

9S03 HA & 9S03 LA

HALF SELECT BEAT TEST FOR 737 CORE STORAGES

A. PURPOSE

1. TO INSURE THAT HALF SELECTED CORES WILL RETAIN THEIR ORIGINAL STATE

B. AREA OF MACHINE REQUIRED

1. UNITS           CARD READER, MF, CF.
2. STORAGE LOCATIONS           9S03 H 0000 TO 0274  
  
  AREA TESTED 0200 TO 37777  
  
                                  9S03 L 17520 TO 17771  
  
  AREA TESTED 0000 TO 17577

C. PROGRAM CONTROL

1. DECK           000           9LD02 HIGH BINARY LOADER  
                  001 - 009       9S03 H DIAGNOSTIC  
                  010           TRANSFER CARD TO 00175  
  
                  000           9LD01 LOW BINARY LOADER  
                  001 - 009       9S03 L DIAGNOSTIC  
                  010           TRANSFER CARD TO 17520  
                  011 - 012       BLANK CARDS

3. SENSE SWITCH CONTROL

- A. SWITCH 4 UP - BEAT EACH ADDRESS 20 TIMES
- B. SWITCH 4 DOWN AND 5 UP - BEAT EACH ADDRESS 100 TIMES
- C. SWITCHES 4 AND 5 DOWN - BEAT EACH ADDRESS 500 TIMES
- D. SWITCH 6 DOWN - WILL LOAD NEXT PROGRAM FROM CARD READER.
- E. SWITCH 6 UP - CONTINUOUS REPEAT

D. ERROR STOPS

1. TESTING SIZE OF STORAGE  
    9S03 H - 0226                               9S03 L - 17543

2. WILL NOT RUN ON 32K  
9S03 H - 00226

3. PROGRAM ERROR STOPS  
9S03 H - 0067

9S03 L - 17664

THE NEW BEAT ADDRESS IS IN THE ACCUMULATOR AND IT IS LARGER THAN THE  
SIZE OF STORAGE.

4. ERROR - A HALF SELECTED ADDRESS PICKED UP A BIT  
9S03 H - 0105                                  9S03 L - 17701  
                        0125                                  - 17716

ERROR ADDRESS IN ACCUMULATOR  
BEAT WORD IN MQ

5. ERROR IN BEAT WORD  
9S03 H - 0136                                  9S03 L - 17735  
                        0144                                  - 17743

BEAT WORD IN MQ  
INCORRECT WORD IN ACCUMULATOR

6. FOR ALL ERROR STOPS THE BEAT ADDRESS IS LOCATED IN STORAGE AT  
LOCATIONS 0154 FOR 9S03 H OR 17754 FOR 9S03 L. TO RESTART, PUSH START  
BUTTON.

#### E. COMMENTS

1. THE PROGRAM STORES ZEROS IN EVERY POSITION IN STORAGE EXCLUDING THE  
PROGRAM AREA WHICH CONTAINS THE TEST. EACH ADDRESS IN TURN IS WRITTEN  
WITH A TEST WORD A NUMBER OF TIMES AND THEN 16 ADDRESSES ARE CHECKED TO  
SEE IF THEY STILL RETAIN ZERO. THE 16 ADDRESSES WHICH ARE CHECKED ARE  
THOSE MOST LIKELY TO PICK UP A BIT DURING WRITE TIME. THEY ARE THE CORES  
SHARING THE SAME SELECT LINE AS THE TEST ADDRESS AND ALSO SHARING THE  
SELECT LINES WHICH CONTAIN NOISE FROM THE CORE DRIVERS AT WRITE TIME.  
UNDER SENSE SWITCH CONTROL IT IS POSSIBLE TO BEAT EACH ADDRESS 20, 100,  
OR 500 TIMES.

2. THE SPEED OF THE PROGRAM IS 7 MINUTES PER PASS WHEN RUN WITH SENSE  
SWITCHES 4 AND 5 UP-20 BEATS PER ADDRESS, AND USING THE TEST WORD  
10101010101. THIS TEST WORD WILL CAUSE EVERY CORE TO BE TESTED 6 TIMES  
IN A COMPLETE PASS.

3. THE PROGRAM WAS DESIGNED TO GIVE THE CUSTOMER ENGINEER A CHOICE IN THE  
METHOD OF TESTING THE MACHINE. THE TEST WORD CAN BE CHANGED AND THE  
ROTATION COUNT CAN BE CHANGED TO SATISFY ANY CONDITIONS.

#### EXAMPLE

A. TO TEST EACH CORE ONLY ONE TIME IS A  
COMPLETE PASS USING TEST WORD 010101010101,  
PUT 6 IN LOCATION A9. THIS WILL REQUIRE  
APPROXIMATELY 1-1/2 MINUTES TO MAKE A

COMPLETE PASS.

