

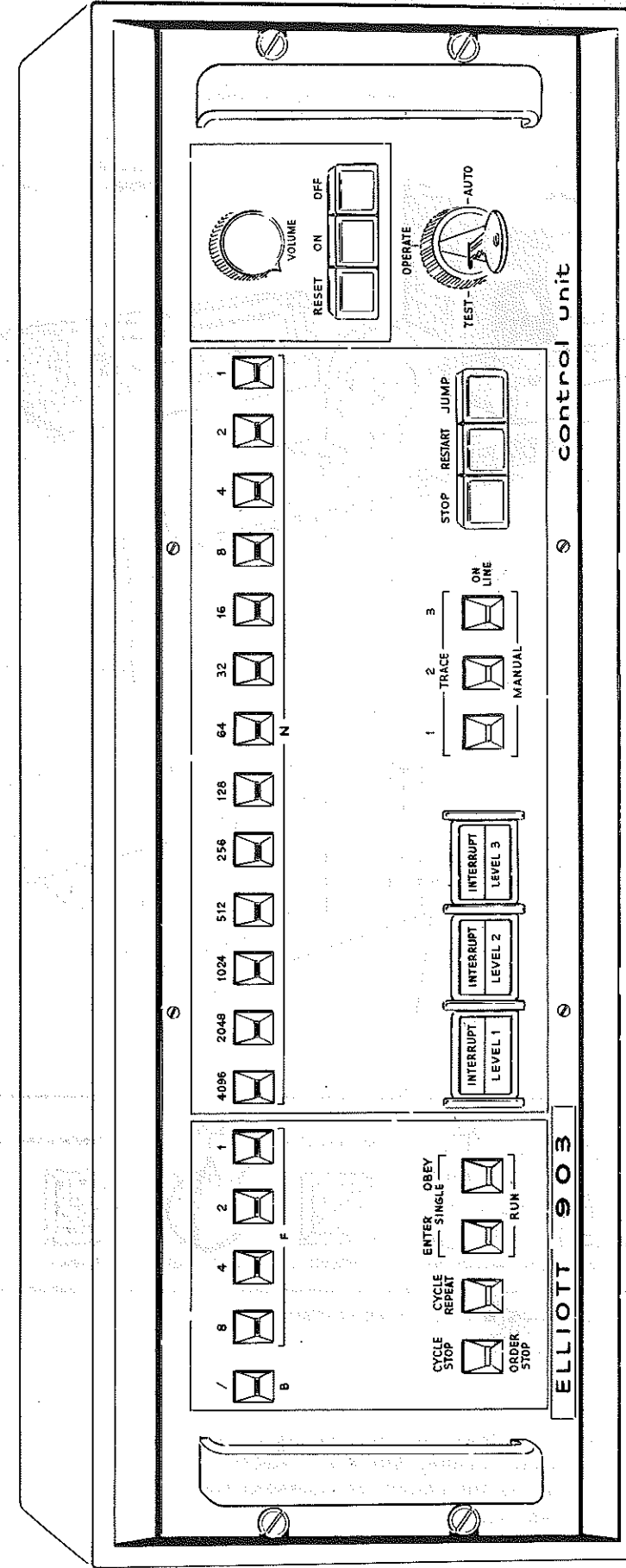
PAPER TAPE & TELEPRINTER CONTROL PANEL

THIS IS THE DESK UNIT FROM THE FRONT AND SHOWS THE INTERNAL STORAGE OF EQUIPMENT AS WELL AS THE LAYOUT OF EQUIPMENT BUILT INTO DESK TOP

OVERALL VIEW

Figure 1 (ISSUE 2)

900  
4.1.2.



903 Control Unit

Figure 2  
(Issue 2)



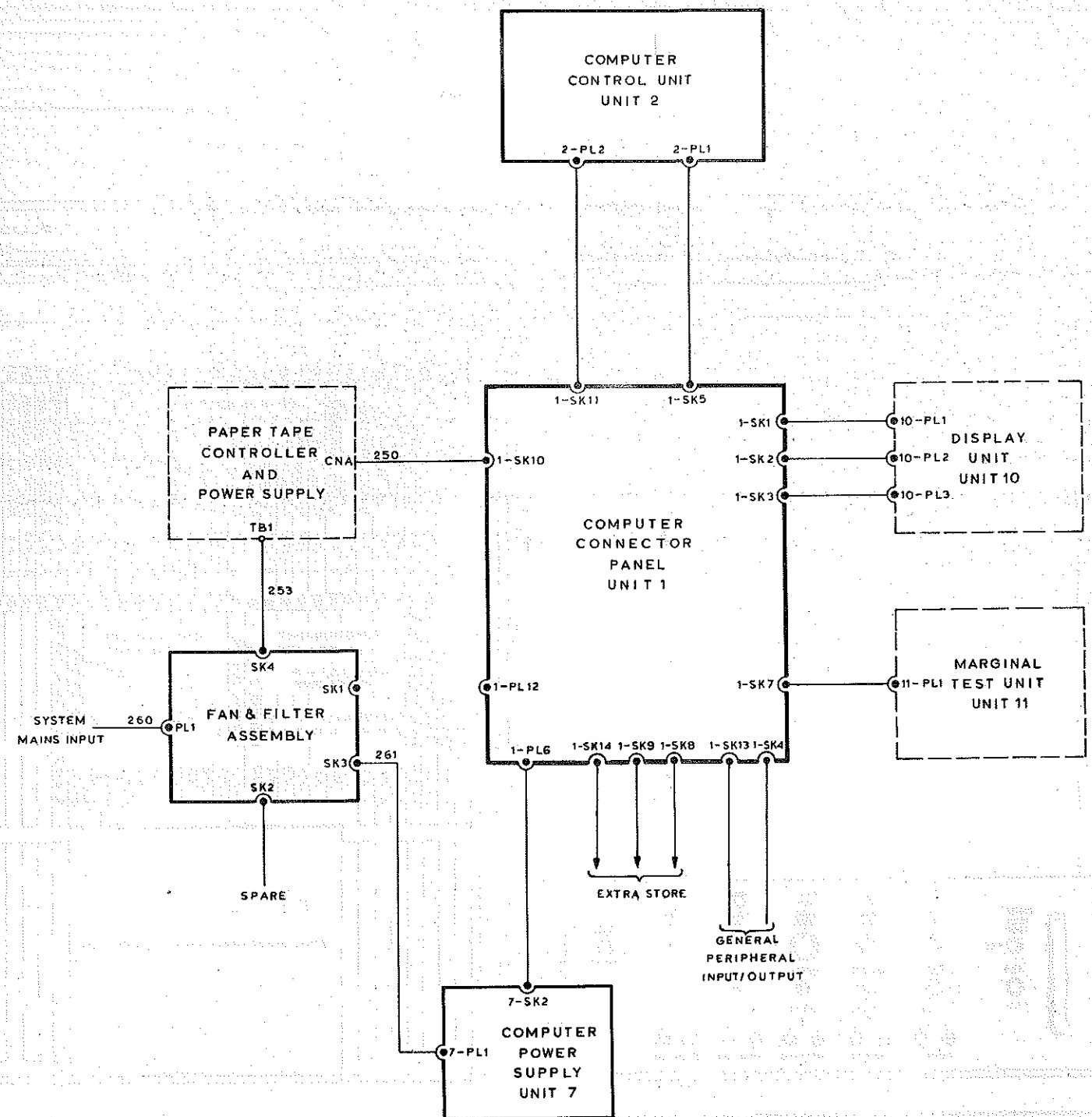
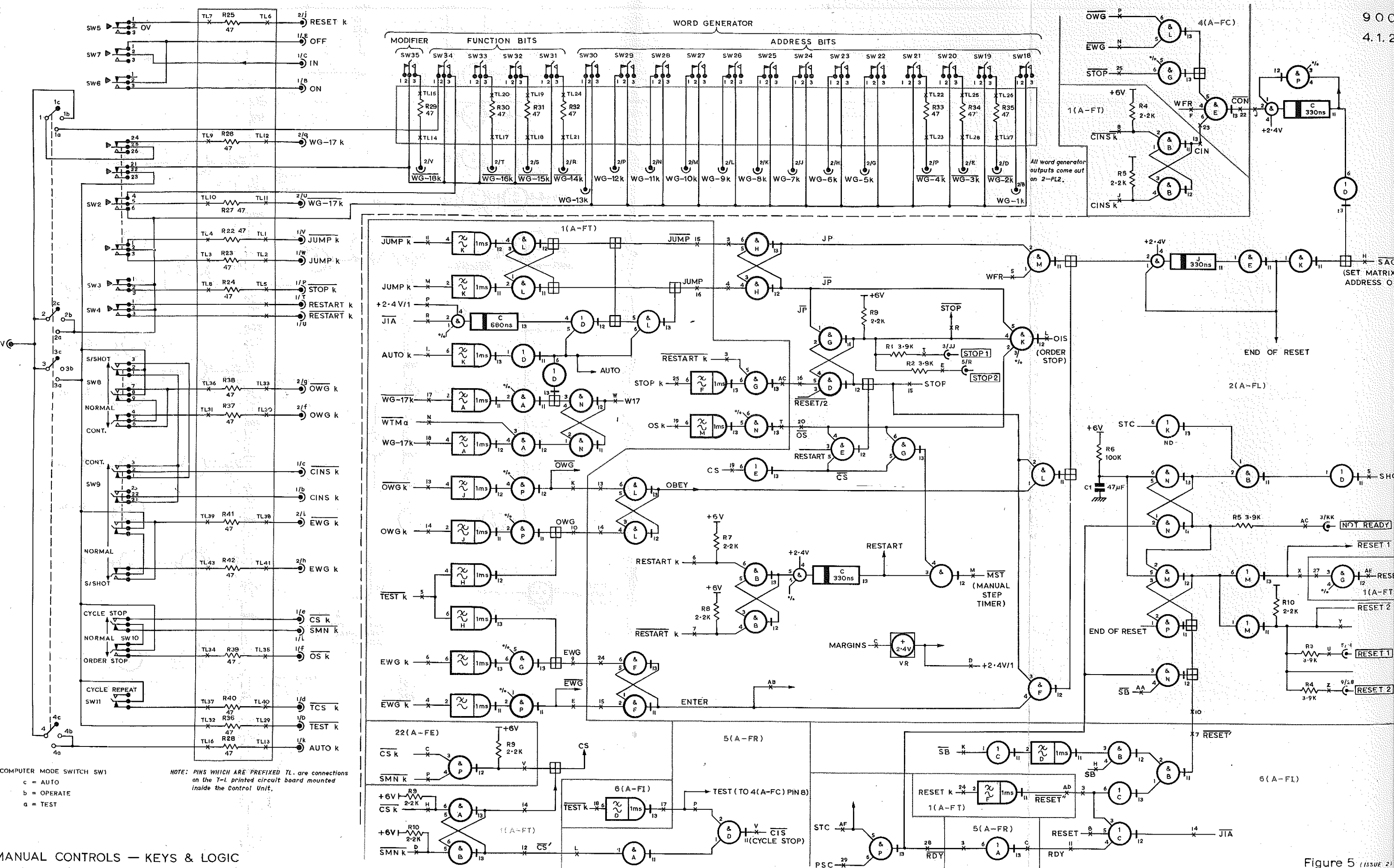


Figure 4 (ISSUE 2)



NOTE: PINS WHICH ARE PREFIXED TL are connections on the T-L printed circuit board mounted inside the Control Unit.

COMPUTER MODE SWITCH SW1  
 c = AUTO  
 b = OPERATE  
 a = TEST

MANUAL CONTROLS — KEYS & LOGIC

Figure 5 (ISSUE 2)

900  
4.1.2.

4 (A-FC)

PULSE GENERATOR MARGINS  
VR

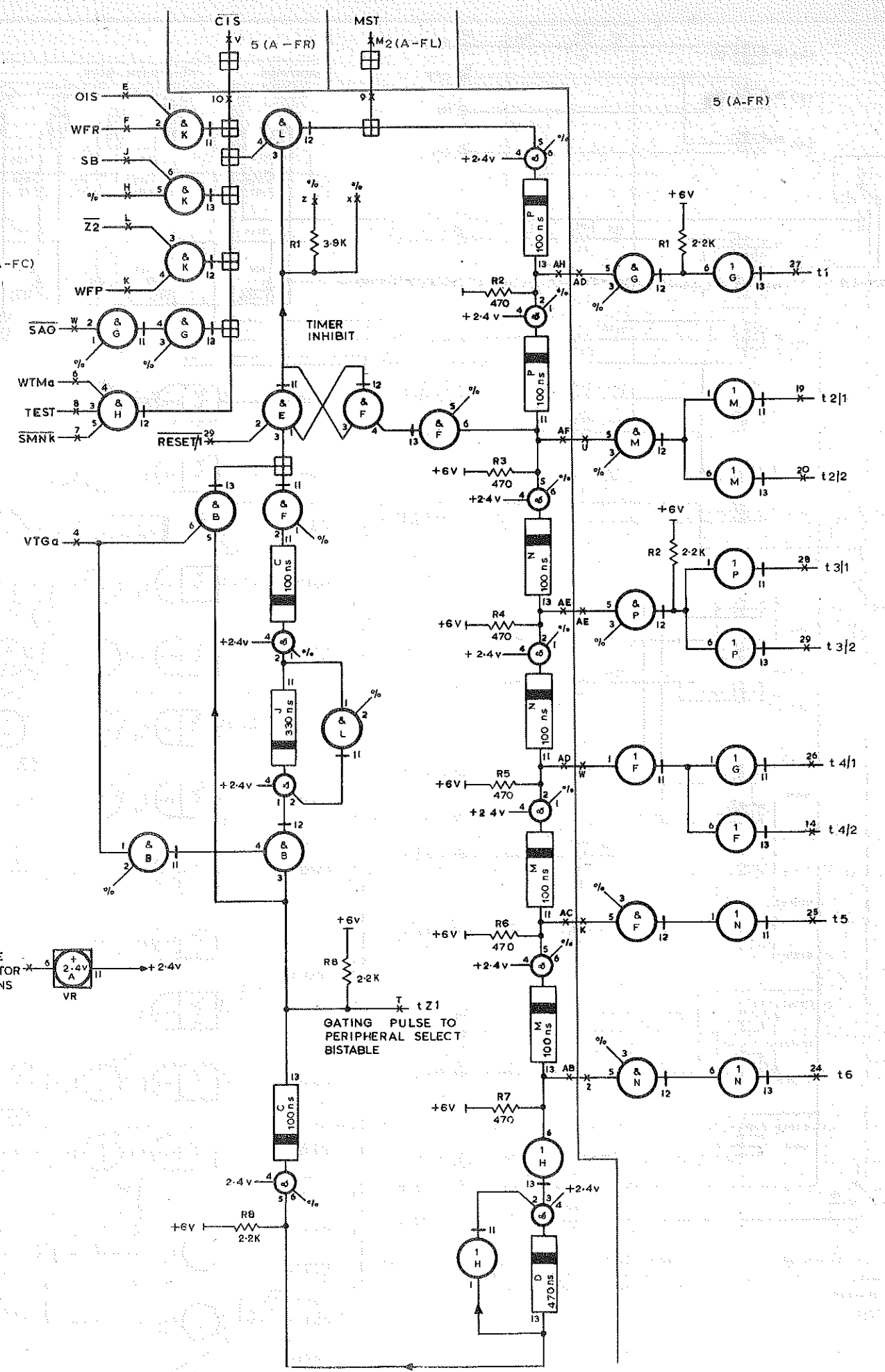
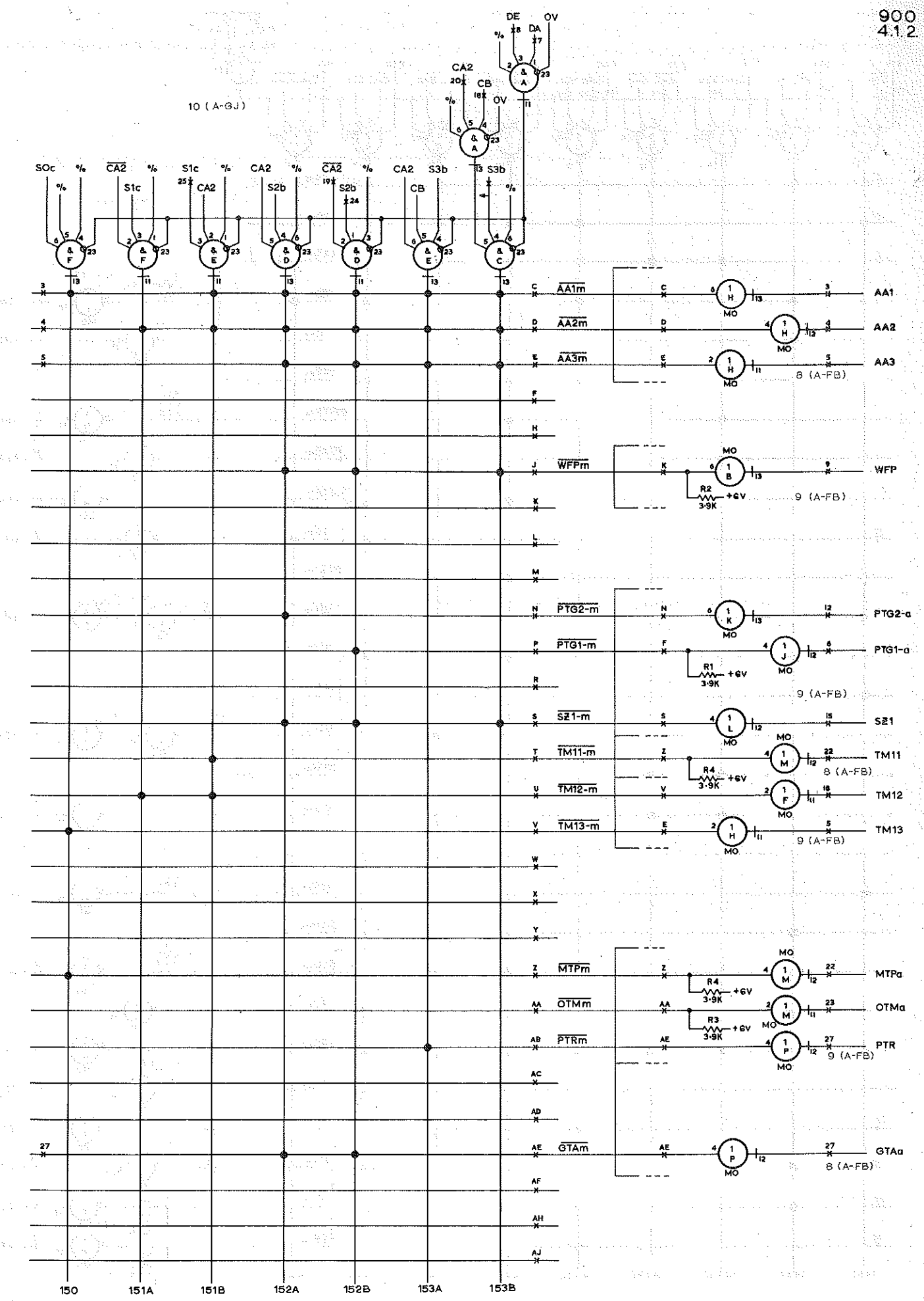


Figure 6 (ISSUE 2)

CENTRAL TIMER

10 (A-GJ)



CONTROL MATRIX FUNCTION 15

Figure 7 (ISSUE 2)

900  
4.1.2.

