

REPRODUCTION

CARD TO TAPE

A. PURPOSE OF TEST

TO TRANSFER 20 CHARACTER RECORDS FROM DETAIL CARDS TO TAPE AND TEST FOR WRITE TAPE ERROR.

B. LOADING PROCEDURE

1. WHEN RUNNING TEST FROM CARDS:

- A. SET WORKING TAPE DRIVE TO 4.
- B. PLACE TEST IN 1402 READ HOPPER AND DEPRESS LOAD KEY.

2. WHEN RUNNING TEST FROM TAPE:

- A. SET WORKING TAPE DRIVE TO 4
- B. ENTER A 1 IN 1268 AND 1263.
- C. PLACE DETAIL CARDS IN READ HOPPER.

C. PROGRAM CONTROL

1. SENSE SWITCHES

- A ON TO TEST FOR LAST DETAIL CARD
OFF TO BYPASS TEST FOR LAST DETAIL CARD
- 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 BACKSPACE AND READ ERROR RECORD AND LOAD INTO PRINT AREA.

D. TEST PROCEDURE

THE DETAIL CARD RECORD IN THE PRINT AREA (201-220) IS WRITTEN ON TAPE BY THE WRITE TAPE DRIVE. IF THERE ARE NO TAPE ERRORS, THE RECORD MAY BE PRINTED IF SENSE SWITCH C IS ON, OR BY-PASSED IF IT IS OFF.

DATE	2-2-61	6-29-63	17. 10. 63				
ENG. CHG. NO.	110378	117628	TA 1976				



DIAGNOSTIC FUNCTION TEST

PART NO. 451450
 SHEET 2 OF 8
 BLOCK NO. 5000C

REPRODUCTION

D. (CONTINUED)

IF A WRITE TAPE ERROR IS DETECTED, TWO SENSE SWITCHES MAY BE BROUGHT INTO PLAY. SENSE SWITCH G ON BACKSPACES THE ERROR RECORD AND READS IT INTO LOCATIONS 225-244. THESE INSTRUCTIONS ARE BY-PASSED IF THE SWITCH IS OFF. THE WORD ERROR IS THEN LOADED INTO LOCATIONS 281-285 AND THE ERROR RESULTS ARE PRINTED IF SENSE SWITCH E IS OFF OR THE MACHINE STOPS AT LOCATION 910 IF IT IS ON. AFTER EITHER OF THESE INSTRUCTIONS, THE ERROR RECORD IS BACKSPACED AND SKIPPED.

E. STOPS

STORAGE ADDRESS REGISTER:

623	ERROR - WTM
910	ERROR - SENSE E ON
950	HALT - END OF REEL

F. PRINTOUTS

1. CORRECT

<u>CARD RECORD</u>	<u>SENSE G ON FOR TAPE ERROR RECORD</u>	<u>TAPE DR 4</u>
JJJJJJJJJJJJJJJJJJJJJ		TAPE WRITE
KKKKKKKKKKKKKKKKKKKK		TAPE WRITE

