NO. 2125682
SHEET 0
OF 20

DIAGNOSTIC TEST

TITLE 1622 CARD INPUT/OUTPUT DIAGNOSTIC TEST (INTERLEAVING) - 1003
MACH.TYPE 1620 BY JHM APPR. G.I.A. DATE 4-11-62

ENGINEERING CHANGE HISTORY

E/C NO.	DATE	SHEETS AFFECTED
404674	11-4-61	1-20
404675	4-11-62	1,2,3,4,5,6,11,12,13, 16,17,18

E/C NO.	404674	404675					
DATE	11-4-61	4-11-62					

A. SCOPE

This is a Reliability Test Program for the 1620 - 1622 System. Cards are punched with a ripple pattern using alpha-numeric characters which are read back in and compared to stored data.

Basically, the program operates in the following sequence:

a) Check for Any Data Checks.
b) Read a card.
c) Check 1st character.
d) Compare card information.
e) Same as (a) through (d) above.
f) Punch card.
g) Loops back to (a).

There is a delay routine (cho-cho) designed to create every possible timing condition between reading and punching. The delay starts at approximately ten seconds between cards and progresses to zero delay (maximum reading and punching speed). One complete cycle of the delay (maximum delay to zero and back to maximum) takes approximately 30 minutes.

B. OPERATING INSTRUCTIONS

1. Reset 1620.
2. Place Program Deck in Card Reader Hopper.
3. Push "Load" P. B. on 1622.
4. 1620 will HALT after typing out Heading.
5. a. Set Program SWS for desired options.
   b. Ready the punch.
      (Note: To punch the initial ripple deck, place SW 1 ON and Start. After punching about 200 cards, press the SIE Key. Insert 4900652, Release, place SW 1 OFF and proceed.)
   c. Place punched ripple cards in card reader hopper. Ready the reader.
6. Push START on 1620 to begin Program.
7. Place punched cards in reader hopper to be read and checked.

Switch Settings (suggested)

Data Check = Program
I/O Check = Program
Arith Check = Must be Program

PN 2125632
EC 404675

SW 1 = OFF (After punching ripple deck)
SW 2 = OFF
SW 3 = OFF
SW 4 = OFF

SW 1 OFF Read and punch
ON Punch only

SW 2 OFF Read and Punch
ON Read only

SW 3 OFF Errors typed out
ON Bypass ETO (for trouble shooting)

SW 4 OFF Delay changes
ON Delay remains constant

Error Type-Outs (ETOs):

There are several Data Checks made throughout the program. When an error has been detected, a type-out (if program SW 3 is OFF) will give the following information about the error:

a) The memory location of the instruction that detected the error.

b) Where possible the correct information will be typed out followed by the information containing the error.

```
 0724  READ CHECK
00736  WRITE CHECK
00748  O/F INDICATOR ON
00760  MBR - E CHECK
00772  MBR - O CHECK
00784  MAR CHECK
```

Error Type-Outs (ETOs) (cont'd)

The above type-outs are due to a data check condition at the start of the read routine All of these indicators should be OFF at the start of each Program pass.

00976 READ CHECK 1ST READ
01012 " " 2ND "
01048 " " 3RD "

These ETOs are due to a read check when the 1622 transfers the card information to the 1620. Three attempts are made to transfer each card if necessary. Check 1620 I/O translation circuit and check buffer (1622) for correct data.

01096 MBR - E CHECK AFTER CARD READ
01108 MBR - O CHECK AFTER CARD READ

These ETOs are due to an MBR check and indicate trouble in the I/O translator or memory circuit (1620). The checks are made directly after a card is read by the 1620.

01120 READ-IN AREA O/F

The 1620 received more than 80 alpha characters from the 1622.

01204 NO 1ST COMPARE

The first character in the card Read-In was not one of the 48 alpha characters used by this program. Check to see if card contains correct data.

01360 MBR - E CHECK AFTER 1ST COMPARE
01372 MBR - O CHECK AFTER 1ST COMPARE

01564 MBR - E CK BEFORE COMPARE.
01576 MBR - O CK BEFORE COMPARE.

Due to data check while performing 1st compare routine. Check 1620 for correct internal transfer operation.

01624 E/Z TGR OFF COMPARE DATA FOLLOWS.

The correct card data will be typed from STORED DATA followed by the data read-in from the card.

This ETO is due to the information read-in not corresponding to the stored data. Check card and buffer (1622) for correct data.

01636 MBR - E CHECK AFTER COMPARE, DATA FOLLOWS.
01648 MBR - O CHECK AFTER COMPARE,DATA FOLLOWS.

Data typed-out is same as for E/Z TGR OFF (above). Caused during card compare routine by internal transfer operation (1620)

Error Type-Outs (ETOs) (cont'd)

01960 WRITE CHECK AFTER PUNCH.

Checked after each punch routine, Check punched card for correct data.