B. FOR MAXIMUM SPEED, ALTHOUGH MAYBE NOT THE WORST TEST, PUT 1 IN LOCATION A9 AND 377777777777 IN LOCATION A1.

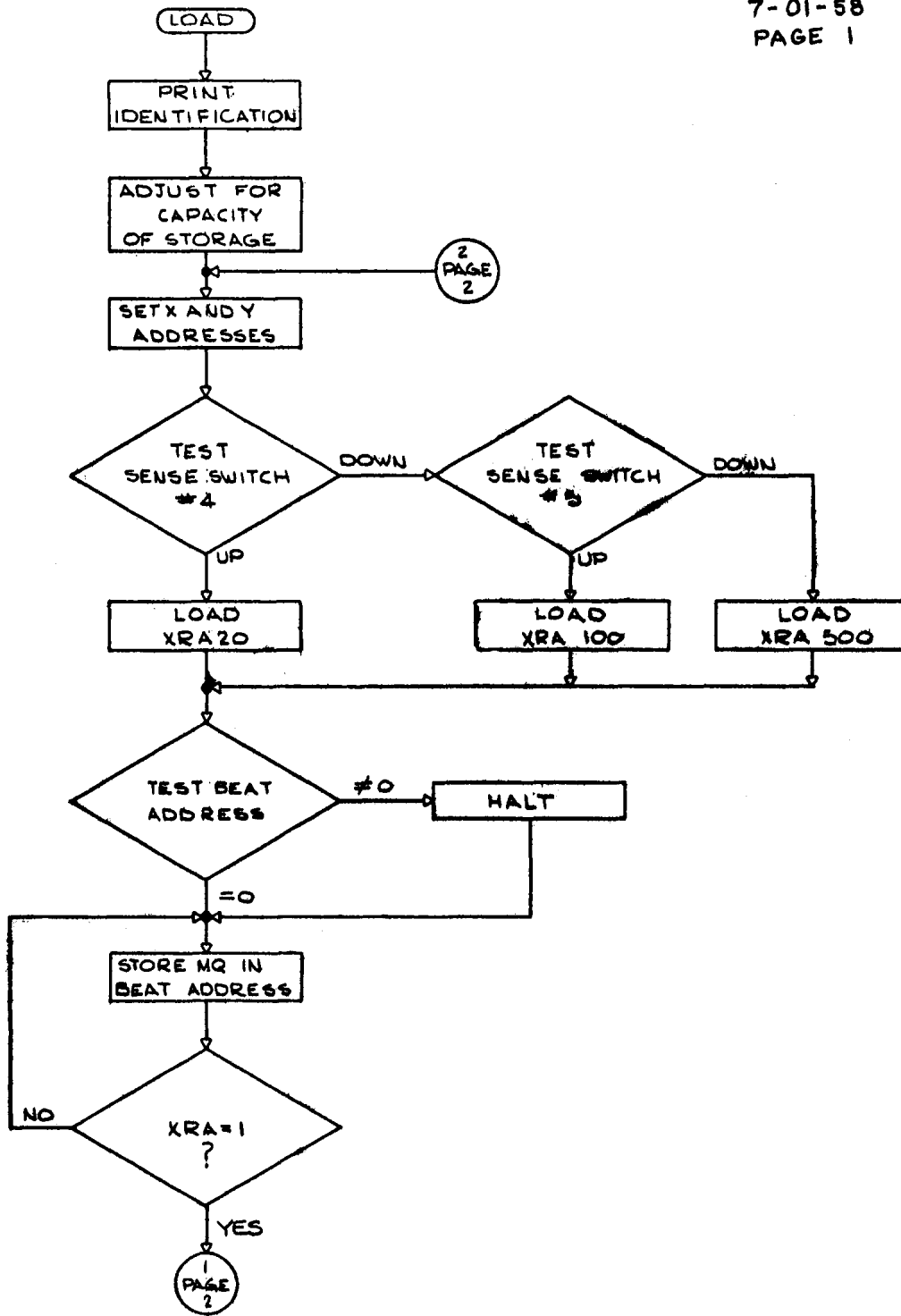
4. THE CONSTANT AT A9 - LOCATION 0172 OR 17767 - WAS CHOSEN AS 44 TO INSURE THAT EVERY CORE IS BEAT FOR ANY TEST PATTERN. ANY TEST PATTERN CAN BE USED AT A1, LOCATION 0174 OR 17771 - TO TEST STORAGE. IF ONLY ONE BINARY BIT EXISTS IN THE TEST WORD AT A1 - A NUMBER 1 AT A1 - ALL CORES WILL BE TESTED EXCEPT THE SIGN POSITIONS OF EACH WORD, THEREFORE, IT IS RECOMMENDED THAT THE TEST WORD AT A1, SHOULD ALWAYS CONTAIN AT LEAST TWO BINARY BITS. A NUMBER SUCH AS 100001 AT A1, TO INSURE THAT THE SIGN POSITIONS ARE ALWAYS CHECKED.

5. 9S03 H WILL TEST 1,2, OR 4 737 CORE STORAGES. IT WILL LOAD INTO THE LOWEST STORAGE POSITIONS. IT THEN TESTS FOR THE SIZE OF STORAGE AND AJUSTS THE ADDRESSES ACCORDINGLY. THE TEST WILL WIPE OUT THE PARTS OF THE PROGRAM WHICH TESTS FOR SIZE OF STORAGE.

