

REPRODUCTION  
TAPE TO TAPE

A. PURPOSE OF TEST

TO TRANSFER FROM ONE TAPE TO ANOTHER 20 CHARACTER RECORDS THAT WERE WRITTEN DURING THE CARD TO TAPE TEST (BLOCK 5000)

B. LOADING PROCEDURES

1. WHEN RUNNING TEST FROM CARDS:

- A. SET TAPE DRIVE 4 TO READ DETAIL RECORDS.
- B. SET TAPE DRIVE 5 TO WRITE DETAIL RECORDS
- C. PLACE TEST IN 1402 READ HOPPER AND DEPRESS LOAD KEY.

2. WHEN RUNNING TEST FROM TAPE:

- A. SET TAPE DRIVE 4 TO READ DETAIL RECORDS
- B. SET TAPE DRIVE 5 TO WRITE DETAIL RECORDS
- C. ENTER A 1 IN 1267

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 ERRORS  
OFF TO CONTINUE
- E ON TO STOP ON ERROR  
OFF TO CONTINUE
- G ON TO REPEAT ENTIRE TEST  
OF TO CONTINUE

D. TEST PROCEDURE

RECORDS READ FROM TAPE DRIVE NUMBER 4 ARE LOADED INTO LOCATIONS 201-220. IF THE TAPE RECORD IS READ CORRECTLY, IT IS TRANSFERRED TO LOCATIONS 225-244 AND WRITTEN ON TAPE BY TAPE DRIVE NUMBER 5.

IF THE RECORD IS READ INCORRECTLY FROM TAPE DRIVE NUMBER 4, THE PROGRAM BRANCHES TO A TAPE READ ERROR ROUTINE AND THE ERROR RECORD MAY BE PRINTED WITH A "TAPE READ ERROR" INDICATION OR THE MACHINE MAY BE STOPPED DEPENDING UPON THE SETTING

DATE	2-2-61	2-15-61	6-29-63	17.10.63			
ENG. CHG. NO.	110378	110378A	117628	TA 1976			



# DIAGNOSTIC FUNCTION TEST

PART NO. 451452  
 SHEET 2 OF 7  
 BLOCK NO. 5020C

## REPRODUCTION

### D. (CONTINUED)

OF SENSE SWITCH E. IF SWITCH D IS OFF, THE PROGRAM PROCEEDS TO READ THE NEXT TAPE RECORD; IF IT IS ON, A BACKSPACE INSTRUCTION IS EXECUTED AND THE SAME RECORD IS RE-READ AND RE-PRINTED OR RE-READ AND RE-STOPPED AS OFTEN AS IT IS READ INCORRECTLY.

IF THE RECORD IS READ CORRECTLY BUT WRITTEN ON TAPE INCORRECTLY, THE PROGRAM BRANCHES TO A TAPE WRITE ERROR ROUTINE AND THE RESULTS ARE PRINTED WITH A "TAPE WRITE ERROR" INDICATION WITH SENSE SWITCH E OFF OR THE MACHINE STOPPED WITH THE SWITCH ON. IF SWITCH D IS OFF, THE PROGRAM PROCEEDS TO BACKSPACE AND ERASE THE RECORD WRITTEN ON TAPE IN ERROR AND CONTINUES WITH THE NEXT; IF SWITCH D IS ON, THE ERROR RECORD IS RE-WRITTEN ON TAPE, AND THE RESULTS RE-PRINTED OR THE MACHINE RE-STOPPED AS OFTEN AS TAPE WRITE ERRORS OCCUR.