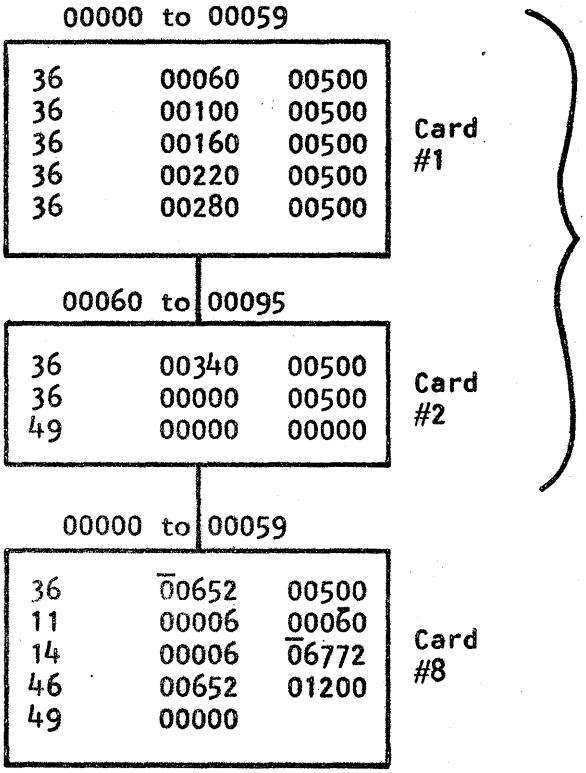
The complete normal typeout information will be as follows:

```
1622 CARD READER-PUNCH DELAY 1003.
 SW 1 ON= PUNCH ONLY.      SW 2 ON= READ AND COMPARE ONLY.
 SW 3 ON= BY-PASS ETOS.    SW 4  ON= STOP CHO-CHO DELAY CHANGE.
```

MEMORY ADDRESS ALLOCATIONS

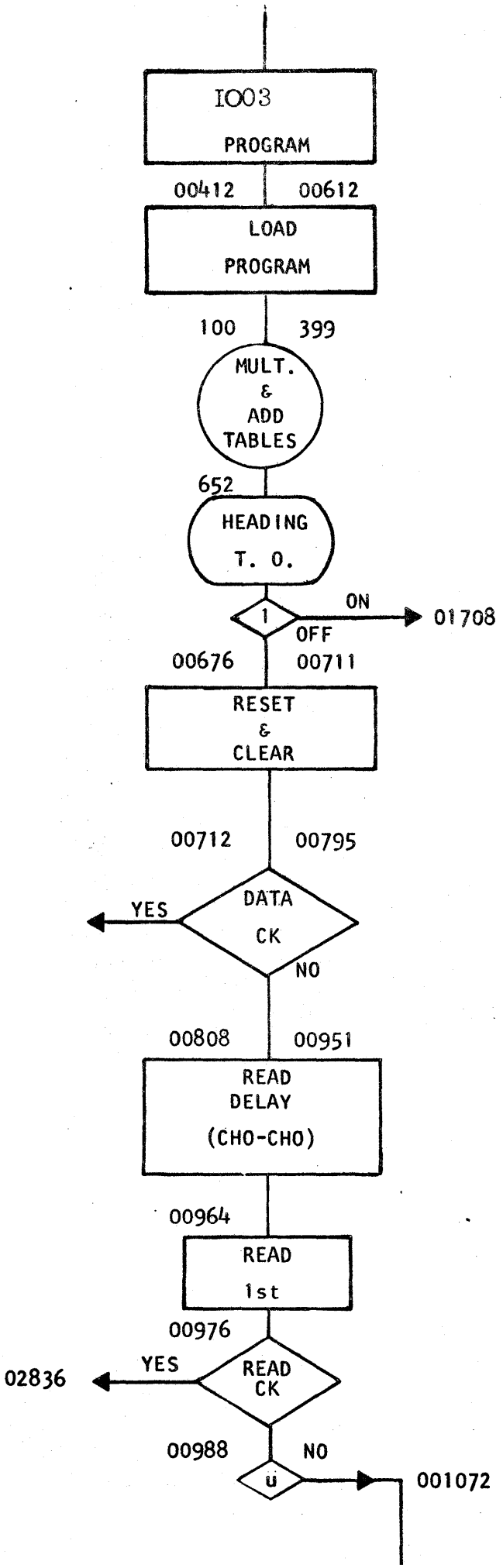
00000	00096	Load Card and Branch Instructions
100	399	Math. Tables
412	591	Load Program
652	2380	Main Program
2512	3807	**ETO Routines**
3809	5065	**ETO Data**
5101	5259	Card Counter T. O. Data
5261	5599	**Heading TO Data**
5605	5925	Card Compare Data
5935	6165	Read-In Clear Data
6175	6405	1st Character Compare Data
6415	6735	Compare Working Area
6745	6975	Read-In Area

1003 LOAD PROGRAM



First and second Load Cards load the math tables and the Program Load Card. (Cards 3 through 7 contain the math tables.)

Eighth Load Card contains instructions for loading core storage.



