

EDIT AND EXPANDED EDIT

**REPRODUCTION**

A. PURPOSE

1. TO TEST BASIC EDIT CIRCUITRY.
2. TO TEST EXPANDED EDIT CIRCUITRY (IF THE SELECTION DIGIT 1 IS IN STORAGE LOCATION 1260).

B. LOADING PROCEDURES

1. IF EXPANDED EDIT IS NOT A FEATURE OF THE SYSTEM, REMOVE CARD 15 FROM THE TEST. (THIS CARD PLACES A 1 IN LOCATION 1260.)
2. PLACE TEST IN 1402 READ HOPPER AND DEPRESS LOAD KEY.
3. WITH THE EXCEPTION OF THE SELECTION DIGIT FOR EXPANDED EDIT (1 IN 1260), NO SELECTION DIGIT IS REQUIRED WHEN THE 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

THE PROGRAM TESTS COLUMN 72 FOR NO ZONE BITS, SIGNIFYING BASIC EDIT. (AN E DENOTES EXPANDED EDIT). ALL BASIC EDIT DETAIL CARDS ARE PROCESSED. EXPANDED EDIT DETAIL CARDS ARE PROCESSED ONLY IF LOCATION 1260 CONTAINS A 1.

NEXT, THE DATA FIELD A (COLUMNS 1-8), CONTROL FIELD B (COLUMNS 21-37), AND RESULTS SHOULD BE FIELD (COLUMNS 41-57) ARE LOADED INTO THE PRINT AREA FOR PRINTING PURPOSES. THE CONTROL WORD (FIELD B) IS THEN MOVED TO LOCATIONS 261-277 AND IMMEDIATELY FOLLOWED BY AN EDIT INSTRUCTION TO MOVE THE DATA WORD (FIELD A) INTO THE SAME AREA. THE RESULT IS NEXT COMPARED WITH THE RESULT SHOULD BE FIELD. FOR UNEQUAL CONDITIONS THE PROGRAM BRANCHES TO THE ERROR PRINT ROUTINE.

DATE	2-2-61	3-17-63	7-1-63	17.10.63	18.12.63			
ENG. CHG. NO.	110378	116745	117628	TA 1976	TA 1976 A			

# DIAGNOSTIC FUNCTION TEST REPRODUCTION

NOTE: THE LAST DETAIL CARD FOR THE BASIC EDIT (JUST PRECEDING THE DETAIL CARDS FOR THE EXPANDED EDIT) PERFORMS AS AN EXPANDED EDIT DETAIL CARD IF THIS FEATURE IS ON THE MACHINE. TO DENOTE THIS DUAL FUNCTION CARD, IT HAS AN E IN COLUMN 71 RATHER THAN 72.

E. STOPS

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

F. PRINTOUTS

1. CORRECT

A FIELD	B FIELD	RESULT SHOULD BE	RESULT IS	
00678901	\$ 0. *****	\$ 6,789.01*****	\$ 6,789.01*****	
00345678 FLOATING \$	\$ 0. 888888	\$ 3,456.78	\$ 3,456.78	E
00006789 * PROTECT	\$ *0. 888***	\$ *****67.89 ***	\$ *****67.89 ***	E
00000001 DEC CNTRL	\$ . 0888***	\$ .01 ***	\$ .01 ***	E
0003456P SIGN LEFT	CR 0. 888***	CR 345.67 ***	CR 345.67 ***	E

2. ERROR

A FIELD	B FIELD	RESULT SHOULD BE	RESULT IS		
00678901	\$ 0. *****	\$ 6,789.01*****	\$ 6,789.01		ERROR
00345678 FLOATING \$	\$ 0. 888888	\$ 3,456.78	\$ 3,456.78	E	ERROR
00006789 * PROTECT	\$ *0. 888***	\$ *****67.89 ***	\$ 67.89 ***	E	ERROR
00000001 DEC CNTRL	\$ . 0888***	\$ .01 ***	\$ 1	E	ERROR
0003456P SIGN LEFT	CR 0. 888***	CR 345.67 ***	345.67 ***	E	ERROR

