

PART NUMBER

860102

PREFACE

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D-116
COMPUTER
VOLUME II

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DIGITAL COMPUTER CONTROLS INC

12 Industrial Road, Fairfield, New Jersey 07006, (201) 575-9100, TWX 710 734 4310 "DCC N.J."

January 1977

January 1977

LIST OF DIAGRAMS

Title

Drawing No.

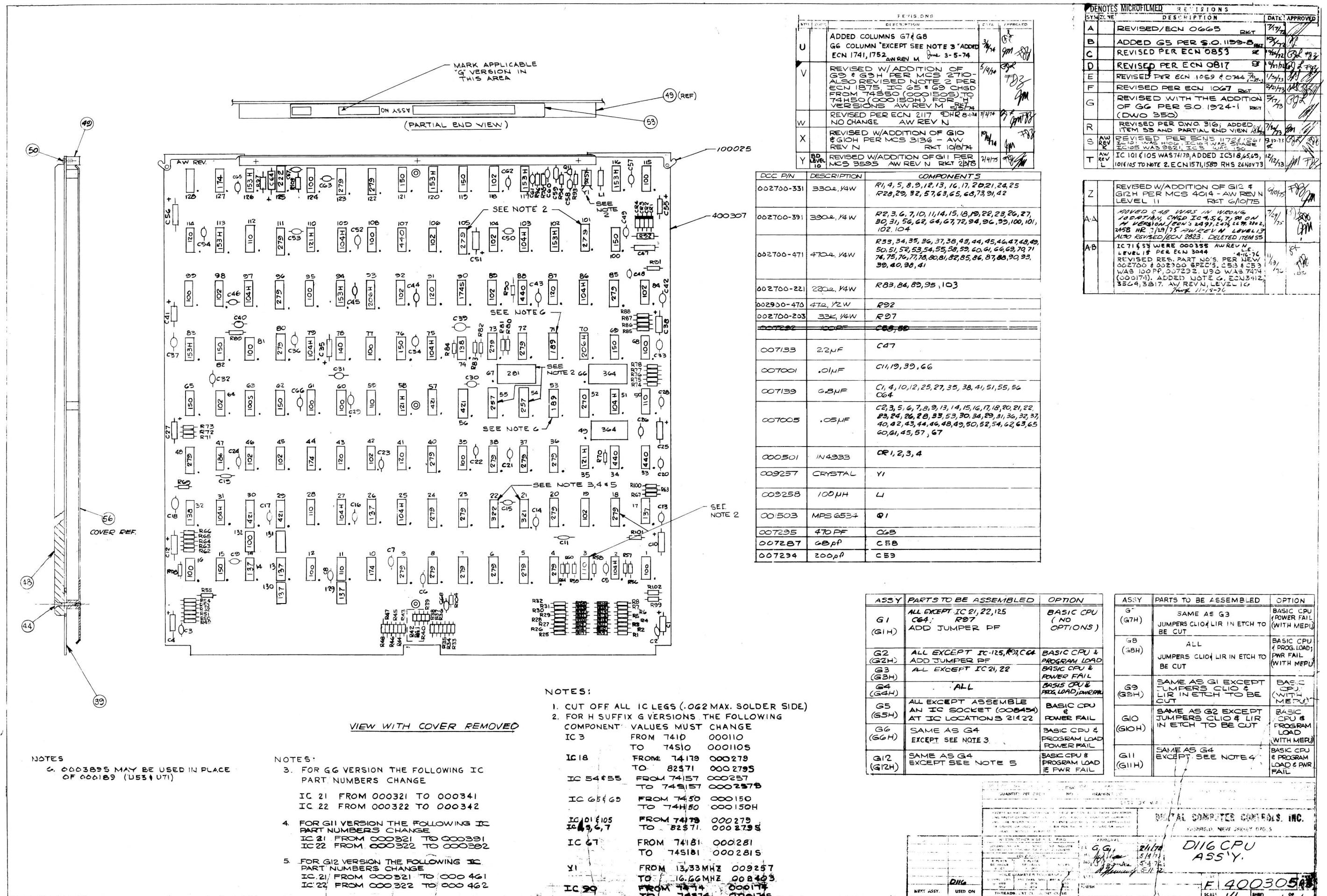
Central Processing Unit Assembly (1 sheet)	400305
Central Processing Unit Schematic (10 sheets)	400306
4K, 8K, and 16K Memory Assembly (2 sheets)	400970
4K, 8K, and 16K Memory Schematic (10 sheets)	400971
Input/Output (I/O) Board Assembly (3 sheets)	400300
Input/Output (I/O) Board Schematic (8 sheets)	400301
ASR-33 TTY Cable Assembly (1 sheet)	800014
ASR-33 TTY Modifications (1 sheet)	800005
TTY Reader Control Board Assembly (1 sheet)	400065
TTY Reader Control Board Schematic (2 sheets)	400066
D-116 LED Front Panel Assembly (1 sheet)	401050
D-116 LED Front Panel Schematic (3 sheets)	401051
Power Supply Mother Board Assembly (2 sheets)	400660
Power Supply Schematic (6 sheets)	800016
Power Supply Regulator Board Assembly (2 sheets)	400665
Power Supply Regulator Board Schematic (3 sheets)	400666
Resistor Board Assembly (1 sheet)	400330
Resistor Board Schematic (2 sheets)	400331
Backplane Connector Panel Wire List (2 sheets)	400341
Installation Drawing for 4 or 7 Slot Chassis (1 sheet)	950003
Installation Drawing for 10 or 17 Slot Chassis (1 sheet)	950002

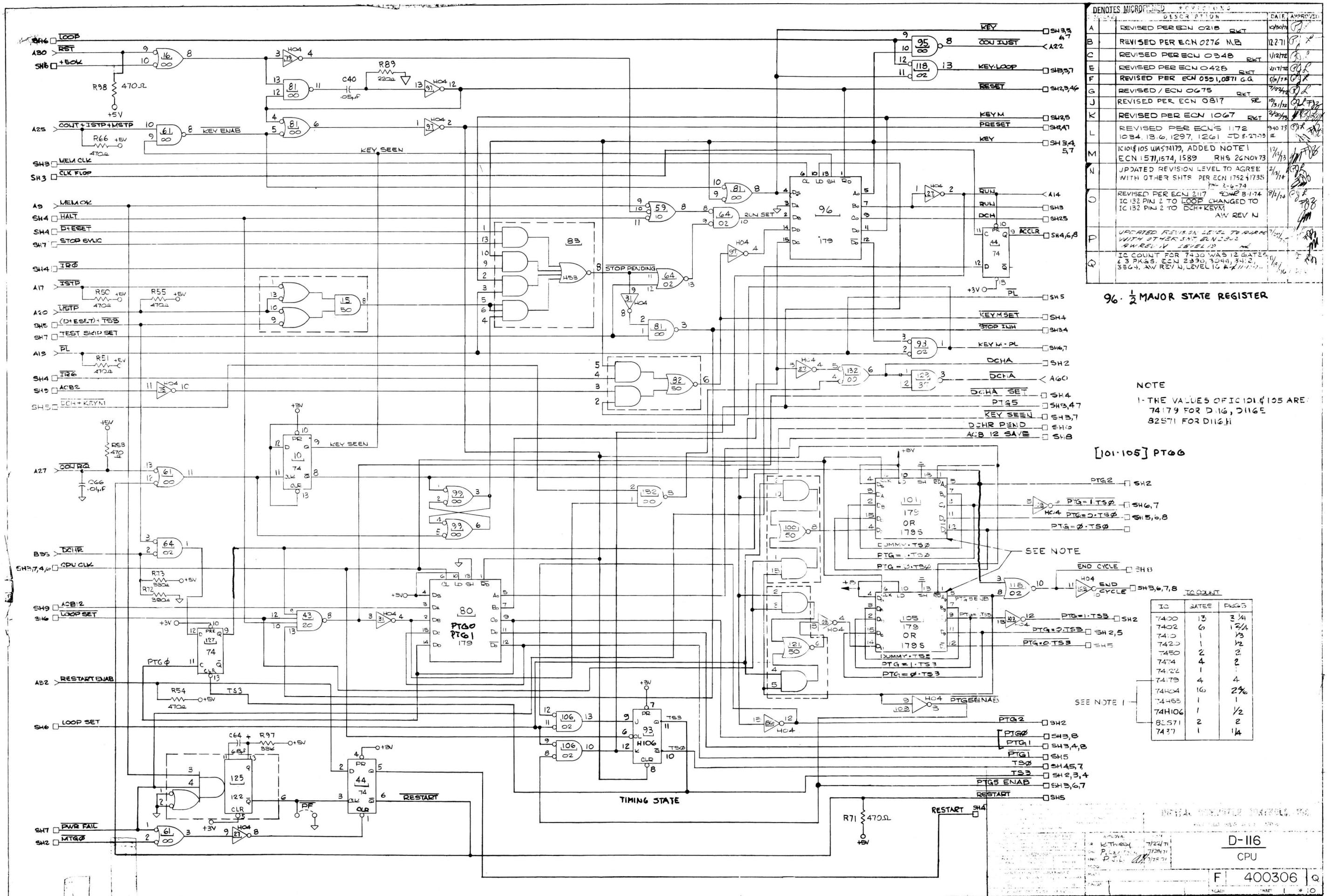
DIAGRAM REVISION LIST

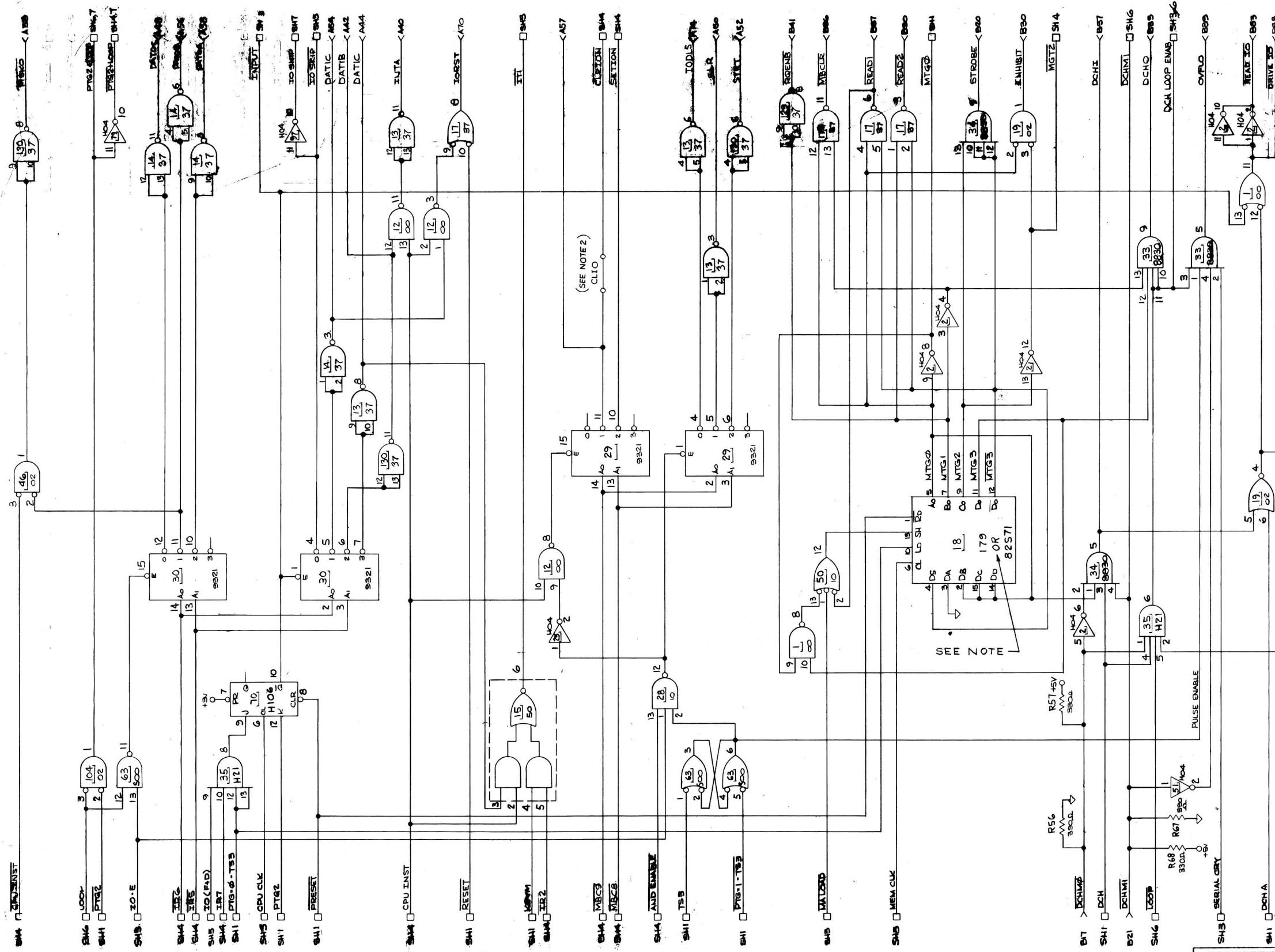
Drawing No.

Revision Letter

400305	AB
400306	Q
400970	G
400971	D
400300	BL
400301	S
800014	C
800005	D
400065	F
400066	C
401050	C
401051	C
400660	N
800016	V
400665	AA
400666	U
400330	H
400331	A
400341	A
950003	C
950002	B







DENOTES MICROFILMED		REVISIONS	
ZYZONE	DESCRIPTION	DATE	REV N
A	REVISED PER ECN 0218 PRT		
B	REVISED PER ECN 0216 M3		
C	REVISED PER ECA 0348 PRT	1/14/71	
D	REVISED PER ECA 0348, 0350, 0352 PGT	1/14/71	
E	REVISED PER ECA 0348 G.G.	1/14/71	
F	REVISED PER ECA 0348 G.G.	1/14/71	
G	REVISED PER ECA 0348 G.G.	1/14/71	
H	REVISED PER ECA 0348 RC	1/14/71	
J	REVISED PER ECN 0317 S	1/14/71	
K	REVISED PER ECN 1067 PRT	1/14/71	
L	REVISED PER ECNS 1172, 1034 1316, 1297, 2611 JD 5-27-78	5-10-78	
M	ADDED NOTE # H04, JEPINS 10.11 ON B83 - READ ID. ECN'S 1571 \$ 1574, 1580 RHS 2140V73	1/14/71	
N	ADDED JUMPER C10 & NOTE # ECN 1752, 1735 JEWEL	1/14/71	02/00
O	REVISED PER ECA 2117 DHR 8-1-74 AW REV N	8/1/74	02/00
P	UPDATED REVISION LEVEL TO AGREE OTHER SHTS / ECN 2802 AW REV N LEVEL IS M4	7/14/75	02/00
Q	UPDATED REV LEVEL TO AGREE WITH OTHER SHTS. ECN 2890, 3049, 3412, 3564. 11-1-76	11/1/76	02/00

118 · MEM. TIMING GEN

NOTE:

- 1. IC-18 IS DEVICE TYPE 74179
FOR D-116S COMPUTERS
- IC-18 IS DEVICE TYPE 82571
FOR D-116H COMPUTERS
- 2. JUMPER IN ETCH TO BE CUT WHEN MEPU OPT
INSTALLED

IC COUNT		
IC	GATES	PIGS
7400	5	1 1/4
7402	4	1
7410	2	3/3
7437	16	4
7450	1	1/2
74179	1	1
74H04	.9	4 3/4
74H106	1	1/2
9321	4	2
74H21	2	1
8830	4	2
74300	9	3 1/4
82571	1	1