LOAD FROM CARDS

LOAD PROGRAM
LOAD MATH TABLES &
PROGRAM

MATH TABLES LOADED

HEADING TYPE-OUT

PUNCH ONLY - SW #1 ON

RESET & CLEAR:
COMPARE WORKING AREA
READ-IN AREA
FIRST COMPARE ADDRESS

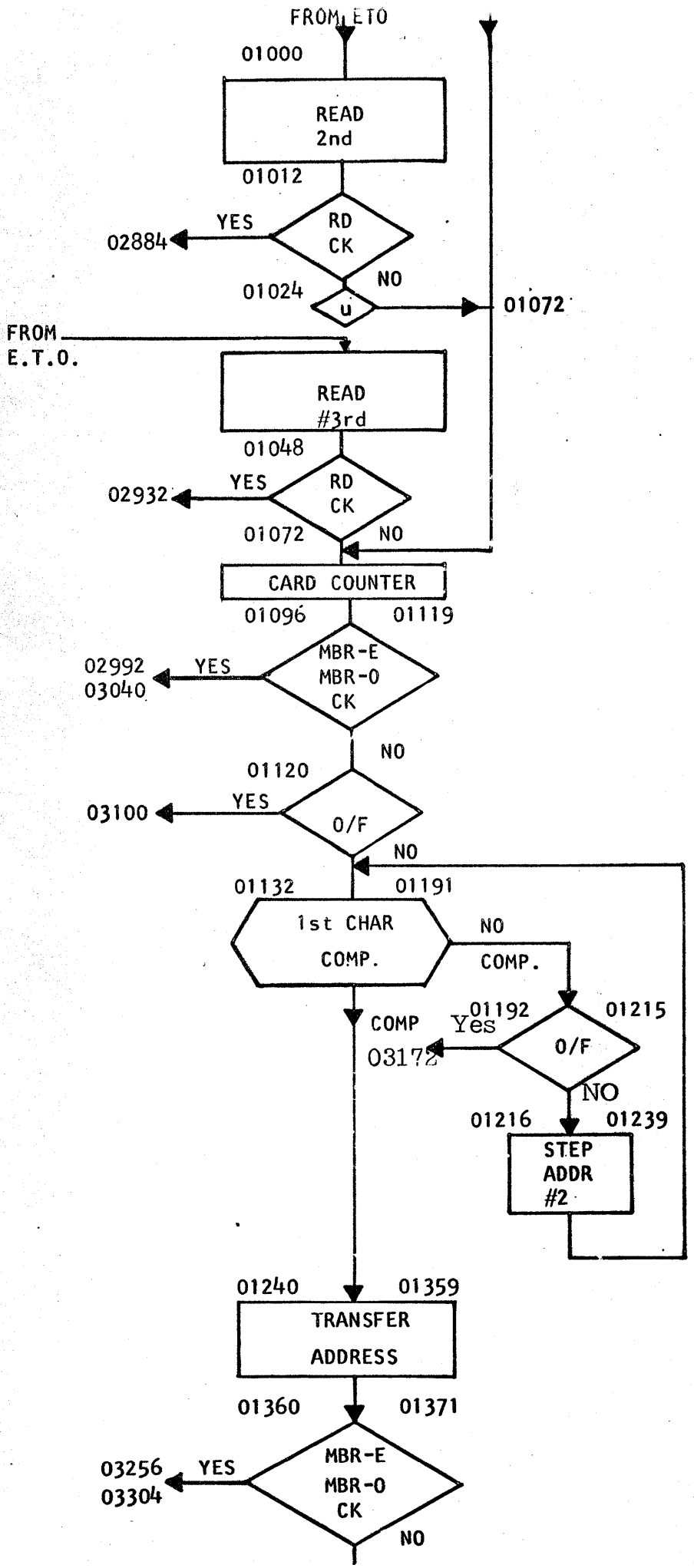
DATA CK.
RD CK, WRT, O/F, MBR-E,
MBR-O, MAR CKS.

READ DELAY
(CHO-CHO)
CONTROLLED BY SW #4

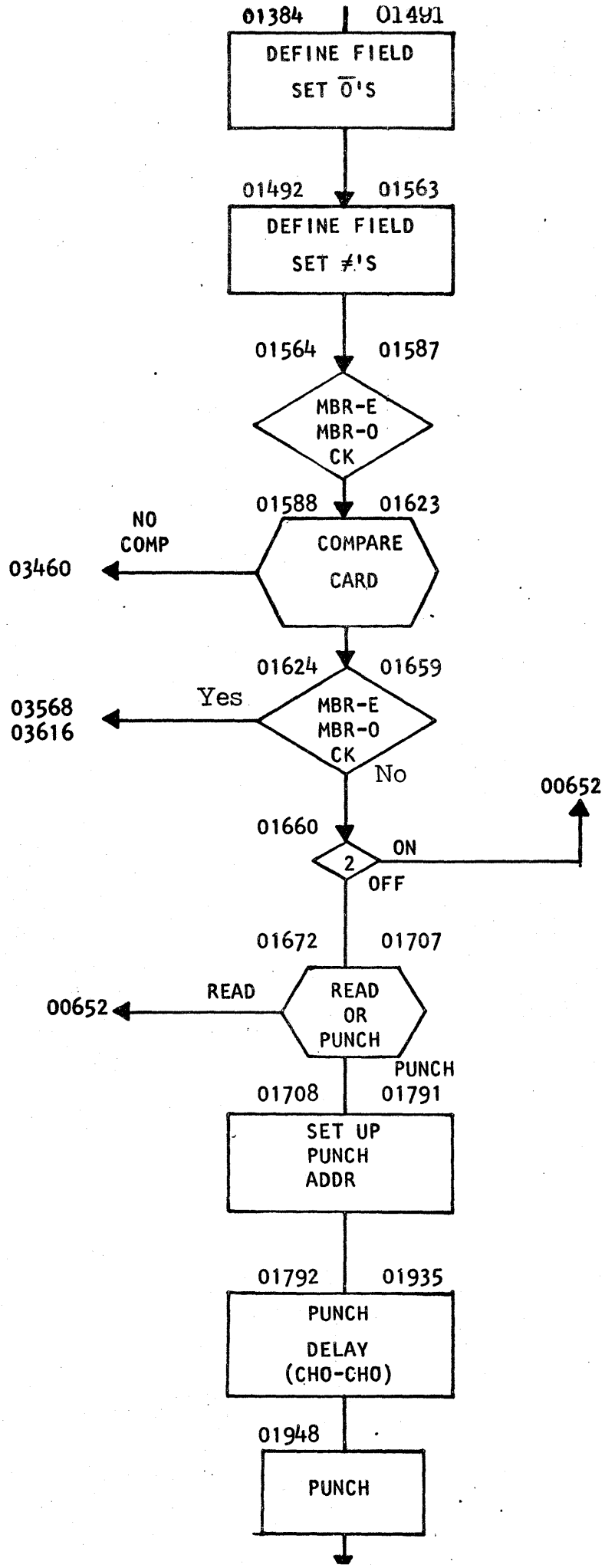
READ A CARD

DATA CK.

BY-PASS 2nd & 3rd READS.