G. COMMENTS

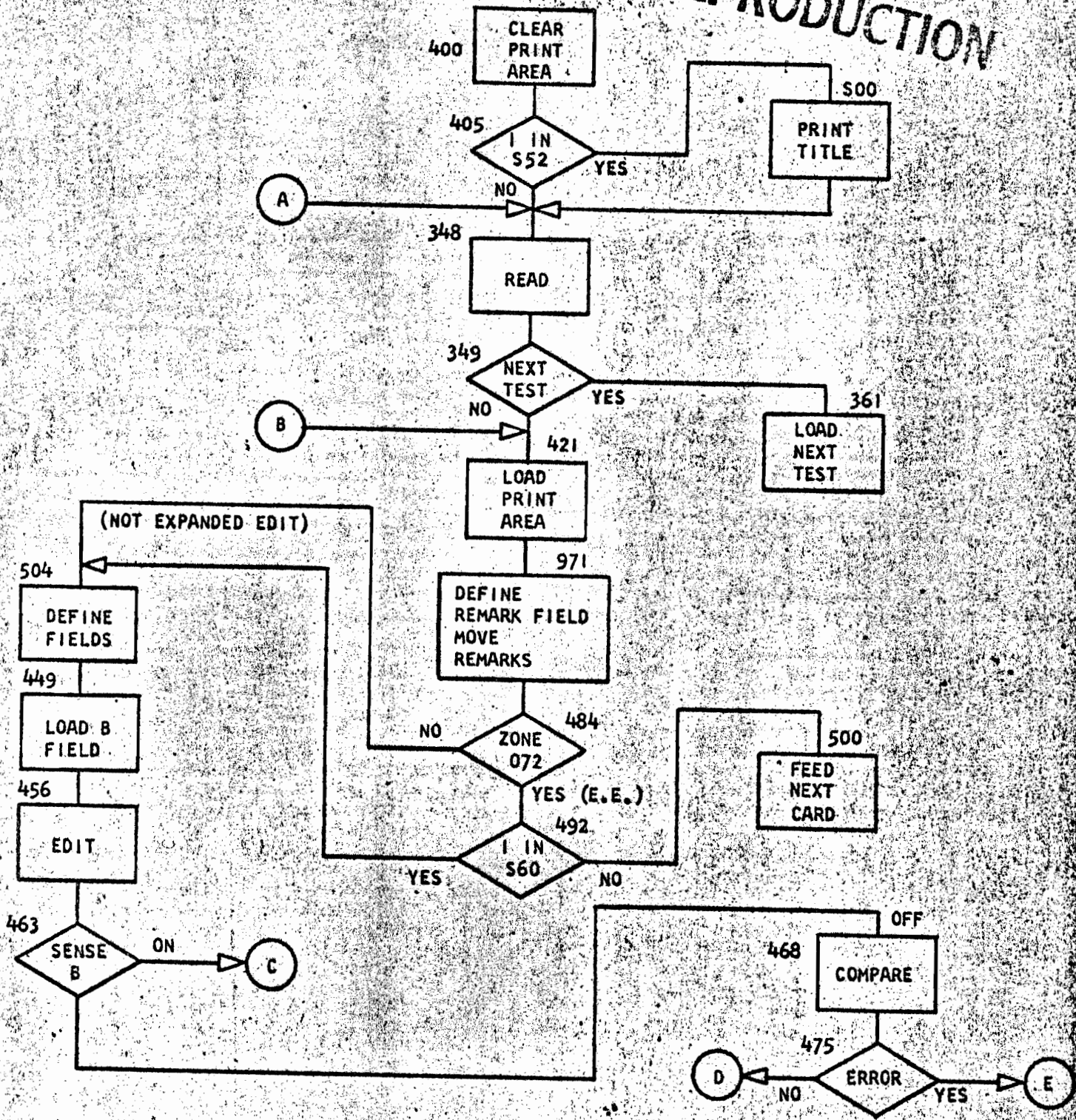
THE BRANCH INSTRUCTION AT LOCATION 927 CAN BE CHANGED MANUALLY TO CAUSE THE PROGRAM TO LOOP AS FEW AS 1 OR AS MANY AS 9,000 TIMES PER DETAIL CARD. THE PROGRAM CALLS FOR 90 LOOPS PER CARD.

