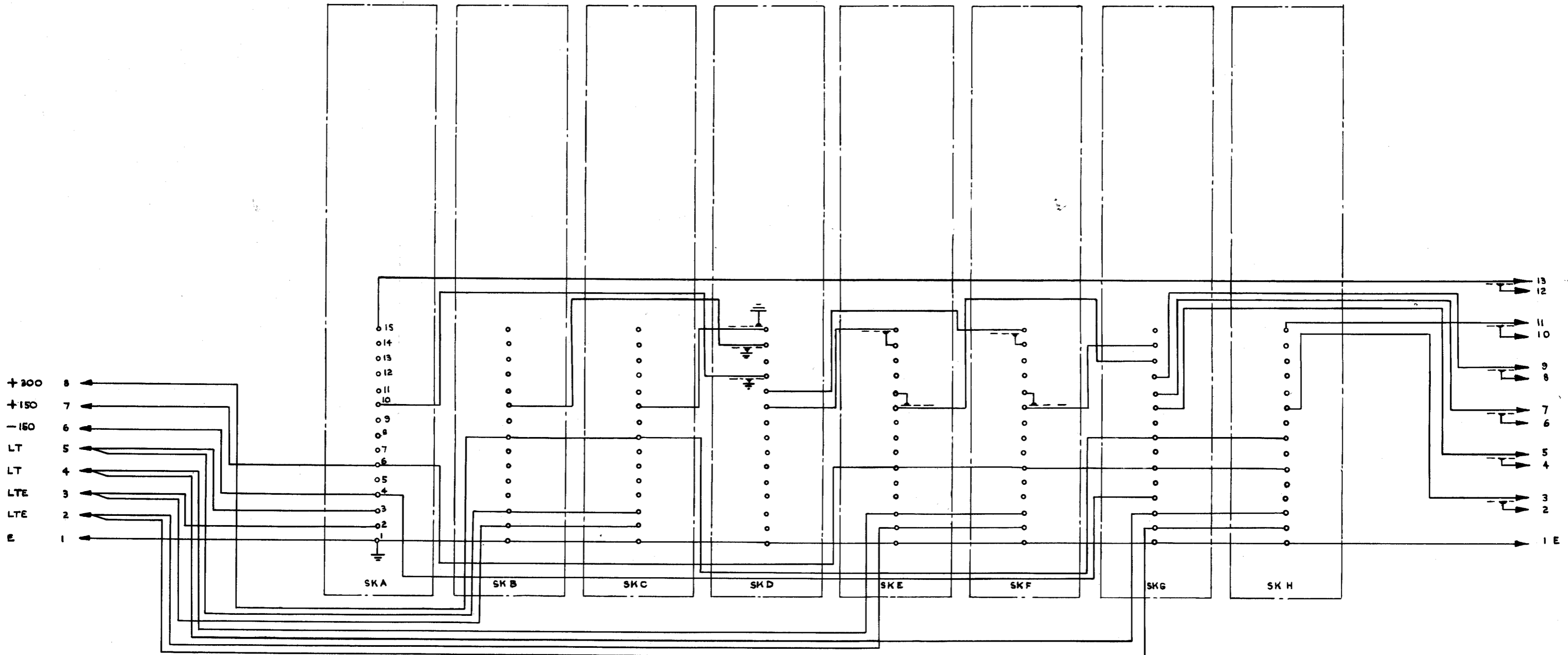
MOD  
WZ 20698/B SH.1

FILT SPACE  
WZ 19517/D SH.1

FILT MARK  
WZ 19517/D SH.1

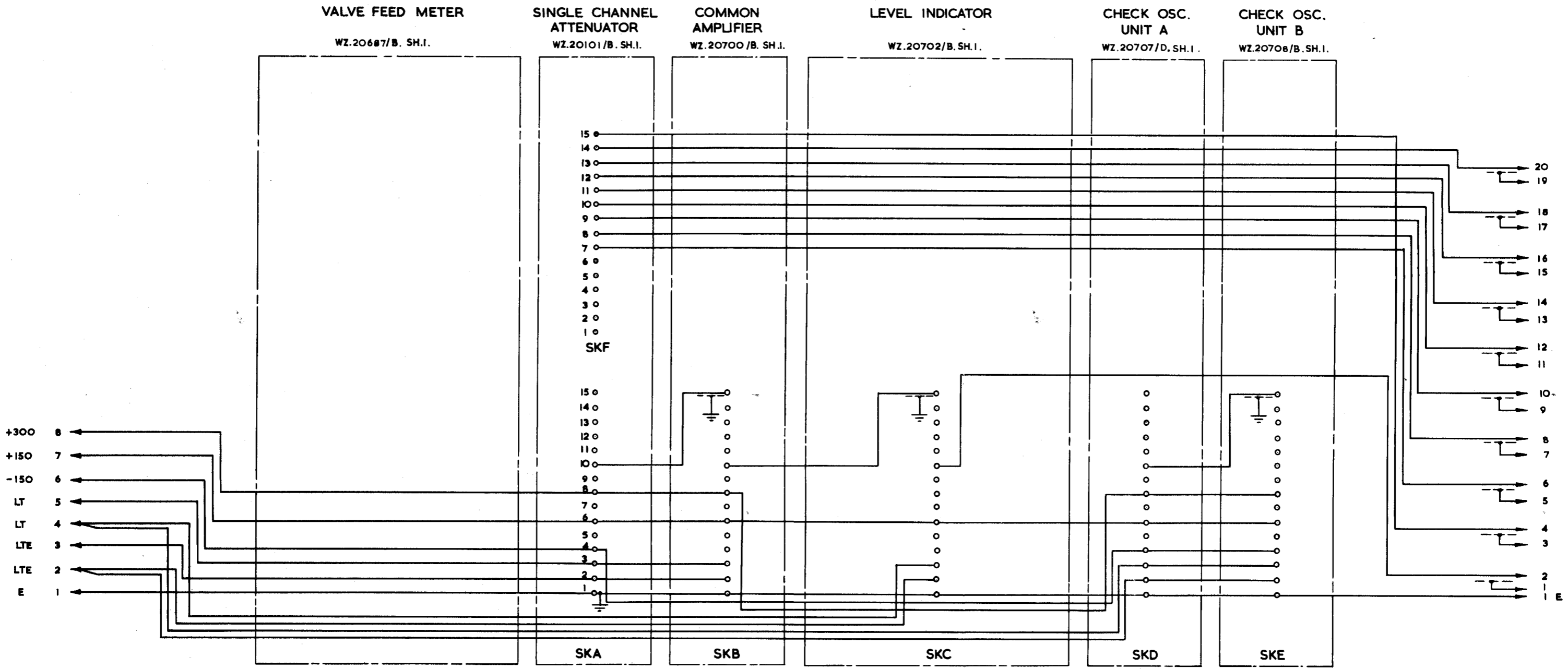
CHAN AMP  
WZ 20699/B SH.1

COMM AMP  
