

REPRODUCTION

FORMS SKIPPING 2010B

A. PURPOSE,

1. TEST SKIPS TO ALL CHANNELS USING 6, 14 AND 22 SPACES.
2. TEST NO-LINE SKIPS
3. TEST SINGLE ITEM EJECT.

B. LOADING PROCEDURES:

PLACE TEST IN 1402 READ HOPPER AND DEPRESS LOAD KEY. THE PROGRAM WILL COME TO A HALT, LOCATION 421, AFTER THE TITLE PRINT ROUTINE TO ALLOW OPERATOR TO INSTALL THE CARRIAGE TAPE. THE TEST NOW CAN BE STARTED BY PRESSING THE START KEY. WHEN RUNNING TEST FROM TAPE ENTER A 1 IN 1255.

TO TEST LOW SPEED SKIP

1. SETUP TO RESTART AT LOCATION 421.
2. ADDRESS STOP ON LOCATION 571.
3. OBSERVE HIGH SPEED LIGHT.
4. PRESS START KEY ON PRINTER.

THE FIRST SKIP WILL BE AN INITIAL SKIP TO 4. THEN 12 SINGLE SKIPS WILL OCCUR, 6 SPACES PER SKIP.

TO TEST HIGH SPEED SKIP

1. START WITH TRIPLE SKIPS, 22 SPACES PER SKIP, BY PLACING AN 8 IN LOCATION 451.
2. SETUP TO RESTART AT LOCATION 421.
3. ADDRESS STOP ON LOCATION 571.
4. OBSERVE HIGH SPEED LIGHT.
5. PRESS START KEY ON THE PRINTER.

THE FIRST SKIP WILL BE AN INITIAL SKIP TO 4. THEN 4 TRIPLE SKIPS WILL OCCUR FOLLOWED BY A SINGLE SKIP. NEXT 4 MORE TRIPLE SKIPS WILL OCCUR FOLLOWED BY A SINGLE SKIP. LAST, 4 TRIPLE SKIPS WILL OCCUR FOLLOWED BY THE PRINTING OF THE END OF TEST.

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B. (CONTINUED)

TO TEST SINGLE ITEM EJECT. I.E. SKIP FROM CHANNEL TO SAME CHANNEL AFTER PRINT.

1. ENTER NO-OP IN LOCATION 1165.
2. CHANGE NO-OP INSTRUCTION IN 580 TO A BRANCH OP, AND CHANGE THE A-FIELD TO 563.
3. ENTER A C-BIT IN 577 TO ALLOW PRINTING ON SKIP AFTER PRINT.
4. SET SENSE SWITCH C TO OFF.
5. SET UP TRIPLE SKIPS. START FROM CHANNEL 4 AS THIS IS WHERE TEST NORMALLY STARTS. THE FIRST SKIP WILL BE AN INITIAL SKIP TO 4. THE SECOND SKIP WILL BE A TRIPLE SKIP TO CHANNEL 7. ALL FOLLOWING SKIPS SHOULD BE SINGLE ITEM EJECTS TO CHANNEL 7.
6. ADDRESS STOP ON LOCATION 571.
7. SET UP TO RESTART AT LOCATION 421.
8. PRESS START KEY ON THE PRINTER.

CORRECT OPERATION-----ONE LINE WILL PRINT, THEN THE CARRIAGE WILL SINGLE ITEM EJECT.

IF TWO LINES PRINT, SUSPECT THE RESET OF THE CHANNEL REGISTER. THIS RESET MAY BE CHECKED BY.

- A. CHANGING THE A-FIELD ADDRESS OF THE BRANCH OP IN 580 TO 578.
- B. SETTING UP A RESTART AT LOCATION 563.
- C. PLACING MODE SWITCH IN RUN.
- D. DEPRESSING START KEY.
- E. SYNC SCOPE ON SPACE SKIP GATE.
- F. SCOPING RESET OF CHANNEL REGISTER.

C. PROGRAM CONTROL

1. CHECKING PROCEDURE:

WITH SENSE SWITCHES B AND E BOTH OFF, ERRORS WILL PRINT OUT. SWITCH D MAY BE USED TO LOOP PROGRAM.

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C. (CONTINUED)

WITH SENSE SWITCH B ON AND E OFF, ERRORS WILL NOT PRINT. THE PROGRAM WILL LOOP WITHOUT A HALT. THE CARRIAGE CAN BE DISENGAGED OR THE PAPER REMOVED.

WITH SENSE SWITCH B ON AND E ON, ERRORS WILL NOT PRINT. THE PROGRAM HALTS AT THE PARTICULAR ERROR STOP. THE CARRIAGE LOCATION MAY BE EXAMINED, AND THE PROGRAM WILL LOOP WHEN THE START KEY IS DEPRESSED.

2. SENSE SWITCHES:

B ON LOOPS PROGRAM WHEN ERROR OCCURS WITHOUT PRINTING ERRORS
 B OFF ALLOWS ERRORS TO PRINT DEPENDENT ON SENSE SWITCH E.

