

REPRODUCTION

HI-LO-EQUAL FIELD COMPARE

A. PURPOSE OF TEST:

TO SUPPLEMENT THE BRANCH HIGH - BLOCK 3300, BRANCH LOW - BLOCK 3310, AND BRANCH EQUAL - BLOCK 3320 DIAGNOSTIC TESTS BY COMPARING VARIABLE LENGTH FIELDS INSTEAD OF ONE OR TWO CHARACTERS. THE LENGTH OF THE COMPARE FIELDS VARIES FROM ONE TO TEN CHARACTERS.

B. LOADING PROCEDURES:

1. PLACE TEST IN 1402 READ HOPPER AND DEPRESS LOAD KEY.
2. WHEN RUNNING TEST FROM TAPE, ENTER A 1 IN 1259.

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 DETAIL CARD
OFF TO CONTINUE
- E. ON TO STOP ON ERROR
OFF TO PRINT ERROR
- G. ON TO REPEAT INDIVIDUAL FIELD
OFF TO CONTINUE

D. TEST PROCEDURE:

A DETAIL CARD IS READ AND A PAIR OF 10 CHARACTER FIELDS ARE COMPARED. IF A BRANCH HIGH RESULTS, STORAGE POSITION 100 IS TESTED FOR AN H - BRANCH LOW, 100 IS TESTED FOR AN L - OR BRANCH EQUAL, 100 IS TESTED FOR AN E. IF THE PROGRAM BRANCHES HIGH AND THE CONTROL CHARACTER IS NOT AN H, BRANCHES LOW AND NO L IN 100, OR BRANCHES EQUAL AND NO E IN 100, THE ERROR PRINT ROUTINE IS EXECUTED. UPON BRANCHING CORRECTLY, THE COMPARE AND BRANCH HIGH, LOW OR EQUAL IS REPEATED 100 TIMES AND THE CORRECT RESULTS ARE PRINTED OUT OR BYPASSED.

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D. TEST PROCEDURE (CONTINUED)

THE INSTRUCTIONS IN LOCATIONS 435, 442 AND 670 ARE NOW MODIFIED SO NINE CHARACTER LENGTH FIELDS ARE COMPARED 100 TIMES AS DESCRIBED ABOVE. THE LENGTH OF THE FIELDS IS REPEATEDLY REDUCED BY ONE AND COMPARED UNTIL THE FIELD LENGTH IS ONE CHARACTER. THE INSTRUCTIONS IN 435, 442 AND 670 ARE RESET FOR TEN CHARACTER FIELDS AND THE NEXT DETAIL CARD IS SIMILARLY PROCESSED.

E. STOPS:

STORAGE ADDRESS REGISTER

494 ERROR STOP - NO BRANCH
 604 ERROR STOP - SENSE E ON

F. PRINTOUTS:

I. CORRECT:

A1B2C3D4E5	BJCKDLEMFN	HIGH	HIGH	24
1B2C3D4E5	JCKDLEMFN	LOW	LOW	24
B2C3D4E5	CKDLEMFN	HIGH	HIGH	24
2C3D4E5	KDLEMFN	LOW	LOW	24
C3D4E5	DLEMFN	HIGH	HIGH	24

