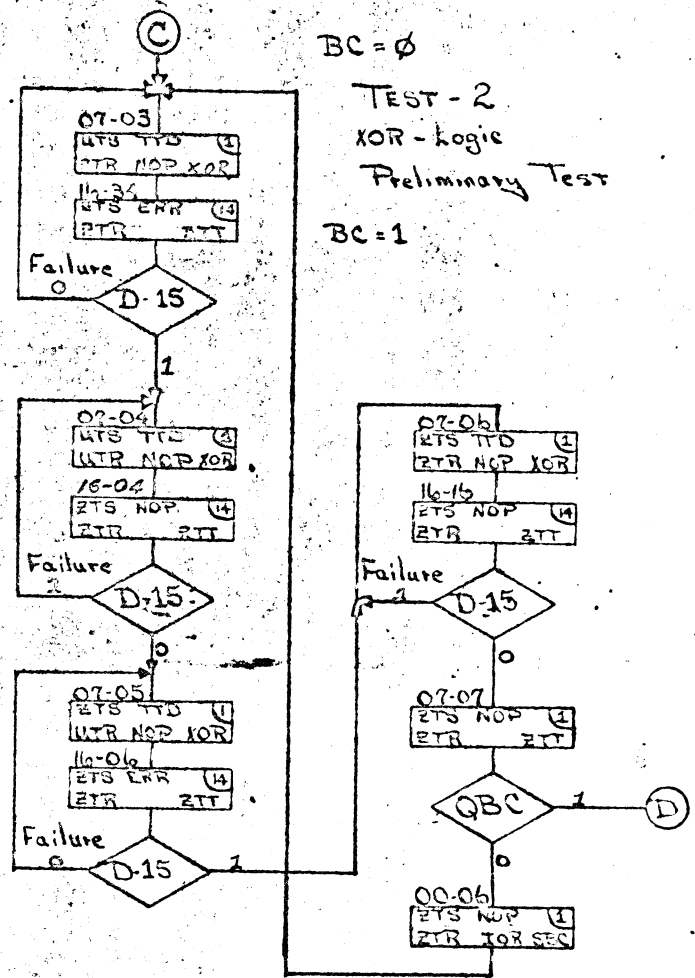
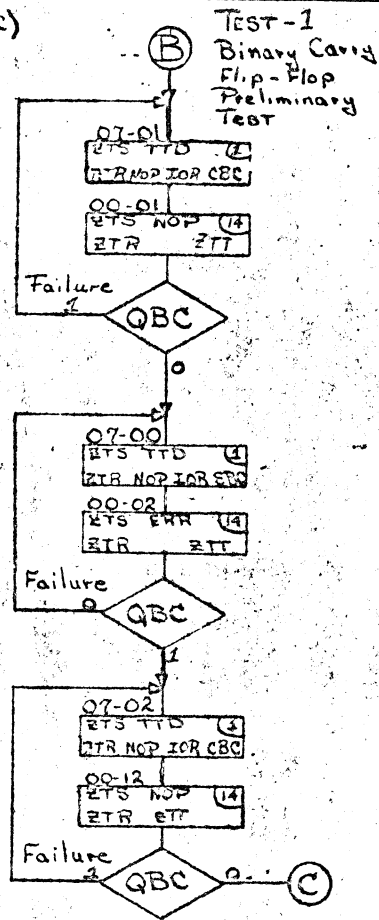
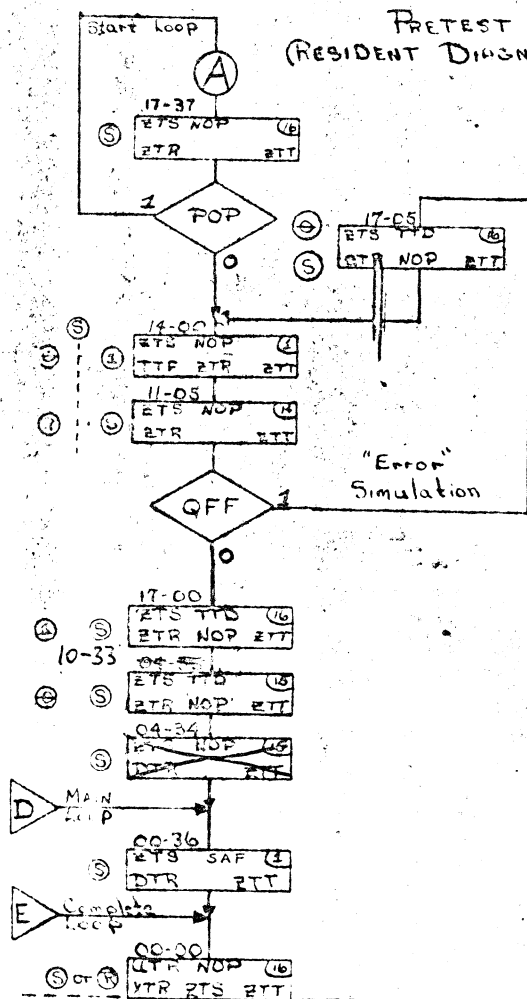


ENGINEERING RESPONSIBILITY																SYM		REVISIONS		APPROVED	DATE
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15						
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						