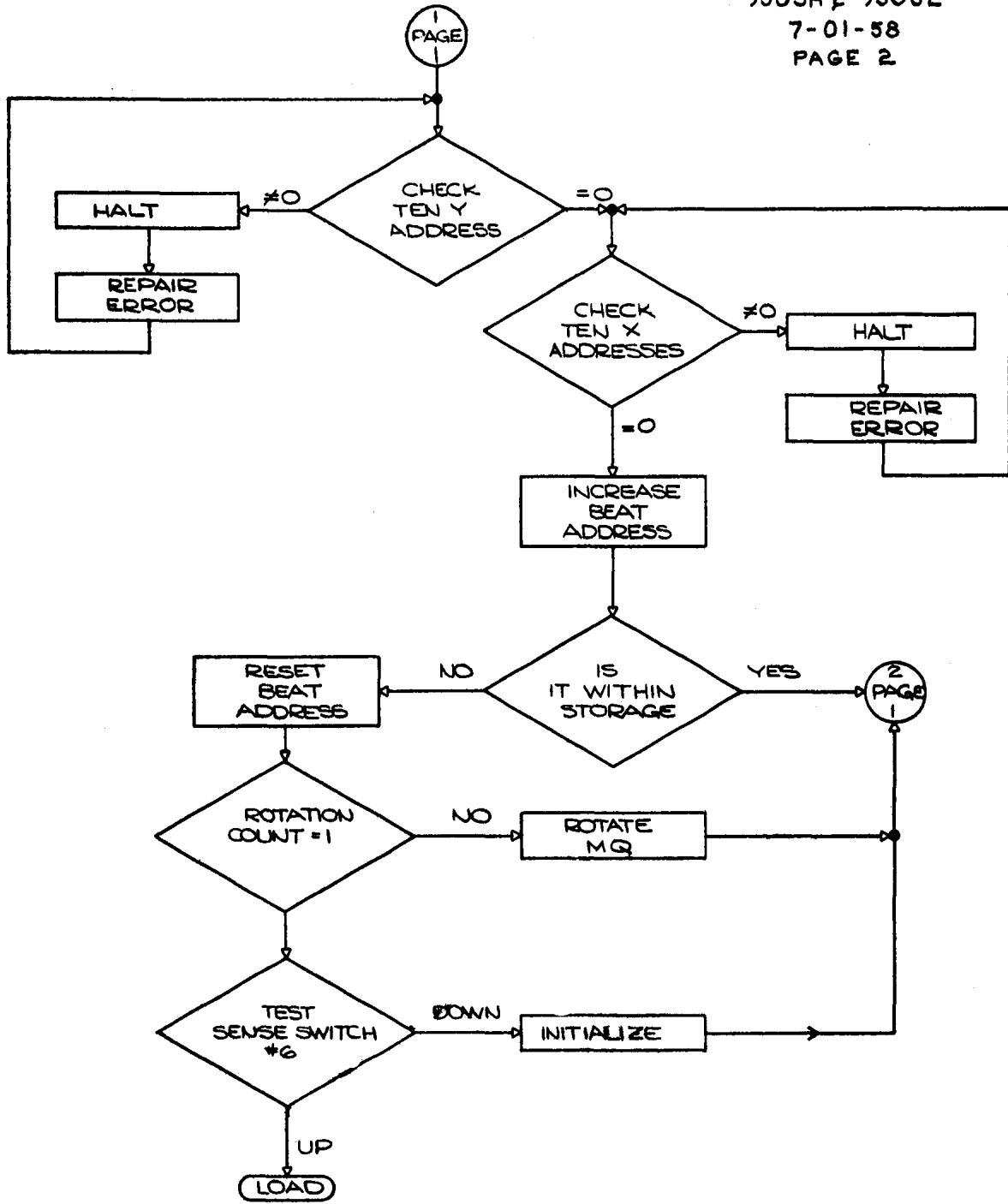
9S03 L CAN BE USED WITH ANY NUMBER OF 737 CORE STORAGES, HOWEVER, IT WILL TEST ONLY ONE OR TWO CORE STORAGES. IT WILL LOAD INTO THE HIGHEST STORAGE POSITIONS OF EITHER ONE OR TWO CORE STORAGES.

6. THE PROGRAM WRITES OVER THE TEST FOR SIZE OF STORAGE ON THE FIRST PASS. IF A RESTART IS DESIRED IT IS NECESSARY TO PERFORM A MANUAL TRANSFER TO 0000 OT 17600.