C ON CAUSES CORRECT OPERATION TO PRINT OUT
 C OFF PREVENTS CORRECT OPERATION FROM PRINTING

D ON LOOPS PROGRAM
 D OFF ALLOWS PROGRAM TO END WHEN ERRORS DO NOT OCCUR

E ON CAUSES PROGRAM TO HALT ON ERROR
 E OFF ALLOWS ERRORS TO PRINT IF SENSE SWITCH B IS OFF

F USED WHEN TEST IS RUN FROM TAPE -- MAGNETIC

D. TEST PROCEDURE:

THE CARRIAGE SKIPS TO 4, AND THE FIRST SKIP OF THE TEST IS SET-UP, A SKIP TO 5. THIS IS DONE BY SETTING THE LOOP COUNTER TO 2 AND THEN ADVANCING BOTH THE LOOP COUNTER AND THE CHANNEL COUNTER. THEN THE LOOP COUNTER IS TESTED FOR A VALUE OF 3. THE 3 SIGNIFIES IT IS TIME TO SET-UP AND EXECUTE THE SKIP. THE VALUE IN THE CHANNEL COUNTER IS USED TO SET UP TWO ADDRESSES IN TWO TABLES. ONE TABLE GIVES THE VALUE OF THE NEXT SKIP. THE OTHER TABLE GIVES THE LATCH, 9 OR 12, THAT IS USED TO CHECK FOR CORRECT OPERATION OF THE TEST. THE PROGRAM IS SET UP FROM THE TABLE ADDRESSES, AND THE TEST IS EXECUTED. THE PROGRAM COUNTER IS ADVANCED. THE APPROPRIATE LATCH, 9 OR 12, IS USED TO CHECK THE OPERATION AND IS CHECKED FOR AN OFF CONDITION. A SPACE IS TAKEN, AND THE LATCH IS CHECKED FOR AN ON CONDITION. THESE CONDITIONS REPRESENT CORRECT OPERATION. THE PROGRAM COUNTER IS USED TO CONTROL THE TYPE OF SKIP TAKEN AS TO LENGTH OF SKIP. THE PROGRAM STARTS WITH SKIPS FROM ONE CHANNEL TO THE NEXT. THEN SKIPS ARE TAKEN FROM CHANNEL TO THE SECOND FOLLOWING CHANNEL. LASTLY, SKIPS ARE TAKEN FROM CHANNEL TO THE THIRD FOLLOWING CHANNEL. FOR CONVENIENCE OF REFERENCE THESE SKIPS ARE REFERRED TO AS SINGLE SKIPS, DOUBLE SKIPS, OR TRIPLE SKIPS. THE LOOP COUNTER IS RESET TO 2 TO CAUSE SINGLE SKIPS. IT IS RESET TO 1 TO CAUSE DOUBLE SKIPS. IT IS RESET TO 0 TO CAUSE TRIPLE SKIPS. IF THE LOOP COUNTER IS NOT AT 3 A BRANCH TO THE ADVANCE OF THE LOOP AND CHANNEL COUNTER IS TAKEN. IF THE LOOP COUNTER IS AT 3 A BRANCH IS TAKEN TO THE EXECUTION OF THE PROGRAM.

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A NO-OP MUST BE MANUALLY ENTERED INTO LOCATION 1165 TO CAUSE SKIPS AFTER PRINT. THIS WILL CAUSE AN A-BIT AND A B-BIT TO BE PLACED IN THE D-CHARACTER OF THE SKIP INSTRUCTION SET UP FROM THE TABLE AND RESULTS IN THE SKIP AFTER PRINT. MANUALLY CHANGE THE NO-OP IN LOCATION 580 TO A BRANCH OP AND CHANGE THE A-FIELD ADDRESS TO 563 TO CAUSE SINGLE ITEM EJECT.

SHOULD AN ERROR OCCUR, THE MACHINE WILL EITHER PRINT OUT THE ERROR OR COME TO AN ERROR HALT. IF SENSE SWITCH B IS NOT ON PRESSING THE START KEY WILL CAUSE THE PROGRAM TO CONTINUE. SENSE SWITCH B ON WILL CAUSE THE PROGRAM TO RESTART. WHEN THE TEST ENDS THE PROGRAM HALTS. THE CARRIAGE TAPE MAY BE CHANGED AT THIS TIME.

THE PRINT-OUT WILL STATE EITHER --END OF TEST TYPE OF ERROR NONE--, OR IT WILL STATE --COUNT OF ERROR XXXX --, WHERE XXXX REPRESENTS THE ACTUAL NUMBER OF ERRORS COUNTED BEFORE THE TEST IS ALLOWED TO END. LOOPING THE TEST WILL BUILD UP THE ERROR COUNT. ONCE AN ERROR COUNT HAS PRINTED IT IS AUTOMATICALLY RESET. IF THE TEST IS RE-RUN ERROR FREE, THE FIRST STATEMENT WILL PRINT.

E. STOPS

STOR ADDR
 REGISTER

ERROR STOPS WILL ONLY OCCUR IF SENSE SWITCH E IS ON

- 421 INSTALL CARRIAGE TAPE AND DEPRESS START.
- 796 PROGRAM WILL STOP HERE ON ANY ERROR IF PROGRAM IS NOT LOOPED.
- 1087 ERROR #1 LATCH WAS ON AT CHANNEL. LATCH SHOULD HAVE BEEN RESET BY THE CHANNEL HOLE.
- 1124 ERROR #2 LATCH DID NOT COME ON WHEN CARRIAGE SPACED OUT OF THE CHANNEL INTO THE 9 OR 12 CHANNEL.
- 1165 END OF TEST - NO ERRORS, DEPRESS START TO CONTINUE TO NEXT TEST.

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F. PRINTOUTS

CORRECT PRINTOUTS WITH SENSE SWITCH C ON

003 CHANNEL TESTED OK	SINGLE SKIP TEST 09 LATCH	TYPE OF ERROR
008 CHANNEL TESTED OK	DOUBLE SKIP TEST 12 LATCH	TYPE OF ERROR
	ETC. FOR ALL CHANNELS	
	END TEST	TYPE OF ERROR NONE

ERROR PRINTOUTS WITH SENSE SWITCH E OFF

010 CHANNEL TESTED	DOUBLE SKIP TEST 09 LATCH	TYPE OF ERROR 1
007 CHANNEL TESTED	TRIPLE SKIP TEST 12 LATCH	TYPE OF ERROR 2
	ETC. FOR ALL CHANNELS AND ERROR CONDITIONS.	
	END TEST	COUNT OF ERROR 0004

G. COMMENTS

ESSENTIALLY THE CARRIAGE TAPE IS PUNCHED EVERY 8 SPACES. EACH CHANNEL PUNCH IS FOLLOWED WITH A 9 OR 12 PUNCH FOR CHECKING CORRECT OPERATION.

THIS IS THE SAME CARRIAGE TEST TAPE AS USED WITH TEST 2000C, 2005A, AND 2020C.

