

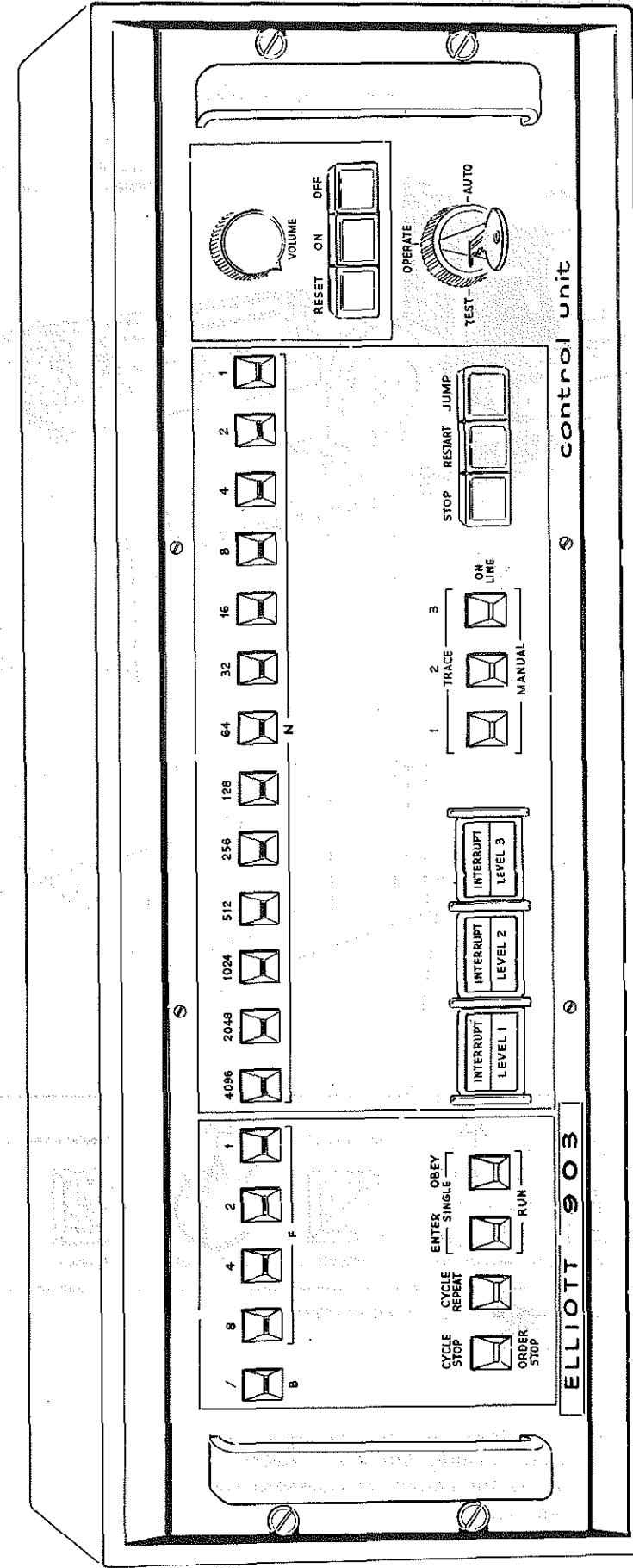
PAPER TAPE & TELEPRINTER CONTROL PANEL

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)

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4.1.2.

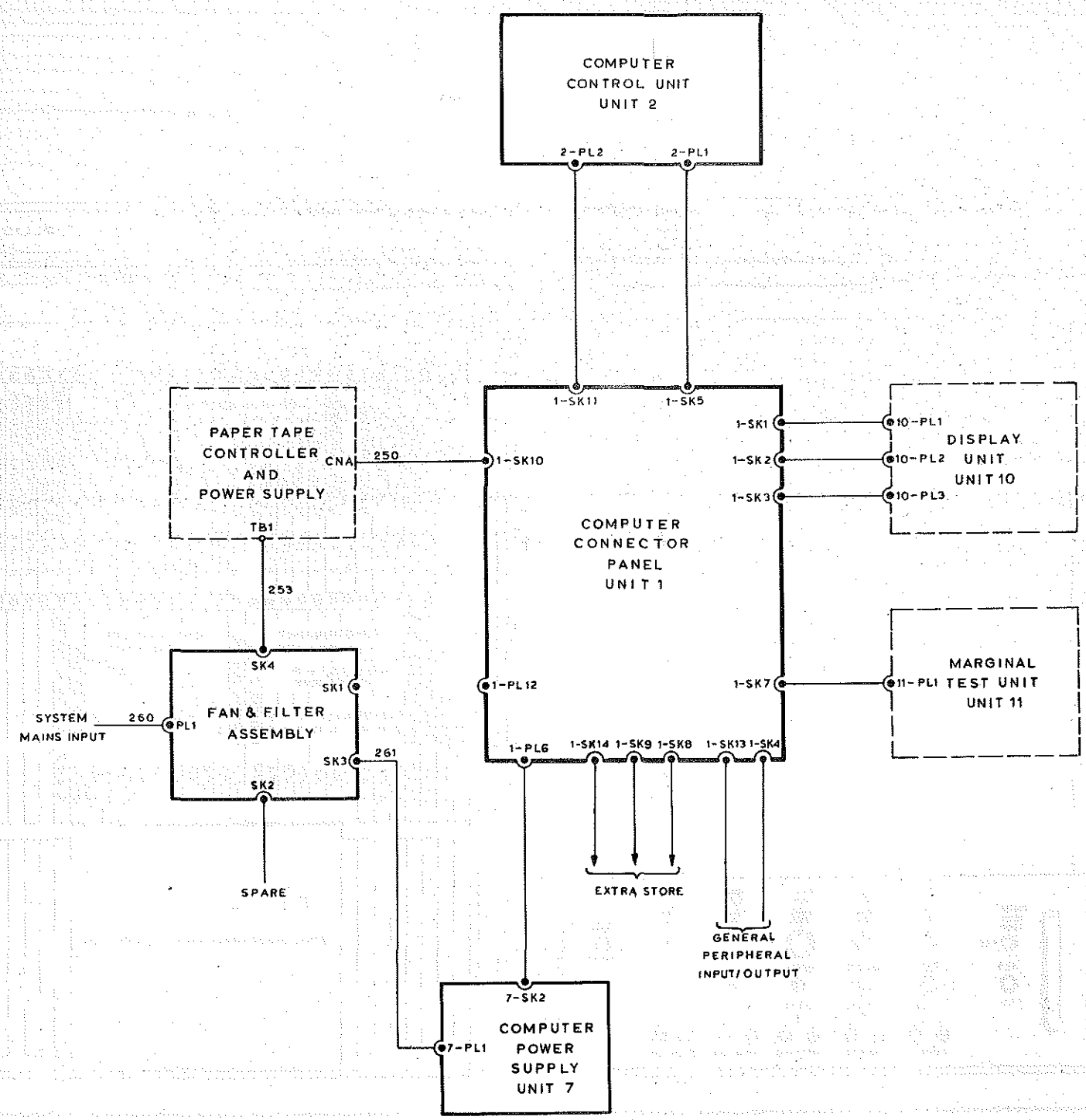
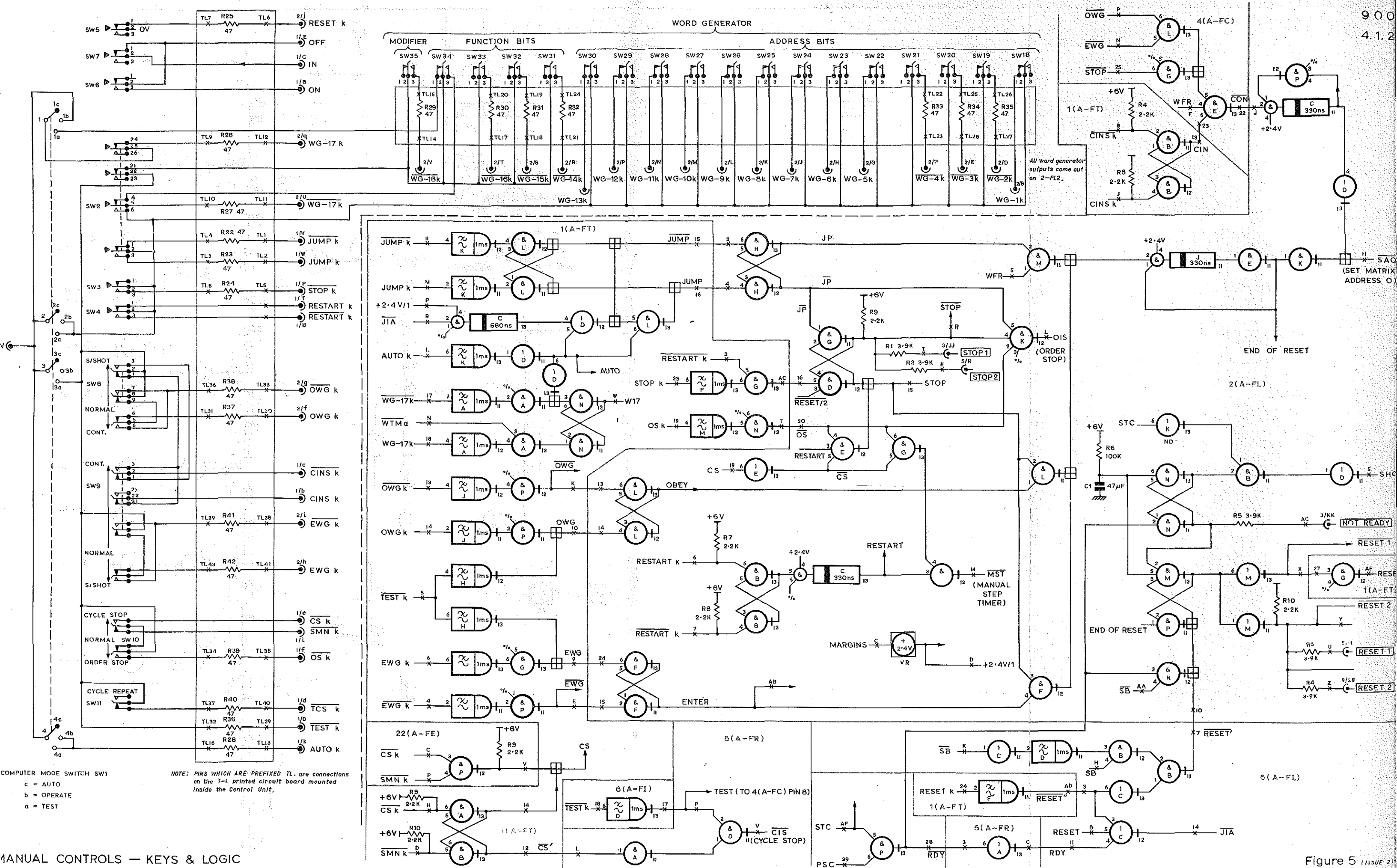


Figure 4 (ISSUE 2)



NOTE: PINS WHICH ARE PREFIXED TL are connections on the T-I 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.

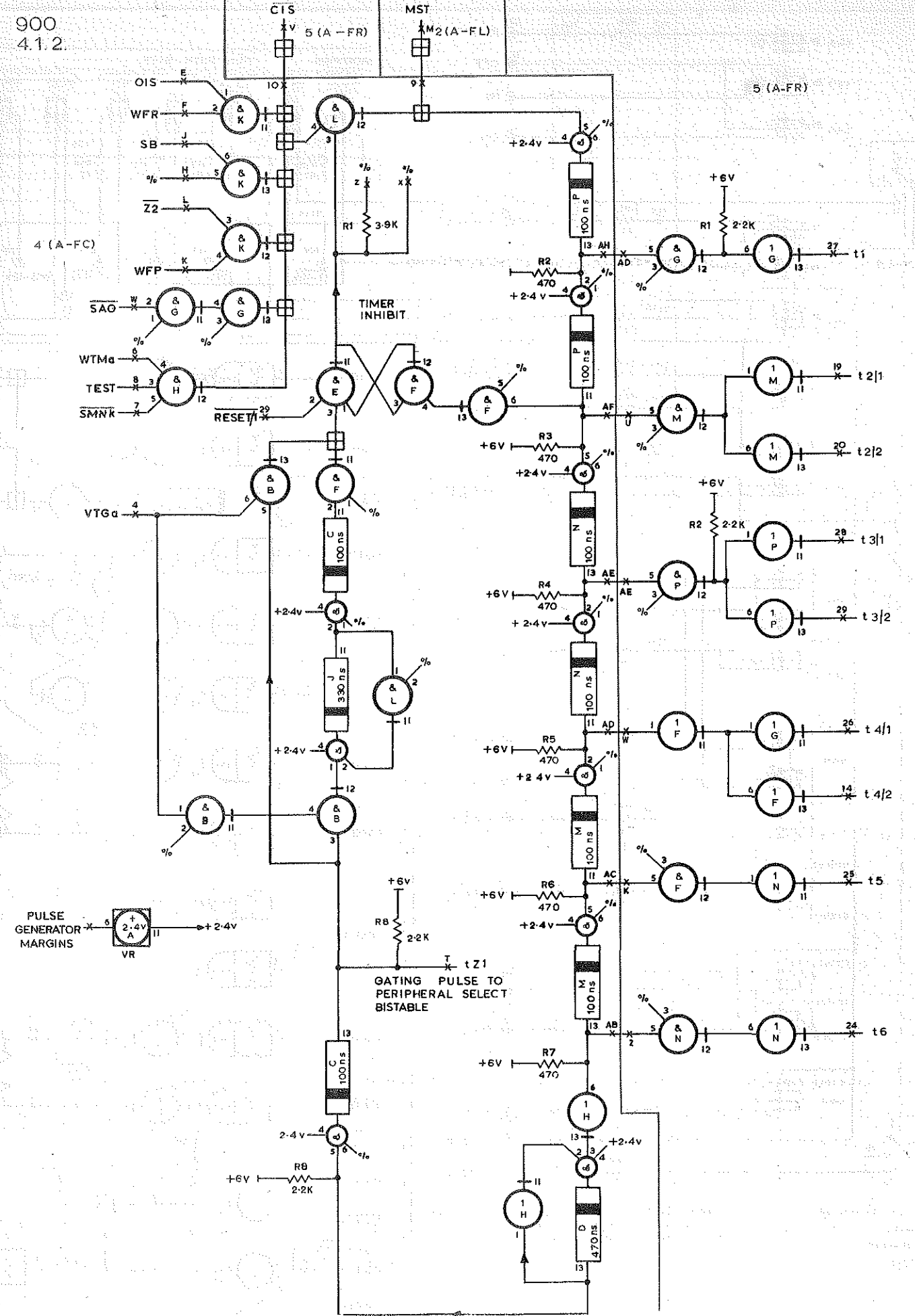
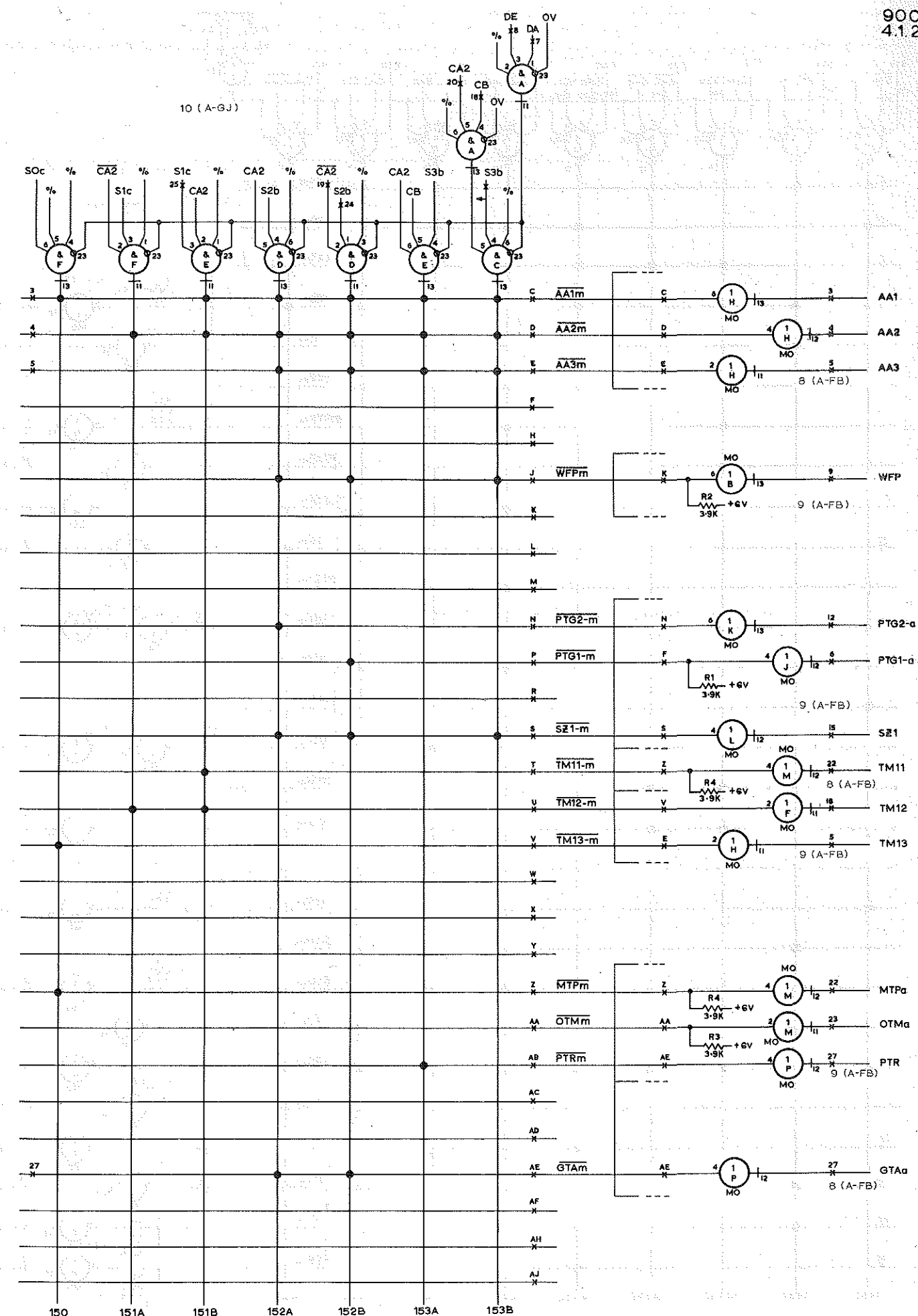


Figure 6 (ISSUE 2)

CENTRAL TIMER

10 (A-GJ)



CONTROL MATRIX FUNCTION 15

Figure 7 (ISSUE 2)

900
412.