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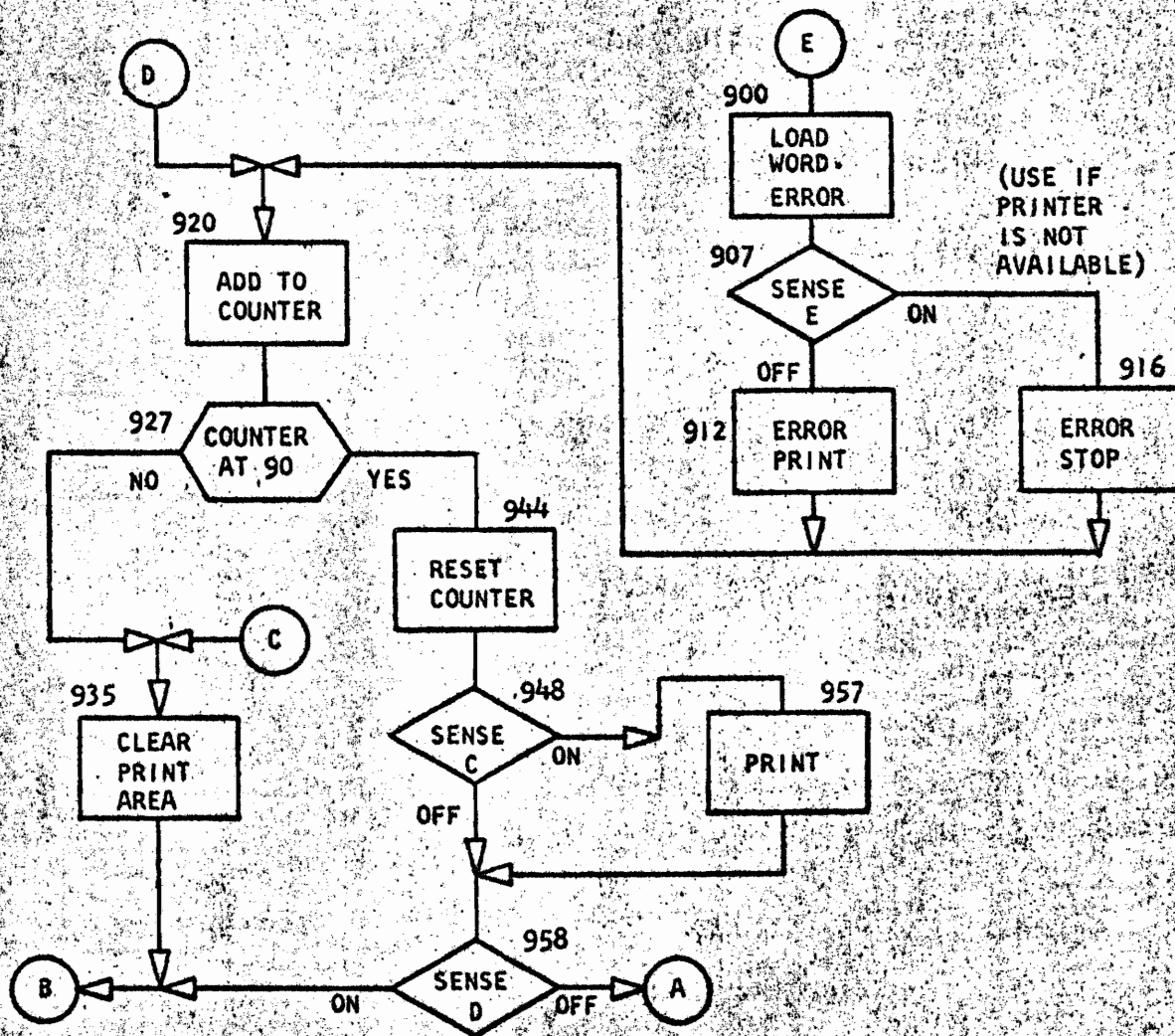
REPRODUCTION

EDIT FLOW CHART



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REPRODUCTION



(USE IF  
 PRINTER  
 IS NOT  
 AVAILABLE)