WZ 20700/B SH.1



COMPONENT IDENTITY.  
SKA TO SKH SOCKETS 15 WAY TO WIS 7227/B SH.1. REF.1.

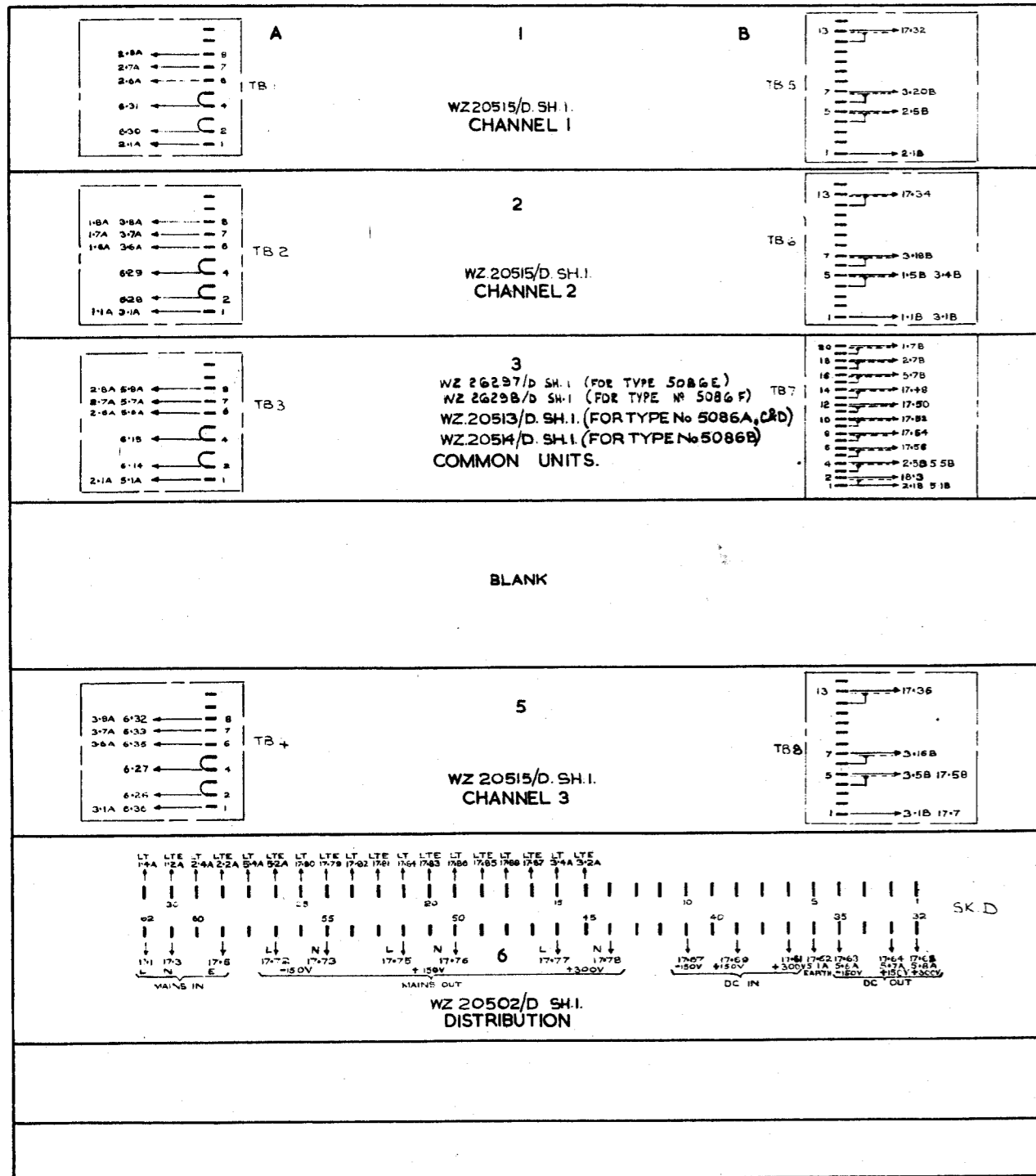
INTER-CONNECTION DIAGRAM  
CHANNEL SHELF  
WZ.20515/D Sh.1 Iss.1



