

REPRODUCTION

LOAD MOVE COMPARE

A. PURPOSE

1. TO TEST THE LOAD OP CODE WITH SINGLE CHARACTER CHAINING.
2. TO TEST THE MOVE OP CODE WITH SINGLE CHARACTER CHAINING.

B. LOADING PROCEDURES

1. PLACE TEST IN 1402 READ HOPPER AND DEPRESS LOAD KEY.
2. NO SELECTION DIGIT IS REQUIRED WHEN TEST IS RUN FROM TAPE.

C. PROGRAM CONTROL

1. SENSE SWITCHES

- B. ON TO REPEAT FOR SCOPING
OFF TO CONTINUE
- C. ON TO PRINT CORRECT RESULTS
OFF TO CONTINUE
- D. ON TO REPEAT SAME DETAIL CARD
OFF TO CONTINUE
- E. ON TO STOP ON ERROR
OFF TO PRINT ERROR

2. COUNTER

A COUNTER (LOCATION 967-970) IS USED TO ALLOW THE PROGRAM TO REPEAT 90 TIMES FOR EACH DETAIL CARD. WHEN SENSE SWITCH C IS ON, ONLY ONE CORRECT PRINTOUT OCCURS PER DETAIL CARD. AN ERROR TEST IS MADE EACH TIME THE PROGRAM IS REPEATED. AN ERROR PRINTOUT OCCURS FOR EACH FAILURE.

D. TEST PROCEDURE

A FIELD (COLUMNS 1-10), AND RESULT SHOULD BE FIELD (COLUMNS 41-50) ARE LOADED INTO THE PRINT AREA FOR PRINTING PURPOSES.

COLUMN 72 IS USED TO SPECIFY EITHER THE LOAD TEST OR THE MOVE TEST. AN "L" IN 72 CAUSES A BRANCH TO THE LOAD ROUTINE IN LOCATION 502. AN "M" IN 72 CAUSES A BRANCH TO THE MOVE ROUTINE IN LOCATION 513.

THE LOAD ROUTINE PLACES A WM IN THE UNITS POSITION OF THE A FIELD. SINCE THE A FIELD NOW HAS TWO WORD MARKS (ONE IN THE UNITS POSITION AND ONE IN THE LOW-ORDER POSITION, IT IS TRANSFERRED INTO THE RESULT IS PRINT AREA BY CHAINING TWO LOAD OP INSTRUCTIONS. THE WORD MARK IN THE UNITS POSITION OF THE RESULT IS AREA IS THEN REMOVED BY A CLEAR WORD MARK INSTRUCTION AND A COMPARE OPERATION IS PERFORMED COMPARING THE RESULT IS WITH THE RESULT SHOULD BE FIELD. IF THE COMPARISON IS UNEQUAL, THE PROGRAM BRANCHES TO THE ERROR PRINT ROUTINE.

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DIAGNOSTIC FUNCTION TEST REPRODUCTION

THE MOVE ROUTINE PLACES A WM IN THE UNITS POSITION OF THE RESULT IS FIELD. THE A FIELD IS THEN TRANSFERRED TO THE RESULT IS FIELD BY CHAINING TWO MOVE OP INSTRUCTIONS. THE WORD MARK IN THE UNITS POSITION OF THE RESULT IS AREA IS THEN REMOVED BY A CLEAR WORD MARK INSTRUCTION AND A COMPARE OPERATION IS PERFORMED COMPARING THE RESULT IS WITH THE RESULT SHOULD BE FIELD. IF THE COMPARISON IS UNEQUAL, THE PROGRAM BRANCHES TO THE ERROR PRINT ROUTINE.