2. ERROR

JJJJJJJJJJJJJJJJJJJJJ	JJJJJJJJJJ1111JJJJJ	TAPE WRITE	ERROR
KKKKKKKKKKKKKKKKKKKK	222222222KKKKKKKKKK	TAPE WRITE	ERROR

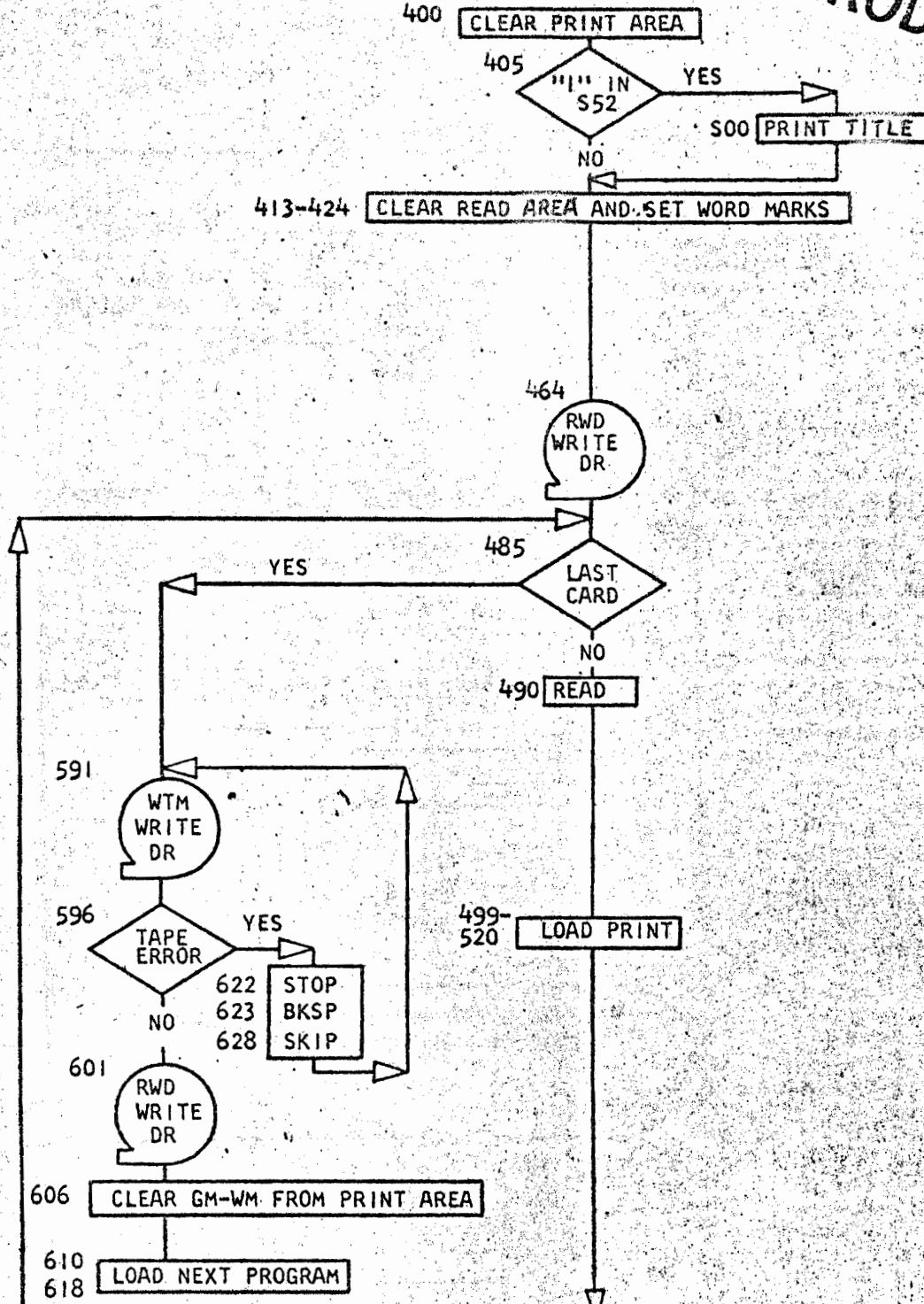
G. COMMENTS

ADDITIONAL DETAIL CARDS MAY BE ADDED AS DESIRED TO TEST SPECIFIC BIT CONFIGURATION IN ADJACENT POSITIONS.