THE CARRIAGE TEST TAPE IS PUNCHED AS FOLLOWS:

LINE	HOLE	LINE	HOLE	LINE	HOLE
1-----	1	33-----	5	65-----	9
2-----	9	34-----	12	66-----	12
9-----	2	41-----	6	73-----	10
10-----	9	42-----	12	74-----	9
17-----	3	49-----	7	81-----	11
18-----	9	50-----	12	82-----	9
25-----	4	57-----	8	89-----	12
26-----	12	58-----	12	90-----	9

SPLICE TAPE SO THE 0 AND 96 COINCIDE.

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REPRODUCTION

G. (CONTINUED)

----- SERVICE AIDS -----

LOCATION INSTRUCTION

181 B 584 853 3 CHANGE TEST CHARACTER OF BRANCH ON CHARACTER EQUAL TO VARY DELAY.

421 F4 TO START FROM DIFFERENT CHANNEL, ENTER D-CHARACTER VALUE OF IMMEDIATE SKIP IN 422. ALSO ENTER CHANNEL NUMBERS IN 818 -- TENS, AND 819 -- UNITS. AVOID USE OF 9 AND 12 UNLESS A TAPE HAS BEEN PUNCHED FOR THE PARTICULAR PROBLEM.

449 L 840 844 TO START WITH DOUBLE SKIPS, CHANGE THE CHARACTER VALUE IN 451 TO A 7. THIS WILL START THE PROGRAM COUNTER AT 12.
 TO START WITH TRIPLE SKIPS, CHANGE THE CHARACTER VALUE IN 451 TO AN 8. THIS WILL START THE PROGRAM COUNTER AT 25.

563 L 575 579 THIS SETS UP A NO-LINE SKIP. IF A NO-LINE SKIP FAILURE IS SUSPECTED CHANGE A-FIELD ADDRESS TO 546, AND ENTER A BRANCH OP IN 580 TO GO TO THE DELAY COUNTER. IF TROUBLE DISAPPEARS, THE PROBLEM IS PROBABLY WITH THE E-1 BRUSH DELAY.

ON BUFFERED MACHINES AND IMMEDIATE SKIPS, CHANGE A-FIELD ADDRESS TO 546 TO TEST THE EFFECTIVENESS OF BRANCH ON CHANNEL 9 OR 12 AS AN INTERLOCK. FAILURE SHOULD NOT OCCUR EVEN THOUGH LOCATION 580 HAS A NO-OP. INSTRUCTIONS... B XXX 9 AND B XXX 8 SHOULD INTERLOCK AFTER FORMS OP.

576 2 TO PRINT INFORMATION ON THE PRINT OPERATION OF SKIP AFTER PRINT, ENTER C-BIT IN LOCATION 577.

580 N 181 ON ALL SKIPS WITH A NON-BUFFERED MACHINE, IF FORMS OP DOES NOT INTERLOCK, ENTER A BRANCH OP IN 580 AND SEE IF TROUBLE DISAPPEARS.

ON BUFFERED MACHINES AND SKIP AFTER PRINT IF THE FORMS OP IN LOCATION 578 DOES NOT INTERLOCK ENTER A BRANCH OP IN 580 AND SEE IF THE TROUBLE DISAPPEARS. THIS WOULD PROBABLY SHOW UP AS ERROR #2 ON ERROR PRINT.

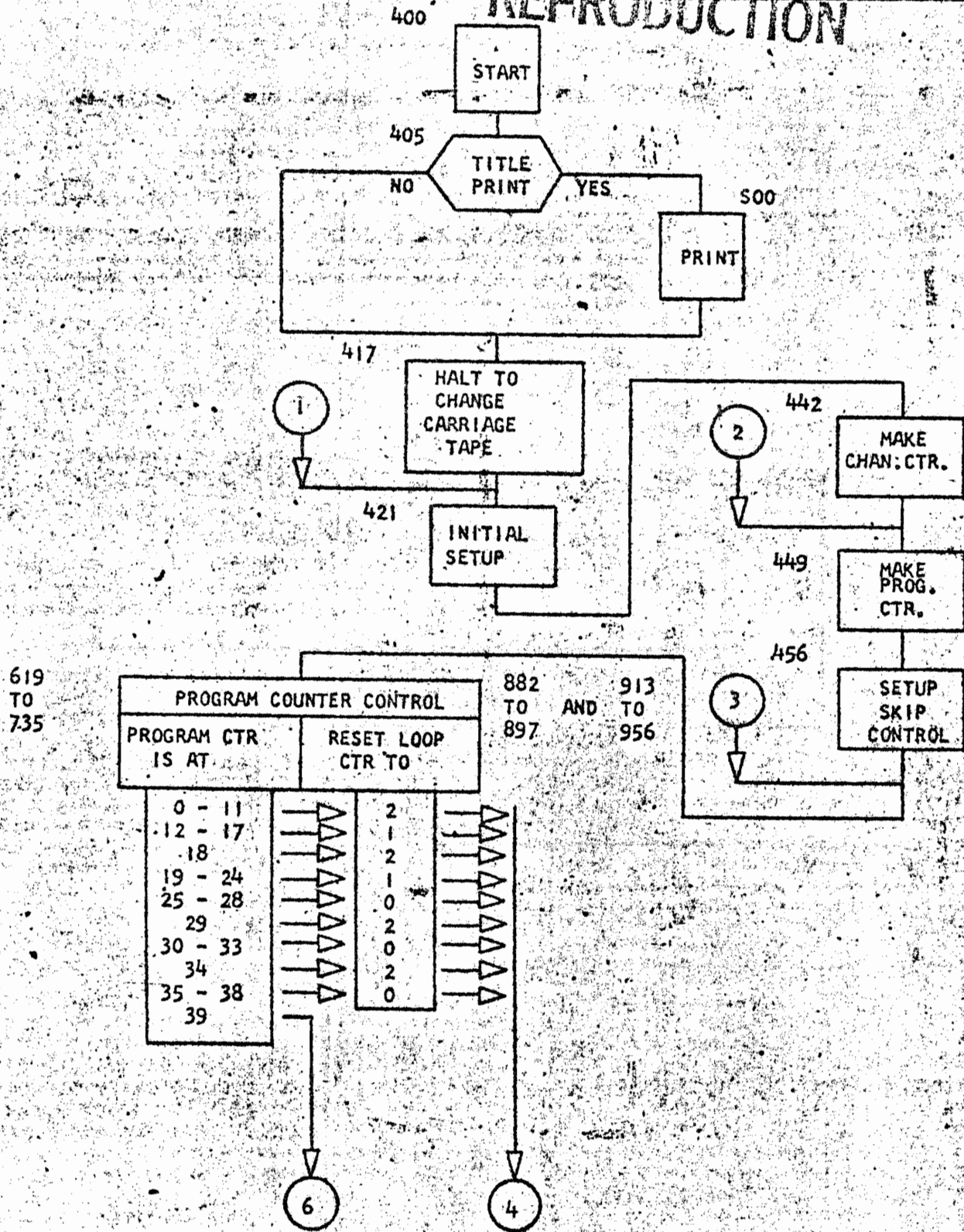
612 A 828 844 TO PREVENT ADVANCE OF THE PROGRAM, I.E. TO STAY IN ONE TYPE OF SKIP, ENTER A NO-OP INSTRUCTION IN LOCATION 612.