PN 2125682
EC 404674



SET $\overline{0}$'S IN COMPARE WORKING AREA TO DEFINE FIELD FOR "CARD COMPARE"

SET ≠'S IN COMPARE WORKING AREA TO DEFINE FIELD FOR "CARD COMPARE"

DATA CK.

COMPARE CARD READ WITH KNOWN DATA IN MEMORY

DATA CK

READ ONLY (SW #2 ON)

DETERMINE IF READ OR PUNCH OPERATION IS NEXT

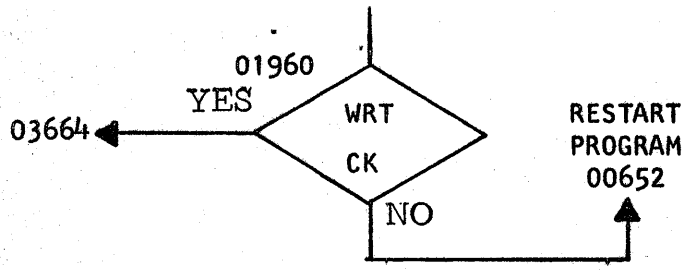
STEP PUNCH ADDRESS TO PRODUCE RIPPLE DECK

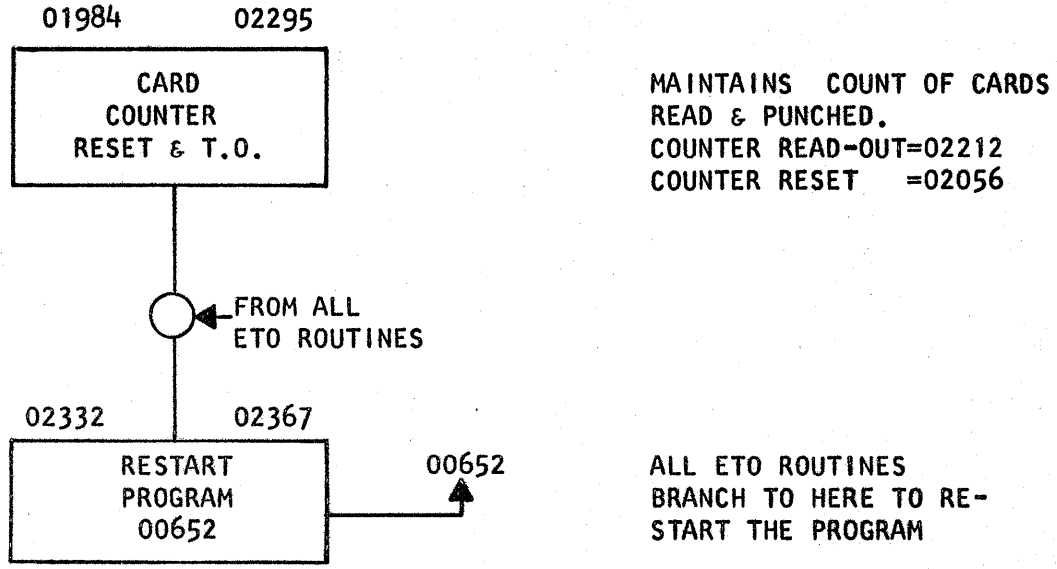
PUNCH DELAY

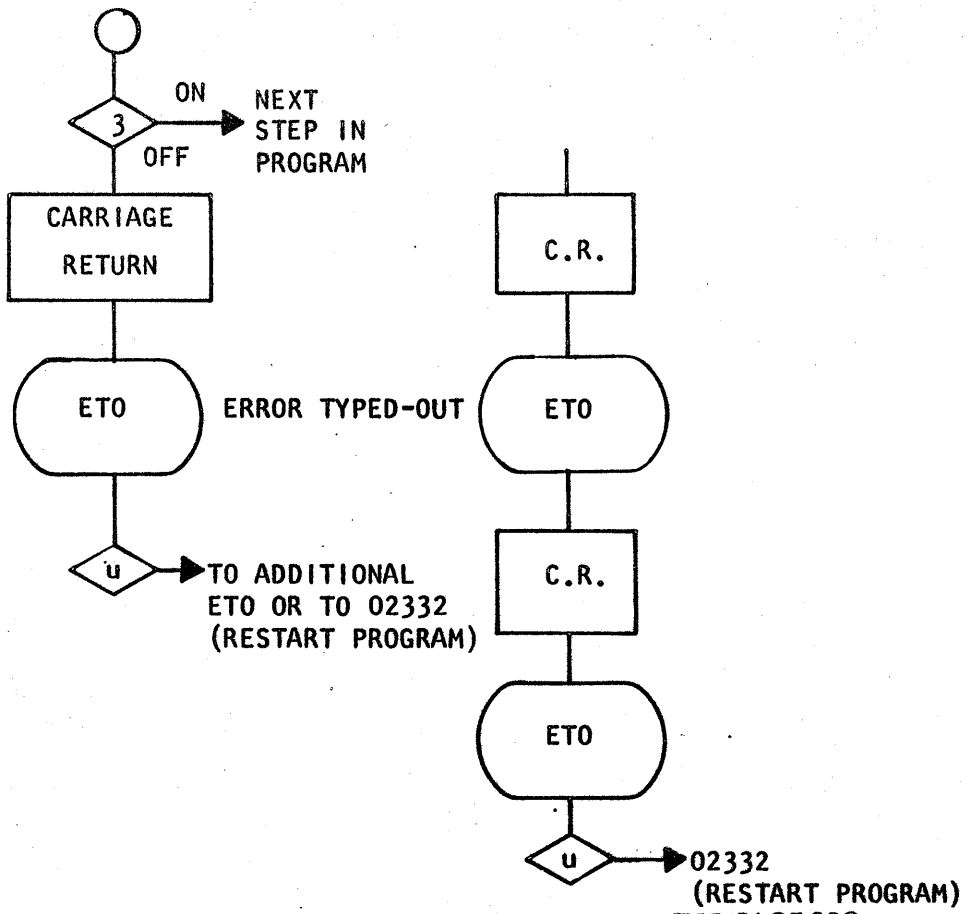
(CONTROLLED BY SW #4)

