Addres	B		
237	217	15.	4.63
433	413		
437	417	14.99 vinA=	
625	605		
630	610	14.82 C	
1034	1014 —1		
		237	

6 | 7 8 9 | 0 1 2 | 3 4 |5
| | 0 0 1 | 1 1 1
| | 1 1 | 1 1
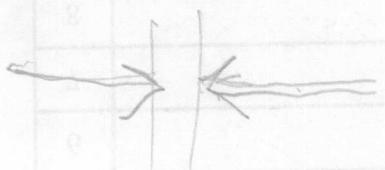
063077 —

AC3 71

AC3 20.00 —   AC3 222

AC3 23.00   AC3 230

AC3 25.00   231

36.00   40.   234

AC3 = 37

AC3 - 71

		YXXO				YOX			XXO				OX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ADDR. ·1760				0	0	1	1	1	1	1	1	0	0	0	0
DRIVE LINE IC#				·0			7		1	6				0	
2760					1	0	1	1	1	1	1	0	0	0	0
				1			3		1	6				0	
5760				1	0	1	1	1	1	1	1	0	0	0	0
				2			7		1	6				0	
6760				1	1	0	1	1	1	1	1	0	0	0	0
				·3			3		1	6				0	
0560				0	0	0	1	0	1	1	1	0	0	0	0
				0			2		1	6				0	
1560				0	0	1	1	0	1	1	1	0	0	0	0
				0			6		1	6.				0	
							1		1						
3200			·1	0	1	1	0	1	0	0	0	0	0	0	0
				·5			5			0				0	
237								1	0	0	1	1	1	1	1
						0	0	1		0	3			7	
433							1	0	0	0	1	1	0	1	1
						0	2	0		0	1			6	
437							1	0	0	0	1	1	1	1	1
						0	2	0		0	3			7	
625							1	1	0	0	1	0	1	0	1
4000						0	3			0	2			5	
5000		0	0	1	0										
6000		0	0	1	0	1	0	0	0	0	0	0	0	0	0
		0	0	1	0	1	0		0		0			0	
		0	0	1	1	0									

DRIVE LINE		1200 16K		Nova II 16K
X00,02	=	U46	=	U49
X01,03	=	U47	=	U50
X04,06	=	U51	=	U54
X05,07	=	U52	=	U55
X000,010	=	U43	=	U46
X020,030	=	U42	=	U45
X040,050	=	U41	=	U44
X060,070	=	U40	=	U43
X100,110	=	U34	=	U37
X120,130	=	U33	=	U36
X140,150	=	U32	=	U35
X160,170	=	U29	=	U32
Y00,04	=	U70	=	U73
Y01,05	=	U69	=	U72
Y02,06	=	U67	=	U70
Y03,07	=	U66	=	U69
Y000,020	=	U65	=	U68
Y010,030	=	U64	=	U67
Y040,060	=	U63	=	U66
Y050,070	=	U62	=	U65
Y100,120	=	U60	=	U63
Y110,130	=	U59	=	U62
Y140,160	=	U58	=	U61
Y150,170	=	U57	=	U60

1. TELETYPE OUTPUT

```
0   060477   READS       Start @ location Ø
1   061111   DOAS, O     Set the lower 8 data
2   063611   SKPDN       switches to the bits
3   000777   JMP.-1      you desire to output.
4   000000   JMP 0       Allows scoping output
                         circuit.
```

2. TELETYPE IN/PUT

```
0   060110   NIO,S       Start @ location Ø
1   063610   SKPDN       reads any paper tape,
2   000777   JMP.-1      continually, into AC³-
3   074510   DIAS,3      Allows scoping input
4   063610   SKPDN       circuits.
5   000777   JMP.-1
6   000001   JmP 1
```

3. ECHO KEYBOARD

```
0   063610   SKPDN       Starts @ location Ø
1   000777   JMP.-1      Character typed on
2   060610   DIAC,Ø      keyboard should be
3   063710   SKPDZ       printed on printer
4   000777   JMP.-1      keyboard→ CPU→ Printer
5   061111   DOAS,Ø
6   000000   JMP O
```

4. ECHO TAPE #1

```
0    060110   NIO,S      Start @ location Ø
1    063610   SKPDN      The tape read
2    000777   JMP-1      is printed on
3    060610   DIAC,Ø     the printer.
4    063510   SKPBZ
5    000777   JMP-1
6    061111   DOAS,Ø
7    063611   SKPDN
10   000777   JMP-1
11   000000   JMP O
```

5. ECHO TAPE #2

```
0   060110              Ditto #4
1   063610
2   000777
3   060510
4   063511
5   000777
6   061111
7   000001
```

Subject: TROUBLESHOOTING AID FOR NOVA LINE MEMORIES:

This DIB will check for any drivers which would hold down
the read and write source voltages on all Nova line Memories.