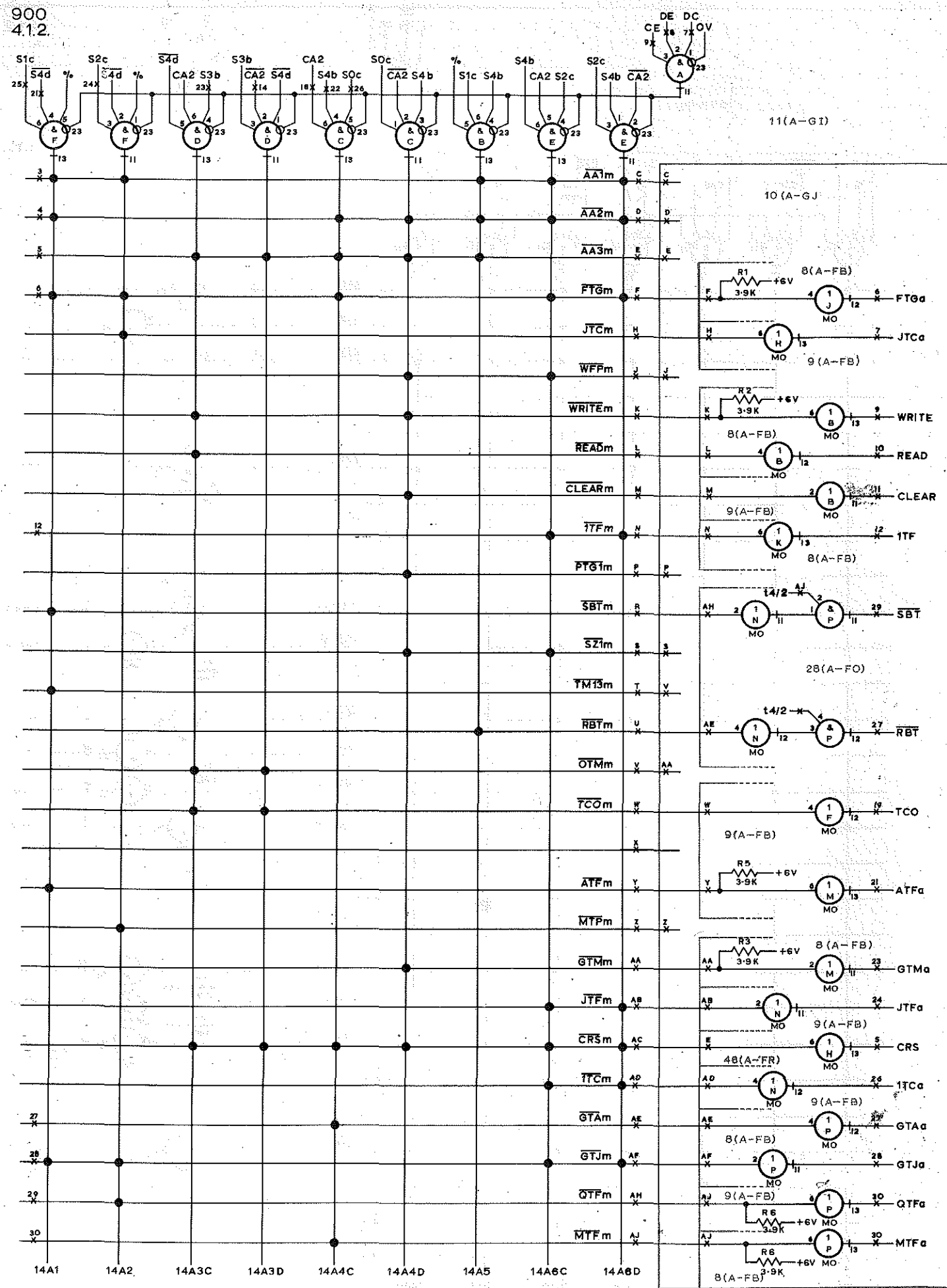
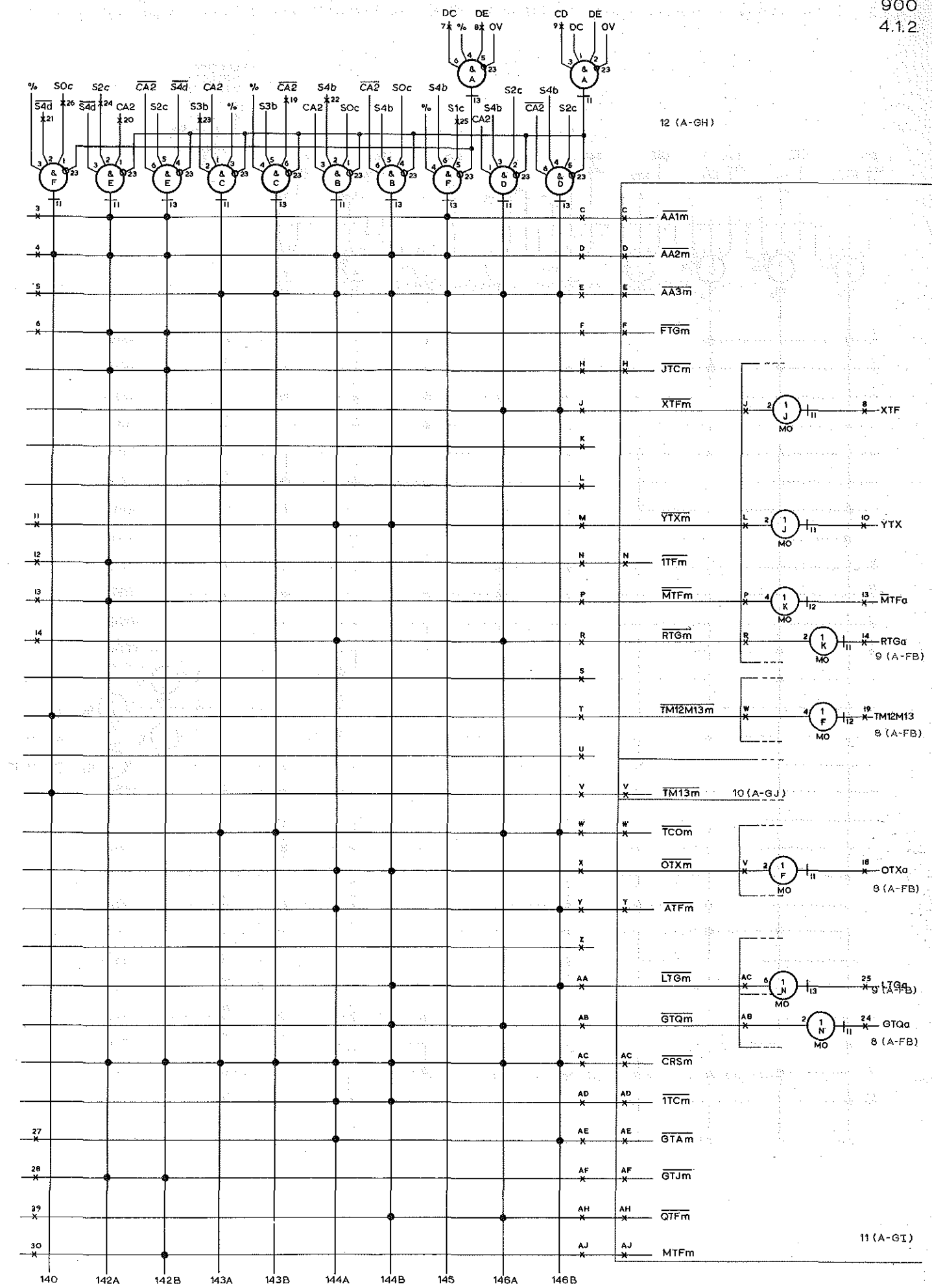


Figure 8 (ISSUE 2)



CONTROL MATRIX - FUNCTION 14

Figure 9 (ISSUE 2)

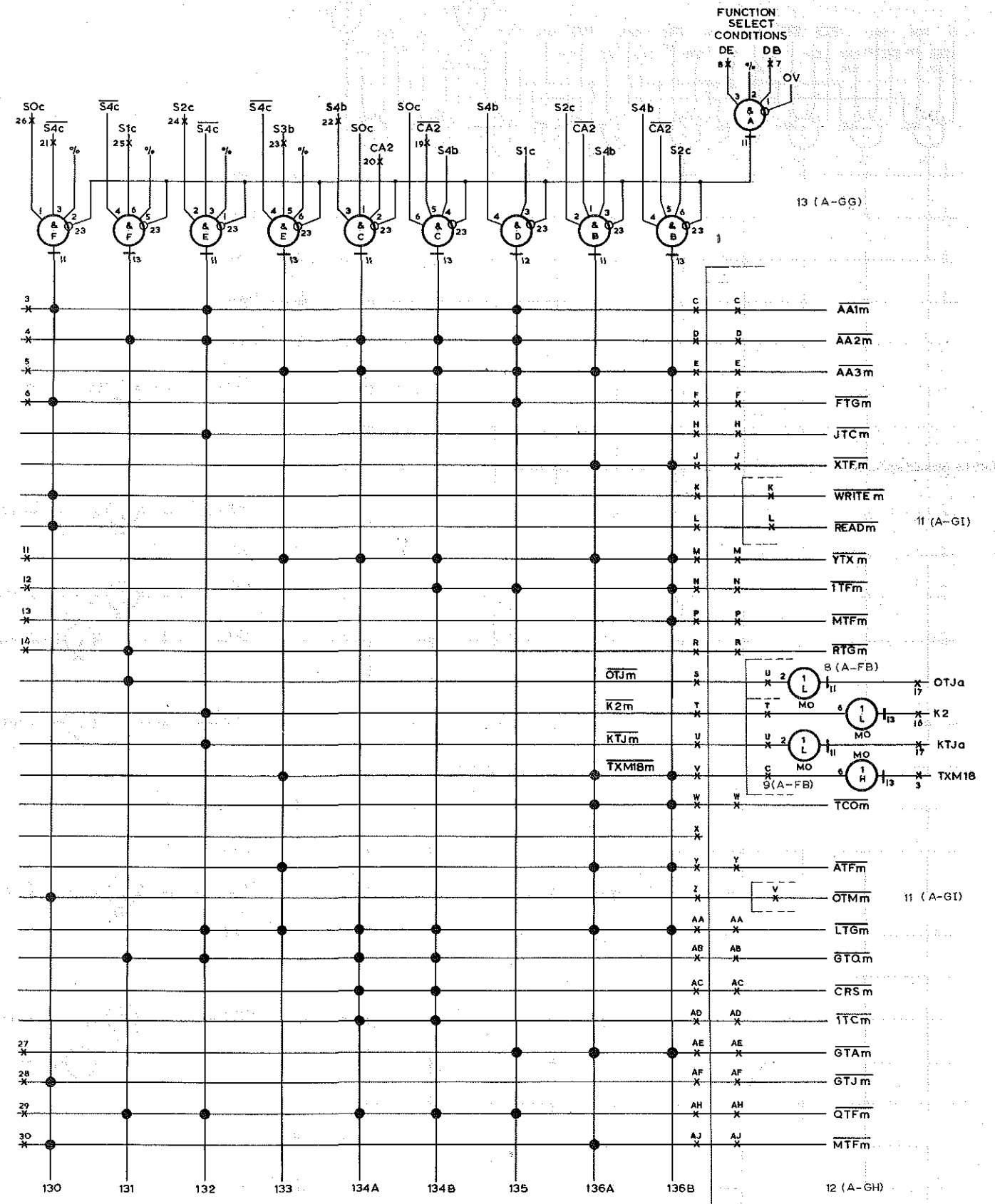
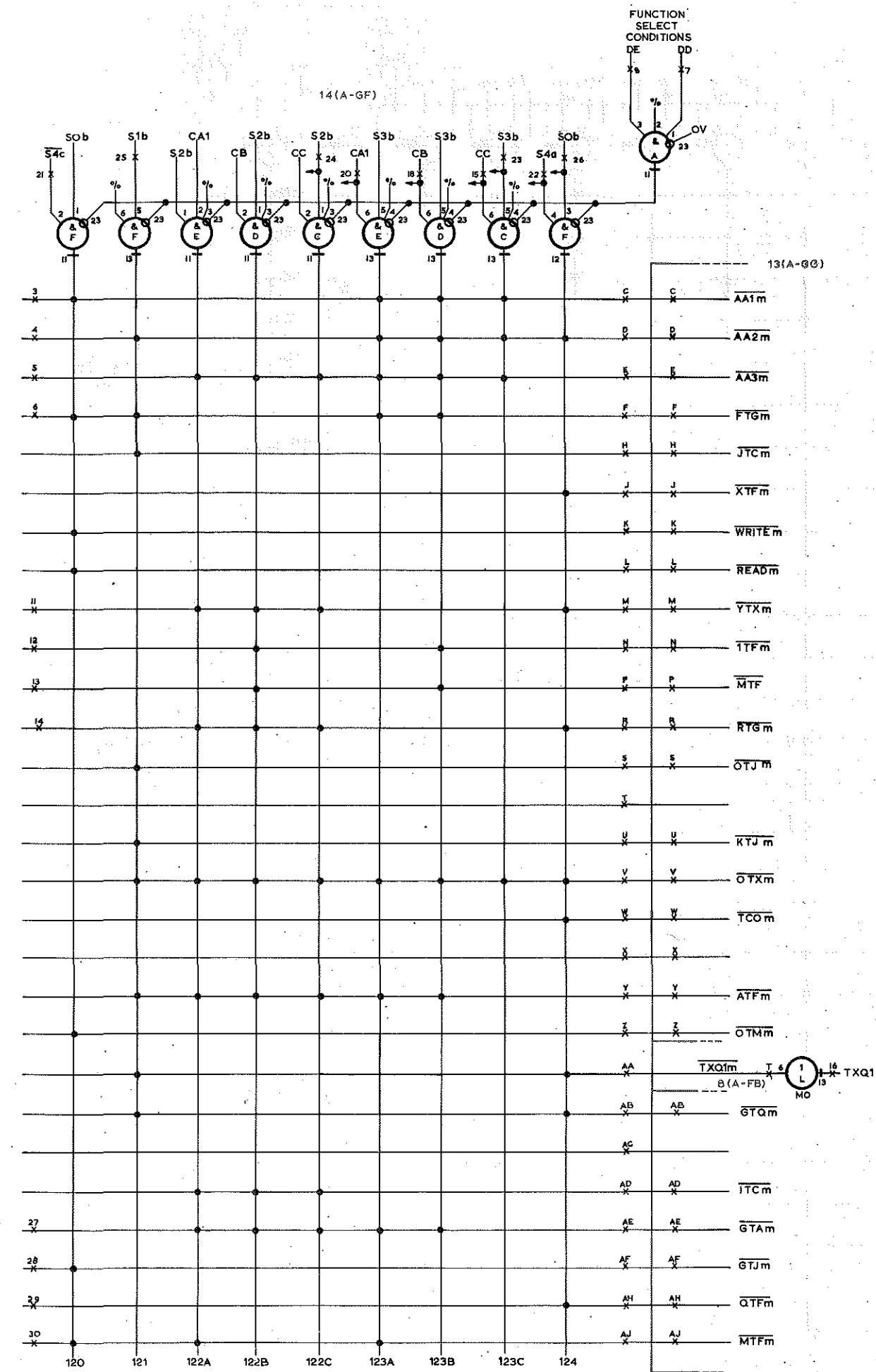


Figure 10 (ISSUE 2)



CONTROL MATRIX FUNCTION 12

Figure 11 (ISSUE 2)

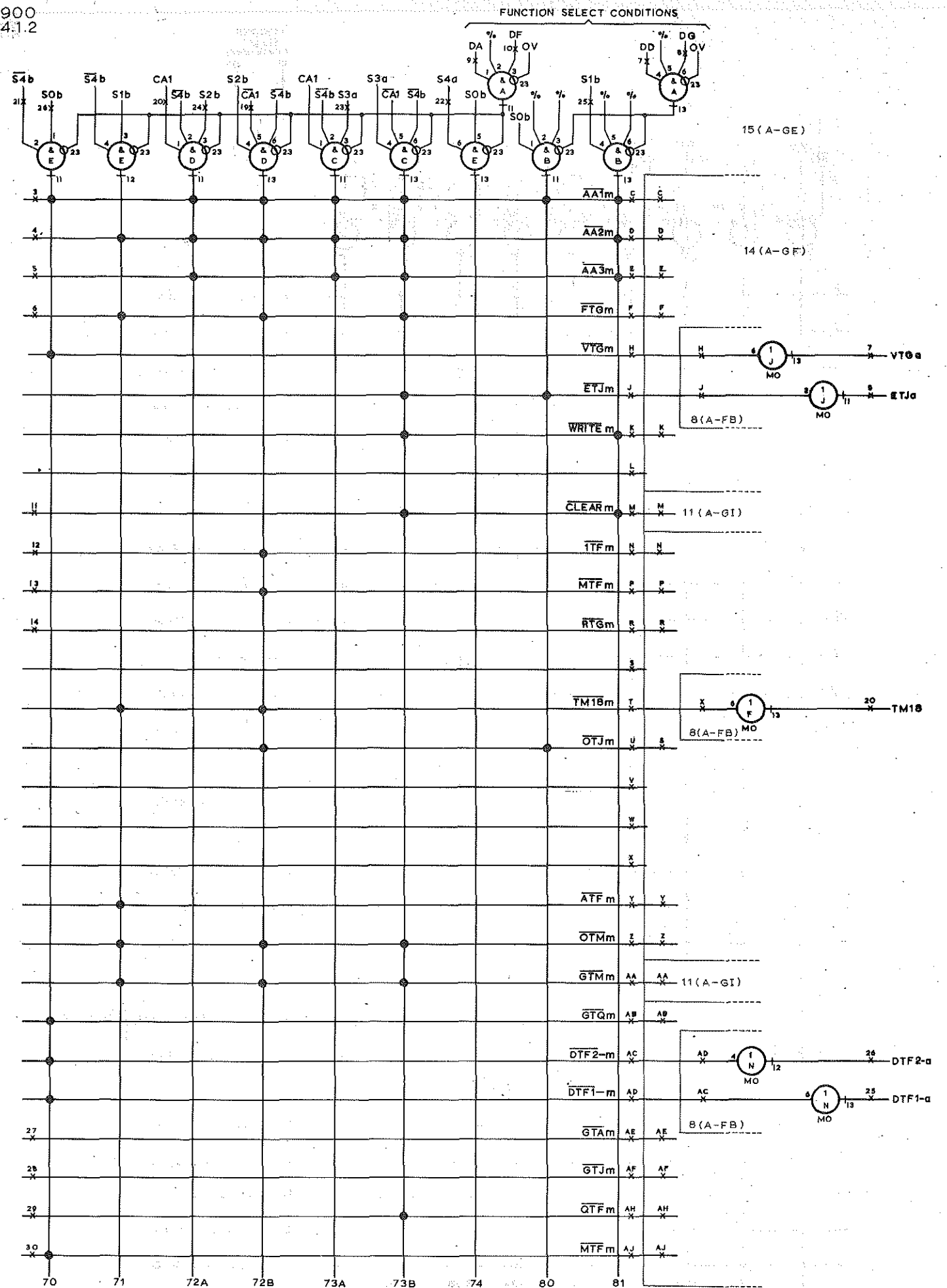
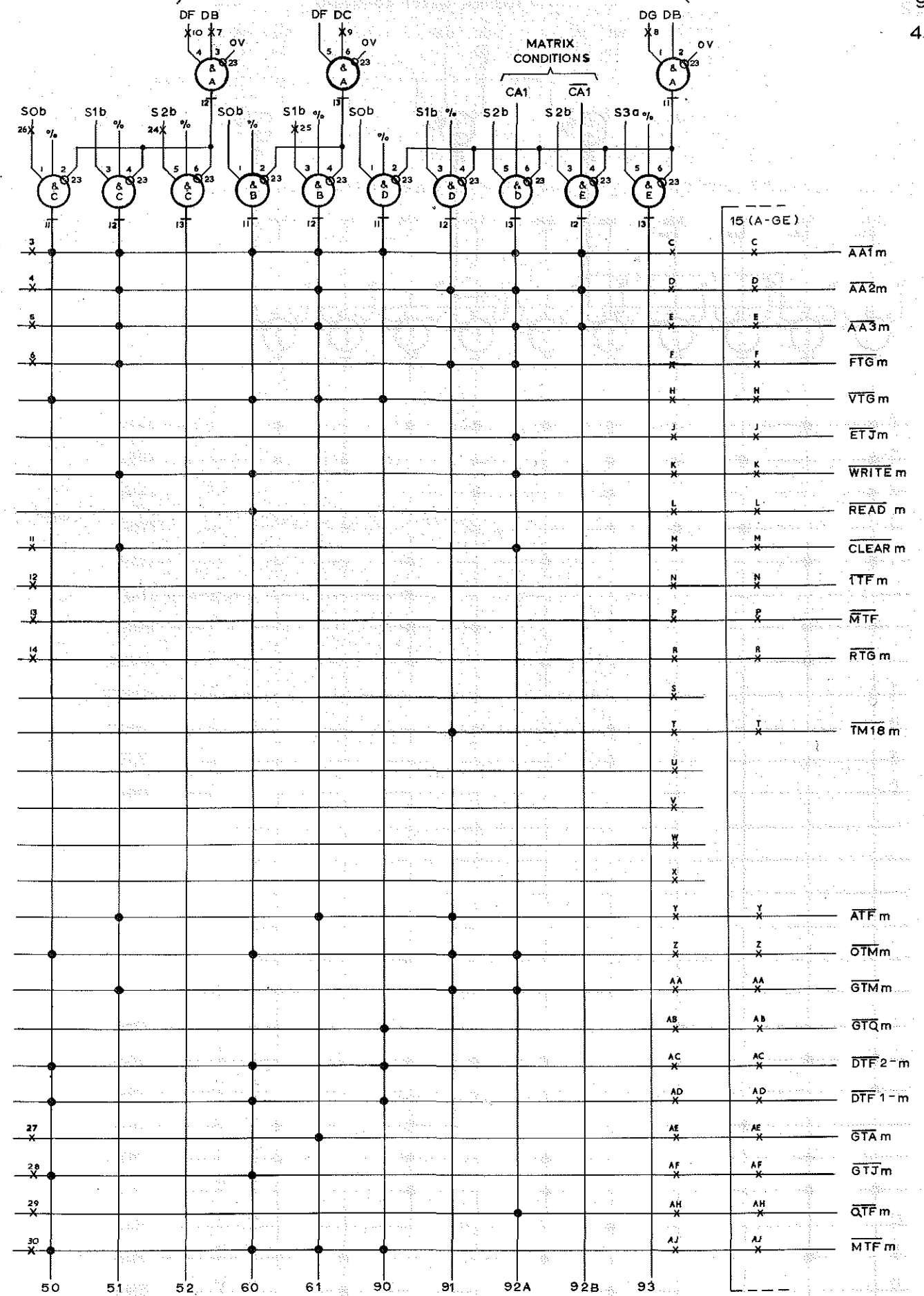
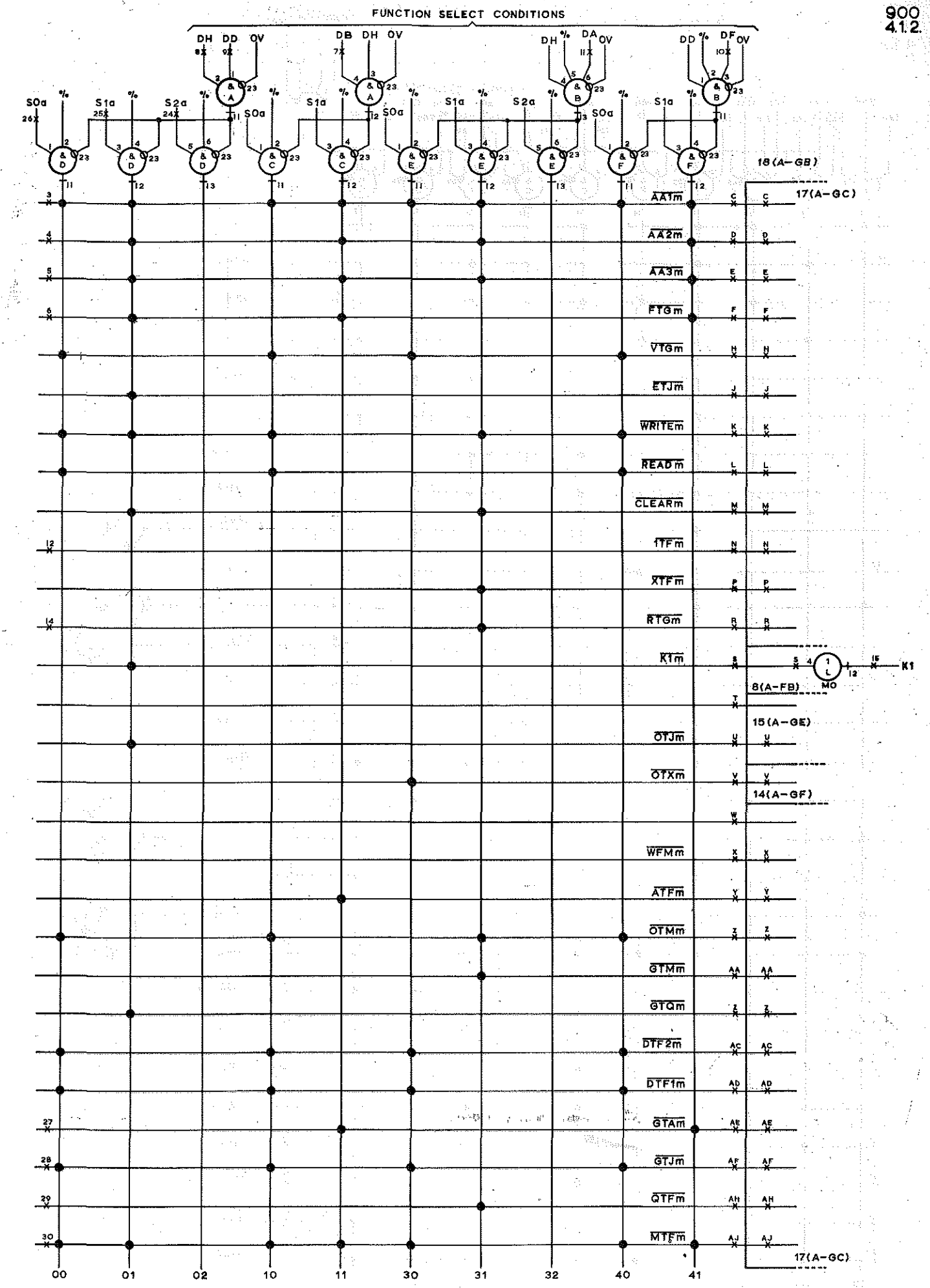