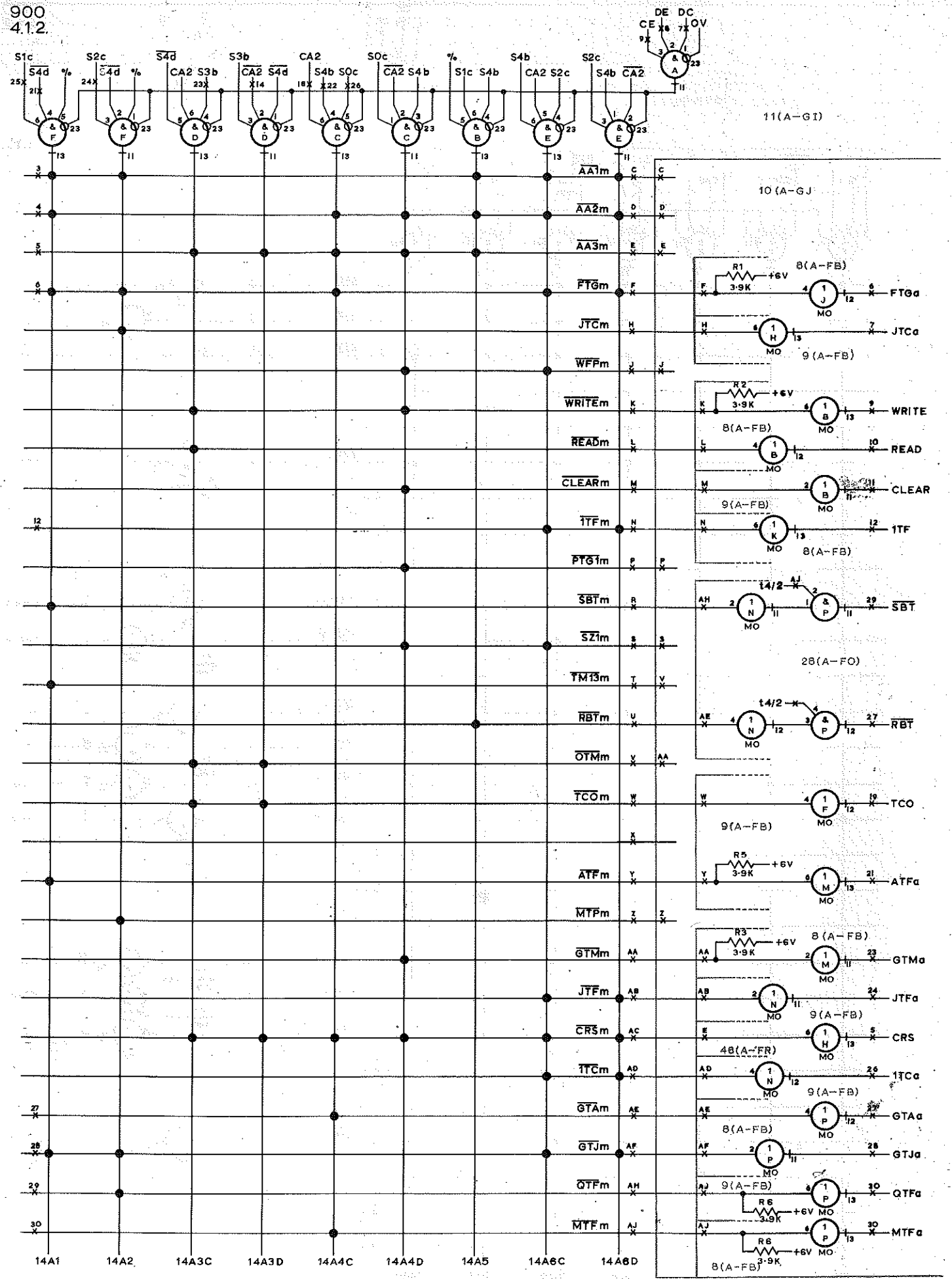
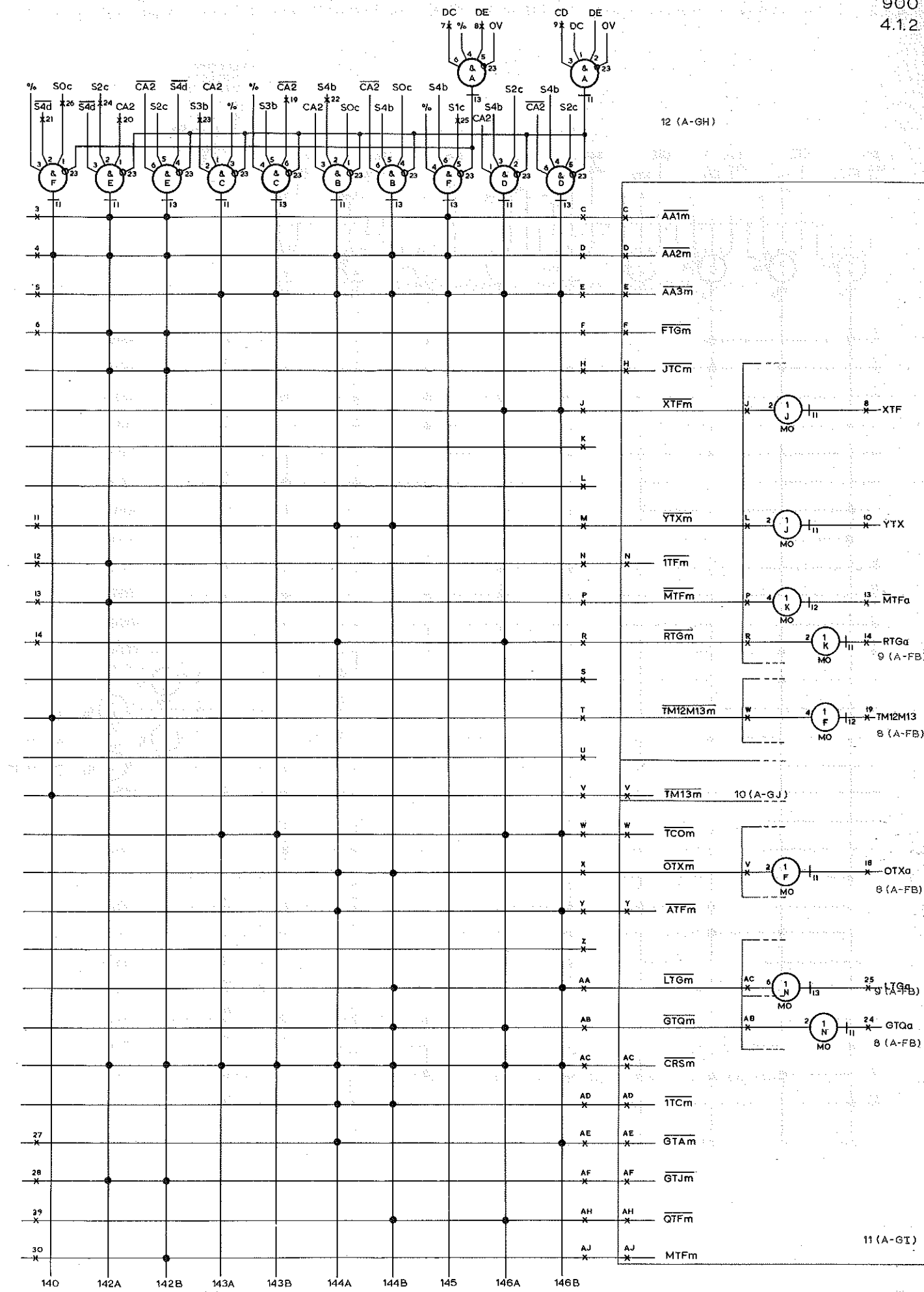


Figure 8 (ISSUE 2)

CONTROL MATRIX FUNCTION 14 A





CONTROL MATRIX - FUNCTION 14

Figure 9 (ISSUE 2)

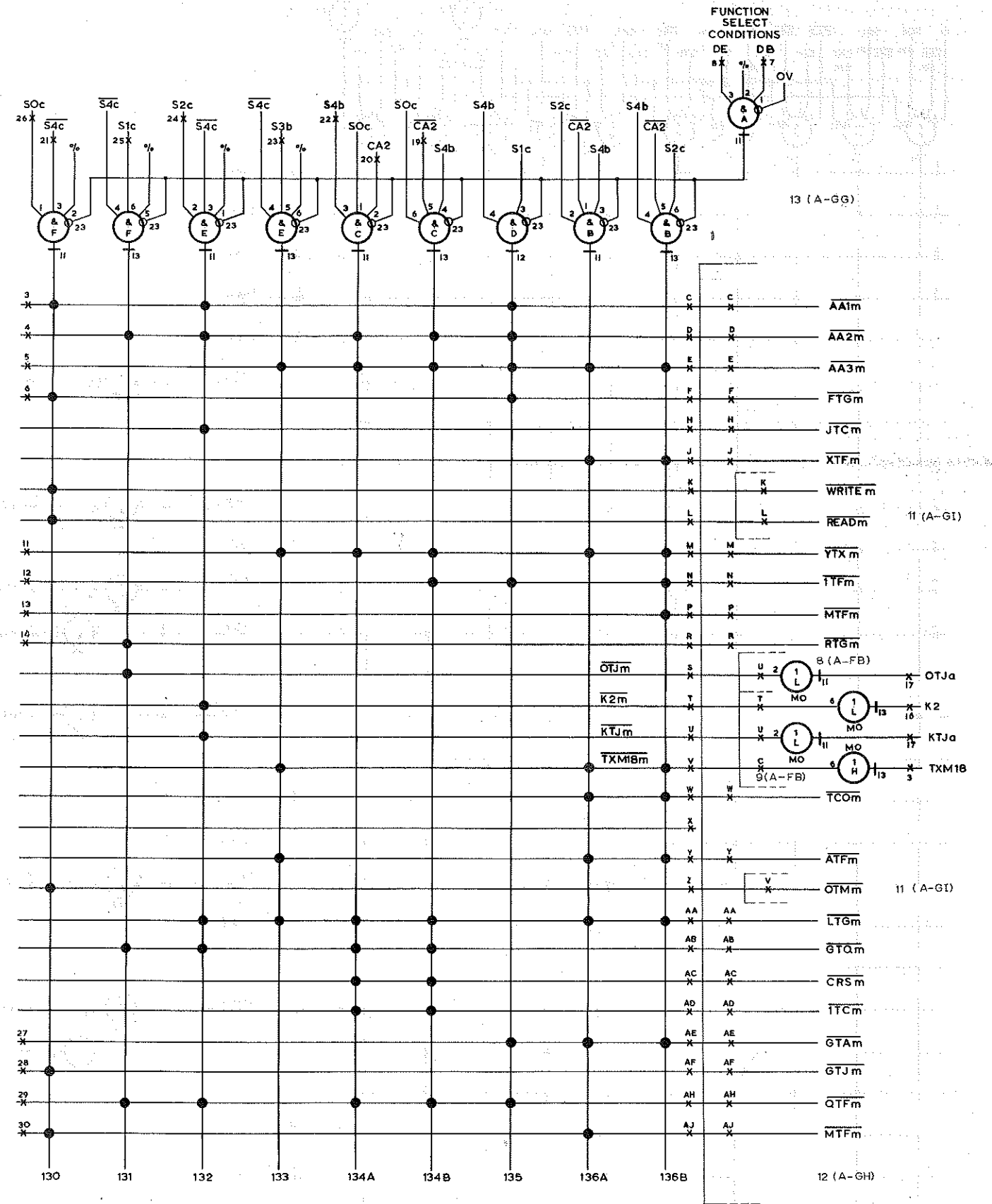
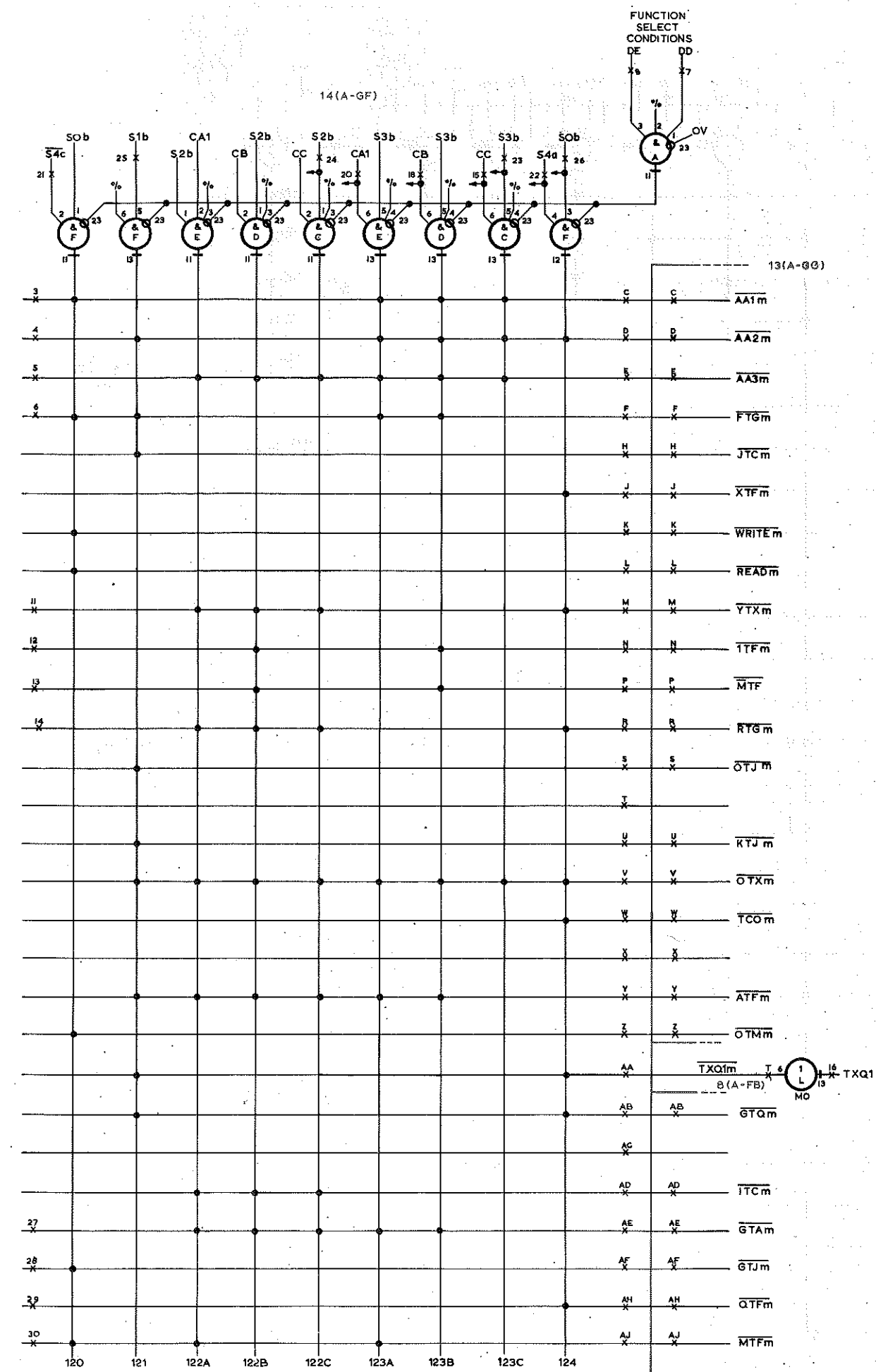


Figure 10 (ISSUE 2)



CONTROL MATRIX FUNCTION 12

Figure 11 (ISSUE 2)

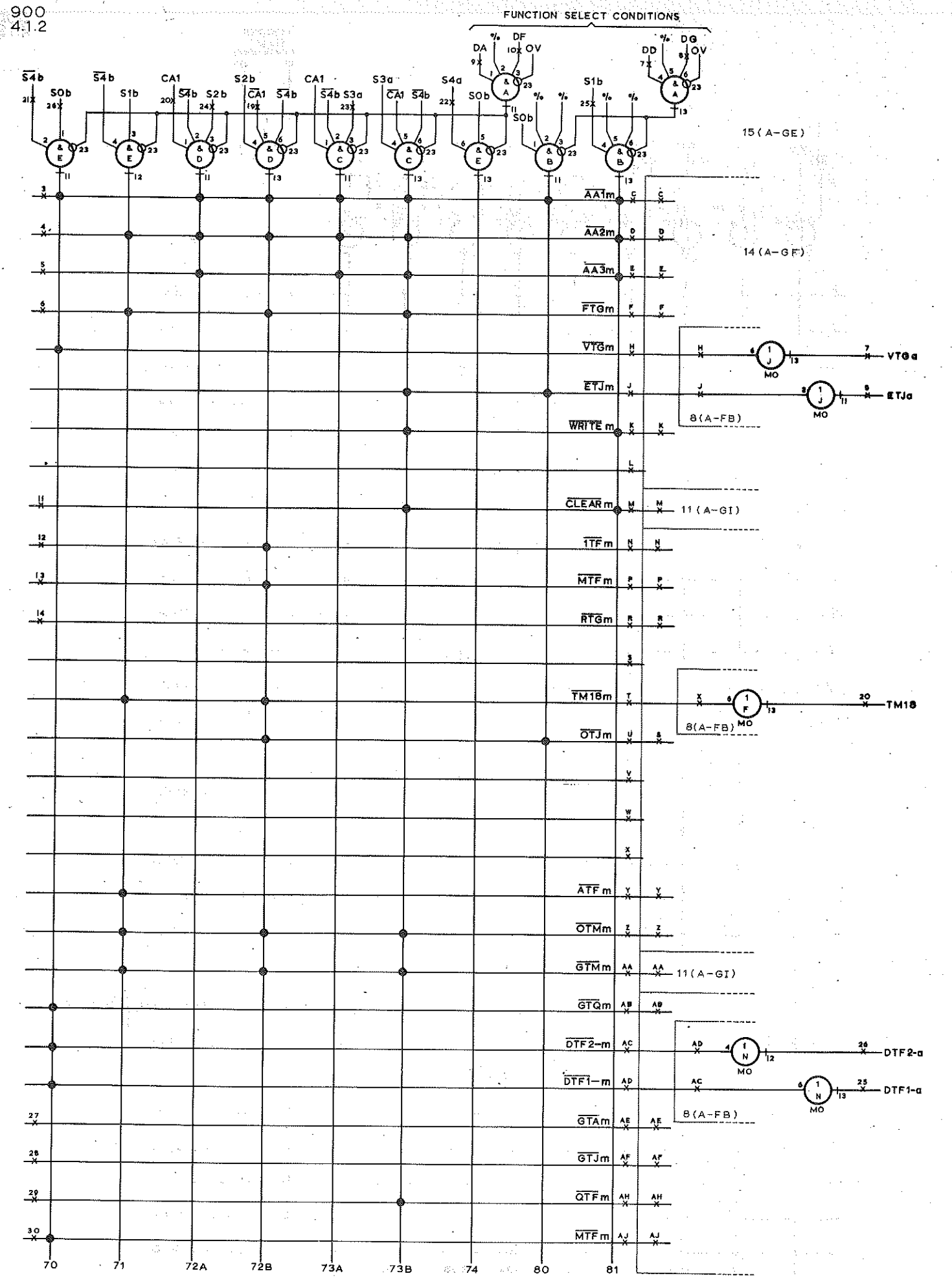
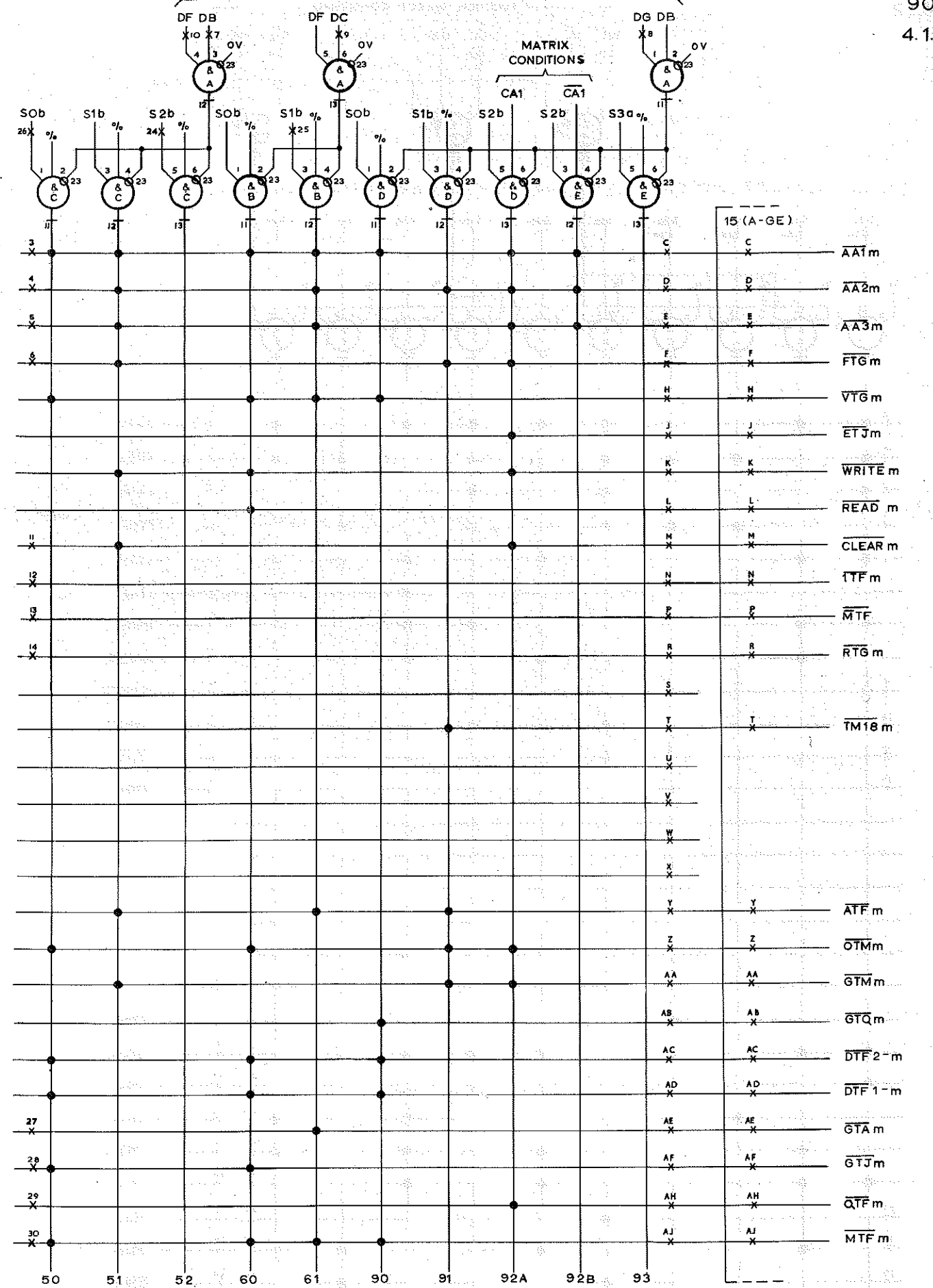


Figure 12 (ISSUE 2)



CONTROL MATRIX FUNCTIONS 5,6 & 9

Figure 13 (ISSUE 2)

