

7080 RECORD COUNTER TEST

A. Purpose of Test

This test is designed to check proper operation of the record counter and its ability to decrement from 999 to 000.

B. Method of Test

The program writes 1000 ten character records which is controlled by a counter set up in the accumulator storage. The tape is rewound and read under control of the record counter. The record counter is interrogated as each record is read in and compared to a counter set up in memory and any failure to compare equal is set up in the error table. If an error occurs the error table will be typed out.

C. Area of Machine Required

The program can be run with any tape drive. The unit desired is stored in 1131 as a four digit address (ex 2101). If no address is stored tape drive 2001 will automatically be selected.

D. Alteration Switches

911 - ON - Bypass error type-out and halt

914 - ON - Loop in program

E. Printed Results

Initial type out - store channel and TD in 1131, start.

A "Z" will type out on completion of pass of the program after which the initial type out will type out so a different channel may be checked.

The error type out will appear as follows:

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ERROR CHANNEL 20
RCD   ASU
949   959
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The type out shows that when the memory counter stepped from 960 to 959 the record counter decremented from 960 to 949.

PROGRAM FOR CHECKING RECORD COUNTER 8HC002

0004	TR	1	0829	Housekeeping
0009	SEL	2	0201	
0014	RWD	3	0002	
0019	IOF	3	0000	
0024	CHR	3	0000	13
0029	SPC	,	0000	
0034	SET	B	0003	Load control number for record
0039	LOD	8	1013	counter control and 1000 record
0044	UNL	7	1103	control
0049	UNL	7	1106	
0054	SBN	%	0500	14
0059	SBN	%	0500	13
0064	RCV	U	2004	Blank memory
0069	BLM	\$	2000	
0074	RCV	U	20000	
0079	BLM	\$	2000	
0084	SET	B	0004	Restore changed addresses
0089	LOD	8	1024	
0094	UNL	7	0724	
0099	LOD	8	1049	
0104	UNL	7	0729	
0109	LOD	8	1041	
0114	UNL	7	0574	
0119	LOD	8	1045	
0124	UNL	7	0584	
0129	LOD	8	1049	
0134	UNL	7	0599	
0139	TR	1	0204	
0204	SET	B	0003	Write 1000 ten character records
0209	RSA	H	1013	
0214	WR	R	1000	
0219	TSA	0	0004	
0224	SUB	P	1026	
0229	TRP	M	0214	
0234	WTM	3	0001	
0239	RWD	3	0002	
0244	SRC	R	9990	02
0249	RD	Y	20000	Read under record counter control
0254	TR	1	0304	

0304	SET	B	0003	Subtract 1 from record counter control field and check for zero balance
0309	RSA	H	1103	
0314	SUB	P	1026	
0319	ST	F	1103	
0324	TRZ	N	0704	
0329	TR	1	0404	
0404	SPC	,	2010	Check SMAC for unit address ending in 5
0409	UFC	,	1124 03	
0414	RCV	U	1124	
0419	TZB	.	0409 01	
0424	UFC	,	1124 03	Check SMAC for unit address ending in 0
0429	TZB	.	0424 02	
0434	SPC	,	2000	Compare record counter to record counter control field
0439	UFC	,	1129 03	
0444	SPC	,	0000	
0449	SET	B	0003	
0454	RSA	H	1103	
0459	CMP	4	1128	
0464	TRH	K	0474	
0469	TRE	L	0304	
0474	TR	1	0504	
0504	NOP	A	0564	Prepare error table heading
0509	SET	B	0005	
0514	LOD	8	1033	
0519	UNL	7	2004	
0524	SET	B	0004	
0529	LOD	8	1037	
0534	UNL	7	2008	
0539	SET	B	0001	
0544	LOD	8	1010	
0549	UNL	7	2009	
0554	SBZ	%	0500 06	
0559	SBZ	%	0500 05	
0564	SET	B	0003	Insert error conditions into error table
0569	LOD	8	1128	
0574	UNL	7	2013	
0579	RSA	H	1103	
0584	UNL	7	2018	
0589	SET	B	0001	
0594	LOD	8	1010	
0599	UNL	7	2019	
0604	SET	B	0006	

0609	RSA	H	1055	
0614	AAM	@	0574	
0619	AAM	@	0584	
0624	AAM	@	0599	
0629	SET	B	0003	
0634	LOD	8	1128	Correct record counter control field to match record counter
0639	ST	F	1103	
0644	TR	1	0304	
0704	RCV	U	0500	Check to see if error existed
0709	TZB	.	0719 06	
0714	TR	1	0764	To EOJ on no error
0719	TR	1	0794	Type out error table
0724	WR	R	2000	
0729	RCV	U	2019	Check for end of error table
0734	TZB	.	0809 02	
0739	SET	B	0006	Update write address and end of error table check address
0744	RSA	H	1055	
0749	AAM	@	0724	
0754	AAM	@	0729	
0759	TR	1	0724	Type out "Z" message
0764	SEL	2	0500	
0769	WR	R	1080	
0774	TAD	1	0789	Read in new program if 914 off
0779	SEL	2	2000	
0784	TR	1	18219	
0789	TR	1	0004	
0794	TAA	1	0809	911 on bypass error type out & halt
0799	SEL	2	0500	
0804	TR	1	0724	
0809	SEL	2	0500	
0814	WR	R	1065	
0819	HLT	J	1111	
0824	TR	1	0004	
0829	EEM	3	0000 (14)	
0834	SPC	.	0000	Restore tape addresses to channel 20 in case you don't store
0839	SET	B	0004	
0844	LOD	8	1085	
0849	UNL	7	1134	

0854	SEL	2	0500
0859	WR	R	1200
0864	HLT	J	0000

Type out store instruction

0869	LOD	8	1134
0874	UNL	7	0009
0879	SHN	C	0002
0884	UNL	7	1078
0889	UNL	7	0402
0894	UNL	7	0432
0899	TR	1	0009

Correct addresses for selected channel

1000-1010	1234567890‡
1011-1013	99I
1014- 1	1
1015-1019	b1110
1020-1024	b2000
1025-1026	bA
1027-1028	1‡
1029-1033	bRCDb
1034-1037	bASUb
1038-1041	2013
1042-1045	2018
1046-1049	2019
1050-1055	00001‡
1056-1064	NO ERROR‡
1065-1079	ERROR CHANN 20‡
1080-1081	Z‡
1082-1085	2001
1200-1240	Store Channel & TD in INDEX , Start‡

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