Figure 12 (ISSUE 2)



CONTROL MATRIX FUNCTIONS 5,6 & 9

Figure 13 (ISSUE 2)



CONTROL MATRIX FUNCTIONS 0,1,3, 4.

Figure 15 (ISSUE 2)

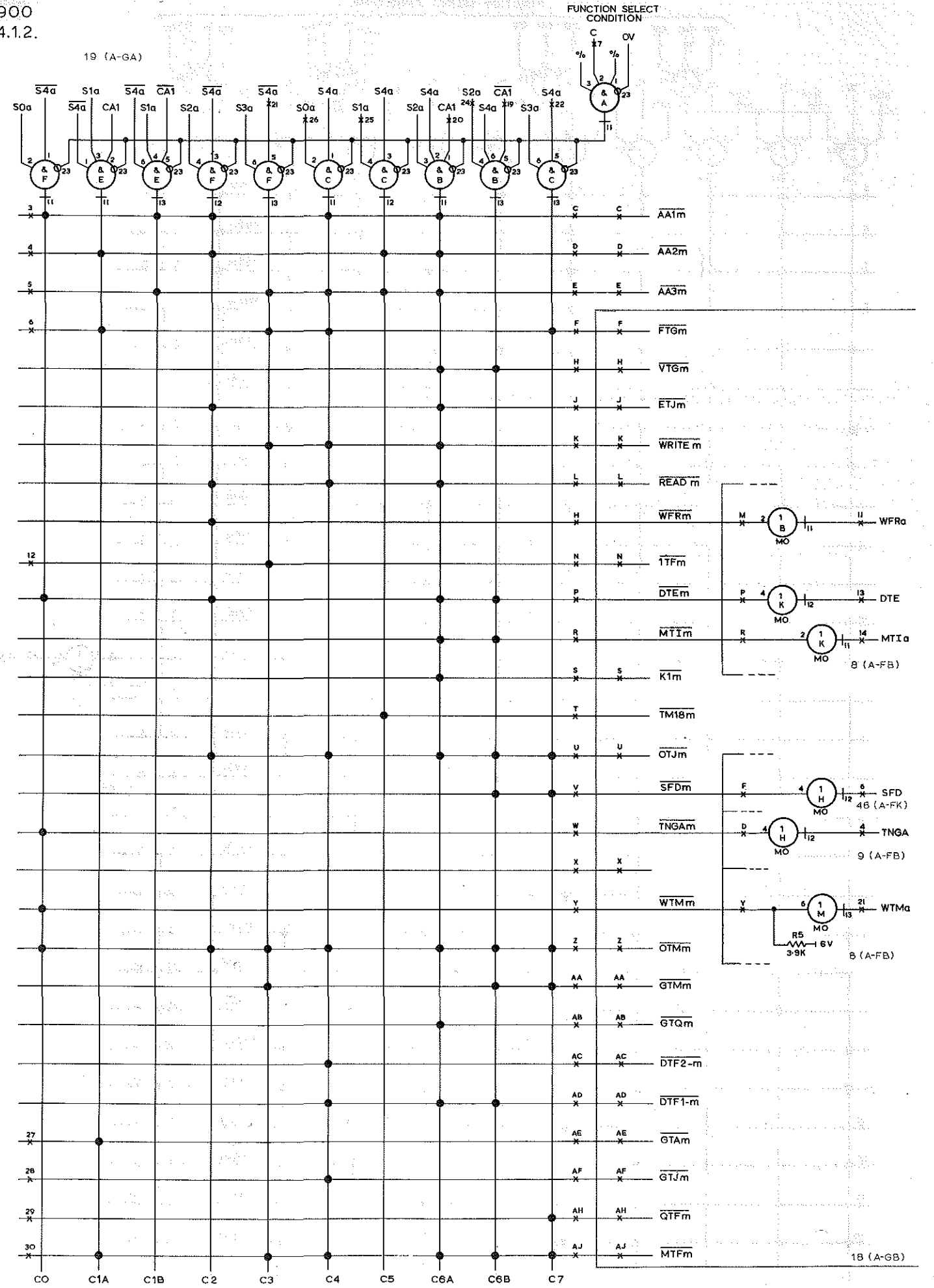
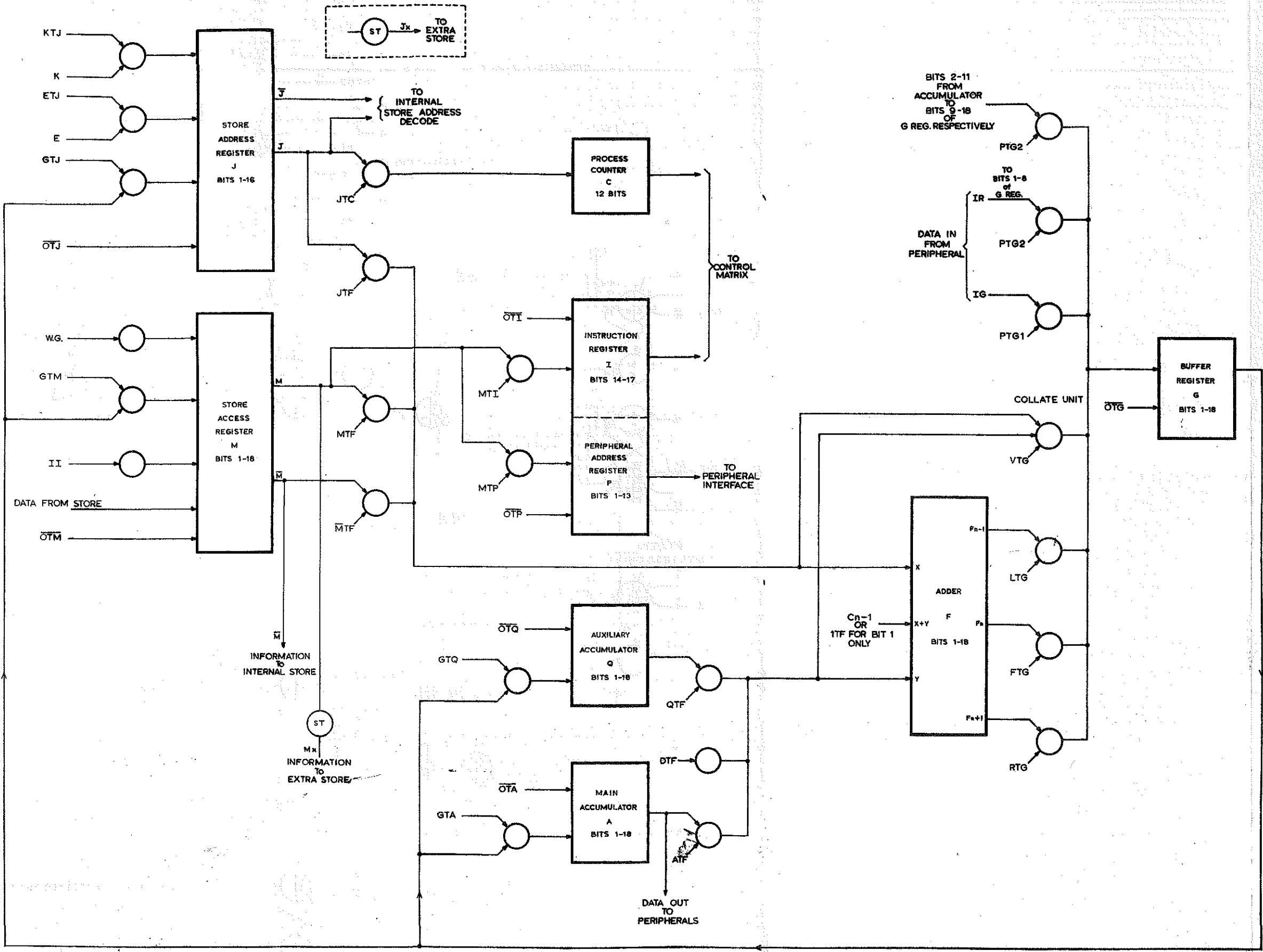


Figure 16 (ISSUE 2)



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. 33 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.

900
4.1.2.

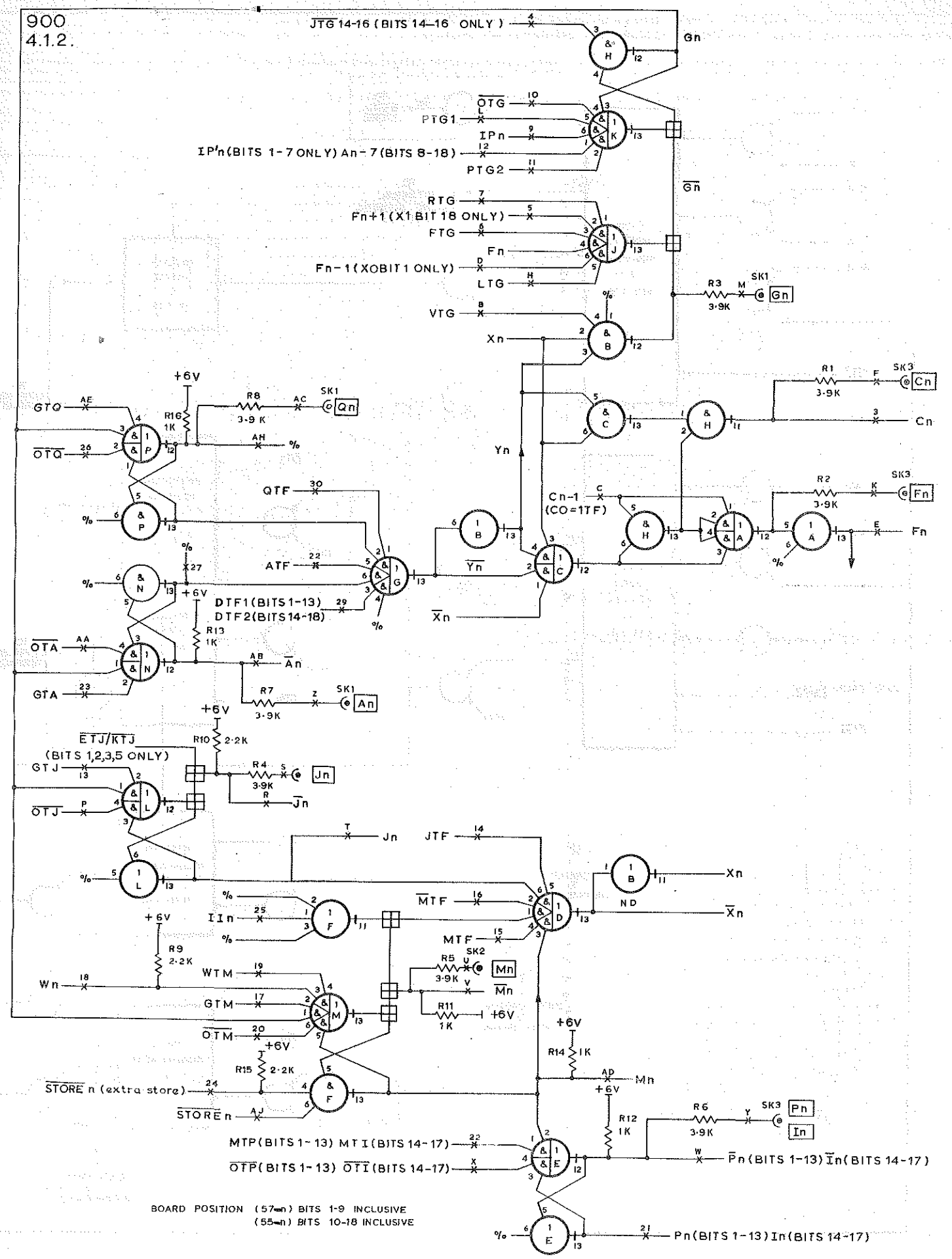
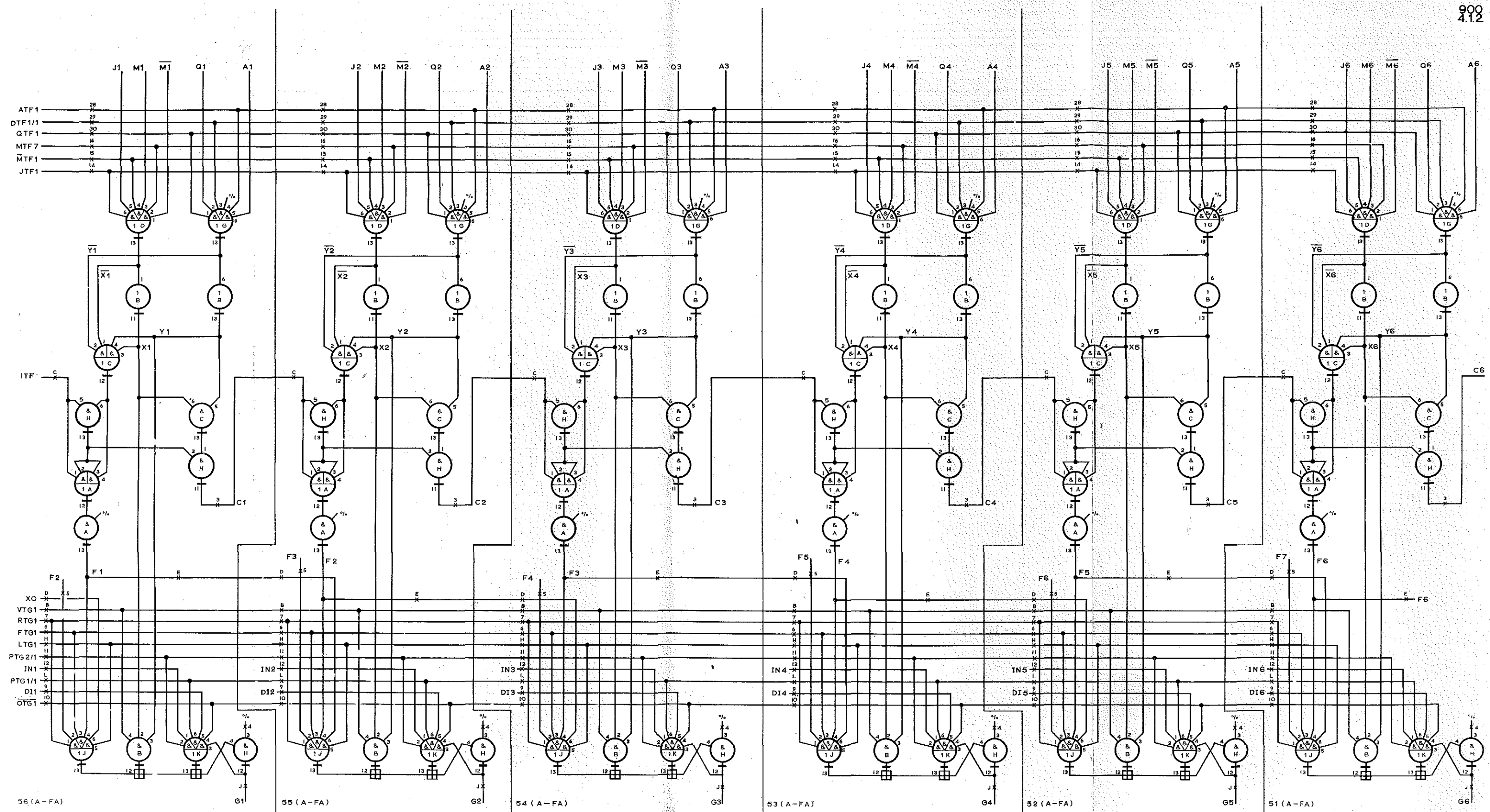


Figure 20 (ISSUE 2)

SAMPLE BIT OF REGISTERS AND FUNCTION UNIT



SECTION & COLLATE UNITS & G-REGISTER.