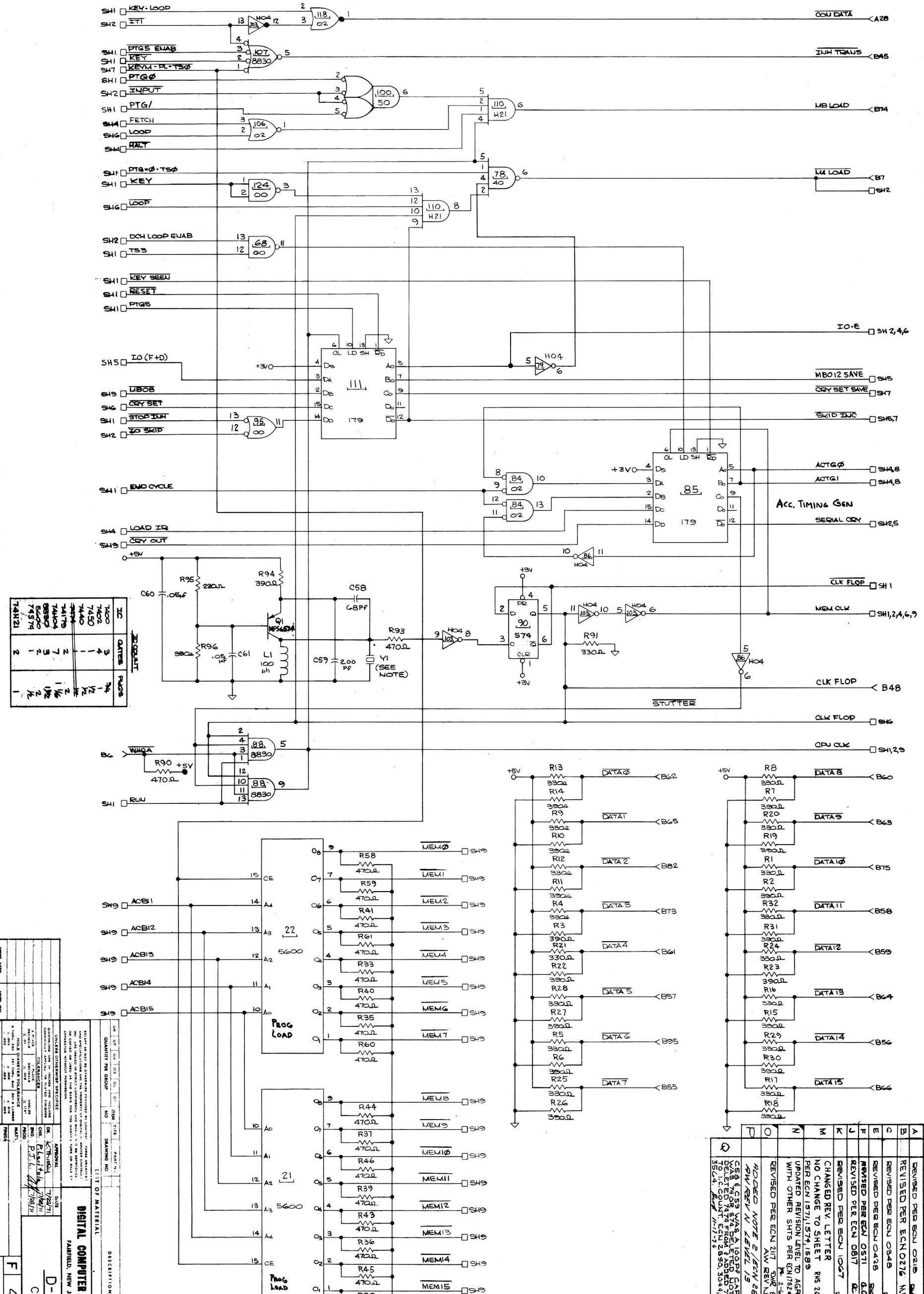
SEE

DIGITAL COMPUTER CONTROLS, INC.
FAIRFIELD, NEW JERSEY 07006

- 16 -

CHU

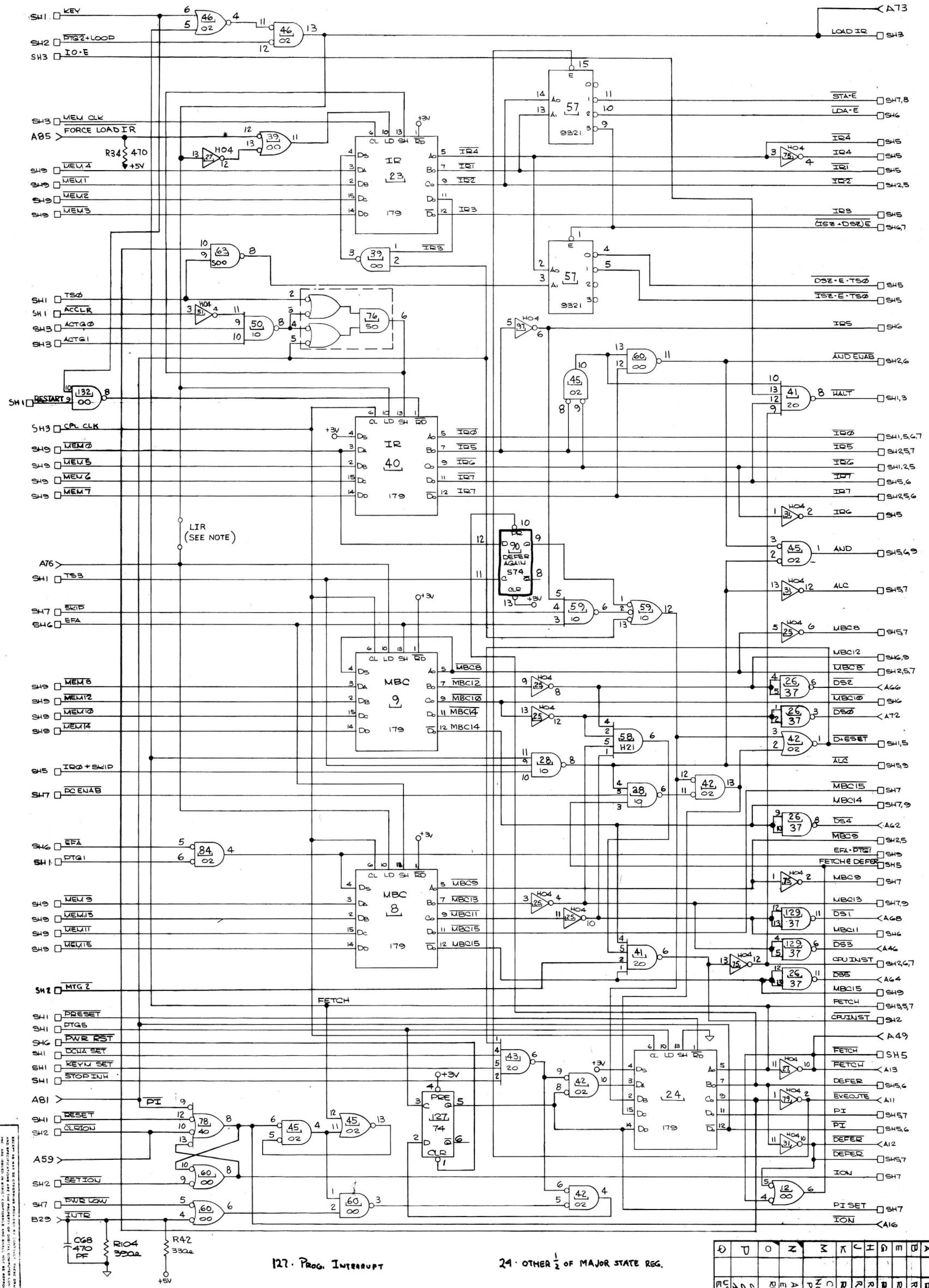
400303

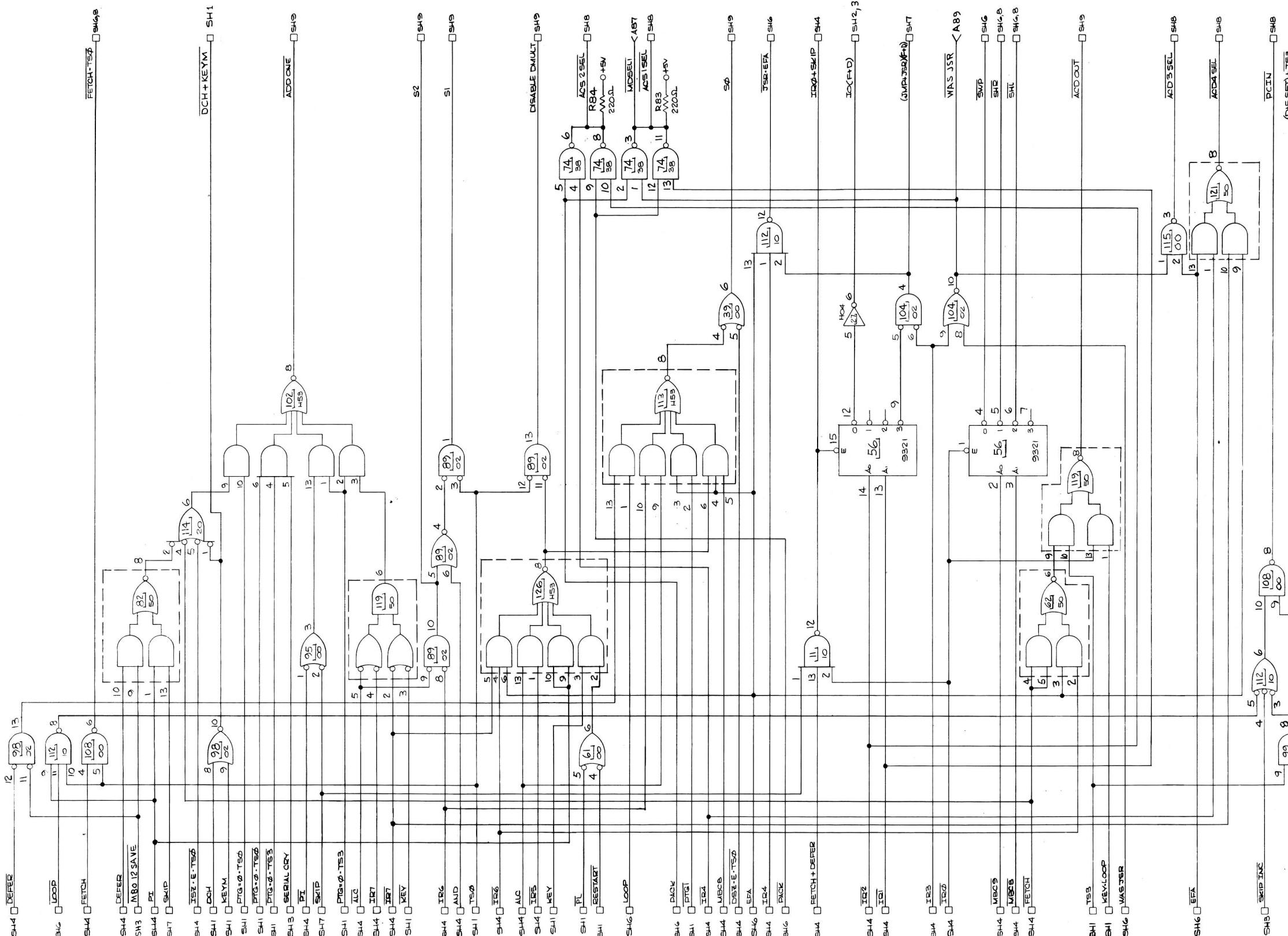


NOTE:

NOTE:

1) THE VALUE OF Y1 IS:
13.333 MHZ CRYSTAL USED FOR D-11G, D-11GE
16.666 MHZ CRYSTAL USED FOR D-11GH





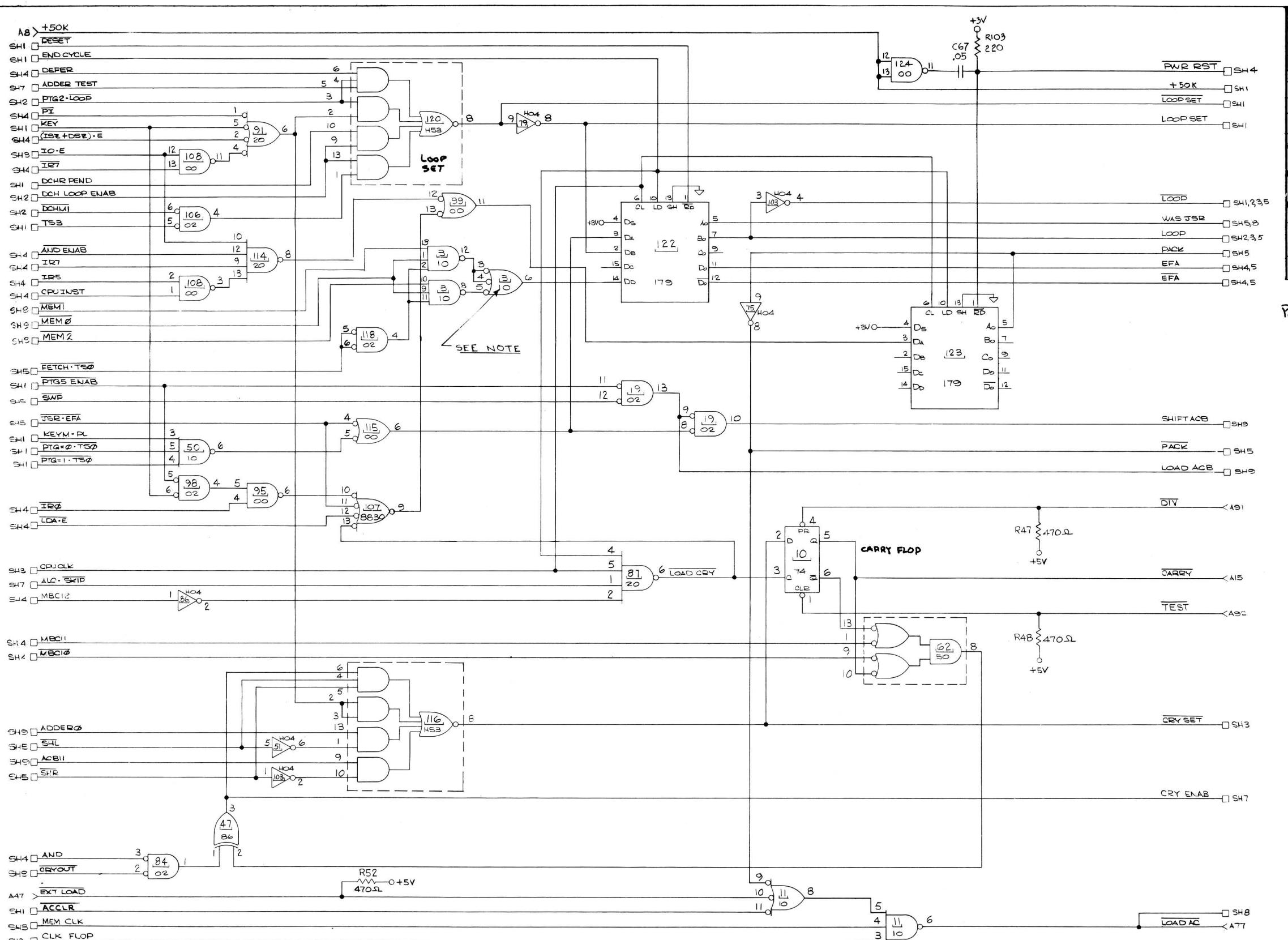
AC3; SELECTS Acc to BEAS; WINE

卷之三

PRINTING BY THE NAME OR INITIALS OF RECEIVER OR DRAFTSMAN		DIGITAL COMPUTER CONTROLS, INC. FAIRFIELD, NEW JERSEY 07006		
PROVAL:	DATE	D-116		
Thiele Lavitalo J.T.L.	7/23/71 7/23/71 <i>23 July 71</i>	CPU		
		F	400306	
		SCALE	SHEET	5 OF 10

IC COUNT		
IC	GATES	PKGS
7400	7	1 3/4
7402	8	2
7410	4	1 1/3
7438	4	1
7450	5	2 1/2
74H04	1	1/6
74H53	3	3
9321	2	1
7420	1	1/2

Y/M ZONE	DENOTES MICROFILMED	REVISIONS DESCRIPTION	APPROVED	
			DATE	INITIALS
A		REVISED PER ECN 0218 PCT	10/20/74	GJR
B		REVISED PER ECN 0348 PCT	11/21/74	GJR
M		CHANGED REV. LETTER NO CHANGE TO SHEET RHS 26 NOV 73 PER ECN 1571, 1574, 1589	1/1/75 3/3/75	PZT MM
N		UPDATED REVISION LEVEL TO AGREE WITH OTHER SHTS PER ECN 17524/1735 REV 2-6-74	3/1/74	GJR MM
O		REVISED PER ECN 2117 PNEC 8-1-74 ADDED RUN FROM IC 98 PIN 10 TO IC 132 PIN 2. AW REV 10	1/3/74	GJR PZT
P		UPDATED TO AGREE WITH OTHER SHTS ECN 2802 LEVEL 13 REV EYN	1/21/75	JZ GJR PZT
R		UPDATED REV. LEVEL TO AGREE WITH OTHER SHTS ECN 2890, 3044, 3412, 3564. REV 11-2-74	1/9/74	DZ GJR PZT



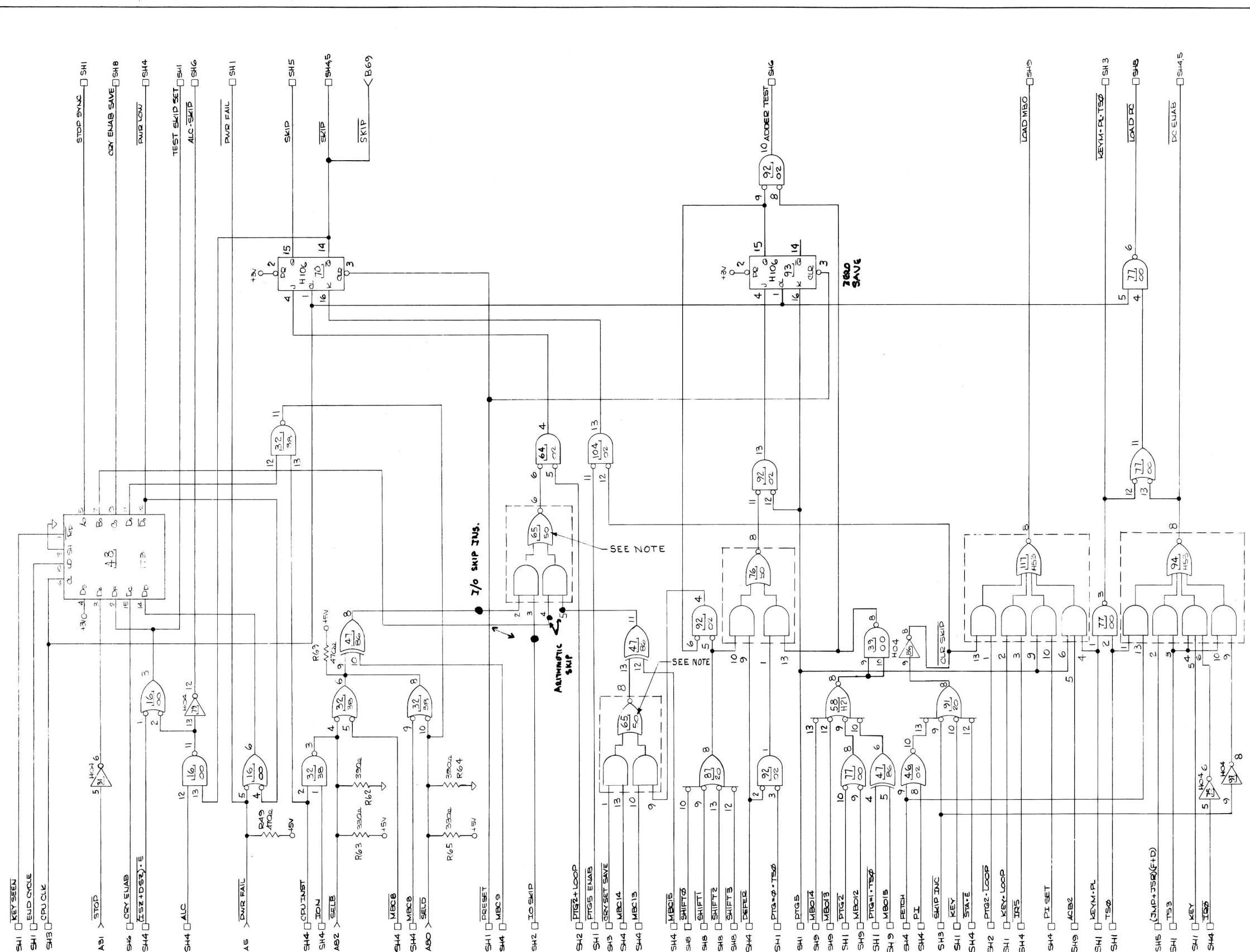
NOTES MICROFILMED		REVISIONS	
ZONE	DESCRIPTION	DATE	APPROVED
	REVISED PER ECN 0218	RET 10/30/74	PLR
	REVISED PER ECN 0276	MB 12-27-71	PLR
	REVISED PER ECN 0428	BKT 2/17/72	PLZ
	REVISED PER ECN 0571	G.G 5/10/74	PLR
	REVISED PER ECN 0817	PL 10/16/74	PLR/PL
	REVISED PER ECN 1067	BKT 3/27/73	PLR/PL
	REVISED PER ECN'S 1172, 1034, 1B1G, 1297, 1261 TD B-37-73	9-10-73 CO	PLR SEE PLR
	CHANGED REV LEVEL NO CHANGE TO SHEET RHS 26W075 PER ECN 1571, 1574, 1589	12/17/73	PLR
	UPDATED REVISION LEVEL TO AGREE WITH OTHER SHTS PER ECN 1752A/1783 JAN 2-6-74	2/10/74	PLR/PL
	REVISED PER ECN 2117 DHR 8-1-74 AW REV N	8/2/74	PLR/PL
	UPDATED TO AGREE WITH OTHER SHTS/ECN 2802. LEVEL IS INC SOURCE N	7/29/75	PLR/PL
	UPDATED REV LEVEL TO AGREE WITH OTHER SHTS/ECN 2890, 3044, 3412, 3564 JUN 11-7-76	11/19/76	PLR/PL

PAGE - DETERMINES READ & WRITE

IC	GATES	PAGE
7400	6	1 3/4
7402	6	1 3/4
7410	6	2
7420	3	1 1/2
7450	1	1/2
7474	1	1/2
7486	1	1/4
74719	2	2
74H04	6	1
74H53	2	2
8830	1	1 1/2

NOTE:
1) THE TYPE OF IC-3 IS SN-7410N
FOR D-116S
SN-74S10N FOR D-116H

JOAN D. FISCHER		DRAWING NO. 1		E. C. MURKIN	
LIST OF MATERIAL					
D-116		DIGITAL COMPUTER CONTROLS, INC.		FM KATONAH, NEW YORK 10560	
APPROVAL		DATE		D-116	
R. K. Thiele CIM President Eng. P. J. L.		7/23/71 7/28/71 7/28/71		CPU	
P.R.O.D.		PART NO.		F 400306 Q	
PRINTED		REVISION			
JULY 1971		1			

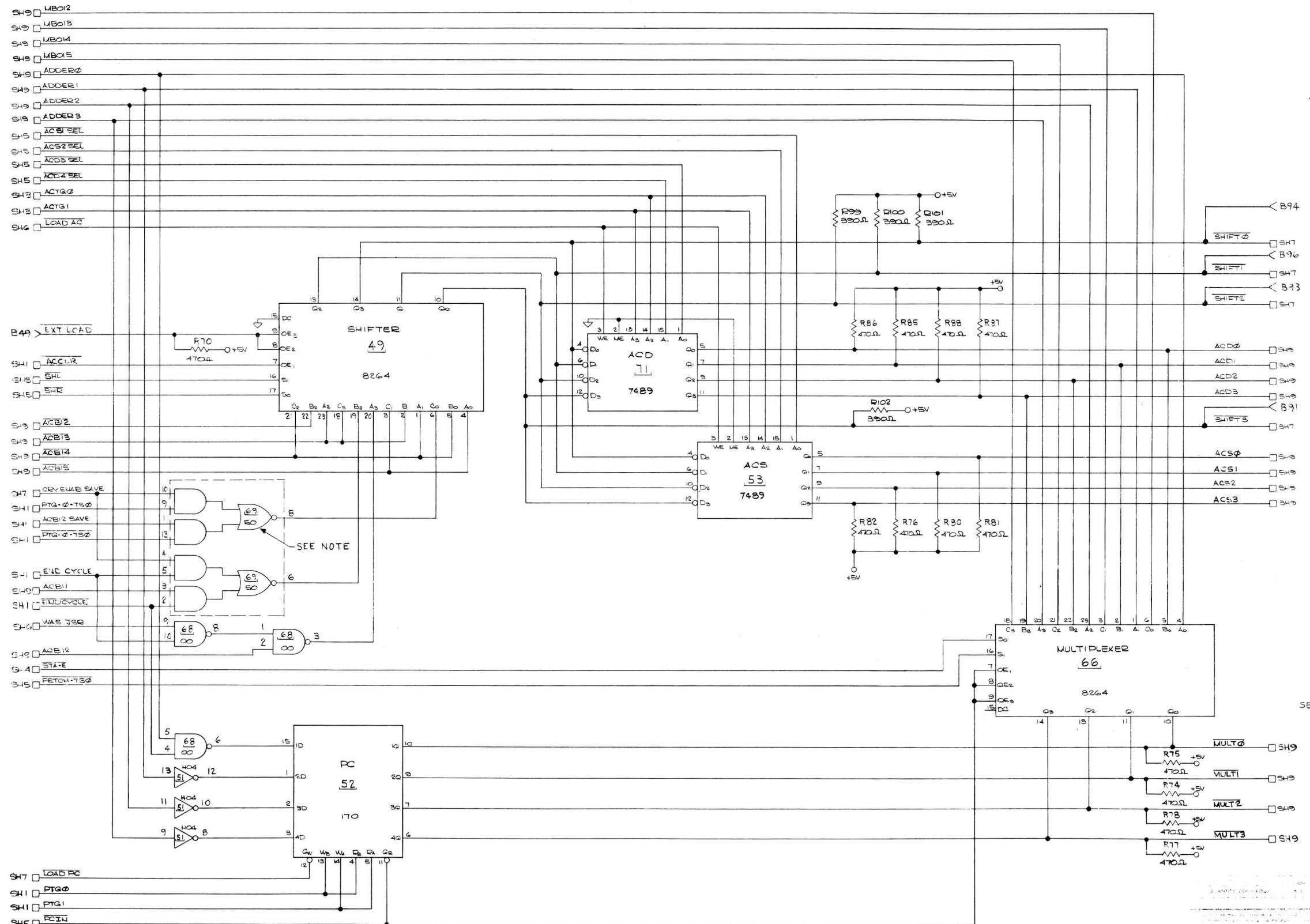


DENOTES MICROFILMED		REVISIONS	
SYMBOL	ZONE	DESCRIPTION	DATE APPROVED
A		REVISED PER ECN 0218 RET	1/20/74 (P)
B		REVISED PER ECN 0276 MB	12-27-71 (P)
C		REVISED PER ECN 0348 RET	1/20/74 (P)
E		REVISED PER ECN 0428 RET	2/17/72 (P)
F		REVISED PER ECN 0591,0571 G.G.	5/15/72 (P)
J		REVISED PER ECN 0817 SR	10/12/73 (P)
L		REVISED PER ECN'S 1172,1034, 1316, 1297, 1261 JD 8-28-73	9-10-73 (P)
M		ADDED SEE NOTE TO JC 65, AND ADDED NOTE ECN 1571,1574,1580, RHS	1/31/73 (P)
N		UPDATED REVISION LEVEL TO AGREE WITH OTHER SHTS PER ECN 1752&1735 JUN 2-6-74	1/17/74 (P)
O		REVISED PER ECN 2117 DHR 8-1-74 AW REV N	8/2/74 (P)
P		UPDATED TO AGREE WITH OTHER SHTS ECN 2802 MA AW REV N LEVEL 13	7/29/75 (P)
Q		UPDATED TO AGREE WITH OTHER SHTS ECN 2893,3044,3412,3564 MAY 11-12-76	1/9/76 (P)