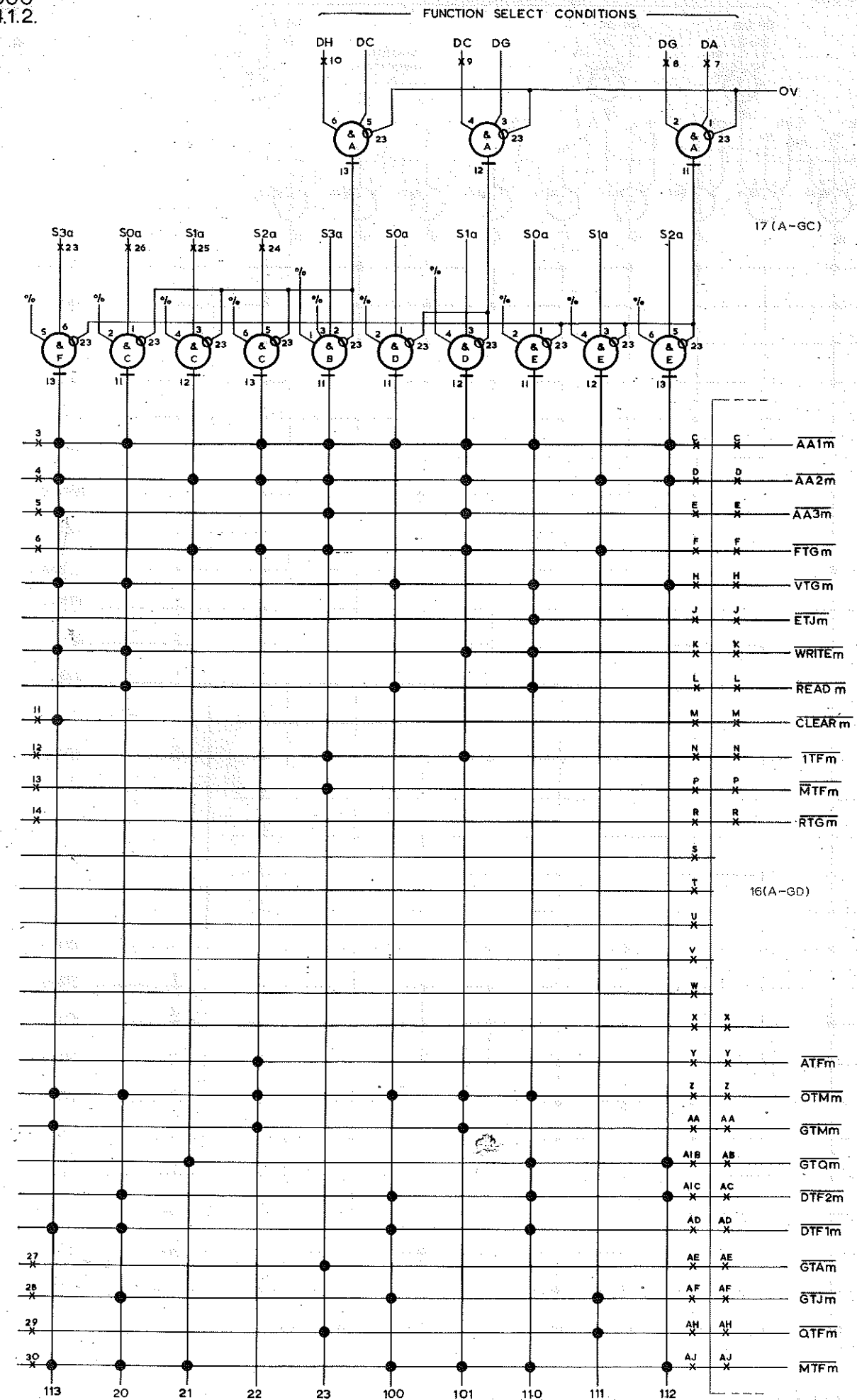
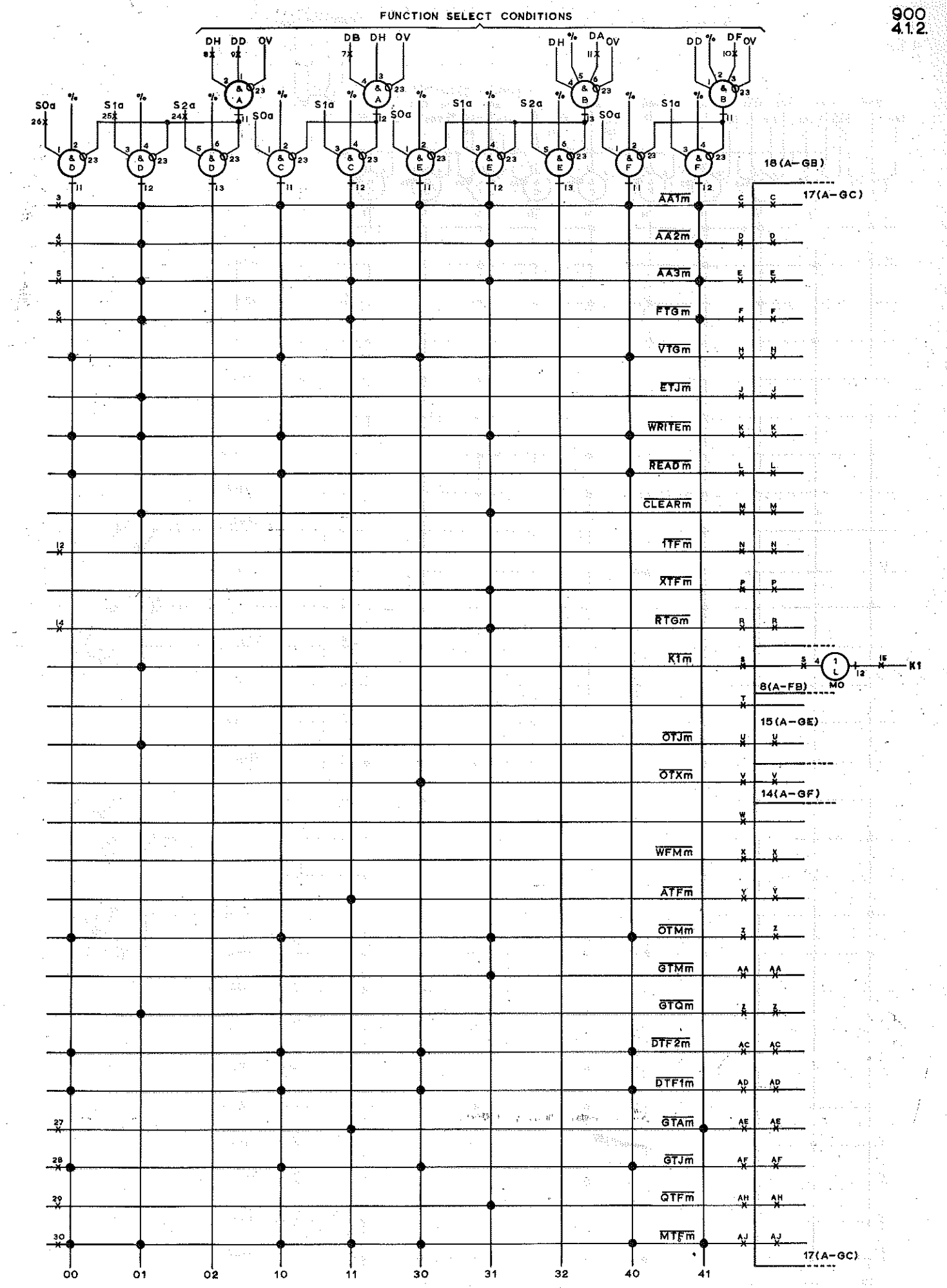


Figure 14 (ISSUE 2)



CONTROL MATRIX FUNCTIONS 0,1,3,4

Figure 15 (ISSUE 2)

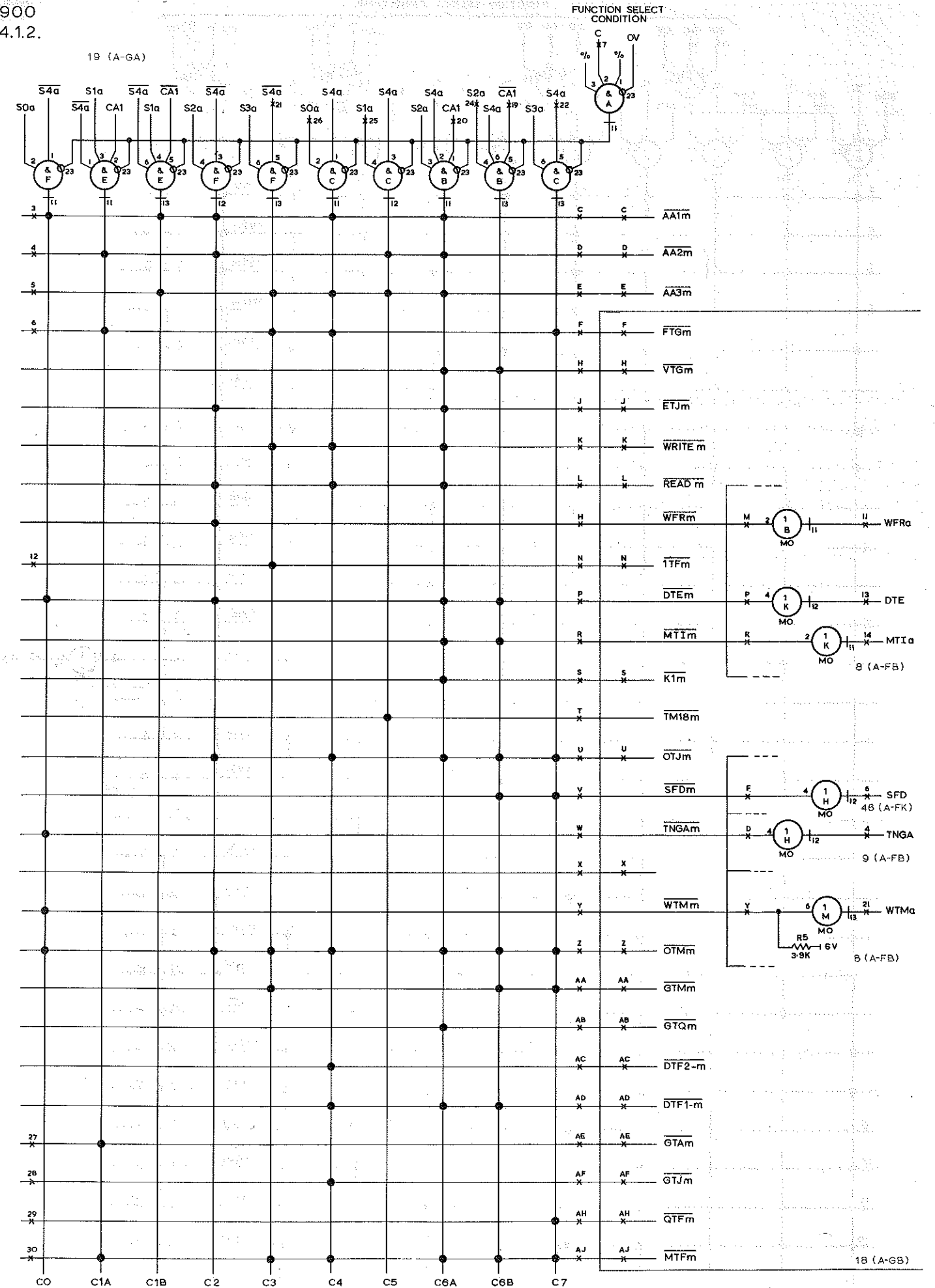
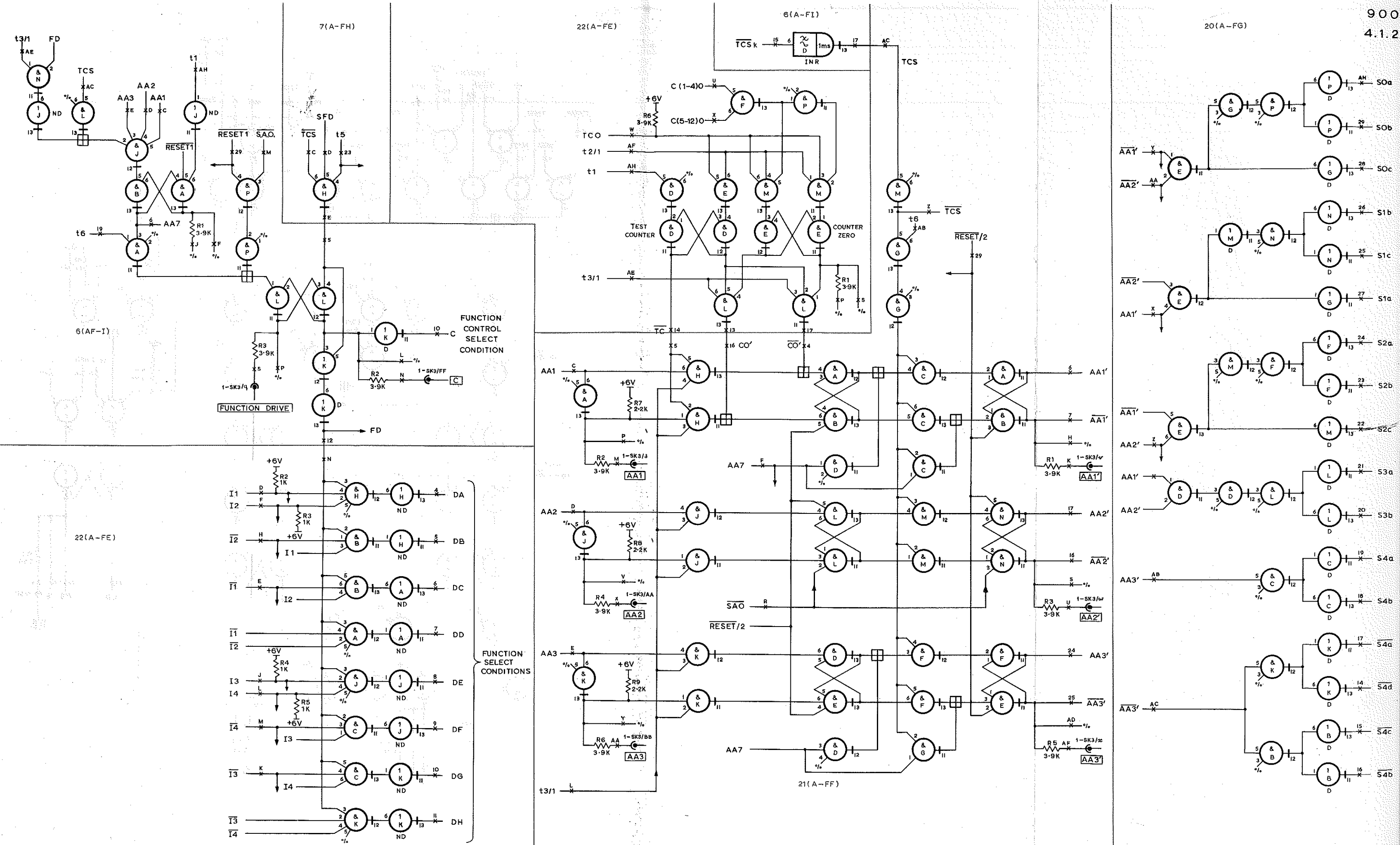


Figure 16 (ISSUE 2)





MATRIX ADDRESS SELECTION

Figure 17 (ISSUE 2)

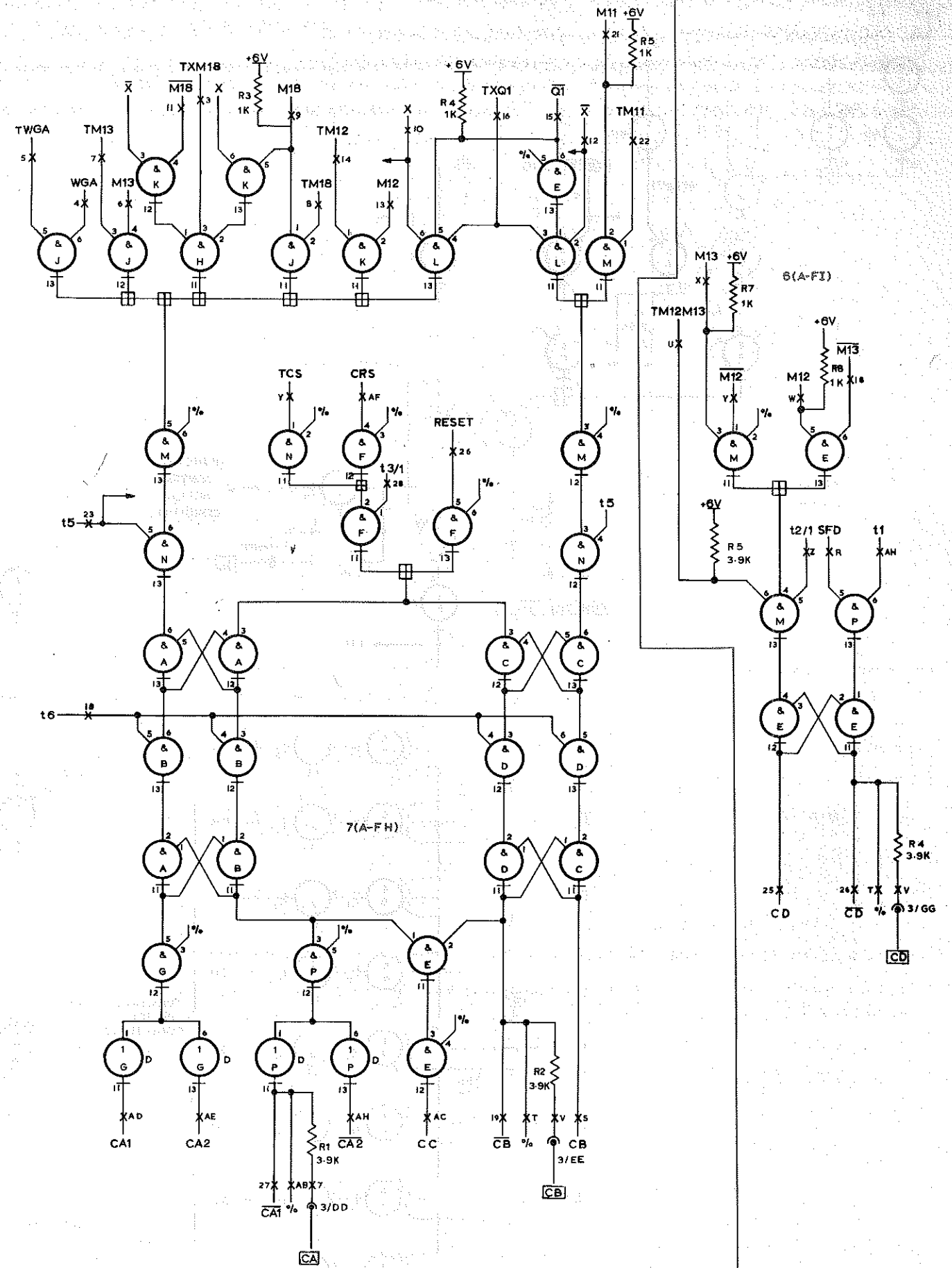
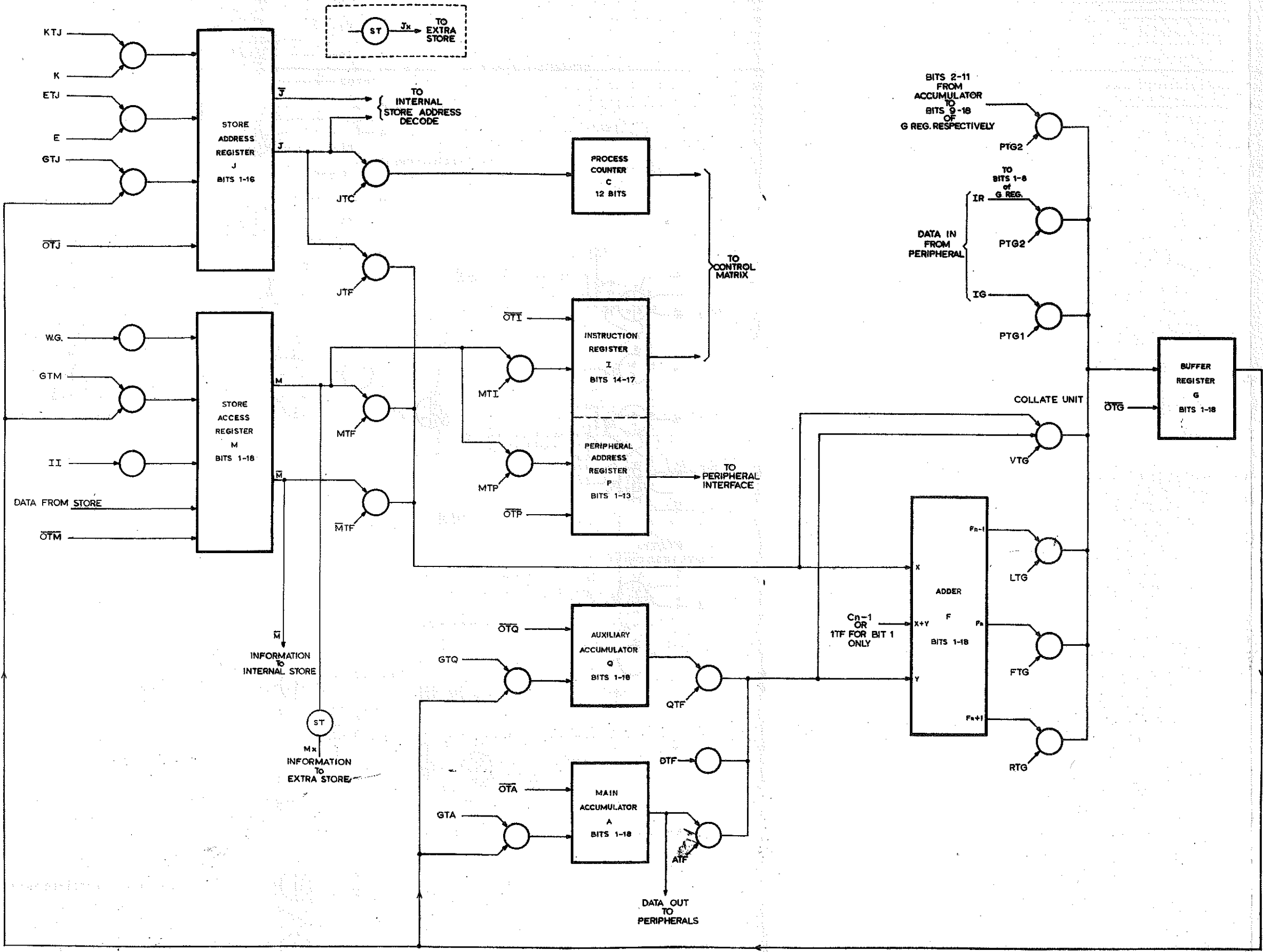


Figure 18 (ISSUE 2)



TITLE	DESCRIPTION
OTI, OTJ etc	All waveforms like these are register clear waveforms.
DTF	This waveform is divided into DTF/1 and DTF/2 and is used in conjunction with the collate unit. For more details see (FIG. 33 a, b & c)
II	INITIAL INSTRUCTIONS bits from MATRIX AMPLIFIERS. See (FIG. 30 b).
W.G.	WORD GENERATOR
I.G.	This is an 18 bit data input from any peripheral device other than the paper tape reader.
I.R.	This is a 5, 7 or 8 bit data input from the paper tape reader.
K	K is two waveforms K1 and K2 which are used to set up Process Counter for Mult. or Div. and K1 with E1 and E2 set up B-register address.
E	E is two waveforms E1 and E2 which are used to determine which SCR address or with K1 which Breg. address shall be selected according to the level of interrupt.