Figure 21a (ISSUE 2)

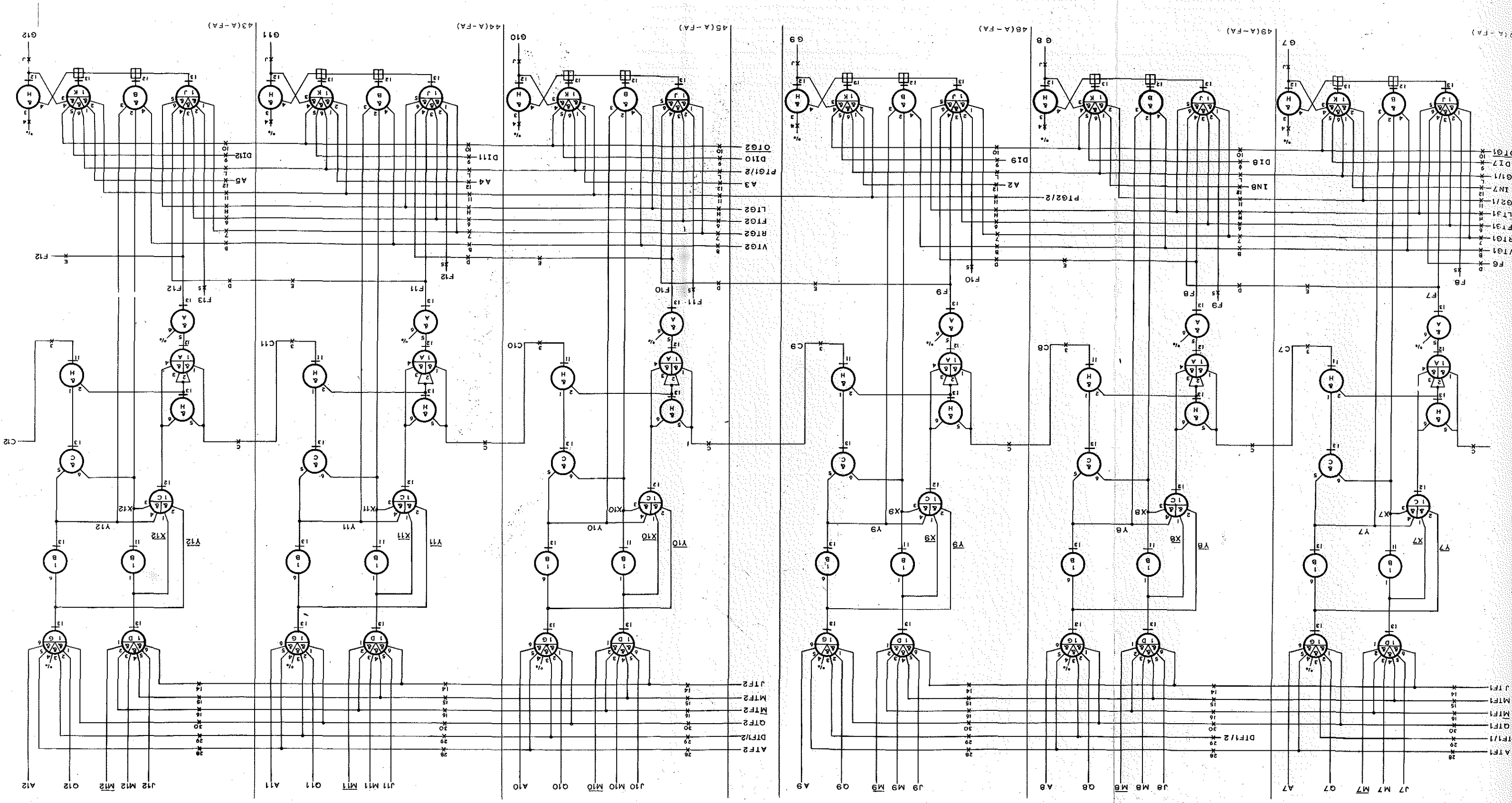
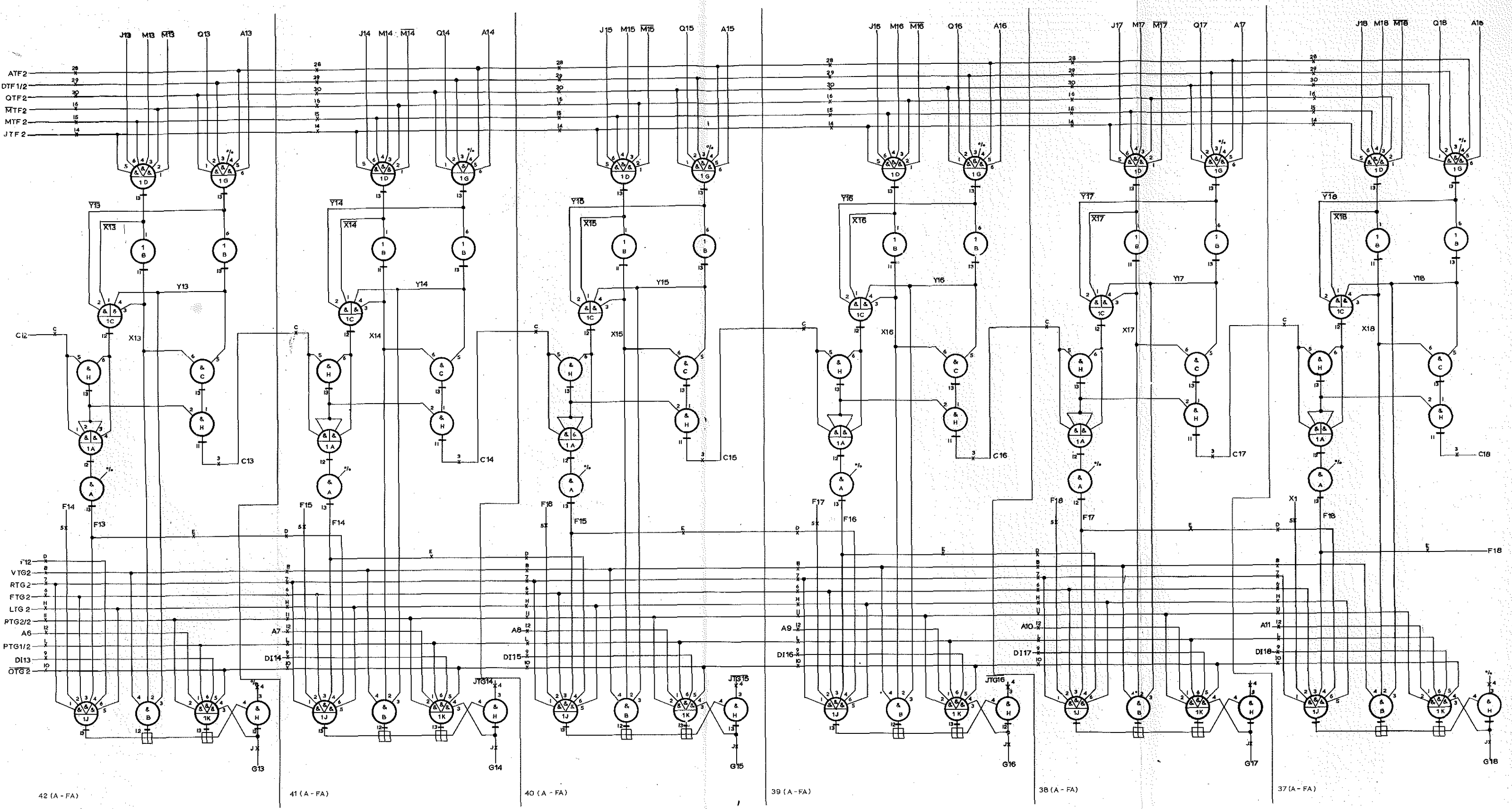


Figure 21b (Issue 2)

FUNCTION & COLLATE UNITS & G-REGISTER



FUNCTION & COLLATE UNITS. & G-REGISTER.