817 0040 ALWAYS CHANGE CHANNEL COUNTER VALUE TO AGREE WITH CHANNEL CALLED FOR BY THE D-CHARACTER OF FORMS OP IN 422-TENS IN 818, UNITS IN 819.

1165 B /87 TO CAUSE SKIPS AFTER PRINT INSTEAD OF IMMEDIATE SKIPS, ENTER A NO-OP IN 1165.

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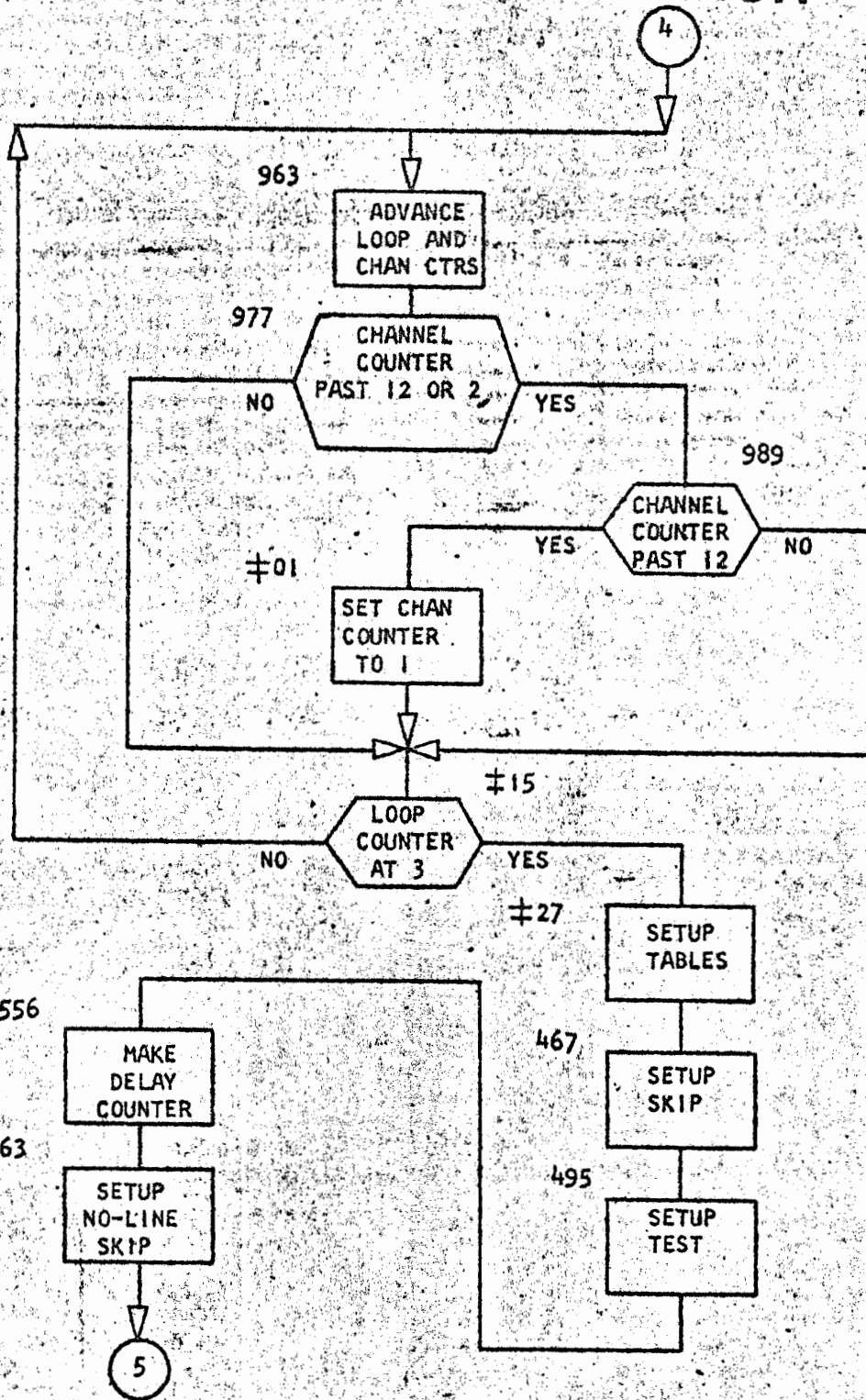
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619 TO 735