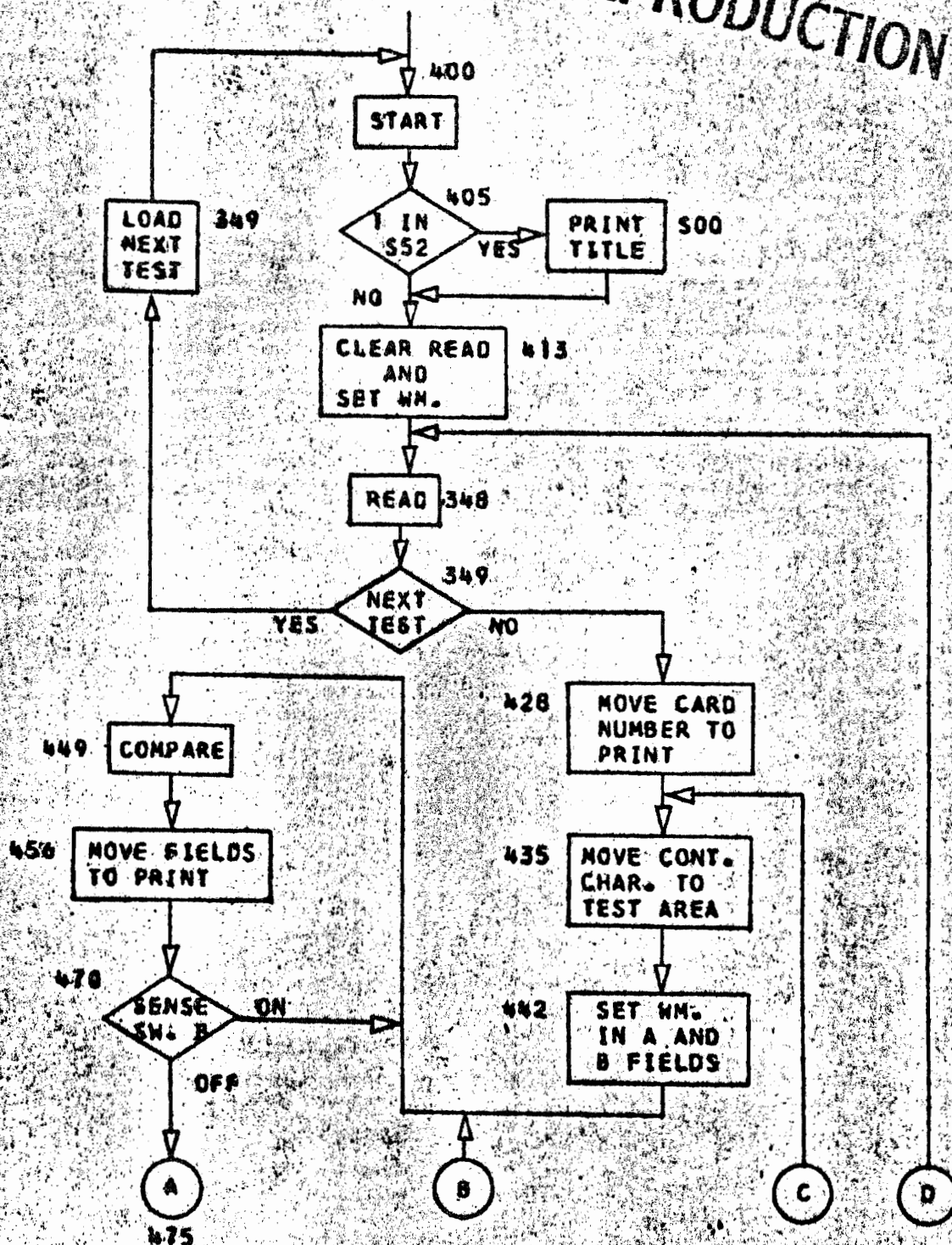
E. ERROR:

A FIELD	B FIELD	RESULT SHOULD BE	RESULT IS	
A1B2C3D4E5	BJCKDLEMFN	HIGH	LOW	ERROR 24
1B2C3D4E5	JCKDLEMFN	LOW	EQUAL	ERROR 24
B2C3D4E5	CKDLEMFN	HIGH	EQUAL	ERROR 24
2C3D4E5	KDLEMFN	LOW	HIGH	ERROR 24
C3D4E5	DLEMFN	HIGH	EQUAL	ERROR 24