PUNCH RIPPLE DECK FROM DATA STORED IN MEMORY

PN 2125682
EC 404674


01960
YES
03664
WRT
CK
NO
RESTART
PROGRAM
00652
DATA CK.


01984
02295
CARD
COUNTER
RESET & T.O.
MAINTAINS COUNT OF CARDS
READ & PUNCHED.
COUNTER READ-OUT=02212
COUNTER RESET =02056
FROM ALL
ETO ROUTINES
02332
02367
RESTART
PROGRAM
00652
00652
ALL ETO ROUTINES
BRANCH TO HERE TO RE-
START THE PROGRAM


ON
3
OFF
NEXT
STEP IN
PROGRAM
CARRIAGE
RETURN
ETO
ERROR TYPED-OUT
u
TO ADDITIONAL
ETO OR TO 02332
(RESTART PROGRAM)
C.R.
ETO
C.R.
ETO
u
02332
(RESTART PROGRAM)

00652	49	03712	00000	NOP	
00664	46	01708	00100	BI	CHECK SW #1
00676	26	06735	05925	TF	RESET COMPARE AREA
00688	26	06975	06165	TF	CLEAR READ-IN AREA
00700	16	01167	06175	TFM	RESET FIRST COMP. ADDRESS
00712	41	00000	00000	NOP	
00724	46	02512	00600	BI	READ CHK
00736	46	02572	00700	BI	WR CHK
00748	46	02620	01400	BI	OVERFLOW
00760	46	02668	01600	BI	MBR-EVEN
00772	46	02728	01700	BI	MBR-ODD
00784	46	02776	00800	BI	MAR
00796	41	00000	00000	NOP	
00808	41	00952	00000	NOP	
00820	11	00949	00101	AM	ADD TO DELAY COUNTER
00832	46	00856	01400	BI	OVERFLOW?
00844	49	00820	00000	B	
00856	16	00949	00000	TFM	RESET DELAY COUNTER
00868	46	00952	00400	BI	CHECK SW #4
00880	11	00831	00002	AM	SHORTEN DELAY
00892	46	00916	01400	BI	OVERFLOW?
00904	49	00952	00000	B	
00916	16	00831	00101	TFM	RESTORE LONG DELAY
00928	49	00952	00000	B	
00940	41	00000	00000	NOP	
00952	41	00000	00000	NOP	
00964	37	06745	00500	RA	READ A CARD
00976	46	02836	00600	BI	READ CHK?
00988	49	01072	00000	B	BYPASS 2nd & 3rd tries
01000	37	06745	00500	RA	READ 2nd ATTEMPT
01012	46	02884	00600	BI	READ CHK?
01024	49	01072	00000	B	BYPASS 3rd try
01036	37	06745	00500	RA	READ 3rd ATTEMPT
01048	46	02932	00600	BI	READ CHK?
01060	49	01072	00000	B	
01072	11	02030	00001	AM	STEP CARD RD COUNTER
01084	43	02044	02023	BD	
01096	46	02992	01600	BI	MBR-EVEN CHK?
01108	46	03040	01700	BI	MBR-ODD CHK?
01120	45	03100	06909	BNR	
01132	41	00000	00000	NOP	
01144	32	06744	00000	SF	
01156	24	06745	06175	C	COMPARE 1st CHARACTER
01168	47	01192	01200	BNI	
01180	49	01240	00000	B	
01192	14	01167	06275	CM	
01204	46	03172	01200	BI	
01216	11	01167	00002	AM	STEP COMPARE ADDRESS
01228	49	01156	00000	B	
01240	41	00000	00000	NOP	
01252	25	01320	01167	TD	TRANSFER ADDRESS
01264	25	01319	01166	TD	
01276	25	01318	01165	TD	
01288	11	01320	00240	AM	STEP TO COMPARE DATA ADD.
01300	49	01336	00000	B	

01312	41	00060	00000	NOP	
01324	41	00060	00000	NOP	
01336	26	01332	01320	TF	
01348	26	03514	01320	TF	
01360	46	03256	01600	BI	MBR-EVEN CHK?
01372	46	03304	01700	BI	MBR-ODD CHK?
01384	41	00000	00000	NOP	
01396	12	01320	00001	SM	
01408	26	01426	01320	TF	
01420	32	00000	00000	SF	
01432	12	01320	00001	SM	
01444	26	01462	01320	TF	
01456	32	00000	00000	SF	
01468	41	00000	00000	NOP	
01480	11	01332	00159	AM	
01492	26	01510	01332	TF	
01504	15	00000	0000≠	TDM	
01516	11	01332	00001	AM	
01528	26	01546	01332	TF	
01540	15	00000	0000≠	TDM	
01552	12	01332	00002	SM	
01564	46	03352	01600	BI	
01576	46	03400	01700	BI	
01588	41	00000	00000	NOP	
01600	26	01618	01332	TF	
01612	24	06611	06903	C	COMPARE
01624	47	03460	01200	BNI	
01636	46	03563	01600	BI	
01648	46	03616	01700	BI	
01660	46	00652	00200	BI	CHECK SW #2
01672	11	01706	00050	AM	READ-READ-PUNCH COUNTER
01684	43	01703	01704	BD	
01696	49	00652	00000	B	
01708	41	00000	00000	NOP	
01720	11	01954	00002	AM	STEP PUNCH ADDRESS
01732	14	01954	05705	CM	
01744	46	01768	01200	BI	
01756	49	01780	00000	B	
01768	16	01954	05605	TFM	RESTORE PUNCH ADDRESS
01780	16	01707	00000	TFM	RESET RD-RD-PCH COUNTER
01792	41	01936	00000	NOP	
01804	11	01933	00101	AM	ADD TO DELAY COUNTER
01816	46	01840	01400	BI	OVERFLOW?
01828	49	91804	00000	B	
01840	16	01933	00000	TFM	RESET DELAY COUNTER
01852	46	01936	00400	BI	CHECK SW #4
01864	11	01815	00004	AM	SHORTEN DELAY
01876	46	01900	01400	BI	OVERFLOW?
01888	49	01936	00000	B	
01900	16	01815	00101	TFM	RESTORE LONG DELAY
01912	49	01936	00000	B	
01924	41	00000	00000	NOP	
01936	41	00000	00000	NOP	
01948	39	05605	00400	WA	PUNCH A CARD
01960	46	03664	00700	BI	WRITE CHK?
01972	11	02042	00001	AM	STEP CARD PCH COUNTER
01984	43	02044	02035	BD	