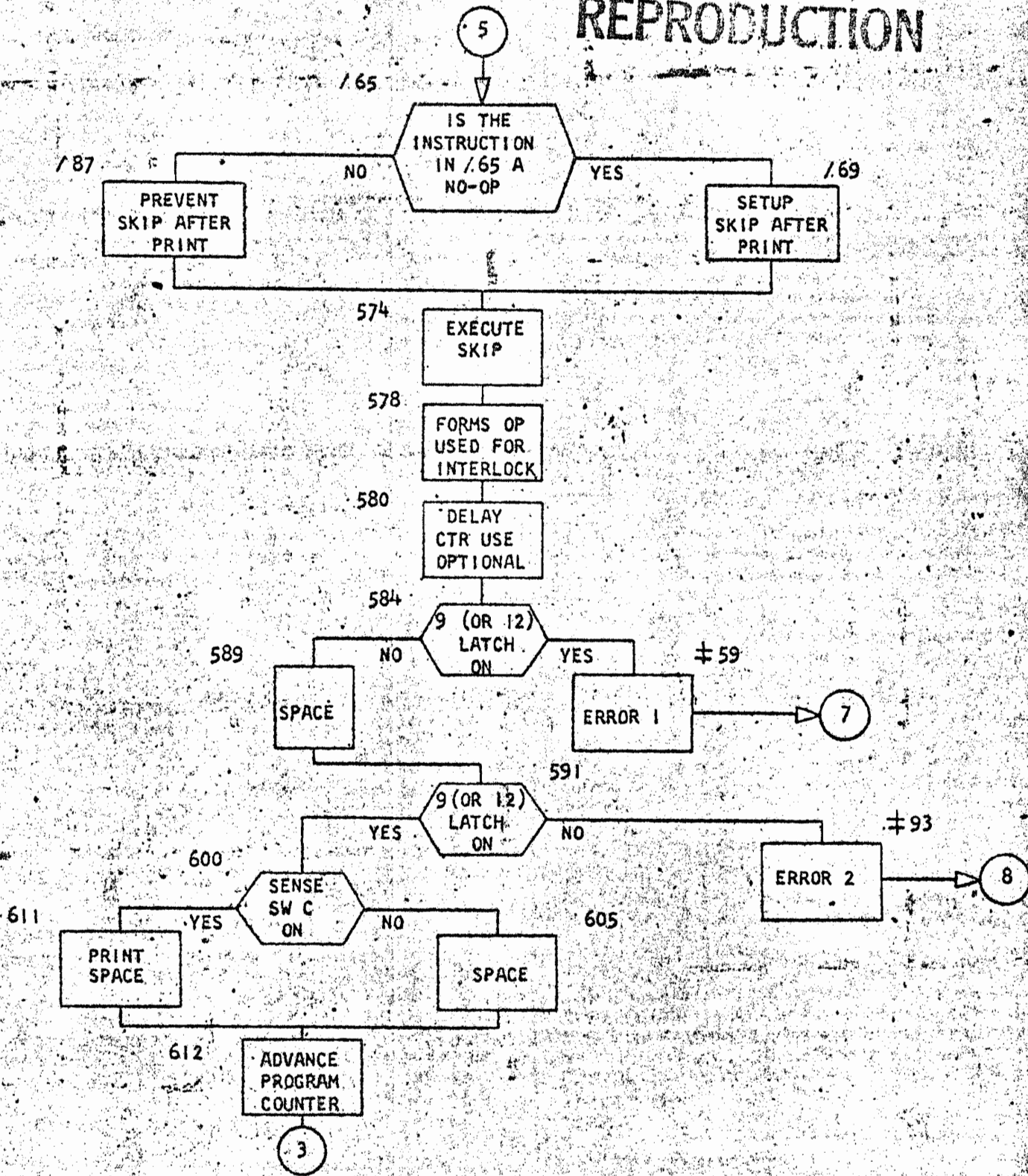
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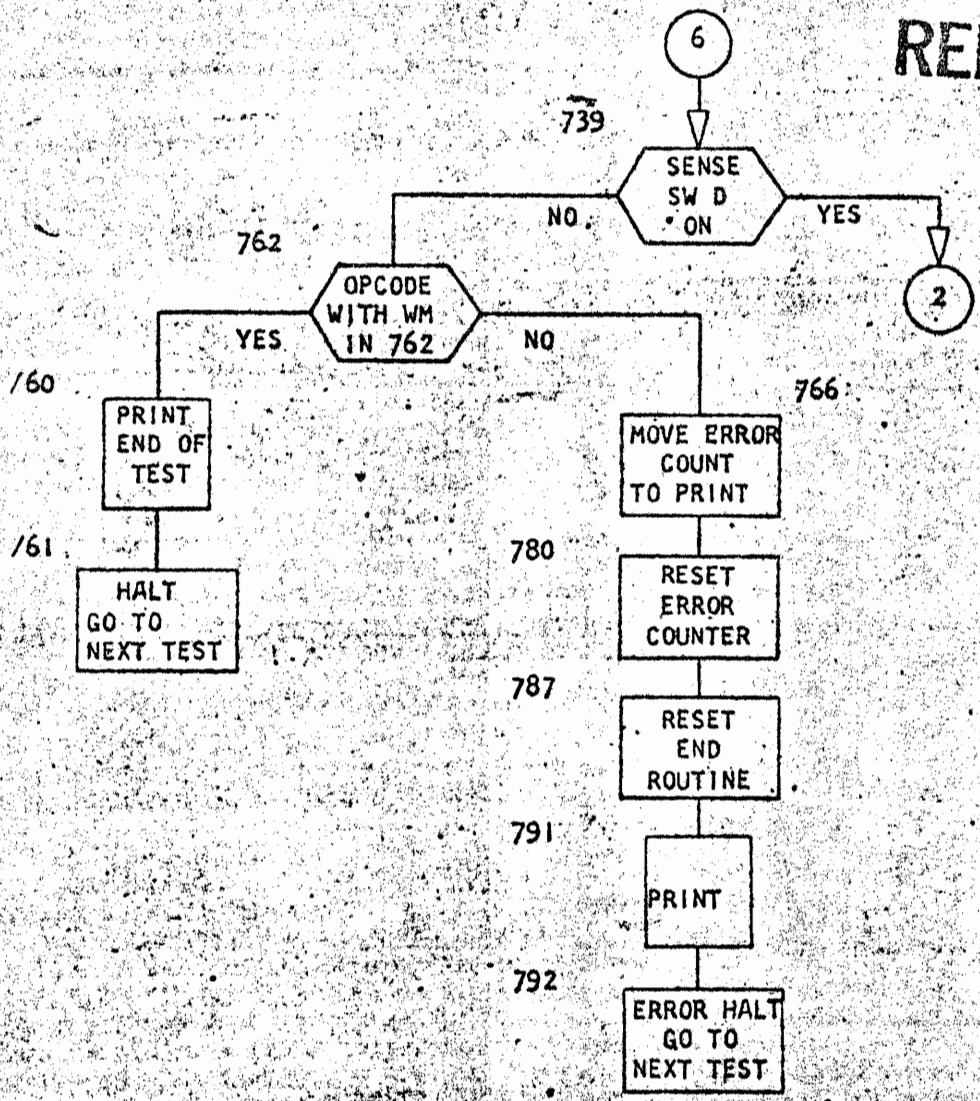
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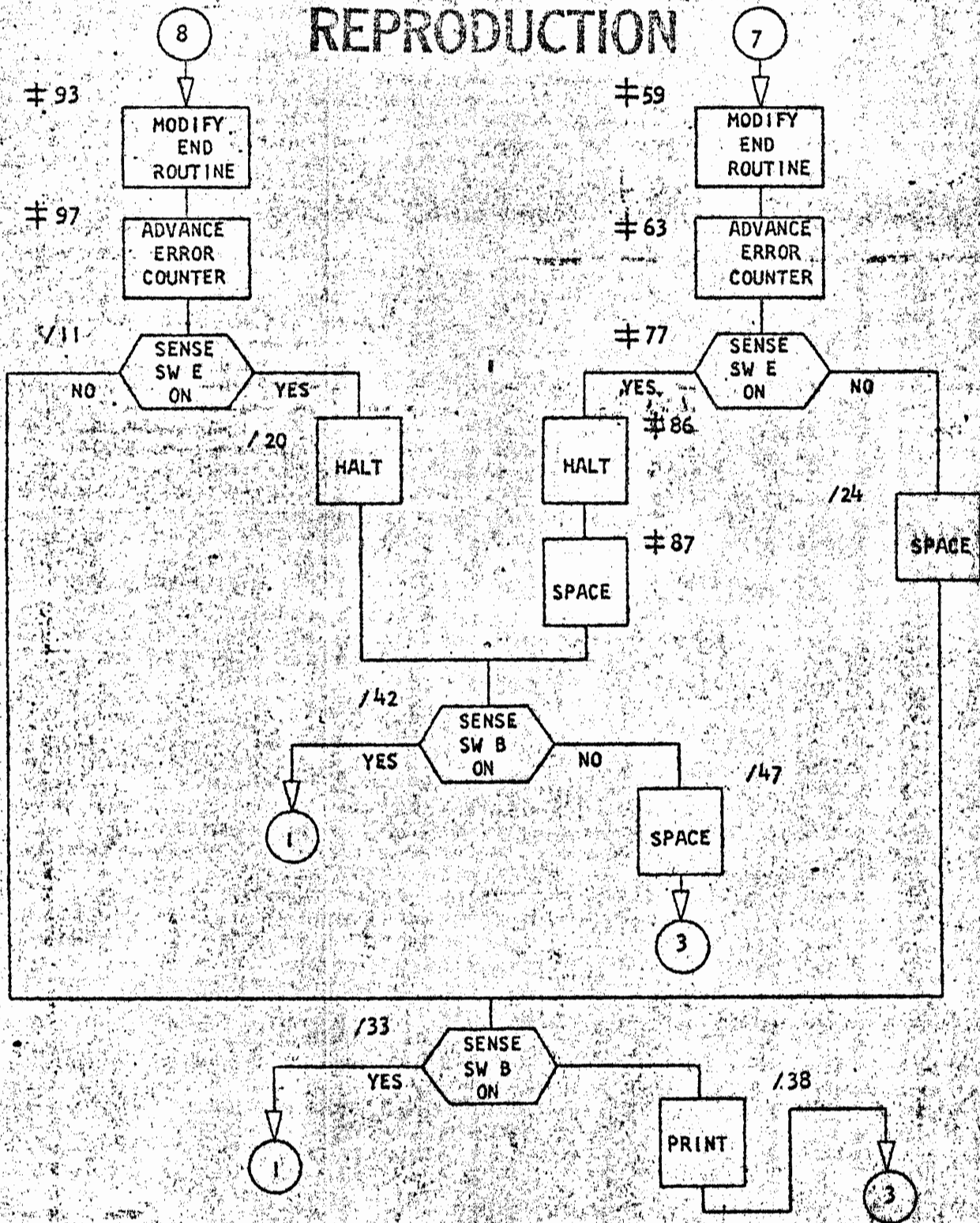
DIAGNOSTIC FUNCTION TEST