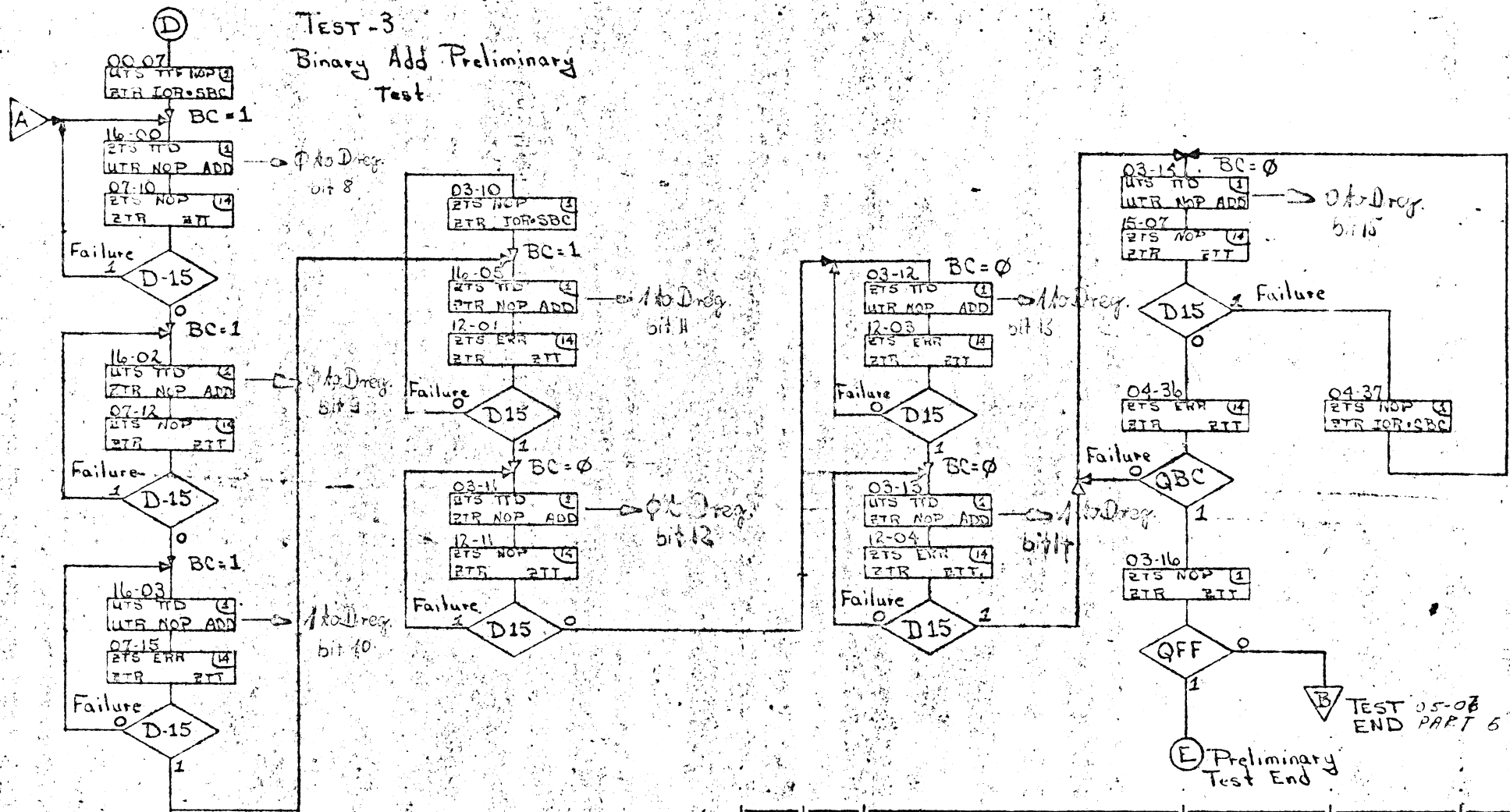
ITEM	QTY	MATERIAL DESCRIPTION	MAT'L PART NO	MAT'L DWG NO	MAT'L SPEC.
Kerry J. Johnston		3-2-71	Microdiagnostic Routines D-Tester Breadboard Part 2/14		
DRAWN BY		DATE			
Henry J. Kichoutsky		11-5-70			
ENGINEER			TITLE		
RELEASE TO PROD.		NEXT ASSEMBLY		PART NUMBER	
CURRENT DWG		FINISH		SCALE	
				B - - -	

dated 3-2-71

ENGINEERING RESPONSIBILITY										SYM									
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
10	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35

REVISIONS										APPROVED									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

TEST-3 Binary Add Preliminary Test



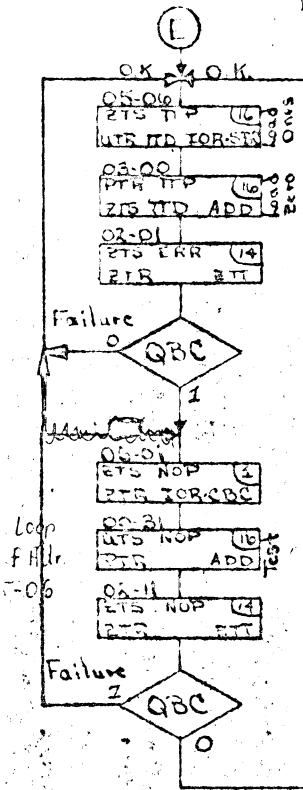
Updated: 3-2-71

DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED. DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .003	LARRY J. JOHNSON DRAWN BY	3-2-71 DATE	Microdiagnostic Routines D-Tester PART 2/14		HEWLETT  PACKARD
	HENRY J. KOMOUTEK ENGINEER	11-6-70	TITLE		
	RELEASE TO PROD.			NEXT ASSEMBLY	PART NUMBER
	SUPERSEDES DWG.			FINISH	SCALE

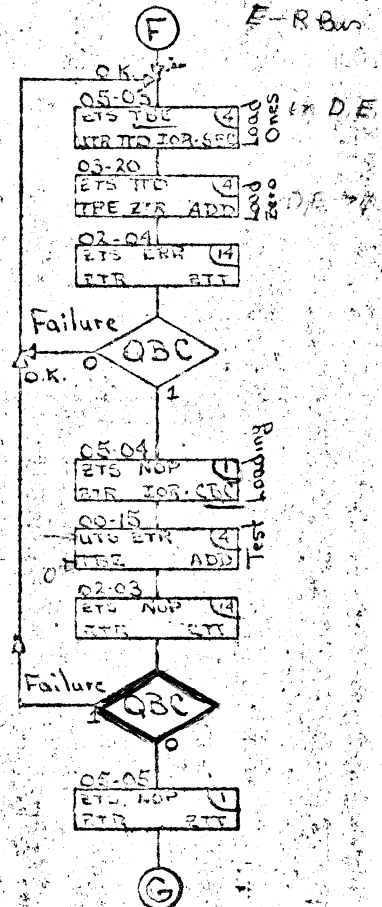
ENGINEERING RESPONSIBILITY										SERIAL									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60