### E. STOPS

#### STORAGE ADDRESS REGISTER

501	HALT-END OF REEL, TAPE DRIVE 5
586	TAPE READ ERROR-SENSE E ON
936	TAPE WRITE ERROR-SENSE E ON

### F. PRINTOUTS

#### 1. CORRECT

##### RECORD READ FROM DR4

JJJJJJJJJJJJJJJJJJJJ  
 KKKKKKKKKKKKKKKKKKK

##### SHOULD BE WRITTEN ON DR5

JJJJJJJJJJJJJJJJJJJJ  
 KKKKKKKKKKKKKKKKKKK

#### 2. ERRORS

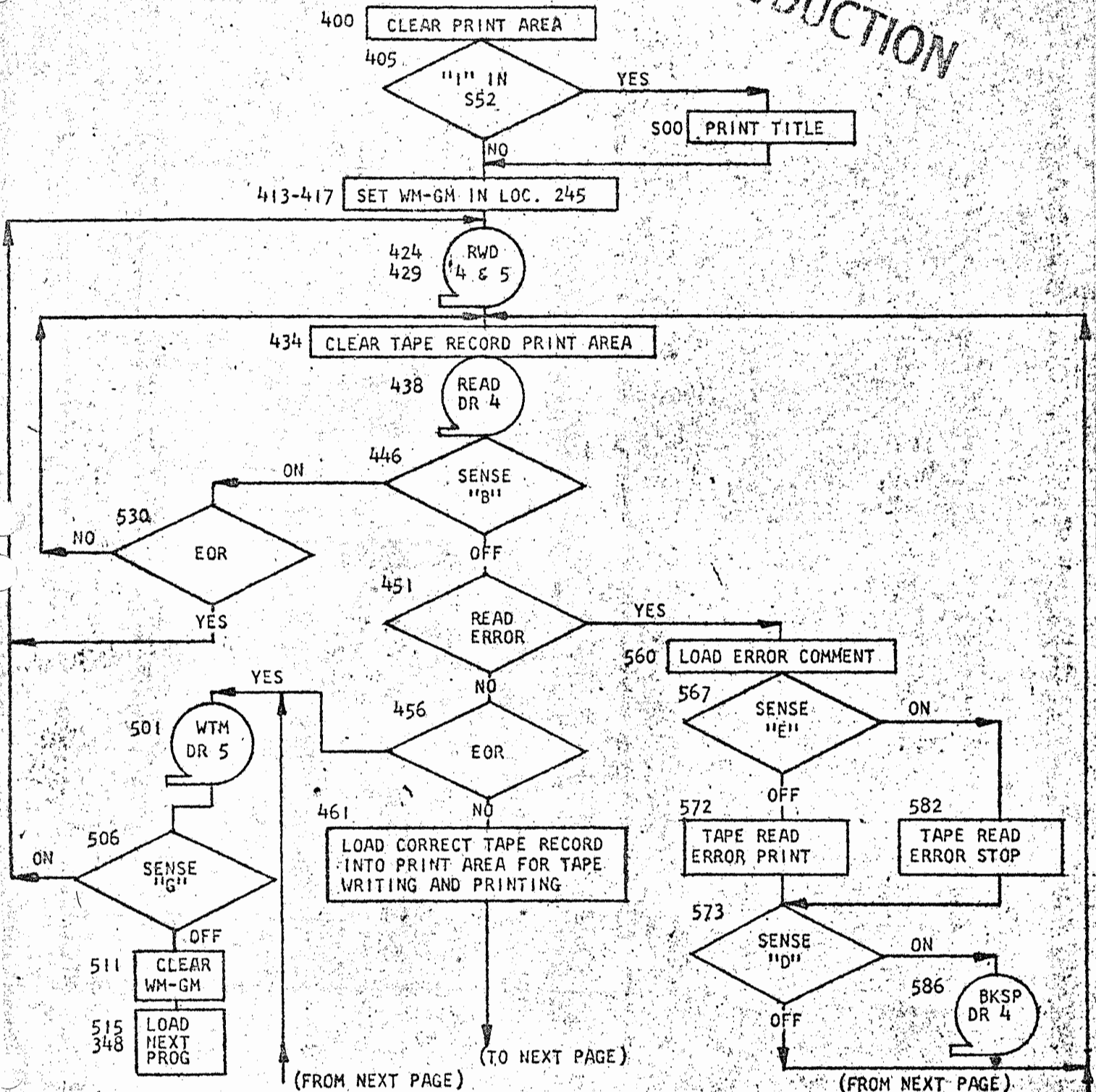
JJJJJJJ111JJJJ111JJ  
 KKKKKKKKKKKKKKKKKKK