E. STOPS

502 IN STORAGE ADDRESS REGISTER: WRONG DETAIL CARDS OR A FAILURE IN TEST CHARACTER AND BRANCH CIRCUITRY

920 IN STORAGE ADDRESS REGISTER: ERROR WITH SENSE E ON.

F. PRINTOUTS

1. CORRECT

A FIELD	B FIELD	RESULT SHOULD BE	RESULT IS
 ~~~~~			L
 ~~~~~			L
 ~~~~~			M
 ~~~~~			M

G. COMMENTS

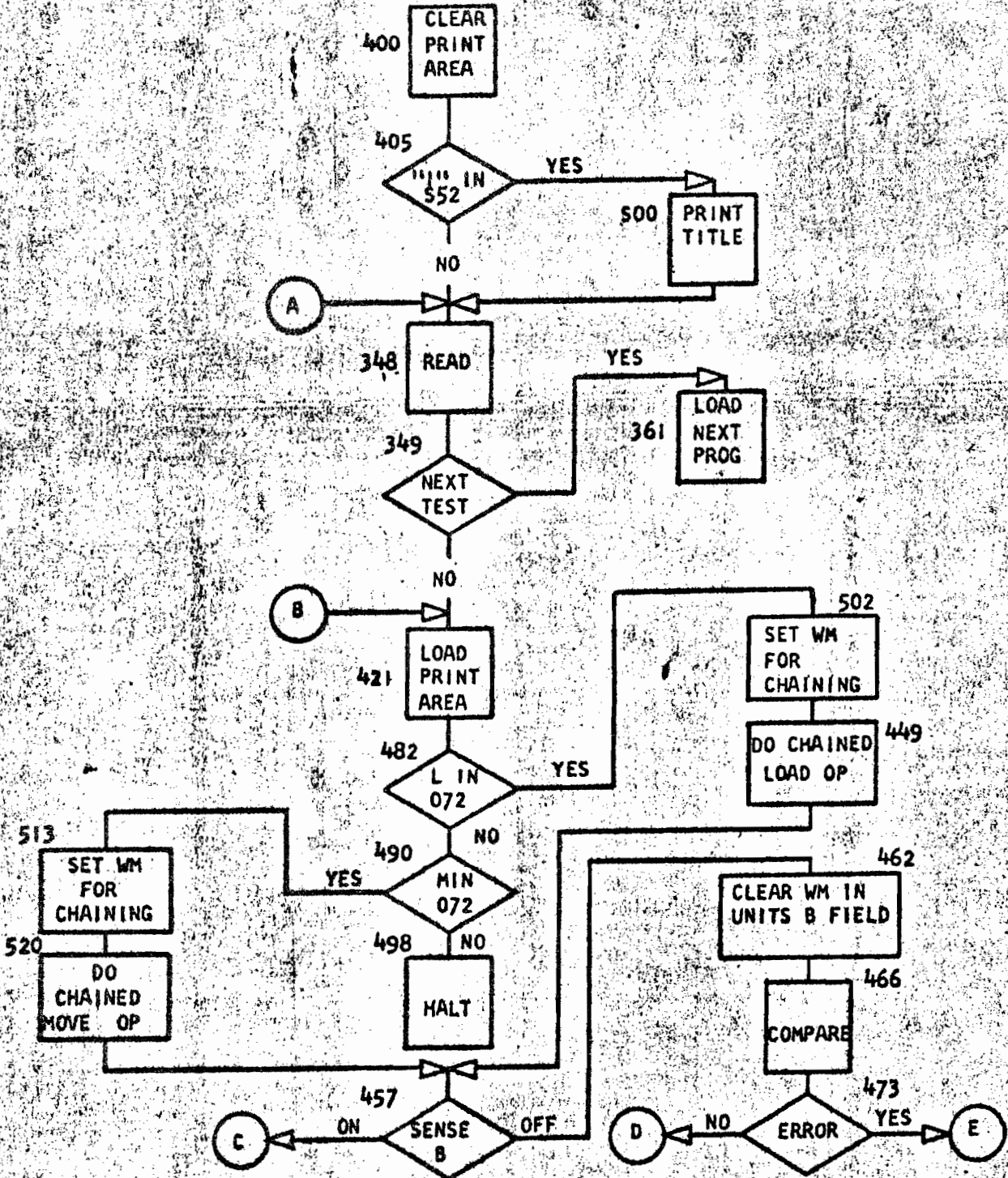
THE BRANCH INSTRUCTION AT LOCATION 927 CAN BE CHANGED MANUALLY TO CAUSE THE PROGRAM TO LOOP AS FEW AS 1 OR AS MANY AS 9,000 TIMES PER DETAIL CARD. THE PROGRAM CALLS FOR 90 LOOPS PER CARD