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DIAGNOSTIC FUNCTION TEST

REPRODUCTION

PROGRAM LISTING FOR USE WITH FLOW CHART

EDIT

03700

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	A	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	070 270	..
442	442	B	971	GO TO 971
449	449	L	237 277	LOAD B FIELD
456	456	E	208 277	DO EDIT OR EXPANDED EDIT
463	463	B	935 B	LOOP ON SW B
468	468	C	277 257	COMPARE B FIELD TO CORRECT RESULT SS
475	475	B	900 /	BRANCH ERROR
480	480	B	920	GO TO CORRECT ROUTINE
484	484	V	504 0722	DO TEST IF NOT EXPANDED EDIT
492	492	B	504 5601	DO EXPANDED EDIT TEST IF 1 IN 1260
500	500	B	348	FEED NEXT CARD IF E E + NO 1 IN 1260
504	504	.	221 281	DEFINE B FIELD AND COMPARE FIELD
511	511	B	449	GO LOAD B FIELD
515	515			WORDMARK
900	900	L	114 287	BEGIN ERROR PRINT ROUTINE
907	907	B	916 6	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
958	953	B	958	BRANCH TO SENSE D SS
957	957	2		PRINT CORRECT RESULTS
958	958	B	421 D	D ON TO REPEAT SS
963	963	B	348	BRANCH TO PROG. CHAINING ROUTINE
967	967	0	00+	OPERATION COUNTER
971	971	.	071	DEFINE REMARK FIELD
975	975	M	072 281	MOVE REMARK

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1401 DATA PROCESSING SYSTEM  
DIAGNOSTIC FUNCTION TEST

PART NO. 451413  
SHEET 6 OF 1  
BLOCK NO. 03700

REPRODUCTION

982 982 B 484  
986 986  
1110 /10 E R R O R  
1115 /15  
1120 /20 A F I E L D  
1140 /40 B F I E L D  
1160 /60 R E S U L T S H O U L D B E  
1180 /80 R E S U L T S  
1260 S 6 0

GO TO 484  
WORDMARK  
CONSTANTS

SELECTION DIGIT FOR EXPANDED EDIT

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# 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	EDIT	0370000A
.008015,022029,033033N	1001	SET WORDMARK CARD	03700 02
L067367,340344,348349,3573611001,008012,00110011B361080A8421/340080			03700 03
L069404,377385,389393,4004041001	8389	BS88N000M360392/332/	03700 04
L069441,413417,421428,4354421001BS00S521/080B348,001078L080299L070270			03700 05
L070479,449456,463468,4754751001B971	L237277E208277B9358C277257B900/		03700 06
L067514,484492,500504,5115151001B920V5040722B504S601B348,2212418449			03700 07
L071938,907912,916920,9279351001L/14287B916E2920.920A920970B9449699/332			03700 08
L056962,940944,948953,9579581001/B421S970B957C89582B4210			03700 09
L055985,967971,975982,9869861001B348000P,071M072281B484			03700 10
Z			
L065/39□/07/07,/10/15,/20/401001	ERROR	A FIELD	03700 11
L072/79,/60/80,/80/80,/80/801001B	FIELD	RESULT SHOULD BE	03700 12
L070S17,500S01,S05S12,S13S171001	RESULT IS	2,049L0772772/2772	03700 13
L059S44,S25S29,S36S37,S41S451001□/40/60□/80L/892702/2702413			03700 14
L033S60□S60S60,001001,00100110011			03700 15
/333080N		CLEAR WORDMARK CARD	03700 16
.019027,031,038042B031T98GB400L046352BW048S88		EDIT	03700 17

## DETAIL CARDS

00000012		+++++	00000012	03700 18
00000034	0	+++++	000034.	03700 19
00000056	0	+++++	0056	03700 20
00000078	0	+++++	78	03700 21
00000901	0	+++++	901	03700 22
00004567	0.	+++++	45.67	03700 23
00005678	, 0.	+++++	56.78	03700 24
00456789	, 0.	+++++	4,567.89	03700 25
00678901	\$ , 0.	+++++	\$ 6,789.01	03700 26
0078901K	\$ , 0.	+CR+++	\$ 7,890.12 CR	03700 27
0089012L	\$ , 0.	+-+++	\$ 8,901.23 -	03700 28
00901234	\$ , 0.	+++CR	\$ 9,012.34	03700 29
0001234V	\$ , 0.	++CR+	\$ 123.45	03700 30
0012345F	\$ , 0.	CR+++	\$ 1,234.56	03700 31
0012345F	\$ , 0.	CR+++	\$ 1,234.56	03700 32
0000456G	CRO.	+++++	4CR5.67	03700 33
00100205	+ 0+	+++++	1 002 05	03700 34
ACEGIKMO	B D F H J L NO		ABCDEFGHIJKLMNO	03700 35
BDFHJLN	A C E G I K M 6		ABCDEFGHIJKLM56	03700 36
OQSUYW□7	P R T V X Z /0		OPQRSTUVWXYZ□/7	03700 37
PRTVXZ/	0 Q S U W Y □ 7		OPQRSTUVWXYZ□/7	03700 38
13579□+0	2 4 6 8 □ # 90		123456789□#90	03700 39