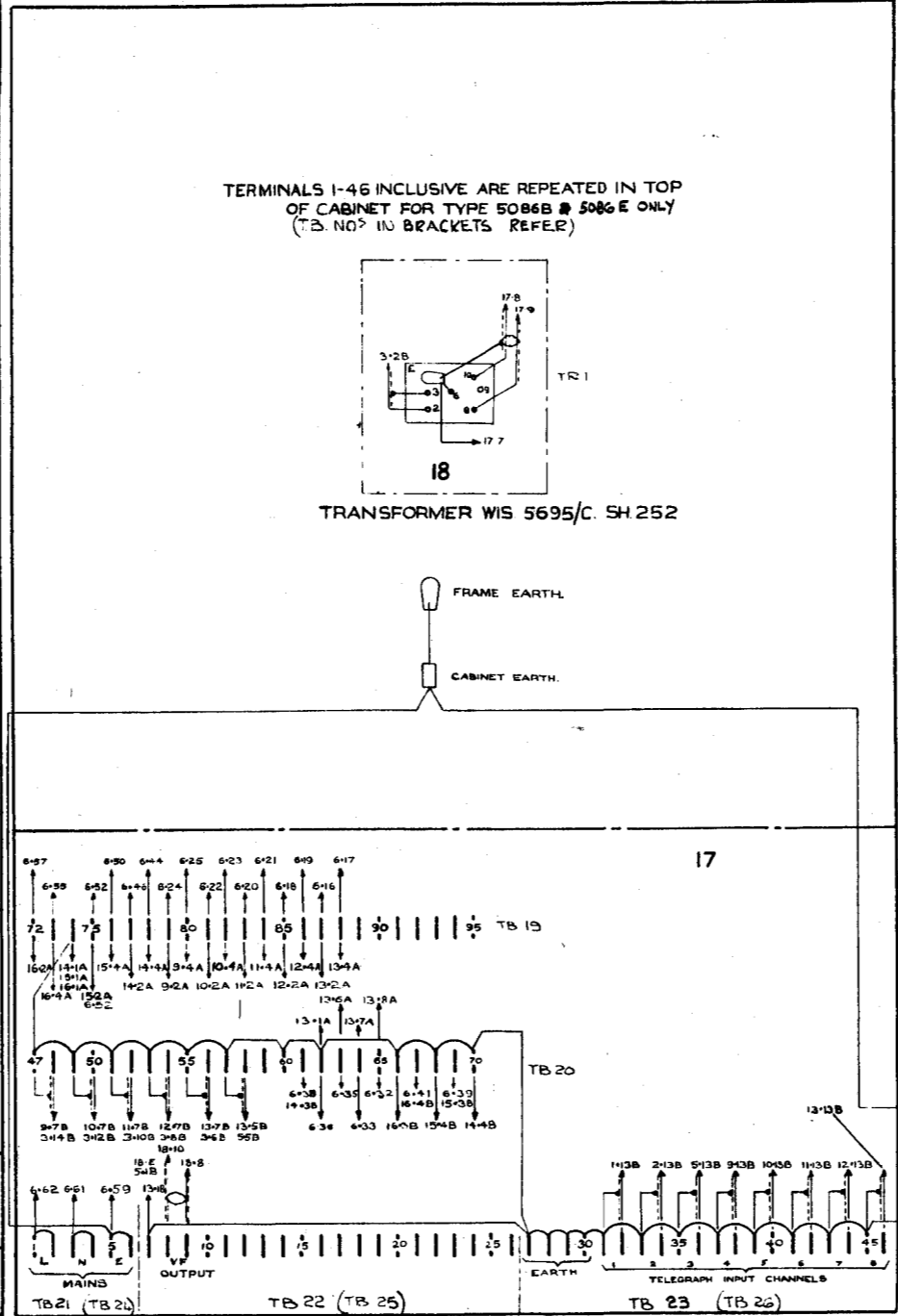
COMPONENT IDENTITY  
 SKA TO SKF SOCKETS 15 WAY TO WIS.7227/B. SH.1. REF.1.

