Control Store Microcode Table

RESV	ALU_MODE				JEZ	JGZ	CMCF	CS Loopback				Control BUS											Control Branch Address
41	40			37	36	35	34	33			30	29	27	26	23	22	20	19	14	13	11	10	8 7	0

| ADDR | RESV | ALU_MODE | | JEZ | JGZ | CMCF | CAR Control | ALU BUS Control | PC Control | ACC BUS Control | MAR BUS Control | MAR BUS Control | IR BUS Control | Control Branch Address |
| | | ALU mode | | | | | CAR Control Word | Bus Control Word | PC Control Word | Bus Control Word | MBR Bus Control Word | Bus Control Word | Bus Control Word | Branch Address |

DEC	RESV	ALU_MODE	JEZ JGZ CMCF	INC OP BR RST	PEND RM EN	INC PEND RM EN	PEND RM EN	mem rm R W PEND RM EN	PEND RM EN	PEND RM EN	Address

Address column (DEC → Branch Address):

DEC	Address		ASN	HEX
0	0			
1	0			
2	0			
3	0			
4	0			
5	48		LOAD X	1
6	0			
7	54		STORE X	3
8	0			
9	62		ADD X	5
10	0			
11	71		SUB X	7
12	0			
13	80		MUL X	9
14	0			
15	116		INC	0B
16	0			
17	119		DEC	0D
18	0			
19	131		JMP X	0F
20	0			
21	136		JGZ X	11
22	0			
23	145		JEZ X	13
24	0			
25	89		AND X	15
26	0			
27	98		OR X	17
28	0			
29	122		NOT	19
30	0			
31	107		XOR X	1B
32	0			
33	125		ROL	1D
34	0			
35	128		ROR	1F
36	0			
37	36		HALT	21
38	0			

Instruction Set Reference

LEN	ASN	HEX	OPERATION	CONDITION
2	LOAD X	1	[X]->ACC	
2	STORE X	3	ACC->[X]	
2	ADD X	5	ACC+[X]->ACC	
2	SUB X	7	ACC-[X]->ACC	
2	MUL X	9	ACC*[X]->ACC	
1	INC	0B	ACC+1->ACC	
1	DEC	0D	ACC-1->ACC	
2	JMP X	0F	[X]->PC	
2	JGZ X	11	[X]->PC	ACC > 0
2	JEZ X	13	[X]->PC	ACC = 0
2	AND X	15	ACC&[X]->ACC	
2	OR X	17	ACC&[X]->ACC	
1	NOT	19	~ACC->ACC	
2	XOR X	1B	ACC^[X]->ACC	
1	ROL	1D	ACC << 1->ACC	
1	ROR	1F	ACC >> 1->ACC	
1	HALT	21	Halt	

Additional labels:
- ROR 1F
- HALT 21

Program listing:
- LOAD X 1
- STORE X 3
- ADD X 5
- SUB X 7
- ADD X 5
- MUL X 9
- INC 0B
- DEC 0D
- MUL X 9
- JMP X 0F
- JGZ X 11
- JEZ X 13
- AND X 15
- OR X 17
- JMP X 0F
- NOT 19
- XOR X 1B
- ROL 1D
- JEZ X 13
- ROR 1F
- AND X 15
- HALT 21

Rows 39–129 contain additional microcode control-word entries (binary control bits) with Branch Address = 0 for each listed row.

#																																									
130	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					0
131	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0										0
132	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0										0
133	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0										0
134	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0										0
135	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										0
136	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										140
137	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										0
138	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										0
139	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										0
140	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0										0
141	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0										0
142	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0										0
143	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0										0
144	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										0
145	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										149
146	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										0
147	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										0
148	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										0
149	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0										0
150	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0										0
151	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0										0
152	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0										0
153	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										0
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