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1401 DATA PROCESSING SYSTEM
DIAGNOSTIC FUNCTION TEST

REPRODUCTION

PROGRAM LISTING FOR USE WITH FLOW CHART

FORMS SKIPPING 20108

INSTRUCTION ADDRESS	OP	A	B	REMARKS
082	082	T	Y P E	O F E R R O R
095	095		N O N	E
100	100	E	N D	T E S T
108	108	S	K I P	T E S T L A T C H
126	126	C	H A N N E L	T E S T E D O K
143	143	C	C U N T	
148	148	T	R I P	L E
154	154	D	O U B	L E
160	160	S	I N G	L E
168	168	O	9	
170	170	I	2	
181	181	B	584	8533
189	189	A	828	850
196	196	B	181	
377	377	B	389	5551
385	385	B	588	
389	389	N	000	
393	393	M	360	392
400	400	/	332	
404	404	/		
405	405	B	500	5521
418	418	/	080	
417	417	.	421	
421	421	F	4	
423	423	/	332	
427	427	/		
428	428	M	125	259
435	435	M	094	294
442	442	L	820	810
449	449	L	840	844
456	456	B	889	893
468	468	B	619	
467	467	M	142	230
474	474	M	799	299
481	481	M	848	491
488	488	M	XXX	575
495	495	M	852	512
502	502	M	852	519
509	509	M	XXX	588
516	516	M	XXX	595
528	528	M	169	253
530	530	B	545	5889