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1401 DATA PROCESSING SYSTEM  
DIAGNOSTIC FUNCTION TEST

PART NO. 45147  
SHEET 8 OF 9  
BLOCK NO. 03700

REPRODUCTION

2468a#9	1	3	5	7	9	%	#	9	123456789a%#99	03700	
00567890	\$	,	0.	+++++					\$5,678.90	***	E 03700 41
00345678 FLOATING \$			\$0.	+++++					\$3,456.78		E 03700 42
00006789 * PROTECT. \$			*0.	+++++					\$*****67.89	***	E 03700 43
00000001 DEC CNTRL \$			.	0++++					\$ .01	***	E 03700 44
00000000 DEC CNTRL \$			.	0++++					\$	***	E 03700 45
00000000 DEC CNTRL \$			.	0++++					\$	***	E 03700 46
0003456P SIGN LEFT CR			0.	+++++				CR	345.67	***	E 03700 47
0004567Q SIGN LEFT -			0.	+++++				-	456.78	***	E 03700 48
00056789 SIGN LEFT -			0.	+++++				-	567.89	***	E 03700 49
00000100 DEC CNTRL \$			.	0++++					\$ 1.00	***	E 03700 50

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PROGRAM LISTING  
DIAGNOSTIC FUNCTION TEST

DETAIL CARDS FOR PERIOD    COMMA INVERSION

00000012		EEEEEE	00000012	0370D 18
00000034	0	EEEEEE	000034	0370D 19
00000056	0	EEEEEE	0056	0370D 20
00000078	0	EEEEEE	78	0370D 21
00000901	0	EEEEEE	901	0370D 22
00004567	0,	EEEEEE	45,67	0370D 23
00005678	. 0,	EEEEEE	56,78	0370D 24
00456789	. 0,	EEEE**	4.567,89	**
00678901	\$ . 0,	*****	\$ 6.789,01	*****
0078901K	\$ . 0,	&CR&**	\$ 7.890,12	CR **
0089012L	\$ . 0,	&&-&**	\$ 8.901,23	- **
00901234	\$ . 0,	EEEE&CR	\$ 9.012,34	
0001234V	\$ . 0,	&&CR&**	\$ 123,45	*
0012345F	\$ . 0,	CR&***	\$ 1.234,56	***
0012345F	\$ . 0,	CR&***	\$ 1.234,56	***
0000456G	CR0,	EEE***	4CR5,67	***
00100205	& 0&	EEE***	1 002 05	***
ACEGIKMD	B D F H J L N O		ABCDEFGHIJKLMN6	0370D 34
BDFHJLN	A C E G I K M 6		ABCDEFGHIJKLM56	0370D 35
QOSUWY#7	P R T V X Z /0		OPQRSTUVWXYZ#7	0370D 36
PRTVXZ/	Q Q S U W Y # 7		OPQRSTUVWXYZ#17	0370D 37
13579#0	2 4 6 8 @ # 90		123456789@%#90	0370D 38
2468@#9	1 3 5 7 9 % # 9		123456789@%#99	0370D 39
00567890	\$ . 0,	EE****	\$5.678,90	****
00345678	FLOATING \$	. \$0,	\$3.456,78	E 0370D 41
00006789	* PROTECT. \$	. *0,	\$****67,89	***
00000001	DEC CNTRL \$	. , 0&&&&***	\$ ,01	***
00000000	DEC CNTRL \$	. , 0&&&&***	\$	***
00000000	DEC CNTRL	\$. 0&&&&***		***
0003456P	SIGN LEFT CR	0,	CR 345,67	***
0004567Q	SIGN LEFT -	0,	- 456,78	***
0005678R	SIGN LEFT -	0,	567,89	***
00000100	DEC CNTRL \$	. , 0&&&&***	\$ 1,00	***
				0370D 42
				0370D 43
				0370D 44
				0370D 45
				0370D 46
				0370D 47
				0370D 48
				0370D 49
				0370D 50

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ENG. CHG. NO.	1976 A						