NOTE

1. THE VALUE OF IC 65 IS
7450 FOR DIIGS
74550 FOR DIIGH

COUNT		
IC	GATES	DEGS
7400	8	2
7402	7	1 3/4
74104	5	5/6
7420	2	1
7438	4	1
7450	3	1 1/2
7480	3	3 1/2
7479	1	1
74412	2	2
74H106	2	1
74550	2	1
74H21	1	1/2



REVISED BY		REVISIONS	
ZONE	DESCRIPTION	DATE	APPROVED
A	REVISED PER ECN 0218 DWT	10/26/13	PJX
B	REVISED PER ECN 0348 RET	1/1/14	PJL
C	REVISED PER ECN 0817 RET	10/26/13	PJL
D	ADDED SEE NOTE TO IC G9. AND ADDED NOTE ECN 1571,1574,1509 RHS	12/6/13	PJL
E	UPDATED REVISION LEVEL TO AGREE WITH OTHER SHTS PER ECN 1752 & 1735 from 2-6-74	2/1/14	PJL PJM SMW
F	REVISED PER ECN 2117 DWR 8/1/14 AW REV N	8/2/14	PJL PJM
G	UPDATED TO AGREE WITH OTHER SHTS/ECN 2008 AW REV N LEVEL 13 NO	7/1/14	PJL PJM
H	U534 U71 WAS 5501. DELETED 5501 FROM 6 ADDED 7489 TO IC. COLNT ECN 2890 3044, 3412, 3564 from 11-13-96	11/1/14	PJL PJM

NOTE

- I. THE VALUE OF IC 69 IS
7450 FOR D11GS
74550 FOR D11GH

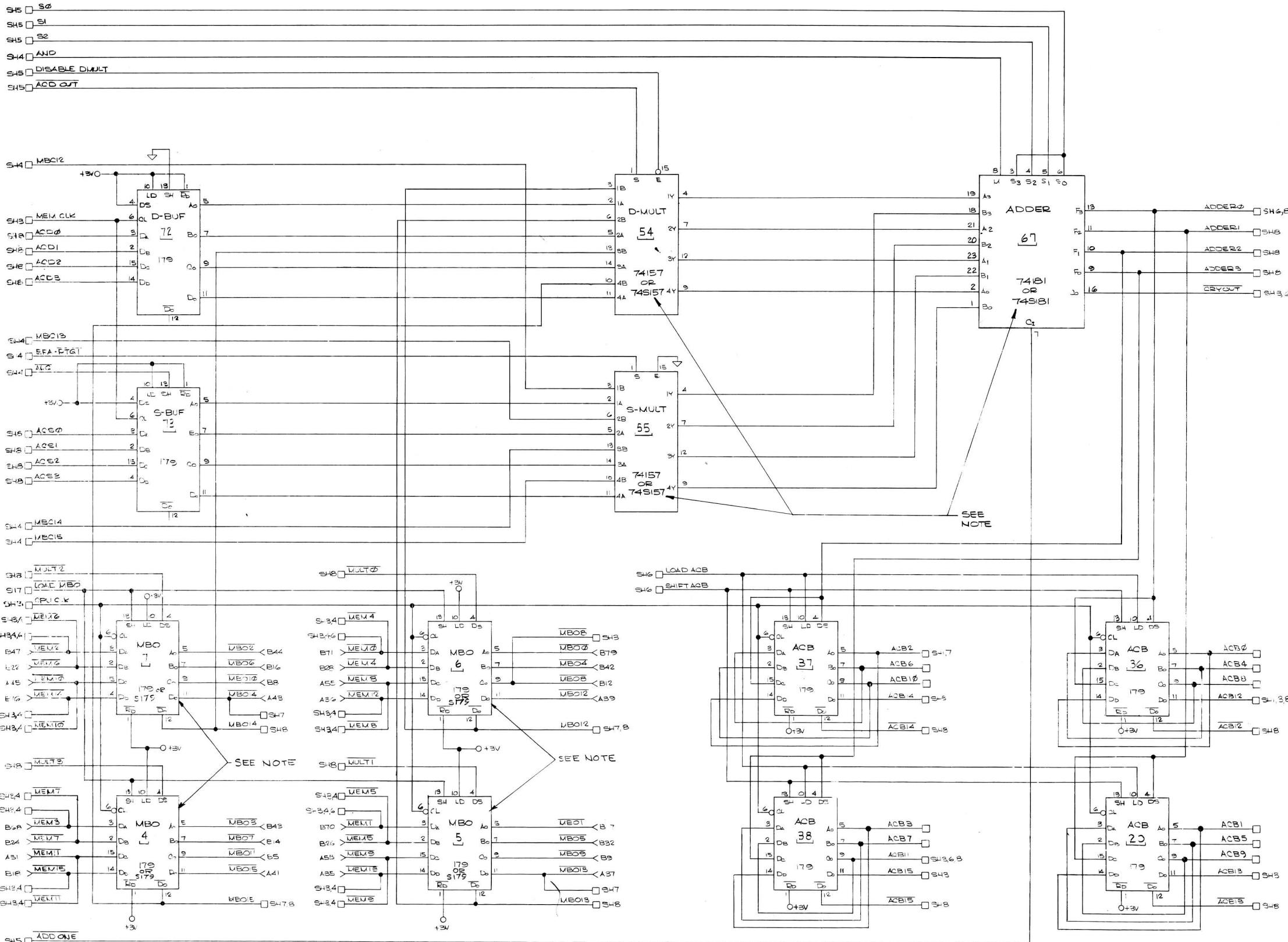
IC	GATES	PLATES
7400	3	34
74H04	3	36
7450	2	1
5501	2	2
74170	1	1
8264	2	2
74550	2	1
7483	2	2

SEE 20

WILSON COMPUTER CONTROL INC.

12 JULY 1963 2000

PU



DENOTES MICROFILMED			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER ECN 021B RET	1/17/74	JL
B	REVISED PER ECN 034B RET	1/17/74	JL
E	REVISED PER ECN 042B RET	2/17/74	JL
K	REVISED PER ECN 067 RET	3/2/74	JL
M	CHANGED REV LETTER NO CHANGE TO SHEET RHS 260173 PER ECN 1571,1574,1589	3/2/74	JL
N	UPDATED REVISION LEVEL TO AGREE WITH OTHER SHTS PER ECN 1752,1735 REV 2-1-74	2/17/74	JL
O	REVISED PER ECN 2117 DNR 8-1-74 AW REV N	8/1/74	JL
P	ADDED NOTE 2/ECN 2803 AW REV N LEVEL 15 4K	7/4/74	JL
Q	UPDATED REV LEVEL TO AGREE WITH OTHER SHTS ECN 2890, 3044,3412,3564 Rev 11-18-74	11/10/74	JL

NOTE

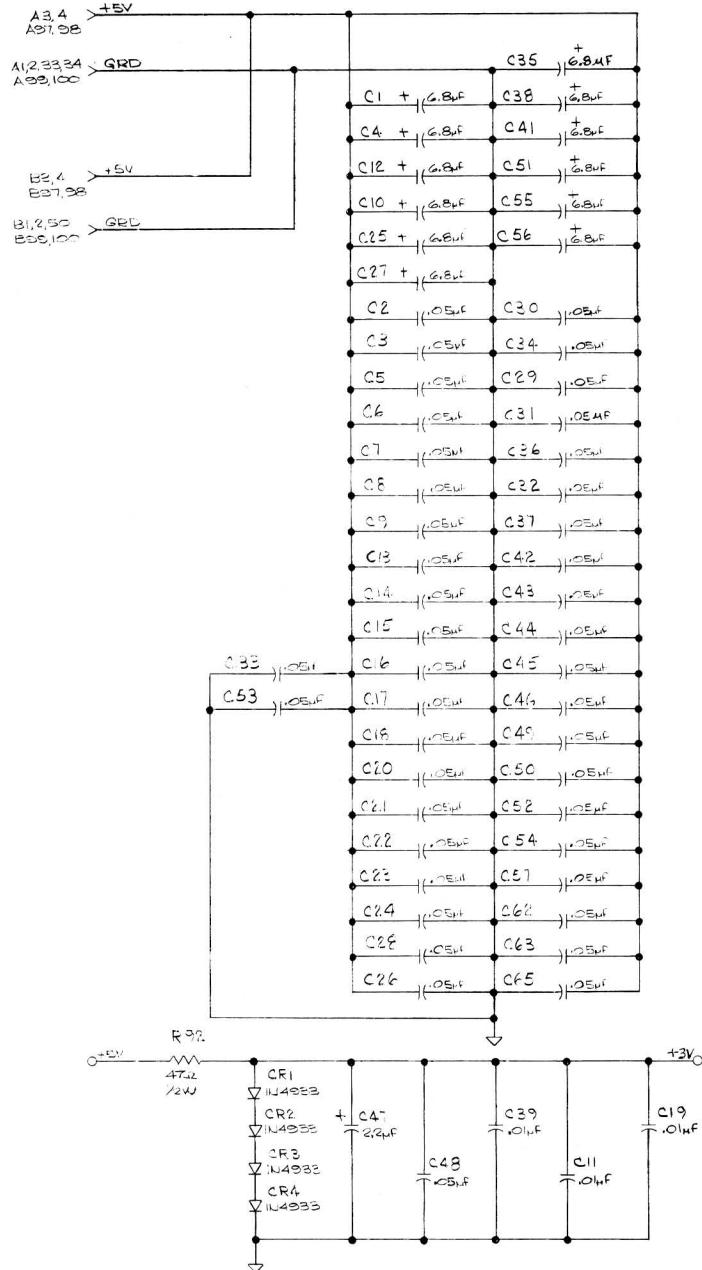
THE VALUES OF IC 54 & 55 ARE:
 74157 FOR D-116S
 74S157 FOR D-116H
 THE VALUE OF IC G7 IS:
 74181 FOR D-116S
 74S181 FOR D-116H

THE VALUES OF IC 6, 5, 6, 7 ARE:
 74S179 P/N 000279 FOR
H VERSION

K.Threay 7/23/74
 Plautola 7/28/74
 P.J.L. 7/28/74

D-116
CPU

F 400306 Q



PART LIST TABLE

COMPONENT	sheet 1	sheet 2	sheet 3	sheet 4	sheet 5	sheet 6	sheet 7	sheet 8	sheet 9	sheet 10	spare	Total	doc part number
7400	3 1/4	1 1/4	3/4	1 3/4	1 1/4	1/4	2	3/4			2	15	000100
7402	1 3/4	1	1	2 3/4	2	1 1/4	1 3/4				2/4	12	000102
7410	1/3	2/3		1 2/3	1 1/3	2						6	000110
7420	1/2			1 1/2	1/2	1 1/2	1					5	000120
7437	1/4	4		1 3/4							1/4	6	000137
7438						1		1				2	000138
7440				1/2								1	000140
7450	2	1/2	1/2	1/2	2 1/2	1/2	1 1/2	1				9	000150
7474	2			1/2		1/2						3	000174
7486						1/4	3/4					1	000186
5501								2				2	000255
74122	1											1	000262
74157									2			2	000287
74170									1			1	000270
74179	4	1	2	5		2	1		10			25	000279
74181									1			1	000281
74H04	2 1/4	1 3/6	1 1/6	2 4/6	1/6	1	5/6	3/6			3/6	11	000244
74H53	1				3	2	2					3	000153
74H106	1/2	1/2					1					2	000206H
74H21	1	1	12				1/2					3	00021H
8264								2				2	000364
9321	2		1	1								4	000421
2204	1		1		2							4	002705-221
3302	1	2	17	1			2					23	002700-331
3304	1	2	18	1			2	4				28	002700-331
47024	8		18	1		3	2	3				45	002700-471
23K	1											1	002705-333
472Y2W												1	002700-470
.0001H													000258
.01MF	1										3	4	001001
74S00		3/4		1/4								1	0001005
.05MF	1		2								48	48	00700F
2.2uF											1	1	007133
6.8uF	1										12	13	007139
DM 8830	2	1 1/2			1/2							4	000442
100PF		2										2	000222
1N4933										CDI-4		4	000501
CRYSTAL 18.333 MHZ			1									1	002557
IM 5600		1											005351
MPS 6534		1										1	001503
IM 6200		1										1	000321
470PF			1									1	007295
74S157								2				2	000257S
74S181												1	000281S
16.666 MHZ		1											0003403
74S10						1						1	0011105
82S71	2	1							4			7	000279S
74S50							1	1				2	000150H
68PF		1										1	007287
200 PF		1										1	007234
74S74		1/2	1/2									1	000174S
7489								2				2	000139

DENOTES MICROFILMED			
A	REVISED PER ECN 0218	RET	1/10/70 (P)
B	REVISED PER ECN C276 MB	RET	1/27/71 (S) Y
C	REVISED PER ECN 0348	RET	1/18/72 (P) L
D	REVISED PER ECN 0422	RET	2/15/72 (P) L
E	REVISED PER ECN 0428	RET	2/17/72 (P) L
F	REVISED PER ECN 0591	GG	5/15/72 (S) L
G	REVISED /ECN 0675	RET	7/29/72 (P) L
H	REVISED /ECN 0853	SC	1/16/73 (P) FEB 22
J	REVISED PER ECN 0817	RE	10/17/72 (P) FEB 23
K	REVISED PER ECN 1067	RET	3/29/73 (P) FEB 23
L	REVISED PER ECNs 1752, 1034, 1316, 1297, 1261	RET	10/10/73 (P) FEB 23
M	ADDED COMPONENT 825T7167455C TO NOTE *** 74179(000279) ETC	RET	12/1/73 (P) FEB 23
	ECN 1571, 1574, 1589, RHS	26 NOV 73	(P) FEB 23
N	REVISED PER ECN's 1753 & 1752. SEE SHTS. 1, 2 & 4 FOR CHANGES.	RET	2/10/74 (P) FEB 23
O	REVISED PER ECN 2117 SEE SHTS. 1 & 5 FOR REVISIONS	REV N	9/17/74 (P) FEB 23
P	CHGD OFT 74404 MAT 12 / ECN 2458W SWEEVIN LEVEL 3 NC	REV N	7/14/75 (P) FEB 23
	MOVED NOTES TO END OF ADDITION TO PARTS LIST TABLE, ADDED 1 GATE EACH TS 74325 SH1 7401 SH1 DELETED 55720, 55721, 55722, 55723 PLACED WITH 55724 FOR 1573 4 55724 FOR 1573, DELETED 55535 55536 AND REPLACE WITH 55537 1-82444-4374 GATES ON SH1 55724 WERE LIFTED, REVISED 1-82444-4374 74404 PER 26 NOV 73 ECN 2301, 2302, 2303, 2304, 2305, 2306 ALL REVISED LEVEL 3 NC	REV N	7/14/75 (P) FEB 23

NOTES

* USED FOR D-1163

*** USED FOR D-HIGH
*** FOR D-HIGH DECREASE QUANTITY OF ZINC /SODIUM/
FROM 6 TO 5 AND (1) ZINC /COPPER/

7470 (550-270) FROM 25 TO 16 ADD (7) 82870 (550-270)
7463 (550-150) FROM 3 TO 7 ADD 2-7-1510 (550-150)

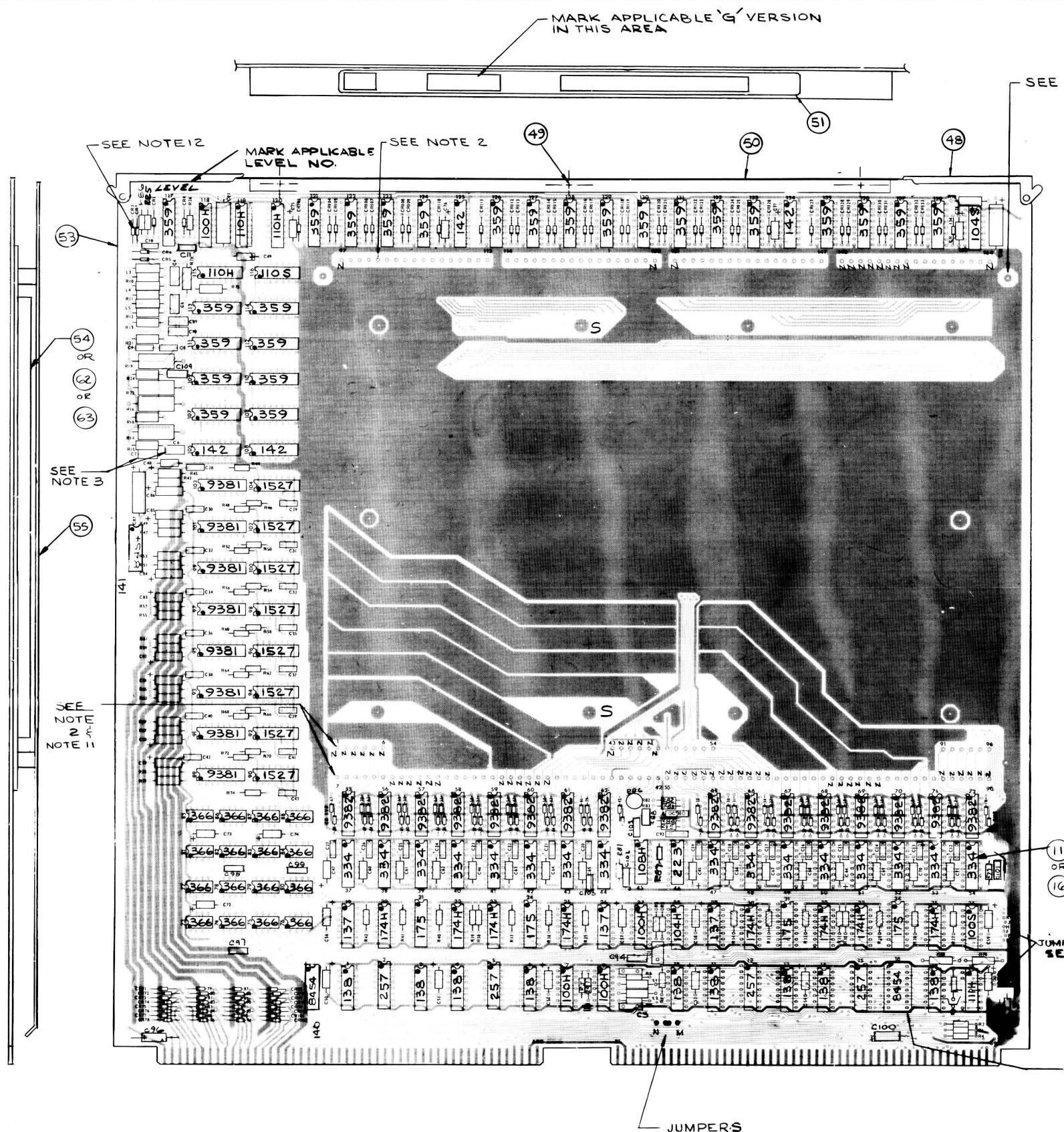
▲ 6003396 MAY BE USED IN PLACE OF 600167