*AN ASTERISK MEANS INSTRUCTIONS CHANGE

C FOR T A IS CHANGE FOR TROUBLE ANALYSIS AND MEANS THAT INSTRUCTION CAN BE CHANGED TO ANALYZE TROUBLE

TEST FOR END OF DELAY C FOR T A
CREATE DELAY
CREATE DELAY
USE WHEN TESTS ARE RUN FROM TAPE
USE WHEN TESTS ARE RUN FROM TAPE
USE WHEN TESTS ARE RUN FROM TAPE
USE WHEN TESTS ARE RUN FROM TAPE
START TEST
CLEAR PRINT AREA
TITLE PRINT
HALT CHANGE CARRIAGE TAPE
INITIAL SETUP C FOR T A
LATCH TO PRINT AREA
TYPE OF ERROR TO PRINT
MAKE CHANNEL COUNTER
MAKE PROGRAM COUNTER C FOR T A
SETUP SKIP CONTROL
GO TO PROGRAM COUNTER CONTROL
EXECUTE TESTED OK TO PRINT
CLEAR ERROR FROM PRINT
SETUP SKIP
*SETUP SKIP
SETUP ERROR TEST FOR SKIP
SETUP ERROR TEST FOR SKIP
*SETUP ERROR TEST FOR SKIP
*SETUP ERROR TEST FOR SKIP
MOVE 9 LATCH TO PRINT
BYPASS 12 IF 9 LATCH IS USED

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538	538	M	171	253
548	545	M	000	
549	549	M	815	212
556	556	L	840	858
563	563	L	575	579
570	570	B	165	
574	574	F	X	
576	576	2	0	
578	578	F	X	
580	580	N	181	
584	584	B	459	X
589	589	F	J	
591	591	B	600	X
596	596	B	493	
600	600	B	611	C
605	605	F	J	
607	607	B	612	
611	611	2		
612	612	A	828	844
619	619	B	671	8432
627	627	B	703	8438
635	635	B	663	8435
643	643	B	883	8439
651	651	B	715	8434
659	659	B	882	
663	663	B	727	8422
671	671	B	731	8421
679	679	B	882	
683	683	B	739	8423
691	691	B	949	8422
699	699	B	882	
703	703	B	949	8421
711	711	B	882	
715	715	B	949	8423
728	723	B	882	
727	727	.	889	
731	731	.	893	
735	735	B	882	
739	739	B	449	D
744	744	/	285	
748	748	N	107	270
755	755	N	000	000
762	762	B	152	
766	766	M	147	285
773	773	M	860	299
780	780	L	840	860
787	787	.	762	
791	791	2		
792	792	.	348	
796	796			
801	801	9		

MOVE 12 LATCH TO PRINT

MOVE CHANNEL TO PRINT

MAKE DELAY COUNTER

MAKE NO LINE SKIP C FOR T A

GO TO BEFORE OR AFTER PRINT SELECTION

*SKIP TO CHANNEL

*SKIP AFTER PRINT CONTROL C FOR T A

*NO-LINE SKIP INTERLOCK TEST

GO TO DELAY CTR C FOR T A

*ERROR #1

SPACE TO LATCH

*NO ERROR #2

ERROR #2

GO TO PRINT

SPACE OUT OF LATCH

GO TO PROGRAM CONTROL

PRINT CORRECT RESULT

ADVANCE PROGRAM COUNTER C FOR T A

TEST FOR 12

TEST FOR 18

TEST FOR 25

TEST FOR 29 OR 39

TEST FOR 34

GO TO CHANNEL COUNTER CONTROL

AT 25 DO TRIPLE SKIP

AT 12 DO DOUBLE SKIP

GO TO CHANNEL COUNTER CONTROL

AT 39 GO TO END ROUTINE

AT 29 GO TO LOOP COUNTER

GO TO CHANNEL COUNTER CONTROL

AT 18 GO TO LOOP COUNTER

GO TO CHANNEL COUNTER CONTROL

AT 34 GO TO LOOP COUNTER

GO TO CHANNEL COUNTER CONTROL

TRIPLE SKIP SETUP

DOUBLE SKIP SETUP

GO TO CHANNEL COUNTER CONTROL

THIS IS END ROUTINE

END OF TEST TO PRINT

END CONTROL

*GO AND PRINT NO ERROR

COUNT TO PRINT

ERROR COUNTER TOTAL TO PRINT

RESET ERROR COUNTER

RESET END ROUTINE

PRINT TOTAL OF ERROR COUNT

ERROR FINAL HALT

WORD MARK

THIS TABLE REPRESENTS

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1401 DATA PROCESSING SYSTEM
DIAGNOSTIC FUNCTION TEST

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802	802	9				THE VALUE IN THE
803	803	9				CHANNEL COUNTER TO
804	804	2				WHICH IS PREFIXED
805	805	2				AN 0 IT IS USED
806	806	2				TO DETERMINE WHICH
807	807	2				LATCH TO USE WHEN
808	808	2				CHECKING CORRECT
809	809	2				SKIP OPERATION
810	810	9				LATCH TABLE
811	811	9				LATCH TABLE
812	812	9				LATCH TABLE
813	813	0-000				CHANNEL COUNTER
817	817	0 040				COUNTER RESET VALUE
821	821	0 880				COUNTER RESET TO ONE
826	825	0 010				LOOP RESET TO 1 + COUNTER ADVANCE
829	829	0 000				LOOP COUNTER
833	833	0 020				LOOP RESET TO 2
837	837	0 000				LOOP RESET TO 0 + SINGLE SKIP CTR VALUE
841	841	0 000				PROGRAM COUNTER
846	846	M XXX				*ADDRESS IN CHANNEL TABLE
849	849	M XXX				*ADDRESS IN LATCH TABLE
853	853	0 000				DELAY COUNTER
857	857	0 000 0				ERROR COUNTER
862	862	0 001 0				ERROR COUNTER ADVANCE
867	867	0 120				PROG CTR VALUE FOR DOUBLE SKIPS
877	877	0 250				PROG CTR VALUE FOR TRIPLE SKIPS
882	882	N 000 000				CHANNEL COUNTER CONTROL
889	889	B 913				*CHANNEL COUNTER CONTROL R0
893	893	B 931				*CHANNEL COUNTER CONTROL R1
897	897	B 949				CHANNEL COUNTER CONTROL R2
901	901	1				THIS TABLE REPRESENTS
902	902	2				THE VALUE IN THE
903	903	3				CHANNEL COUNTER TO
904	904	4				WHICH IS PREFIXED
905	905	5				A 9 IT IS USED
906	906	6				TO SETUP SKIP
907	907	7				INSTRUCTIONS FROM
908	908	8				THE VALUE IN THE
909	909	9				CHANNEL COUNTER
910	910	0				CHANNEL TABLE
911	911	0				CHANNEL TABLE
912	912	0				CHANNEL TABLE
913	913	M 153 240				TRIPLE SKIP TO PRINT
920	920	L 840 832				RESET LOOP COUNTER TO ZERO
927	927	B 963				GO TO ADVANCE LOOP COUNTER
931	931	M 159 240				DOUBLE SKIP TO PRINT
938	938	L 828 832				RESET LOOP COUNTER TO ONE
946	945	B 963				GO TO ADVANCE LOOP COUNTER
949	949	M 165 240				SINGLE SKIP TO PRINT
956	956	L 836 832				RESET LOOP COUNTER TO TWO
963	963	A 828 832				ADVANCE LOOP COUNTER