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1401 DATA PROCESSING SYSTEM
DIAGNOSTIC FUNCTION TEST

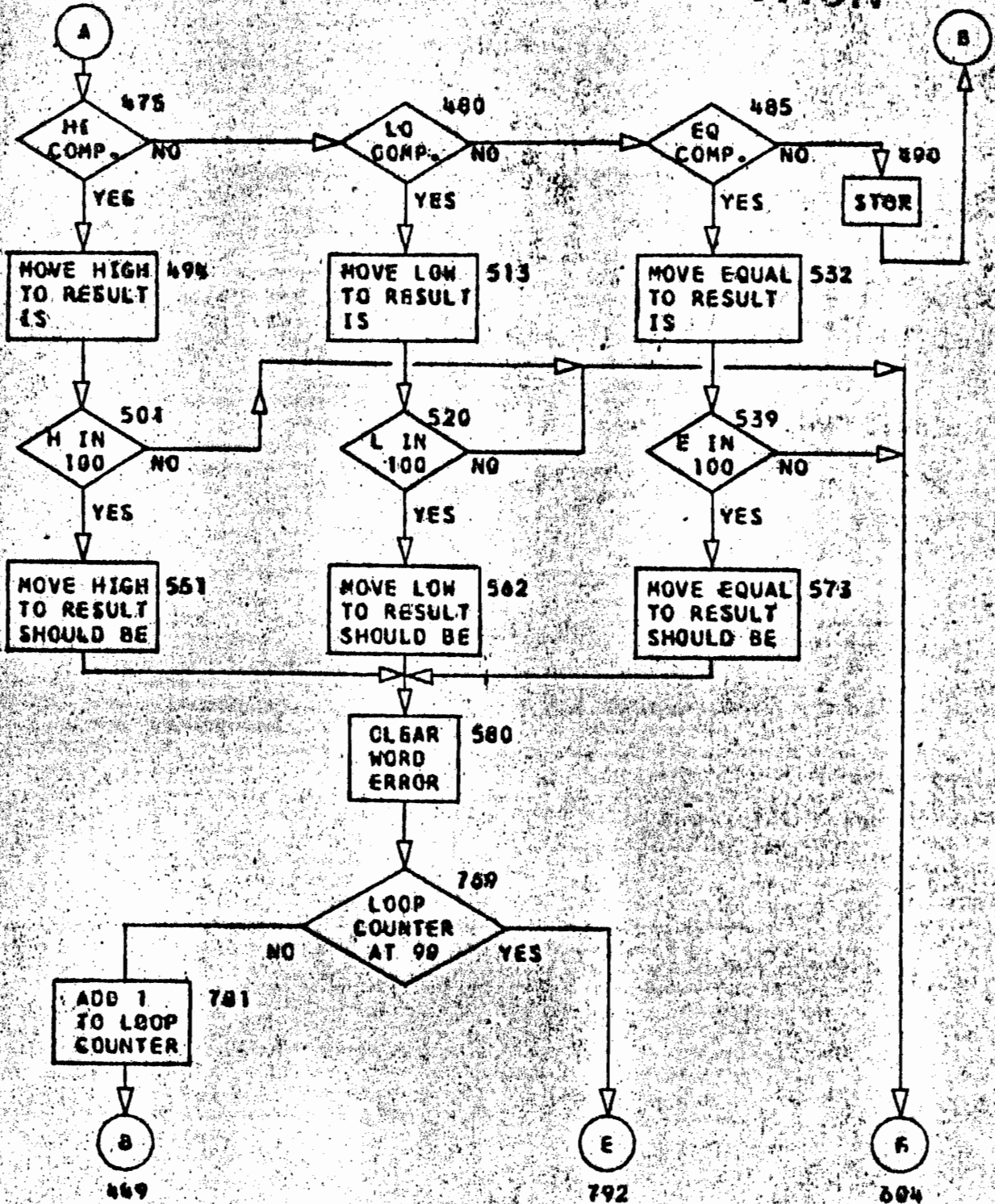
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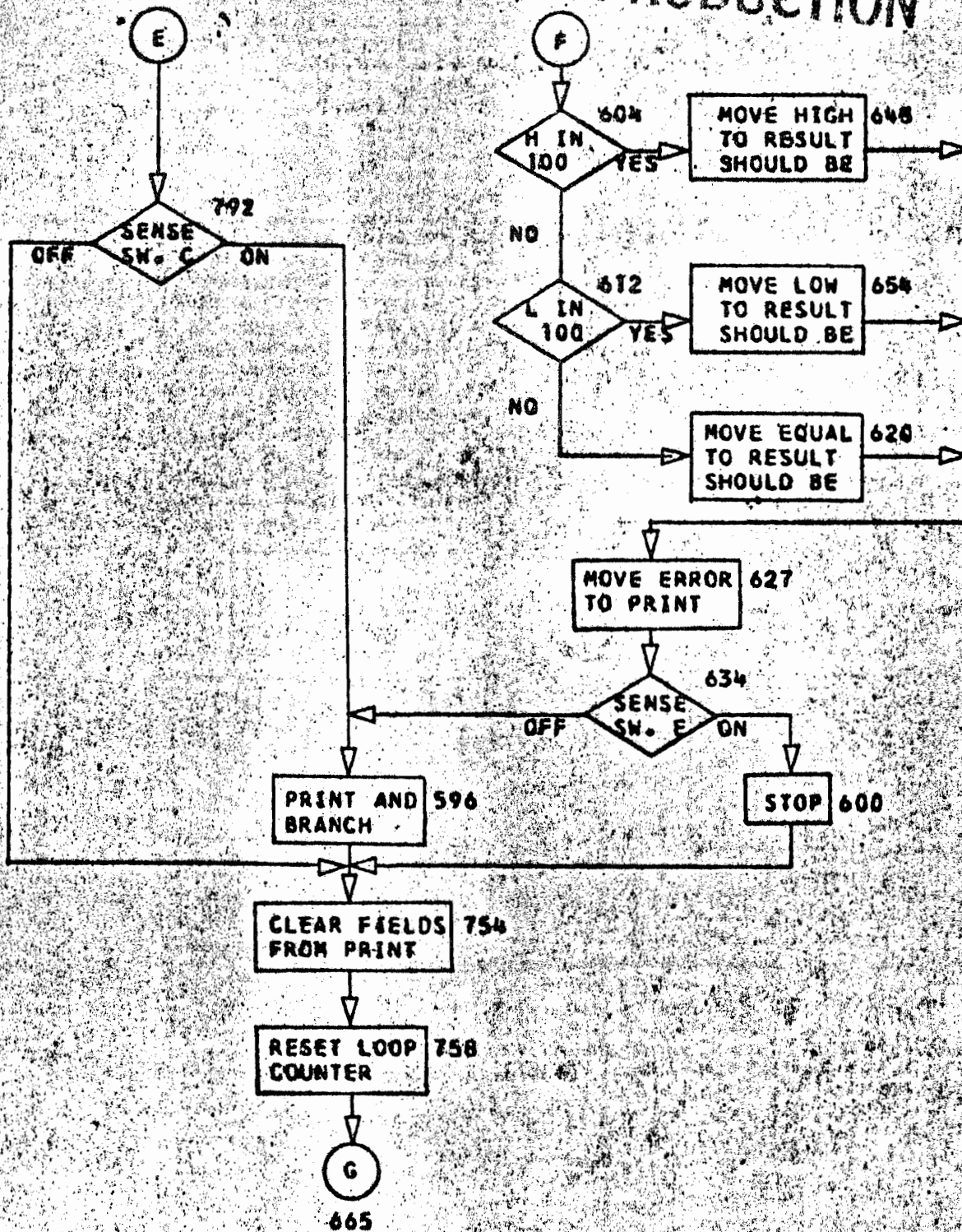
DIAGNOSTIC FUNCTION TEST