K. Thiele 7/27/71
7/28/71
7/29/71

116

15

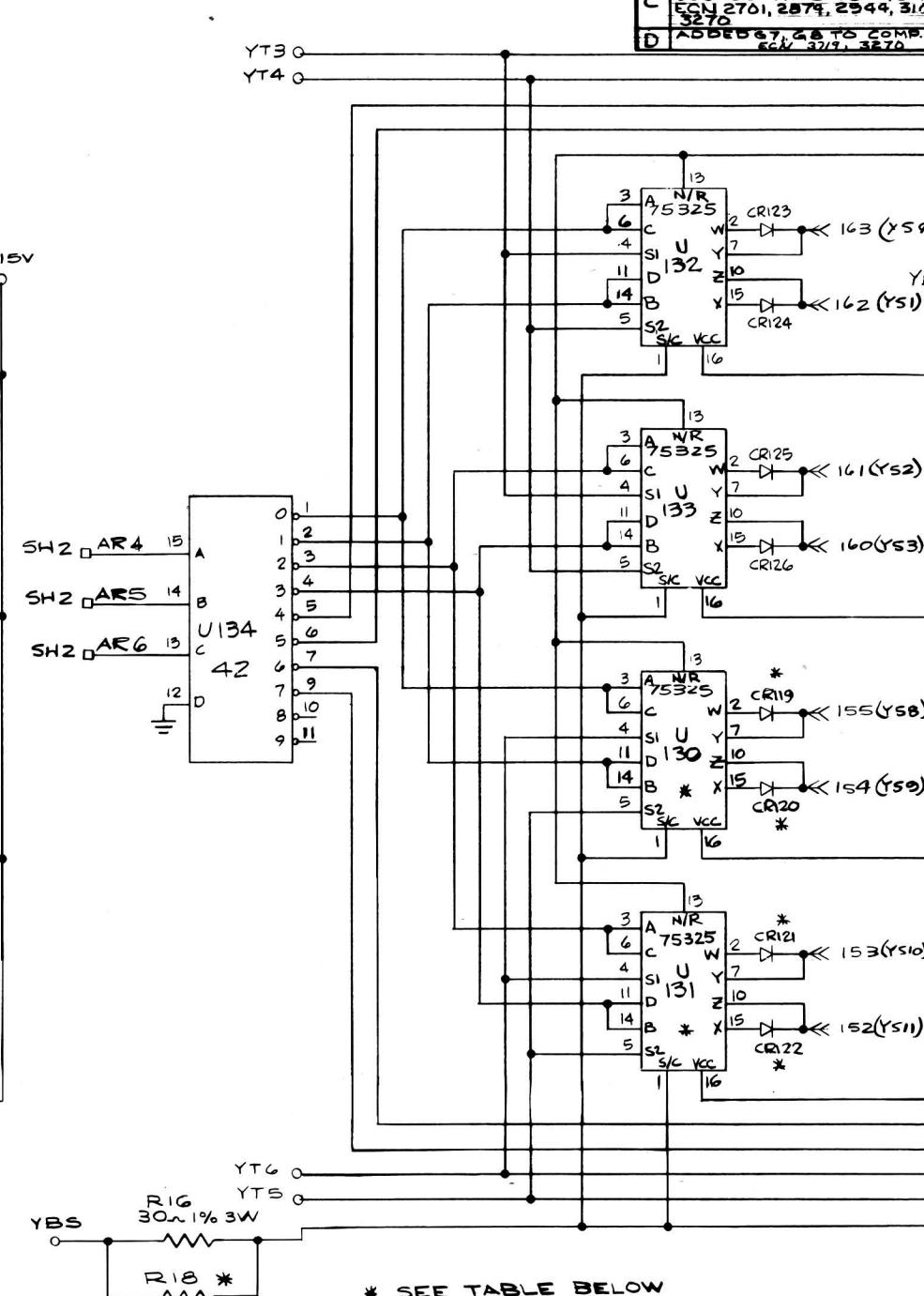
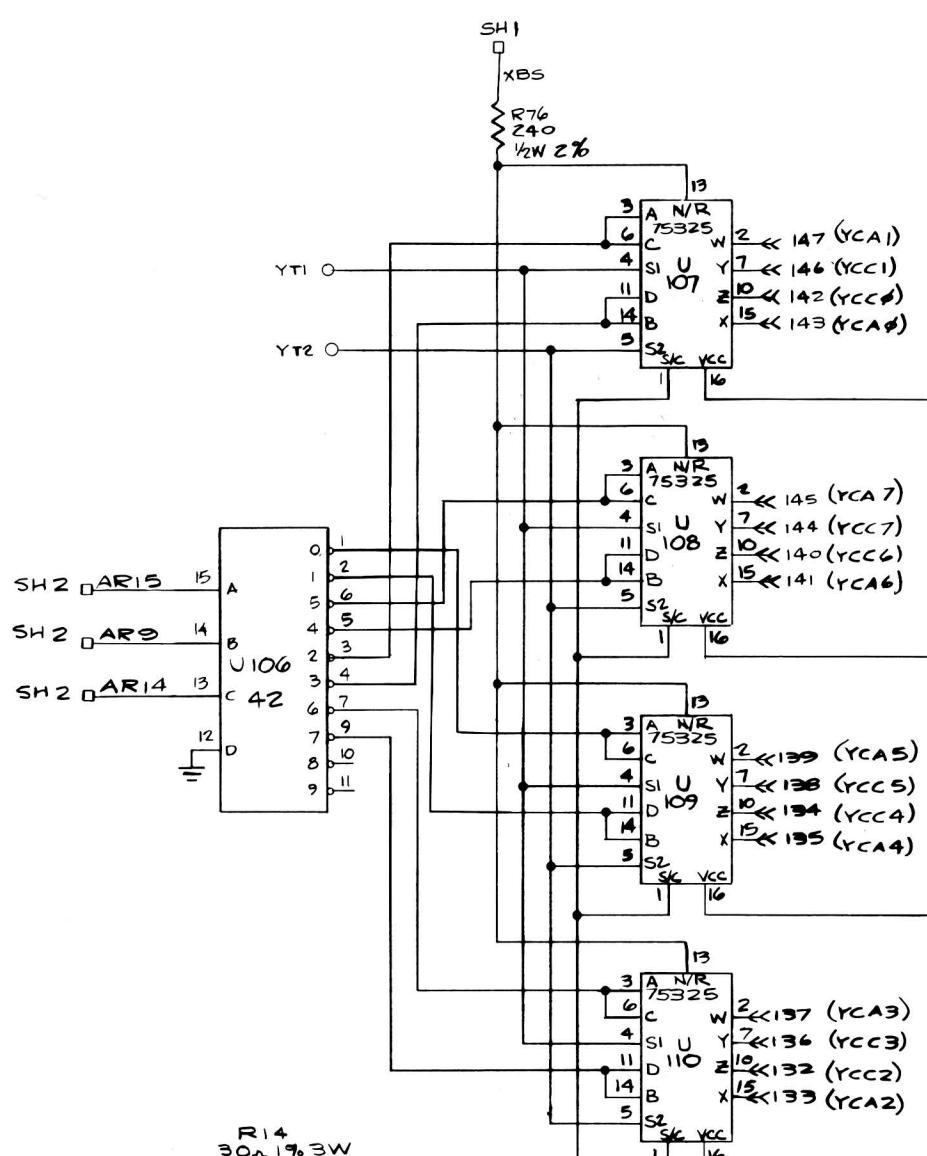
F 400306 Q



		REVISIONS		
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	B	UPDATED REV LEVEL TO AGREE WITH LM ECN 2294 AW B BR	10/4/74	J. M. H.
	C	Moved G3 THRU G6, CHGD NOTE 1 PER ECN 2339 AW REV B H.R.	10/25/74	J. M. H.
	D	NO CHANGE UPDATED HP FOR AW REV C /ECN 2338	1-14-75	
	E	ADDED R91, R92, C94-C105 SHEET 2 PER ECN'S 2426 2505, 2509, 2524, 2577, 2593, 2600, 2601 AW REV D LEVEL 10 H.R.	3/13/75	J. M. H. R. J. H.
	F	UPDATED NOTE 1. AW REV LEVEL 21 ADDED: NOTE 13; "SEE NOTE 16" IN NOTE G, HOLES MARKED "5" ECN'S 2637, 2701, 2978, 2874, 2544 3102, 3157, 3261, 3270 <i>Hurd</i>	3/26/76	J. M. H. 3/30/76
G		ADDED JUMPERS "M" & "N" NEAR UIO. A/W REV G, LEVEL 23. ECN 3270, <i>Hurd</i> 10/28/76	10/28/76 H.H.	P.L.

- ~~1. MOUNT MEMORY CORE ITEM 54 OR G62 OR G63 USING PAN HEAD SCREWS
ITEM 67 INSTALL COVER ITEM 55 ON MEMORY CORE STANDOFFS
AND MOUNT USING FLAT HEAD SCREW ITEM 60. INSTALL STIFFENER ITEM 50 USING
SCREWS ITEM 49~~
 2. INSTALL POST ITEM 57 IN HOLES 1 THRU 164 ON COMPONENT SIDE OF BOARD
FLATSIDE OF POST MUST LIE PARALLEL TO CONNECTOR SIDE OF PCB
 3. MARK THE BD. COMP. SIDE USING WHITE EPOXY INK ITEM 97 MARKING
SHALL BE ACCURATELY LOC. MARKING INK SHALL NOT BE DEPOSITED
IN PLATED THRU HOLES.
 4. INSERT COMP & CLINCH LEADS AS APPLICABLE EXTENSIONS BEYOND
THE BOTTOM SIDE OF THE BOARD SHALL NOT EXCEED .06 AFTER
INSERTING THE I.C. CLINCH TWO(2) LEAD ONLY ONE EACH AT
DIAGONAL CORNERS.
 5. LOCATE EACH I.C. (DIP) AS SHOWN PIN 1 OF EACH DIP SHALL BE
LOCATE BY THE MARKED DOT AT THE CORNER OF EACH OUTLINE
 6. ASSEMBLE THE EJECTORS ITEM 48, MEMORY CORE ITEM 54 OR G2 OR G3,
AND STIFFENER ITEM 50 AFTER SOLDER WAVE PROCESS. SEE NOTES 1&13
 7. COMPLETELY MASK & PROTECT THE EDGE CONNECTOR CONTACTS ON
BOTH SIDES OF THE BOARD BEFORE SOLDER WAVE PROCESS.
 8. AFTER ASSEMBLY SOLDER WAVE THE BOARD.
 9. USE ITEM 98 (800270) WHEN GIA THRU GGA IS SPECIFIED.
 10. ITEM 16 IS ALTERNATE PART FOR ITEM 11. ITEM 36 & 22 ARE
REQUIRED IF ITEM 16 IS USED. ITEM 16 AND ITEM 11 ARE NOT
TO BE MIXED ON SAME ASSEMBLY
 11. WHEN MAKING ASSEMBLIES G3 THRU G6 OMIT POST THAT
ARE MARKED "N."
 12. INSTALL JUMPERS USING WIRE ITEM 59. JUMPER L IS INSTALLED
IN HOLES FOR CR3 USING INSULATING TUBING ITEM 92. SEE PARTS TABLE
ON SHEET 2 FOR ALL JUMPER INSTALLATION.
 - NOTE 10 13. MOUNT MEMORY CORE ITEM 54 OR G2 OR G3 USING THE FOLLOWING
HARDWARE:
 - A. ITEM 61(4), 4-40 x 1/4 LG SCREWS, ONE AT EACH CORNER OF CORE
ARRAY.
 - B. ITEM 94(2), 96(2), 105(2), #2-56 SCREW & HARDWARE, ONE EACH
AT HOLES MARKED "S" ON ASSEMBLY. BEFORE INSTALLING
CORE ARRAY REMOVE EXISTING #2 SCREWS SUPPLIED WITH
CORE ARRAY.

G6	G5	G4	G3	G2	G1	ITEM NO.	SIZE	PART NO.	DESCRIPTION	M P M		
QUANTITY PER GROUP						DRAWING NO.		MATERIAL				
LIST OF MATERIAL												
EXCEPT AS MAY BE OTHERWISE PROVIDED BY CONTRACT, THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL COMPUTER CONTROLS, INC., AND ARE TO BE KEPT IN STRICT CONFIDENCE AND SHALL NOT BE REPRODUCED OR COPIED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS WITHOUT PERMISSION												
<p>UNLESS OTHERWISE SPECIFIED</p> <p>DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES</p> <p>TOLERANCES</p> <table border="1"> <tr> <td>2 PLACE DECIMALS ± .01</td> <td>3 PLACE DECIMALS ± .008</td> <td>ANGLES ± 1/2°</td> </tr> </table> <p>HOLE DIAMETER TOLERANCE</p> <p>O THRU 280 .281 THRU .500 .501 & LARGER + .003 + .008 + .010 - .002 - .003 - .005</p> <p>THREADS: EXT CL 2A, INT CL 2B</p>						2 PLACE DECIMALS ± .01	3 PLACE DECIMALS ± .008	ANGLES ± 1/2°	APPROVAL	DATE	D-116	
2 PLACE DECIMALS ± .01	3 PLACE DECIMALS ± .008	ANGLES ± 1/2°										
<p>DR. DR. Robertson</p> <p>CHK. SCHOENACK</p> <p>END. J. D. [Signature]</p> <p>APP'D.</p>						7/18/74	FAST 16K X 16 MEMORY ASSY					
MATERIAL SEE LM A400970						SIZE	D	400970	REV G			
FINISH						SCALE	1/1	SHEET	1 OF 2			



* SEE TABLE BELOW

TABLE I

COMP	G1, G2, G7 EGA	G3, G4	G5, G6
R15	150 Ω , $\frac{1}{2}$ W 003094	NOT USED	240 Ω , $\frac{1}{2}$ W 003095
C6	1000PF 007343	1000PF 007343	1000PF 007343
C7	1000PF 007343	680PF 007348	NOT USED
R18	47 μ A/W 003088	100 μ A/W 003091	100 μ A/W 003091
U130, 131 135, 136	75325 000359	NOT USED	NOT USED
CR119-122	IN 4150	NOT USED	NOT USED
CR127-130	000523	NOT USED	NOT USED

TC COUNT

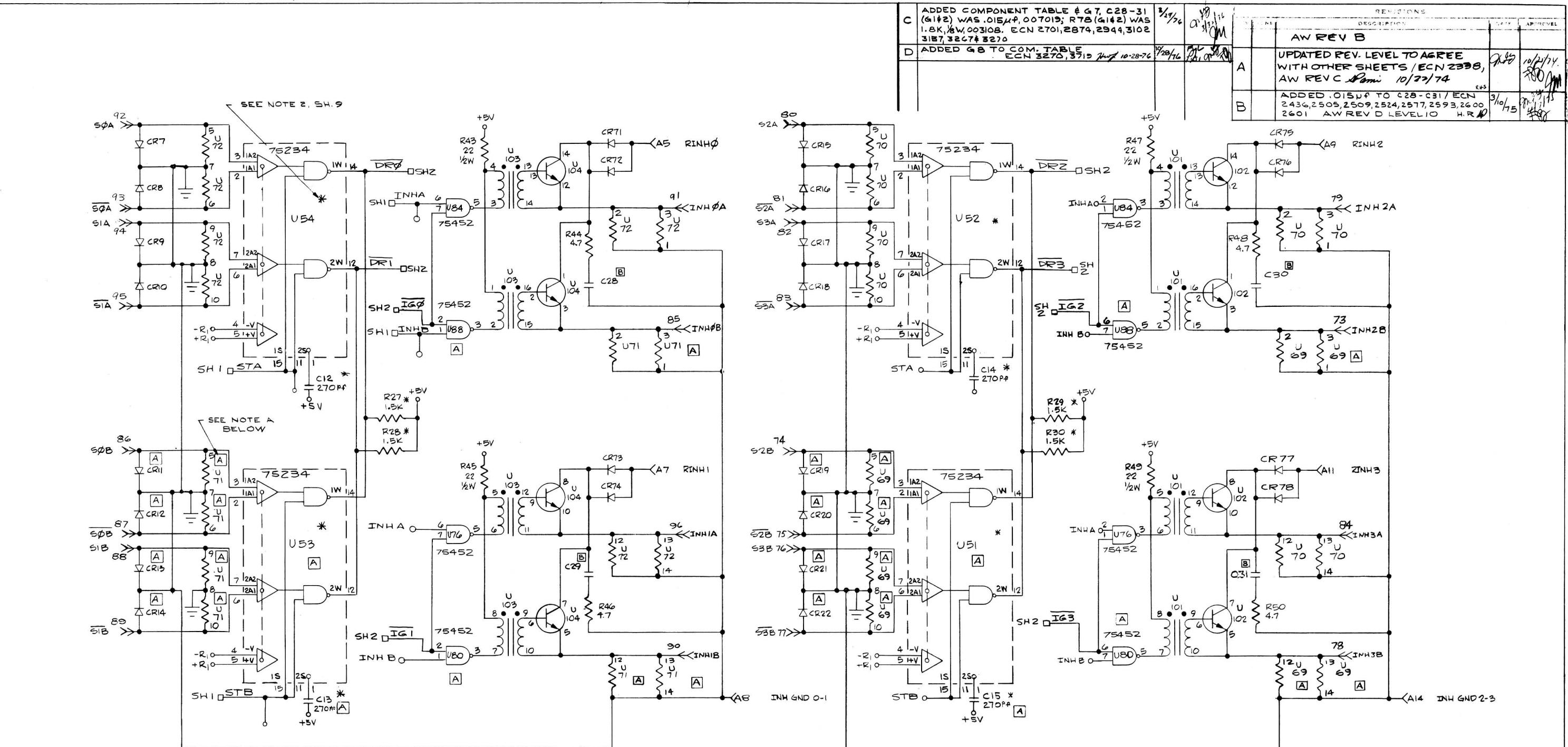
IC COUNT		
IC	GATES	PKG'S
74S10	3	1
74H10	3	1
7442	2	2
75325	12	12

(SEE SHEET 9 FOR NOTES)

DIGITAL COMPUTER CONTROLS, INC.