01996	41	00000	00000	NOP
02008	49	00652	00000	B
02020	41	00000	0000≠	NOP
02032	41	00000	0000≠	NOP
02044	41	00000	00000	NOP
02056	34	00000	00102	K
02068	39	05101	00100	WA
02080	38	02023	00100	WN
02092	34	00000	00102	K
02104	39	05151	00100	WA
02116	38	02035	00100	WN
02128	34	00000	00102	K
02140	39	05201	00100	WA
02152	41	00000	00000	NOP
02164	26	02030	02210	TF
02176	26	02042	02210	TF
02188	49	02212	00000	B
02200	41	00000	0000≠	NOP
02212	41	00000	00000	NOP
02224	34	00000	00102	K
02236	39	05101	00100	WA
02248	38	02023	00100	WN
02260	34	00000	00102	K
02272	39	05151	00100	WA
02284	38	02035	00100	WN
02296	41	00000	00000	NOP
02308	41	00000	00000	NOP
02320	41	00000	00000	NOP
02332	49	02356	00100	B
02344	48	00000	00000	H
02356	49	00652	00000	B
02368	41	00000	00000	NOP

ERROR ROUTINES

02512	46	00736	00300	BI
02524	34	00000	00102	K
02536	39	03809	00100	WA
02548	49	02332	00000	B
02560	41	00000	00000	NOP
02572	46	00748	00300	BI
02584	34	00000	00102	K
02596	39	03849	00100	WA
02608	49	02332	00000	B
02620	46	00760	00300	BI
02632	34	00000	00102	K
02644	39	03891	00100	WA
02656	49	00000	00000	B
02668	46	00772	00300	BI
02680	34	00000	00102	K
02692	39	03943	00100	WA
02704	49	02332	00000	B

02716	41	00000	00000	NOP
02728	46	00784	00300	BI
02740	34	00000	00102	K
02752	39	03985	00100	WA
02764	49	02332	00000	B
02776	46	00796	00300	BI
02788	34	00000	00102	K
02800	39	04027	00100	WA
02812	49	02332	00000	B
02824	41	00000	00000	NOP
02836	46	01000	00300	BI
02848	34	00000	00102	K
02860	39	04065	00100	WA
02872	49	02332	00000	B
02884	46	01036	00300	BI
02896	34	00000	00102	K
02908	39	04117	00100	WA
02920	49	02332	00000	B
02932	46	01072	00300	BI
02944	34	00000	00102	K
02956	39	04169	00100	WA
02968	49	02332	00000	B
02980	41	00000	00000	NOP
02992	46	01108	00300	BI
03004	34	00000	00102	K
03016	39	04221	00100	WA
03028	49	02332	00000	B
03040	46	01120	00300	BI
03052	34	00000	00102	K
03064	39	04289	00100	WA
03076	49	02332	00000	B
03088	41	00000	00000	NOP
03100	46	01132	00300	BI
03112	34	00000	00102	K
03124	39	04357	00100	WA
03136	34	00000	00102	K
03148	39	06745	00100	WA
03160	49	02332	00000	B
03172	46	01300	00300	BI
03184	34	00000	00102	K
03196	39	04409	00100	WA
03208	34	00000	00102	K
03220	39	06745	00100	WA
03232	49	02332	00000	B
03244	41	00000	00000	NOP
03256	46	01372	00300	BI
03268	34	00000	00102	K
03280	39	04457	00100	WA
03292	49	02332	00000	B
03304	46	01384	00300	BI
03316	34	00000	00102	K

03328	39	04529	00100	WA
03340	49	02332	00000	B
03352	46	01576	00300	BI
03364	34	00000	00102	K
03376	39	04601	00100	WA
03388	49	02332	00000	B
03400	46	01588	00300	BI
03412	34	00000	00102	K
03424	39	04667	00100	WA
03436	49	02332	00000	B
03448	41	00000	00000	NOP
03460	46	01636	00300	BI
03472	34	00000	00102	K
03484	39	04733	00100	WA
03496	34	00000	00102	K
03508	39	06453	00100	WA
03520	34	00000	00102	K
03532	39	06745	00100	WA
03544	49	02332	00000	B
03556	41	00000	00000	NOP
03568	46	01648	00300	BI
03580	34	00000	00102	K
03592	39	04819	00100	WA
03604	49	03496	00000	B
03616	46	01660	00300	BI
03628	34	00000	00102	K
03640	39	04913	00100	WA
03652	49	03496	00000	B
03664	46	01972	00300	BI
03676	34	00000	00102	K
03688	39	05009	00100	WA
03700	49	02332	00000	B
03712	15	00653	00001	TDM
03724	34	00000	00102	K
03736	39	05259	00100	WA
03748	34	00000	00102	K
03760	39	05343	00100	WA
03772	34	00000	00102	K
03784	39	05459	00100	WA
03796	49	02344	00000	B