REVISIONS										APPROVED		DATE	
1	2	3	4	5	6	7	8	9	10				

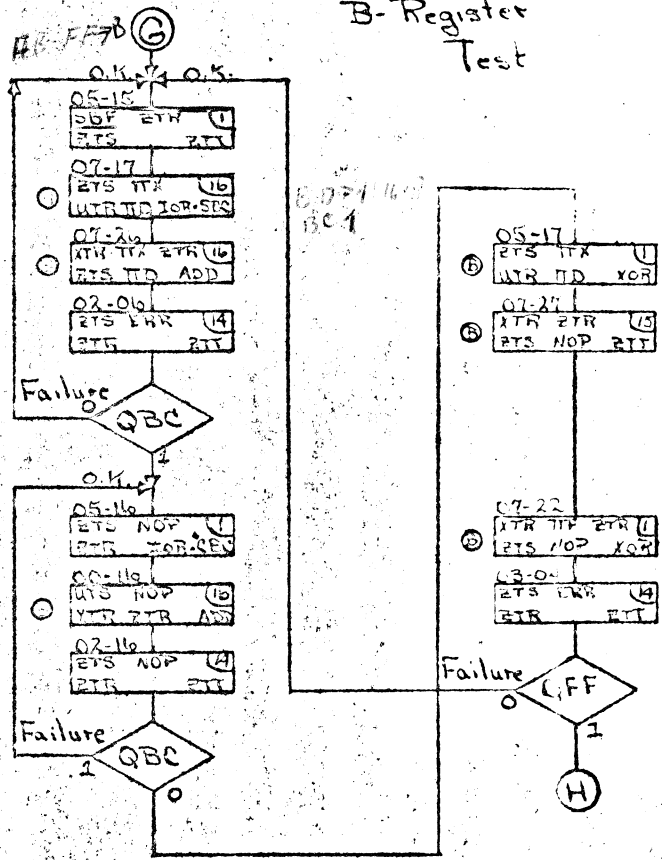
TEST-4 P-Register Test



TEST-5 E-Register Test



TEST-6 B-Register Test



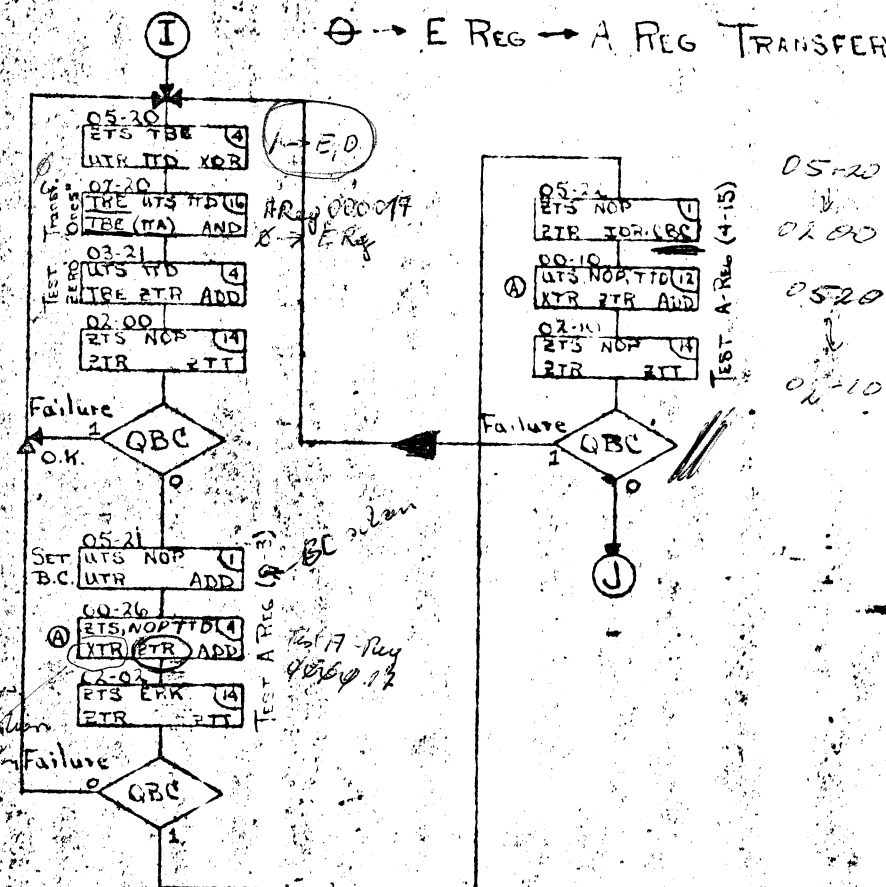
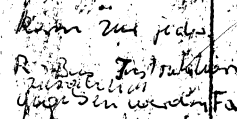
UPDATED: 3-3-71

DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED. DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .003		DRAWN BY Heavy J. Koppertek ENGINEER		DATE 11-6-70		TITLE Microdiagnostic Routines D-Tester Part 3/14		HEWLETT-PACKARD	
RELEASE TO PROD.		NEXT ASSEMBLY		PART NUMBER		SCALE		B-	
CURSEDOS DWS		FINISH		SCALE		B-		-	

REVISIONS		APPROVED	DATE

TEST-8

0 → E REG → A REG TRANSFER



DO NOT SCALE THIS DRAWING
UNLESS OTHERWISE SPECIFIED.
DIMENSIONS ARE IN INCHES.
TOLERANCES .XX ± .02 .XXX ± .005

hurry d. Johnston DRAWN BY	3-3-71 DATE
Henry d. Koboutek ENGINEER	11-6-70

Microdiagnostic Routines
D-Tester
Page 4/14

HEWLETT (HP) PACKARD

RELEASE TO PROD

NEXT ASSEMBLY

PART NUMBER

SUPERSEDES DWG

FINISH

SCALE

B -

ENGINEERING RESPONSIBILITY														
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

SYM	REVISIONS	APPROVED	DATE

Test 9
M REGISTER
TEST

05-23
UTR ...
MYS ...
ZTR ...
ZTS ERR
ZTR ...

05-24
ZTS NOP
ZTR ...

05-25
ZTS NOP
ZTR ...

05-26
ZTS NOP
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05-27
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05-31
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ZTR ...

05-32
ZTS NOP
ZTR ...

05-33
ZTS NOP
ZTR ...

Test-10
T REGISTER TEST

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UPDATED: 3-3-71

DO NOT SCALE THIS DRAWING
UNLESS OTHERWISE SPECIFIED.
DIMENSIONS ARE IN INCHES.
TOLERANCES .XX ± .02 .XXX ± .005

Drawn by: Harry J. Johnston
Engineer: Henry J. Kohoutek
DATE: 3-3-71
11-6-70

Microdiagnostic Routines
D-Tester
Part 5/14

HEWLETT PACKARD

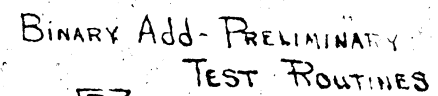
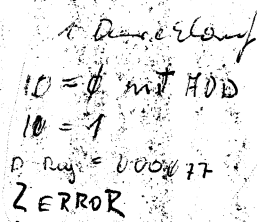
RELEASE TO PROD.
SUPERSEDES DWG.