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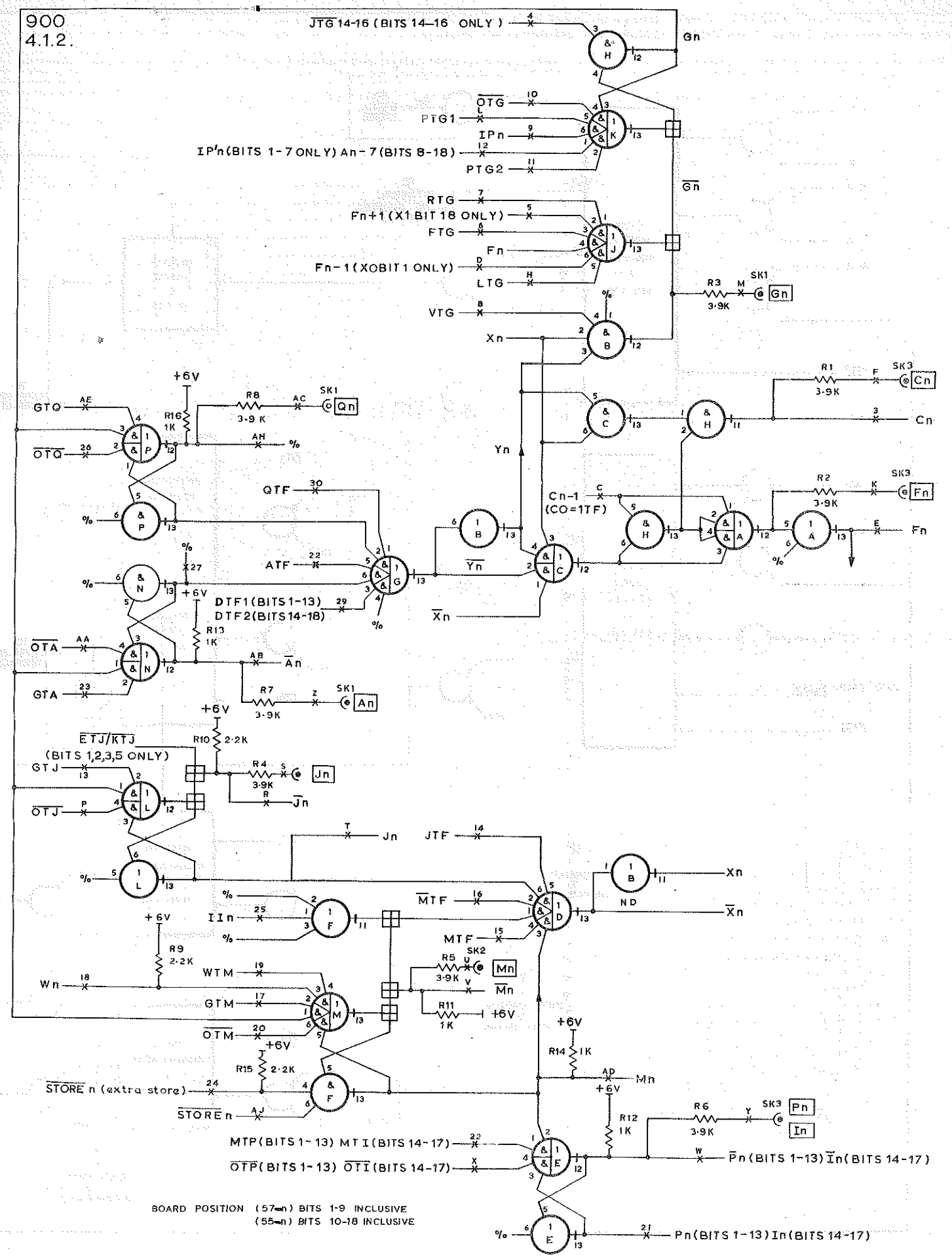
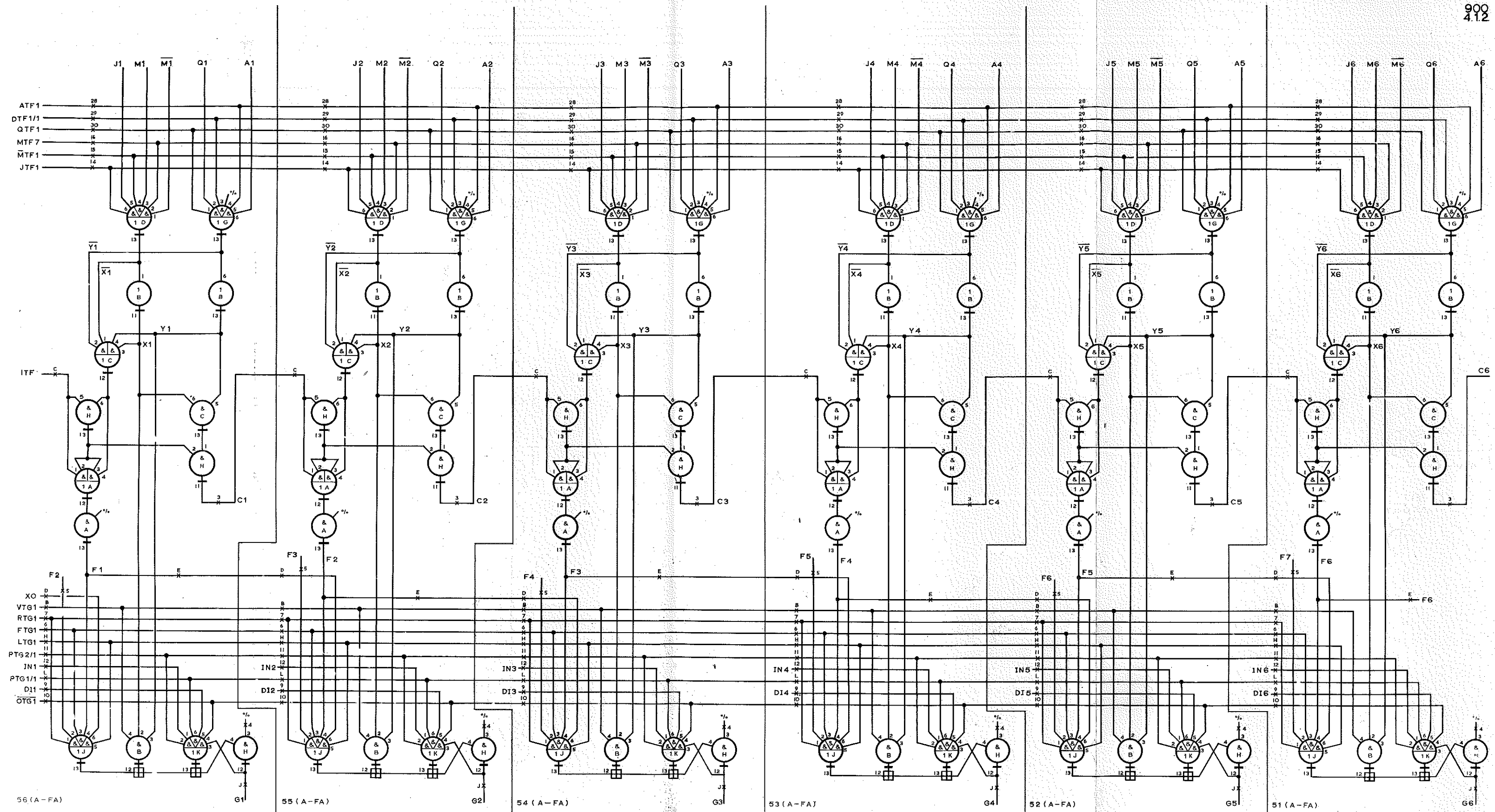


Figure 20 (ISSUE 2)

SAMPLE BIT OF REGISTERS AND FUNCTION UNIT



FUNCTION & COLLATE UNITS & G-REGISTER.

Figure 21a (ISSUE 2)

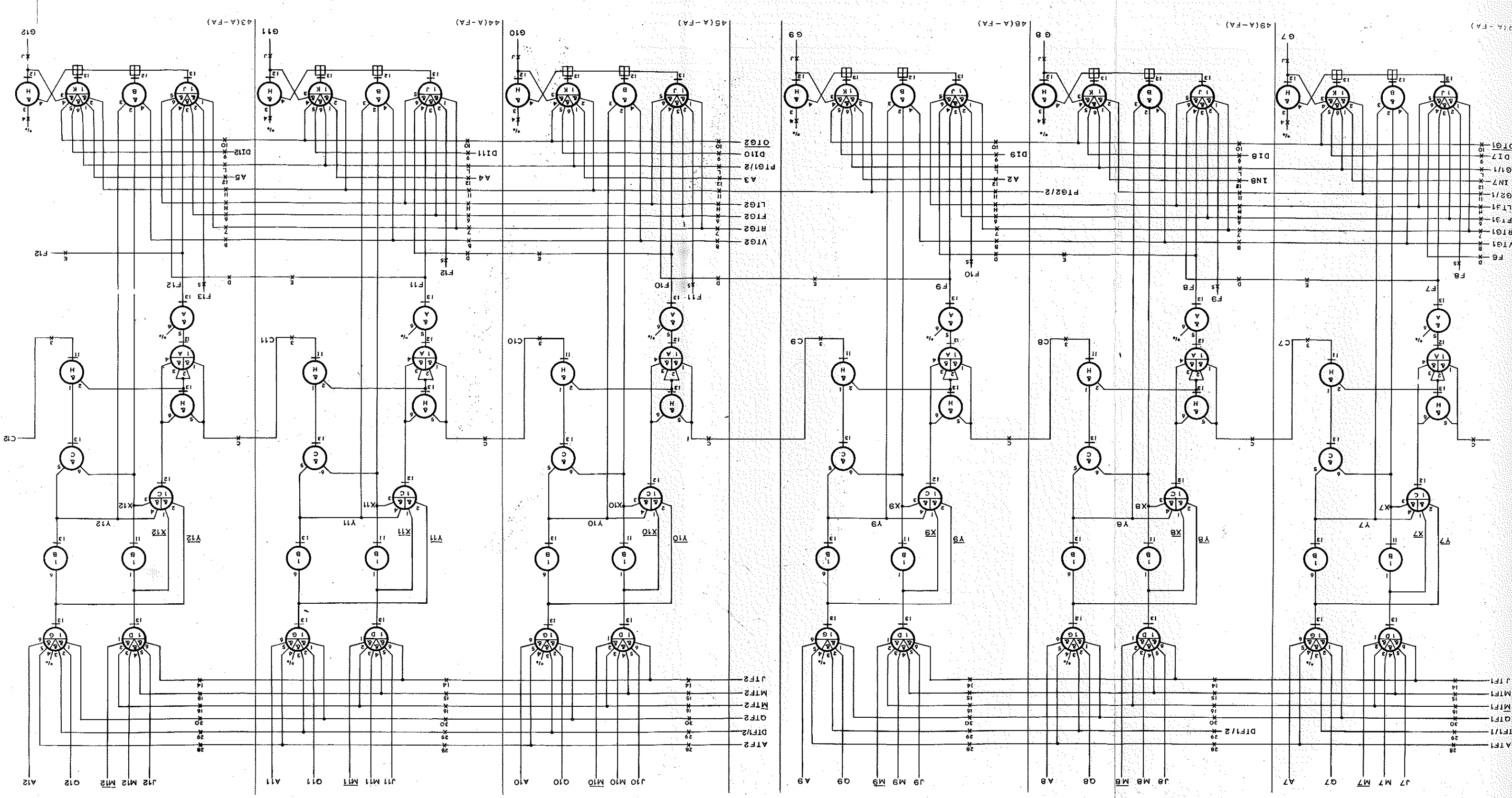
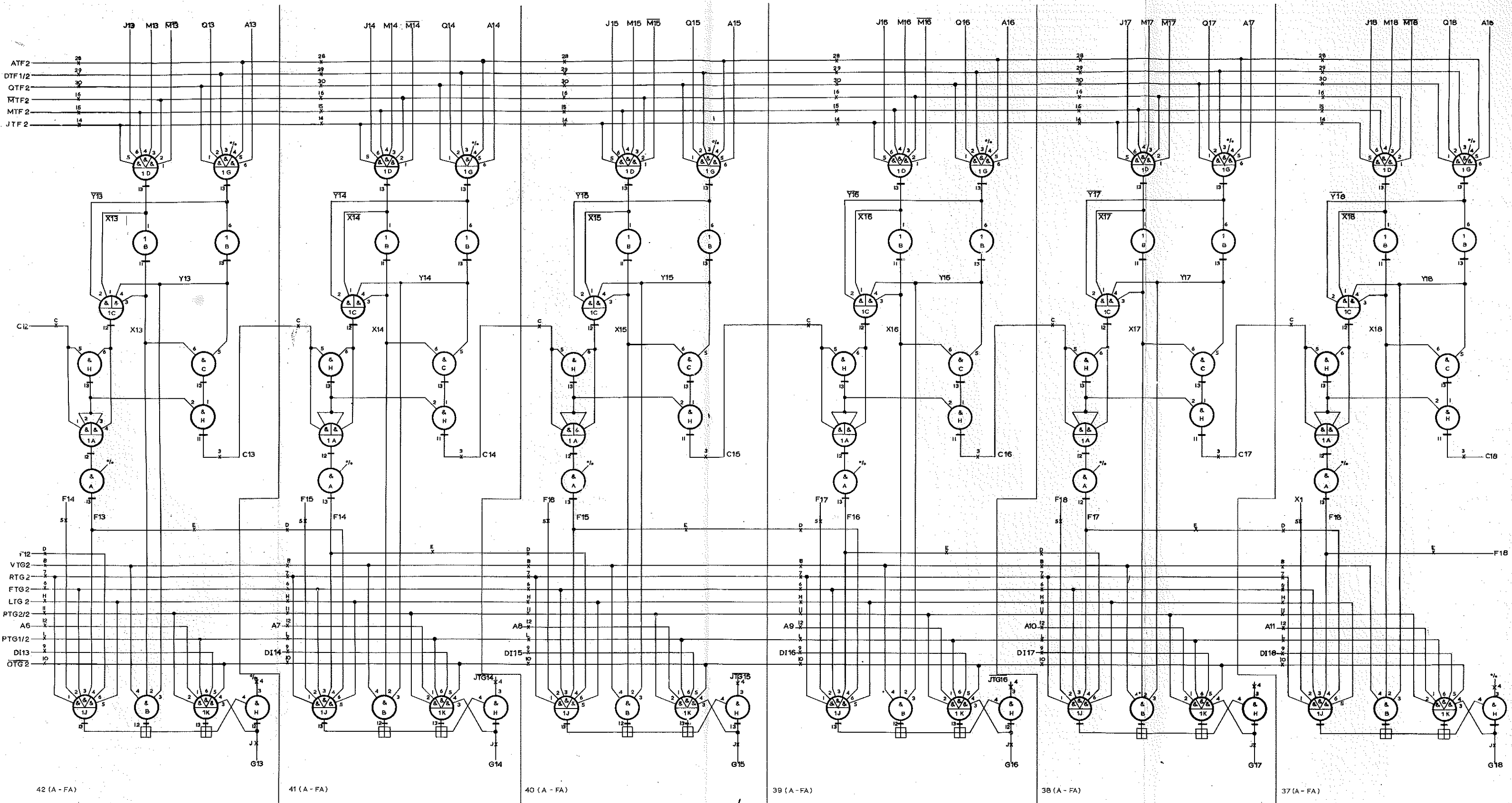


Figure 21b (ISSUE 2)

FUNCTION & COLLATE UNITS & G-REGISTER



42 (A - FA)

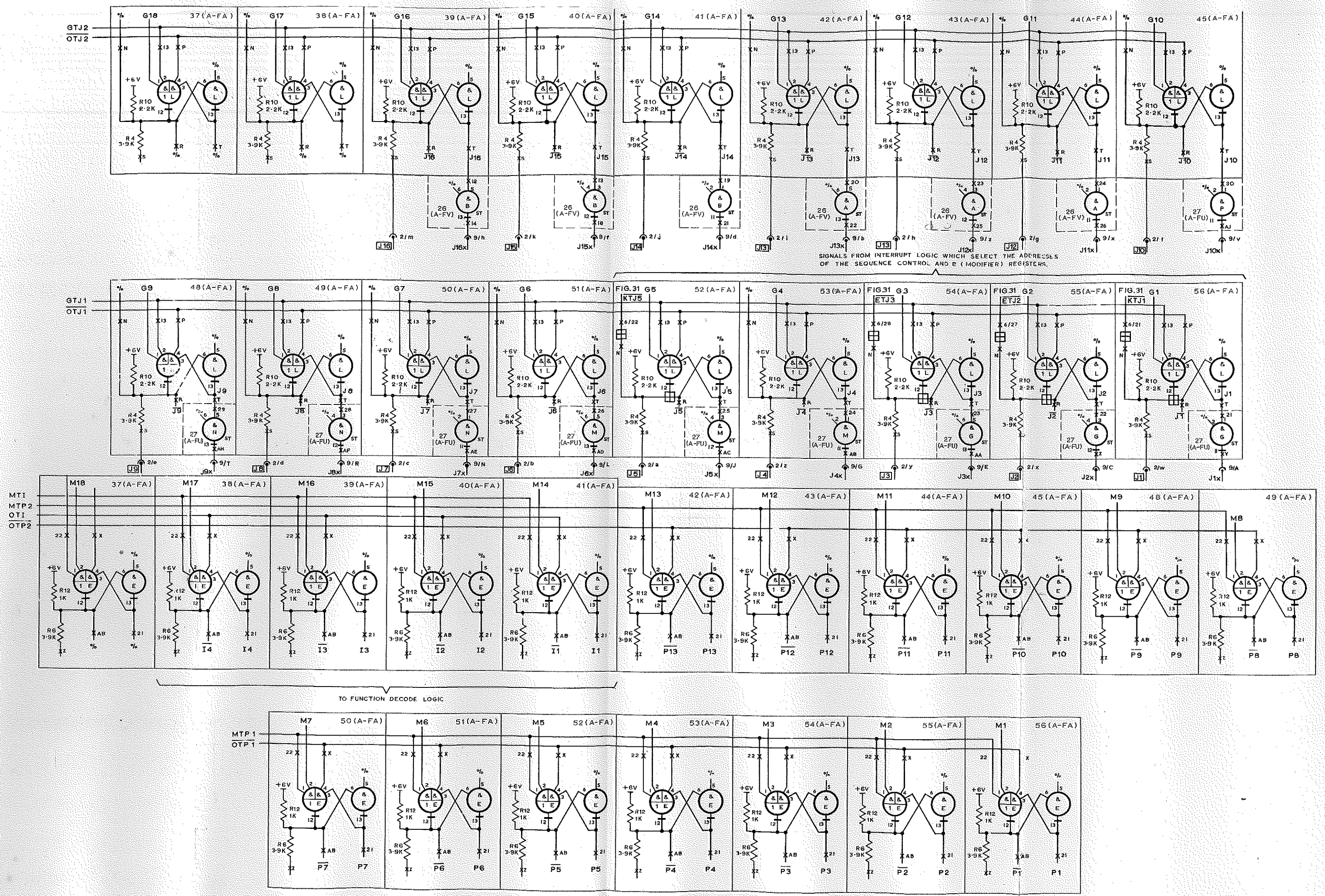
41 (A - FA)

40 (A - FA)

39 (A - FA)

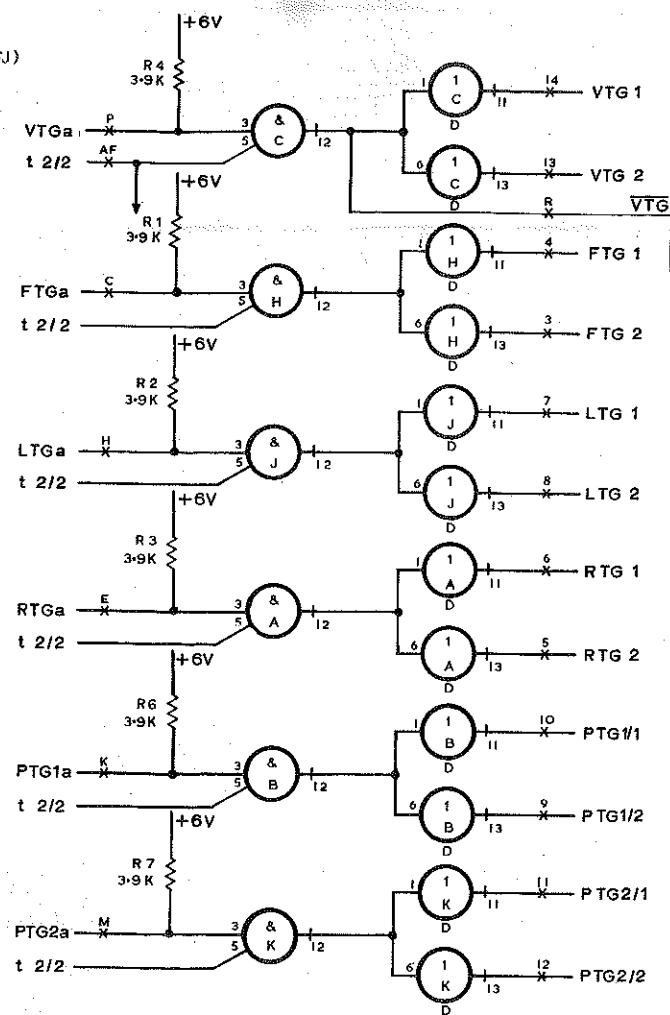
38 (A - FA)

37 (A - FA)