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9S03 H

HALF SELECT  
CORE MEMORY BEAT TEST  
FOR ONE, TWO, OR FOUR  
737 CORE STORAGES

BEGIN TEST

00000	0600	00	0	77777		STZ	32767	
00001	0534	00	1	00155	B	LXA	A,1	L +7600
00002	0600	00	1	07777		STZ	4095,1	CLEAR TEST AREA
00003	2	00001	1	00002		TIX	*-1,1,1	
00004	0500	00	0	00154		CLA	A-1	
00005	0621	00	0	00157		STA	A2	RESTORE BEAT ADDRESS
00006	0534	00	1	00172		LXA	A9,1	L +44
00007	-0634	00	1	00171		SXD	A9-1,1	SAVE INDEX COUNT
00010	0560	00	0	00174		LDQ	A1	L TEST PATTERN
00011	-0773	00	0	00001	BA	RQL	1	

SET Y ADDRESS

00012	0500	00	0	00157	BB	CLA	A2	L BEAT ADDRESS
00013	-0320	00	0	00162		ANA	A3	L +77077
00014	0400	00	0	00163		ADD	A4	L+1000
00015	0621	00	0	00044		STA	B1	SAVE ADDRESS
00016	0534	00	2	00163		LXA	A4,2	L+1000

SET X ADDRESS

00017	0500	00	0	00157		CLA	A2	L BEAT ADDRESS
00020	-0320	00	0	00164		ANA	A5	L+77770
00021	0400	00	0	00165		ADD	A6	L+10
00022	0621	00	0	00047		STA	B2	SAVE ADDRESS
00023	0534	00	4	00165		LXA	A6,4	L+10

00024	0760	00	0	00164		SWT	4	TEST SWITCH 4
00025	0020	00	0	00034		TRA	C1	
00026	0760	00	0	00165		SWT	5	TEST SWITCH 5
00027	0020	00	0	00032		TRA	C	
00030	0534	00	1	00167		LXA	A7+1,1	L +500
00031	0020	00	0	00035		TRA	C2	
00032	-0534	00	1	00166	C	LXD	A7,1	L+100
00033	0020	00	0	00035		TRA	C2	
00034	0534	00	1	00166	C1	LXA	A7,1	L +20

BEAT TEST

00035	0500	00	0	00157	C2	CLA	A2	L BEAT ADDRESS
00036	0621	00	0	00040		STA	C2+3	
00037	0621	00	0	00042		STA	C2+5	
00040	0500	00	0	00000		CLA		L WORD AT BEAT ADDRESS
00041	-0100	00	0	00144		TNZ	D9	ERROR-WORD SHOULD BE ZERO
00042	-0600	00	0	00000		STQ		BEAT THE ADDRESS

00043	2	00001	1	00042		TIX C2+5,1,1	
CHECK Y ADDRESSES							
00044	-0500	00	2	00000	B1	CAL 0,2	Y ADDRESS BEING CHECKED
00045	-0100	00	0	00073		TNZ D	
00046	2	00100	2	00044		TIX B1,2,64	
CHECK X ADDRESSES							
00047	-0500	00	4	00000	B2	CAL 0,4	X ADDRESS BEING CHECKED
00050	-0100	00	0	00113		TNZ D1	MAY BE AN ERROR
00051	2	00001	4	00047		TIX B2,4,1	
00052	0500	00	0	00157		CLA A2	L BEAT ADDRESS
00053	0621	00	0	00056		STA B3-5	
00054	0621	00	0	00063		STA B3	
00055	-0600	00	0	00161		STQ A2+2	
00056	0500	00	0	00000		CLA	BEAT WORD
00057	0340	00	0	00161		CAS A2+2	CHECK BEAT WORD
00060	0020	00	0	00136		TRA D6	ERROR
00061	0020	00	0	00063		TRA B3	OK
00062	0020	00	0	00136		TRA D6	ERROR
00063	0600	00	0	00000	B3	STZ	RESET LAST BEAT ADDRESS
00064	0500	00	0	00157		CLA A2	L BEAT ADDRESS
00065	0400	00	0	00170		ADD A8	L+1 -INCREASE BEAT ADDRESS
00066	0340	00	0	00156		CAS A+1	L HIGHEST POSITION IN STG
00067	0000	00	0	00070		HTR B3+5	
00070	0020	00	0	00133		TRA D2	REPEAT TEST WITH NEXT PATTERN
00071	0621	00	0	00157		STA A2	NEW BEAT ADDRESS
00072	0020	00	0	00012		TRA BB	
00073	0500	00	0	00044	D	CLA B1	
00074	0621	00	0	00160		STA A2+1	
00075	-0754	00	2	00000		PXD 0,2	
00076	0771	00	0	00022		ARS 18	
00077	0402	00	0	00160		SUB A2+1	
00100	0760	00	0	00003		SSP	
00101	0340	00	0	00157		CAS A2	L BEAT ADDRESS
00102	0020	00	0	00104		TRA DA	MAY BE AN ERROR
00103	0020	00	0	00046		TRA B1+2	OK-BEAT ADDRESS
00104	0340	00	0	00154	DA	CAS A-1	L HIGHEST LOCATION OF PROG
00105	0000	00	0	00110		HTR D1-3	Y ERROR ADDR IN ACC BEAT ADDRESS LOCATED AT A2
00106	0020	00	0	00046		TRA B1+2	OK-PROGRAM AREA
00107	0020	00	0	00046		TRA B1+2	OK-PROGRAM AREA
00110	0621	00	0	00111		STA *+1	
00111	0600	00	0	00000		STZ	REPAIR Y ERROR
00112	0020	00	0	00044		TRA B1	CHECK REPAIR ADDRESS
00113	0500	00	0	00047	D1	CLA B2	
00114	0621	00	0	00160		STA A2+1	
00115	-0754	00	4	00000		PXD 0,4	
00116	0771	00	0	00022		ARS 18	