NEXT ASSEMBLY
FINISH
SCALE

PART NUMBER
B-

BINARY PART of ALU TEST

B-			
SYM	REVISIONS	APPROVED	DATE



ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG. NO.	MAT'L SPEC.
Harry J. Johnston DRAWN BY		3-4-71 DATE	Microdiagnostic Routines D-Tester PART 6/14		
Henry J. Kohutski ENGINEER		11-6-71	HEWLETT  PACKARD		
RELEASE TO PROD		NEXT ASSEMBL	PART NUMBER		
SUPERSEDES DWG		FINISH	SCALE		

TEST-15

BCD-Addition TEST

ENGINEERING RESPONSIBILITY										SEP 14									
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39

REVISIONS										APPROVED									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

(P)

10-01
UTS TX
UTR IOR

10-32
ETS TX
ZTR IOR-SBC

14-33
ETS TX
ZTR ADD

1-1-35
UTS TX
UTR IOR

14-32
ETS TX
ZTR ZIT

2-27
ETS TX
ZTR ZIT

2-3-36
ETS TX
ZTR ZIT

2-21
ETS TX
ZTR ZIT

11-32
ETS TX
ZTR ZIT

3-36
ETS TX
ZTR ADD

11-33
ETS TX
ZTR IOR

2-32
ETS TX
ZTR IOR

1-33
ETS TX
ZTR IOR-SBC

1-22
ETS TX
ZTR ADD

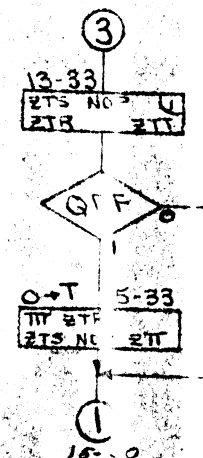
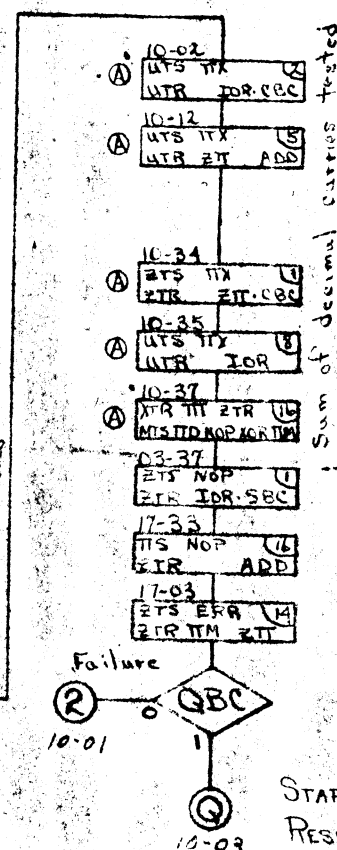
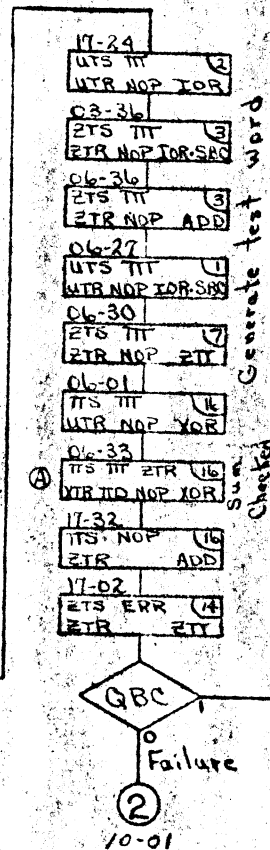
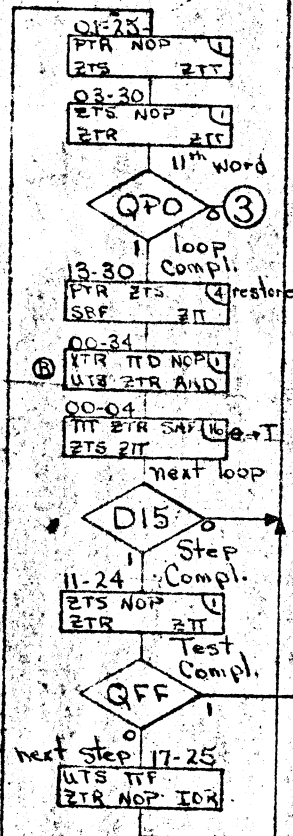
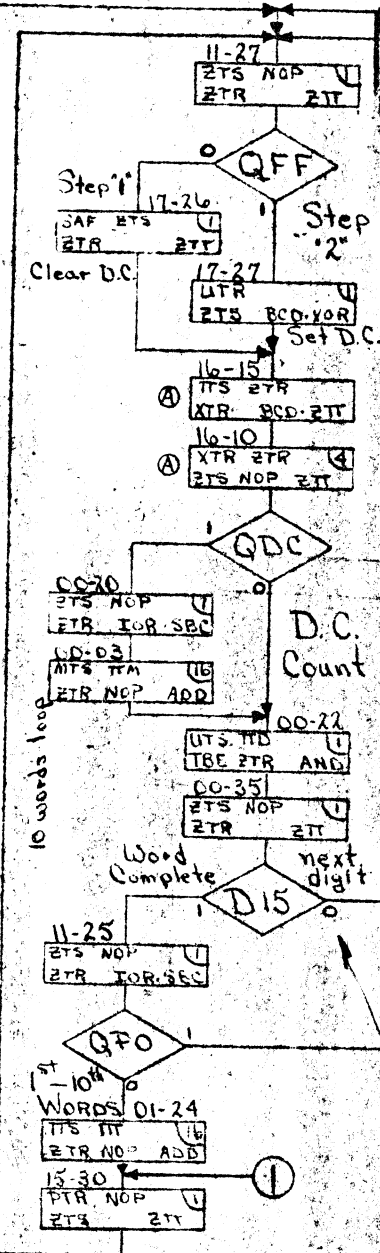
1-26
ETS TX
ZTR IOR