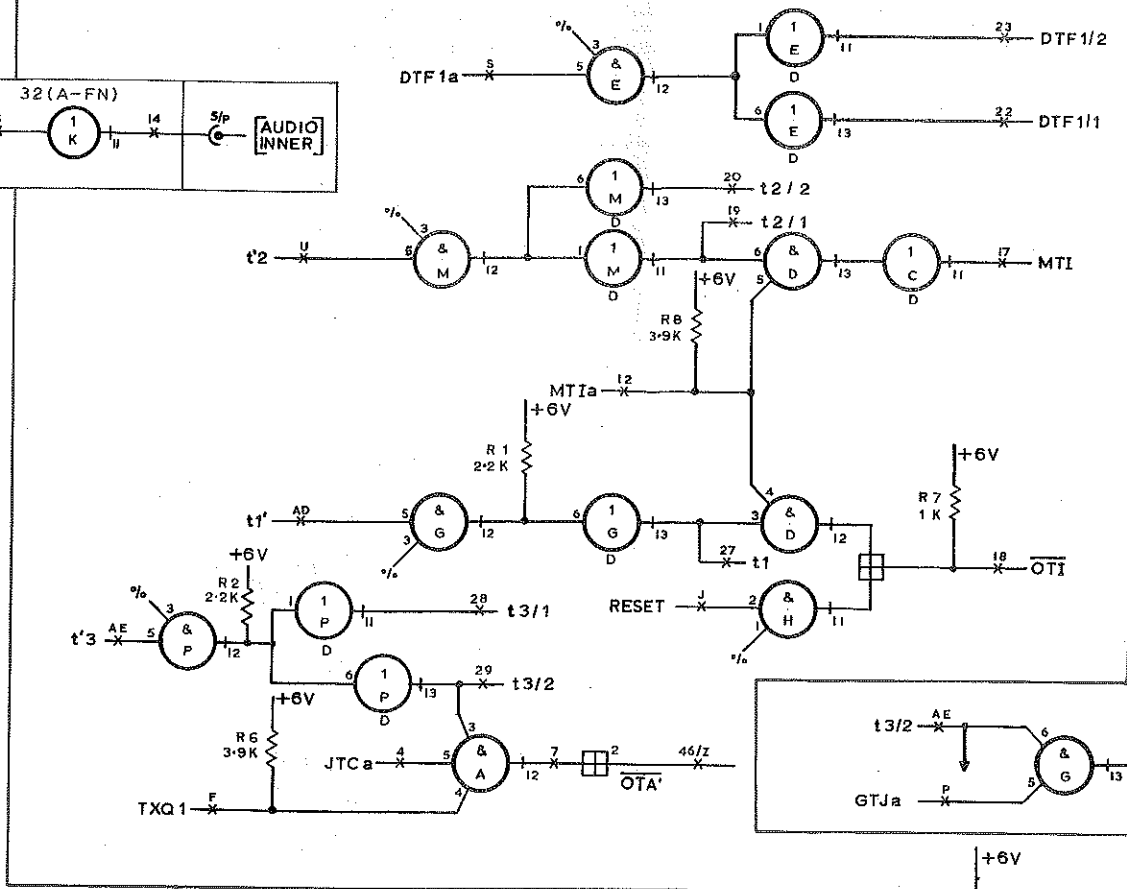
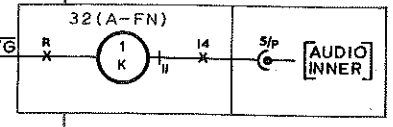




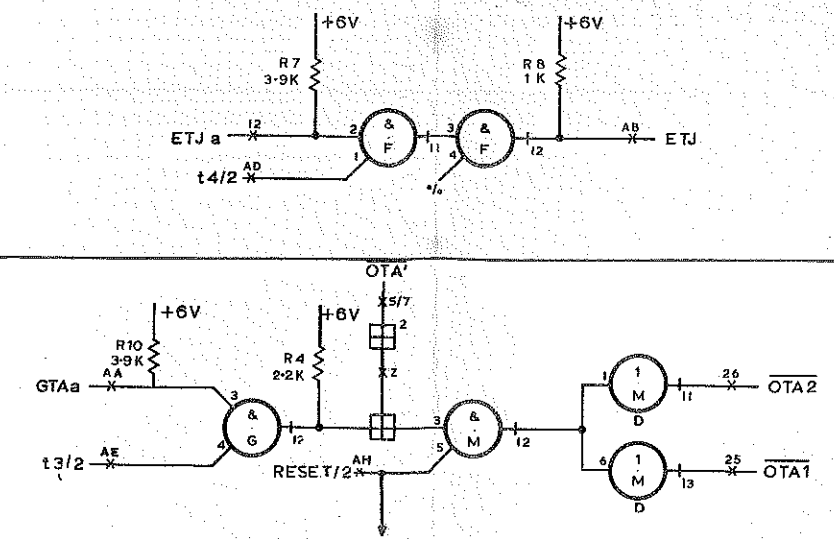
47(A-FJ)



5(A-FR)

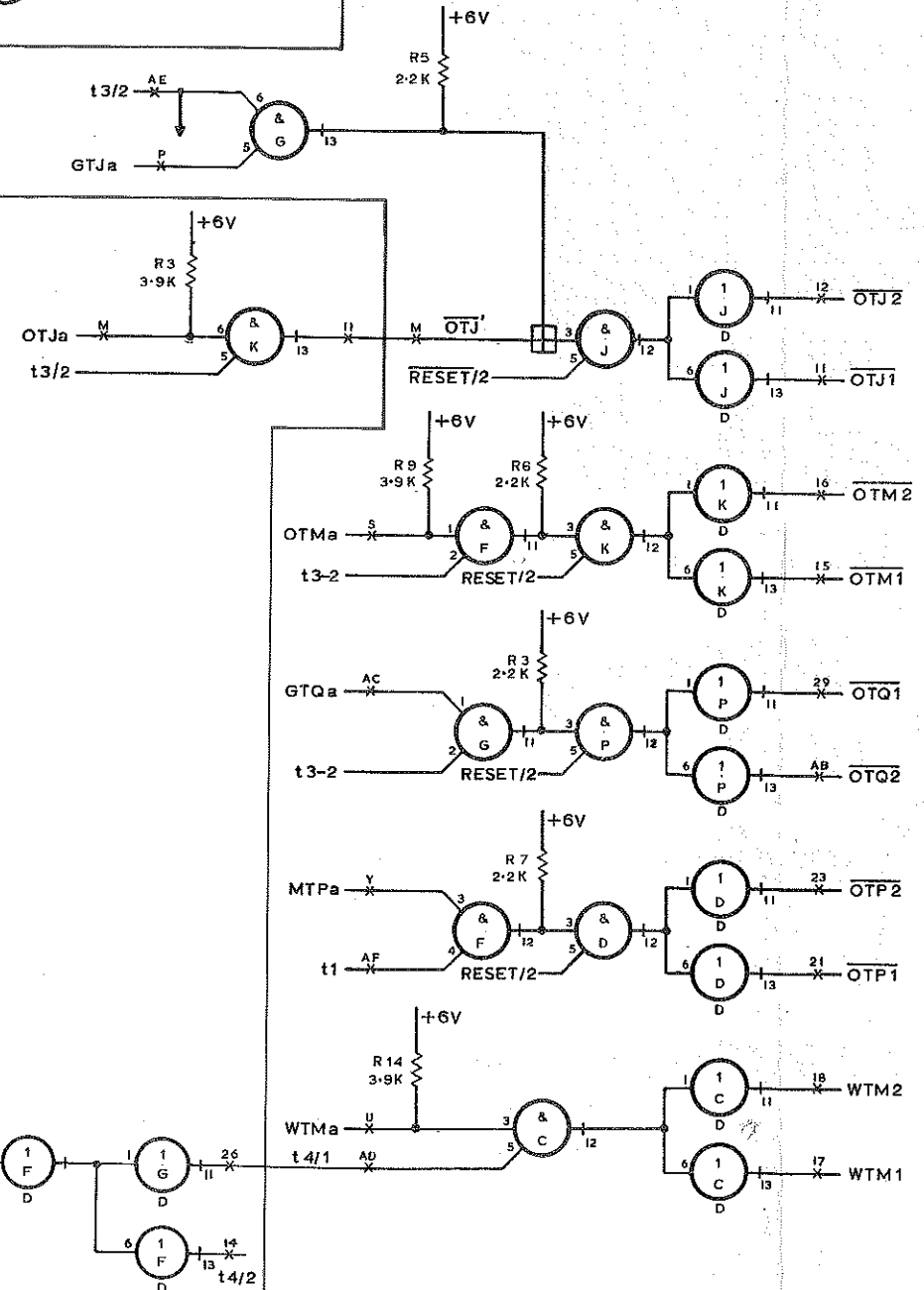
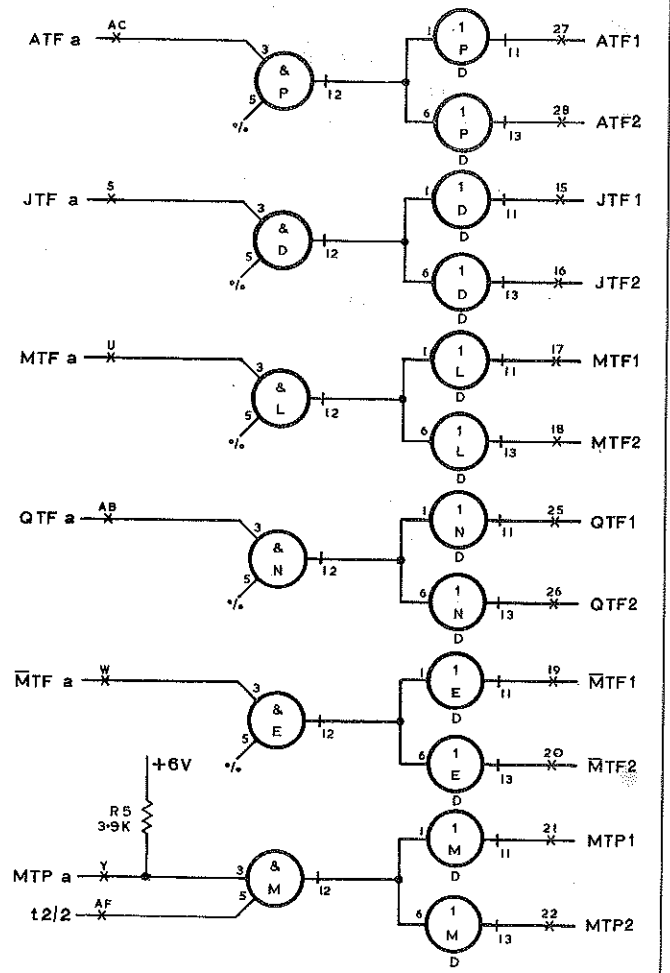
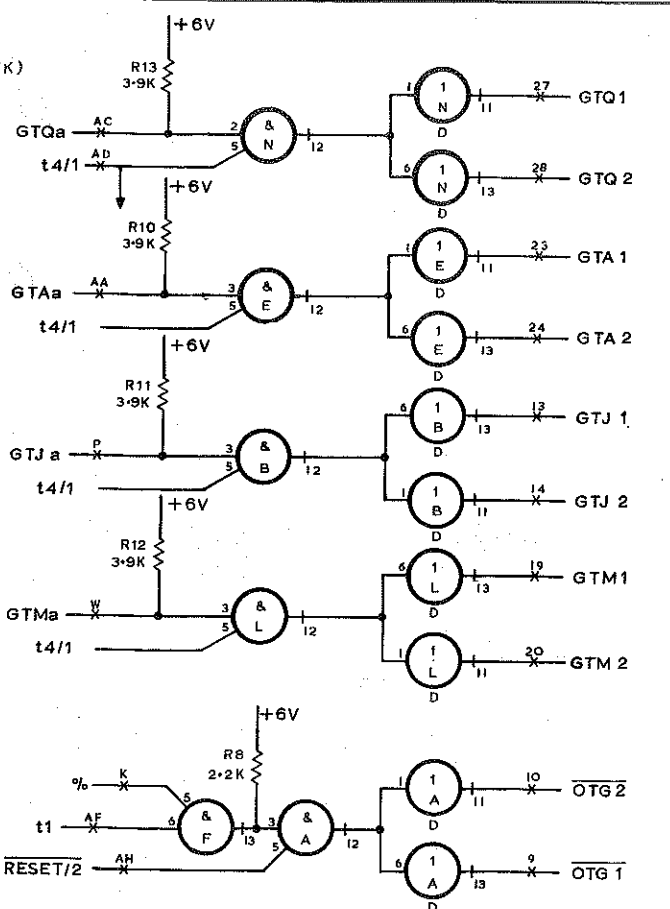


22(A-FE)

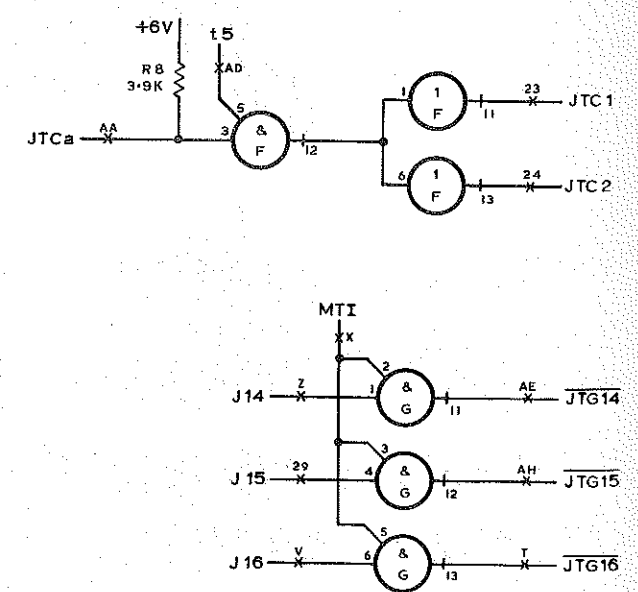


46(A-FK)

46(A-FK)

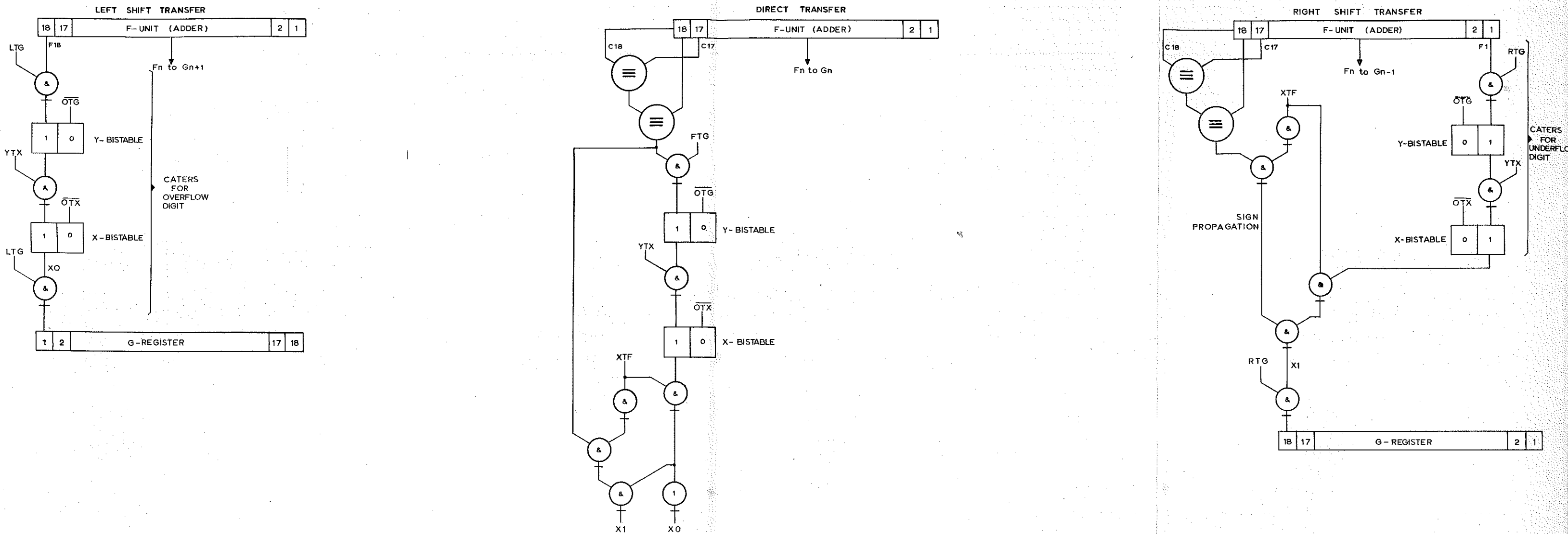


47(A-FJ)

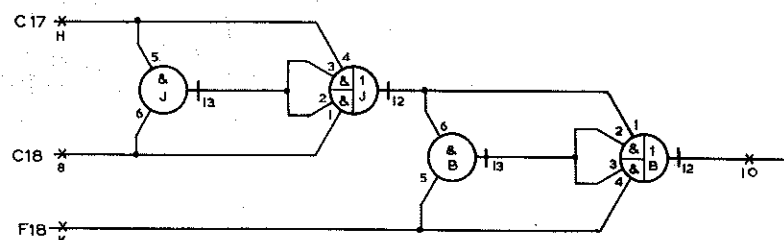


WAVEFORM DRIVERS

Figure 23 (ISSUE 7)



5 (A-FR)



57 (A-FM)