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LOAD MOVE COMPARE

FLOW CHART

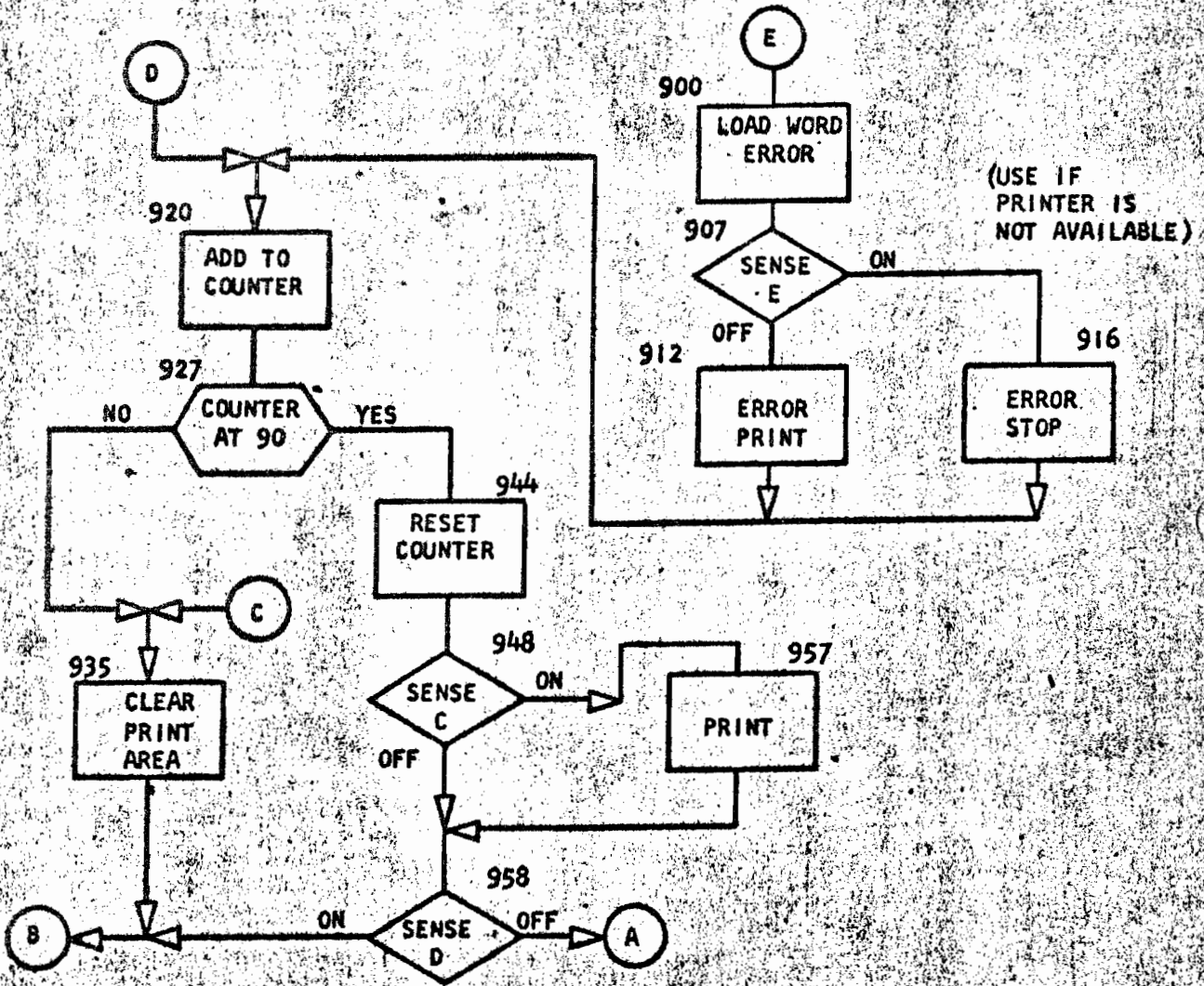


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DIAGNOSTIC FUNCTION TEST

PART NO. 451405
 SHEET 4 OF 8
 BLOCK NO. 01108

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1401 DATA PROCESSING SYSTEM
DIAGNOSTIC FUNCTION TEST

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PROGRAM LISTING FOR USE WITH FLOW CHART

LOAD MOVE COMPARE

0110B

INSTRUCTION ADDRESS	OP	A	B	REMARKS
377	377	B	389	USE WHEN TESTS ARE RUN FROM TAPE
385	385	B	588	''
389	389	N	000	''
393	393	M	360 392	''
400	400	/	332	START TEST
404	404	/		''
405	405	B	500 5521	BR TO TITLE PRINT ROUTINE IF 1 IN 552
413	413	/	080	CLEAR READ AREA
417	417	B	348	BRANCH TO PROGRAM CHAINING ROUTINE
421	421	,	001 078	LOAD PRINT AREA
428	428	L	080 299	''
435	435	L	072 272	''
442	442	B	482	GO TEST FOR LOAD OR MOVE
449	449	L	210 270	LOAD ROUTINE
456	456	L		''
457	457	B	935 B	LOOP ON SW B SS
462	462	□	270	CLEAR UNITS B FIELD WM
466	466	C	270 250	COMP B FIELD TO CORRECT RESULT
473	473	B	900	BRANCH ERROR
478	478	B	920	GO TO CORRECT ROUTINE
482	482	B	502 072L	LOAD TEST
490	490	B	513 072M	MOVE TEST
498	498	.	498	NEITHER -- WRONG DETAIL CARDS
502	502	,	210 241	WM IN UNITS A FIELD -- HIGH ORDER COMP
509	509	B	449	GO LOAD TEST
513	513	,	241 270	WM IN UNITS COMP -- HIGH ORDER B FIELD
520	520	M	210 270	MOVE ROUTINE
527	527	M		''
528	528	B	457	GO AND TEST RESULTS
532	532			WORDMARK
900	900	L	/14 285	BEGIN ERROR PRINT ROUTINE
907	907	B	916 E	E ON TO ERROR STOP SS
912	912	2	920	ERROR PRINT
916	916	.	920	ERROR STOP
920	920	A	920 970	ADD ONE TO OPERATION COUNTER
927	927	B	944 9699	BRANCH AFTER 90 OPERATIONS C FOR TA
935	935	/	332	CLEAR PRINT AREA
939	939	/		''
940	940	B	421	BRANCH TO REPEAT
944	944	S	970	RESET OPERATION COUNTER
948	948	B	957 C	C ON FOR CORRECT PRINT SS
953	953	B	958	BRANCH TO SENSE D