DATE	2-2-61	6-29-63	17. 10. 63				
ENG. CHG. NO.	110378	117628	TA 1976				

REPRODUCTION

CARD TO TAPE
 FLOW CHART

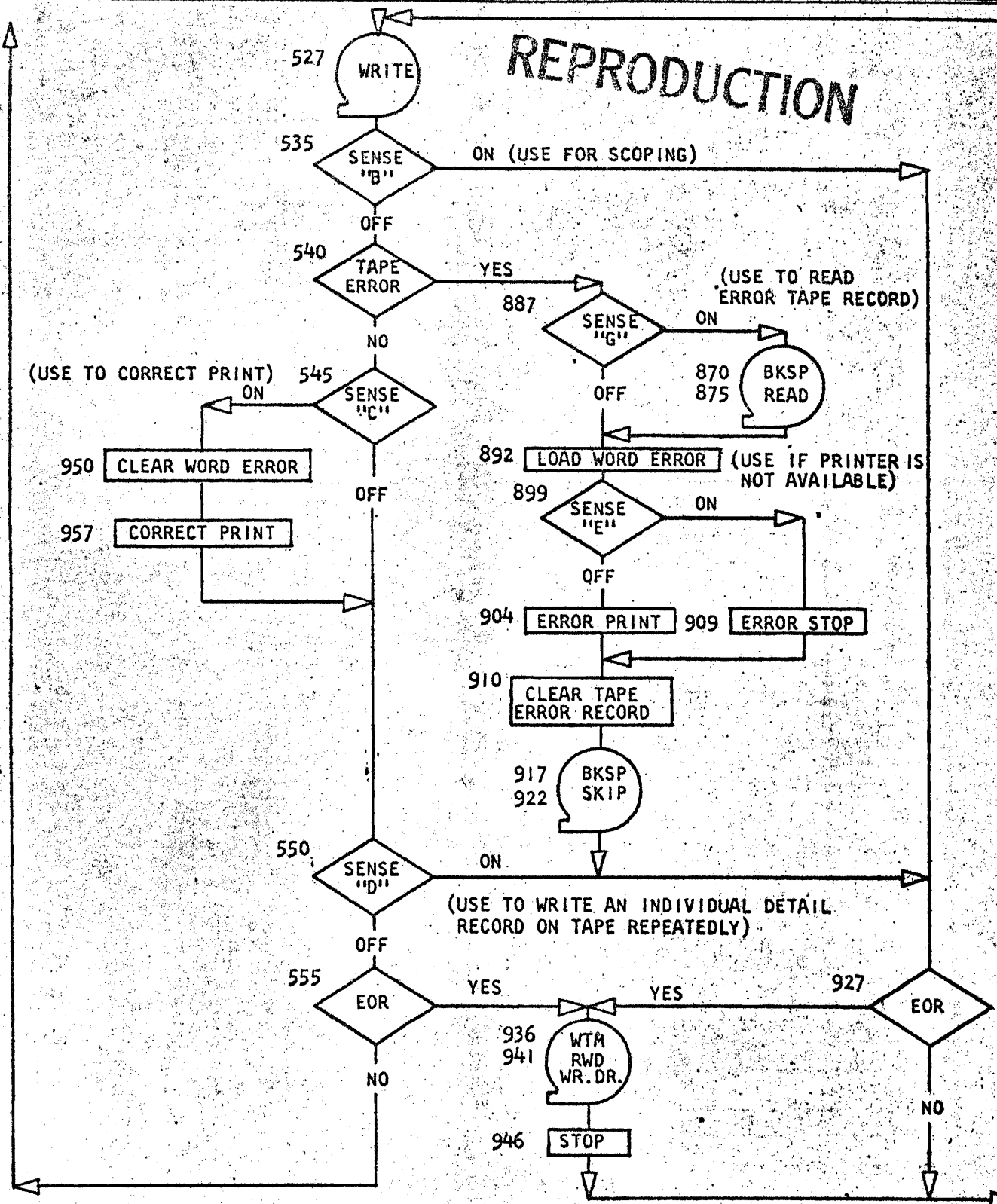


(FROM NEXT PAGE)

(TO NEXT PAGE)