INTER-CONNECTION DIAGRAM  
 COMMON UNITS SHELF  
 WZ.20514/D Sh.1 Iss.1

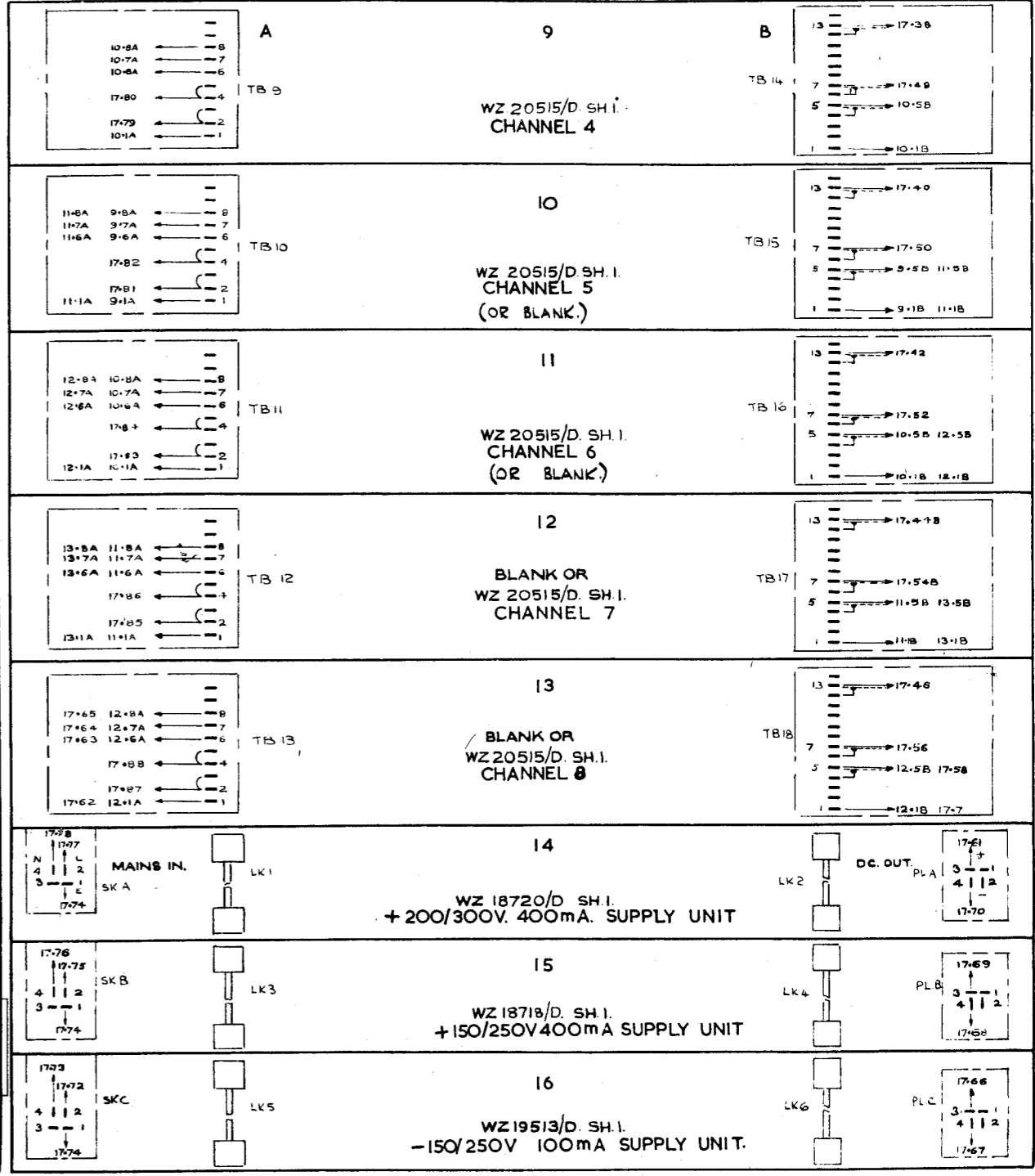
FRONT



BASE OF CABINET