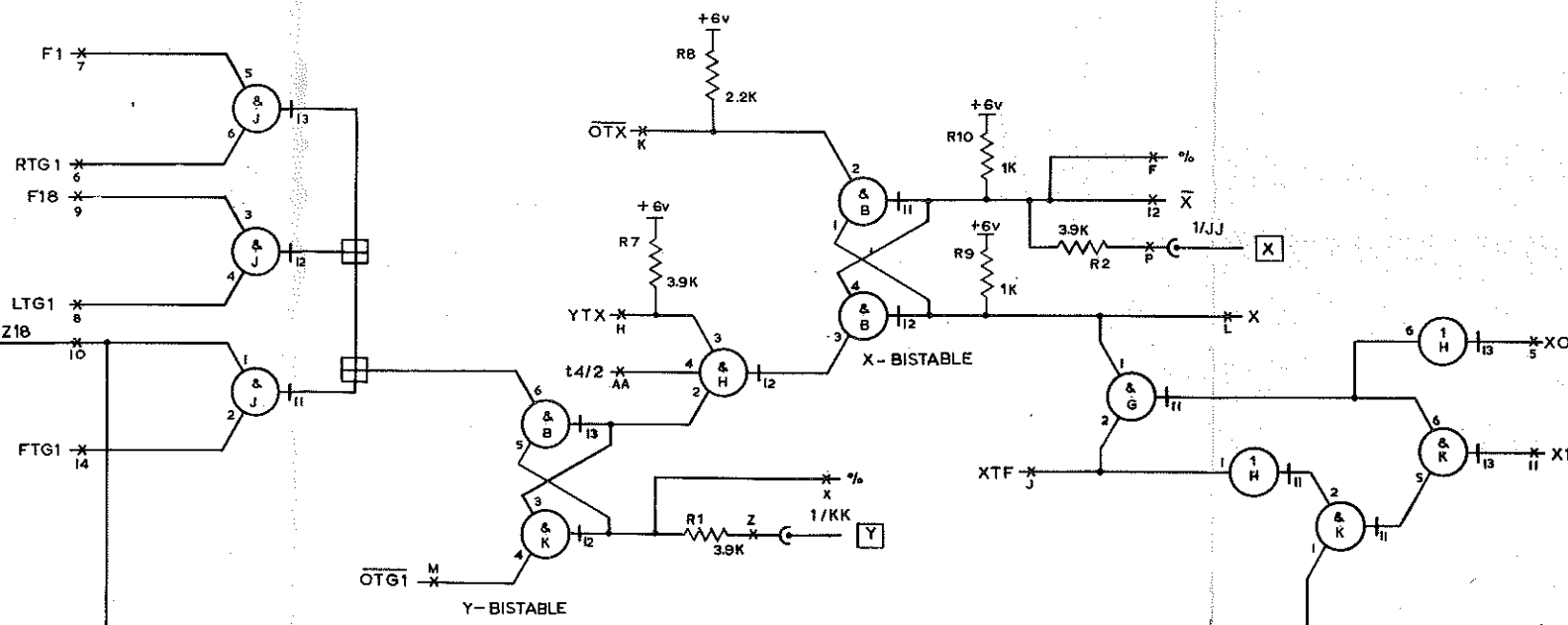
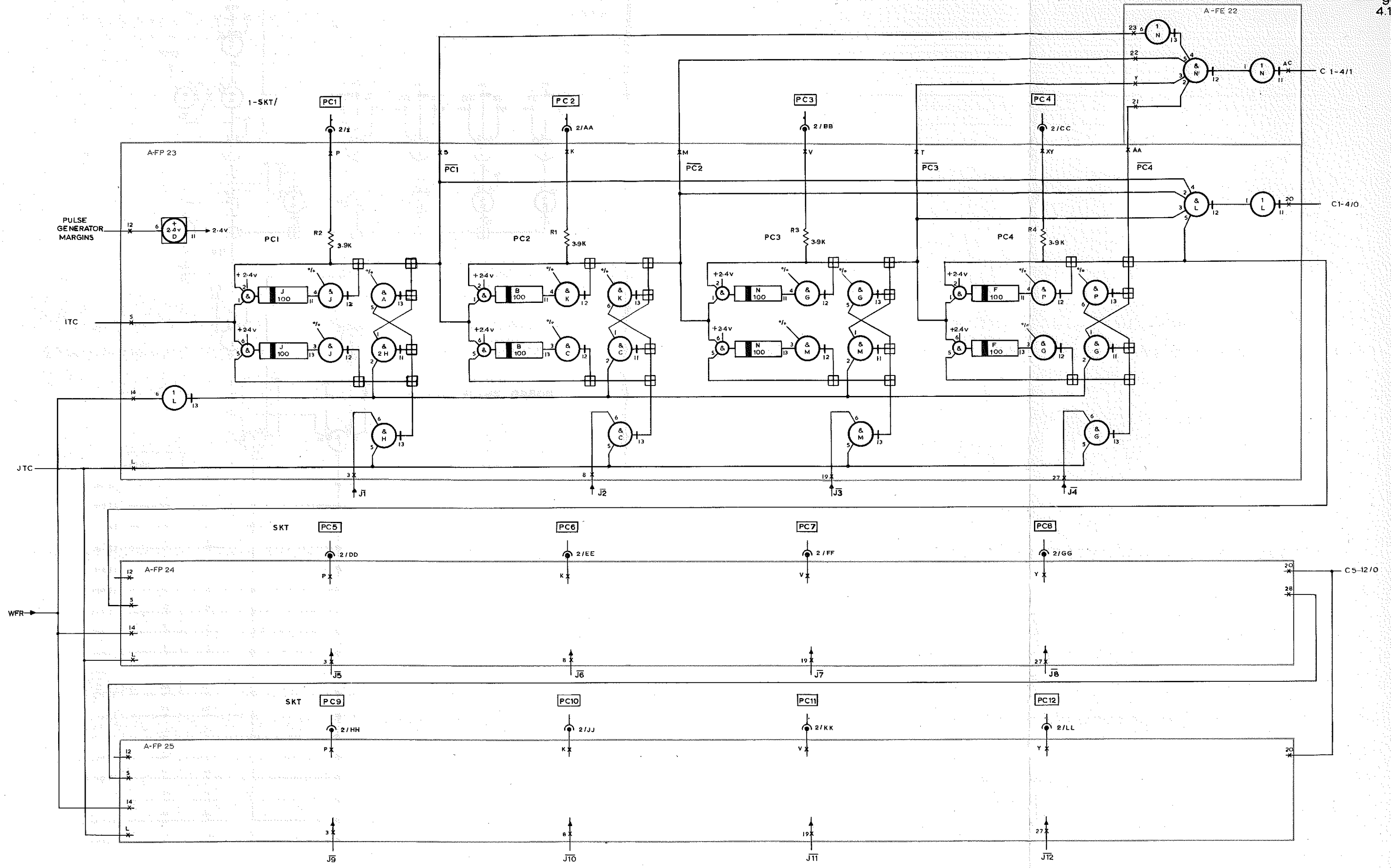
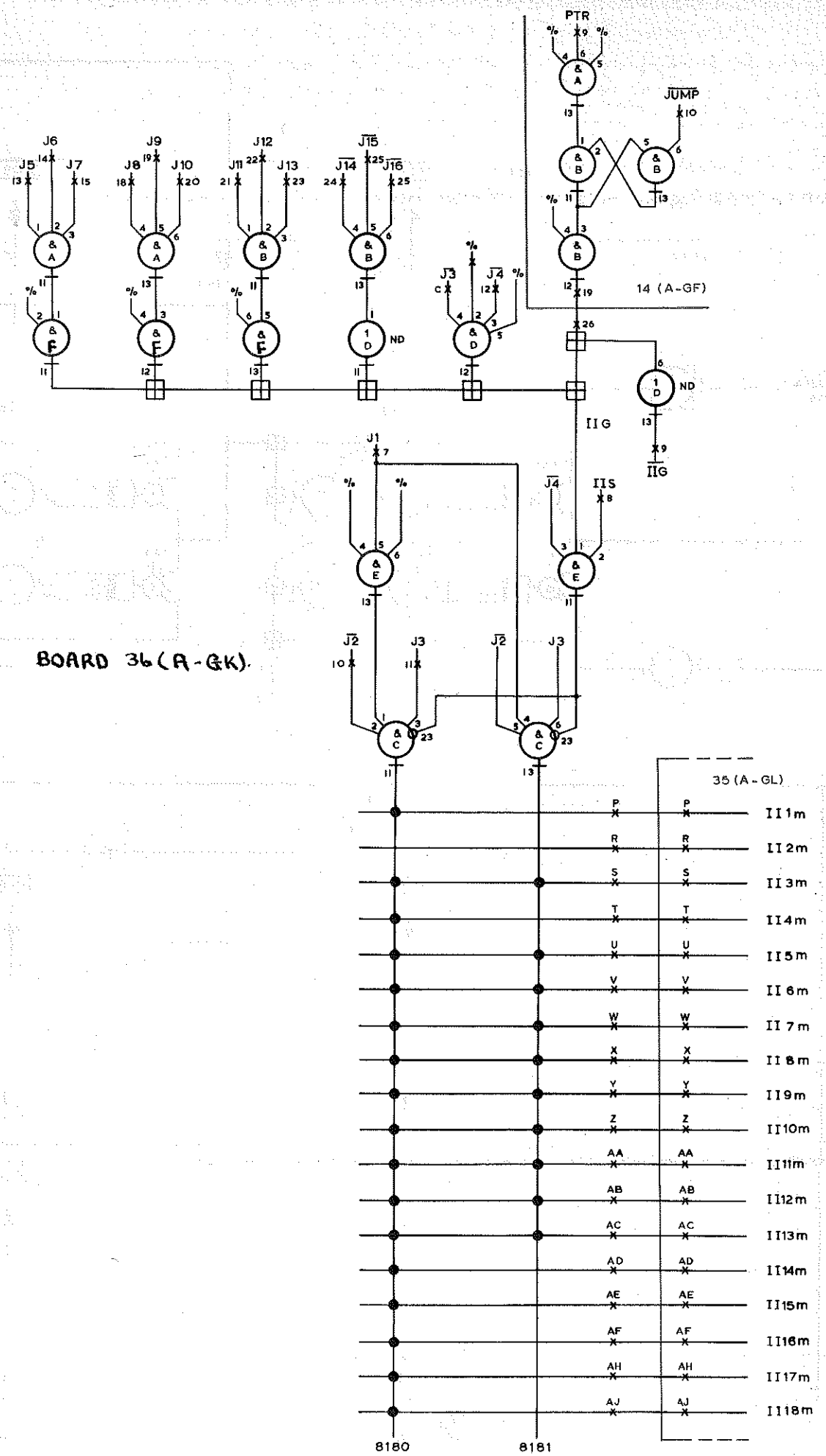


Figure 24 (ISSUE 2)

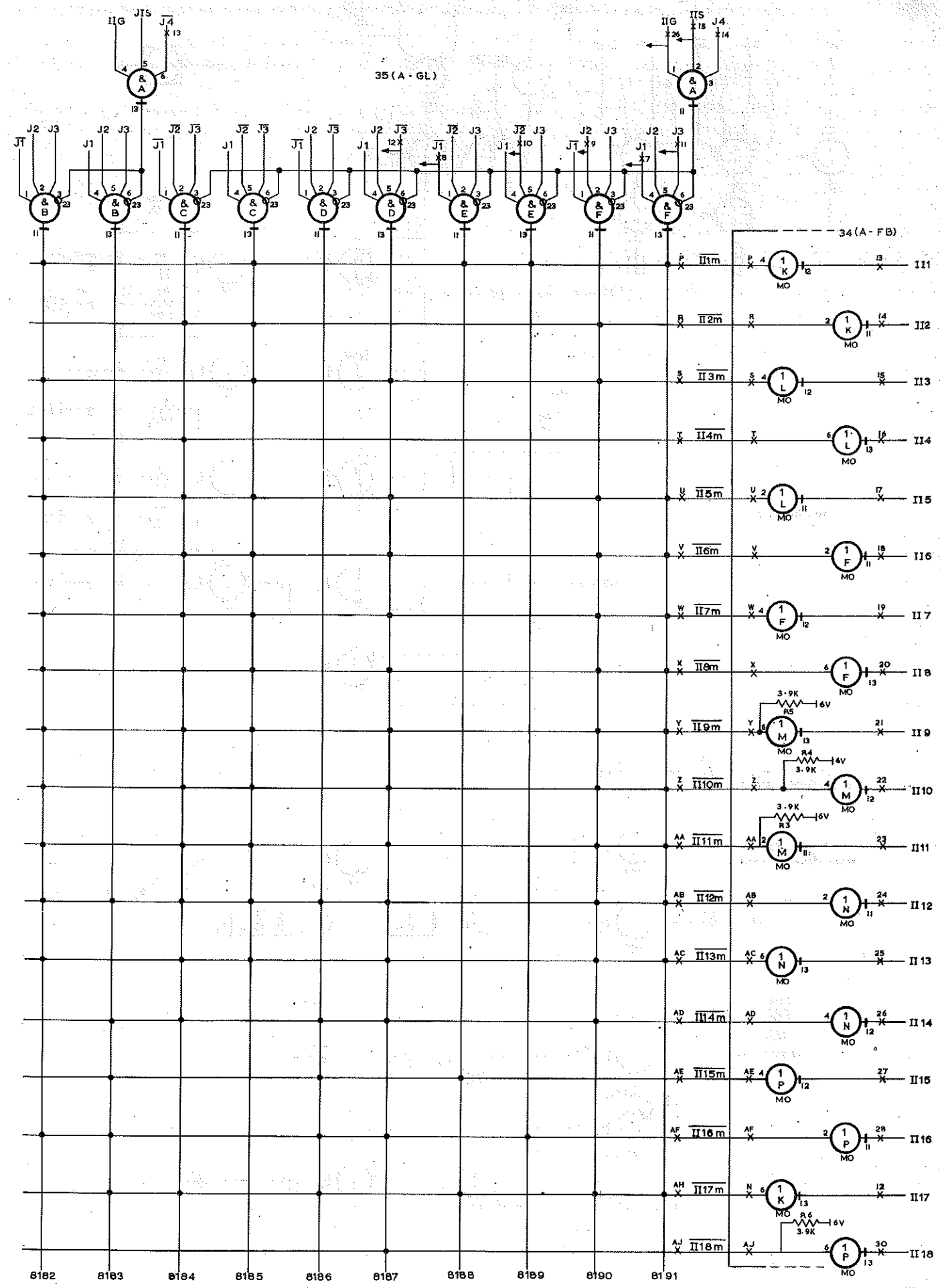


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BOARD 36 (A-GK).

Figure 26a (ISSUE 2)



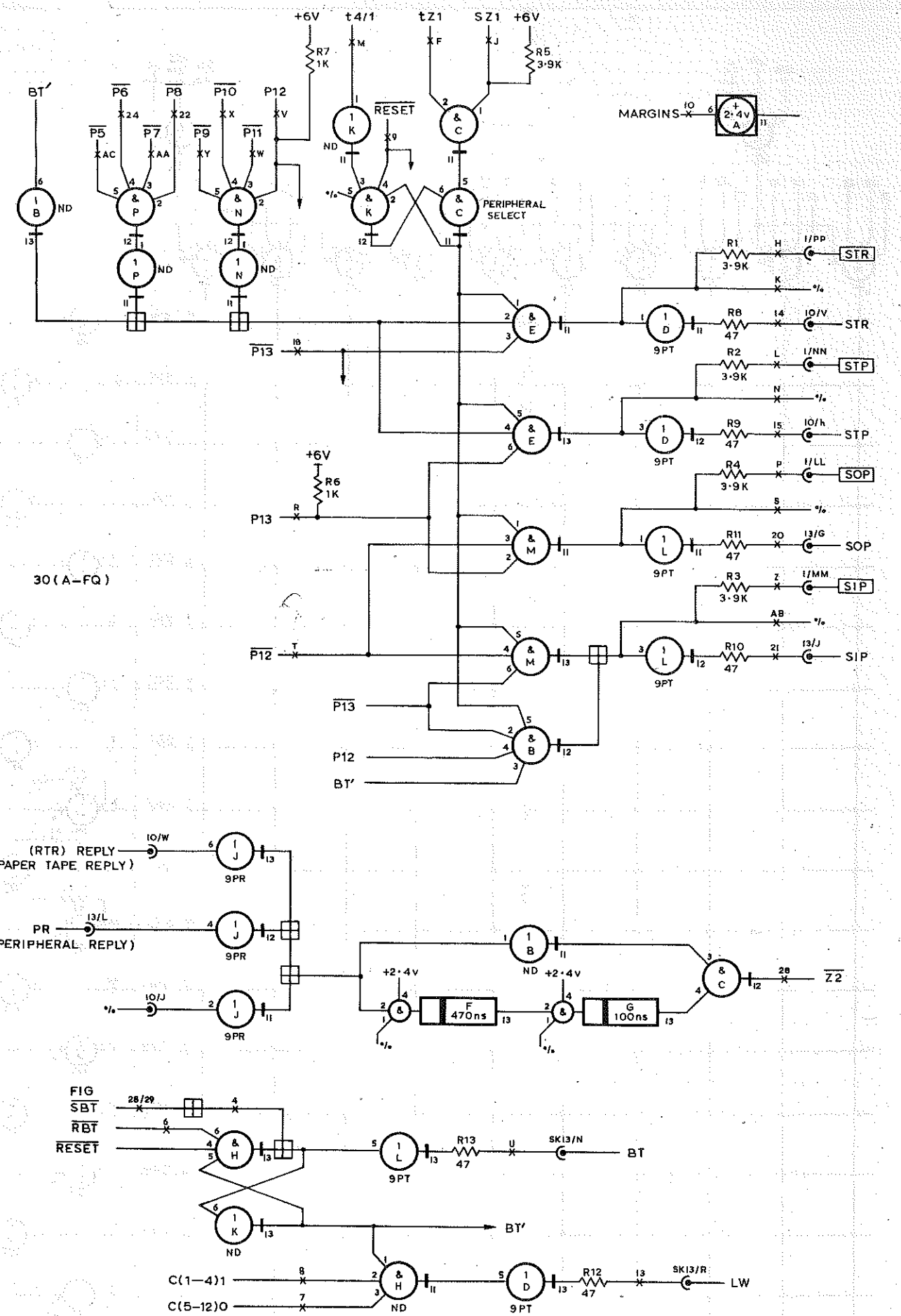
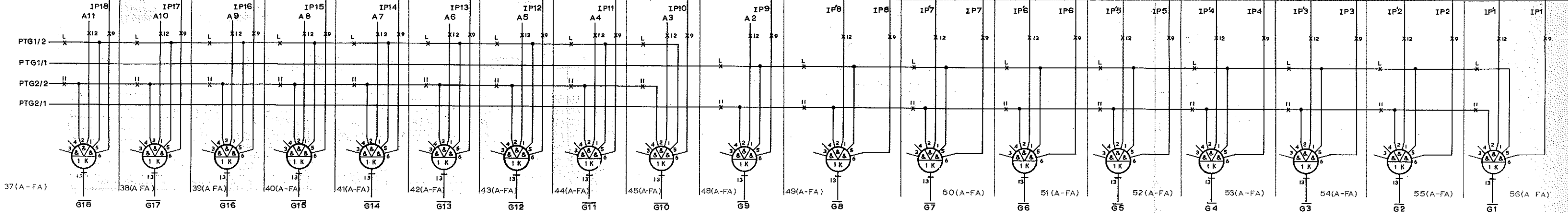
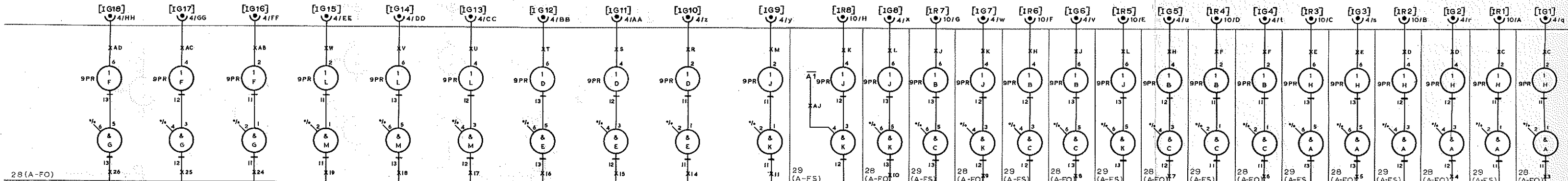
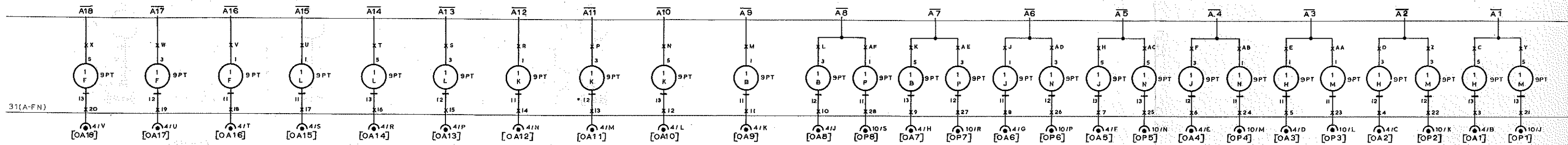
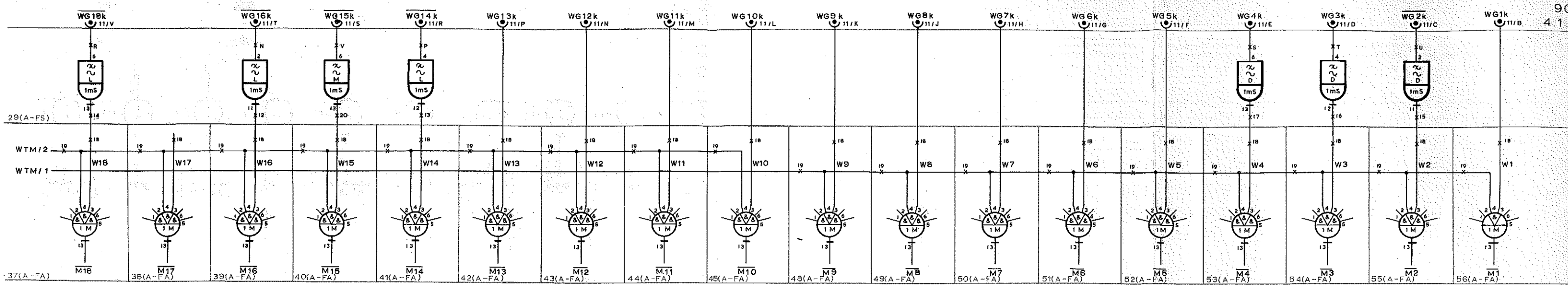
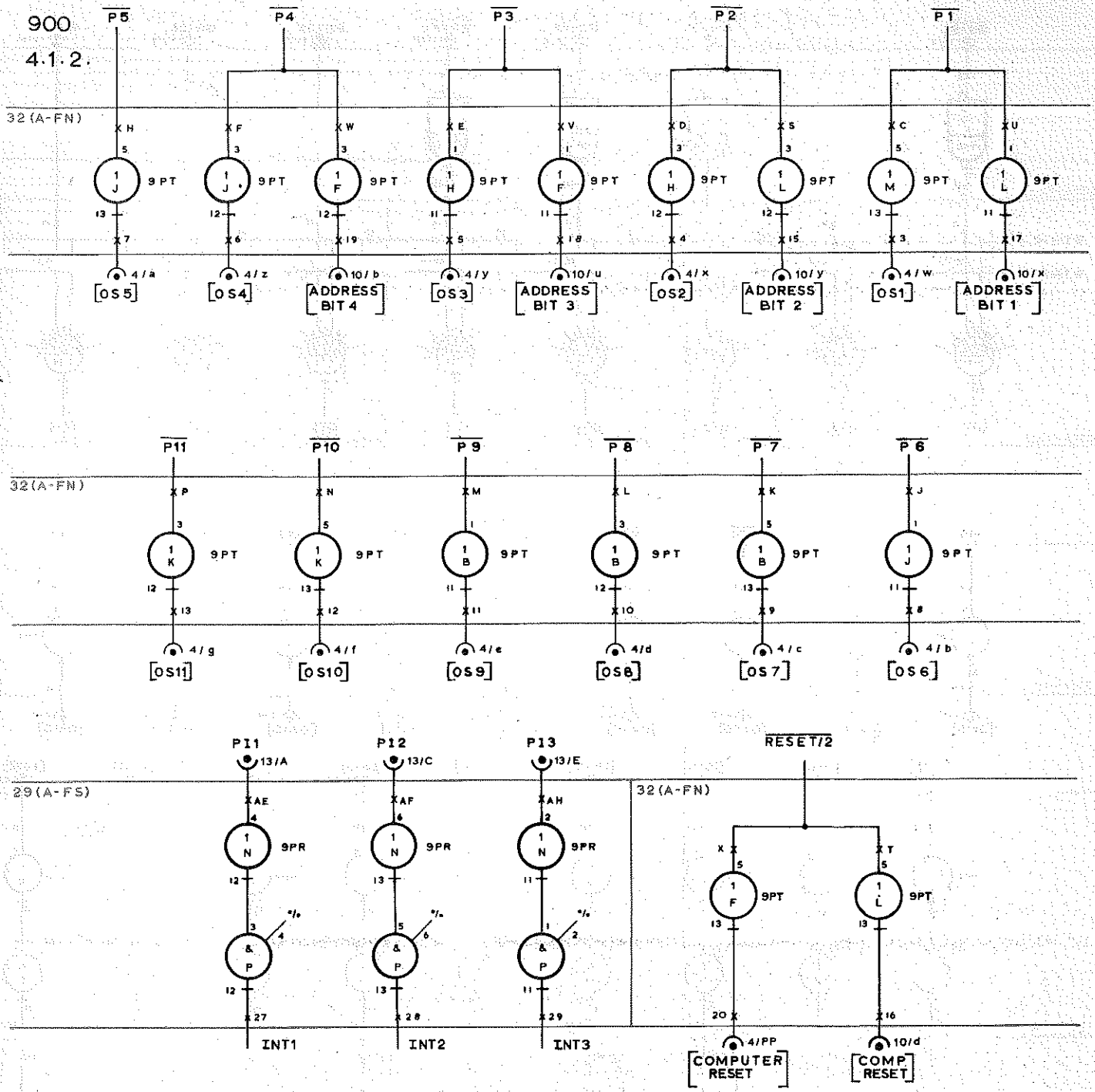


Figure 27 (ISSUE 2)