00117	0402	00	0	00160		SUB A2+1	
00120	0760	00	0	00003		SSP	
00121	0340	00	0	00157		CAS A2	L BEAT ADDRESS
00122	0020	00	0	00124		TRA D1A	MAY BE AN ERROR
00123	0020	00	0	00051		TRA B2+2	OK BEAT ADDRESS
00124	0340	00	0	00154	D1A	CAS A-1	L HIGHEST LOCATION OF PROG
00125	0000	00	0	00130		HTR D2-3	X ERROR ADR IN ACC BEAT ADDRESS LOCATED AT A2
00126	0020	00	0	00051		TRA B2+2	OK - PROGRAM AREA
00127	0020	00	0	00051		TRA B2+2	OK - PROGRAM AREA
00130	0621	00	0	00131		STA *+1	
00131	0600	00	0	00000		STZ	REPAIR X ERROR
00132	0020	00	0	00047		TRA B2	CHECK REPAIR ADDRESS
00133	0500	00	0	00154	D2	CLA A-1	
00134	0621	00	0	00157		STA A2	L BEAT ADDRESS
00135	0020	00	0	00137		TRA D7	
00136	0000	00	0	00063	D6	HTR B3	ERROR IN BEAT WORD BEAT PATTERN IN MQ BEAT WORD IN ACC BEAT ADDRESS LOCATED AT A2 IN STORAGE
00137	-0534	00	1	00171	D7	LXD A9-1,1	
00140	2	00001	1	00142		TIX D8,1,1	
00141	0020	00	0	00145		TRA D10	
00142	-0634	00	1	00171	D8	SXD A9-1,1	
00143	0020	00	0	00011		TRA BA	
00144	0000	00	0	00042	D9	HTR C2+5	ERROR-THE BEAT ADDRESS WAS NOT ZERO BEFORE BEATING ERROR WORD IS IN ACC ADDRESS OF WORD AT A2
00145	0760	00	0	00166	D10	SWT 6	TEST SWITCH 6
00146	0020	00	0	00150		TRA *+2	UP-READ NEXT PROGRAM
00147	0020	00	0	00004		TRA B+3	REPEAT TEST
00150	0762	00	0	01321		RCDA	
00151	0540	00	0	00173		RCHA A10	
00152	0544	00	0	00000		LCHA 0	
00153	0020	00	0	00001		TRA 1	
CONSTANTS							
00154	+000000000177					OCT 177	
00155	+000000007600	A				OCT 7600	WILL VARY DEPENDING UPON SIZE OF STORAGE DEPENDING ON SIZE OF STG OR HIGHEST LOCATION IN STORAGE
00156	+000000007777					OCT 7777	
00157	+000000000177	A2				OCT 177	
00160	+000000000000					OCT 0	TEMPORARY STORAGE



00161	+000000000000		OCT 0	TEMPORARY STORAGE
00162	+000000077077	A3	OCT 77077	
00163	+000000001000	A4	OCT 1000	
00164	+000000077770	A5	OCT 77770	
00165	+000000000010	A6	OCT 10	
00166	+000100000020	A7	OCT 100000020	
00167	+0000000000500		OCT 500	
00170	+0000000000001	A8	OCT 1	
00171	+0000000000000		OCT	ROTATION COUNT IN DEC
00172	+0000000000044	A9	OCT 44	
00173	-1 00003 0 00000	A10	MON 0,0,3	CONTROL RCD
00174	+010101010101	A1	OCT 010101010101	BEAT PATTERN
DETERMINING SIZE OF STG				
00175	0760 00 0 00163	NPER	SWT 3	
00176	0020 00 0 00200		TRA *+2	
00177	0020 00 0 00206		TRA AA	
00200	0766 00 0 01361		WPRA	
00201	0760 00 0 01363		SPRA 3	
00202	0540 00 0 00205		RCHA *+3	
00203	0060 00 0 00203		TCOA *	
00204	0020 00 0 00206		TRA AA	
00205	0000 30 0 00245		IOCD PNP,0,24	
00206	0500 00 0 00160	AA	CLA A2+1	L +0
00207	0601 00 0 77777		STO 32767	STORE +0 IN HIGHEST POS OF STORAGE 32K
00210	0400 00 0 00170		ADD A8	+1 IN ACC
00211	0601 00 0 37777		STO 16383	+1 IN HIGH POS 16K
00212	0400 00 0 00170		ADD A8	
00213	0601 00 0 17777		STO 8191	+2 IN HIGH POS 8K
00214	0400 00 0 00170		ADD A8	
00215	0601 00 0 07777		STO 4095	+3 IN HIGH POS 4K
00216	0500 00 0 77777		CLA 32767	L IS DEPENDENT UPON SIZE OF STORAGE
00217	0100 00 0 00226		TZE FF-1	32K STORAGE-SHOULD NOT BE RUN
00220	0402 00 0 00170		SUB A8	
00221	0100 00 0 00233		TZE F2	16K STORAGE
00222	0402 00 0 00170		SUB A8	
00223	0100 00 0 00231		TZE F	8K STORAGE
00224	0402 00 0 00170		SUB A8	
00225	0100 00 0 00000		TZE B-1	4K STORAGE
00226	0000 00 0 00000		HTR B-1	ERROR-ASSUME 4K STORAGE
00227	0500 00 0 00244	FF	CLA G6	L 77777
00230	0020 00 0 00235		TRA F6	
00231	0500 00 0 00242	F	CLA G	L 17777
00232	0020 00 0 00235		TRA F6	