ERROR TYPEOUT DATA

03808	00	70777	27400	0724
03820	00	59454	14400	READ
03832	43	48454	3520≠	CHECK≠
03844	0≠	00707	07773	≠0073
03856	76	00006	65949	6WRI
03868	63	45004	34845	TE CHE
03880	43	520≠0	≠0070	CK≠≠0
03892	70	77747	80000	0748
03904	56	21460	04955	O/F IN
03916	44	49434	16356	DICAT O
03928	59	00565	50≠0≠	R ON≠≠
03940	00	70707	77670	0076 0
03952	00	00544	25920	MBR-
03964	45	00434	84543	ECHEC
03976	52	0≠0≠0	07070	K≠≠0 0
03988	77	77720	00054	772M
04000	42	59205	60043	BR-OC
04012	48	45435	20≠0≠	HECK≠≠
04024	00	70707	77874	0078 4
04036	00	00544	15900	MAR
04048	43	48454	3520≠	CHECK≠
04060	0≠	00707	07977	≠0097
04072	76	00005	94541	6RE A
04084	44	00435	20071	DCK 1
04096	62	63005	94541	ST RE A
04108	44	0≠0≠0	07071	D≠≠0 1
04120	70	71720	00059	012R
04132	45	41440	04352	EAD CK
04144	00	72554	40059	2ND R
04156	45	41440	≠0≠00	EAD≠≠
04168	70	71707	47800	01048
04180	00	59454	14400	READ
04192	43	52007	35944	CK 3RD
04204	00	59454	1440≠	READ≠
04216	0≠	00707	17079	≠0109
04228	76	00005	44259	6MBR
04240	20	45004	35200	-ECK
04252	41	46634	55900	AFTER
04264	43	41594	40059	CARD R
04276	45	41440	≠0≠00	EAD≠≠
04288	70	71717	07800	01108
04300	00	54425	92056	MBR-O
04312	00	43520	04146	CK AF
04324	63	45590	04341	TER CA
04336	59	44005	94541	RD RE A
04348	44	0≠0≠0	07071	D≠≠0 1
04360	71	72700	00059	120R
04372	45	41442	04955	EAD-IN
04384	00	41594	54100	ARE A
04396	56	21460	≠0≠00	O/F≠≠
04408	70	71727	07400	01204
04420	00	55560	07162	N O 1S
04432	63	00435	65457	T COMP
04444	41	59450	30≠0≠	ARE ≠≠
04456	70	71737	67000	01360
04468	00	54425	92045	MBR-E

04480	00	43520	04146	C K A F
04492	63	45590	07162	T E R 1 S
04504	63	00435	65457	T C O M P
04516	41	59450	≠0≠00	A R E ≠ ≠
04528	70	71737	77200	0 1 3 7 2
04540	00	54425	92056	M B R - O
04552	00	43520	04146	C K A F
04564	63	45590	07162	T E R 1 S
04576	63	00435	65457	T C O M P
04588	41	59450	≠0≠00	A R E ≠ ≠
04600	70	71757	67400	0 1 5 6 4
04612	00	54425	92045	M B R - E
04624	00	43520	04245	C K B E
04636	46	56594	50043	F O R E C
04648	56	54574	15945	O M P A R E
04660	03	0≠007	07175	. ≠ 0 1 5
04672	77	76000	05442	7 6 M B
04684	59	20560	04352	R - O C K
04696	00	42454	65659	B E F O R
04708	45	00435	65457	E C O M P
04720	41	59450	30≠00	A R E . ≠
04732	70	71767	27400	0 1 6 2 4
04744	00	45216	90063	E / 2 T
04756	47	59005	64646	G R O F F
04768	23	00435	65457	C O M P
04780	41	59450	04441	A R E D A
04792	63	41004	65653	T A F O L
04804	53	56666	2030≠	L O W S . ≠
04816	00	70717	67376	0 1 6 3 6
04828	00	00544	25920	M B R -
04840	45	00435	20041	E C K A
04852	46	63455	90043	F T E R C
04864	56	54574	15945	O M P A R E
04876	23	00000	04441	, D A
04888	63	41004	65653	T A F O L
04900	53	56666	2030≠	L O W S . ≠
04912	00	70717	67478	0 1 6 4 8
04924	00	00544	25920	M B R -
04936	56	00435	20041	O C K A
04948	46	63455	90043	F T E R C
04960	56	54574	15945	O M P A R E
04972	23	44416	34100	, D A T A
04984	00	46565	35356	F O L L O
04996	66	62030	≠0000	W S . ≠
05008	70	71797	67000	0 1 9 6 0
05020	00	66594	96345	W R I T E
05032	00	43520	04146	C K A F
05044	63	45590	05764	T E R P U
05056	55	43480	30≠	N C H . ≠

PN 2125682
EC 404675

CARD COUNTER TYPEOUT DATA

05068				
05080				
05092			5945	R E
05104	41	44455	90043	A D E R C
05116	41	59440	04356	A R D C O
05128	64	55634	55900	U N T E R
05140	00	33000	≠0057	= ≠ P
05152	64	55434	80043	U N C H C
05164	41	59440	04356	A R D C O
05176	64	55634	55900	U N T E R
05188	00	00330	00≠00	= ≠
05200	43	41594	40043	C A R D C
05212	56	64556	34559	O U N T E R
05224	00	59456	24563	R E S E T
05236	00	63560	06945	T O Z E
05248	59	56030	≠	R O . ≠