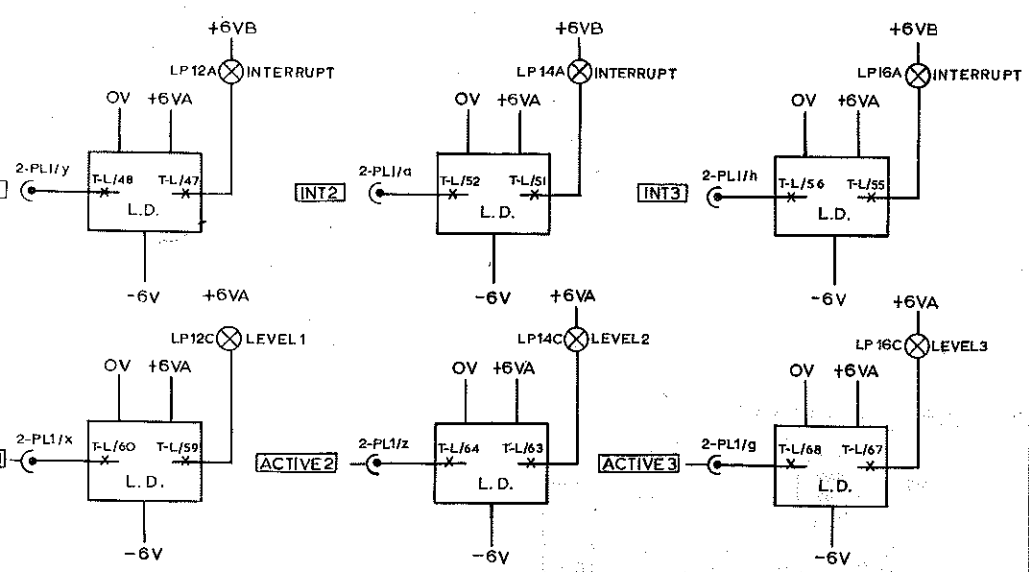




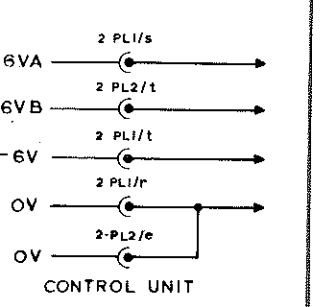
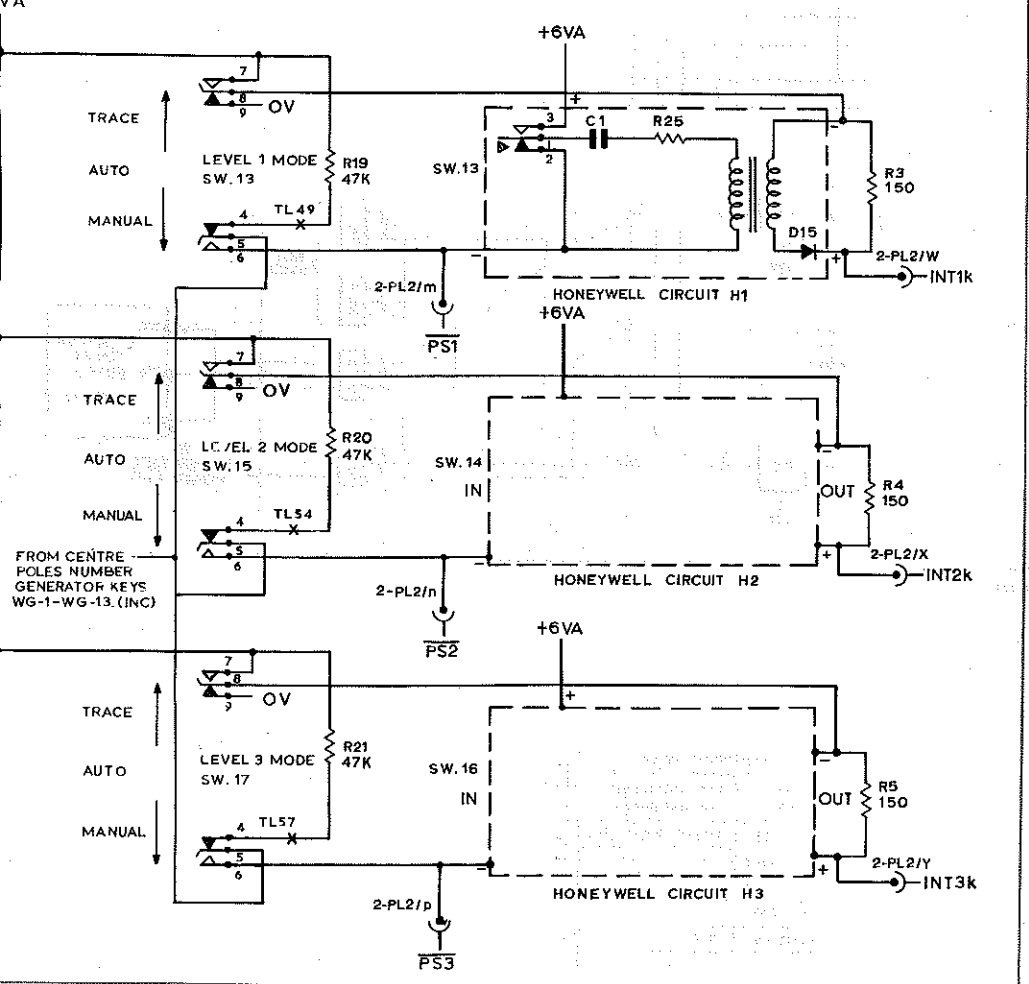
SIGNAL	FROM	TO
WG (INPUT)	WORD GENERATOR	STORE ACCESS REGISTER (M)
IG (INPUT)	GENERAL PERIPHERAL SOCKET (4)	BUFFER REGISTER (G)
IR (INPUT)	PAPER TAPE PERIPHERAL SOCKET (10)	BUFFER REGISTER (G)
OA (OUTPUT)	ACCUMULATOR	GENERAL PERIPHERAL
OP (OUTPUT)	ACCUMULATOR	PAPER TAPE PUNCH OR TELEPRINTER
OS (INPUT & OUTPUT)	PERIPHERAL ADDRESS REGISTER	GENERAL PERIPHERAL
ADDRESS BIT	PERIPHERAL ADDRESS REGISTER	PAPER TAPE READER, PUNCH AND TELEPRINTER.

Figure 29 (ISSUE 2)





NOTE: SEE FIGURE 35 FOR DETAILS OF L.D.(LAMP DRIVER) CIRCUIT.



PROGRAM LEVEL	INTERRUPT BISTABLES		J REGISTER BITS SET			BIT SET	
	E1	E2	J5	J3	J2	J1	SCR/BREG
HIGHEST	1	0	0	0	0	0	1
	2	1	0	0	0	1	0
	3	0	1	0	1	0	0
BASE	4	1	1	0	1	1	0
MULTIPLY			1	0	0	0	1
DIVIDE			1	0	1	0	0

J-REGISTER	
SETTING SIGNAL	BIT AFFECTED
KTJ1	J1
ETJ2	J2
ETJ3	J3
KTJ5	J5

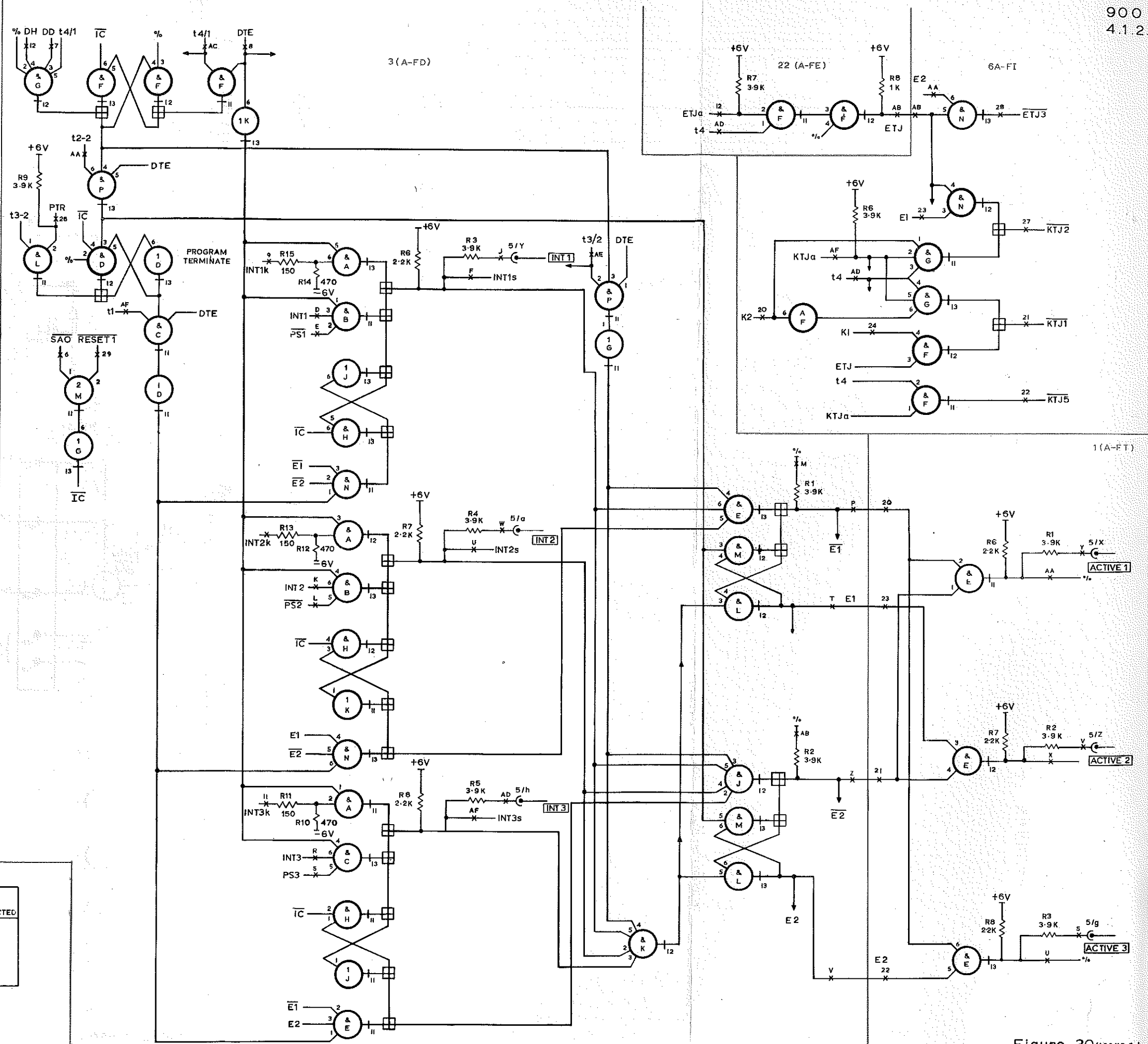
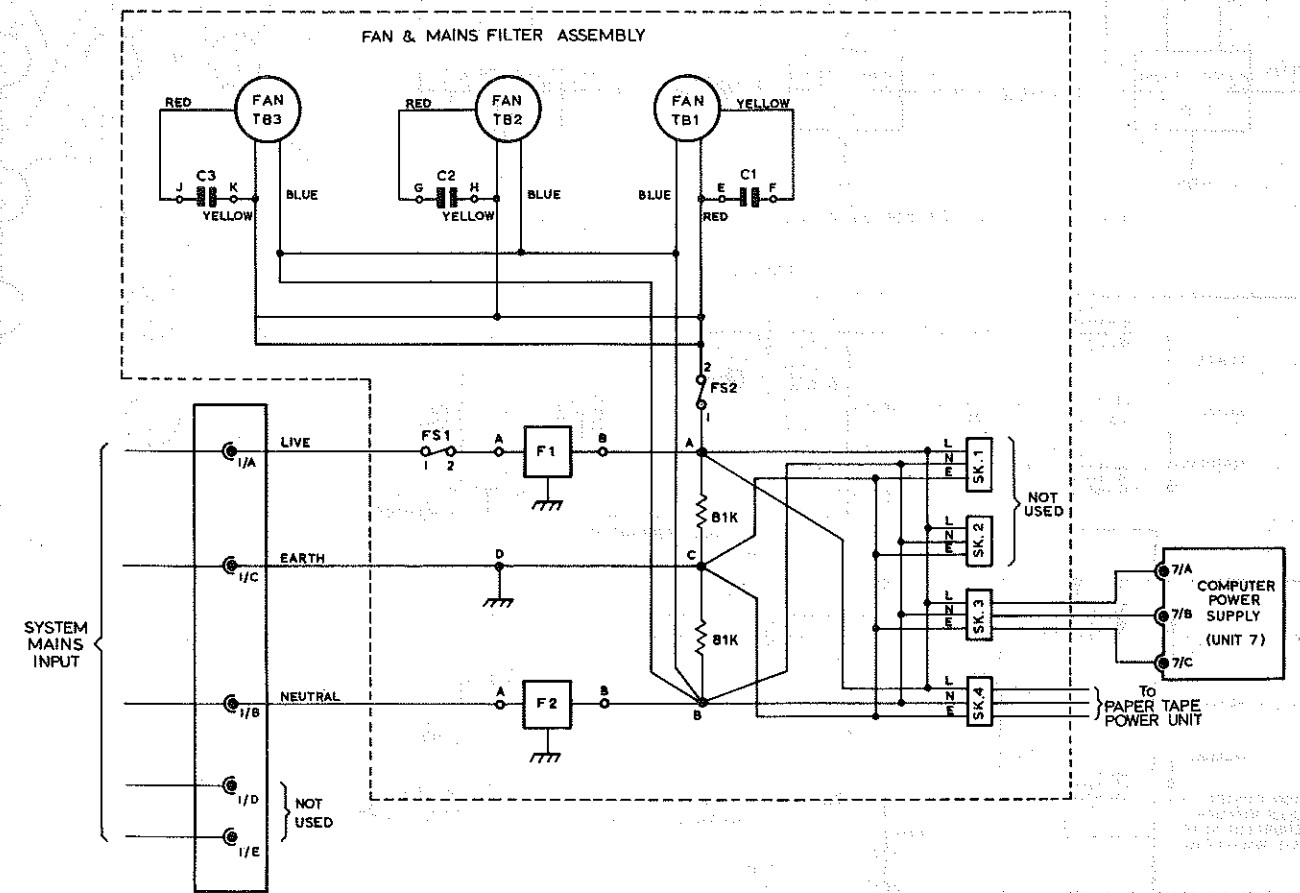
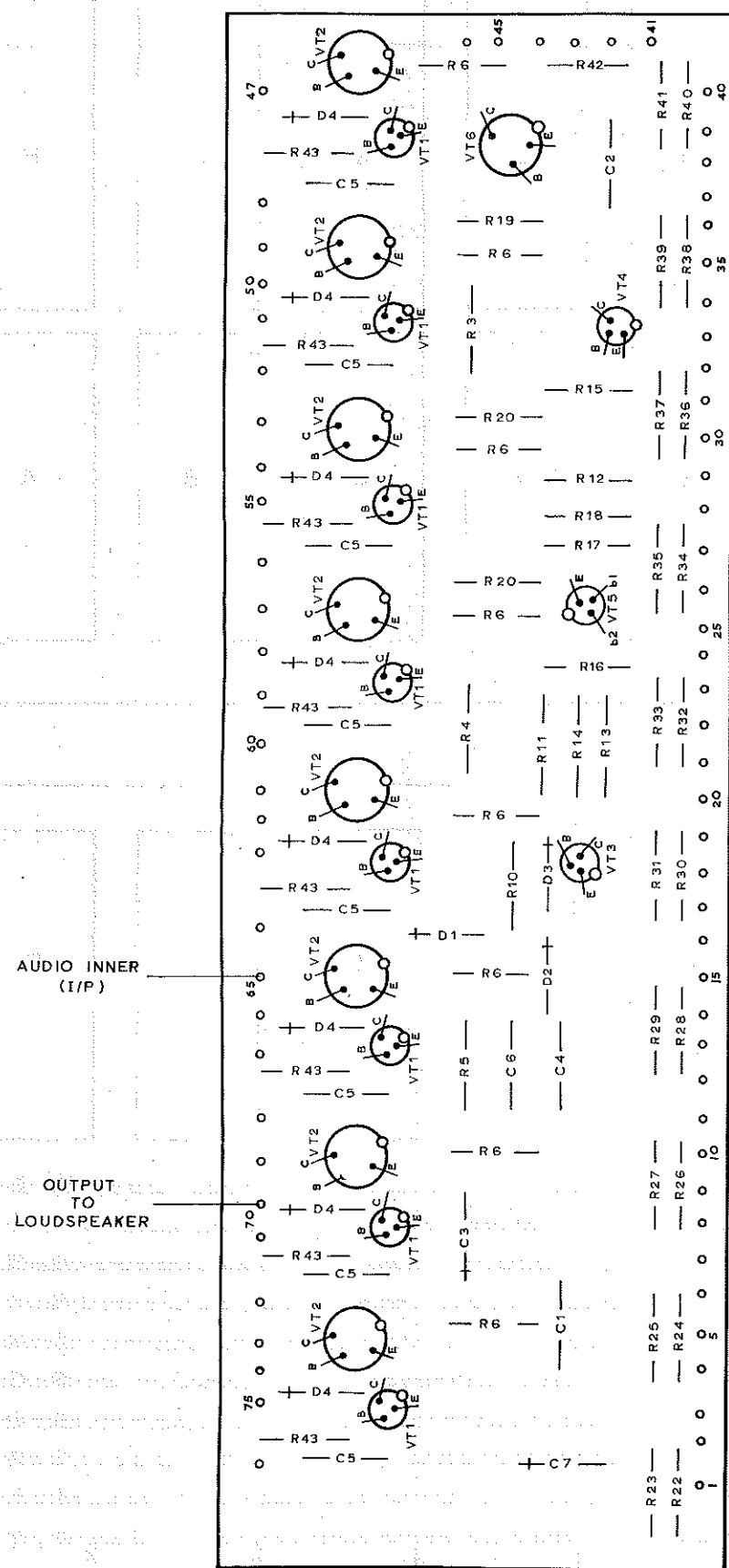


Figure 30 (Issue 2)

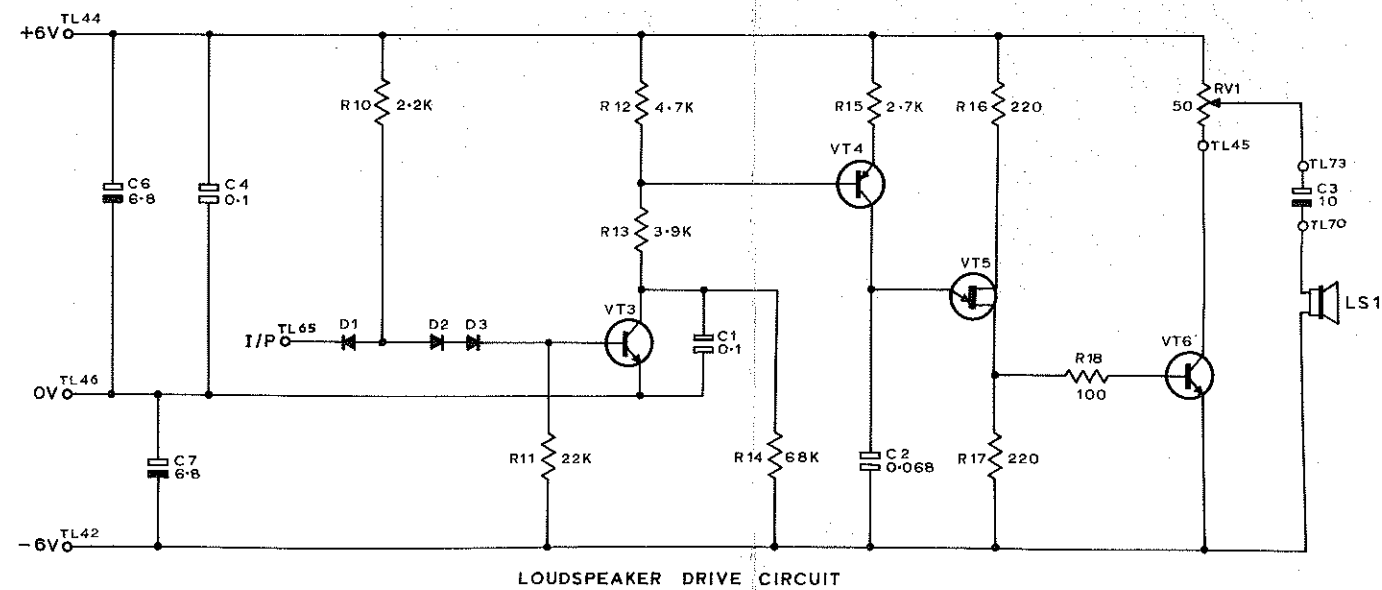
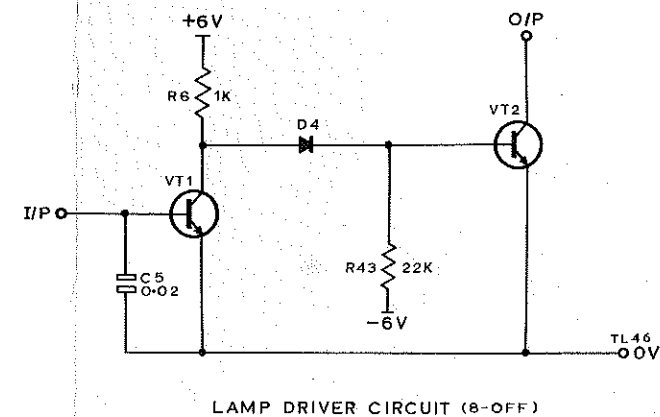


COMPONENT TABLE	
FS1	10A ant surges
FS2	3A ant surges
C1 - C3	1.0µF 1000V D.C.
Fan 1 - Fan 3	
FILTER 1&2	
SK1 - SK4	
Resistors	81K

Figure 31 (ISSUE 2)