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00233 0500 00 0 00243 F2    CLA G2          L 37777
00234 0020 00 0 00235          TRA F6

00235 0601 00 0 00156 F6    STO A+1
00236 0621 00 0 00002          STA B+1
00237 0402 00 0 00154          SUB A-1
00240 0601 00 0 00155          STO A
00241 0020 00 0 00000          TRA B-1

00242 +0000000017777          G    OCT 17777
00243 +0000000037777          G2   OCT 37777
00244 +0000000077777          G6   OCT 77777
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\* PRINT - NOW PERFORMING-9S03H-STORAGE TEST

\* IMAGE - NOW PERFORMING-9S03H-STORAGE TEST

```
00245 +0000000045040          PNPOR OCT 0000000045040  9 ROW LEFT
00246 +0400000000000          OCT 0400000000000  9 ROW RIGHT
00247 +0000000000002          OCT 0000000000002   8 L
00250 +0000000000000          OCT 0000000000000   8 R
00251 +0000000200200          OCT 0000000200200   7 L
00252 +0100000000000          OCT 0100000000000   7 R
00253 +0000003030000          OCT 0000003030000   6 L
00254 +1000000000000          OCT 1000000000000   6 R
00255 +0000004100400          OCT 0000004100400   5 L
00256 +0044000000000          OCT 0044000000000   5 R
00257 +0000000002000          OCT 0000000002000   4 L
00260 +0000000000000          OCT 0000000000000   4 R
00261 +0000000000004          OCT 0000000000004   3 L
00262 +2011000000000          OCT 2011000000000   3 R
00263 +0000000000020          OCT 0000000000020   2 L
00264 -0002000000000          OCT 4002000000000   2 R
00265 +0000000000000          OCT 0000000000000   1 L
00266 +0200000000000          OCT 0200000000000   1 R
00267 +0000001000030          OCT 0000001000030   0 L
00270 -2013000000000          OCT 6013000000000   0 R
00271 +0000006256501          OCT 0000006256501  11 L
00272 +1400000000000          OCT 1400000000000  11 R
00273 +0000000121202          OCT 0000000121202  12 L
00274 +0344000000000          OCT 0344000000000  12 R

          00000          END
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EOF\*

9S03 L

HALF SELECT  
CORE MEMORY BEAT TEST  
FOR ONE OR TWO  
737 CORE STORAGES

				17520		ORG 8016		
17520	0760	00	0	00163	NPER	SWT 3		
17521	0020	00	0	17523		TRA *+2		
17522	0020	00	0	17531		TRA AA		
17523	0766	00	0	01361		WPRA		
17524	0760	00	0	01363		SPRA 3		
17525	0540	00	0	17530		RCHA *+3		
17526	0060	00	0	17526		TCOA *		
17527	0020	00	0	17531		TRA AA		
17530	0000	30	0	17550		IOCD PNP,0,24		
17531	0500	00	0	17754	AA	CLA A2	L +0	
17532	0601	00	0	17777		STO 8191	+0 IN HIGH POS 8K	
17533	0400	00	0	17765		ADD A8	L +1	
17534	0601	00	0	07777		STO 4095	+1 IN HIGH POS 4K	
17535	0500	00	0	17777		CLA 8191		
17536	0100	00	0	17544		TZE F	8K STORAGE	
17537	0402	00	0	17765		SUB A8		
17540	0100	00	0	17600		TZE B	4K STORAGE	
17541	0760	00	0	00161		SWT 1	ERROR IN STG TEST	
17542	0000	00	0	17600		HTR B	CONTINUE DIAGNOSTIC FOR A 4K MEMORY	
17543	0000	00	0	17531		HTR AA	REPEAT STG TEST	
17544	0500	00	0	17547	F	CLA G	L 17600	
17545	0601	00	0	17753		STO A		
17546	0020	00	0	17600		TRA B		
17547	+0000000017600				G	OCT 17600		

\* IMAGE - NOW PERFORMING-9S03L-STORAGE TEST

17550	+000000045040	PNPER	OCT	000000045040	9	ROW LEFT