Word Counter

Loop Counter

Digit Count

Test Start Constant



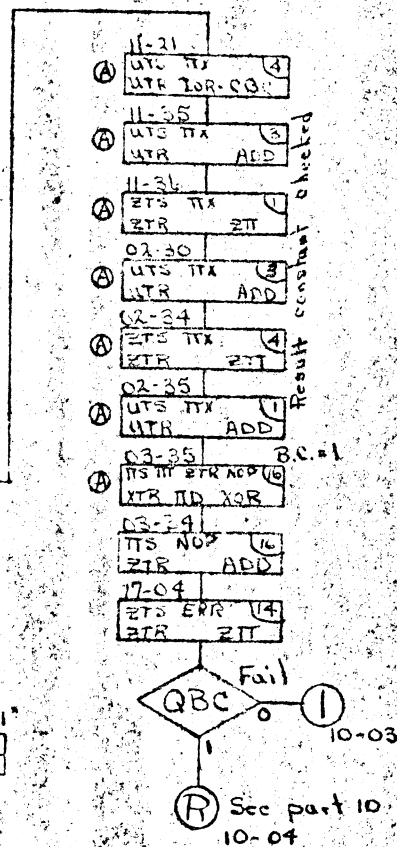
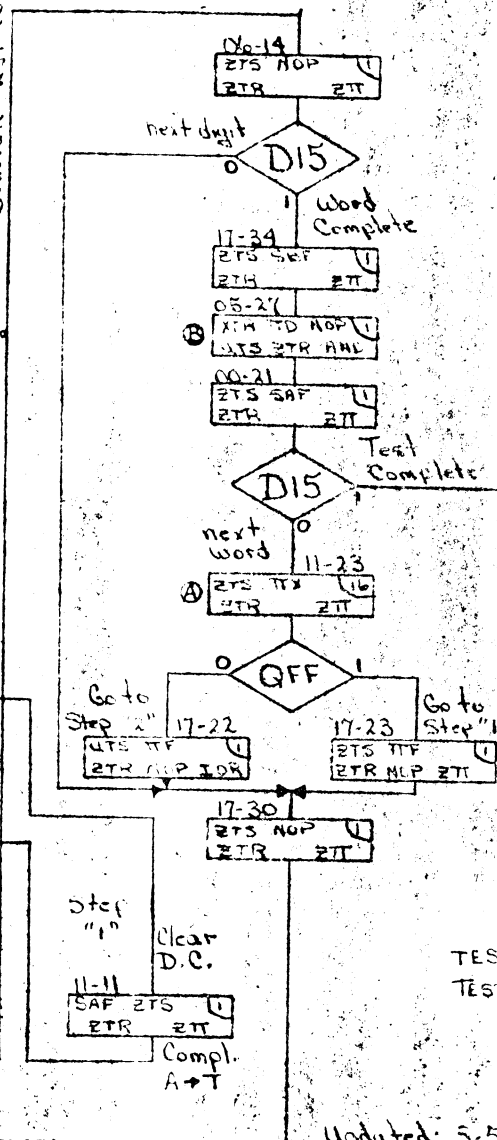
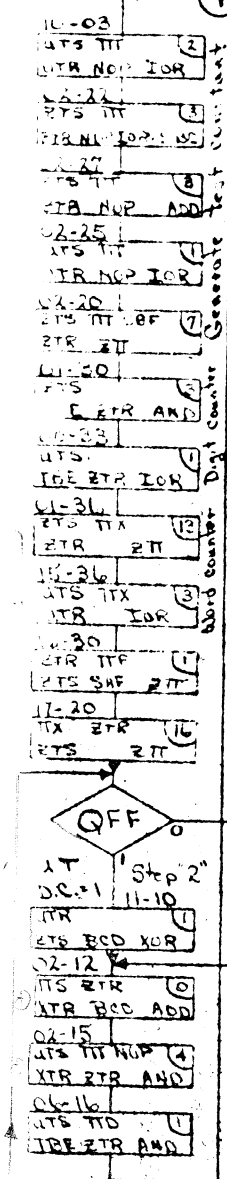
Kommt nicht raus

Updated 3-5-71

ITEM		QTY.		MATERIAL DESCRIPTION		MAT'L PART NO.		MAT'L DWG. NO.		MAT'L SPEC.	
DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED. DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .005		HARRY A. Johnston DRAWN BY Henry J. Klobatek ENGINEER		3-5-71 DATE 11-6-70		Microdiagnostic Testers D-Tester PART 81/14		HEWLETT PACKARD		PART NUMBER B	
RELEASE TO PROD.		NEXT ASSEMBLY		FINISH		SCALE		SHEET		OF	
SUPERSEDES DWG.											

START CONSTANT = K = 0123 (dec.)
RESULT Sum = S = 0123 (dec.)
Sum of Carries = 10000100 (dec.)
= 132 (dec.)

		B-		
GYM	REVISIONS		APPROVED	DATE

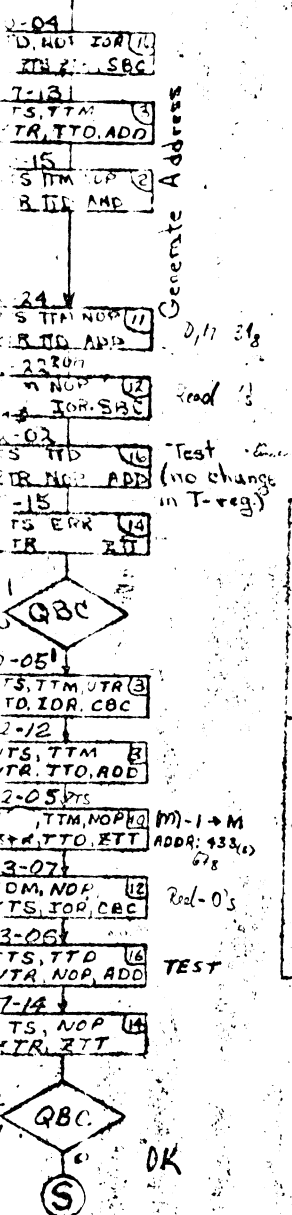


TEST START CONSTANT $K = 0.123$ (dec)
TEST RESULTS CONSTANT $R = 7840$ (dec)