Figure 21c

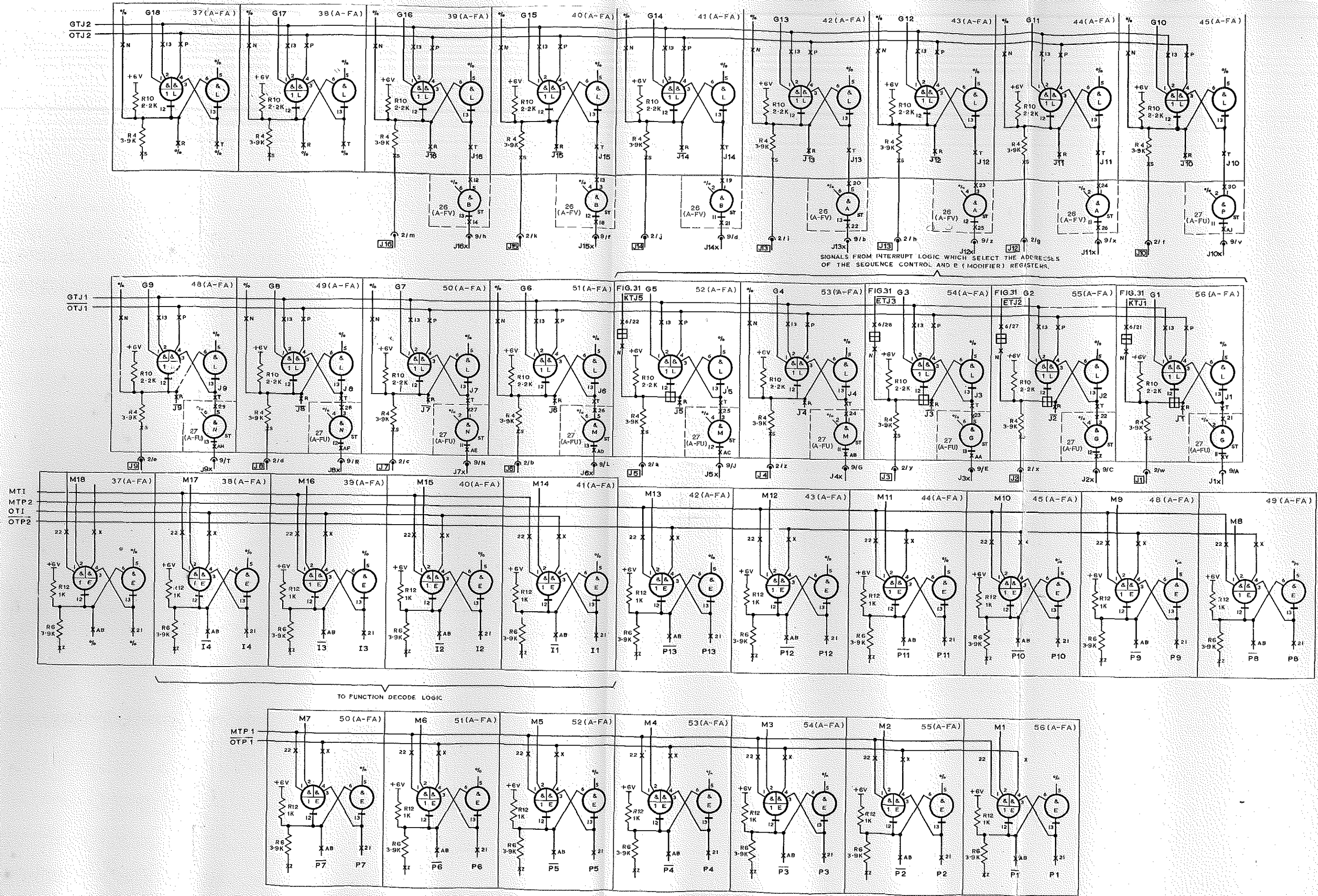
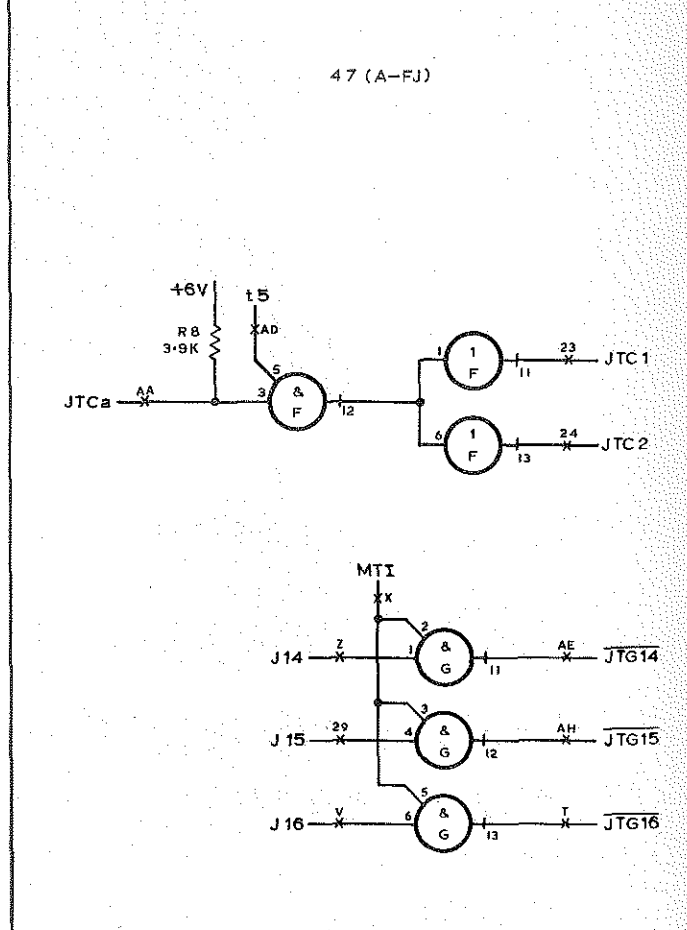
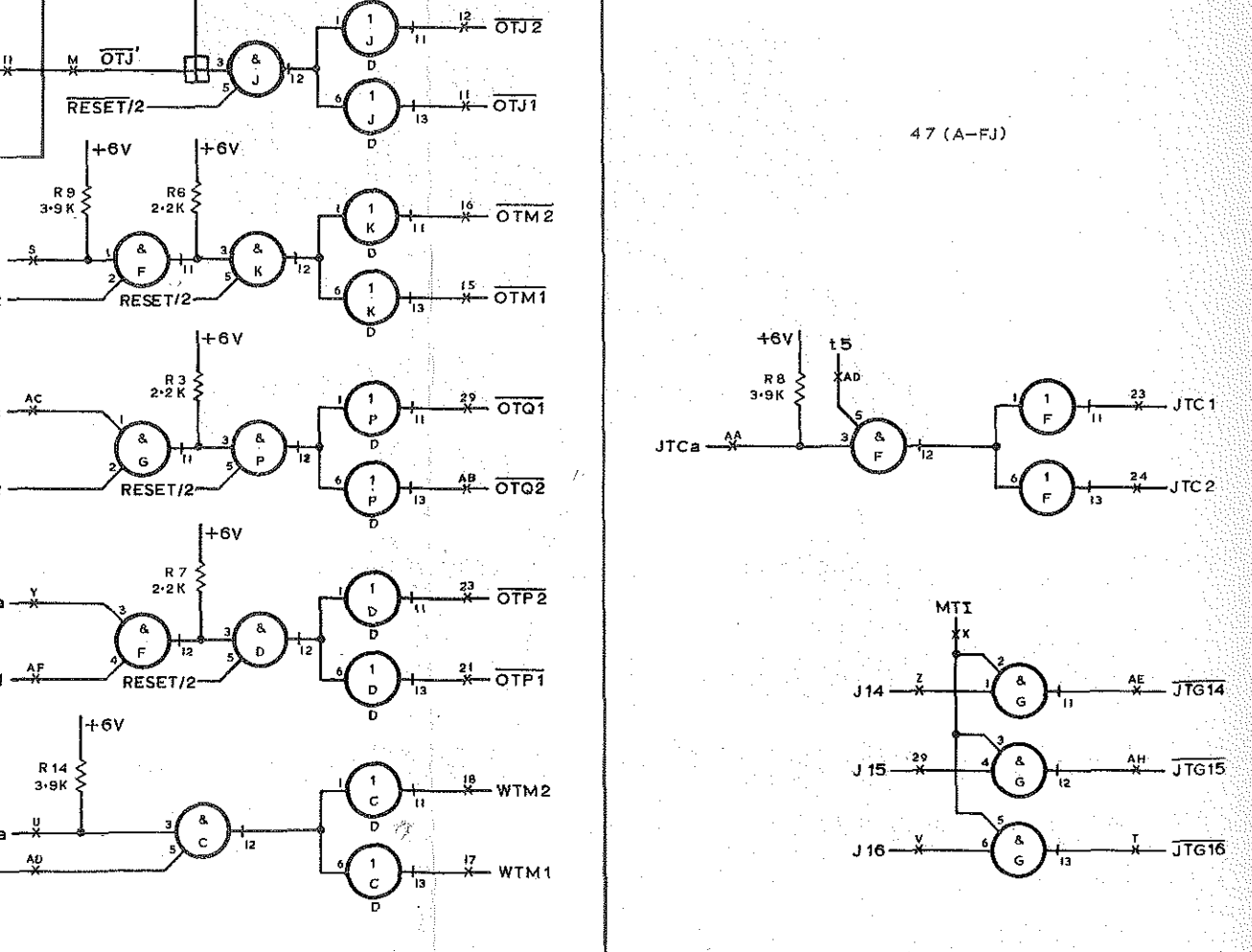
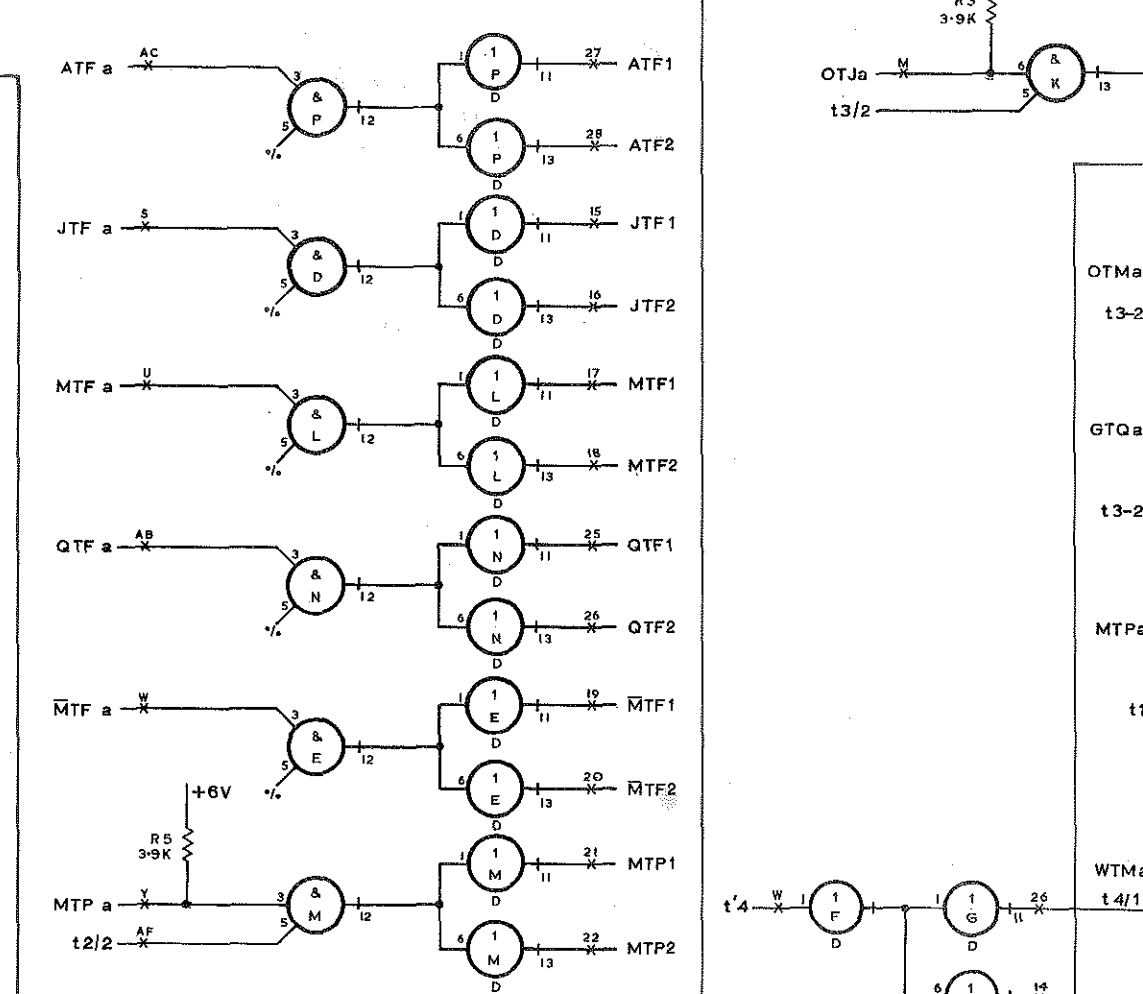
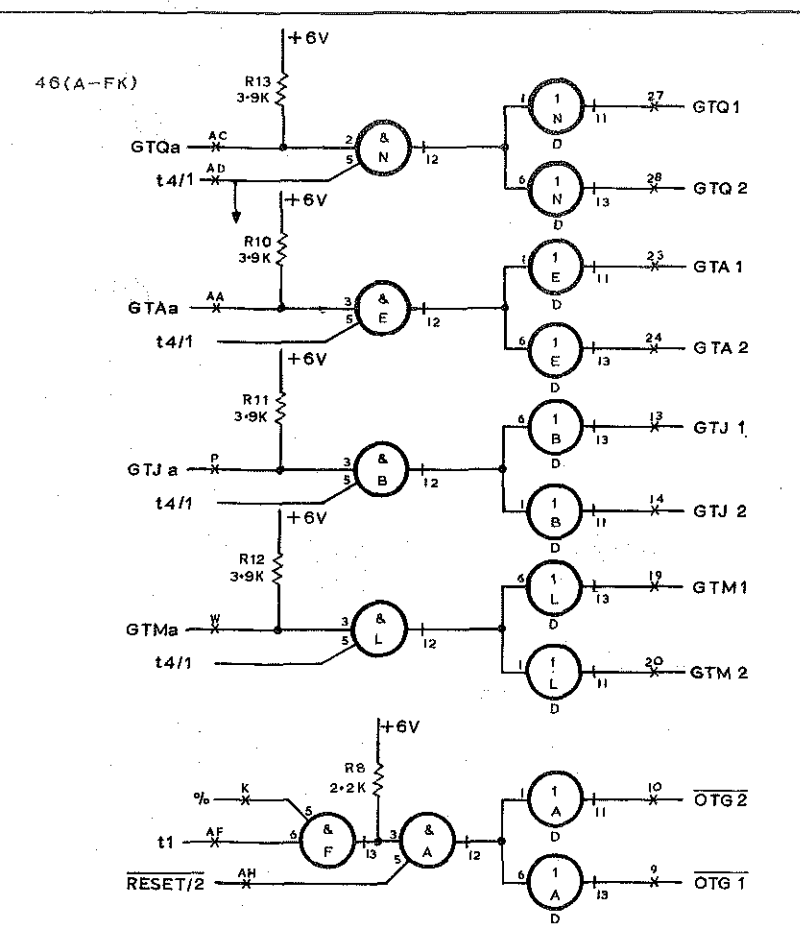
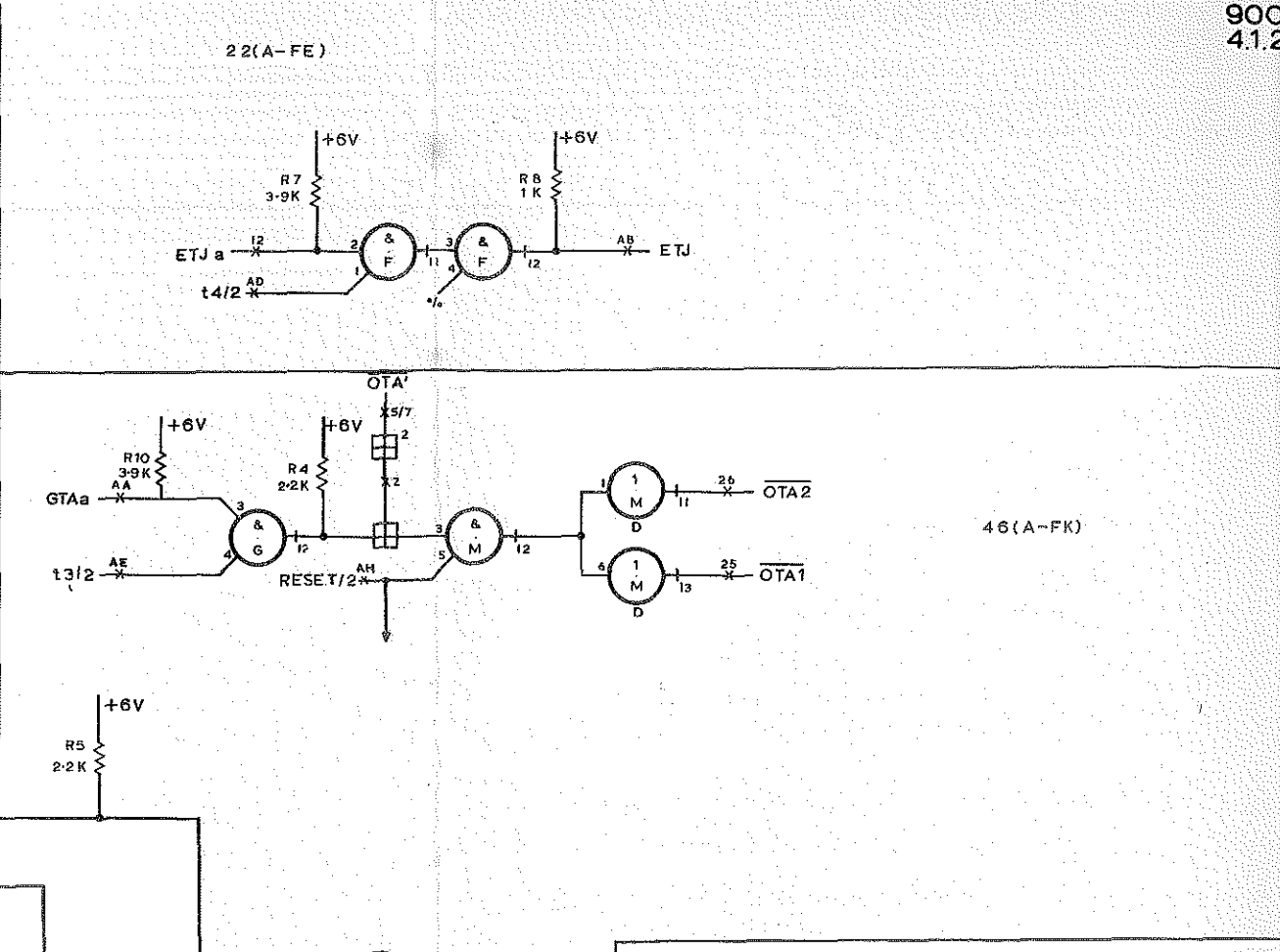
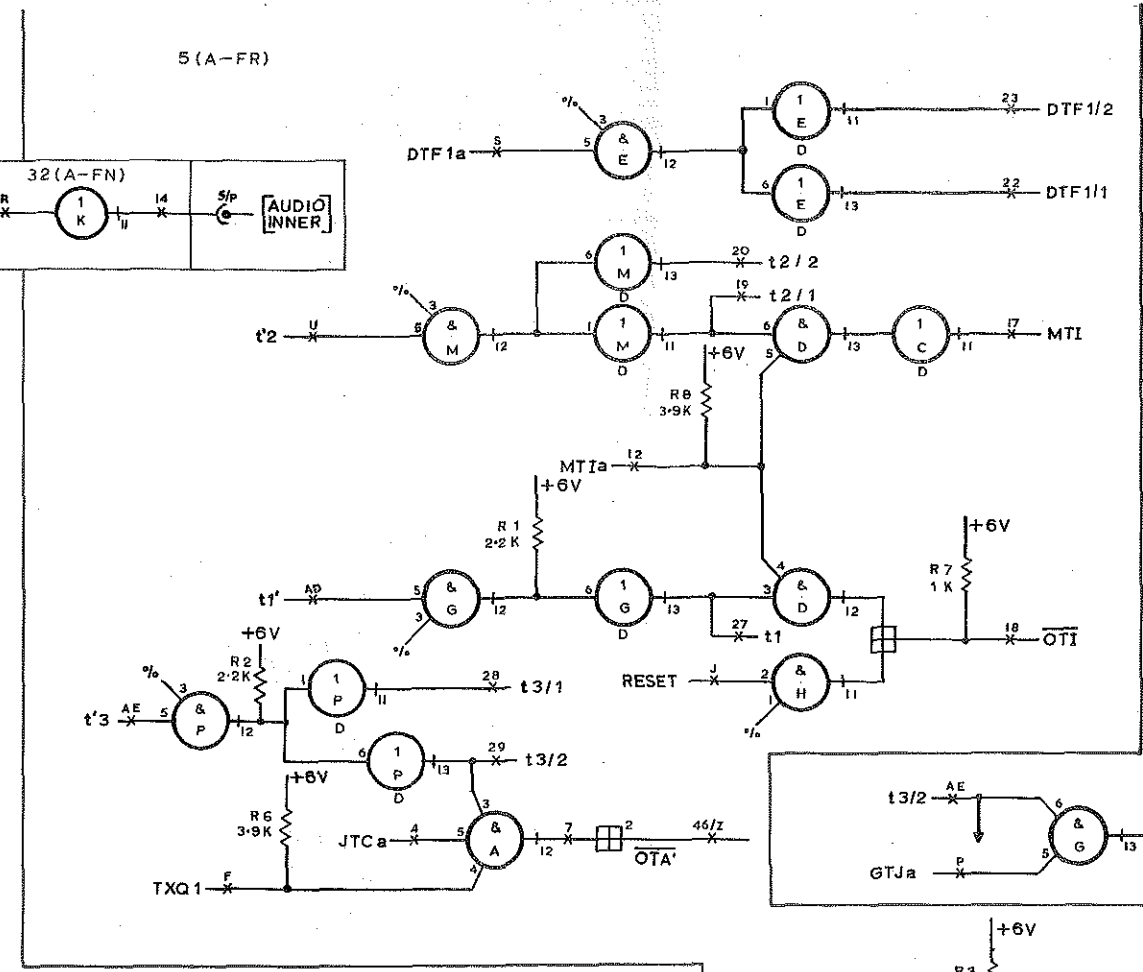
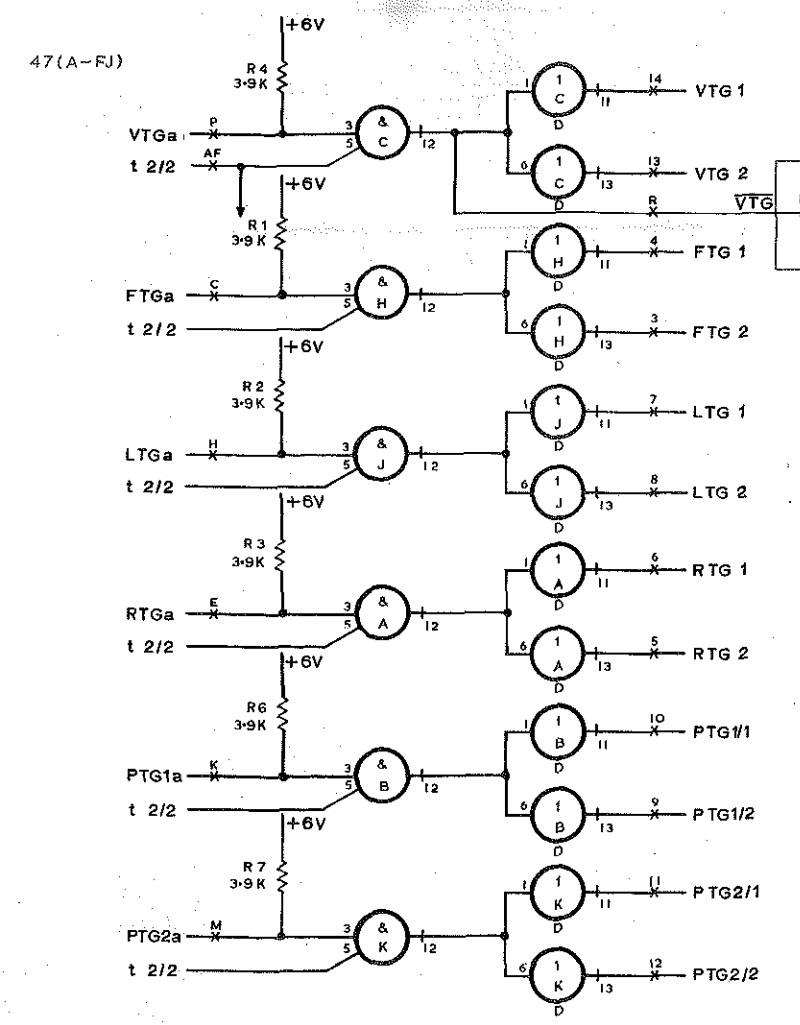
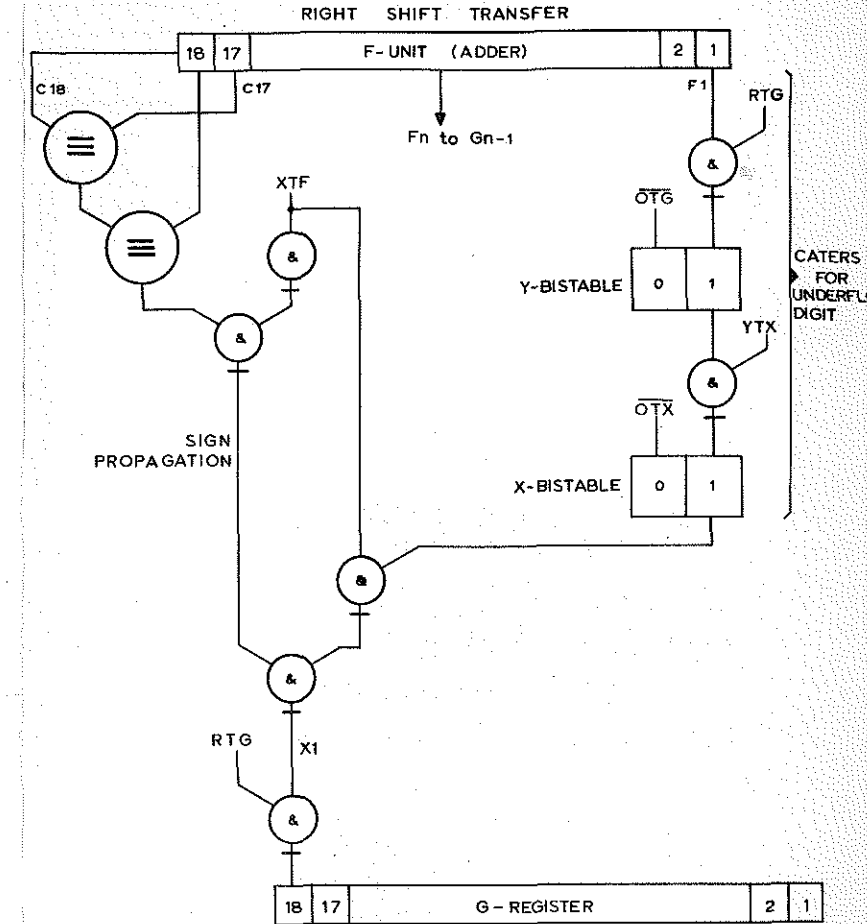
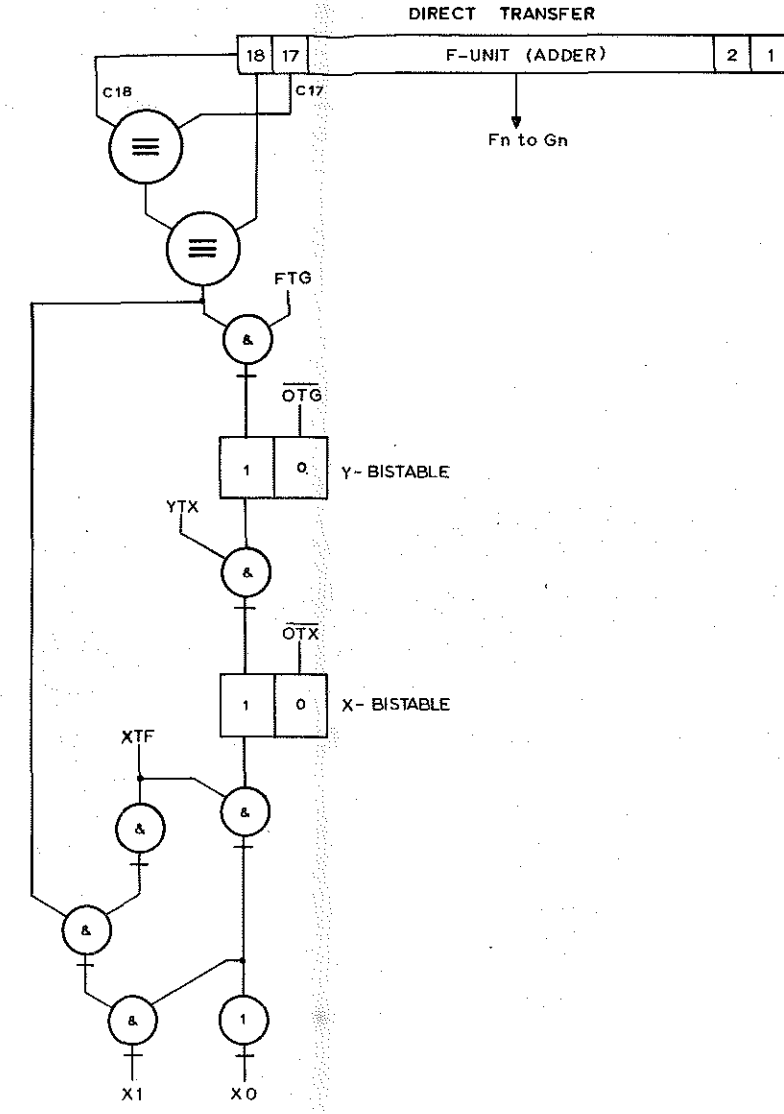
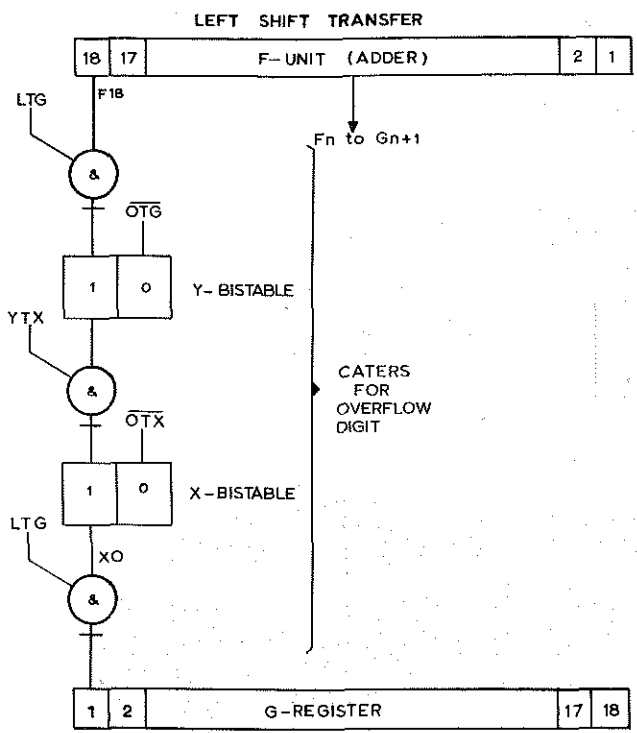