DATE	2-2-61	7-1-63	17. 10. 63				
CHG. NO.	110378	117628	TA 1976				

REPRODUCTION



DATE	2-2-61	7-1-63	17. 10. 63				
ENG. CHG. NO.	110378	117628	TA 1976				

1401 DATA PROCESSING SYSTEM
 DIAGNOSTIC FUNCTION TEST
 REPRODUCTION

PROGRAM LISTING FOR USE WITH FLOW CHART
 CARD TO TAPE 5000C

INSTRUCTION

ADDRESS	OP	A	B	REMARKS	
377	377	B	564	S681	*USE WHEN TESTS ARE RUN FROM TAPE
385	385	B	588		..
393	393	M	388	380	BYPASS DETAIL CARDS ON TAPE
400	400	/	332		START TEST
404	404	/			
405	405	B	500	S521	BR TO TITLE PRINT ROUTINE IF 1 IN S52
413	413	/	080		CLEAR READ AREA
417	417	.	001	078	SET WORD MARKS
424	424	B	464		BRANCH TO CONTINUE
464	464	U	204	R	REWIND
469	469	B	485	3488	BRANCH WHEN TEST IS RUN FROM TAPE
477	477	B	591	080A	BRANCH WHEN TEST IS RUN FROM CARDS
485	485	B	591	A	BRANCH LAST CARD
490	490	I			READ
491	491	B	499		BRANCH TO CONTINUE
499	499	L	709	278	LOAD PRINT AREA
506	506	L	080	299	..
513	513	L	550	221	..
520	520	L	020	220	..
527	527	L	204	201W	WRITE TAPE
535	535	B	927	B	B ON TO SCOPE
540	540	B	887	L	BRANCH ON TAPE ERROR
545	545	B	950	C	C ON TO CORRECT PRINT ROUTINE
550	550	B	927	D	D ON TO REPEAT
555	555	B	936	K	BRANCH IF END OF REEL
560	560	B	469		BRANCH TO READ NEXT CARD
564	564	B	393	S631	USE WHEN TESTS ARE RUN FROM TAPE
572	572	B	348		..
591	591	U	204	M	WRITE TAPE MARK - END OF TEST
596	596	B	622	L	BRANCH TO STOP IF TAPE ERROR
601	601	U	204	R	REWIND - END OF TEST
606	606	/	280		CLEAR GM-WM FROM PRINT AREA
610	610	B	637	348B	BRANCH WHEN TEST IS RUN FROM TAPE
618	618	B	361		LOAD NEXT TEST FROM CARDS IF NO GM
622	622	.			WTM ERROR STOP
623	623	U	204	B	BACKSPACE
628	628	U	204	E	TAPE SKIP
633	633	B	591		BRANCH TO WRITE TAPE MARK
637	637	/	348	080	LOAD NEXT TEST
870	870	U	204	B	BACKSPACE
875	875	L	204	225R	READ ERROR TAPE RECORD
883	883	B	892		BRANCH
887	887	B	870	G	G ON TO READ TAPE ERROR RECORD
892	892	L	714	285	BEGIN ERROR ROUTINE
899	899	B	909	E	E ON TO ERROR STOP

DATE	2-2-61	6-29-63	17. 10. 63				
ENG. CHG. NO.	110378	117628	TA 1976				

1401 DATA PROCESSING SYSTEM
DIAGNOSTIC FUNCTION TEST

REPRODUCTION

904	904	2	ERROR PRINT
905	905	B 910	BRANCH TO CLEAR TAPE ERROR RECORD
909	909	.	ERROR STOP
910	910	L #29 244	CLEAR TAPE ERROR RECORD
917	917	U %U4 B	BACKSPACE
922	922	U %U4 E	SKIP
927	927	B 936 K	END OF REEL
932	932	B 527	BRANCH TO WRITE TAPE
936	936	U %U4 M	WRITE TAPE MARK
941	941	U %U4 R	REWIND
946	946	- 527	STOP AND BRANCH TO WRITE TAPE
950	950	L /19 285	CORRECT PRINT ROUTINE
957	957	2	••
958	958	B 550	BRANCH TO SENSE D
1010	#10		BLANKS TO CLEAR PRT ERR REC
1100	/00	T APE WRITE	CONSTANT
1110	/10	E RRO R	••
1115	/15		••
1120	/20	C ARD RECORD	••
1140	/40	S ENS E G ON FOR TAPE	••
1160	/60	E RRO R RECORD	••
1180	/80	T APE DR 4	••
1250	S50		GM WM IN 1250

DATE	2-2-61	6-29-63	17. 10. 63				
ENG. CHG. NO.	110378	117628	TA 1976				

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	CARD TO TAPE		5000C	0A
.008015,022029,033033N	1001	SET WORDMARK CARD		5000C	02
L067367,340344,348349,357361	1001,008012,00110011B361080A8348/340080			5000C	03
L069404,377385,393400,404405	1001 8564S6818S88 M388380/332/			5000C	04
L072444,413417,424424,424424	1001B500S521/080,001078B464			5000C	05
L072484,445445,464469,477485	1001 U%U4R8485348B8591080A			5000C	06
L067519,490491,499506,513520	1001B591A1B499 L/09278L080299LS50221			5000C	07
L072559,527535,540545,550555	1001L020220L%U4201WB9278B887L8950CB927DB936K			5000C	08
L068595,564572,591596,596596	1001B4698393S6318348 U%U4M			5000C	09
L064627,601606,610618,622623	1001B622LU%U4R/28086373488B361.U%U4B			5000C	10
L072667,633637,637637,637637	1001U%U4EB591/348080			5000C	11
L067904,875883,887892,899904	1001U%U4BL%U4225RB8928870GL/142858909E2			5000C	12
L063935,909910,917922,927932	10018910.L#29244U%U4BU%U4EB936KB527			5000C	13
L072975,941946,950957,958958	1001U%U4MU%U4R.527L/1928528550			5000C	14
L072/39,/10/15,/20/40,/40/40	1001TAPE WRITEERROR CARD RECORD			5000C	15
L072/79,/60/80,/80/80,/80/80	1001SENSE G ON FOR TAPE ERROR RECORD			5000C	16
L070S17,S00S01,S05S12,S13S17	1001TAPE DR 4 2,049L0772772/2772			5000C	17
L064S49,S25S29,S36S37,S41S45	1001#40/60#80L/892702/2702413			5000C	18
.033S50,001001,001001,001001	1001G			5000C	19
	M				
/333080N		CLEAR WORDMARK CARD		5000C	20
.019027,031,038042B031T98GB400L046352BW04BS88		CARD TO TAPE		5000C	21
	M				