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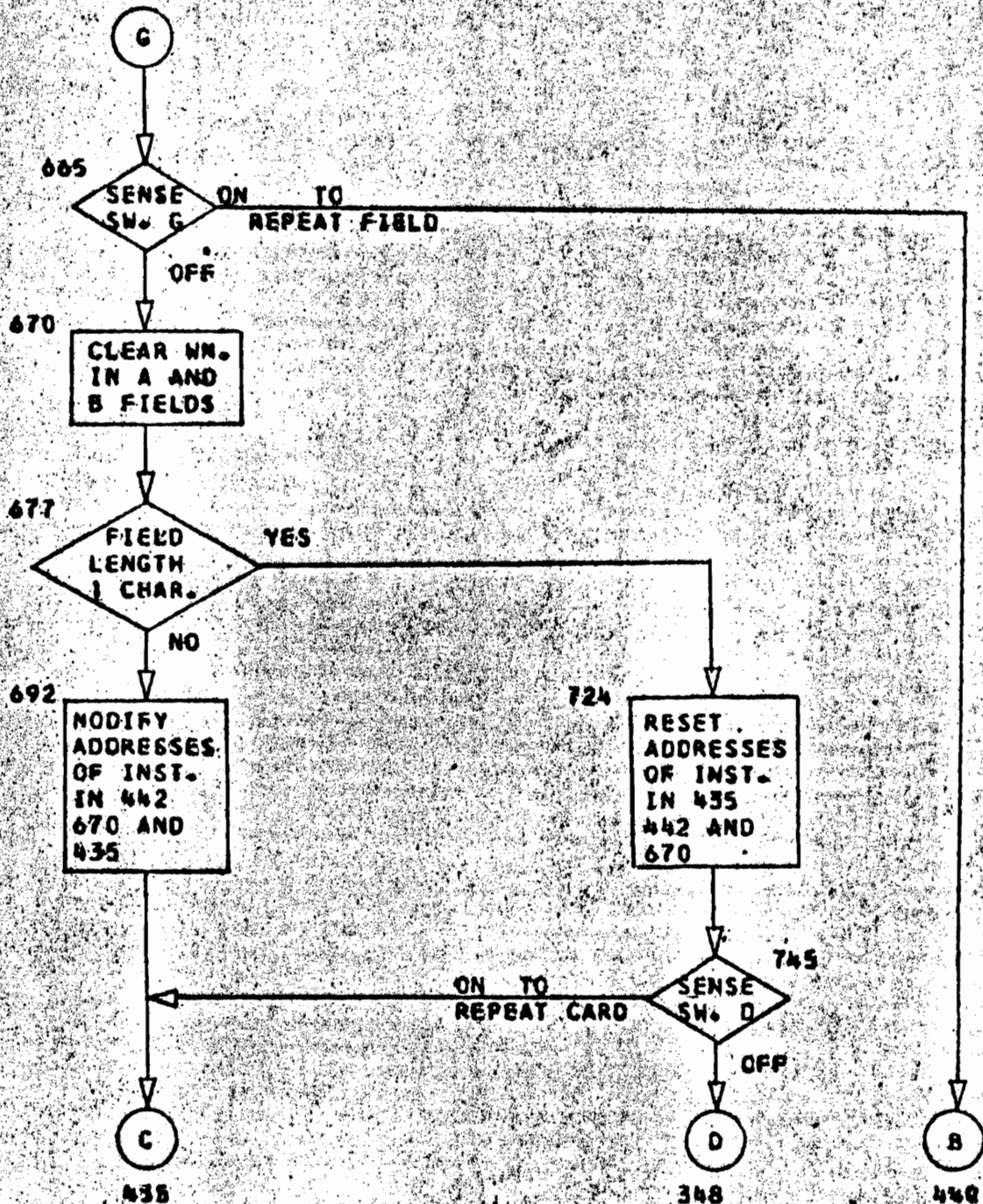
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PROGRAM LISTING FOR USE WITH FLOW CHART

