





REPERTOIRE OF INSTRUCTIONS

	#	SYMBOL	INSTRUCTION	DESCRIPTION	EXEC TIME
LOGICAL	2210 #02*	CMAL	COMPARE SET DESIGNATOR	(AL) <sub>1</sub> (Y), (AL) <sub>2</sub> = (AL) <sub>1</sub>	4
	209 #06*	CMUK	COMPARE WITH MASK SET DES.	L(AL)(AU); L(Y)(AU); (A) <sub>2</sub> = (A) <sub>1</sub>	4
	213 #04*	SLSU	SELECTIVE SUBSTITUTE	L(AU) <sub>1</sub> (AL)+L(AU)(Y) → AL; (AU) <sub>2</sub> = (AU) <sub>1</sub>	4
	216 51	SLSSET	SELECTIVE SET (INCLUSIVE OR)	(AL) <sub>1</sub> ∨ (Y) → AL; SET (AL) <sub>n</sub> FOR (Y) <sub>n</sub> = 1	4
	52	SISCL	SELECTIVE CLEAR (LOGICAL PROD.)	L(AL)(Y) → AL; CLEAR (AL) <sub>n</sub> FOR (Y) <sub>n</sub> = 0	4
	53	SISCP	SELECTIVE COMPLEMENT (EXCL OR)	(AL) <sub>1</sub> ⊕ (Y) → AL; COMPLEMENT (AL) <sub>n</sub> FOR (Y) <sub>n</sub> = 1	4
	50 61	CPAL	COMPLEMENT AL	(AL) <sub>1</sub> ' → AL	2
	50 62	CPAU	COMPLEMENT AU	(AU) <sub>1</sub> ' → AU	2
	50 63	CPA	COMPLEMENT A	(A) <sub>1</sub> ' → A	2
	SHIFT	50 41	RSHAU	RIGHT SHIFT AU	SHIFT (REG.) RIGHT k BITS
50 42		RSHAL	RIGHT SHIFT AL	POSITIONS, END OFF & FILL THE	4-10
50 43		RSEA	RIGHT SHIFT A	UPPER BITS WITH INITIAL SIGN	4-20
50 44		SF	SCALE FACTOR SHIFT	LEFT CIRCULAR SHIFT A UNTIL A <sub>95</sub> = A <sub>34</sub> OR k-SHIFTCOUNT = 0 THEN k-SHIFTCOUNT → 00017	4-20
50 45		LSHAU	LEFT SHIFT AU	SHIFT (REG.) LEFT k BIT	4-10
50 46		LSHAL	LEFT SHIFT AL	POSITIONS CIRCULARLY	4-20
50 47		LSHA	LEFT SHIFT A	01 = X4 02 = X4	4-20
SKIP	50 51	SKPBO	SKIP ON NO BORROW	SKIP NI IF BORROW DESIGNATOR NOT SET	2
	50 52	SKPOV	SKIP ON OVERFLOW	SKIP NI IF OVERFLOW DESIGNATOR SET	2
	50 53	SKPNOV	SKIP ON NO OVERFLOW	SKIP NI IF OVERFLOW DESIGNATOR NOT SET	2
	50 54	SKPCDD	SKIP ON ODD PARITY	SKIP NI IF SUM OF ONES IN L(AU)(AL) IS ODD	2
	50 55	SKPEVN	SKIP ON EVEN PARITY	SKIP NI IF SUM OF ONES IN L(AU)(AL) IS EVEN	2
	50 21	SKPIE	SKIP ON INPUT INACTIVE	SKIP NI IF CHAN. k INPUT IS INACTIVE	2
	50 22	SKPOIE	SKIP ON OUTPUT INACTIVE	SKIP NI IF CHAN. k OUTPUT IS INACTIVE	2
	50 23	SKPFI	SKIP ON EXT. FUNCT. INACTIVE	SKIP NI IF CHAN. k EXT. FUNCT. IS INACTIVE	2
I/O	50 50	SKP	SKIP ON KEY SETTING k	SKIP NI IF k = CONSOLE KEY SETTING	2
	50 57	SKPR	SKIP ON NO RESUME (NOTE 4)	SKIP NI IF RESUME DESIGNATOR NOT SET	2
IMPT/OUTPUT	50 01	SIN	SET INPUT ACTIVE	SET INPUT ACTIVE P/F CHANNEL k	2
	50 02	SOUT	SET OUTPUT ACTIVE	SET OUTPUT ACTIVE P/F CHANNEL k	2
	50 03	SEXP	SET EXTERNAL FUNCTION ACTIVE	SET EXTERNAL FUNCTION ACTIVE P/F CHANNEL k	2
	50 11	IN	INPUT TRANSFER	(P+1) → 60+2k; (P+2) → 61+2k; SET INPUT ACTIVE P/F CHANNEL k	6
	50 12	OUT	OUTPUT TRANSFER	(P+1) → 40+2k; (P+2) → 41+2k; SET OUTPUT ACT. P/F CHANNEL k	6
	50 13	EIF	EXT. FUNCT. TRANSFER	(P+1) → 20+2k; (P+2) → 21+2k; SET EX. FUNCT. ACT. P/F CHANNEL k	6
	50 14	RTG	ENABLE REAL TIME CLOCK MON. (NOTE 3)	ENABLE L(00015)(00014) & RTG OVERFLOW	2
	50 15	INSTP	TERMINATE INPUT	CLEAR INPUT ACTIVE P/F CHANNEL k	2
	50 16	OUTSTP	TERMINATE OUTPUT →	CLEAR OUTPUT ACTIVE P/F CHANNEL k	2
	50 17	EIFSTP	TERMINATE EXT. FUNCT.	CLEAR EXT. FUNCT. ACT. P/F CHANNEL k	2
	50 20	SRSM	SET RESUME (NOTE 4)	SET THE RESUME DESIGNATOR (INTERCOMPUTER)	2
	50 26	OUTOV	OUTPUT OVERRIDE	FORCE ONE WORD OUT CHAN. k WITH OUT. ACK.	2
	50 27	EIFOV	FUNCTIONS OVERRIDE	FORCE ONE WORD OUT CHAN. k WITH EXT. FUNCT.	2
	50 30	RIE	REMOVE INTERRUPT LOCKOUT	ENABLE ALL INTERRUPTS	2
	50 32	RIAL	REMOVE EXT. INT. LOCKOUT	ENABLE EXTERNAL INTERRUPTS	2
50 34	SIL	SET INTERRUPT LOCKOUT	DISABLE ALL INTERRUPTS	2	
50 36	SIAL	SET EXT. INT. LOCKOUT	DISABLE EXTERNAL INTERRUPTS	2	
MISC	50 24	WTPI	WAIT FOR INTERRUPT	STOP; THEN INTERRUPT ENTRANCE REG. FOR NI	2
	50 56	STOP	STOP ON KEY SETTING	STOP IF k = KEY SETTING	2

