MIX Alphameric Codes

SYMBOL	CODE									
MIX and Printer	Computer and Magnetic Tape	Paper Tape Channel X	0	C	8	4	2	1	Punch Card	
(Space)	00			√					(Blank)	
A	01	X	0					1	12	1
B	02	X	0				2		12	2
C	03	X	0	√			2	1	12	3
D	04	X	0			4			12	4
E	05	X	0	√		4		1	12	5
F	06	X	0	√		4	2		12	6
G	07	X	0			4	2	1	12	7
H	08	X	0		8				12	8
I	09	X	0	√	8			1	12	9
Δ	10	X	0	√					12	
J	11	X		√				1	11	1
K	12	X		√			2		11	2
L	13	X					2	1	11	3
M	14	X		√		4			11	4
N	15	X				4		1	11	5
O	16	X				4	2		11	6
P	17	X		√		4	2	1	11	7
Q	18	X		√	8				11	8
R	19	X			8			1	11	9
Σ	20	X							11	
Π	21		0						0	1
S	22		0	√			2		0	2
T	23		0				2	1	0	3
U	24		0	√		4			0	4
V	25		0			4		1	0	5
W	26		0			4	2		0	6
X	27		0	√		4	2	1	0	7
Y	28		0	√	8				0	8
Z	29		0		8			1	0	9
0 (Zero)	30			√	8		2		0	
1	31							1		1
2	32						2			2
3	33			√			2	1		3
4	34					4				4
5	35			√		4		1		5
6	36			√		4	2			6
7	37					4	2	1		7
8	38				8					8
9	39			√	8			1		9
.	40	X	0	√	8		2		12	2-8
,	41	X	0		8		2	1	12	3-8
(	42	X	0	√	8	4			12	4-8
)	43	X	0		8	4		1	12	5-8
+	44	X	0		8	4	2		12	6-8
-	45	X	0		8		2	1	12	7-7
*	46	X			8		2		11	2-8
/	47	X		√	8		2	1	11	3-8
=	48	X			8	4			11	4-8
$	49	X		√	8	4		1	11	5-8
<	50	X		√	8	4	2		11	6-8
>	51	X			8	4	2	1	11	7-8
@	52		0		8		2		0	2-8
;	53		0	√	8		2	1	0	3-8
:	54		0		8	4			0	4-8
'	55		0	√	8	4		1	0	5-8

MIX

A Summary of Operations in Operation-Code Order

INSTR.FORMAT ±	AA	I	F	C	OPERATION ABR	DF	NAME
±	aaaa	i	L:R	00	NOP	0	NO OPERATION
±	aaaa	i	L:R	01	ADD	0:5	ADD
±	aaaa	i	06	01	FADD		FLOATING ADD
±	aaaa	i	L:R	02	SUB	0:5	SUBTRACT
±	aaaa	i	06	02	FSUB		FLOATING SUBTRACT
±	aaaa	i	L:R	03	MUL	0:5	MULTIPLY
±	aaaa	i	06	03	FMUL		FLOATING MULTIPLY
±	aaaa	i	L:R	04	DIV	0:5	DIVIDE
±	aaaa	i	06	04	FDIV		FLOATING DIVIDE
±	aaaa	i	00	05	NUM		CONVERT TO NUMERIC
±	aaaa	i	01	05	CHAR		CONVERT TO CHARACTERS
±	aaaa	i	02	05	HLT		HALT
±	aaaa	i	00	06	SLA		SHIFT LEFT A
±	aaaa	i	01	06	SRA		SHIFT RIGHT A
±	aaaa	i	02	06	SLAX		SHIFT LEFT AX
±	aaaa	i	03	06	SRAX		SHIFT RIGHT AX
±	aaaa	i	04	06	SLC		SHIFT LEFT AX CIRCULARLY
±	aaaa	i	05	06	SRC		SHIFT RIGHT AX CIRCULARLY
±	aaaa	i	N	07	MOVE	1	MOVE WORDS
±	aaaa	i	L:R	08+[r]	LD[r]	0:5	LOAD
±	aaaa	i	L:R	16+[r]	LD[r]N	0:5	LOAD r NEGATIVE
±	aaaa	i	L:R	24+[r]	ST[r]	0:5	STORE
±	aaaa	i	L:R	32	STJ	0:2	STORE J
±	aaaa	i	L:R	33	STZ	0:5	STORE ZERO
±	aaaa	i	U	34	JBUS	0	JUMP BUSY
±	aaaa	i	U	35	IOC	0	I/O CONTROL
±	aaaa	i	U	36	IN	0	INPUT
±	aaaa	i	U	37	OUT	0	OUTPUT
±	aaaa	i	U	38	JRED	0	JUMP READY
±	aaaa	i	00	39	JMP		JUMP
±	aaaa	i	01	39	JSJ		JUMP SAVE J
±	aaaa	i	02	39	JOV		JUMP ON OVERFLOW
±	aaaa	i	03	39	JNOV		JUMP ON NO OVERFLOW
±	aaaa	i	04	39	JL		JUMP ON LESS
±	aaaa	i	05	39	JE		JUMP ON EQUAL
±	aaaa	i	06	39	JG		JUMP ON GREATER
±	aaaa	i	07	39	JGE		JUMP ON GREATER-OR-EQUAL
±	aaaa	i	08	39	JNE		JUMP ON UNEQUAL
±	aaaa	i	09	39	JLE		JUMP ON LESS-OR-EQUAL
±	aaaa	i	00	40+[r]	J[r]N		JUMP r NEGATIVE
±	aaaa	i	01	40+[r]	J[r]Z		JUMP r ZERO
±	aaaa	i	02	40+[r]	J[r]P		JUMP r POSITIVE
±	aaaa	i	03	40+[r]	J[r]NN		JUMP r NONNEGATIVE
±	aaaa	i	04	40+[r]	J[r]NZ		JUMP r NONZERO
±	aaaa	i	05	40+[r]	J[r]NP		JUMP r NONPOSITIVE
±	aaaa	i	00	48+[r]	INC[r]		INCREASE r
±	aaaa	i	01	48+[r]	DEC[r]		DECREASE r
±	aaaa	i	02	48+[r]	ENT[r]		ENTER r
±	aaaa	i	03	48+[r]	ENN[r]		ENTER NEGATIVE r
±	aaaa	i	L:R	56+[r]	CMP[r]	0:5	COMPARE r
±	aaaa	i	06	56	FCMP		FLOATING COMPARE

[r]: rA=0, rI1, rI2, rI3, rI4, rI5, rI6, rX=7