

TRANSTEC II AND MAGSTEC II

REPERTOIRE OF INSTRUCTIONS

10	ADD	$(A) + (Y) \rightarrow A, [A]_{LC}^*$
11	SUBTRACT	$(A) - (Y) \rightarrow A, [A]_{LC}$
12	ADD REPLACE	$(A) + (Y) \rightarrow A, [A]_{LC}, (A)_f \rightarrow Y$
13	SUBTRACT REPLACE	$(A) - (Y) \rightarrow A, [A]_{LC}, (A)_f \rightarrow Y$
14	ADD CONSTANT	$(A) + Y_R \rightarrow A, [A]_{LC}$
15	SUBTRACT CONSTANT	$(A) - Y_R \rightarrow A, [A]_{LC}$
16	COMPLEMENT A	$(A)^c \rightarrow A$
17	COMPLEMENT Q	$(Q)^c \rightarrow Q$
20	STORE A	$[A]_R \rightarrow Y$
21	STORE Q	$[Q]_R \rightarrow Y$
26	ADDRESS SUBSTITUTE	$(A)_R \rightarrow Y_R$
27	ADD LOGICAL	$(A) + L(Q \times Y) \rightarrow A, [A]_{LC}$
30	SCALE FACTOR	$[AQ]_L, \text{SENSE } (K) = 0 \text{ OR } A_{23} \neq A_{22}, (K) \rightarrow Y_R$
31	ENTER A	$Y_R \rightarrow A, [A]_{LC}$
32	ENTER Q	$Y_R \rightarrow Q, [Q]_{LC}$
33	LOAD Q	$(Y) \rightarrow Q, [Q]_{LC}$
34	LOAD A	$(Y) \rightarrow A, [A]_{LC}$
35	SHIFT STORAGE	$(Y) \rightarrow A, [A]_{LC}, (A)_f \rightarrow Y$
36	REPLACE ADD	$(Y) + 2^k \rightarrow Y$
37	LOAD LOGICAL	$L(Q)(Y) \rightarrow A, [A]_{LC}$
40	STOP	STOP, JUMP TO Y
41	OPTIONAL STOP	STOP (OPT), JUMP TO Y
42	ZERO JUMP	$[AQ]_R, \text{ IF } (A) = 0 \text{ JUMP TO Y}$
43	NEGATIVE JUMP	IF (A) < 0 JUMP TO Y
44	POSITIVE JUMP	IF (A) ≥ 0 JUMP TO Y, $[AQ]_L$
45	Q JUMP	IF (Q) < 0 JUMP TO Y, $[Q]_{LC}$
46	JUMP	$[A]_{LC}, \text{ JUMP TO Y}$
47	RETURN JUMP	$(P) \rightarrow Y_R, \text{ JUMP TO Y} + 1$
50	MULTIPLY**	$(Q)(Y) \rightarrow AQ$
51	DIVIDE**	$(AQ) \div (Y) \rightarrow Q, \text{ REMAINDER TO A}$
60	INPUT	$[Q]_L, \text{ INPUT} \rightarrow Q_{05} - Q_{00}, (Q) \rightarrow Y$
61	ASSEMBLE INPUT	$[Q]_L, \text{ INPUT} \rightarrow Q_{05} - Q_{00}$
62	OUTPUT	$(Y) \rightarrow Q, [Q]_{LC}, Q_{05} - Q_{00} \rightarrow \text{OUTPUT}$
63	EXTERNAL FUNCTION	PERFORM EXT FUNCTION INDICATED BY $Y_{05} - Y_{00}$

* $[A]_{LC}$ DENOTES CONTENTS OF A REGISTER SHIFTED LEFT BY K BIT POSITIONS. SHIFT COUNT K MUST BE PROGRAMMED.

** MULTIPLICATION AND DIVISION ARE LIMITED TO USE OF POSITIVE NUMBERS ONLY. SHIFT COUNT K MUST BE PROGRAMMED.

TRANSTEC II AND MAGSTEC II

TYPEWRITER CODE AND MACHINE CHARACTERISTICS

LETTERS			NUMBERS			TYPEWRITER ONLY							
UC	LC	OCTAL	UC	LC	OCTAL	FUNCTION	OCTAL						
A	a	30	1			SPACE	04						
B	b	23	2	1	52	SHIFT UP	47						
C	c	16	3	2	74	SH. DOWN	57						
D	d	22	4	3	70	BACK SP.	61						
E	e	20	5	4	64	CAR. RET.	45						
F	f	26	6	5	62	TAB.	51						
G	g	13	7	6	66	COLOR SH.	02						
H	h	05	8	7	72	CODE DEL.	77						
I	i	14	9	8	60	STOP	43						
J	j	32	0	9	33								
K	k	36		0	37								
L	l	11	SIGNS			I - O CODE 6 BITS							
M	m	07	-	-	56	<u>FLEXOWRITER</u>							
N	n	06	.	=	44	11 TYPE IN							
O	o	03	/	+	54	12 READ IN & TYPE							
P	p	15	(,	46	13 READ IN							
Q	q	35)	.	42	14 PUNCH OUT & TYPE							
R	r	12	-		50	15 PUNCH OUT							
S	s	24	MACHINE CHARACTERISTICS			16 TYPE OUT							
T	t	01	INSTRUCTION WORD			17 CLEAR FUNCTION							
U	u	34	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="padding: 2px;">F</td> <td style="padding: 2px;">K</td> <td style="padding: 2px;">S</td> </tr> <tr> <td style="padding: 2px; font-size: small;">6 BITS</td> <td style="padding: 2px; font-size: small;">6 BITS</td> <td style="padding: 2px; font-size: small;">12 BITS</td> </tr> </table>			F	K	S	6 BITS	6 BITS	12 BITS	HS PUNCH & READER	
F	K	S											
6 BITS	6 BITS	12 BITS											
V	v	17	F - INSTRUCTION CODE			41 HS READER							
W	w	31	K - SHIFT CODE			42 HS PUNCH							
X	x	27	S - ADDRESS			X7 CLEAR FUNCTION							
Y	y	25											
Z	z	21											

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