COMPONENT TABLE				
R.	VALUE	WATT. TOL. %		
22-41	47	+5	9219	
18	100	5 TE	5662	
3-5	150	5 TE	6205	
16-17	220	5 TE	5885	
6	1K	5 TE	5671	
10	2.2K	5 TE	6017	
15	2.7K	5 TE	5677	
13	3.9K	5 TE	5679	
12	4.7K	5 TE	5680	
11 & 43	22K	5 TE	6012	
19-27	47K	5 TE	5874	
14	68K	5 TE	6389	
RV1	50Ω		6275	
D				
1-4			11606	
V T				
1,3			11832	
2,6			11607	
4			11608	
5			11609	



1. BOARD DIMENSIONS

Dimension	Value	Units
1	1.000	IN
2	1.000	IN
3	1.000	IN
4	1.000	IN
5	1.000	IN
6	1.000	IN
7	1.000	IN
8	1.000	IN
9	1.000	IN
10	1.000	IN
11	1.000	IN
12	1.000	IN
13	1.000	IN
14	1.000	IN
15	1.000	IN
16	1.000	IN
17	1.000	IN
18	1.000	IN
19	1.000	IN
20	1.000	IN
21	1.000	IN
22	1.000	IN
23	1.000	IN
24	1.000	IN
25	1.000	IN
26	1.000	IN
27	1.000	IN
28	1.000	IN
29	1.000	IN
30	1.000	IN
31	1.000	IN
32	1.000	IN
33	1.000	IN
34	1.000	IN
35	1.000	IN
36	1.000	IN
37	1.000	IN
38	1.000	IN
39	1.000	IN
40	1.000	IN
41	1.000	IN
42	1.000	IN
43	1.000	IN
44	1.000	IN
45	1.000	IN
46	1.000	IN
47	1.000	IN
48	1.000	IN
49	1.000	IN
50	1.000	IN
51	1.000	IN
52	1.000	IN
53	1.000	IN
54	1.000	IN
55	1.000	IN
56	1.000	IN
57	1.000	IN
58	1.000	IN
59	1.000	IN
60	1.000	IN
61	1.000	IN
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63	1.000	IN
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65	1.000	IN
66	1.000	IN
67	1.000	IN
68	1.000	IN
69	1.000	IN
70	1.000	IN
71	1.000	IN
72	1.000	IN
73	1.000	IN
74	1.000	IN
75	1.000	IN
76	1.000	IN
77	1.000	IN
78	1.000	IN
79	1.000	IN
80	1.000	IN
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83	1.000	IN
84	1.000	IN
85	1.000	IN
86	1.000	IN
87	1.000	IN
88	1.000	IN
89	1.000	IN
90	1.000	IN
91	1.000	IN
92	1.000	IN
93	1.000	IN
94	1.000	IN
95	1.000	IN
96	1.000	IN
97	1.000	IN
98	1.000	IN
99	1.000	IN
100	1.000	IN

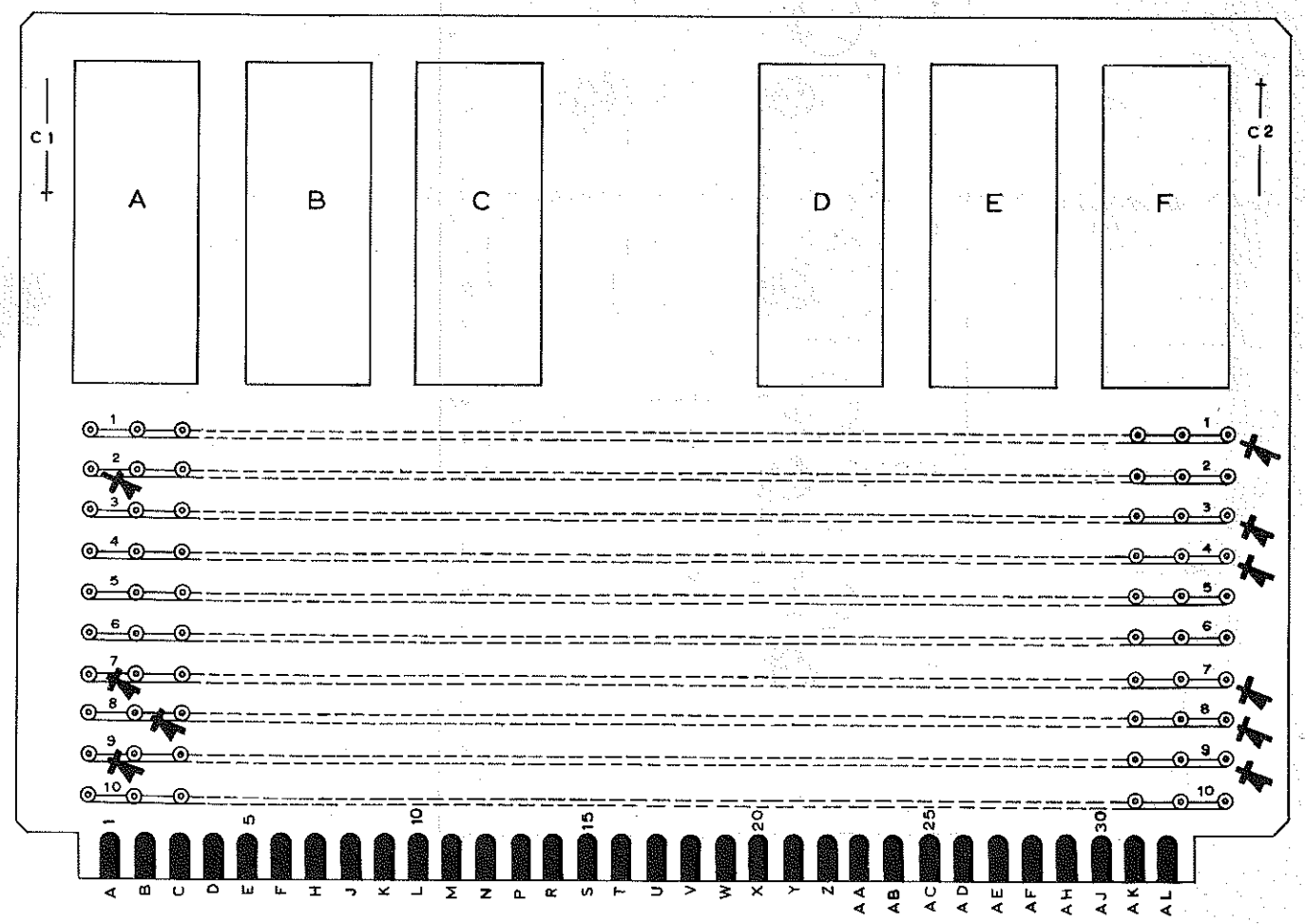
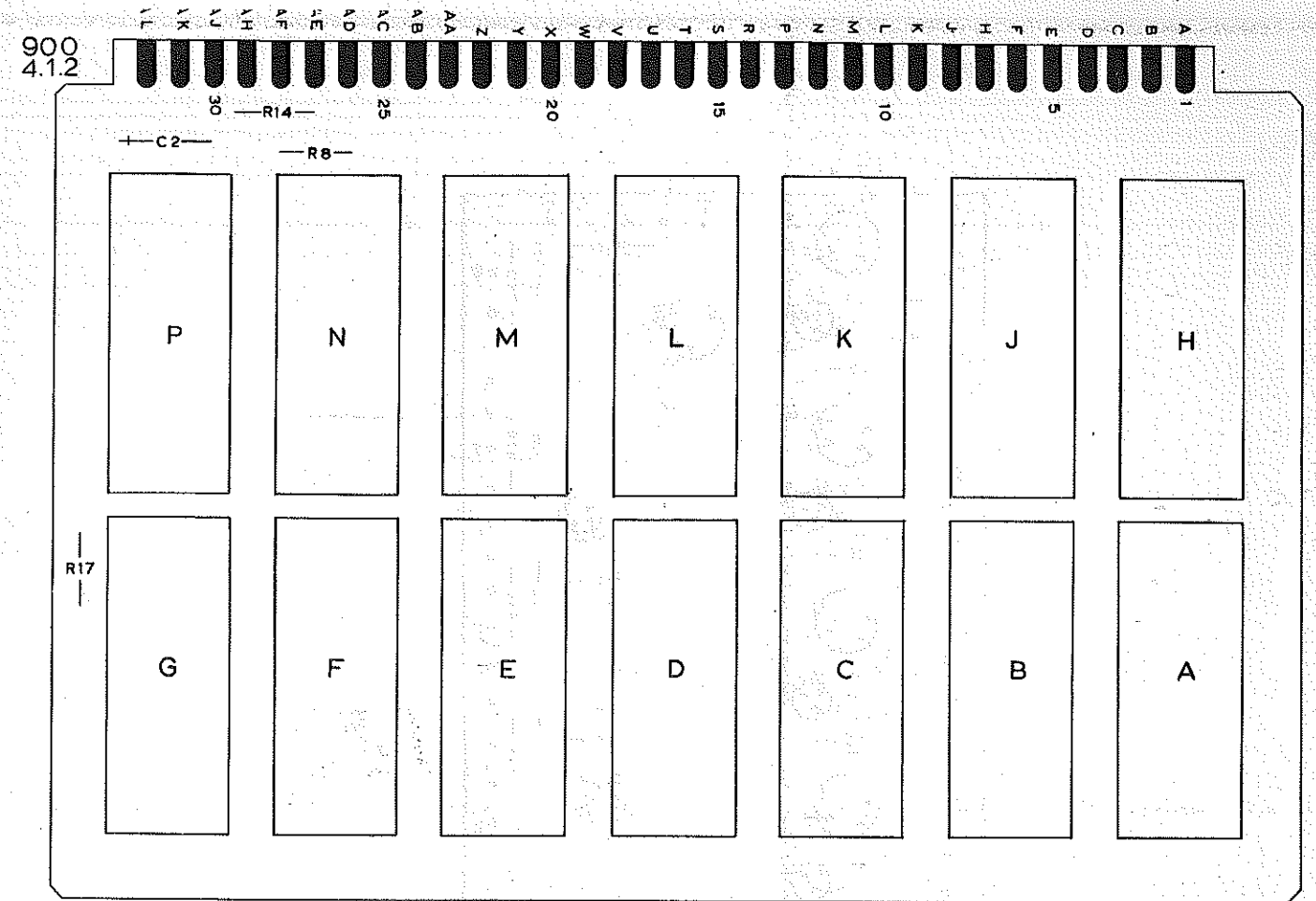
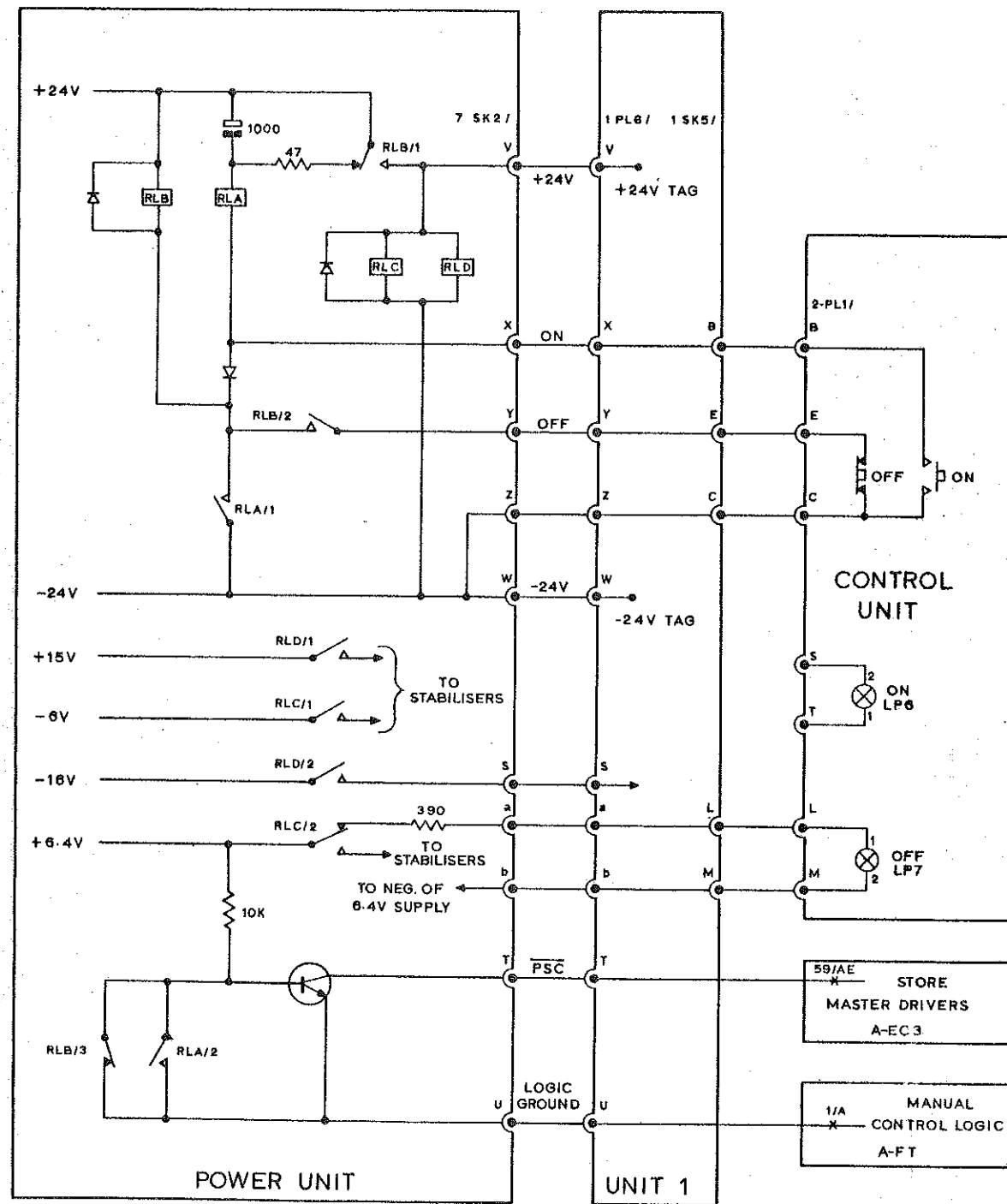
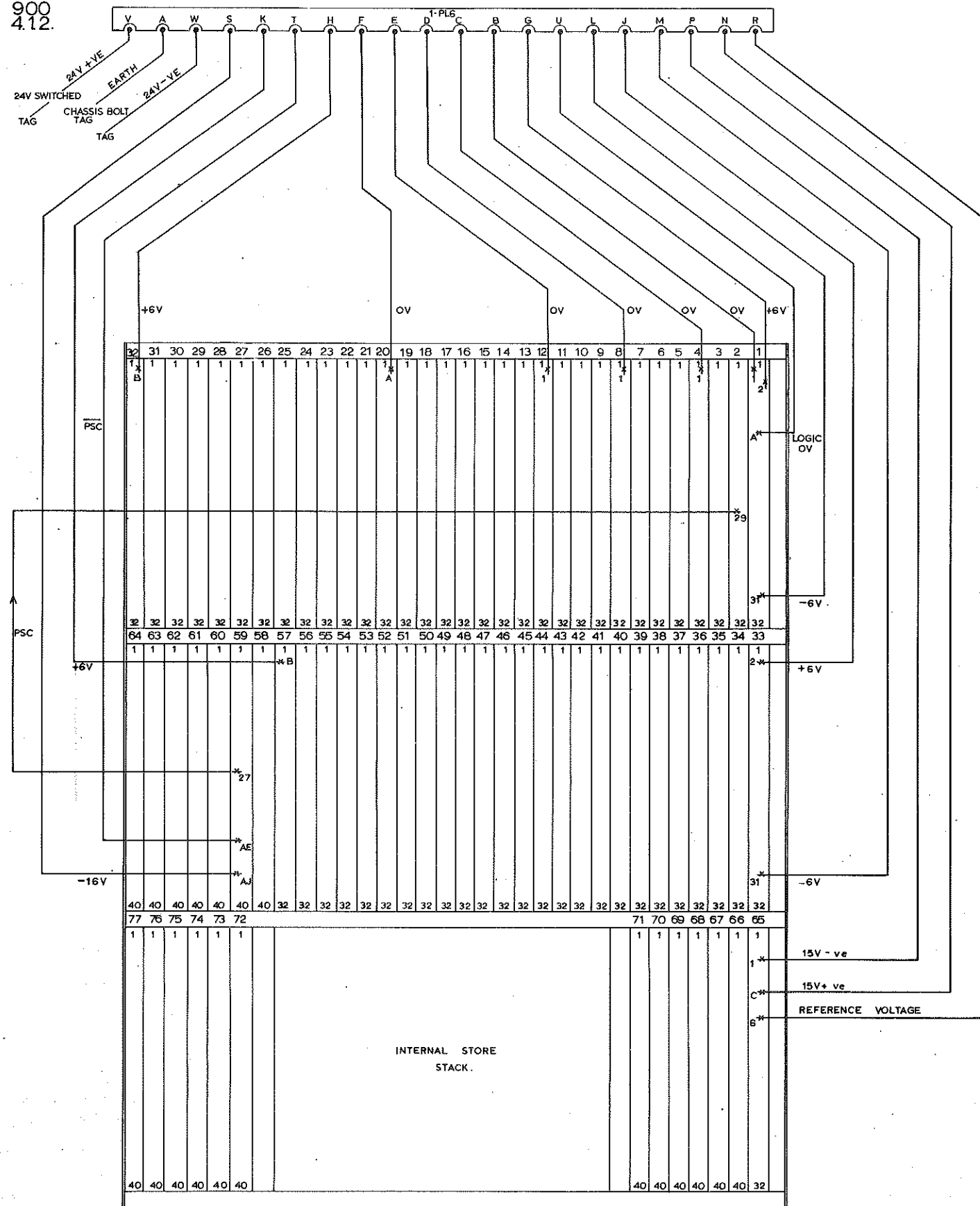


Figure 35 (ISSUE 2)



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24V +ve	+6V	0V	TAG	-6V	-16V	24V -ve	15V +ve	15V -ve	
			A						SKT. 1 - DISPLAY UNIT PL1
		MM	A						SKT. 2 - DISPLAY UNIT PL2
	MM	PP	A	NN					SKT. 3 - DISPLAY UNIT PL3
	P	LL	A						SKT. 4 - INPUT-OUTPUT UNIT
	s	r	A	t					SKT. 5 - CONTROL UNIT PL1
			A						SKT. 7 - MARGINAL TEST UNIT PL1
		g	A						SKT. 8 - EXTRA STORE
	g	j	A		h				SKT. 9 - EXTRA STORE
	f	e	T		g				SKT. 10 - PAPER TAPE CONTROLLER PL2
	t		A						SKT. 11 - CONTROL UNIT PL2
HH			JJ		KK				SKT. 14

Figure 32 (ISSUE 2)

DC DISTRIBUTION

L.S.A. AREA	L.S.A. BOARD TYPES																																			
	A FA	A FB	A FC	A FD	A FE	A FF	A FG	A FH	A FI	A FJ	A FK	A FL	A FM	A FN	A FO	A FP	A FQ	A FR	A FS	A FT	A FU	A FV	A GA	A GB	A GC	A GD	A GE	A GF	A GG	A GH	A GI	A GJ	A GK	A GL		
A	06		08	01	03	01	15	01	02	15	15	08	01		01	01	08	03	01	01	22	22	02		01	01	02	02	02	02	02	02	02	03	02	
B	03	04	01	02	02	02	15	01	01	15	15	01	01	11	12	07	03	06	12	01	22	22	02		02	01	02	01	02	02		02	02			
C	06		07	02	02	01	15	01	03	15	15	13	08		01	01	01	15	01	14	22	22	01		01	01	02	02	02	02	02	02	02	02		
D	05		09	03	01	01	01	01	18	15	15	03	13		12	08	11	01	18	03	22	22			01	01	02	02	01	02	02	02	02	02		
E	06		02	02	01	02	01	01	01	15	15	03	03		01	01	02	15	23	01	22	23	02		01	01	01	02	02	02	02	02	02	02		
F	02	04	01	01	01	01	15	01	01	15	01	01	03	11	12	07	09	15	12	18	22	23	01		01			01	02	02	02	02	01	02		
G	05		01	03	03	01	15	15	02	01	01	01	01		01	01	13	15	01	01	22	23														
H	01	04	03	01	03	02	15	02		15	04	01	03	11	12	01	02	01	12	18		23														
J	05	04	13	03	03	01	15	01	03	15	15	13	01	11	12	07	12	06	12	18		23														
K	05	04	01	03	03	01	15	01	15	15	15	03	01	11	01	01	03	01	01	18		23														
L	06	04	01	01	02	02	15	02	01	15	15	01	01	11	12	03	11	03	18	01																
M	05	04	07	01	02	01	15	01	02	15	15	03	01	11	01	01	02	15	18	18	22															
N	06	04	07	02	03	02	15	01	01	15	15	01	02	11	04	07	03	15	12	01	22															
P	06	04	07	02	01		15	15	01	15	15	01	02	11	01	01	03	15	01	01	22															
																	R8, R13																			
				R11, R13 R15																																
			R2-R7	R10, R12 R14																																
	R10-R14 R16				R2-R5 R8			R3-R5 R7, R8					R9, R10					R6, R7	R7																	
	R9, R15		R8	R6-R8	R9	R7-R9					R3-R8	R7-R10	R3, R8 R11-R13						R1, R2		R4-R10															
	R3-R8	R1-R6	R1	R1-R5 R9	R6, R7	R1-R6			R1, R2	R1-R6	R1-R8	R9-R14	R1-R5	R1, R2 R4-R7			R1-R4	R1-R5	R3-R6 R8		R1-R3															
													R6																							
													C3																							
	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	C1 C2	

DISCRETE COMPONENTS			
COMPONENT	VALUE	TOL ± %	CAT. No.
RESISTOR	47	5	9219
"	150	5	9197
"	470	5	9169
"	1K	5	9159
"	2-2K	5	9160
"	3-9K	5	11229
"	100K	5	11363
CAPACITOR	4-7		11750
"	6-8		11751