FAST
16K x 16 MEMORY BOARD
LOGIC

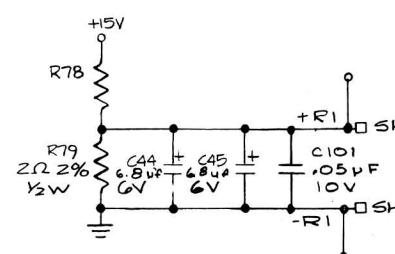
400971 D H 4 OF 10



COMPONENT TABLE				
COM	G1&2	G3&4	G5&6	
C28-31	.015μF 007335	.015μF 007019	.015μF 007019	.015μF 007019
R78	1620Ω, 1/2W 002599- 1621	1.8K, 1/2W 003108	1.8K, 1/2W 003108	1620Ω, 1/2W 002599- 1621

NOTE A COMPONENTS MARKED **[A]** ARE NOT USED FOR G3 THRU G6

B. SEE TABLE FOR COMPONENTS MARKED **[B]**



IC COUNT		
IC	GATES	PKG'S
75234	4	4
75452	8	4

D-116

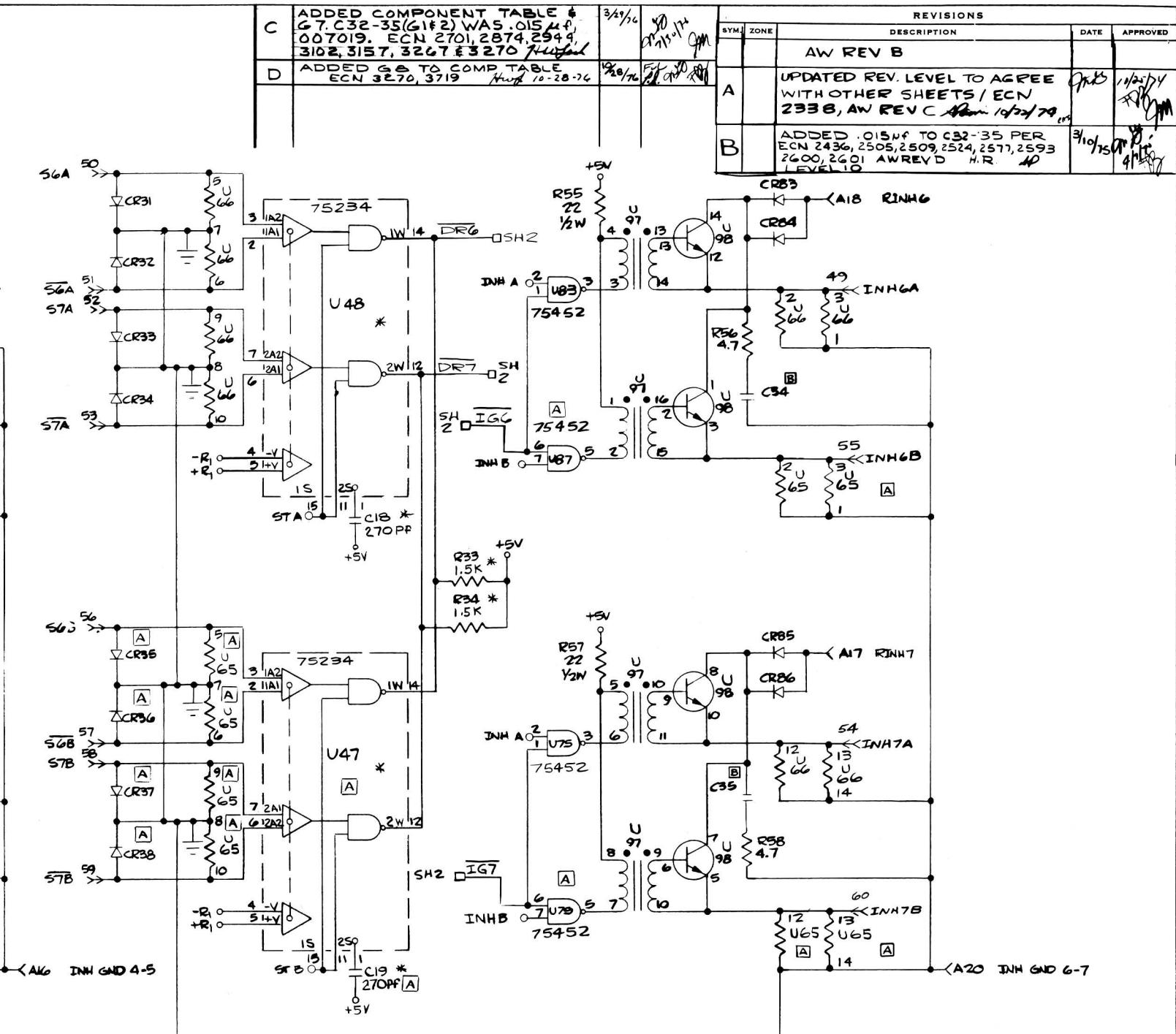
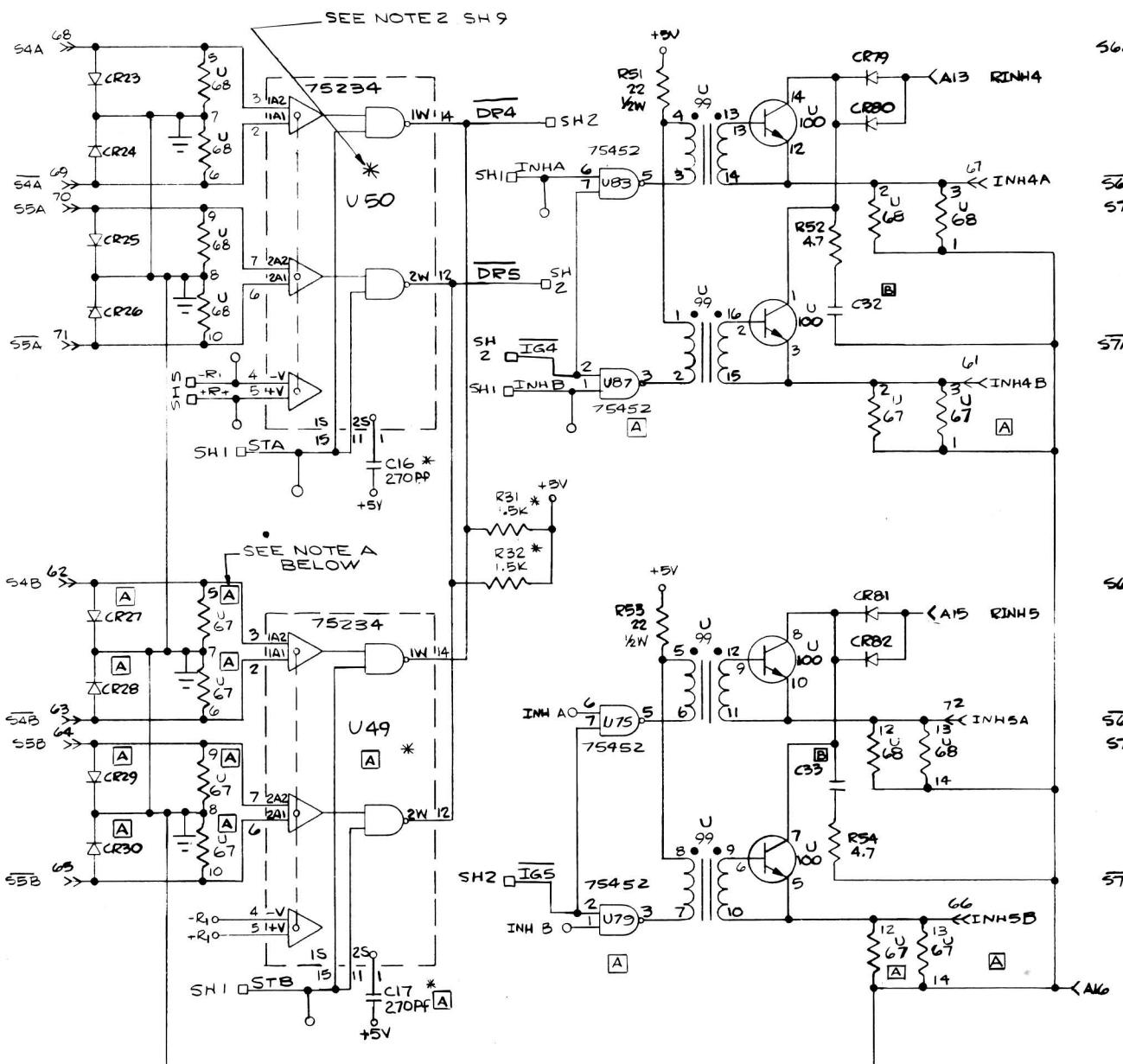
SENSE, INHIBIT: BITS 0-3
(SEE SHEET # FOR NOTES)

DIGITAL COMPUTER DESIGN INC.
1000 E. 10TH ST., SAN JOSE, CALIF.
408/272-0800
FAST
16K x 16 MEMORY BOARD
LOGIC
D 400971 D

M. Thomas 10/23/74
L. CATALINI

16K x 16 MEMORY BOARD
LOGIC

D 400971 D



NOTE A: ALL COMPONENTS MARKED **A** ARE
NOT USED FOR G3 THRU G6.
B: SEE TABLE FOR COMPONENTS, MARKED **B**.

(SEE SHEET 9 FOR NOTES)

IC COUNT		
IC	GATES	PKG'S
75452	8	4
75234	4	4

COMPONENT TABLE				
COM	G1#2	G3#4	G5#6	G7#8
C32,33	.022μF	.015μF	.015μF	.022μF
C34,35	007335	007019	007019	007335

QTY	ITEM NO.	SIZE	PART NO.	DESCRIPTION	M / P
QUANTITY PER GROUP	NO.	DRAWING NO.			U OF M

LIST OF MATERIAL

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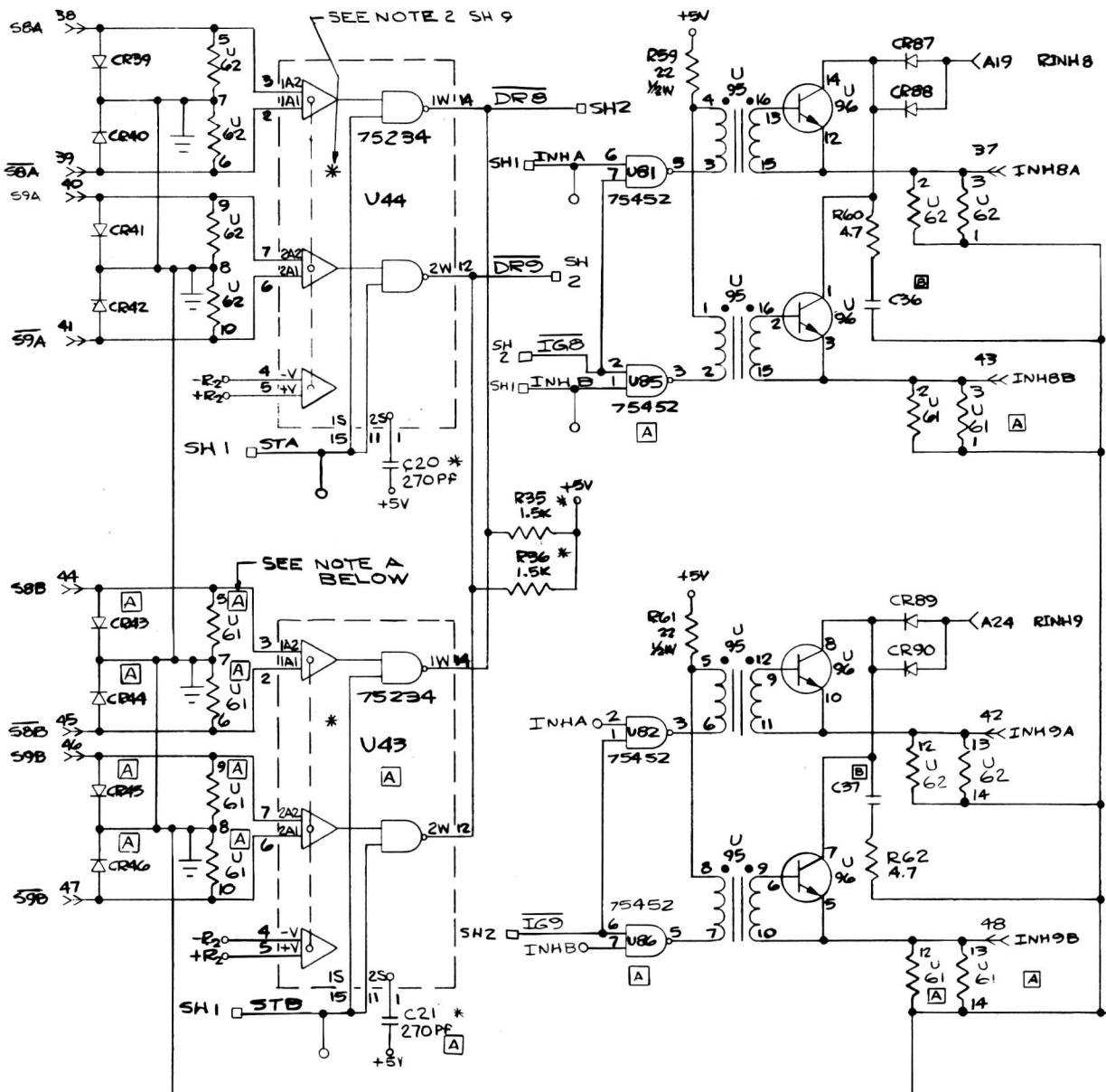
UNLESS OTHERWISE SPECIFIED	APPROVAL
DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES	DATE
	DR. L. CATALINI
	CMC
	APP'D.
	MATT.
	FINISH
	SIZE D 400971 REV D.
	SCALE H

DIGITAL COMPUTER CONTROLS, INC.

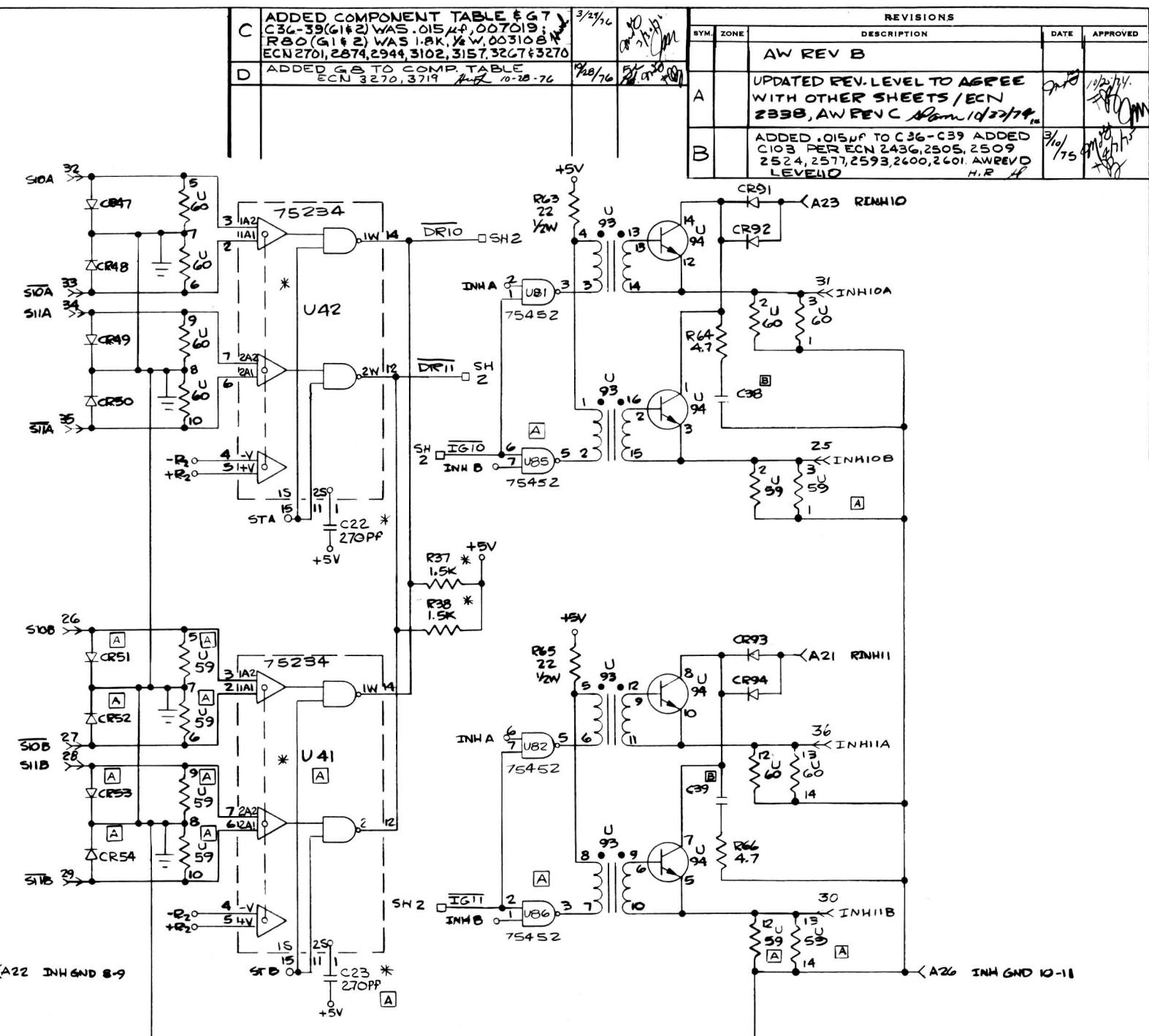
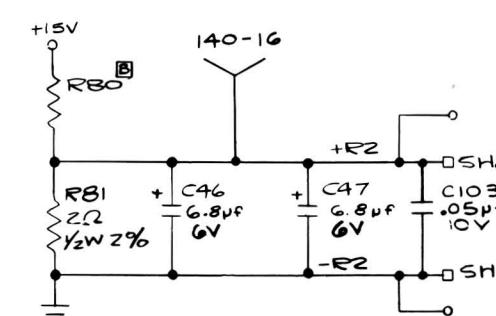
FAIRFIELD, NEW JERSEY 07006

FAST

16K x 16 MEMORY BOARD LOGIC



COMPONENT TABLE				
COM	G1&2	G3&4	G5&6	G7&GB
R80	16200 μ w 002598- 1621	1.8K, $\frac{1}{2}$ w 003100 003108	1.8K, $\frac{1}{2}$ w 003598- 1621	16204 μ w 003598- 1621
C36,37	.0224p 007335	.0154p 007019	.0154p 007019	.0224p 007335



SENSE, INHIBIT: BITS 8-11

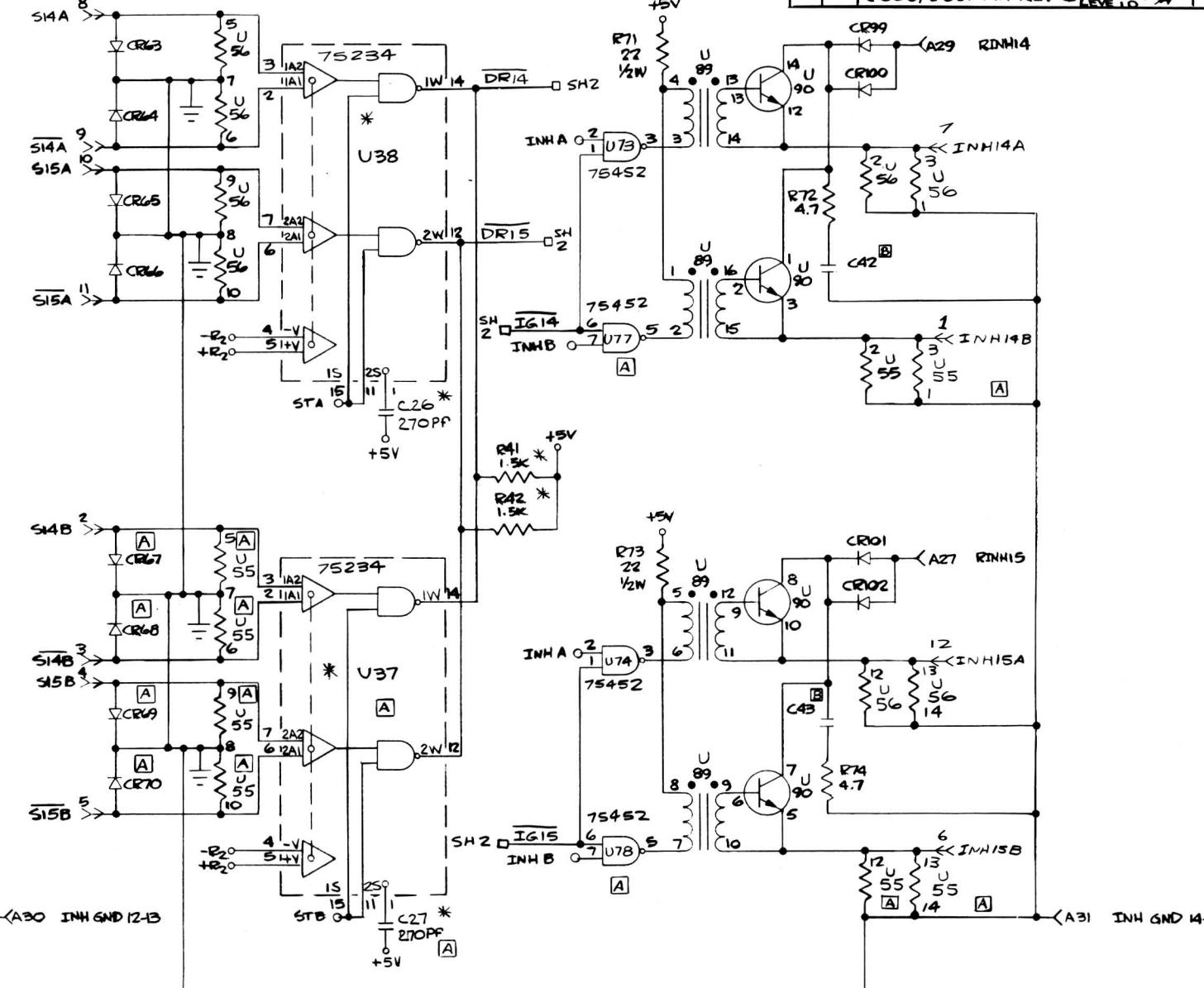
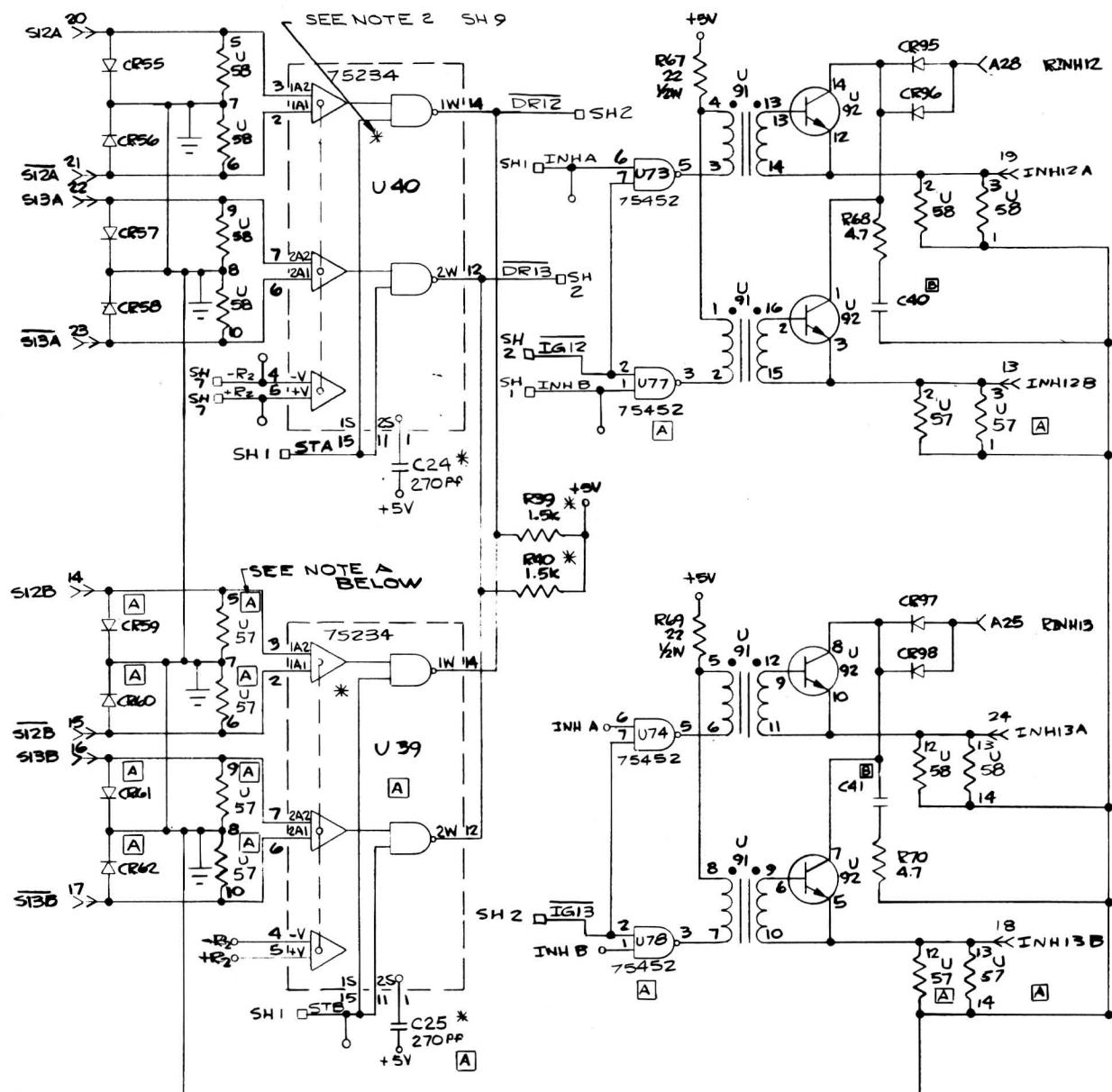
(SEE SHEET 9 FOR NOTES)