17551	+040000000000		OCT	040000000000	9	ROW RIGHT
17552	+000000000000		OCT	000000000000	8	L
17553	+000000000000		OCT	000000000000	8	R
17554	+000000200200		OCT	000000200200	7	L
17555	+010000000000		OCT	010000000000	7	R
17556	+000003030000		OCT	000003030000	6	L
17557	+100000000000		OCT	100000000000	6	R
17560	+000004100400		OCT	000004100400	5	L
17561	+004400000000		OCT	004400000000	5	R
17562	+000000002000		OCT	000000002000	4	L
17563	+000000000000		OCT	000000000000	4	R
17564	+000000000006		OCT	000000000006	3	L
17565	+201100000000		OCT	201100000000	3	R
17566	+000000000020		OCT	000000000020	2	L

17567	-000200000000	OCT	400200000000	2	R
17570	+000000000000	OCT	000000000000	1	L
17571	+020000000000	OCT	020000000000	1	R
17572	+000001000030	OCT	000001000030	0	L
17573	-201300000000	OCT	601300000000	0	R
17574	+000006256503	OCT	000006256503	11	L
17575	+140000000000	OCT	140000000000	11	R
17576	+000000121200	OCT	000000121200	12	L
17577	+034400000000	OCT	034400000000	12	R

BEGIN TEST

17600	0534 00 1 17753	B	LXA A,1	L +77600
17601	0600 00 1 17600		STZ B,1	CLEAR TEST
17602	2 00001 1 17601		TIX *-1,1,1	AREA
17603	0534 00 1 17767		LXA A9,1	L +44
17604	-0634 00 1 17766		SXD A9-1,1	SAVE INDEX COUNT
17605	0560 00 0 17771		LDQ A1	L TEST PATTERN
17606	-0773 00 0 00001	BA	RQL 1	

SET Y ADDRESS

17607	0500 00 0 17754	BB	CLA A2	L BEAT ADDRESS
17610	-0320 00 0 17757		ANA A3	L +77077
17611	0400 00 0 17760		ADD A4	L+1000
17612	0621 00 0 17641		STA B1	SAVE ADDRESS
17613	0534 00 2 17760		LXA A4,2	L+1000

SET X ADDRESS

17614	0500 00 0 17754		CLA A2	L BEAT ADDRESS
17615	-0320 00 0 17761		ANA A5	L+77770
17616	0400 00 0 17762		ADD A6	L+10
17617	0621 00 0 17644		STA B2	SAVE ADDRESS
17620	0534 00 4 17762		LXA A6,4	L+10

17621	0760 00 0 00164		SWT 4	TEST SWITCH 4
17622	0020 00 0 17631		TRA C1	
17623	0760 00 0 00165		SWT 5	TEST SWITCH 5
17624	0020 00 0 17627		TRA C	
17625	0534 00 1 17764		LXA A7+1,1	L+500
17626	0020 00 0 17632		TRA C2	
17627	-0534 00 1 17763	C	LXD A7,1	L+100
17630	0020 00 0 17632		TRA C2	
17631	0534 00 1 17763	C1	LXA A7,1	L+20

BEAT TEST

17632	0500 00 0 17754	C2	CLA A2	L BEAT ADDRESS
17633	0621 00 0 17635		STA C2+3	
17634	0621 00 0 17637		STA C2+5	
17635	0500 00 0 00000		CLA	L WORD AT BEAT ADDRESS
17636	-0100 00 0 17743		TNZ D9	ERROR-WORD SHOULD BE ZERO
17637	-0600 00 0 00000		STQ	BEAT THE ADDRESS
17640	2 00001 1 17637		TIX C2+5,1,1	

CHECK Y ADDRESSES

17641	-0500	00	2	00000	B1	CAL 0,2	Y ADDRESS BEING CHECKED
17642	-0100	00	0	17670		TNZ D	MAY BE AN ERROR
17643	2	00100	2	17641		TIX B1,2,64	

CHECK X ADDRESSES

17644	-0500	00	4	00000	B2	CAL 0,4	X ADDRESS BEING CHECKED
17645	-0100	00	0	17705		TNZ D1	MAY BE AN ERROR
17646	2	00001	4	17644		TIX B2,4,1	
17647	0500	00	0	17754		CLA A2	L BEAT ADDRESS
17650	0621	00	0	17660		STA B3	
17651	0621	00	0	17653		STA B3-5	
17652	-0600	00	0	17756		STQ A2+2	
17653	0500	00	0	00000		CLA	BEAT WORD
17654	0340	00	0	17756		CAS A2+2	CHECK BEAT WORD
17655	0020	00	0	17735		TRA D6	ERROR
17656	0020	00	0	17660		TRA B3	OK
17657	0020	00	0	17735		TRA D6	ERROR
17660	0600	00	0	00000	B3	STZ	RESET LAST BEAT ADDRESS
17661	0500	00	0	17754		CLA A2	L BEAT ADDRESS