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DIAGNOSTIC FUNCTION TEST

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957 957 2
 958 958 B 421 D
 963 963 B 348
 967 967 0 00+
 1110 /10 E RRO R
 1115 /15
 1120 /20 A FI ELD
 1140 /40 B FI ELD
 1160 /60 R ESU LT SHOULD BE
 1180 /80 R ESU LT IS

PRINT CORRECT RESULTS
 D ON TO REPEAT
 BRANCH TO PROG. CHAINING ROUTINE
 OPERATION COUNTER
 CONSTANTS

SS

..
 ..
 ..
 ..
 ..

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DIAGNOSTIC FUNCTION TEST

REPRODUCTION

TABLE OF UNPRINTABLE CHARACTERS

LP-LEFT PARENTHESIS	12 5 8	SE-SEMICOLON	11 6 8	DE-DELTA	11 7 8
WS-WORD SEPARATOR	0 5 8	LT-LESS THAN	12 6 8	PZ-PLUS ZERO	12 0
TS-TAPE SEGMENT MARK	0 7 8	GT-GREATER THAN	6 8	TM-TAPE MARK	7 8
GM-GROUP MARK	12 7 8	MZ-MINUS ZERO	11 0	CO-COLON	5 8
RP-RIGHT PARENTHESIS	11 5 8	AP-APOSTROPHE	0 6 8		

.008015,022029,033033N	1001	LOAD MOVE COMPARE	0110800A
.008015,022029,033033N	1001	SET WORDMARK CARD	01108 02
L067367,340344,348349,3573611001,008012,00110011B361080A8421/340080			01108 03
L069404,377385,389393,4004041001	8389	BS88N000M360392/332/	01108 04
L069441,413417,421428,4354421001B5005521/0808348,001078L080299L072272			01108 05
L068477,449456,457462,4664731001B482	L210270LB9358#270C270250B900/		01108 06
L067512,482490,498502,5095131001B920B502072LB513072M.498,210241B449			01108 07
L051531,520527,528532,5325321001,241270M210270MB457			01108 08
L071938,907912,916920,9279351001L/142858916E2920.920A920970B9449699/332			01108 09
L056962,940944,948953,9579581001/B421S970B957CB9582B421D			01108 10
L040970,967971,971971,9719711001B348000P			01108 11
Z			
L065/39#07/07,/10/15,/20/401001	ERROR	A FIELD	01108 12
L072/79,/60/80,/80/80,/80/801001B	FIELD	RESULT SHOULD BE	01108 13
L070S17,500S01,505S12,513S171001	RESULT IS	2,049L0772772/2772	01108 14
L059S44,525S29,536S37,541S451001#40/60#80L/892702/2702413			01108 15
/333080N		CLEAR WORDMARK CARD	01108 16
.019027,031,038042B031T98GB400L046352B#048S88		LOAD MOVE COMPARE	01108 17

M

DETAIL CARDS

1111111111	1111111111	L01108 18
2222222222	2222222222	L01108 19
4444444444	4444444444	L01108 20
8888888888	8888888888	L01108 21
//////////	//////////	L01108 22
-----	-----	L01108 23
AKT4 BLUS	AKT4 BLUS	L01108 24
CMV6 DNW7	CMV6 DNW7	L01108 25
EOX8 FPY9	EOX8 FPY9	L01108 26
GQZO HR#8	GQZO HR#8	L01108 27
I-,@ +\$%0	I-,@ +\$%0	L01108 28
1.,# / #JS3	1.,# / #JS3	L01108 29
1111111111	1111111111	M01108 30
2222222222	2222222222	M01108 31
4444444444	4444444444	M01108 32
8888888888	8888888888	M01108 33
//////////	//////////	M01108 34
-----	-----	M01108 35
AKT4 BLUS	AKT4 BLUS	M01108 36
CMV6 DNW7	CMV6 DNW7	M01108 37
EOX8 FPY9	EOX8 FPY9	M01108 38

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DIAGNOSTIC FUNCTION TEST
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SHEET 8 OF 8
BLOCK NO. 01108

GQZD HR#
1-2 +320
1-7 0JS3

GQZD HR#
1-2 +320
1-7 0JS3

M01108 39
M01108
M01108 41

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