Figure 22 (ISSUE 2)

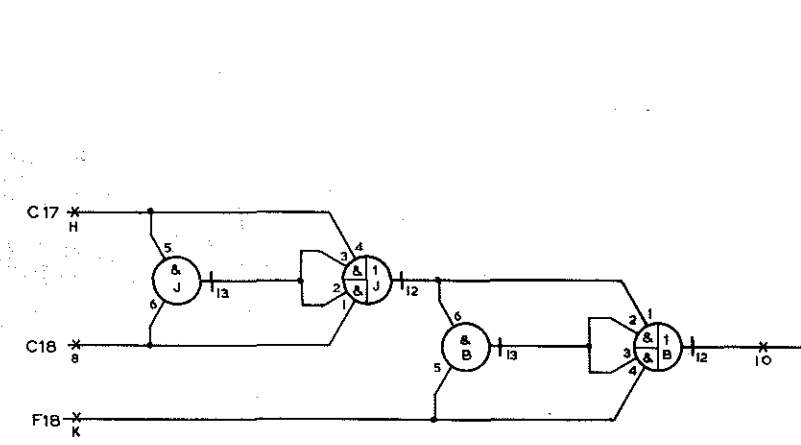


WFORM DRIVERS

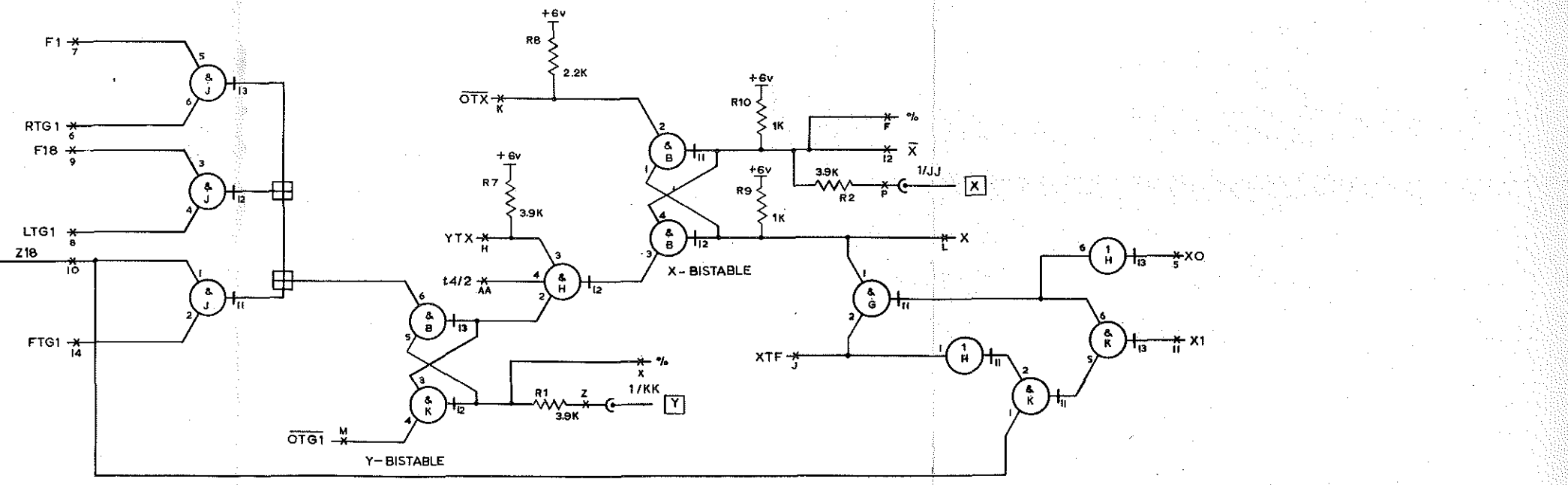
Figure 23 (ISSUE 2)

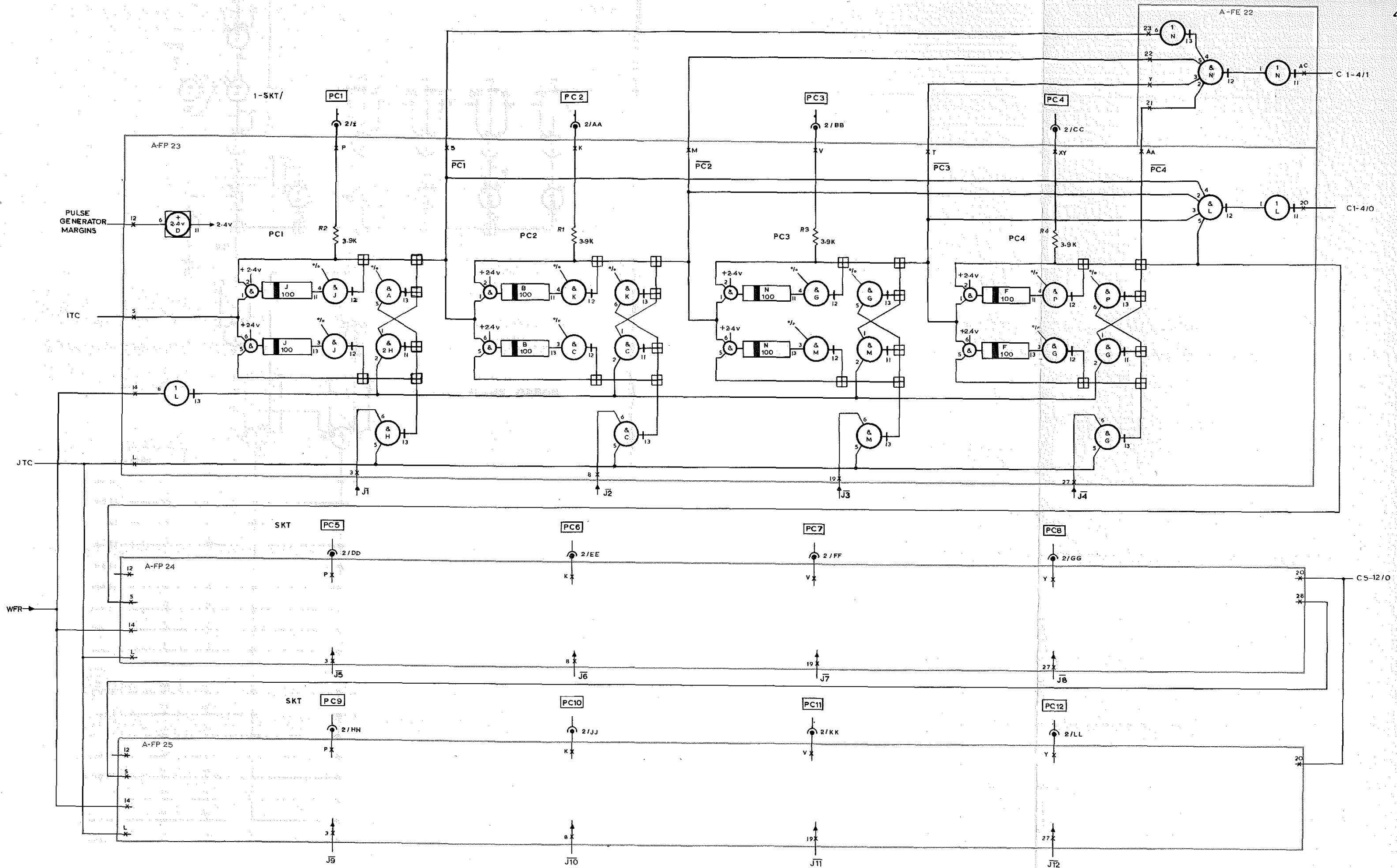


5 (A-FR)



57 (A-FM)

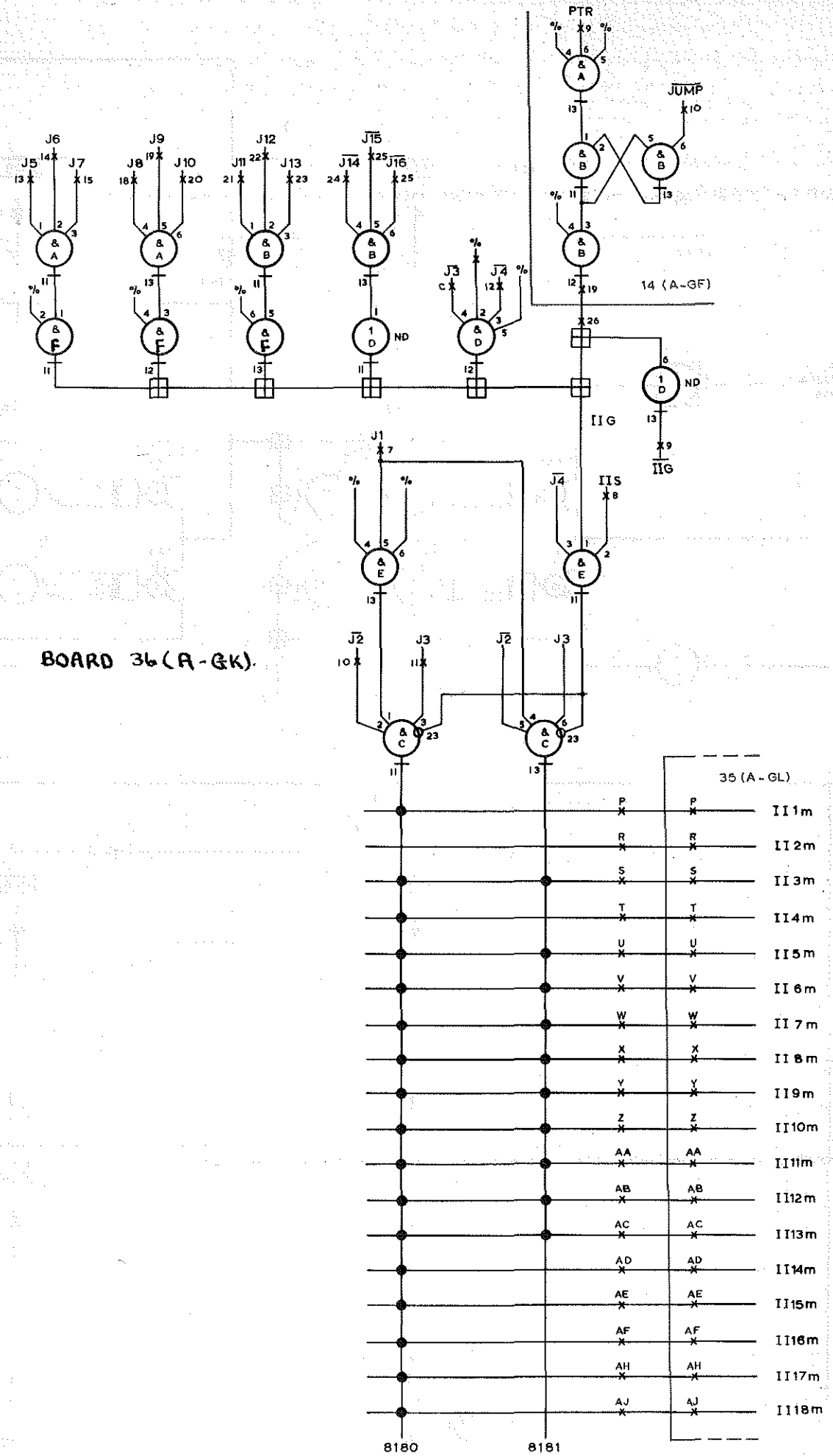




PROCESS COUNTER

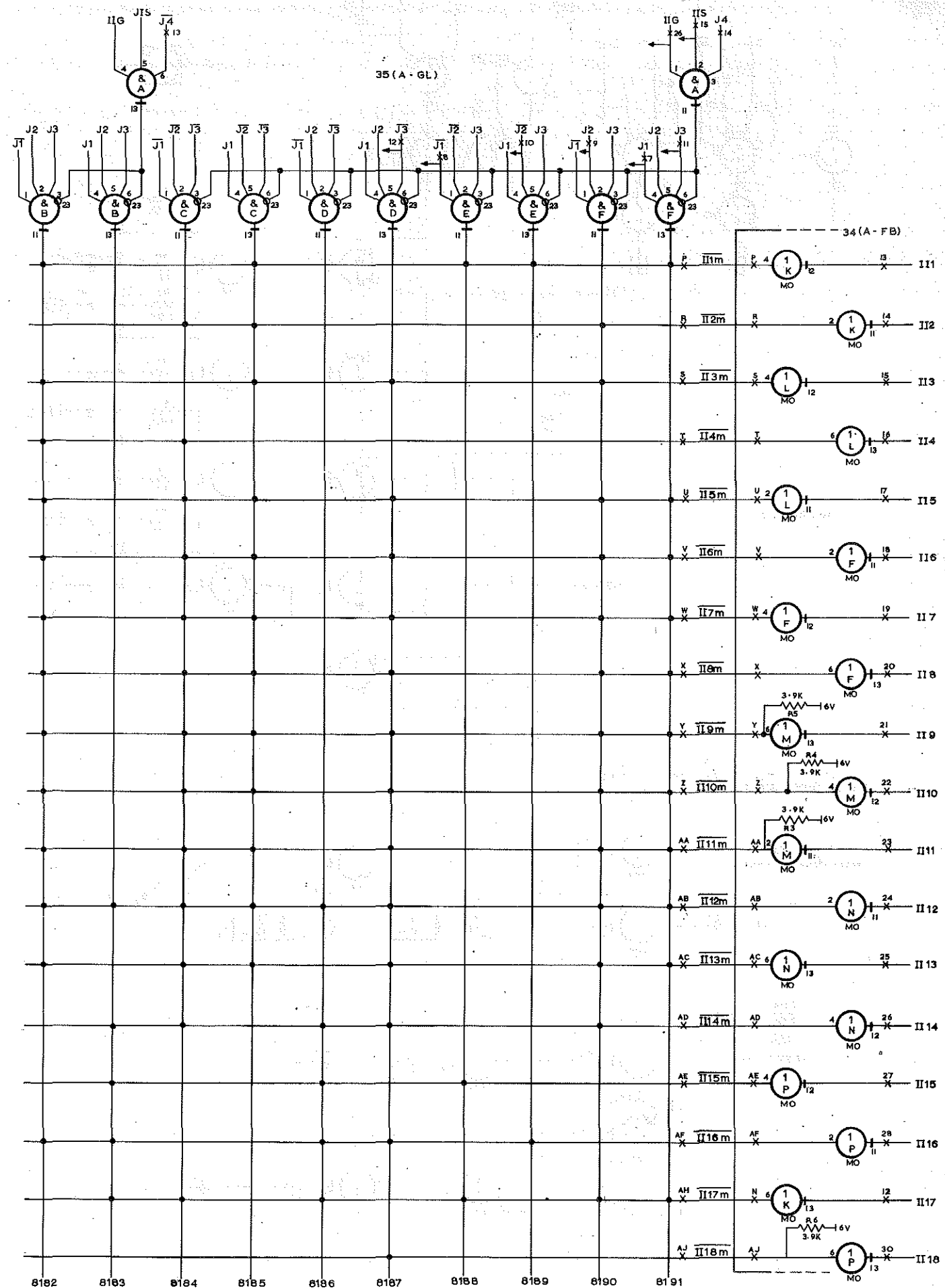
Figure 25 (ISSUE 2)

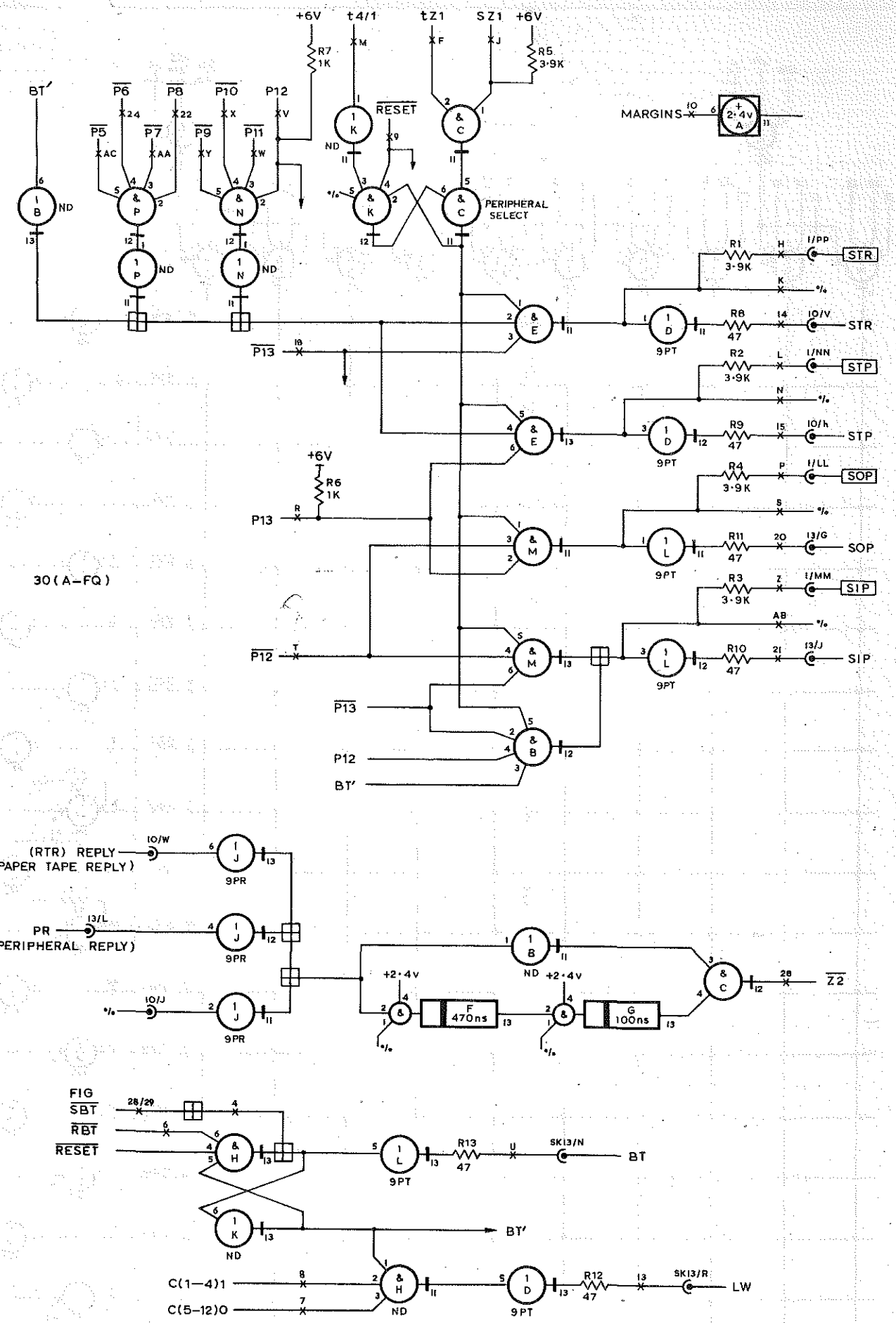
900
4.1.2.