HI-LO-EQUAL FIELD COMP. 3330B

INSTRUCTION ADDRESS	OP	A	B	REMARKS
377 377	B	389	5591	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	TITLE PRINT
413 413	/	080		CLEAR READ
417 417	,	100	297	
424 424	B	348		BRANCH TO READ CARD
428 428	M	080	299	MOVE CARD NUMBER TO PRINT
435 435	M	041	100	.. CONTROL CHAR. TO TEST AREA
442 442	,	001	021	SET WM. IN A AND B FIELDS
449 449	C	010	030	COMPARE
456 456	M	010	210	MOVE FIELDS TO PRINT
463 463	M	030	230	..
470 470	B	449	B	BRANCH ON B TO SCOPE
475 475	B	494	U	.. HIGH
480 480	B	513	T	.. LOW
485 485	B	532	S	.. EQUAL
490 490	.	449		ERROR STOP IF NO BRANCH
494 494	M	105	265	MOVE HIGH TO RESULT IS
501 501	B	551	100H	BRANCH TO CORRECT PRINT
509 509	B	604		.. ERROR PRINT
513 513	M	110	265	MOVE LOW TO RESULT IS
520 520	B	562	100L	BRANCH TO CORRECT PRINT
528 528	B	604		.. ERROR PRINT
532 532	M	115	265	MOVE EQUAL TO RESULT IS
539 539	B	573	100E	BRANCH TO CORRECT PRINT
547 547	B	604		.. ERROR PRINT
551 551	M	105	245	MOVE HIGH TO RESULTS SHOULD BE
558 558	B	580		
562 562	M	110	245	.. LOW ..
569 569	B	580		
573 573	M	115	245	.. EQUAL ..
580 580	M	719	285	CLEAR WORD ERROR FROM PRINT
587 587	B	769		
596 596	2	754		PRINT AND BRANCH
600 600	.	754		ERROR STOP
604 604	B	643	100H	ERROR PRINT ROUTINE
612 612	B	654	100L	
620 620	M	115	245	EQUAL
627 627	M	714	285	ERROR