HEADING TYPEOUT DATA

			0071	1
05260	76	72720	04341	6 2 2 C A
05272	59	44005	94541	R D R E A
05284	44	45592	05764	D E R - P U
05296	55	43480	04445	N C H D E
05303	53	41680	04956	L A Y I O
05320	70	73030	≠0000	0 3 . ≠
05344	62	66007	10056	S W 1 O
05356	55	33005	76455	N = P U N
05368	43	48005	65553	C H O N L
05380	68	03000	00000	Y .
05392	00	62660	07200	S W 2
05404	56	55330	05945	O N = R E
05416	41	44004	15544	A D A N D
05428	00	43565	45741	C O M P A
05440	59	45005	65553	R E O N L
05452	68	030≠0	06266	Y . ≠ S W
05464	00	73005	65533	3 O N =
05476	00	42682	05741	B Y - P A
05488	62	62004	56356	S S E T O
05500	62	03000	00000	S .
05512	62	66007	40000	S W 4
05524	56	55330	06263	O N = S T
05536	56	57004	34856	O P C H O
05548	20	43485	60044	- C H O D
05560	45	53416	80043	E L A Y C
05572	48	41554	74503	H A N G E .
05584	0≠	0≠0≠0	00000	≠ ≠ ≠

PN 2125682
EC 404675

CARD COMPARE DATA

05596	00	00000	04142	A B
05608	43	44454	64748	C D E F G H
05620	49	51525	35455	I J K L M N
05632	56	57585	96263	O P Q R S T
05644	64	65666	76869	U V W X Y Z
05656	70	71727	37475	0 1 2 3 4 5
05668	76	77787	93424	6 7 8 9 @ (
05680	04	33142	01013	) = * - + $
05692	21	03230	04142	/ . , A B
05704	43	44454	64748	C D E F G H
05716	49	51525	35455	I J K L M N
05728	56	57585	96263	O P Q R S T
05740	64	65666	76869	U V W X Y Z
05752	70	71727	37475	0 1 2 3 4 5
05764	76	77787	93424	6 7 8 9 @ (
05776	04	33142	01013	) = * - + $
05788	21	03230	04142	/ . , A B
05800	43	44454	64748	C D E F G H
05812	49	51525	35455	I J K L M N
05824	56	57585	96263	O P Q R S T
05836	64	65666	76869	U V W X Y Z
05848	70	71727	37475	0 1 2 3 4 5
05860	76	77787	93424	6 7 8 9 @ (
05872	04	33142	01013	) = * - + $
05884	21	03230	04142	/ . , A B
05896	43	44454	64748	C D E F G H
05908	49	51525	35455	I J K L M N
05920	56	570≠≠	≠0000	O P ≠

READ-IN CLEAR DATA

06088	00	00000	00≠0≠	≠ ≠
06100	00	00000	00≠00	≠
06112	00	00000	≠0000	≠
06124	00	000≠0	00000	≠
06136	00	0≠000	00000	≠
06148	0≠	00000	0000≠	≠ ≠
06160	00	000≠0	≠0≠00	≠ ≠ ≠

FIRST CHARACTER COMPARE DATA

06172	00	41424	34445	A B C D E
06184	46	47484	95152	F G H I J K
06196	53	54555	65758	L M N O P Q
06203	59	62636	46566	R S T U V W
06220	67	68697	07172	X Y Z 0 1 2
06232	73	74757	67778	3 4 5 6 7 8
06244	79	34240	43314	9 @ ( ) = *
06256	20	10132	10323	- + $ / . ,
06268	00	41424	34445	A B C D E
06280	46	47484	95152	F G H I J K
06292	53	54555	65758	L M N O P Q
06304	59	62636	46566	R S T U V W
06316	67	68697	07172	X Y Z 0 1 2
06328	73	74757	67778	3 4 5 6 7 8
06340	79	34240	43314	9 @ ( ) = *
06352	20	10132	10323	- + $ / . ,
06364	00	41424	34445	A B C D E
06376	46	47484	95152	F G H I J K
06388	53	54555	65758	L M N O P Q
06400	59	62636	46566	R S T U V W
06412	60			

COMPARE WORKING AREA

		41424	34445	A B C D E
06424	46	47484	95152	F G H I J K
06436	53	54555	65758	L M N O P Q
06448	59	62636	46566	R S T U V W
06460	67	68697	07172	X Y Z 0 1 2
06472	73	74757	67778	3 4 5 6 7 8
06484	79	34240	43314	9 @ ( ) = *
06496	20	10132	10323	- + $ / . ,
06503	00	41424	34445	A B C D E
06520	46	47484	95152	F G H I J K
06532	53	54555	65758	L M N O P Q
06544	59	62636	46566	R S T U V W
06556	67	68697	07172	X Y Z 0 1 2
06568	73	74757	67778	3 4 5 6 7 8
06580	79	34240	43314	9 @ ( ) = *
06592	20	10132	10323	- + $ / . ,
06604	00	41424	34445	A B C D E
06616	46	47484	95152	F G H I J K
06628	53	54555	65758	L M N O P Q
06640	59	62636	46566	R S T U V W
06652	67	68697	07172	X Y Z 0 1 2
06664	73	74757	67778	3 4 5 6 7 8
06676	79	34240	43314	9 @ ( ) = *
06688	20	10132	10323	- + $ / . ,
06700	00	41424	34445	A B C D E
06712	46	47484	95152	F G H I J K
06724	53	54555	6570≠	L M N O P ≠
06736	##	##000	00000	