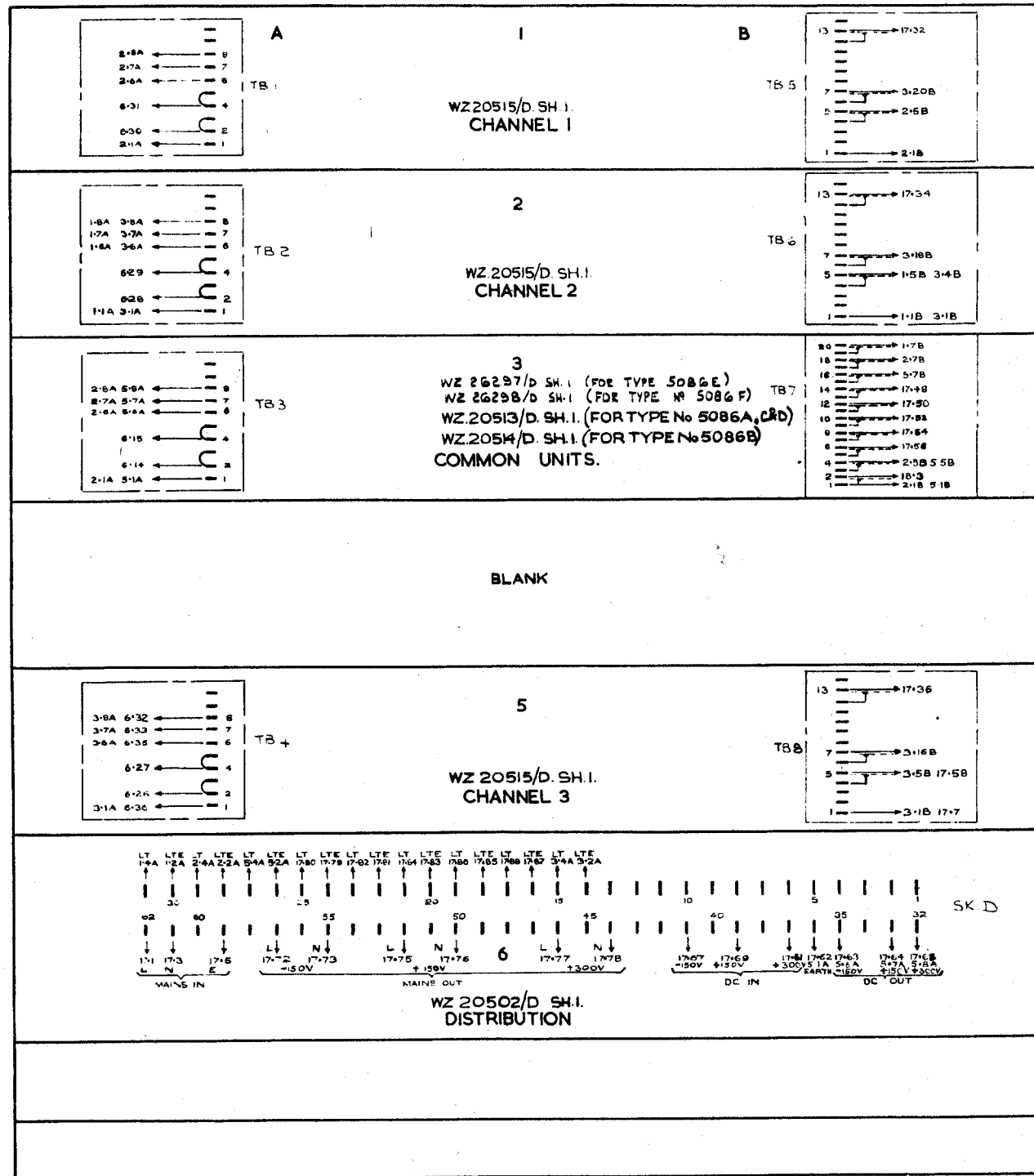


REAR

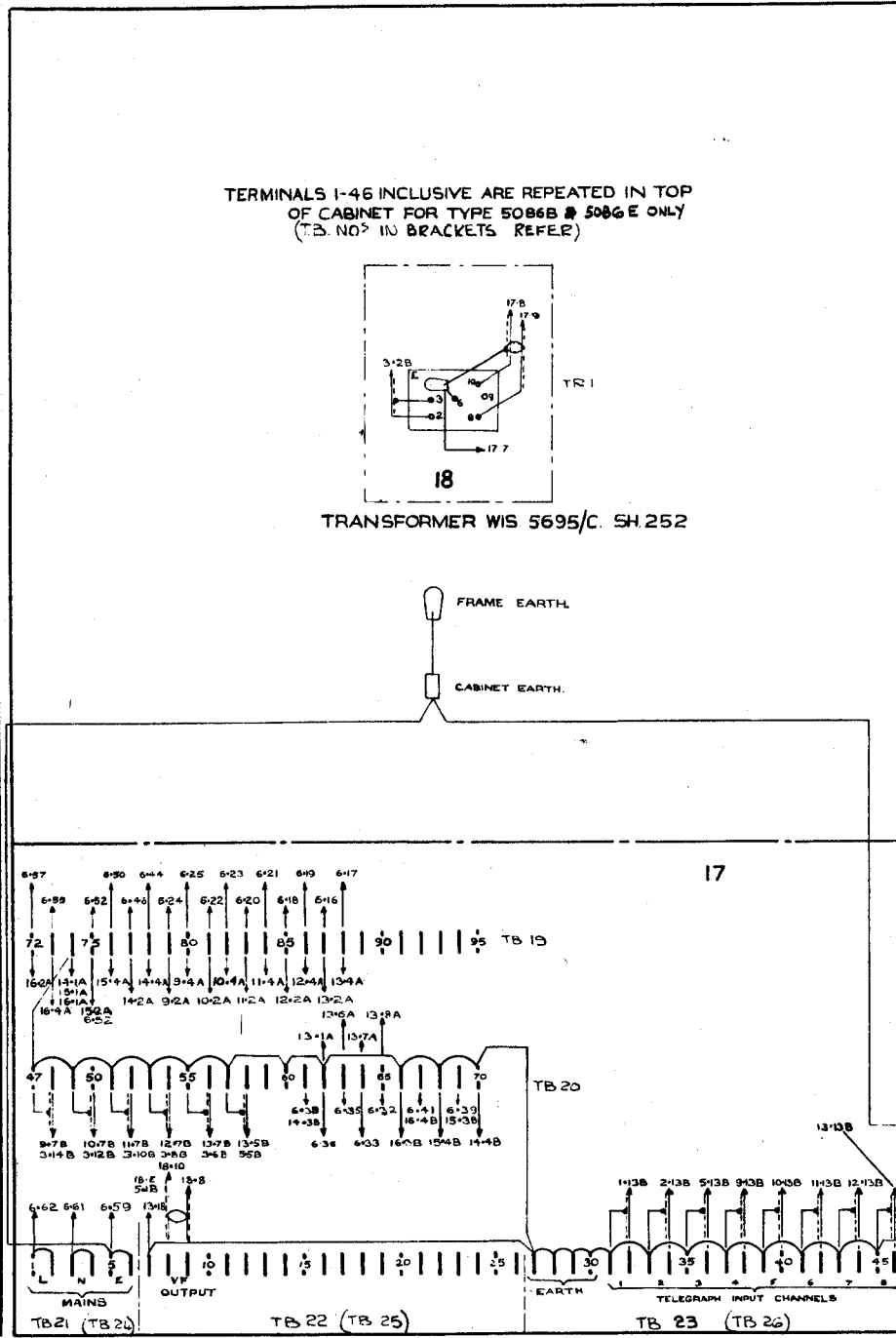


LK 1-6 INC. ARE BETWEEN CABINET & SUPPLY UNITS.