QTY	Q4	Q4	Q3	Q2	Q1	ITEM	SIZE	PART NO.	M	U
QUANTITY PER GROUP						NO.	DRAWING NO.		/P	
LIST OF MATERIAL										
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES						APPROVAL	DATE			
TOLERANCES						DR. L. CATALINI				
2 PLACE DECIMALS $\pm .01$						CNC <i>10-10-76</i>				
2 PLACE DECIMALS $\pm .001$						ENG. <i>10-10-76</i>				
HOLE DIAMETER TOLERANCE 0 THRU .060 .061 THRU .060 .061 & LARGER + .000 + .000 + .000 - .000 - .000 - .000						APP'D.				
MATL.						MATL.				
FINISH						FINISH				
						SHEET	7	OF 10		
						SCALE	<i>H</i>			

DIGITAL COMPUTER CONTROLS, INC.
FAIRFIELD, NEW JERSEY 07006

FAST
16K X 16 MEMORY BOARD LOGIC

D 400971 **D**



SENSE, INHIBIT; BITS 12-15

NOTE A: ALL COMPONENTS MARKED ARE NOT USED FOR G1 THRU G6

B: SEE TABLE FOR COMPONENTS MARK WITH

(SEE SHEET 9 FOR NOTES)

COMPONENT TABLE				
COM	G1 & 2	G3 & 4	G5 & 6	G7 & G8
C40,41	.022μf	.015μf	.015μf	.022μf
C42,43	007335	007619	007619	007535

IC COUNT		
IC	GATES	PKG'S
75452	8	4
75234	4	4

QTY	ITEM NO.	SIZE	PART NO.	MATERIAL
QUANTITY PER GROUP	ITEM NO.	SIZE	PART NO.	MATERIAL
1	75452	1/2W	75452	PLATED
1	75234	1/2W	75234	PLATED
1	U40	1/2W	U40	PLATED
1	U39	1/2W	U39	PLATED
1	U38	1/2W	U38	PLATED
1	U37	1/2W	U37	PLATED
1	U36	1/2W	U36	PLATED
1	U73	1/2W	U73	PLATED
1	U74	1/2W	U74	PLATED
1	U75	1/2W	U75	PLATED
1	U76	1/2W	U76	PLATED
1	U77	1/2W	U77	PLATED
1	U78	1/2W	U78	PLATED
1	U79	1/2W	U79	PLATED
1	U80	1/2W	U80	PLATED
1	U81	1/2W	U81	PLATED
1	U82	1/2W	U82	PLATED
1	U83	1/2W	U83	PLATED
1	U84	1/2W	U84	PLATED
1	U85	1/2W	U85	PLATED
1	U86	1/2W	U86	PLATED
1	U87	1/2W	U87	PLATED
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1	U92	1/2W	U92	PLATED
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1	U202	1/2W	U202	PLATED
1	U203	1/2W	U203	PLATED
1	U204	1/2W	U204	PLATED
1	U205	1/2W	U205	PLATED
1	U206	1/2W	U206	PLATED
1	U207	1/2W	U207	PLATED
1	U208	1/2W	U208	PLATED

COMPONENT	SH. 1	SH. 2	SH. 3	SH. 4	SH. 5	SH. 6	SH. 7	SH. 8	SH. 9	SPARE	TOTAL	DCC PART NO.
74H00	3 1/4									3/4	4	000100H
74S00	1									1	000100S	
74S04	4/6								2/6	1	000104S	
74H04	4/6								2/6	1	000104H	
74H08	1									1	000108H	
74H10		2	1							3	000110H	
74S10			1							1	000110S	
74H11	1									1	000111H	
7437	1 3/4								1 1/4	3	000137	
7438	1/4	8							3/4	9	000138	
7442		2	2							4	000142	
74H74	8									8	000174H	
7475	4									4	000175	
74123	1									1	000223	
74157	4									4	000257	
75234			4 ▲	4 ▲	4 ▲	4 ▲				16	000334	
75452			4 ▲	4 ▲	4 ▲	4 ▲				16	000366	
75325 (SEE NOTE 2)	1 ▲		12 ▲	12 ▲						25	000359	
4.7Ω 1/4W 5%			R44,461 48,50	R52,541 56,58	R60,621 64,66	R68,701 72,74				16	002700-4RT	
15Ω 1/4W 5%	R25,26									2	002700-150	
180Ω 1/4W 5%	R7									1	002700-181	
220Ω 1/4W 5%	R8,9									2	002700-221	
240Ω 1/4W 5%	R86▲									1	002700-241	
330Ω 1/4W 5%	R6,10, 13									3	002700-331	
470Ω 1/4W 5%	R11,12									2	002700-471	
1.5KΩ 1/4W 5%			R27-30	R31-34	R35-38	R39-42				16	002700-152	
10KΩ 1/4W 5%	R1-584 87,90									8	002700-103	
21.5KΩ 1/2W 1%	R83									1	002599-2152	
220PF	C89▲									1	007327	
2Ω 1/2W 2%			R79	R81						2	003077	
22Ω 1/2W 2%			R43,451 47,49	R51,531 55,57	R59,611 63,65	R67,691 71,73				16	003082	
430Ω 1/4W 5%	R92,91									1	002700-431	
2200PF 20nV		c8,c9								2	007013-2222	
1000PF	C11	c9 ▲	c6,27							4	007343	
240Ω 1/2W 2%		R75	R70,77 R15							3	003095	
150Ω 1/2W 2%		R21,24	R15▲							3	003094	
30Ω 3W 1%		R19,22	R14,16							4	003550	
10PF CMOS 500V	C92									1	007296	
33PF CMOS 500V	C91									1	007326	
100PF 5%	C4,C89 C95▲									3	007292	
270PF 10%		C12-15	C16-19	C20-23	C24-27					16	007028	
560PF 5%	C5									1	007298	
680PF CMOS 500V	C1,2,3		C7▲							3	007348	
820PF CMOS 500V	C90									1	007297	
.05nF 10V	C97,98 99,100,102		C101	C103						7	007005	
10.8nF 6V			C44,46	C46A7						4	007140	
47nF 1/2W 2%		R24▲	R18▲							2	003088	
10nF 35V 10%	C48-78									31	007121	
6.8MF 35V	C79-B6, C96,100									10	007139	
47MF 35V 10%	C87,B8, 93									3	007322	
IN 4150 OR FDH 600	CRI-6▲ 118▲	CRI-19- 134▲	CR7-22, 71-78▲	CR23-38, 77-86▲	CR39-54, 87-94▲	CR68-70, 95-102▲				134	000523	
4.7μH 10%	L1-5									5	009387-1	
100nH 1/2W 2%		R24▲	R18▲							2	003091	
SELECT AT TEST	R82			R85						2	SEE NOTE 1B	

NOTES:

1. G VERSIONS ARE DEFINED AS FOLLOWS

S (100NSEC)	H (960NSEC)
16K	G1 G2
8K	G3 G4
4K	G5 G6

2. ASTERISKED ITEMS ON SHEETS 5 THRU 8 ARE NOT REQUIRED (OPTION) IF P/N 000334 (75234) ARE USED FOR U37 THRU U44 & U47 THRU U54. IF P/N 000434 (LM7534 OR EQUIV) IS USED AS ALTERNATE PART FOR P/N 000334, ALL ASTERISKED ITEMS ON SHEETS 5 THRU 8 ARE REQUIRED.

4. THE SYMBOL "—>" INDICATES CONNECTION TO CORE MEMORY ARRAY BOARD 400940 (16K), OR 401025 (8K) OR 401030 (4K) REFER TO 400941 FOR SCHEMATIC & OTHER INFORMATION.

5. THE SYMBOL "Y" INDICATES TEST POINT AVAILABLE AT JUMPER BLOCKS 140 & 141 (NEAR U1 & U99) AT PIN INDICATED.

6. MEMORY BOARD ADDRESS ALLOCATION CHARTS - CONNECT JUMPER(S) AT U16 AS INDICATED (SEE SHEET 1). FOR EXAMPLE: 16K BD, 1ST 16K JUMPER AR1, U16-5 TO U16-12

16K BOARD

LOCATION	JUMPER
1ST 16K	5-12
2ND 16K	6-11

8K BOARD

LOCATION	JUMPER
1ST 8K	5-12, 3-14
2ND 8K	5-12, 4-13
3RD 8K	6-11, 3-14
4TH 8K	6-11, 4-13

4K BOARD

LOCATION	JUMPER
1ST 4K	5-12, 3-14, 1-16
2ND 4K	5-12, 3-14, 2-15
3RD 4K	5-12, 4-13, 1-16
4TH 4K	5-12, 4-13, 2-15
5TH 4K	6-11, 3-14, 1-16
6TH 4K	6-11, 3-14, 2-15
7TH 4K	6-11, 4-13, 1-16
8TH 4K	6-11, 4-13, 2-15

7. UNLESS OTHERWISE SPECIFIED BELOW, VOLTAGE PINS ON TTL IC'S ARE AS FOLLOWS:

16 PIN PACKAGES : PIN 16 +5V, PIN 8 -GRD ; 14 PIN PACKAGES : PIN 14 +5V, PIN 7 -GRD ; 8 PIN PACKAGES : PIN 8 +5V, PIN 4 -GRD

A. 75235 : PIN 9 +5V, PIN 8 -GRD

B. 75234 : PIN 16 +5V, PIN 8 -5V, PIN 9 -GRD

8. R82 (STROBE DELAY) AND R85 (STROBE PULSE WIDTH) ARE SET (IF REQUIRED) DURING FINAL TEST. R82 & R84 MAY ALSO BE CHANGED, IF REQUIRED.

9. C28-C31, C32-C35, C36-C39, C40-C43 ARE SELECTED AS FOLLOWS :

G1,G3,G5 (100NSEC) = PIN 007335 .022 μF 10%

- G2,G4,G6 (960NSEC) = PIN 007019 .015 μF 10%

▲ ITEMS CHANGE WITH G VERSION; SEE APPLICABLE PAGE FOR PARTS USED

SPARE GATES (OUTPUTS LISTED ONLY)

8

2

▲ ITEMS CHANGE WITH G VERSION; SEE APPLICABLE PAGE FOR PARTS USED

G6	G5	G4	G3	G2	G1	ITEM NO.	SIZE DRAWING NO.	PART NO. DRAWING NO.	DESCRIPTION	M P	U F	M F
QUANTITY PER GROUP						LIST OF MATERIAL						

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DIGITAL COMPUTER CONTROLS, INC.
FAIRFIELD, NEW JERSEY 07006

ATLANTIC CITY, NEW JERSEY 07406

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UNLESS OTHERWISE SPECIFIED APPROVAL DATE EAST

DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES

23

DIGITAL COMPUTER CONTROLS, INC.
FAIRFIELD, NEW JERSEY 07006

ATLANTIC CITY, NEW JERSEY 07406

UNLESS OTHERWISE SPECIFIED APPROVAL DATE EAST

DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES

16 MEMORY BOARD
LOGIC

D 400971 **D**

THREADS: EXT CL 2A. INT CL 2B

8

1

1

1

1

1

2

1

ASSEMBLY	PARTS TO BE ASSEMBLED	OPTION	ASSEMBLY
	TC, 2-4, 6, 8-11, 14-24, 26-29, 33-36, 35-40, 44-48, 59, 60, 64, 65, 67, 72, 75-78, 86, 89, 98, 99	TTY (ONLY)	
G2	R1, 2, 7, 13, 16-18, 24, 25, 36, 37, 41, 42, 56, 58, 63, 68, 72, 89, 23, 66 63,		G1
	C1, 2, 7-10, 14-22, 24-27, 29-31, 32, 36-40, 42, 43, 45-51, 53, 54, 55-59, 61-68, 74-83, 70, 71, 86		
	Y2 A		
	CR1, G-9,		
	Q1		
	JUMPERS B,C,E,G,J,Q6, AA		

MARK APPLICABLE
VERSION
IN THIS AREA

JUMPERS AA,B,C,E,G,J,R6,R86
(PARTIAL END VIEW)

PARTS TO BE ASSEMBLED	
IC1,2,4-11,	13-31,33-40,
42-61,62-72,	74-83,86-87,
89-99	
R1,2,5,6,7,	12,16-18,21,22,23
24,25,28-30,86,	37,39,40-56
80,81,87,88,89,	58-66
68,69,72-76,91	
C1,2,4,7-10,	14-27,29-33,35
36-71,	74,75,76-86,87
Q1,	9,13,14
Y1,Y2A	
CP1,5-9,10	

(PARTIAL END VIE

OPTION	A55-Y	PARTS TO BE IC 1-11, 13, 42-68, 72, 74- 98, 99
TTY RTC RDR BRPE PUNCH	G 3	R1,2,5-7, 12,16- 36, 37, 39, 40- 68, 69, 89, 28 66, 72-76, 91
		C1, 2, 4, 7-10, 14 35-59, G1-68, 7 86, 87

—
—

ASSEMBLED	OPTION	ASS'Y
31, 33-40, 81, 86, 87, 90, 89		
	TTY RDR PUNCH	
8, 21, 22, 24, 25, 29, 52, 58-62, 56 3, 30, 23, 63		G 4
22, 23-27, 29-33, 0, 71, 74-83, 84		G 5

10. The following table summarizes the results of the study. The first column lists the variables, the second column lists the descriptive statistics, and the third column lists the results of the regression analysis.

PARTS TO BE ASSEMBLED		OF
IC	2, 4-6, 8-11, 14-24, 26-29, 33-36, 38-40, 44-48, 57-60, 64-65, 67, 69-72, 75-78, 81-83, 86, 89-99	T R
R1	2, 7, 12, 16-18, 23-25, 36, 37, 41, 42, 58 63-66, 80, 81, 87, 88, 89, 53-56	
G8	69, 72	
C1	2, 7-10, 14-22, 24-27, 29, 30-32, 35-40, 42, 43, 45, 46, 47-51, 53-59, 60-71, 74-83, 85	
8G		
Y1	Y2 A	
CR1	6-10	
Q1	13, 14	
JUMPERS	B,C,E,G,J,Q,AA	
SAME AS G1 EXCEPT OMIT		T
IC	1, 13, 25, 37, 49-53, 61-63, 74-76	R

C4, 44, 52, 84, 87
Q-9



2

* THE VALUE FOR C82 IS 5
WHEN OPTION 116423 IS
ASSEMBLED. C82 IS 1UF
WHEN REQUIRED WITHOUT
OPTION 116423.

ASSY	PARTS ASSEMBLED	OPTION
G10	IC 2-6, 8-11, 14-24, 26-29, 32-36 38-40, 44-48, 59, 60, G1, G5, G7, 72 75-78, 86, G9, 9, 3, 99 RI-4, 7-20, 2, 3-27, 31-38 41, 42, G6, 58, G3, G5, G9 72, 77, 78, 85, 90, 66 C1, 2, 5, 22, 24-32, 35- 40, 42, 43, 45-51, 53-59, 61-68, 70, 71, 74-83, B6 CR1-4, G-9 Y2B Q1-G, 10, 15 JUMPER B.C.E, J.KEE CHG VALUE OF R2 TO 4.7K (002'178)	TTY OPTION 116423 OPTION 116429 (200 BAUD,
G11	SAME AS G10 ONLY DELETE JUMPER. EE AND ADD JUMPER BB	TTY OPTION 116423 OPTION 116429 (150 BAUD)
G12	SAME AS G2 ONLY DELETE RB9 & JUMPER G, ADD RB3, 77, 78, 85, G10 JUMPER K ALSO CHG VALUE OF R2 TO 4.7K	TTY, OPTION 116423 (110 BAUD)

C82 (OPTION 118423)		500 PF	007242
R86		20K	00650?
R82		220K	002860
R83		69K	006805
R84,79,R43		33K	002797
E4,3 FOR -1 G1,2,5,3		13A	002733
R29		75K	002783
R21,34,78		750R	002759
R45,50,51,52,19,51,54,23,91			
R1,63,67,39,8,9,10,21,18,35,41,45,46,47,63		3K, 14W	002717
R56,53		1.2K, 1N	002734
R73,74		180R, 14W	002744
R36,41,5,76		330R, 14W	002750
R37,42,63,34		390R, 14W	002752
R7,13,16,18,19,25,35,12,14,15,24,17,31		1K2L, 14W	002762
R2		630C2, 14W	002758
R3-411,50,53C		47K, 14W	002713
R81		2.2K, 14W	002770
R53,69,55,15,39		220R, 14W	002743
RG		32R, 1N	002711
R72		47R, 12W	002730
R80,40,R32,22		410R, 14W	002751
R37,39,26,75,77		15K, 14W	002766
R83		1K, 12L	002721
60,85		100R	002738
R20,32		110R	002759
R61		150R	002742
C29,58,66,77,79,46,30,37		01.4F	001201
C2,7,9,14,20,21,26,24,27,31,22,35,36			
20,40,42,43,45,46,47,48,43,53,54,56,		.05-4F	007201
52,12,63,65,67,68,71,74,75,78,80,81,83,84			
C23,		820C1F	007237
C1,8,13,19,37,38,50,51,55,68,70,16,5,5,		0.84F	007192
C41,C84		110PF	007232
C10,15,16,17,25,26,11,12,13,45,56		120PF	007236
42B		3.07E, 14H	002926
C61,60		13 ft	00732
* C34,44,52(82)		14F	007232
C33		5.14F	007236
C23		0.14F	007231
C72,73		47-4F	007322
CRG,7,8,9		1N4033	00501
Q1,2,3,4,6,11,12,13		2N412Z	01501
Q5,9,10,14,15		2N412Z	001501
Y2A		4.5Q56 MHZ	002622
Y1		4.096 MHZ	009261
CR1,2,3,4,5,10		1N4145	000501