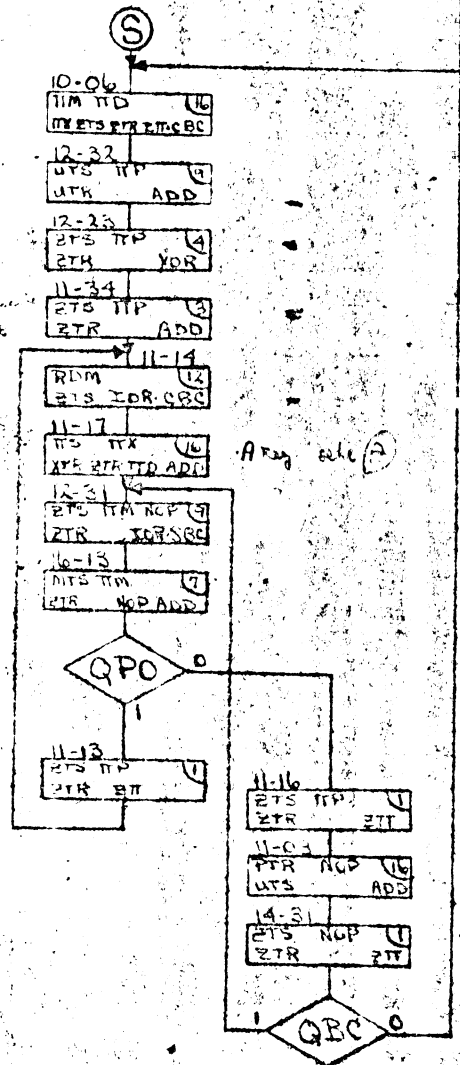
Updated: 5-5-71

DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED. DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .005	Henry J. Johnston DRAWN BY	3-5-71 DATE	Microdiagnostic Routines D-Tester	MAT'L PART NO.	MAT'L DWG. NO.	MAT'L SPEC.
	Henry J. Kohoutek ENGINEER	11-6-71	TITLE	HEWLETT  PACKARD		
RELEASE TO PROD.	NEXT ASSEMBLY		PART NUMBER			
SI PERSEDES DWG.	FINISH		SCALE	B - - -		

ST-17
READ DRIVERS
TEST

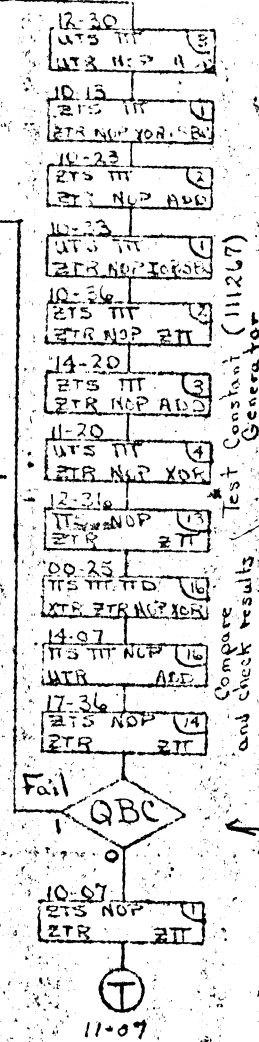


TEST-18
CHIPS ENABLE DERODER
TEST



ENGINEERING RESPONSIBILITY										GEPIA									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

REVISIONS										APPROVED									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20



Test Constant (111267)
Compare and check results

T Bus = 1 11 004 001 110 010
111267

111100001000001

ERROR

- (A)
- 0000 = 064145
 - 2000 = 021725 *
 - 3000 = 021754 *
 - 4000 = 170402
 - 5000 = 170560
 - 6000 = 5000 *
 - 7000 = 62700 *
 - 10000 = 000000 *
 - 11000 = 000042 *
 - 15000 = 000037