BOARD 36 (A-GK).

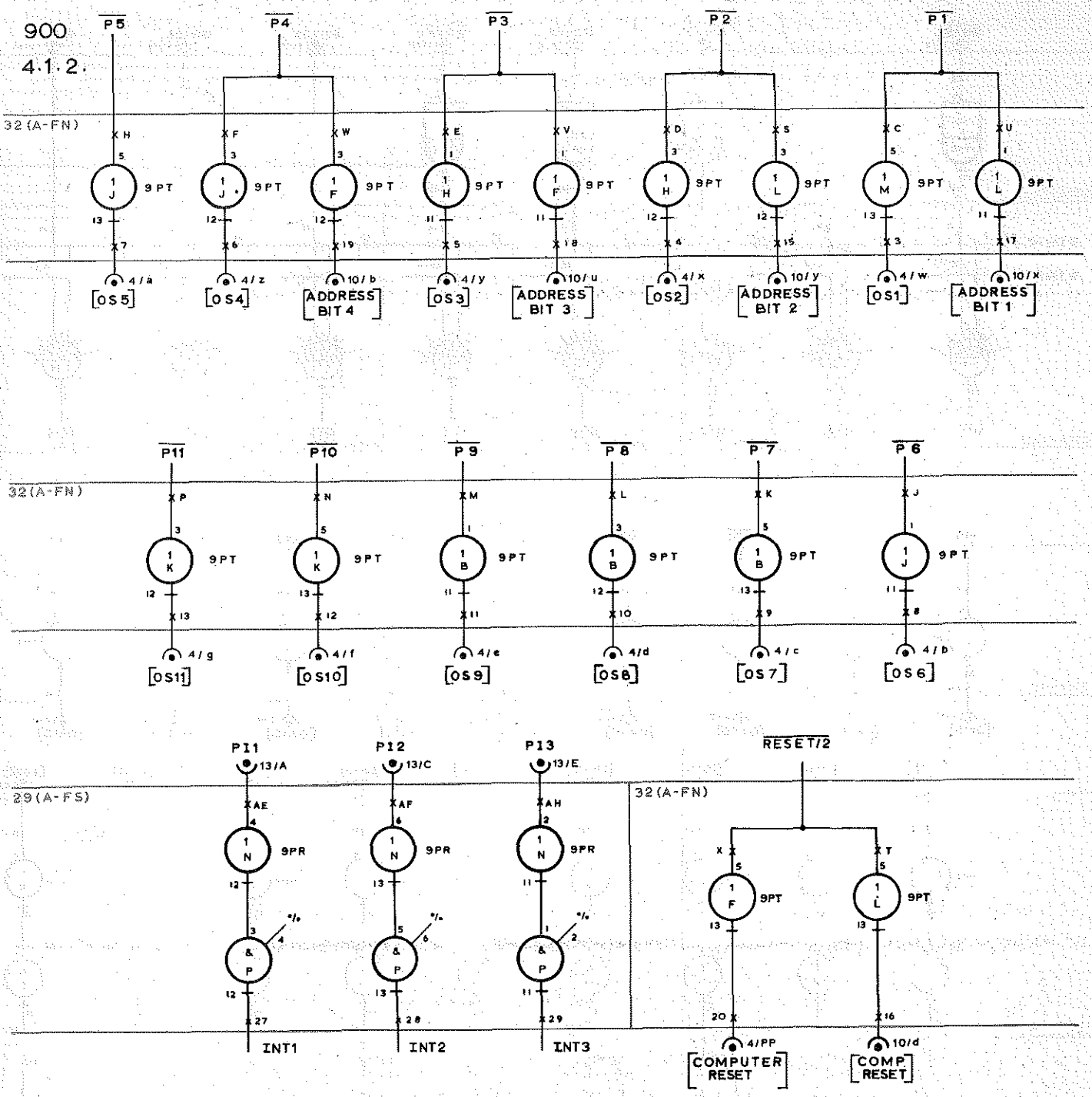
Figure 26a (ISSUE 2)





30 (A-FQ)

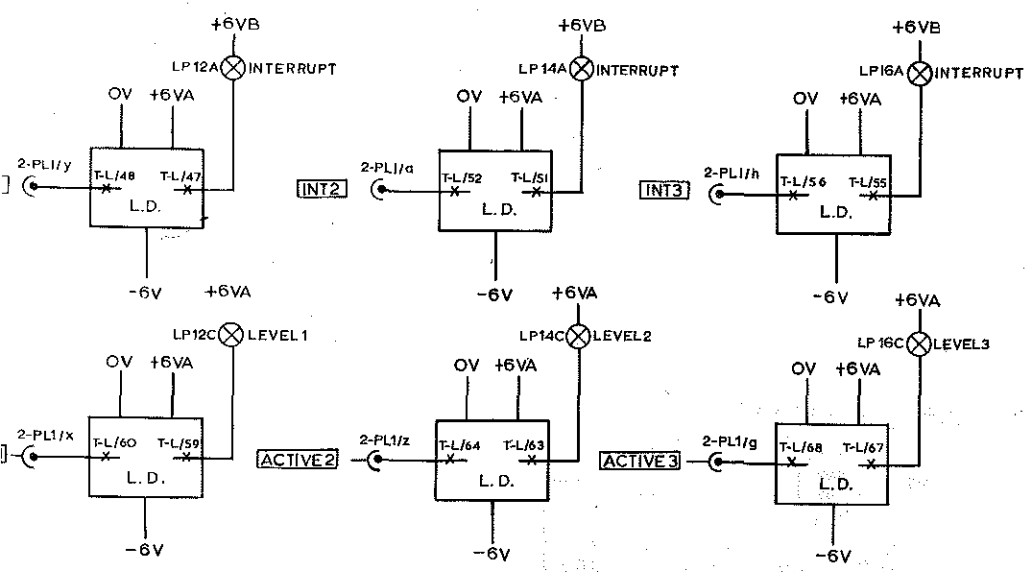
Figure 27 (ISSUE 2)



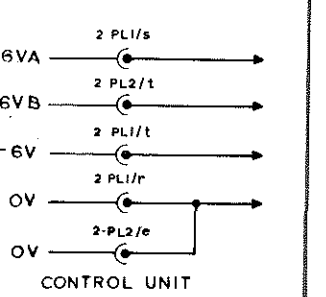
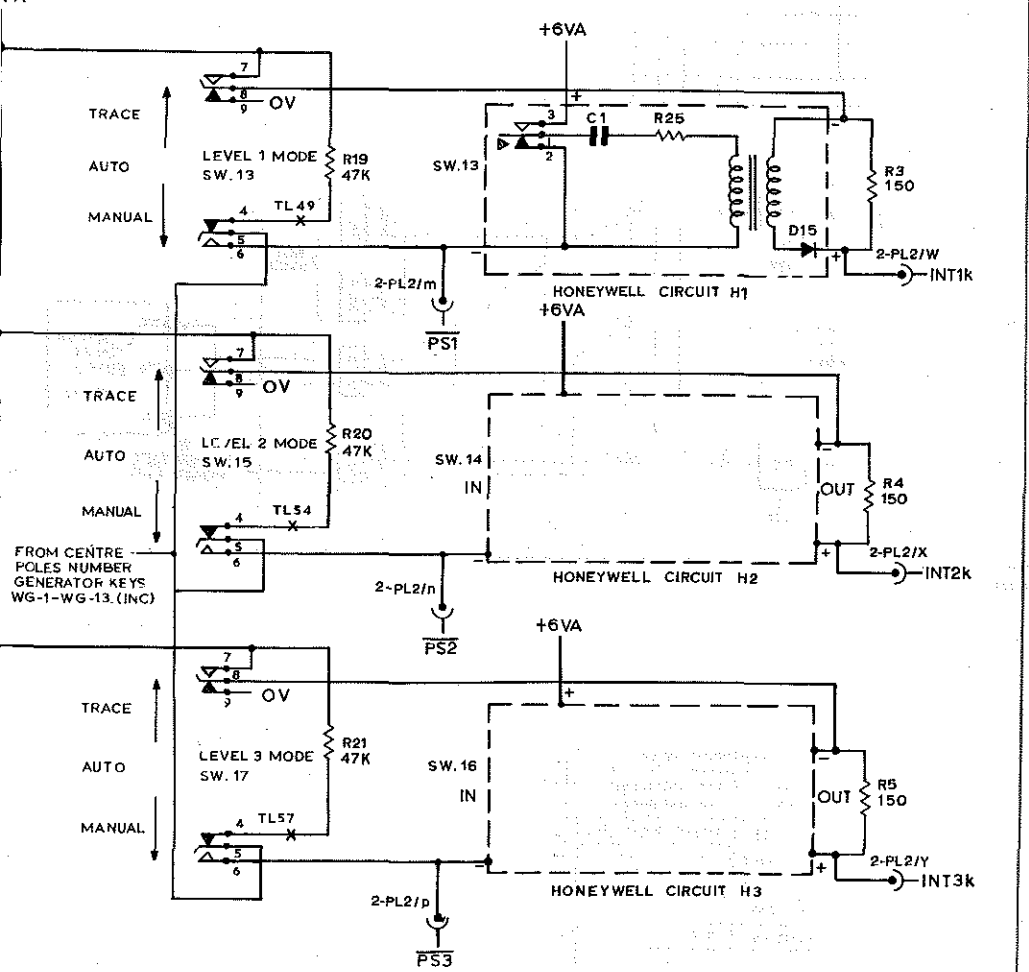
NOTE: ON FIGURE 29 SIGNALS WHICH ARE NOT RELEVANT TO INPUT/OUTPUT HAVE BEEN OMITTED FROM THE INPUT PINS OF THE PERTINENT ELEMENTS

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				SCRIBREG
	E1	E2	J5	J3	J2	J1	
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

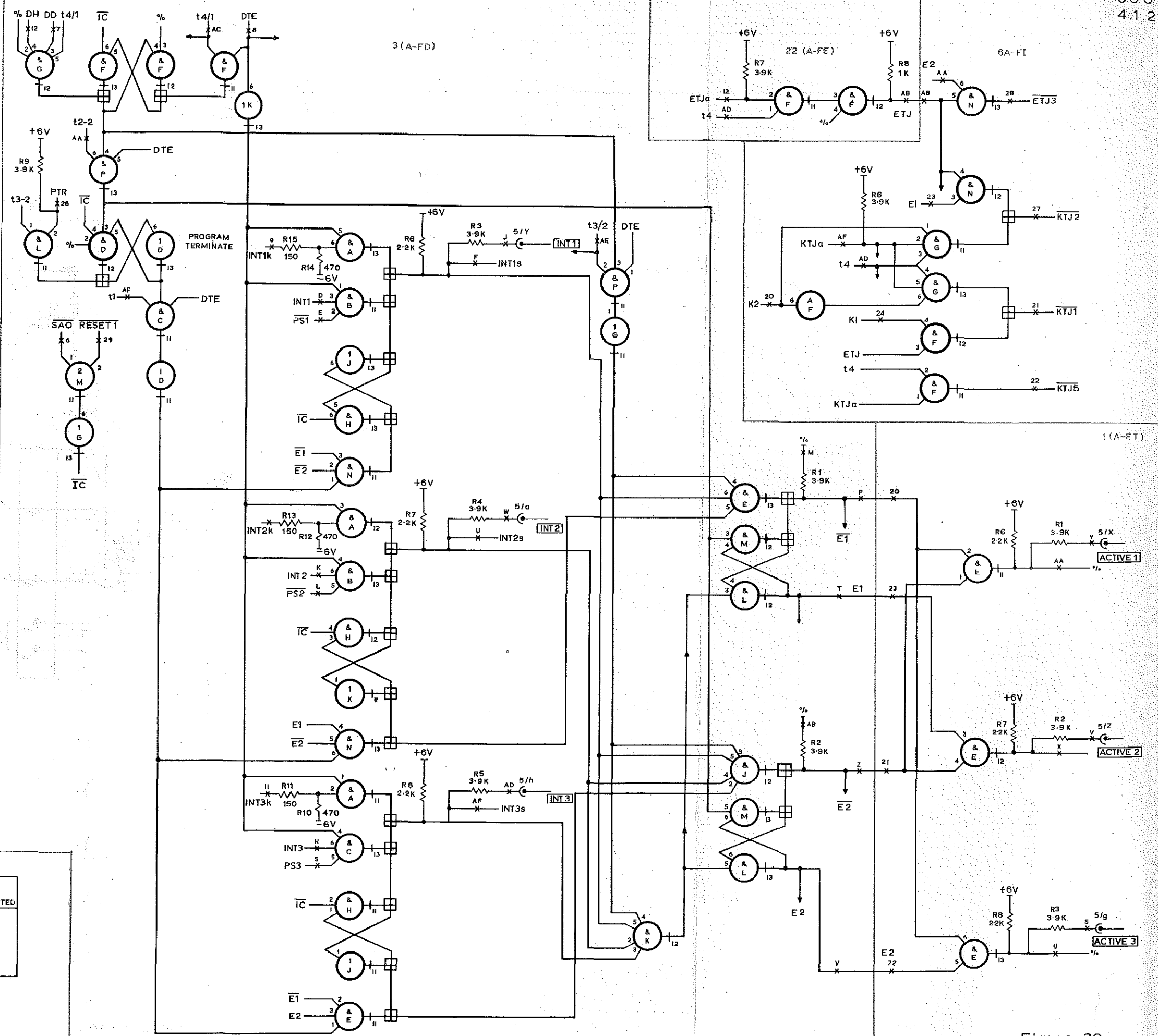
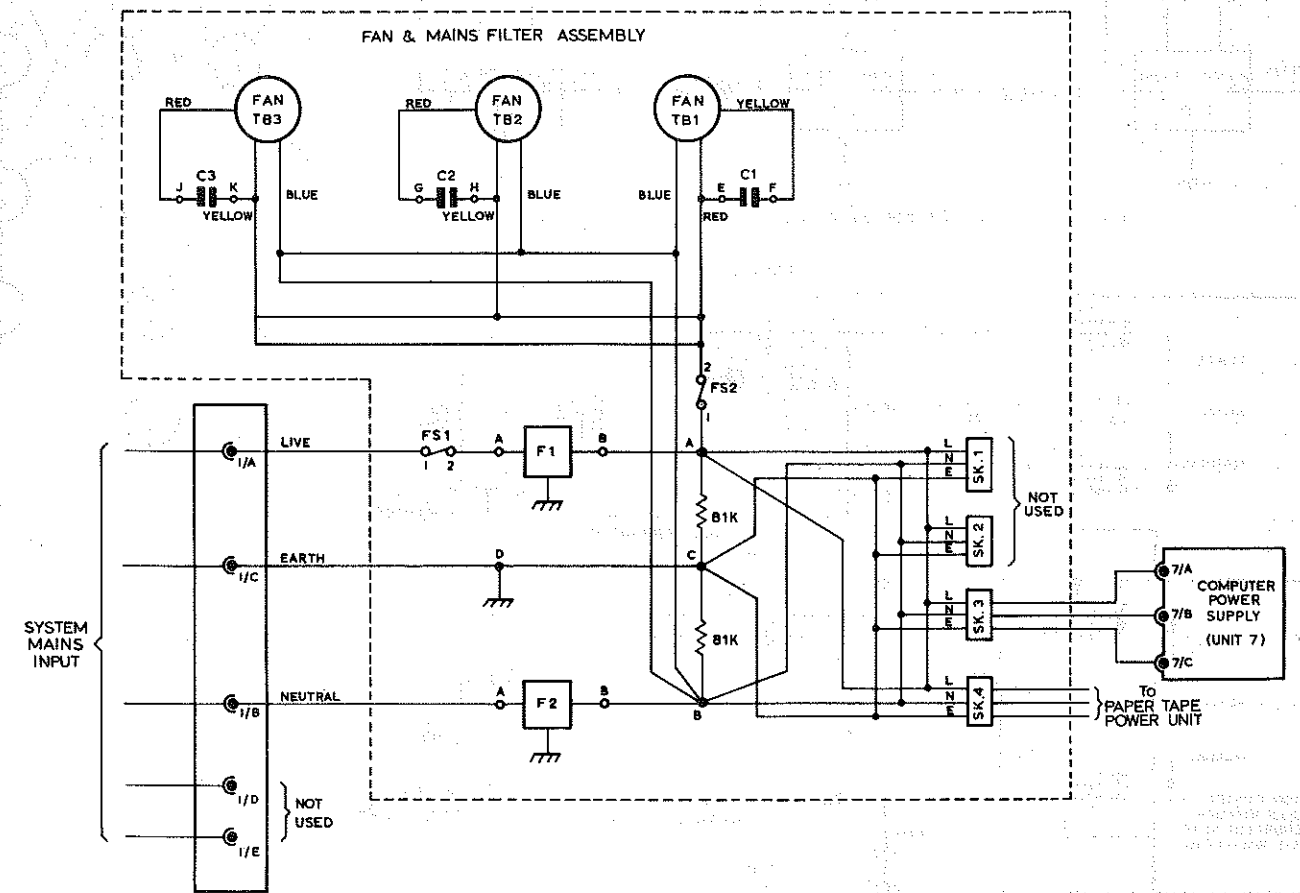
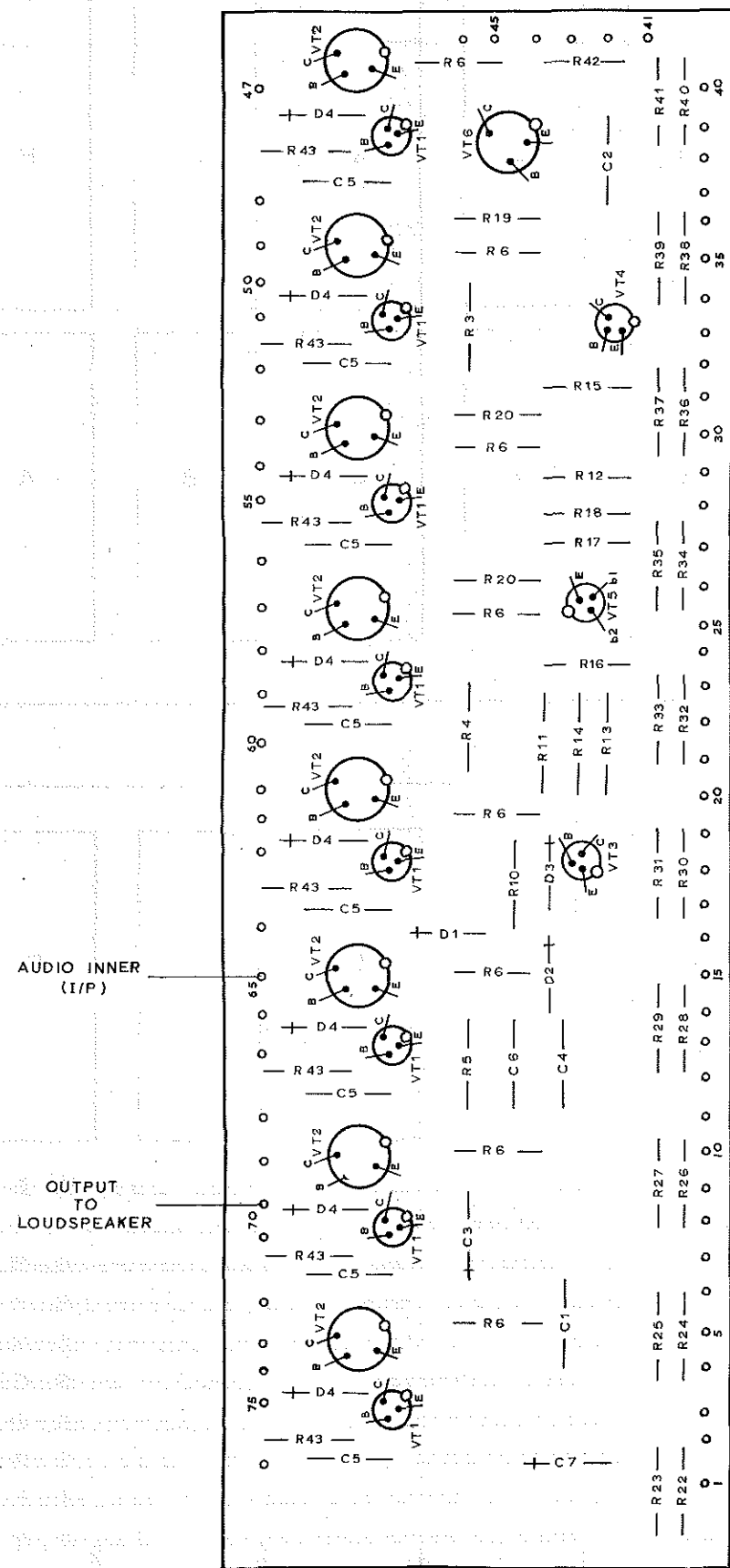