DETAIL CARDS

G.G.G.G.G.G.G.G.G.G.G.		5000C	22
.....	BLANK	5000C	23
□□□□□□□□□□□□□□□□□□		5000C	24
+++++	AMPERSAND	5000C	25
\$\$\$\$\$		5000C	26
*****		5000C	27
-----	MINUS SIGN	5000C	28
//////////		5000C	29
?????		5000C	30
%%%%		5000C	31
#####		5000C	32
@@@@@		5000C	33
PPPPPP	PLUS ZERO	5000C	34
ZZZZZZ		5000C	35
AAAAA		5000C	36
BBBBB		5000C	37
CCCCC		5000C	38
DDDDD		5000C	39
EEEEEE		5000C	40

DATE	2-2-61	6-29-63	17. 10. 63				
CHG. NO.	110378	117628	TA 1976				

1401 DATA PROCESSING SYSTEM
DIAGNOSTIC FUNCTION TEST

PART NO. 451450
SHEET 8 OF 8
BLOCK NO. 5000C

REPRODUCTION

MINUS ZERO

FFFFFFFFFFFFFFFFFF
 GGGGGGGGGGGGGGGG
 HHHHHHHHHHHHHHHH
 IIIIIIIIIIIIIIIII
 MMMMMMMMMMMMMMMM
 ZZZZZZZZZZZZZZZZ
 JJJJJJJJJJJJJJJJ
 KKKKKKKKKKKKKKKK
 LLLLLLLLLLLLLLLLLL
 MMMMMMMMMMMMMMMM
 NNNNNNNNNNNNNNNN
 OOOOOOOOOOOOOOOO
 PPPPPPPPPPPPPPPPP
 QQQQQQQQQQQQQQQQ
 RRRRRRRRRRRRRRRR
 SSSSSSSSSSSSSSSSS
 TTTTTTTTTTTTTTTTT
 UUUUUUUUUUUUUUUUU
 VVVVVVVVVVVVVVVVV
 WWWWWWWWWWWWWWWW
 XXXXXXXXXXXXXXXXXXX
 YYYYYYYYYYYYYYYYYY
 ZZZZZZZZZZZZZZZZZ
 1111111111111111
 2222222222222222
 3333333333333333
 4444444444444444
 5555555555555555
 6666666666666666
 7777777777777777
 8888888888888888
 9999999999999999
 0000000000000000
 3#3#3#3#3#3#3#3#3#
 1F1F1F1F1F1F1F1F
 ABCDEFGHIJKLMNOPQRST
 UVWXYZ1234567890-+XX

5000C 41
 5000C 42
 5000C 43
 5000C 44
 5000C 45

 5000C 46
 5000C 47
 5000C 48
 5000C 49
 5000C 50
 5000C 51
 5000C 52
 5000C 53
 5000C 54
 5000C 55
 5000C 56
 5000C 57
 5000C 58
 5000C 59
 5000C 60
 5000C 61
 5000C 62
 5000C 63
 5000C 64
 5000C 65
 5000C 66
 5000C 67
 5000C 68
 5000C 69
 5000C 70
 5000C 71
 5000C 72
 5000C 73
 5000C 74
 5000C 75
 5000C 76

DATE	2-2-61	6-29-63	17. 10. 63				
ENG. CHG. NO	110378	117628	TA 1976				