* DENOTES A PLUG-IN ROM, LOCATED BEHIND THE DISPLAY

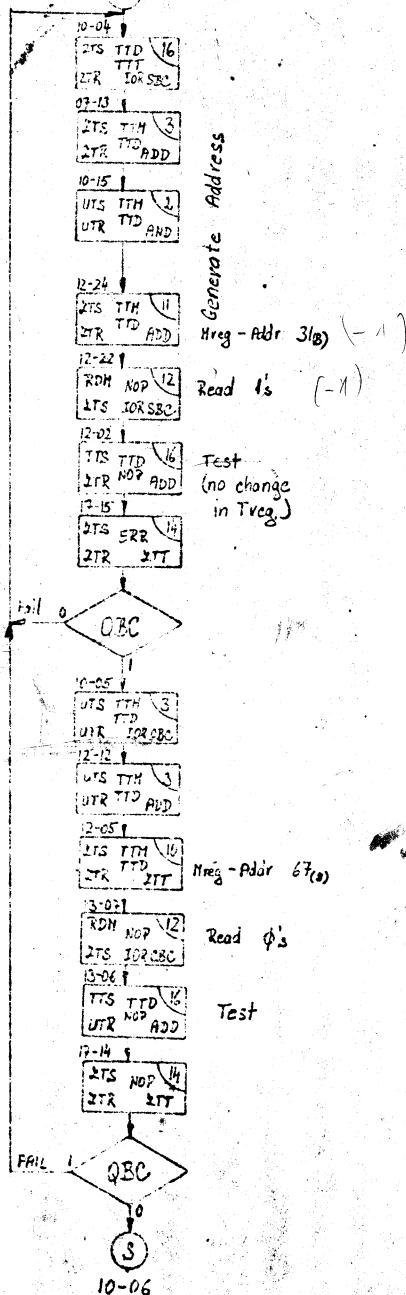
NUR ARITHMETIC ROM

- 1000 = 001000
- 1000 = 001000
- 10000 = 000000
- 11000 = 000000

OK

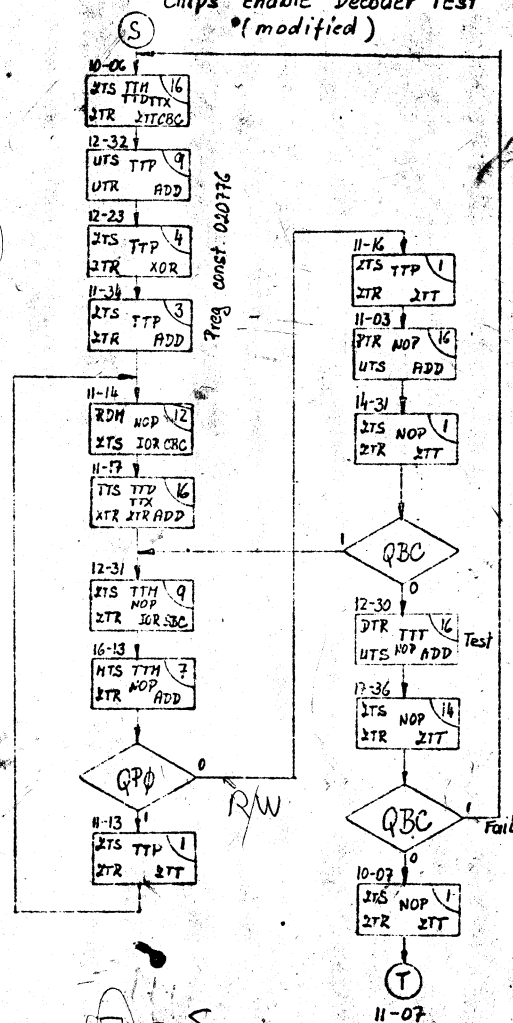
DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED. DIMENS. ARE IN INCHES. TOLERANCES: .XX ± .02, .XXX ± .005		ITEM		QTY.	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG NO.	MAT'L SPEC.
DRAWN BY: Henry J. Kohnstek		DATE: 3-5-71		Microdiagnostic Routines		HEWLETT-PACKARD		
ENGINEER: Henry J. Kohnstek		DATE: 11-6-70		D-Tester		PAR 10/11		
RELEASE TO PROD.		NEXT ASSEMBLY		FINISH		SCALE		
SUPERSEDES DWG.		PART NUMBER		B		SHEET OF		

(R) Read Drivers Test



Test -18

Chips Enable Decoder Test
(modified)



Hreg	Ir	09810 - 66521 (old)	11216 - 66521
000000		064150	064145
002000		Slot 1. For Add on ROMs Test only	
003000		See table A	
004000		170402	170402
005000		170560	170560
006000		Slot 2. Test block for test "S"	
007000		See table B	
008000		062135	062140
010000		Slot 3.	
011000		ROM contained I/O test constants	
016000		See test W	
016000		000037	000037

Table A

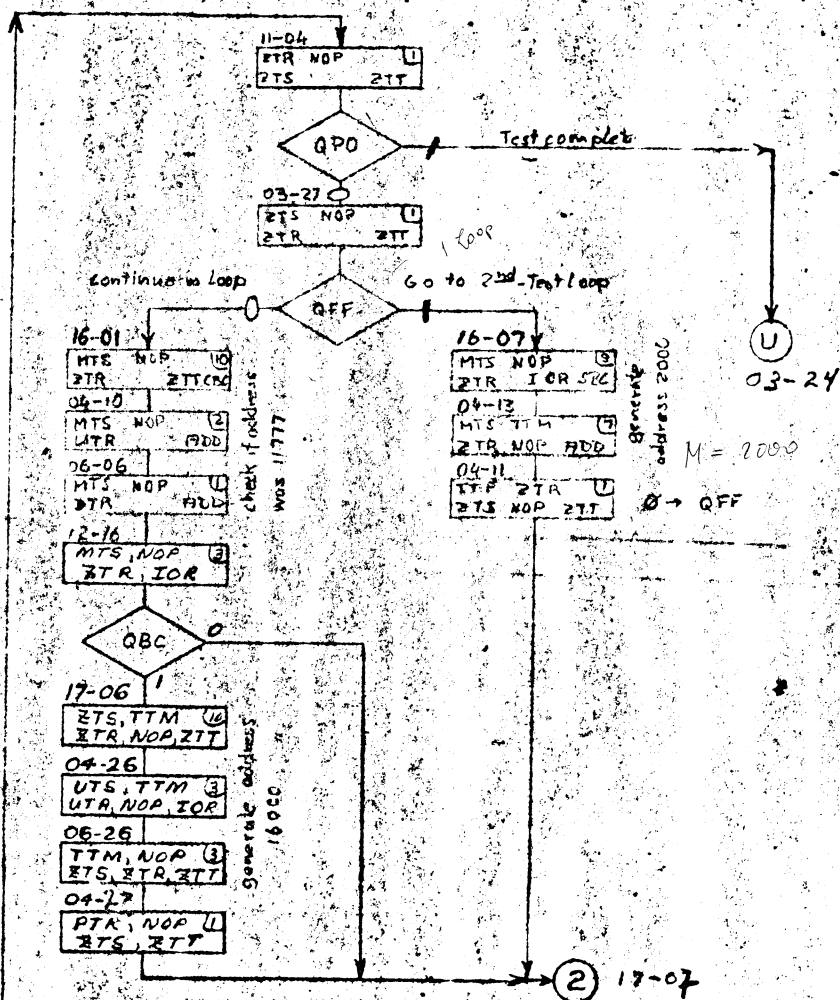
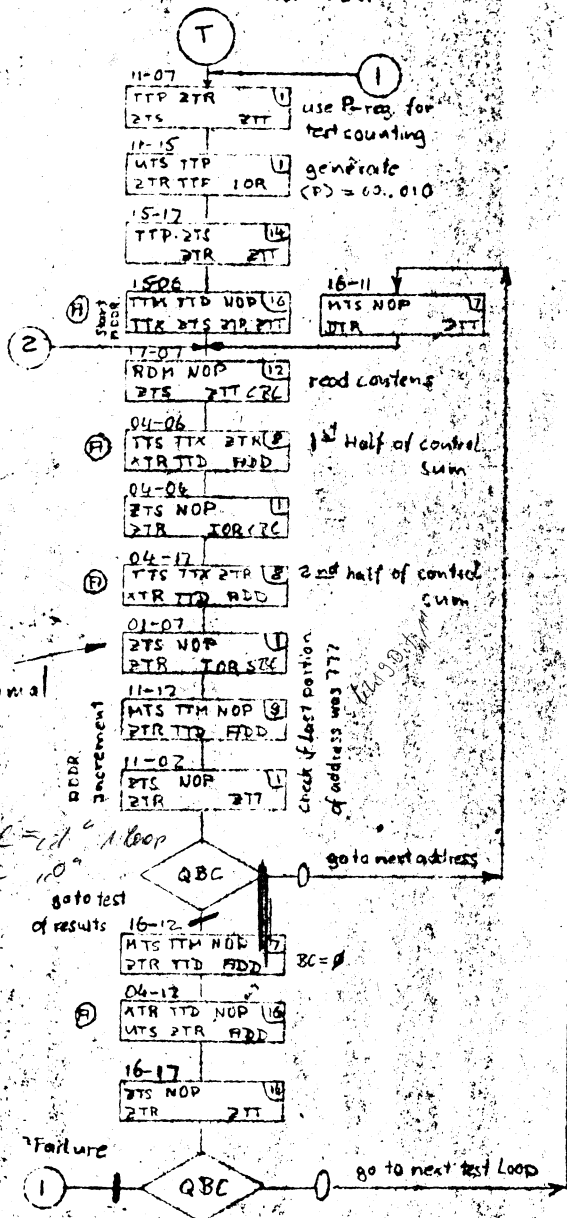
Add-on ROM's Slot 1	Addr 2000	Addr 3000
Math. (old)	021725	021754
Math. (new)	021725	024031
Statistic	021725	026324
User definable	025725	000000
Alpha	000042	000000
Typewriter	000000	000002
No block	000000	000000