TAPE DR 4 READ ERROR  
 TAPE DR 5 WRITE ERROR

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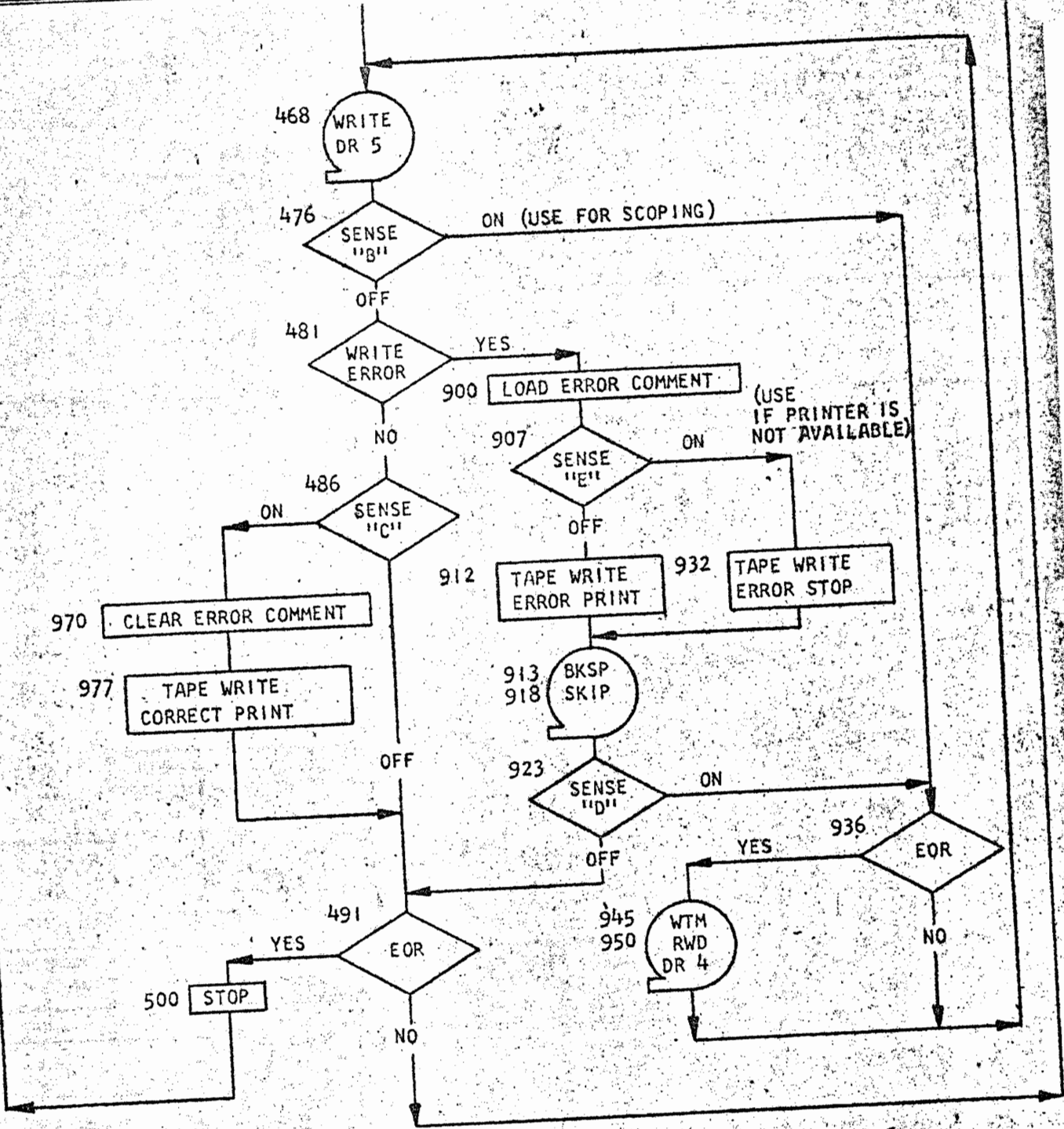
REPRODUCTION

TAPE TO TAPE  
 FLOW CHART



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# DIAGNOSTIC FUNCTION TEST REPRODUCTION