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1401 DATA PROCESSING SYSTEM
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634	634	B	600	E	BRANCH ON E TO ERROR STOP
639	639	B	596		
643	643	M	105	245	HIGH
650	650	B	627		
654	654	M	110	245	LOW
661	661	B	627		
665	665	B	449	G	BRANCH ON G TO REPEAT FIELD
670	670	□	001	021	CLEAR WM. FROM A AND B FIELDS
677	677	B	724	4441	BRANCH IF 1 CHAR. FIELDS
685	685	,	443	671	SET WMS. FOR ADD. MOD.
692	692	A	347	448	ADD 1 TO SET WM. ADD. IN 442
699	699	A	347	676	.. CLEAR WM ADD. IN 670
706	706	A	344	438	.. MOVE ADD. IN 435
713	713	□	443	671	
720	720	B	435		
724	724	M	124	438	RESET ADD. OF MOVE INST. IN 435
731	731	M	121	448	.. SET WM. INST. IN 442
738	738	M	121	676	.. CLEAR WM. INST. IN 670
745	745	B	435	D	BRANCH ON D TO REPEAT DETAIL CARD
750	750	B	348		.. TO READ NEXT CARD
754	754	/	230		CLEAR FIELDS FROM PRINT
758	758	M	117	126	RESET LOOP COUNTER
765	765	B	665		
769	769	C	126	128	BRANCH IF LOOP COUNTER AT 99
776	776	B	792	S	
781	781	A	118	126	ADD 1 TO LOOP COUNTER
788	788	B	449		
792	792	B	596	C	BRANCH ON C TO CORRECT PRINT
797	797	B	754		BYPASS CORRECT PRINT
1110	/10	E	RRO	R	CONSTANTS
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	..
101	101	H	IGH		..
106	106	L	CW		..
111	111	E	QUA	L	..
116	116	O	010	21	..
122	122	O	41		..
125	125	O	O		..
127	127	9	9		LOOP COUNTER
				 COMP. CONST.

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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		

.008015,022029,033033N0000001001	HI-LO-EQUAL FIELD COMP.	3330B	0A
.008015,022029,033033N0000001001	SET WORD MARK CARD	3330B	02
L060128,106111,116122,1251271001HIGH LOW	EQUAL0010210410099	3330B	03
L067367,340344,348349,3573611001,008012,00110011B361080AB428/340080		3330B	04
L069404,377385,389393,4004041001	B389S591BS8BN000M360392/332/	3330B	05
L069441,413417,424428,4354421001BS00S521/080,100297B348M080299M041100		3330B	06
L070479,449456,463470,4754801001,001021C010030M010210M030230B4498B494U		3330B	07
L072519,485490,494501,5095131001B513T8532S.449M1052658551100HB604M110265		3330B	08
L070557,528532,539547,5515581001B562100LB604M1152658573100EB604M105245		3330B	09
L070595,562569,573580,5875961001B580M110245B580M115245M/19285B769		3330B	10
L070633,600604,612620,62763410012754.7548643100HB654100LM115245M/14285		3330B	11
L068669,639643,650654,6616651001B600E8596M105245B627M110245B627B449G		3330B	12
L068705,677685,692699,7067061001001021B7244441,443671A347448A347676		3330B	13
L071744,713720,724731,7387451001A3444380443671B435M124438M121448M121676		3330B	14
L068780,750754,758765,7697761001B4350B348/230M117126B665C126128B792S		3330B	15
L072820,788792,797797,7977971001A118126B4498596CB754		*0063330B	16
L072/49,/15/20,/40/40,/40/401001ERROR	A FIELD	B FIELD	3330B 17
L072/890/50/50,/60/80,/80/801001	RESULT SHOULD BE	RESULT IS	3330B 18
L055S120/90/90,S00S01,S05S121001	2,049L0772772		3330B 19
L060S40,S17S18,S25S29,S36S371001/27720/40/600/80L/892702/277			3330B 20
L040S48,S45S45,S45S45,S45S4510012413			3330B 21
/333080	CLEAR WORD MARK CARD		3330B 22
.019027,031,038042B031T98GB400L046352BW04BS88	HI-LO-EQUAL FIELD COMP.		3330B 23

M

DETAIL CARDS

A1B2C304E5	BJCKDLEMFN	HLHLHLHLHL	3330B 24
01BC45FG89	/STUVWXYZ	LLHLLHLL	3330B 25
R8P6N4L2J0	Q873N5C2RZ	LHHLHLHLHL	3330B 26
FIELD COMP.	AX/7+60MP.	LHLHLEEEEE	3330B 27
AX/7+LOMP.	FIELD COMP.	HLHLLEEEEE	3330B 28
0123456789	9876543210	HHHHLLLLL	3330B 29
JFBL306GNZ	JBRL1960SZ	LLHLLHLLME	3330B 30
9876543210	0123456789	LLLLHHHHH	3330B 31
AMS/DNWXFO	KBS3,N9HF7	HLHLHLHLHL	3330B 32
AKT4BLU5CM	,3T2RLL9CD	LHLLHLLHLL	3330B 33
01/-+/#2+-	01/-+2#-+	LLLLLHLLHL	3330B 34
+/#2+2/#-	+/#22+##/	MHHHMLHLH	3330B 35

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