FAULT 00, 01, 77 FAULT = 2 *see* JUMP TO ADDRESS 00000 or 00500 if AUTO RECOVERY is UP.

ASSIGNED CORE MEMORY LOCATIONS (OCTAL)

00000	X	FAULT ENTRANCE REGISTER	00100-00117	EXT. INT. REGISTERS (CHAN 0-7)
00001-00010		INDEX REGISTERS	00120-00137	EF MONITOR REGISTERS (CHAN 0-7)
00011	X	INTERCOMPUTER TIME-OUT INT. REG.	00140-00157	OUT. MON. REGISTERS (CHAN 0-7)
00012	X	RTC INTERRUPT REGISTER	00160-00177	IN. MON. REGISTERS (CHAN 0-7)
00013	X	CLOCK OVERFLOW INT. REG.	00220-00237	IF & CNT BUFF. CNT. REG. (CHAN 10-17)
00014	X	RTC MONITOR WORD REGISTER	00240-00257	OUT. BUFF. CNT. REGISTERS (CHAN 10-17)
00015	X	RTC INCREMENTING REGISTER	00260-00277	IN. BUFF. CNT. REGISTERS (CHAN 10-17)
00016	X	SYN. INTERRUPT REGISTER	00300-00317	EXT. INT. REGISTERS (CHAN 10-17)
00017		SCALE FACTOR SHIFT COUNT	00320-00337	EXP. MON. REGISTERS (CHAN 10-17)
00020-00037		IF & CNT. DATA NODE (CHAN 0-7)	00340-00357	OUT. MON. REGISTERS (CHAN 10-17)
00040-00057		OUT. BUFFER CNT. REG. (CHAN 0-7)	00360-00377	IN. MON. REGISTERS (CHAN 10-17)
00060-00077		IN. BUFFER CNT. REG. (CHAN 0-7)	00380-00397	BOOTSTRAP PROC. LOAD & AUTO RECOVERY

SPECIAL INTERRUPTS

DIGITAL COMPUTER M-12 REPERTOIRE CARD