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DIAGNOSTIC FUNCTION TEST

REPRODUCTION

PROGRAM LISTING FOR USE WITH FLOW CHART

TAPE TO TAPE

5020C

INSTRUCTION ADDRESS	OP	A	B	REMARKS
377	377	B	400 S671	USE WHEN TESTS ARE RUN FROM TAPE
385	385	B	588	''
400	400	/	332	START TEST
404	404	/		''
405	405	B	500 S521	BR TO TITLE PRINT ROUTINE IF 1 IN S52
413	413	N		
417	417	L	S50 245	SET GROUP MARK IN 245
424	424	U	%U4 R	REWIND DRIVE 4
429	429	U	%U5 R	REWIND DRIVE 5
434	434	/	244	CLEAR TAPE READ AND TAPE WRITE AREAS
438	438	L	%U4 201R	READ TAPE RECORD INTO LOCS. 201-220
446	446	B	530 B	B ON TO SCOPE SS
451	451	B	560 L	BRANCH IF TAPE READ ERROR
456	456	B	501 K	BRANCH IF END OF REEL
461	461	L	220 244	LOAD CORRECT TAPE RECORD INTO 225-244
468	468	L	%U5 225W	WRITE CORRECT TAPE RECORDS FROM 225-244
476	476	B	936 B	B ON TO SCOPE SS
481	481	B	900 L	BRANCH ON TAPE WRITE ERROR
486	486	B	970 C	C ON TO CORRECT PRINT ROUTINE SS
491	491	B	500 K	BRANCH IF END OF REEL
496	496	B	434	BRANCH
500	500	.		END OF TAPE DRIVE 5
501	501	U	%U5 M	WRITE TAPE MARK DRIVE 5
506	506	B	424 G	G ON TO REPEAT TEST SS
511	511	/	299	CLEAR WORD AND GROUP MARKS
515	515	B	348	BRANCH TO PROGRAM CHAINING ROUTINE
530	530	B	424 K	BRANCH IF END OF REEL
535	535	B	434	BRANCH
560	560	L	#69 285	BEGIN TAPE READ ERROR PRINT ROUTINE
567	567	B	582 E	E ON TO ERROR STOP
572	572	2		TAPE READ ERROR PRINT
573	573	B	586 D	D ON TO REPEAT RECORD SS
578	578	B	434	D OFF READ NEXT TAPE RECORD
582	582	.	573	TAPE READ ERROR STOP
586	586	U	%U4 B	BACKSPACE READ DRIVE
591	591	B	434	BRANCH TO READ TAPE
900	900	L	#89 285	BEGIN TAPE WRITE ERROR PRINT ROUTINE
907	907	B	932 E	E ON TO ERROR STOP
912	912	2		TAPE WRITE ERROR PRINT
913	913	U	%U5 B	BACKSPACE
918	918	U	%U5 E	SKIP
923	923	B	936 D	D ON TO REPEAT RECORD SS
928	928	B	491	D OFF ADVANCE TO NEXT RECORD

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1401 DATA PROCESSING SYSTEM  
DIAGNOSTIC FUNCTION TEST

PART NO. 451452  
SHEET 6 OF 7  
BLOCK NO. 5020C

REPRODUCTION

932 932 . 913  
936 936 B 945 K  
941 941 B 468  
945 945 U %U5 M  
950 950 U %U5 R  
955 955 B 468  
970 970 M #00 285  
977 977 2 491  
981 981  
1050 #50 T APE DR 4 READ ERROR  
1070 #70 T APE DR5 WRITE ERROR  
1120 /20 R ECO RD READ FROM DR4  
1140 /40 SHOULD BE WRITTE  
1160 /60 N ON DR5  
1180 /80  
1250 S50

TAPE WRITE ERROR STOP  
BRANCH ON END OF REEL  
BRANCH TO WRITE TAPE  
WRITE TAPE MARK DRIVE 5  
REWIND TAPE DRIVE 5  
BRANCH  
BEGIN CORRECT PRINT ROUTINE  
CORRECT PRINT  
WORD MARK

BLANKS  
GROUP MARK IN 1250

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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		

,008015,022029,033033N	1001	TAPE TO TAPE	5020C 0A
,008015,022029,033033N	1001	SET WORDMARK CARD	5020C 02
L067367,340344,348349,357361,1001,008012,00110011B361080AB348/340080			5020C 03
L069404,377385,400404,4054051001	B400S671BS88	/332/	5020C 04
L065437,413487,424429,4344381001BS00S521N	LS50245U%U4RU%U5R/244		5020C 05
L070475,446451,456461,4684761001L%U4201RB53088560LB501KL220244L%U5225W			5020C 06
L062505,481486,491496,5005011001B93688900LB970CB500KB434.U%U5M			5020C 07
L072545,511515,530535,5355351001B424G/299B348	B424KB434		5020C 08
L064577=546546,560567,5725731001	L+69285B582E2B586D		5020C 09
L072617,582586,591591,5915911001B434.573U%U4BB434			5020C 10
L064931,907912,913918,9239281001L+89285B932E2U%USBU%USEB936DB491			5020C 11
L070969,936941,945950,9559701001.913B94SKB468U%USMU%USRB468			5020C 12
L072#09,977981,981981,9819811001M#002852491			5020C 13
L072#89,#70#70,#70#70,#70#701001TAPE DR 4 READ ERROR	TAPE DR5 WRITE ERROR		5020C 14
L072/29#90#90,/20/20,/20/201001		RECORD REA	5020C 15
L072/69#70/70,/40/60,/60/601001D FROM DR4	SHOULD BE WRITTEN ON DR5		5020C 16
L067S04#70/70,/80S00,S01S051001	2,049		5020C 17
L063S35,S12S13,S17S18,S25S291001L0772772/2772#40/60#80L/89270			5020C 18
L047S50,S37S41,S45S50,S50S5010012/2702413	G		5020C 19
	M		
/333080N		CLEAR WORDMARK CARD	5020C 20
,019027,031,0380428031T98GB400L0463528W04BS88		TAPE TO TAPE	5020C 21

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