Table B

Add-on ROM's Slot 1	Addr 6000	Addr 7000
Math. (old)	024351	
Math. (new)	042274	
Statistic	000001	
User defin.	022325	
Alpha	050210	
Typewriter	050250	
No block	050252	

TEST - 19

ROM TEST



Sets of addresses tested:

0000 - 0777 1st test loop, QPO=0, QFF=1

2000 - 11777 2nd test loop, QPO=1, QFF=0

16000 - 16777 3rd test loop, QPO=1, QFF=0

DO NOT SCALE THIS DRAWING
UNLESS OTHERWISE SPECIFIED.
DIMENSIONS ARE IN INCHES.
TOLERANCES .XX ± .008 .XXX ± .008

ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG. NO.	MAT'L SPEC.
DRAWN BY Hartmut Heilverschen		DATE 7.12.71	MICRODYNAMIC ROUTINES		
ENGINEER J. Toland		TITLE D-TESTE BREND30RD		HEWLETT PACKARD	
RELEASE TO PROD.		NEXT ASSEMBLY		PART NUMBER	
SUPERSEDES DWG.		FINISH		B-	

SHEET OF

OK

SEPIA 

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
16	17	18	19	20	21	22			23	24	25		26	27	28	
		29			30			31								

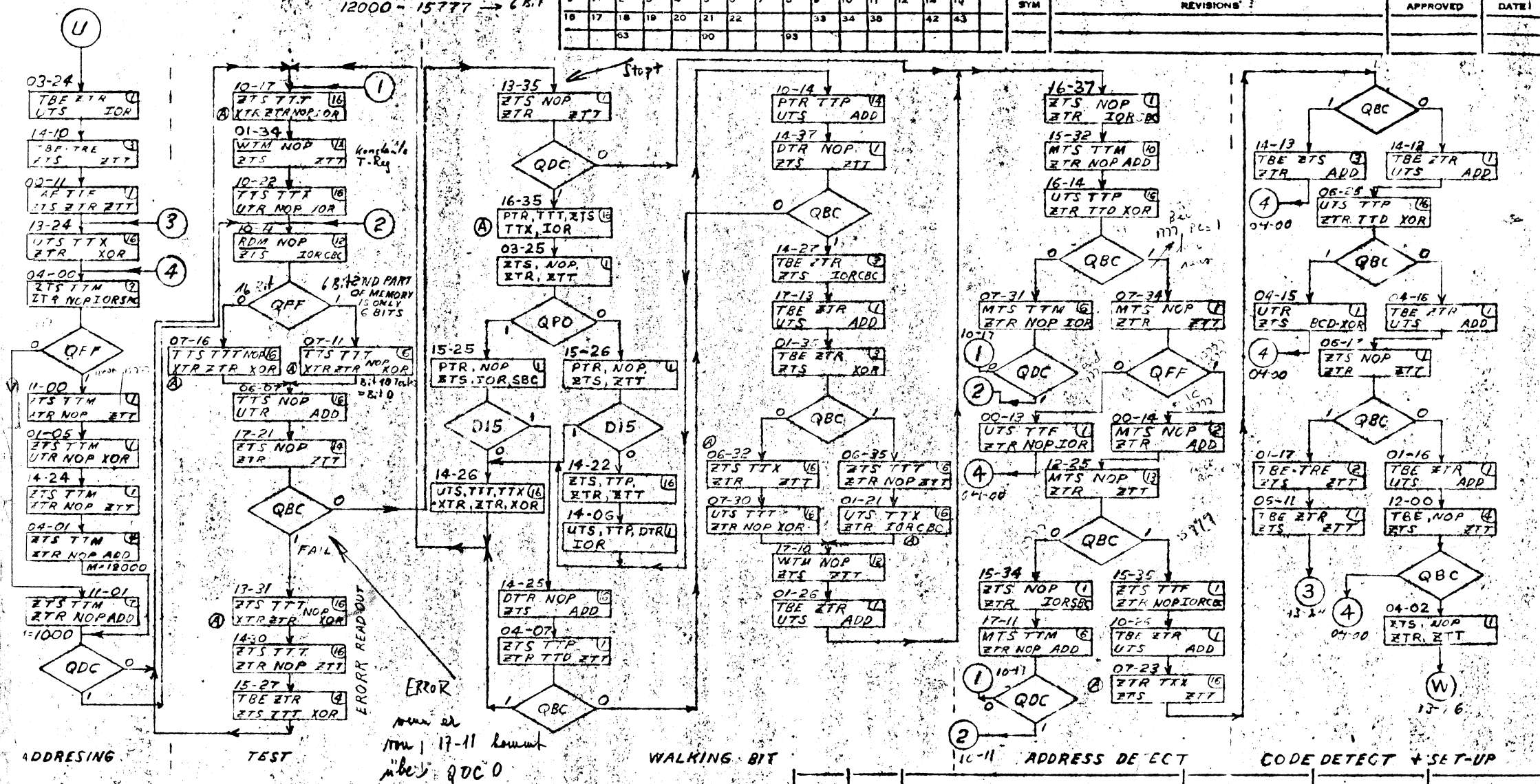
SYM

REVISIONS:

R -

APPROVED

DATE: 11/11/68



1) First:

DO NOT SCALE THIS DRAWING
UNLESS OTHERWISE SPECIFIED.
DIMENSIONS ARE IN INCHES
TOLERANCES .XX ± .02 .XXX ± .005

DRAWN BY
BILL BIRDSELL
ENGINEER

DATE _____

2/22/71

MICRODIAGNOSTIC ROUTINES
D-TESTER
TITLE PART 12/14

HEWLETT (HP) PACKARD

RELEASE TO PROP.

NEXT ASSEMBLY

PART NUMBER

SUPERSEDES DWA

FINNISH

SCALE

IB

SHEET OF