The 3 watt current resistors on the memories should not have
any noticeable voltage drop across them. If there is a
voltage drop, then you have a bad driver or drivers which
are holding the voltage down. The solution to this problem
is to cut Pin 11 on the drivers, until the voltage drop
across the current resistor is approximately $\emptyset$ volts.
Usually the first and fourth drivers of the group which
pertain to that particular current resistor should be cut
first. These measurements should be made with a DVM under
static conditions.

Copy every F.E.

Submitted by:	Russell Carreiro		Date: 10/5/77
Reviewed by:	Jack Nadon		Date: 10/5/77

DATA GENERAL CORPORATION

DATE:	19 APRIL 1974	**NUMBER:**	S1005
FROM:	R. JENSEN	**CATEGORY:**	MEMORIES
SUBJECT:	MISSING CAPACITOR	**MODEL:**	8300, 8301, 8302, AND 8117

On the 1200 16K Memory and all Nova II Memories (4K, 8K, and 16K), a de-coupling capacitor for -5 volts has inadvertantly never been installed. It is strongly recommended that this capacitor be installed when encountering any of these memories.

Symptoms:

When running a Memory Test, turning the Teletype off/on causes a Memory failure. Secondary method is a visual inspection. Holding board by connector, look for a 6.8 MF 35V cap between -5 volt etch and ground. To the right of the sense amp for bit 14 and 15 is a crosshatch of etches. This is the ground connection for the cap. One of the etches between this crosshatch and the sense amp is -5 volts. This varies with each memory and also with Rev. level so more precise instructions cannot be given. (See ECO 2507 for precise location.)

Solution:

Install 6.8 ufd 35 tant capacitor (DG Part No. 103-000-002) to right of sense amp for bits 14 and 15 between -5 volts etch and ground etch. Use existing feedthru holes. ECO 2507 is generated to correct this problem.

Thanks to Parker Sutherland of the New England Depot for finding this problem and bringing this to attention.

DISTRIBUTION

A, B, F, G, I

Left chart

		YXXO				YOX			XXO			OX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

ADDR.

DRIVE LINE
IC #

(grid of drive-line / IC# cells, blank)

		YXXI				YOX			XXO			OX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

ADDR.

Right table

DRIVE LINE		16K		16K
X 00, 02	=	U 46	=	U 49
X 01, 03	=	U 47	=	U 50
X 04, 06	=	U 51	=	U 54
X 05, 07	=	U 52	=	U 55
X 000, 010	=	U 43	=	U 46
X 020, 030	=	U 42	=	U 45
X 040, 050	=	U 41	=	U 44
X 060, 070	=	U 40	=	U 43
X 100, 110	=	U 34	=	U 37
X 120, 130	=	U 33	=	U 36
X 140, 150	=	U 32	=	U 35
X 160, 170	=	U 29	=	U 32
Y 00, 04	=	U 70	=	U 73
Y 01, 05	=	U 69	=	U 72
Y 02, 06	=	U 67	=	U 70
Y 03, 07	=	U 66	=	U 69
Y 000, 020	=	U 65	=	U 68
Y 010, 030	=	U 64	=	U 67
Y 040, 060	=	U 63	=	U 66
Y 050, 070	=	U 62	=	U 65
Y 100, 120	=	U 60	=	U 63
Y 110, 130	=	U 59	=	U 62
Y 140, 160	=	U 58	=	U 61
Y 150, 170	=	U 57	=	U 60

DATE:	FEBRUARY 19, 1975
FROM:	D. REED
SUBJECT:	VOLTAGE REGULATOR & THRESHHOLD POTENTIOMETER ADJUSTMENTS FOR 8117 MEMORIES WITH ECO 2565 INSTALLED

NUMBER:	S1008
CATEGORY:	MEMORIES
MODEL:	8117

All 8117 16K Memories, Artwork 107-000-185-03 and above, with ECO 2565 installed should have R5 & R198 adjusted as follows:

> Voltage Regulator Pot (R5) fully clockwise
> Threshhold Pot (R198) fully counterclockwise

Rev 02 and below, or REV 03 and higher without ECO 2565, should not be field adjusted due to the fact that an adjustable voltage supply is required for +VINH.

The best means of ascertaining if ECO 2565 has been implemented is as follows:

(1) R73 510 OHM ½ resistor deleted.

(2) C19, C36, C42, C52, C57, C68, C71, C84 100pf capacitors changed to 220pf.

(3) R43, R80, R111, R114, R151, R155, R190, R199 3300 OHM resistors deleted.