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970	970	A	828	816
977	977	B	989	8153
985	985	B	415	
989	989	B	401	8141
997	997	B	415	
1001	401	A	824	816
1008	408	M	910	813
1015	415	B	427	8313
1023	423	B	963	
1027	427	M	815	848
1034	434	M	909	846
1041	441	M	815	852
1048	448	M	908	850
1055	455	B	467	
1059	459	M	762	
1063	463	A	866	861
1070	470	M	901	296
1077	477	B	486	B
1082	482	B	724	
1086	486	.	.	
1087	487	F	J	
1089	489	B	742	
1093	493	M	762	
1097	497	A	866	861
1104	704	M	902	296
1111	711	B	720	E
1116	716	B	726	
1120	720	.	742	
1124	724	F	J	
1124	726	M	797	230
1133	733	B	421	B
1138	738	2	612	
1142	742	B	421	B
1147	747	F	612	J
1152	752	M	099	299
1159	759	M		
1160	760	2		
1161	761	.	348	
1165	765	B	787	
1169	769	M	611	576
1176	776	Y	783	575
1183	783	B	574	
1187	787	M	096	576
1194	794	B	574	

ADVANCE CHANNEL COUNTER
CHANNEL COUNTER PAST 12 OR 2
TEST LOOP COUNTER FOR 3
CHANGE 13 TO 1 IN CHANNEL COUNTER
TEST LOOP COUNTER FOR 3
ADVANCE CHANNEL COUNTER TO 1
SUPPRESS CARRY
LOOP COUNTER AT 3 SETUP SKIP
CONTINUE CHANNEL COUNTER ADVANCE
BUILD CHANNEL TABLE ADDRESS
BUILD CHANNEL TABLE ADDRESS
BUILD LATCH TABLE ADDRESS
BUILD LATCH TABLE ADDRESS
GO TO EXECUTE
ERROR #1 MODIFY END CONTROL ROUTINE
ADVANCE ERROR COUNTER
MOVE ERROR TO PRINT AREA
GO TO ERROR #1 HALT
GO TO ERROR PRINT
ERROR #1 HALT
BYPASS ERROR #2 TEST
GO TO SWITCH B
ERROR #2 MODIFY END ROUTINE
ADVANCE ERROR COUNTER
MOVE ERROR TO PRINT AREA
GO TO ERROR #2 HALT
GO TO ERROR PRINT
ERROR #2 HALT GO TO SWITCH B
SPACE INTO LATCH AFTER ERROR #1
CLEAR OK FROM PRINT AREA
ERROR RESTART NO PRINT
PRINT ERROR AND CONTINUE PROGRAM
ERROR RESTART NO PRINT
CONTINUE PROGRAM NO PRINT
NO ERROR TO PRINT
TYPE OF ERROR TO PRINT
PRINT END OF TEST
CORRECT OPERATION FINAL HALT
PUT NO OP INSTRUCTION C FOR T A
IN 765 TO CAUSE
SKIPS AFTER PRINT
GO TO SKIP ROUTINE
ELIMINATE PRINTING
GO TO SKIP ROUTINE

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1401 DATA PROCESSING SYSTEM
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	FORMS SKIPPING	2010800A
.008015;022029,033033N	1001	SET WORDMARK CARD	20108 02
L072121;095100,108108,1081081001	TYPE OF ERROR NONE	END TESTSKIP TEST	20108 03
L064153;122122,126143,1481541001	ATCHCHANNEL TESTED	OKCOUNTTRIPLE	20108 04
L067188;160168,170181,1891891001	DOUBLE SINGLE	0912 B5848533	20108 05
L044200;196201,201201,2012011001	A8288568181		20108 06
L067367;340344,348349,3573611001	,008012,001100118361080	A8421/340080	20108 07
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L064754;727731,735739,7447481001	8882,889,8938882B449D/285M107270		20108
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L058002;882889,893897,9019021001	0250 N00000089138931894912		20108 24
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L070#14;985989,997#01,*08#151001	B9898153B#15B#01B1418#15A824816M910813		20108 28
L072#54;#23#27,*34#41,*48#551001	B#2783138963M815848M9098#6M815852M908858		20108 29
L064#86;#59#63,*70#77,*82#861001	B#67#762A866861M901296B#86E8/24.		20108 30
L065/19;#89#93,*97/04,/11/161001	RJB/42#762A866861M902296B/20E8/26		20108 31
L064/61;#24/26,/33/38,/42/471001	./42FJM797230B421B26128421BF612J		20108 32
E063/82;#59/60,/61/65,/69/761001	M099299M2.3488/87M611576Y/83575		20108 33
L062512;#87/94,S00S01,S05S121001	B574M0965768574 2,049L0772772		20108 34
L060640;#17518,S25S29,S36S371001	/2772N000000N00PN000000N000		20108 35
L036544;#45645,S45645,S45S451001	2#13		20108 36
/353880M		CLEAR WORDMARK CARD	20108 37
.019027;031,0388428031F98GB40QL0#63528W048588		FORMS SKIPPING	20108 38

DATE	2-2-61	5-15-62	27.7.62				
ENG. CHG. NO.	110378	11528	1459				