ASSEMBLY	PARTS TO BE ASSEMBLED	OR
	IC 2-6, 8-11, 14-24, 26-29, 32-36, 38-40, 44-48, 57-60, 67, 64, 65, 69-72, 75-78, 81-83, 86, 89-99	T
Glo	Y1, Y1V2B	R
	CR1-4, 6-10; Q1-6, 10, 13, 15, C1, 2, 5-22, 24-32, 35-40, 42, 43, 45-51, 53-71, 74-83, 85, 86	OP
	R1-4, 7-20, 23-27, 31-38 41, 42, 53-56, 63-65, 68, 69, 58, 72, 77, 78, 80, 81, 85, 87, 88, 90	OP
	JUMPERS B, C, E, J, K AND CC	OP
	CHG VALUE OF R2 TO 4.7K Ω (002778)	(3) B

OPTION
TY,
TC,
OPTION
423,
OPTION
429,
00
(AUD)

ASSEMBLY	PARTS TO BE
	IC2, 4-7 8-11, 33-36, 38-40, 64-68, 72 75-E
	R1, 2, 7, 12, 16- 28-30, 36, 37, 56, 58, 63, 68,
G7	C1, 2, 7-10, 14- 35-43, 45-51, 61-68, 74-83,
	Y2A CR1, 5-9
	Q1, JUMPER5, B,C QG, R86

E ASSEM
14-24
, 42-48
31, 86, 89,
18, 21-
39, 41, 42
69 , 89
27, 29
53, 54,
70, 71 ,
E, E, G, J

-Y	PA
	IC
	42
	R1
	36
	72
	C1
	6
	Y2
	C1
	Q
	JL
	S
	R
	A
	Y1
	A

RTS TO BE ASSEMBLED	OPTION
1-11, 13-31, 33-40	
2-68, 72, 74-81, 85-87, 89, 90, 98, 99	
1, 2, 5, 6, 7, 12, 16, 17, 18, 21-25, 28-30	TTY
37, 39, 40, 52, 56-63, 66-69,	DECITE
76, 79, 82, 83, 84, 89, 91	ROYTRO
2, 4, 7-10, 14-27, 29-33, 35-59,	RDR
1-68, 70-84, 86, 87	PCH
A	
2, 5-9	
1, 9, 11, 12	
JUMPERS B, C, E, G, J, Q6, R6B, AA	
AM6 AS G2 BUT DELETE	TTY &
89, 92A & JUMPER K, AA	OPTION
D2 R3B, 77, 78, 85, 90	11G423
2B, JUMPER K, CC	(300)
1-50 (THE VALUE OF	

ASSEMBLY	PARTS TO BE ASSEMBLED	OPTIONS	ASSEMBLY	PARTS TO BE ASSEMBLED	OPTION	ASSEMBLY	PARTS TO BE ASSEMBLED
G13	SAME AS G2 ONLY OMIT: R89, Y2A JUMPER G, & AA ADD: R38, 77, 78, 85 Q10 Y2-B JUMPER K, & DD ALSO CHG VALUE OF R2 TO 4.7K (002778)	TTY, OPTION 116423 (9600 BAUD)	G30	SAME AS G5 EXCEPT DELETE R89, JUMPER G & Y2A ADD R38, 77, 78, 85, Q10, Y2B, JUMPER K & HH-CHG R2 TO 4.7K (002778)	TTY, RTC, HS RDR, OPTION 116423 (9600 BAUD)	G46	SAME AS G44 ON DELETE JUMPERS & E AND ADD A, C, D CHANGE VALUE OF R2 FROM 4.7K TO 33 (002797)
G14	SAME AS G4 ONLY OMIT: R89 & JUMPER G, Y2A ADD: R38, 77, 78, 85 Q10 Y2B JUMPER K, & EE ALSO CHG VALUE OF R2 TO 4.7K (002778)	TTY, RTC, OPTION 116423 (1200 BAUD)	G31	SAME AS G2 BUT DELETE R89, Y2A, JUMPER G & AA ADD R38, 77, 78, 85, Q10, Y2B JUMPER K & HH CHG R2 TO 4.7K (002778)	TTY, OPTION 116423 (9600 BAUD)	G47	SAME AS G1 EXCEPT VALUE OF C33 TO B .01uF
G15	SAME AS G4 ONLY OMIT: R89 & JUMPER G, Y2A ADD: R38, 77, 78, 85, Q10 Y2B JUMPER K & HH ALSO CHG VALUE OF R2 TO 4.7K (002778)	TTY, RTC, OPTION 116423 (9600 BAUD)	G32	SAME AS G2 PLUS IC 1, 7, 13, 25, 37, 49-53, G1-G3, 74, 85, 87 R5, G, 43, 44, 59-62, 79, 73-76, 82-84, 91 Q3, 11, 12 C4, 44, 52, 72, 73, 84, 87	TTY, HIGH SPEED PUNCH (BRPE)	G48	SAME AS G1 EXCEPT VALUE OF C33 TO B .01uF
G16	IC 1, 4, 5, 7-11, 13, 18, 20, 22 24-26, 30, 31, 33, 37 38, 42-45, 49-58, G1-63, G6-G8, 74, 75, 79-81, 87, 90 CR 5-9 , Q9 C1, 24, 7-10, 14-27, 29-33 35-53, G2, G3 G5-G8 70, 71, 74-76, 78-81 S3, F4, 87 R5, G, 12, 16-18, 21, 22, 24 25, 28-30, 36, 37, 39, 41, 42, 45-52, 72 JUMPERS - B, C, E, R86	HIGH SPEED PUNCH (BRPE) HIGH SPEED READER (DECITEK)	G33	SAME AS G4 PLUS IC 1, 7, 13, 25, 37, 49-53, G1-G3, 74, 85, 87 R5, G, 43, 44, 59-62, 79, 73-76, 82-84, 91 Q3, 11, 12 C4, 44, 52, 72, 73, 84, 87	TTY, RTC, HIGH SPEED PUNCH (BRPE)	G49	SAME AS G6 ONLY DELETE JUMPER E AND ADD JUMPER F
G17	SAME AS G2 BUT DELETE R89, Y2A, & JUMPER G, & AA ADD R38, 77, 78, 85, Q10, Y2B, JUMPER K & EE ALSO CHG VALUE OF R2 TO 4.7K (002778)	TTY OPTION 116423 (1200 BAUD)	G34	IC 4, 5, 7-11, 18, 20, 22, 24, 26, 30, 31, 33, 38, 42-45, 49, 54-58, G6-G8, 75, 79-81, 87, 90 CR 5-9 C1, 2, 7-10, 14-27, 29, 33, 35-43, 45-51, 53-59, G2, G3, G5-G8, 70, 71, 74-76, 78-81, 83, 84 R12, 16-18, 21, 22, 24, 25, 28-30, 36, 37, 39, 41, 42, 45-52, 72 JUMPERS - B, C, E, R86	HIGH SPEED READER	G50	SAME AS G38 ON DELETE JUMPER E AND ADD JUMPER F
G18	SAME AS G1 BUT CHANGE VALUE OF R43 FROM 33K TO 15K (002789)	TTY, RTC, HS READER, HS PUNCH (BRPE)	G35	SAME AS G10 BUT DELETE JUMPER B, C & E AND ADD AD & F	TTY, OPTION 116423, 116429 (1200 BAUD) DEVICE CODE 40-44	G51	SAME AS G5 EXCEPT CHANGE VALUE OF R2 TO .01uF (002700)
G19	SAME AS G2 ONLY DELETE JUMPER AA, Y2A ADD JUMPER FF, Y2B	TTY OPTION (2400 BAUD)	G36	SAME AS G10 BUT DELETE JUMPER C & E AND ADD D & F ALSO MODIFY PER S.W.O. 550	TTY, OPTION 116423, 116429 (200 BAUD) DEVICE CODE 60-61	G52	SAME AS G30 EXCEPT DELETE JUMPER H AND ADD JUMPER E - CHANGE VALUE OF R2 TO .01uF (002700)
G20	SAME AS G2 ONLY DELETE JUMPER AA, Y2A ADD JUMPER CC, Y2B	TTY OPTION (300 BAUD)	G37	SAME AS G4 BUT DELETE JUMPER C AND ADD JUMPER D & F	TTY, RTC DEVICE CODE 50-51	G53	SAME AS G7 EXCEPT CHANGE VALUE OF R2 TO .01uF (002700)
G21	SAME AS G2 ONLY DELETE Y2A, JUMPER AA B, C & E AND ADD JUMPER E, A, D, F & Y2B	TTY (1200 BAUD) DEVICE CODE 50-54	G38	SAME AS G15 BUT DELETE JUMPER HH AND ADD JUMPER CC	TTY, RTC OPTION 116423 (300 BAUD)	G54	IC 4, 5, 8-11, 18, 20, 22, 23, 33, 38, 44, 45, 57-59, R12, 16-18, 24, 25, 36, 37, 53-55, G4, G6, 72, 82, 87, 88, C1, 2, 7-10, 14-22, 24-25, 30-40, 42, 43, 45-55, G2, G3, G5-G7, 71, 74-76, 83, 85 CR6-10 Q13-14 JUMPERS - B, C, E
G22	SAME AS G2 BUT DELETE R89, Y2A, & JUMPER G AA ADD R38, 77, 78, 85, Q10 Y2B, JUMPER K & FF ALSO CHG VALUE OF R2 TO 4.7K (002778)	TTY, OPTION 116423 (2400 BAUD)	G39	SAME AS G22 - ALSO MODIFY PER S.W.O. 607	TTY, OPTION 116423 (2400 BAUD) DEVICE CODE 30, 31	G55	SAME AS G48 ON DELETE JUMPER E AND ADD JUMPER F
G23	SAME AS G2 BUT DELETE JUMPER C, AND ADD C & F	TTY, DEVICE CODE 50-54	G40	SAME AS G22 BUT DELETE JUMPER B, C & E AND ADD A, D & F	TTY, OPTION 116423 (2400 BAUD) DEVICE CODE 40, 41	G56	SAME AS G17 ONLY ISOLATE IC 34 P1 AND ADD A JUMPER FROM IC 34 P1 IC 38 PIN 10.
G24	SAME AS G2 BUT DELETE JUMPER B, C & E AND ADD A, D & F	TTY, DEVICE CODE 40-44	G41	SAME AS G22 BUT DELETE JUMPER C AND ADD D & F	TTY, OPTION 116423 (2400 BAUD) DEVICE CODE 50, 51	G57	SAME AS G17 BUT DELETE JUMPER S, E AND ADD A, D
G25	SAME AS G10 BUT DELETE JUMPER C, AND ADD D & F	TTY, OPTION 116423, OPTION 116429 (1200 BAUD) DEVICE CODE 50-54	G42	SAME AS G22 BUT DELETE JUMPER C & E AND ADD D & F - ALSO MODIFY PER SWO 550	TTY, OPTION 116423 (2400 BAUD) DEVICE CODE 60, 61	G58	SAME AS G17 BUT DELETE JUMPER S, E AND ADD D & F MODIFY PER SWO
G26	SAME AS G2 BUT DELETE R89, Y2A, JUMPER C, G, & AA ADD R38, 77, 78, 85, Q10, Y2B, JUMPER D, F, K & GG ALSO CHG VALUE OF R2 TO 4.7K (002778)	TTY, OPTION 116423 (4800 BAUD) DEVICE CODE 50-54	G43	SAME AS G9 EXCEPT DELETE JUMPER C AND ADD JUMPER D & F	TTY, OPTION 116423 (300 BAUD) DEVICE CODE 60, 61	G59	SAME AS G14, BUT DELETE JUMPER E AND ADD JUMPER AA
G27	SAME AS G2 BUT DELETE R89, Y2A, JUMPER C, G, & AA ADD R38, 77, 78, 85, Q10, Y2B, JUMPER D, F, K & GG ALSO CHG VALUE OF R2 TO 4.7K (002778)	TTY, OPTION 116423, (4800 BAUD) DEVICE CODE 40-44	G44	SAME AS G32 EXCEPT DELETE R89, Y2A, JUMPER G & AA AND ADD R38, 77, 78, 85, Q10 Y2B, JUMPER K & EE ALSO CHG VALUE OF R2 TO 4.7K (002778)	TTY, HIGH SPEED PUNCH (BRPE) OPTION 116423 (200 BAUD)	G60	SAME AS G14, BUT DELETE JUMPER E AND ADD JUMPER BB
G28	SAME AS G2 BUT DELETE R89, Y2A, JUMPER G, & AA ADD R38, 77, 78, 85, Q10, Y2B, JUMPER K & GG ALSO CHG VALUE OF R2 TO 4.7K (002778)	TTY, OPTION 116423 (4800 BAUD) DEVICE CODE 10-14	G45	SAME AS G17 BUT DELETE JUMPER C AND ADD JUMPER D & F	TTY, OPTION 116423 (200 BAUD) DEVICE CODE 50-54	G61	SAME AS G10 BUT DELETE JUMPER S, E AND ADD JUMPER BB
G29	SAME AS G8 BUT CHANGE VALUE OF R43 FROM 33K TO 15K (002789)	TTY, H.S. RDR, H.S. PUNCH (BRPE)				G62	SAME AS G48 ONLY DELETE JUMPER E AND ADD JUMPER BB
						G63	SAME AS G34 EXCEPT VALUE OF C33 TO B .01uF (002700)
						G64	SAME AS G48 ON DELETE JUMPER E AND ADD JUMPER HH
						G65	SAME AS G9, ONLY DELETE JUMPER C AND ADD JUMPER BB
						GGG	IC 1, 4, 5, 7-11, 13, 18, 20, 22, 37, 38, 44, 45, 49-53, G1-63, Q9, 11, 12, CRG 5, 6, 12, 16-18, 24, 25, 30, 32, 33, 37, 39, 41, 42, 43, 45-55, R12, 14-16, 20-22, 24-27, 31, 33, 35, 37, 39, 41, 42, 43, 45-55, C1, 2, 7-10, 14-22, 24-25, 30-40, 42, 43, 45-55, G2, G3, G5-G7, 71, 74-76, 83, 85

REVISED W/ADDITION OF G56 PER MCS 2994 AW REV H RKT 7/29/74						REVISED W/ADDITION OF G17 PER S.O. 1801 RKT 7/29/74	
REVISED W/ADDITION OF G574 G58 PER MCS 2661-9A AW REV H RKT 9/16/74						REVISED W/ADDITION OF G18 PER S.O. 1819 & G19 PER S.O. 1849 RKT	
REVISED W/ADDITION OF G59 PER MCS 3111 - AW REV H RKT 9/16/74						REVISED W/ADDITION OF G20, G21 PER S.O. 1853 & G22 PER S.O. 1862 RKT	
REVISED W/ADDITION OF G60 PER MCS 3136 - AW REV H RKT 10/4/74						REVISED W/ADDITION OF G23 PER S.O. 1885 & RKT G24 PER S.O. 1893	
REVISED W/ADDITION OF G61 PER MCS 3058 - AW REV H RKT 10/16/74						REVISED PER ECN 1153, 1152 RC 4/6/73	
REVISED W/ADDITION OF G62 PER MCS 3227 AND G63 PER MCS 3318 AW REV H RKT 11/3/74						REVISED W/ADDITION OF G25 PER S.O. 1802 & G26, G27 PER S.O. 1879-2 RKT	
REVISED W/ADDITION OF G64 PER MCS 3393 ADD G65 PER MCS 3458 ALSO REVISED PER ECN 2486 ADDED NOTE TO SHT 1 ALSO ADDED GGG PER MCS 3350 AW REV H RKT 11/22/75						REVISED PER ECN 1198 & 1197 TEP 5-11-75 RKT	
REVISED W/ADDITION OF G67 PER MCS 3727 - AW REV H RKT 3/17/75						REVISED PER DND 3161 ADDED ITEM 79 4 PARTIAL END VIEW 4/1/75 RKT 11/22/75 ADDED RST, PART NO OF G68 & G69 WAS 207725	
REVISED W/ADDITION OF G69 PER MCS 3820 - AW REV H RKT 4/7/75						REVISED W/ADDITION OF G30 FOR USE IN D-16 AUTOMATIC CIRCUIT BOARD TESTER RKT	
REVISED W/ADDITION OF G69 PER MCS 3854 AND G70 PER MCS 3823 AW REV H RKT 4/7/75						REVISED/ECN 1252 & 1375 JO 3-29-75 DELETED G3, ADDED 15K 2432, ADDED G31 PER S.C. MCS 295 REVERSED R54 & R55	
REVISED W/ADDITION OF G71 PER MCS 3878 AW REV H RKT 5/4/75						REVISED W/ADDITION OF G32 PER S.O. MCS 1-50 = G32 PER S.O. MCS 3-14 RKT	
REVISED W/ADDITION OF G68 PER MCS 4015 AW REV H RKT 9/4/75						REVISED W/ADDITION OF G34 PER S.O. MCS 2247 RKT	
REVISED W/ADDITION OF G73 PER MCS 4015-1 AW REV H RKT 9/7/75						REVISED W/ADDITION OF G35 & G36 PER S.O. MCS 2282 RKT	
SEE SHEET 3						REVISED W/ADDITION OF G37 PER MCS 2344 & PER ECN 1542 ALSO ADDED G38 PER MCS 2352 - FOR USE WITH AW REV G + H RKT REVISED PER ECN 1635 DNR	
PARTS TO BE ASSEMBLED						REVISED W/ADDITION OF G38 THRU G42 PER MCS 2419 - FOR USE WITH AW REV H RKT	
JUMPER - B,C,E & R86						ADDED SWO #5 TO G39 & G42 - ALSO ADDED G43 PER MCS 2446 RKT	
SAME AS G8 EXCEPT C4G VALUE OF C33 FROM .1UF 007006 TO .01MF 007001						REVISED W/ADDITION OF G44 PER MCS 2480 - FOR USE WITH AW REV H RKT	
SAME AS G6 ONLY DELETE JUMPER CC AND ADD JUMPER EE						REVISED W/ADDITION OF G45 PER MCS 2555 - FOR USE WITH AW REV H RKT	
IC 4, 5, 8-11, 18, 20, 23, 24, 26, 33, 38, 44 45, 75 CRG-9 R12, 16-18, 24, 25, 36, 37, 41, 47, 72 C1, 2-7, 10, 14-22, 24-27, 29-32, 35-40, 42, 43, 45-51, 53-59 J2, 63, 65-68, 70, 71, 74-76 78-81, 83						REVISED W/ADDITION OF G46 PER MCS 2567 - FOR USE WITH AW REV H RKT 4/4/74 ADDED G47 VERSION/ECN 1869 BR. ALSO ADDED G48 PER MCS 2658, G49 PER MCS 2678 RKT 4/4/74	
SAME AS G26 EXCEPT DELETE JUMPER 3G AND INSTALL SWO 856						REVISED W/ADDITION OF G50 PER MCS 2703 RKT 4/17/74 G51 PER MCS 2700 4/17/74	
SAME AS G52 EXCEPT DELETE JUMPER EE AND ADD JUMPER HH						REVISED W/ADDITION OF G52 PER MCS 2687 AND G53 PER MCS 2723 - ECN 1608 G33 VERSION CHGD IC17 TO IC17 - ALSO REVISED PER ECN 1785 R21S G80L FOR CURRENT LOOP AND R2 IS 4.7K FOR EIA - CHGD R89 TO 1K, Y2W AW REV H 4/25	
SAME AS G16 EXCEPT CHG VALUE OF C33 TO .01MF (007001)						REVISED W/ADDITION OF G54 PER MCS 2731 - AW REV H RKT 5/16/74	
SAME AS G8 EXCEPT C4G VALUE OF C33 TO .01MF (007001) AND R2 TO 4.7K (002778) ALSO DELETE R88 Y2A & JUMPERS G, AA AND ADD Y2B R38, 77, 78, 85, Q10, & JUMPERS HH & K						REVISED W/ADDITION OF G55 PER MCS 2631 - AW REV H RKT 6/11/74	