See TIB S1007 - Category: MEMORIES

DATE: 29 OCTOBER 1974
FROM: D. REED
SUBJECT: FIELD INSTALLATION OF ECO 2565

NUMBER: S1007
CATEGORY: MEMORIES
MODEL: 8117

ECO 2565 balances the Read/Write currents of the 8117 16 K memories to allow them to pass Multiprogramming test. This ECO is implemented by changing the values of ten components for Rev. 3 & 4 and eighteen components for Rev. 5 and above. Eight of these components are capacitors and resistors which are varied at test level to achieve optimum memory margins. Since the selection of these components requires special test equipment, it is not recommended that this change be attempted in the field. 8117 memories which require this change may be returned to a repair depot for updating per Data General Corporation standard repair procedures.

DATA GENERAL CORPORATION

On the 1200 16K Memory and all Nova II Memories (4K, 8K, and 16K), a de-coupling capacitor for -5 volts has inadvertantly never been installed. It is strongly recommended that this capacitor be installed when encountering any of these memories.

Symptoms:

When running a Memory Test, turning the Teletype off/on causes a Memory failure. Secondary method is a visual inspection. Holding board by connector, look for a 6.8 MF 35V cap between -5 volt etch and ground. To the right of the sense amp for bit 14 and 15 is a crosshatch of etches. This is the ground connection for the cap. One of the etches between this crosshatch and the sense amp is -5 volts. This varies with each memory and also with Rev. level so more precise instructions cannot be given. (See ECO 2507 for precise location.)

Solution:

Install 6.8 ufd 35 tant capacitor (DG Part No. 103-000-002) to right of sense amp for bits 14 and 15 between -5 volts etch and ground etch. Use existing feedthru holes. ECO 2507 is generated to correct this problem.

Thanks to Parker Sutherland of the New England Depot for finding this problem and bringing this to attention.

ADDRESS		YXXØ				YØX			XXXØ				XØX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

DRIVER IC # 100-307

16K CORE MEMORY

DRIVER #	1200	N2	N3
XØX	IC	IC	IC
X00-02	- 46	- 49	- 52
X01-03	- 47	- 50	- 53
X04-06	- 51	- 54	- 57
X05-07	- 52	- 55	- 58

XXXØ	IC	IC	IC
X000-010	- 43	- 46	- 49
X020-030	- 42	- 45	- 48
X040-050	- 41	- 44	- 47
X060-070	- 40	- 43	- 46
X100-110	- 34	- 37	- 40
X120-130	- 33	- 36	- 39
X140-150	- 32	- 35	- 38
X160-170	- 29	- 32	- 35

YØX	IC	IC	IC
Y00-04	- 70	- 73	- 76
Y01-05	- 69	- 72	- 75
Y02-06	- 67	- 70	- 73
Y03-07	- 66	- 69	- 72

YXXØ	IC	IC	IC
Y000-020	- 65	- 68	- 71
Y010-030	- 64	- 67	- 70
Y040-060	- 63	- 66	- 69
Y050-070	- 62	- 65	- 68
Y100-120	- 60	- 63	- 66
Y110-130	- 59	- 62	- 65
Y140-160	- 58	- 61	- 64
Y150-170	- 57	- 60	- 63

DRIVER #
I C #

Left grid

ADDRESS	1	YXX∅ 2	3	4	5	Y∅X 6	7	8	XXX∅ 9	10	11	12	X∅X 13	14	15
DRIVER # / IC #				∅	∅						∅	∅			

(grid of empty cells with ∅ markings repeated down the page)

Right-side reference

DRIVER IC # 100-307

16K CORE MEMORY

DRIVER #	1200	N2	N3
X∅X	IC	IC	IC
X00-02	- 46	- 49	- 52
X01-03	- 47	- 50	- 53
X04-06	- 51	- 54	- 57
X05-07	- 52	- 55	- 58

XXX∅	IC	IC	IC
X000-010	- 43	- 46	- 49
X020-030	- 42	- 45	- 48
X040-050	- 41	- 44	- 47
X060-070	- 40	- 43	- 46
X100-110	- 34	- 37	- 40
X120-130	- 33	- 36	- 39
X140-150	- 32	- 35	- 38
X160-170	- 29	- 32	- 35

Y∅X	IC	IC	IC
Y00-04	- 70	- 73	- 76
Y01-05	- 69	- 72	- 75
Y02-06	- 67	- 70	- 73
Y03-07	- 66	- 69	- 72

YXX∅	IC	IC	IC
Y000-020	- 65	- 68	- 71
Y010-030	- 64	- 67	- 70
Y040-060	- 63	- 66	- 69
Y050-070	- 62	- 65	- 68
Y100-120	- 60	- 63	- 66
Y110-130	- 59	- 62	- 65
Y140-160	- 58	- 61	- 64
Y150-170	- 57	- 60	- 63