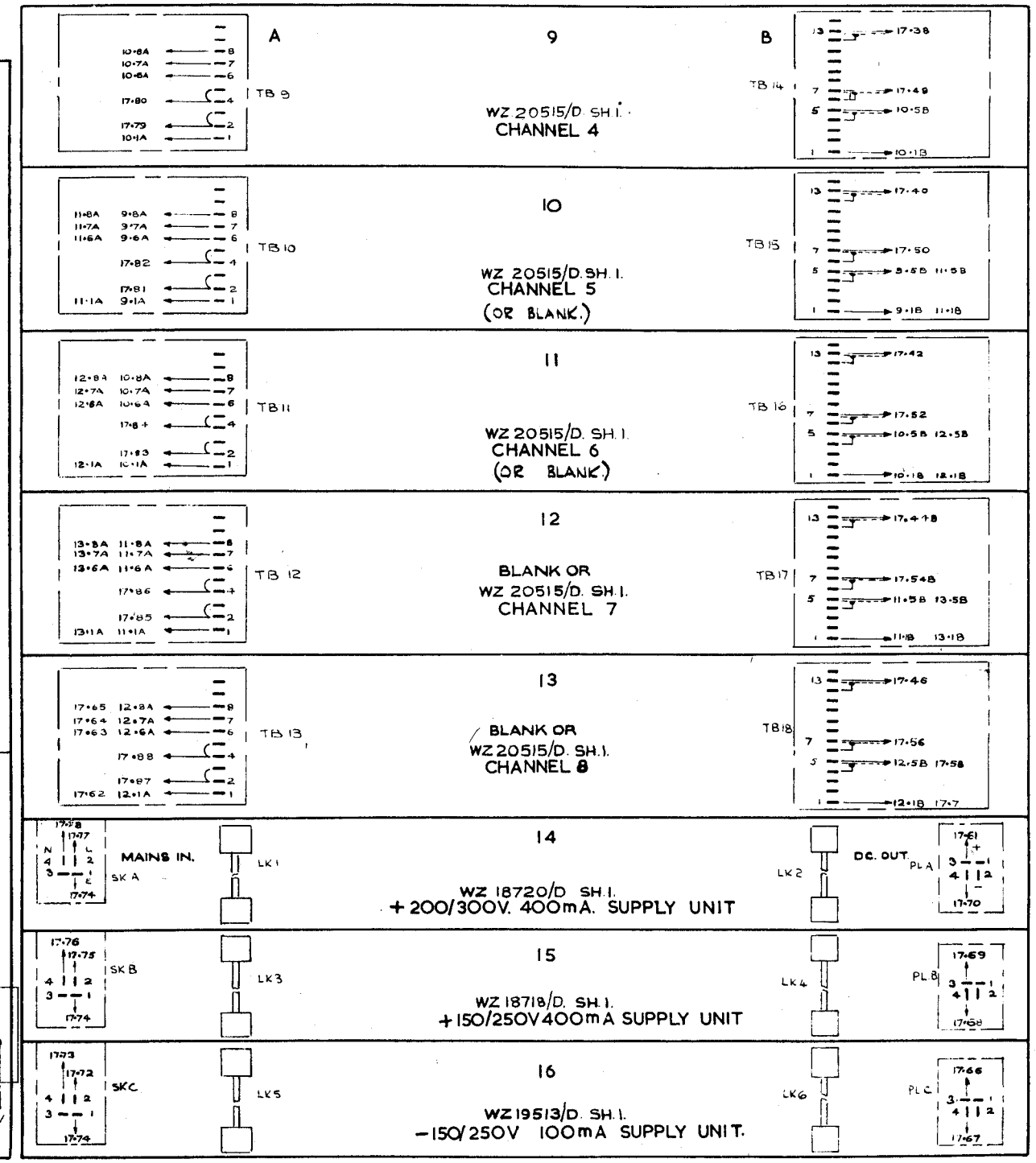
FRONT



BASE OF CABINET



REAR



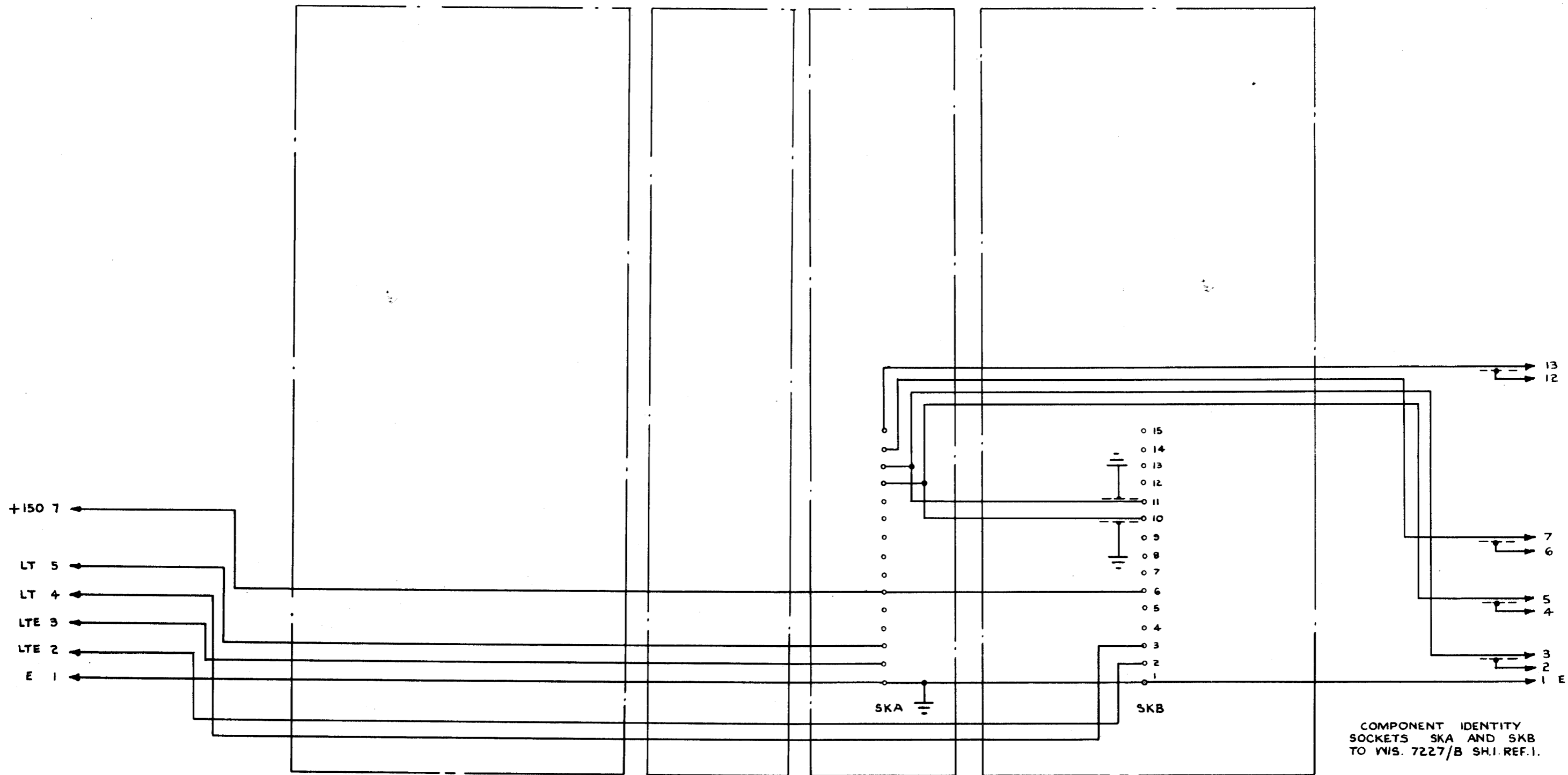
LK 1-6 INC ARE BETWEEN CABINET & SUPPLY UNITS.

VALVE FEED METER  
WZ 20701/B SH.1.

BLANK

INPUT AMP  
WZ 20703/B SH.1.