Figure 30 (ISSUE 2)

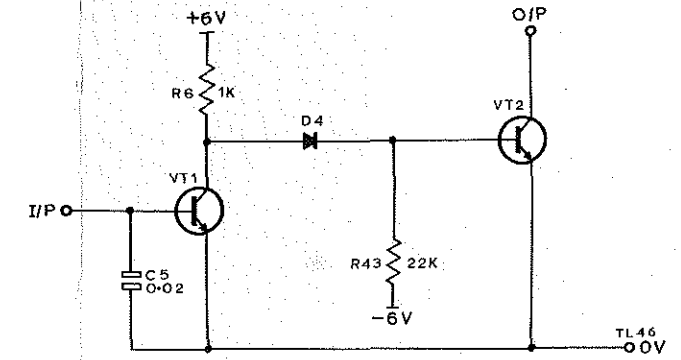


COMPONENT TABLE	
FS1	10A ant surging
FS2	3A ant surging
C1 - C3	1.0µF 1000V D.C.
Fan 1 - Fan 3	
FILTER 1 & 2	
SK1 - SK4	
Resistors	81K

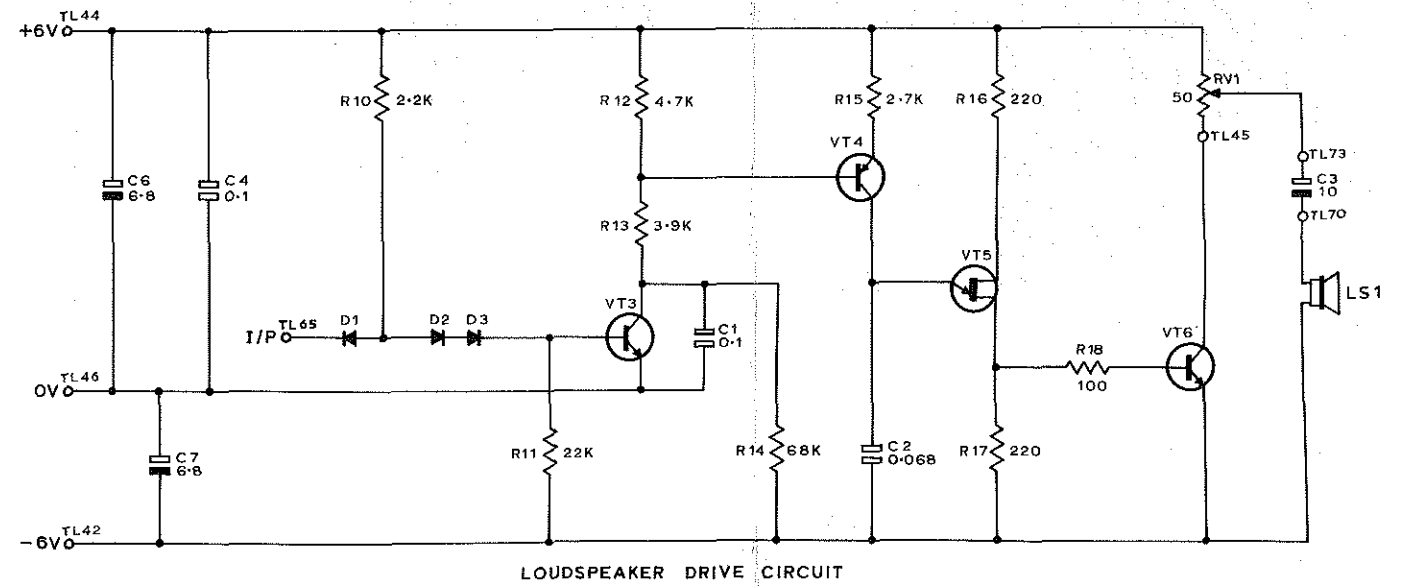
Figure 31 (ISSUE 2)



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



LAMP DRIVER CIRCUIT (8-OFF)



LOUDSPEAKER DRIVE CIRCUIT

TABLE 1

Item	Part No.	Quantity	Notes
1
2
3
4
5
6
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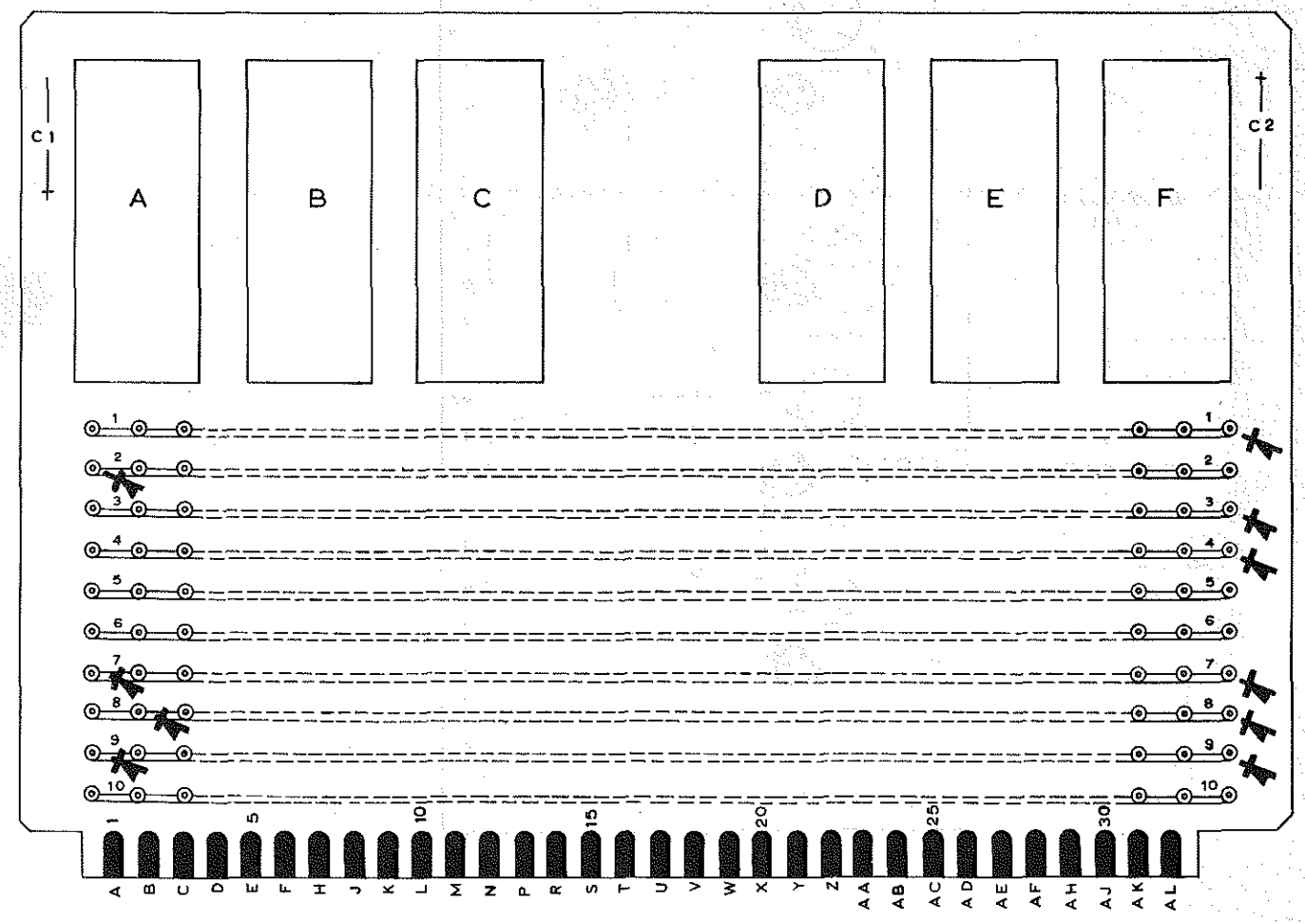
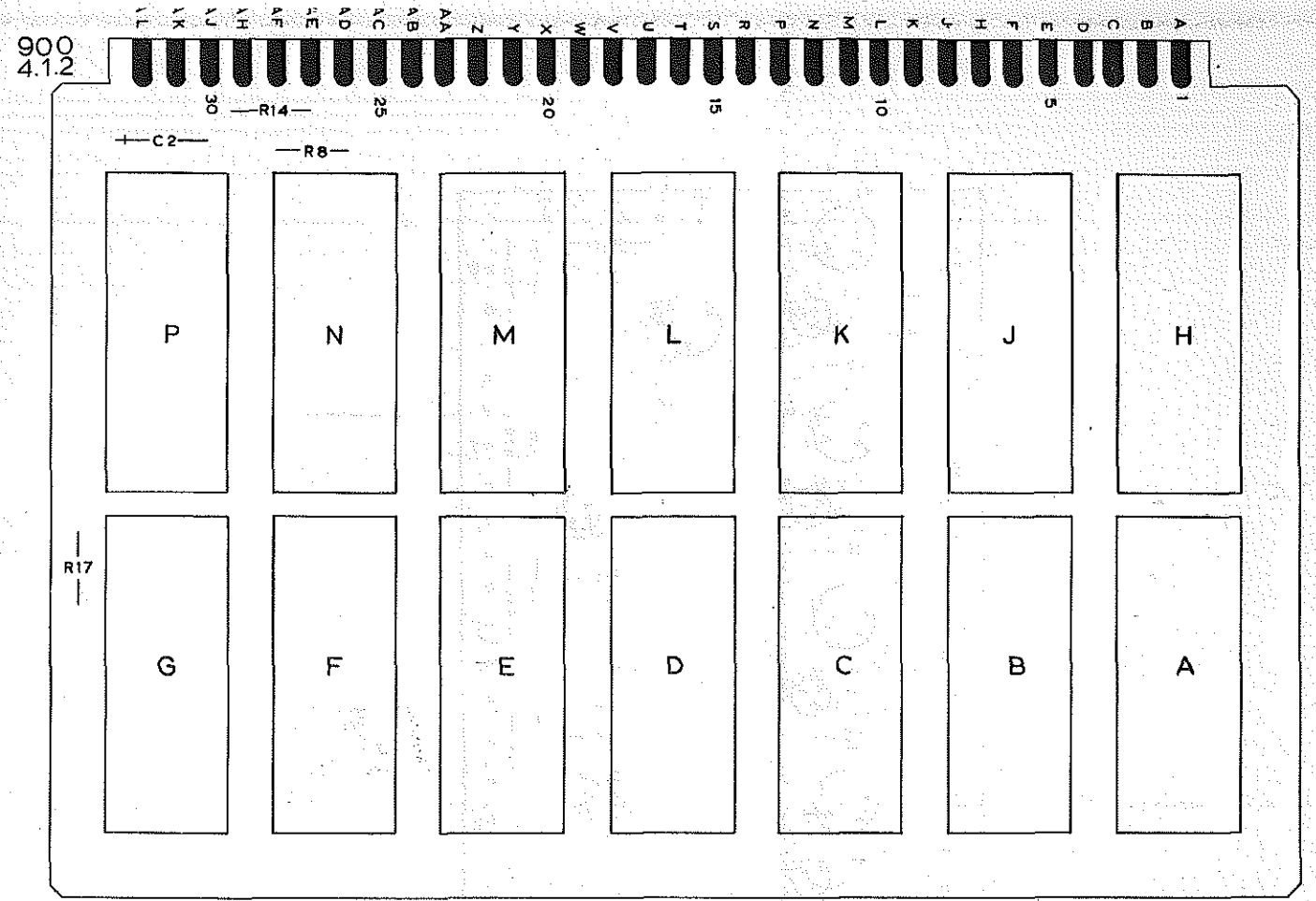
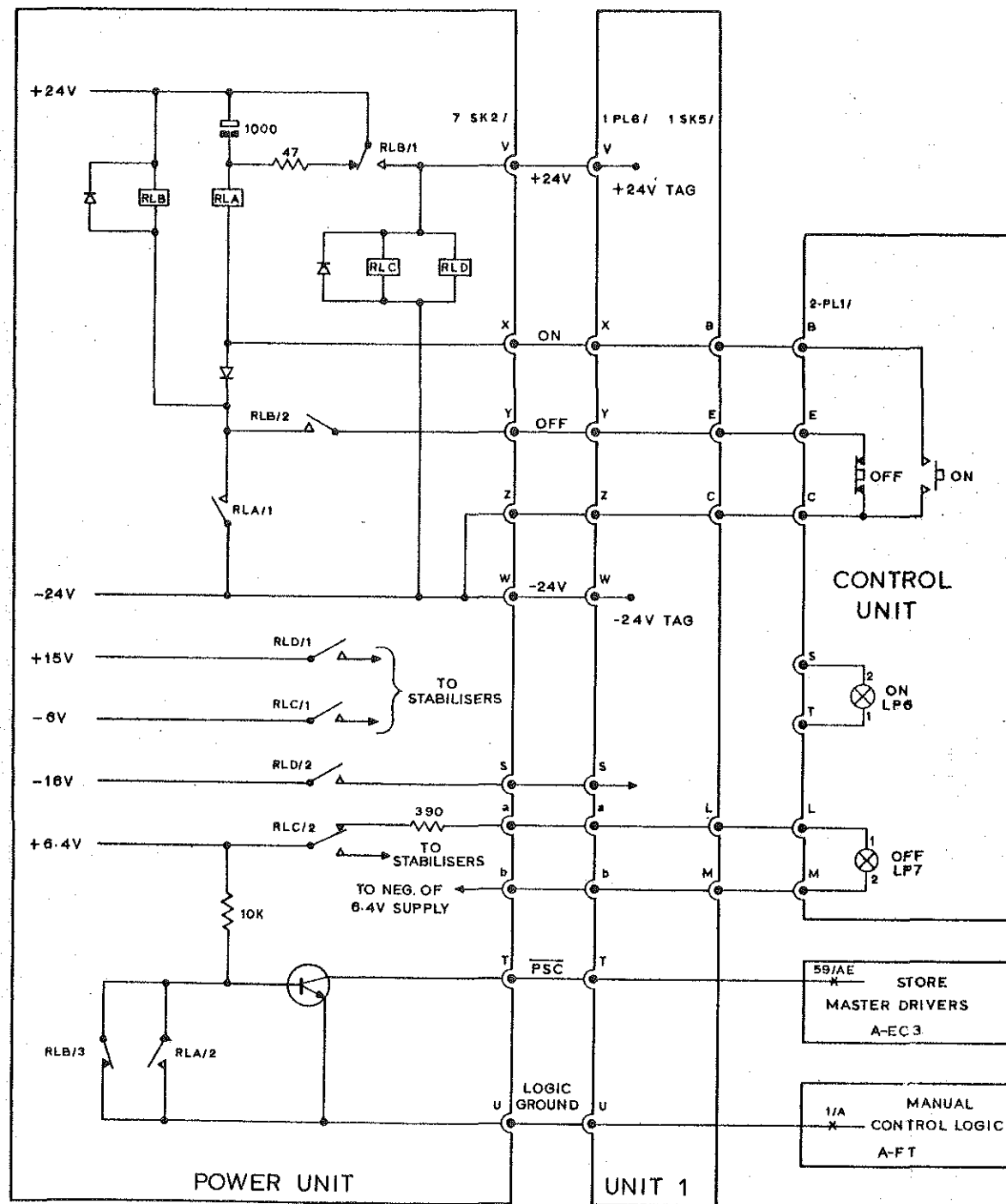
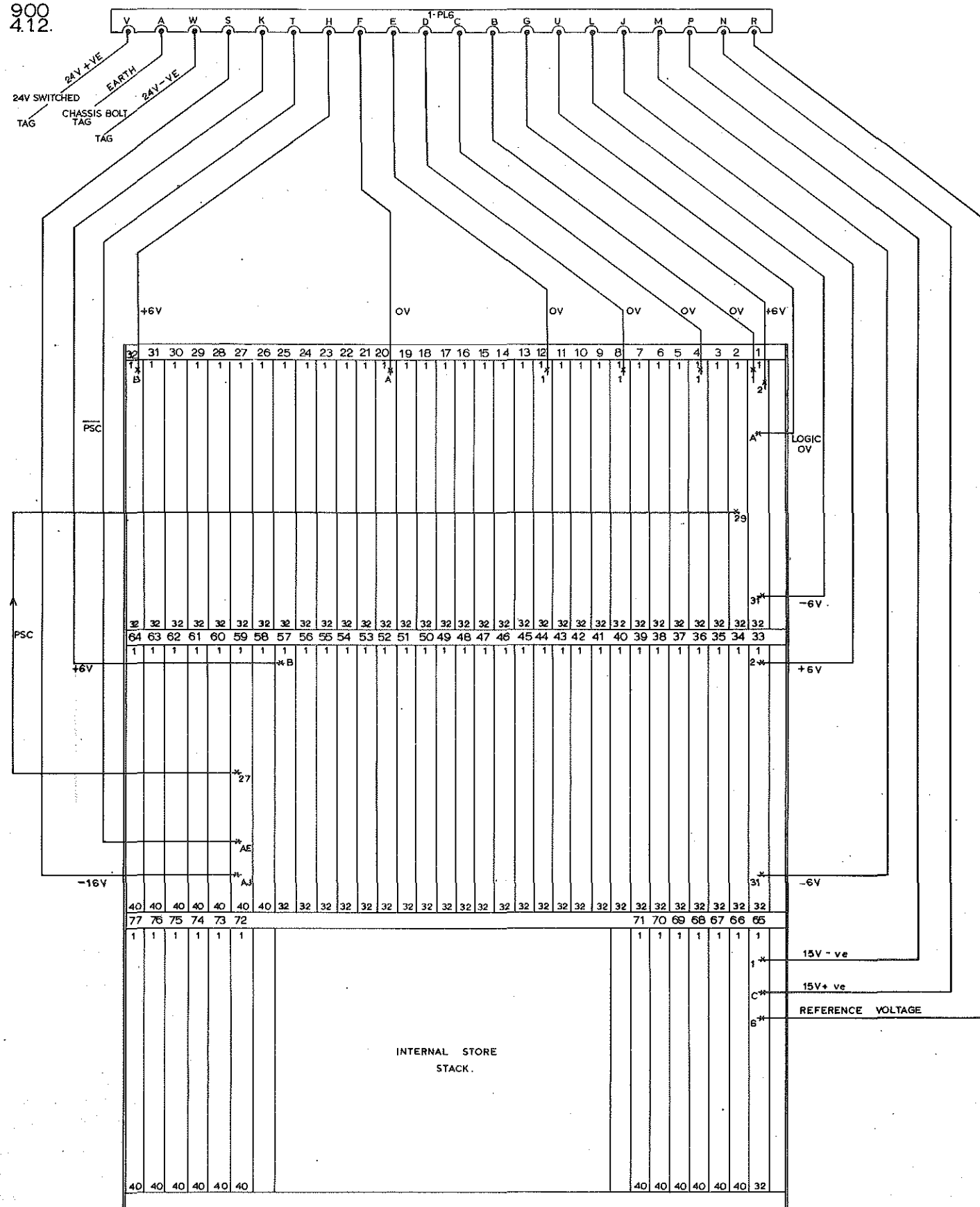


Figure 35 (ISSUE 2)





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

Figure 32 (ISSUE 2)

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	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	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														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																							
													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