17662	0400	00	0	17765		ADD A8	L+1 -INCREASE BEAT ADDRESS
17663	0340	00	0	17753		CAS A	L +7600
17664	0000	00	0	17665		HTR B3+5	
17665	0020	00	0	17722		TRA D2	REPEAT TEST WITH NEXT PATTERN
17666	0621	00	0	17754		STA A2	NEW BEAT ADDRESS
17667	0020	00	0	17607		TRA BB	
17670	0500	00	0	17641	D	CLA B1	
17671	0621	00	0	17755		STA A2+1	
17672	-0754	00	2	00000		PXD 0,2	
17673	0771	00	0	00022		ARS 18	
17674	0402	00	0	17755		SUB A2+1	
17675	0760	00	0	00003		SSP	
17676	0340	00	0	17754		CAS A2	L BEAT ADDRESS
17677	0020	00	0	17725		TRA D4	MAY BE AN ERROR
17700	0020	00	0	17643		TRA B1+2	OK-BEAT ADDRESS
17701	0000	00	0	17702		HTR D1-3	Y ERROR ADDR IN ACC BEAT ADDRESS LOCATED AT A2
17702	0621	00	0	17703		STA D1-2	
17703	0600	00	0	00000		STZ	REPAIR Y ERROR
17704	0020	00	0	17641		TRA B1	CHECK REPAIR ADDRESS
17705	0500	00	0	17644	D1	CLA B2	
17706	0621	00	0	17755		STA A2+1	
17707	-0754	00	4	00000		PXD 0,4	
17710	0771	00	0	00022		ARS 18	
17711	0402	00	0	17755		SUB A2+1	
17712	0760	00	0	00003		SSP	
17713	0340	00	0	17754		CAS A2	L BEAT ADDRESS
17714	0020	00	0	17731		TRA D5	MAY BE AN ERROR

17715	0020	00	0	17646		TRA B2+2	OK BEAT ADDRESS
17716	0000	00	0	17716		HTR D2-4	X ERROR ADR IN ACC BEAT ADDRESS LOCATED AT A2
17717	0621	00	0	17720		STA D2-2	
17720	0600	00	0	00000		STZ	REPAIR X ERROR
17721	0020	00	0	17644		TRA B2	CHECK REPAIR ADDRESS
17722	0760	00	0	00000	D2	CLM	
17723	0621	00	0	17754		STA A2	L BEAT ADDRESS
17724	0020	00	0	17736		TRA D7	
17725	0340	00	0	17753	D4	CAS A	
17726	0020	00	0	17643		TRA B1+2	OK-PROGRAM AREA
17727	0020	00	0	17643		TRA B1+2	OK-PROGRAM AREA
17730	0020	00	0	17701		TRA D+9	ERROR
17731	0340	00	0	17753	D5	CAS A	
17732	0020	00	0	17646		TRA B2+2	OK - PROGRAM AREA
17733	0020	00	0	17646		TRA B2+2	OK - PROGRAM AREA
17734	0020	00	0	17716		TRA D1+9	ERROR
17735	0000	00	0	17660	D6	HTR B3	ERROR IN BEAT WORD BEAT PATTERN IN MQ BEAT WORD IN ACC BEAT ADDRESS LOCATED AT A2 IN STORAGE
17736	-0534	00	1	17766	D7	LXD A9-1,1	
17737	2	00001	1	17741		TIX D8,1,1	
17740	0020	00	0	17744		TRA D10	
17741	-0634	00	1	17766	D8	SXD A9-1,1	
17742	0020	00	0	17606		TRA BA	
17743	0000	00	0	17637	D9	HTR C2+5	ERROR-THE BEAT ADDRESS WAS NOT ZERO BEFORE BEATING ERROR WORD IS IN ACC ADDRESS OF WORD AT A2
17744	0760	00	0	00166	D10	SWT 6	TEST SWITCH 6
17745	0020	00	0	17747		TRA *+2	UP-READ NEXT PROGRAM
17746	0020	00	0	17603		TRA B+3	REPEAT TEST
17747	0762	00	0	01321		RCDA	
17750	0540	00	0	17770		RCHA A10	
17751	0544	00	0	00000		LCHA 0	
17752	0020	00	0	00001		TRA 1	
CONSTANTS							
17753	+0000000007600		A	OCT 7600			OR 17600,27600,37600 47600,57600,67600 OR 77600 DEPENDING ON SIZE OF STG
17754	+0000000000000		A2	OCT 0			BEAT ADDRESS
17755	+0000000000000			OCT 0			TEMPORARY STORAGE
17756	+0000000000000			OCT 0			TEMPORARY STORAGE
17757	+0000000077077		A3	OCT 77077			

17760	+000000001000	A4	OCT 1000	
17761	+000000077770	A5	OCT 77770	
17762	+000000000010	A6	OCT 10	
17763	+000100000020	A7	OCT 10000020	
17764	+000000000500		OCT 500	
17765	+000000000001	A8	OCT 1	
17766	+000000000000		OCT	ROTATION COUNT
17767	+000000000044	A9	OCT 44	
17770	-1 00003 0 00000	A10	MON 0,0,3	CONTROL RCD
17771	+010101010101	A1	OCT 010101010101	BEAT PATTERN
	00000		END	



EOF\*