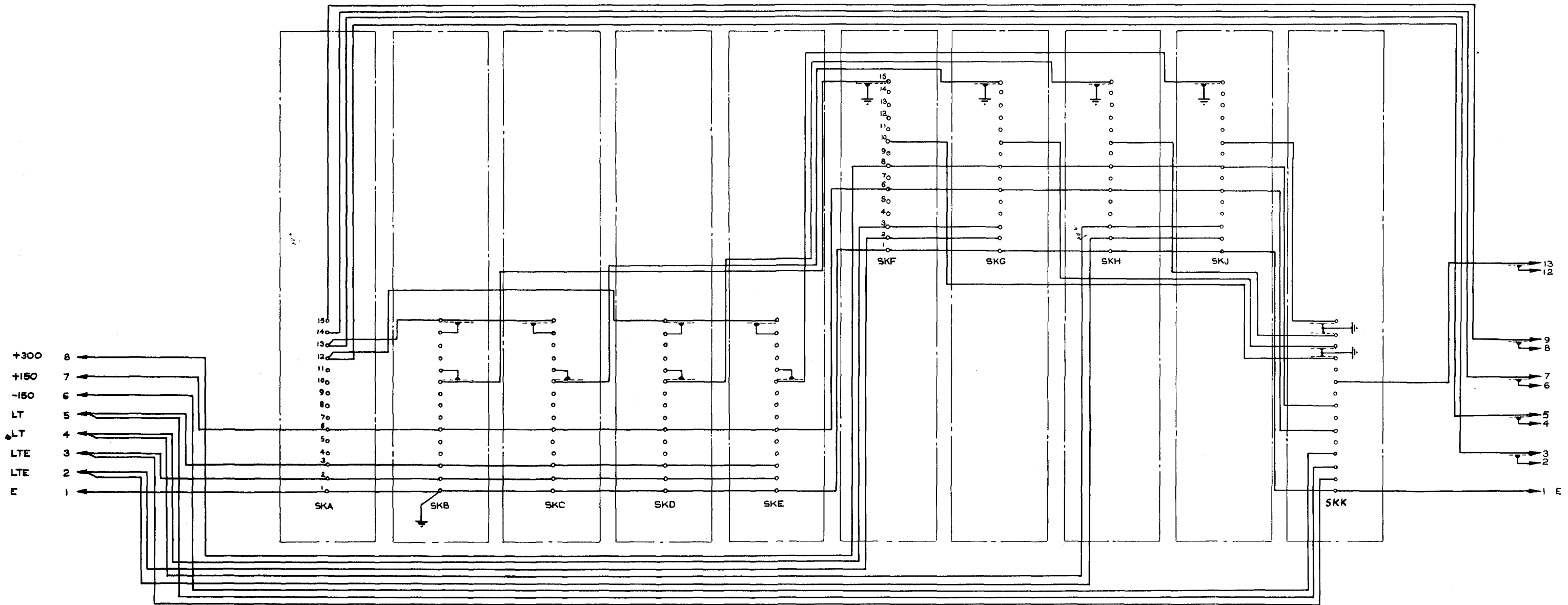
LEVEL INDICATOR  
WZ 20705/B SH.1.



COMPONENT IDENTITY  
SOCKETS SKA AND SKB  
TO WIS. 7227/B SH.1 REF.1.

INTER-CONNECTION DIAGRAM  
COMMON UNITS SHELF  
WZ.20516/D Sh.1 Iss.1

INPUT AMP	FILT SPACE	FILT MARK	FILT SPACE	FILT MARK	DEMOD SPACE	DEMOD MARK	DEMOD SPACE	DEMOD MARK	BRIDGE
WZ 20703/B SH.1	WZ 19517/D SH.1	WZ 19517/D SH.1	WZ 19517/D SH.1	WZ 19517/D SH.1	WZ 20106/B SH.1	WZ 20105/B SH.1	WZ 20106/B SH.1	WZ 20105/B SH.1	WZ 20704/B SH.1

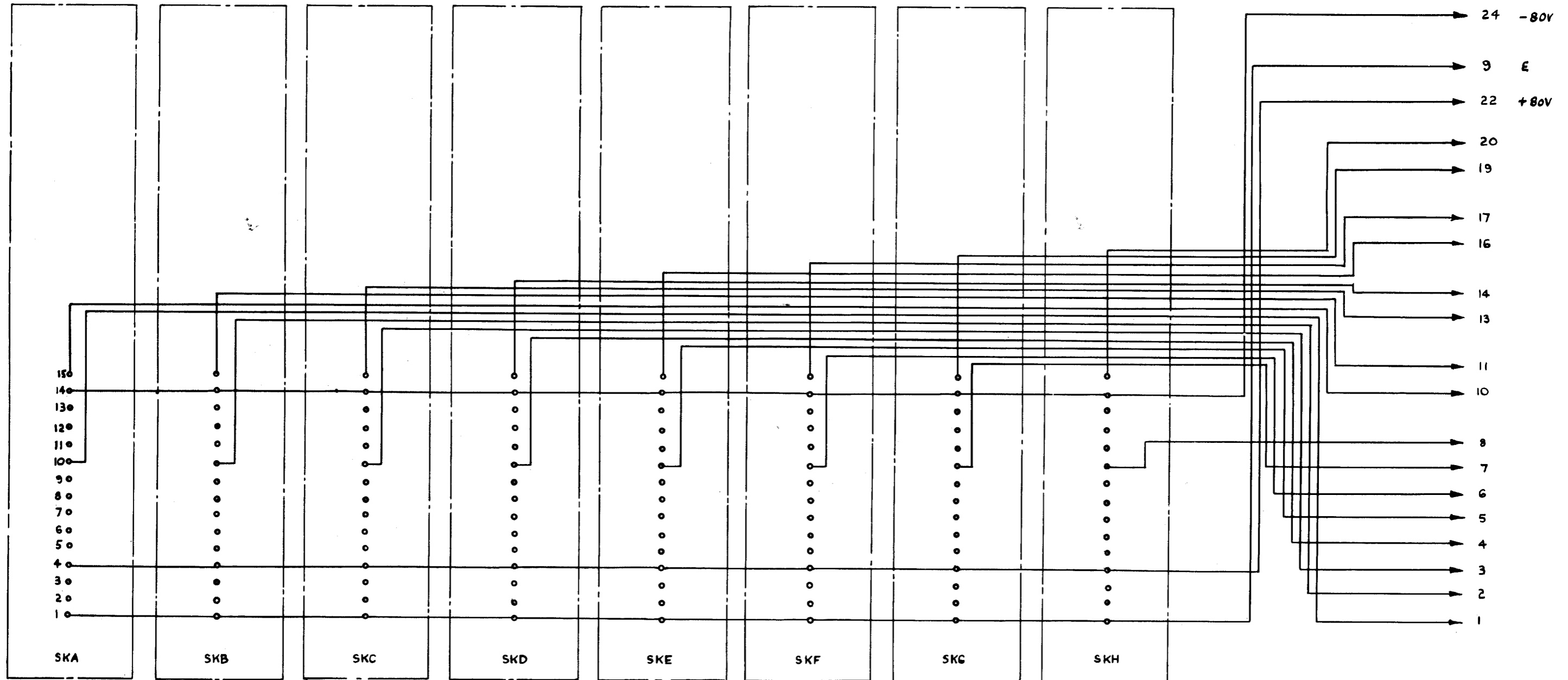


COMPONENT IDENTITY.  
SKA TO SKK. SOCKETS 15 WAY TO W157227/B SH.1. REF.1.

INTER-CONNECTION DIAGRAM  
CHANNEL SHELF  
WZ.20517/D Sh.1 Iss.1

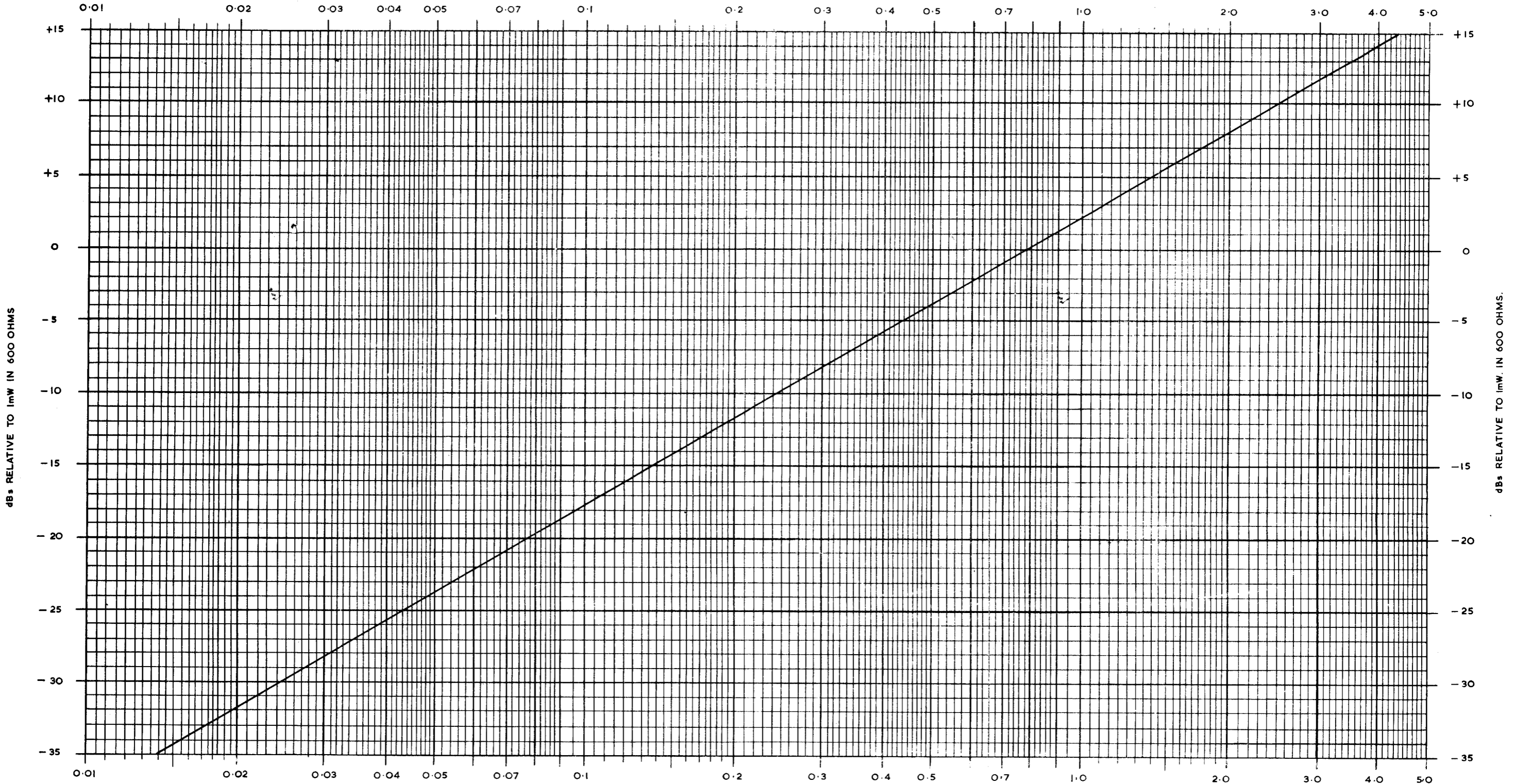


CHANNEL 1    CHANNEL 2    CHANNEL 3    CHANNEL 4    CHANNEL 5    CHANNEL 6    CHANNEL 7    CHANNEL 8  
WZ.20706/B SH.1    WZ.20706/B SH.1    WZ.20706/B SH.1    WZ.20706/B SH.1    WZ.20706/B SH.1    WZ.20706/B SH.1    WZ.20706/B SH.1    WZ.20706/B SH.1



COMPONENT IDENTITY.  
SKA TO SKH SOCKET 15 WAY TO WIS 7227/B SH.1. REF.1

INTER-CONNECTION DIAGRAM  
RELAY UNITS SHELF  
WZ. 20518/D Sh. 1 Iss. 2



DECIBEL TO VOLTAGE  
CONVERSION CHART  
WZ.21933/D Sh.1 Iss.1