ARLOCK 1-25-73
1/25/73

D-116
/O ASS'Y

400300 BI

8

7

6

5

4

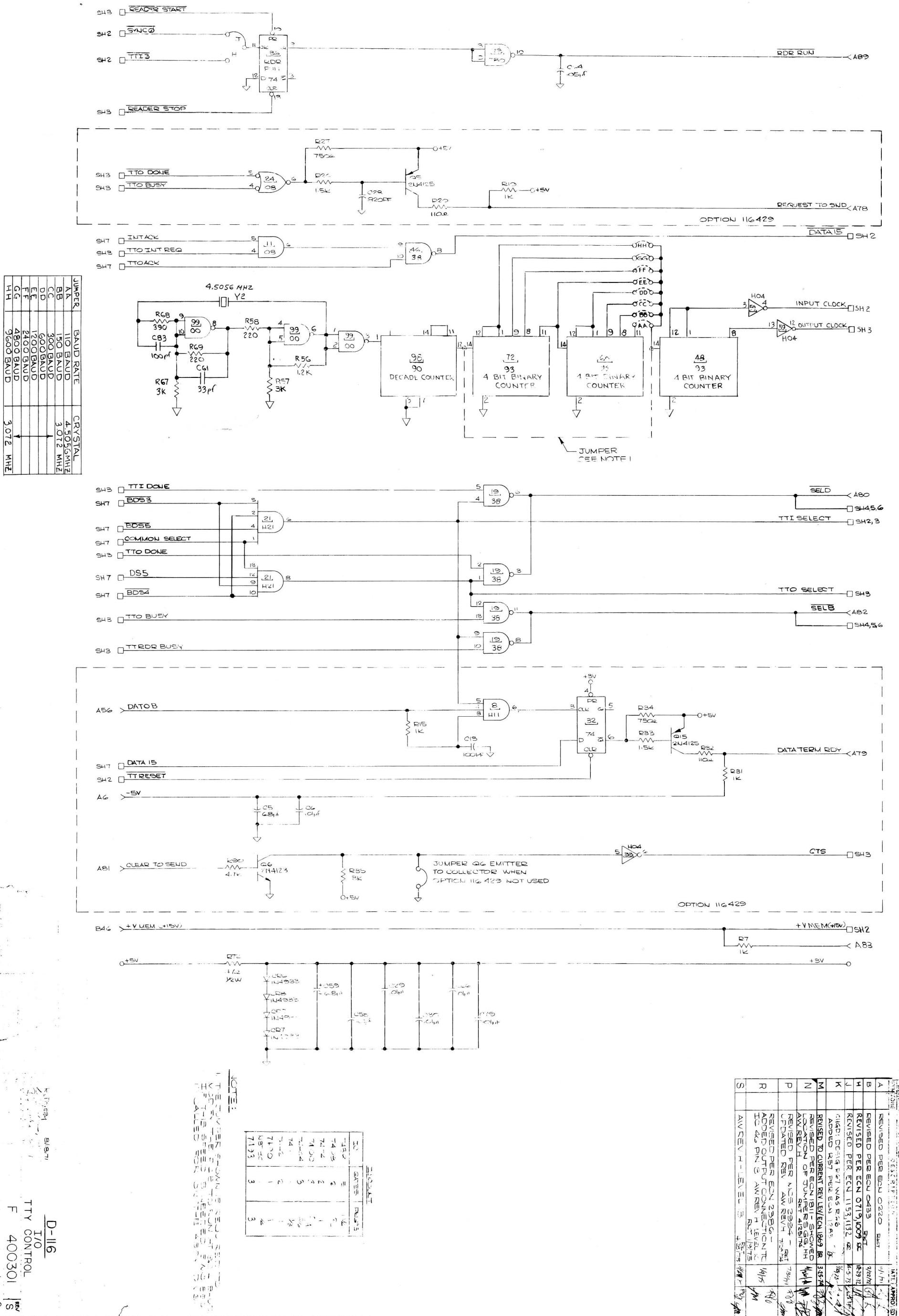
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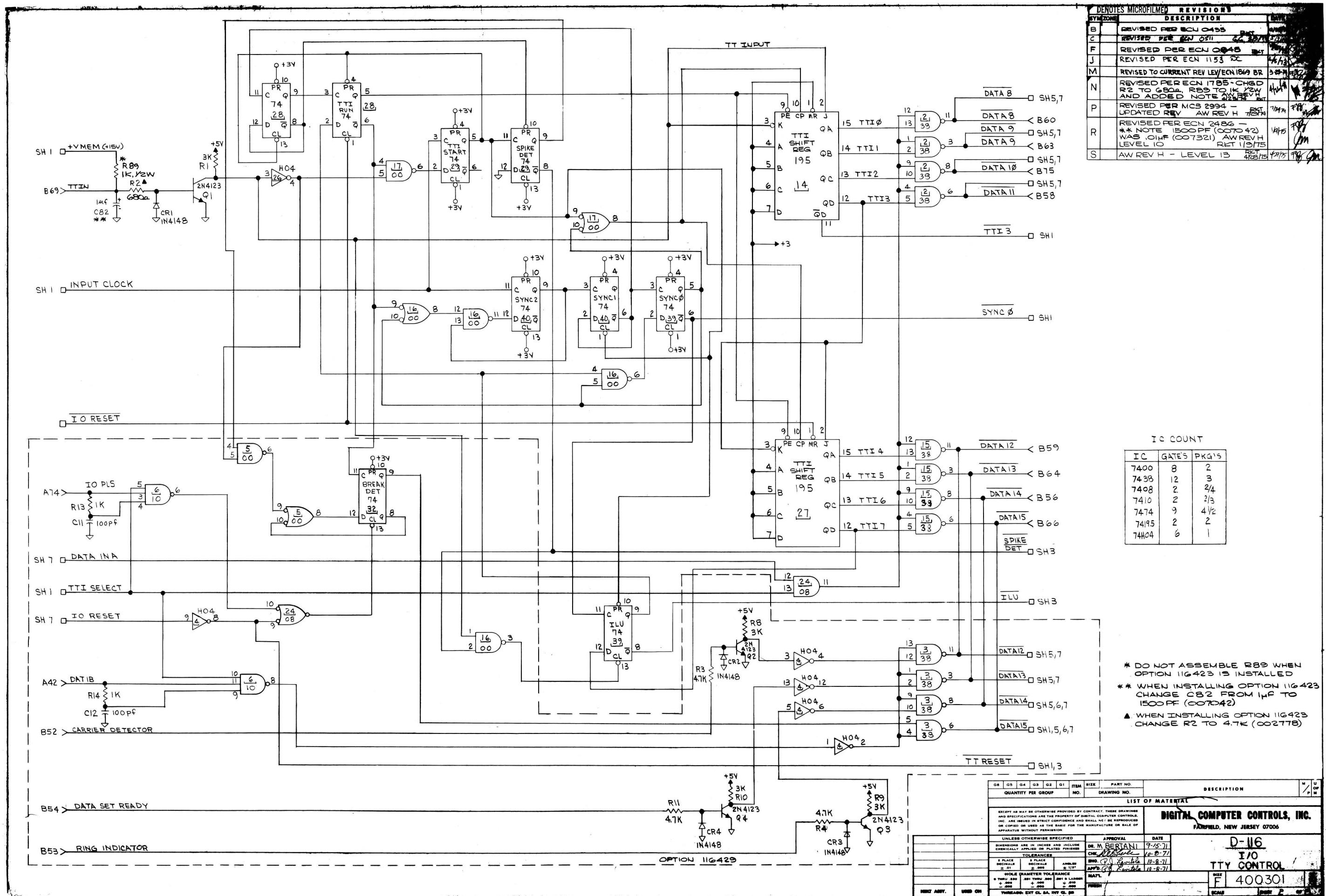
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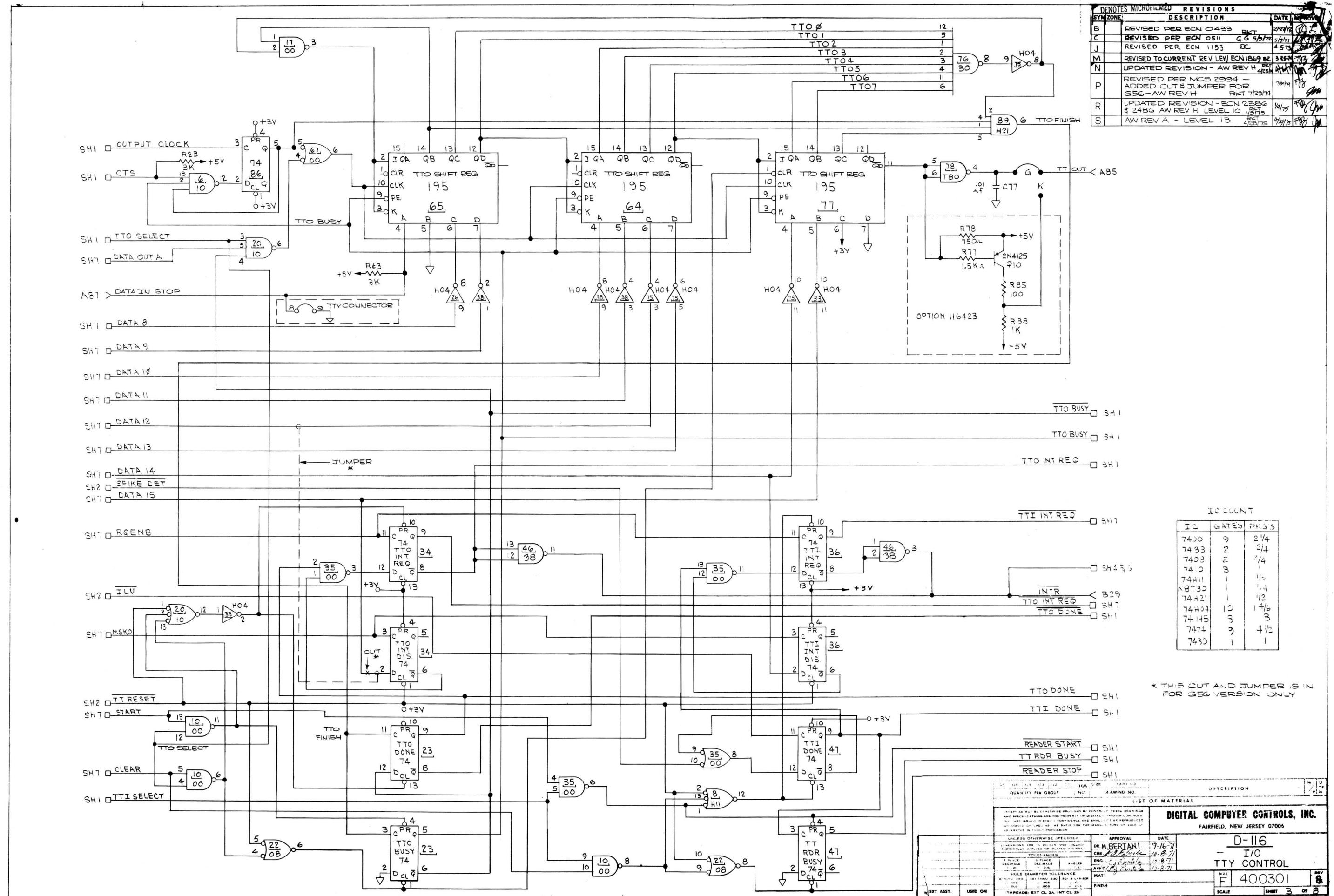
ASSEMBLY	PARTS TO BE ASSEMBLED	OPTIONS
G74	SAME AS G48 EXCEPT DELETE JUMPER EE AND ADD JUMPER CC	TTY, RTC, RDR PUNCH, OPTION 116423 (300 BAUD)
G75	SAME AS G2G EXCEPT DELETE JUMPER GG AND ADD JUMPER HH	TTY, OPTION 116423 (9600 BAUD) DC 50,51
G76	SAME AS G44 PLUS THESE ADDITIONAL PARTS: IC 3,32 R3,4,8-11,13,15,19,20,26,27,31-35,30, Q2-G,15 CR2-4 C5,G,11-13,28	TTY, PUNCH, OPTION 116423 & 116429 (200 BAUD)
G77	SAME AS G30 EXCEPT DELETE JUMPER HH AND ADD JUMPER FF ALSO CHG VALUE OF C33 TO .01uF (007001)	TTY, RTC, RDR (REMEY) OPTION 116423 (2400 BAUD)
G78	SAME AS G14 EXCEPT DELETE JUMPERS B,C,E & EE AND ADD JUMPERS A,D,F & BB	TTY, RTC, OPTION 116423 (150 BAUD) DEV. CODE 40,41
G79	SAME AS G27 EXCEPT DELETE JUMPER GG AND INSTALL SWO 856	TTY, OPTION 116423 (19.2K BAUD) DEVICE CODES 40,41

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APPROVED
BJ		REVISED W/ADDITION OF G74 & G75 PER MCS 4158 AND G76 PER MCS 4190 AW REV H RLT 7/30/75	7/30/75 F&M
BK		REVISED W/ADDITION OF G77 PER MCS 4351 & G78 PER MCS 4361 RLT 9/19/75	9/19/75 F&M
BL		REVISED W/ADDITION OF G79 PER MCS 4428 - AW REV H RLT 10/7/75	10/7/75 F&M

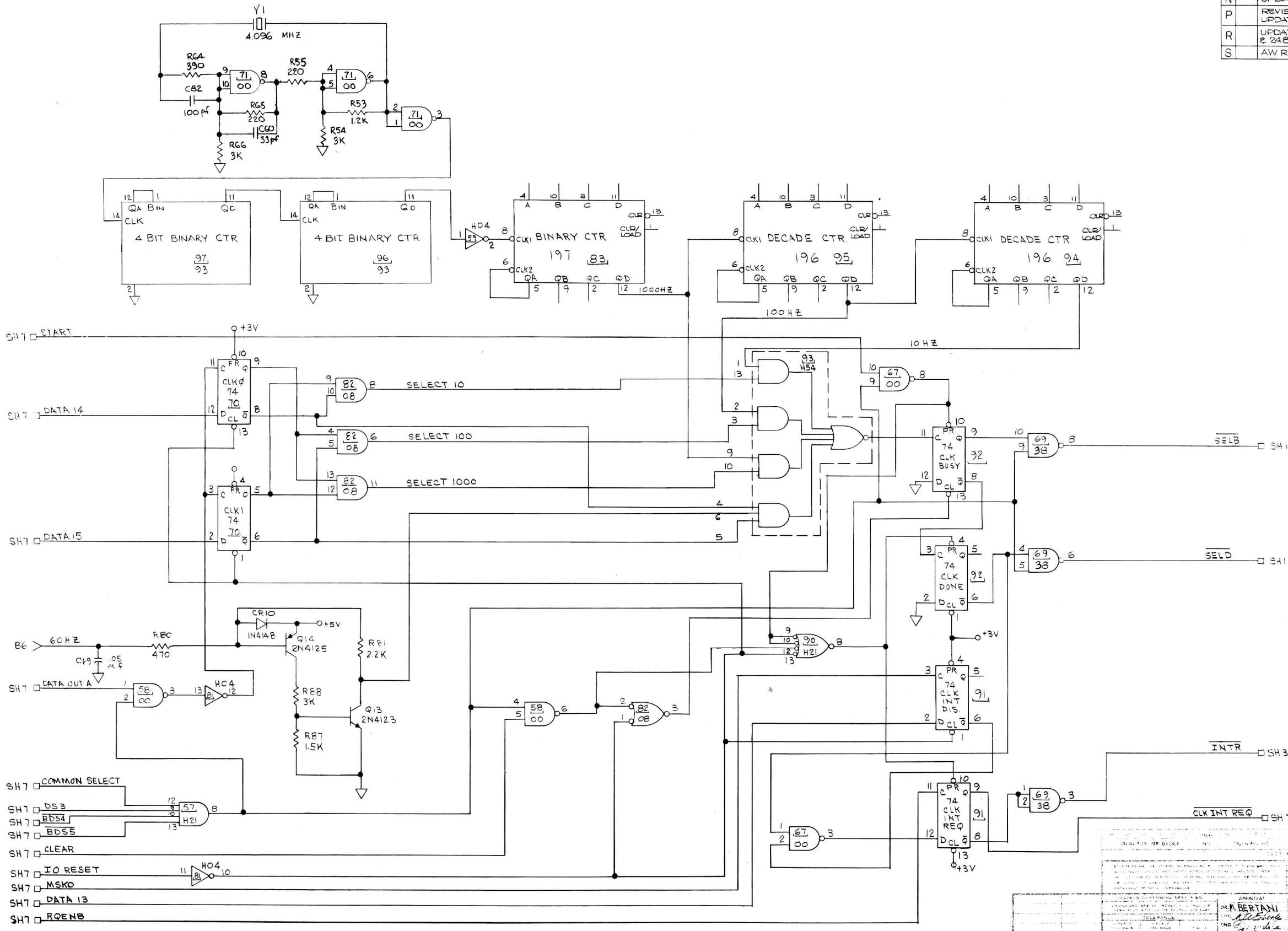
QTY	ITEM NO.	SIZE	PART NO.	DESCRIPTION	U OF M
1					
LIST OF MATERIAL					
<small>EXCEPT AS MAY BE OTHERWISE PROVIDED BY CONTRACT, THIS DRAWING IS THE PROPERTY OF DIGITAL COMPUTER CONTROLS, INC. IT IS TO BE KEPT CONFIDENTIAL AND SHALL NOT BE REPRODUCED OR COPIED EXCEPT WITH THE WRITTEN PERMISSION OF THE SALE OF APPARATUS WITHOUT PERMISSION.</small>					
DIGITAL COMPUTER CONTROLS, INC. <small>FAIRFIELD, NEW JERSEY 07006</small>					
UNLESS OTHERWISE SPECIFIED <small>DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY TREATED AND POLISHED FINISHES.</small>					
<small>APPROVAL DATE DR. R. K. THIERY JR 7/30/75</small>					
<small>CHK. ENG. APP'D.</small>					
<small>HOLE DIAMETER TOLERANCE</small>					
<small>MATL. SIZE REV</small>					
<small>NEXT ASSY. USED ON</small>					
<small>THREADS: EXT CL 2A, INT CL 2B</small>					
<small>SCALE SHEET 3 OF 3</small>					

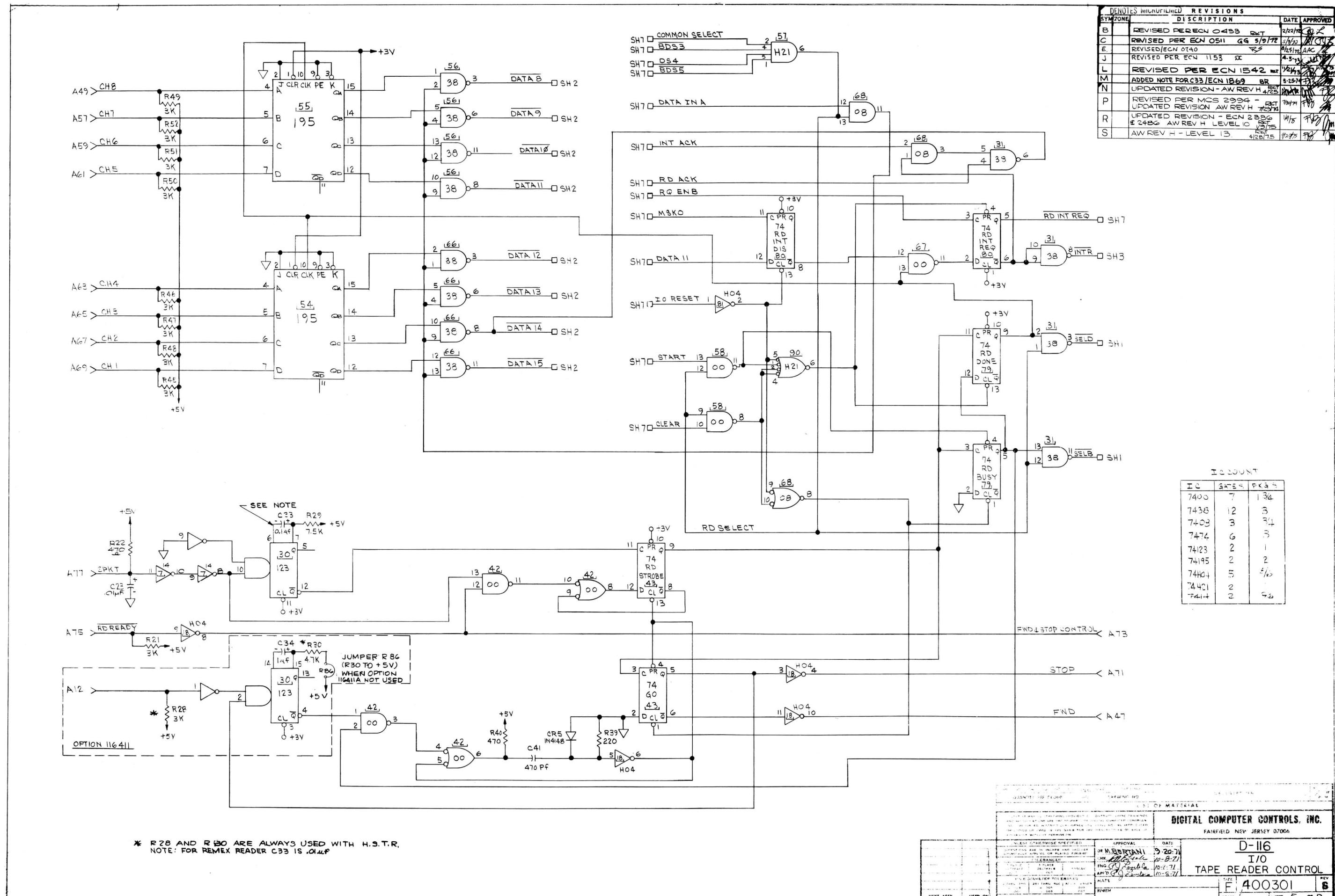


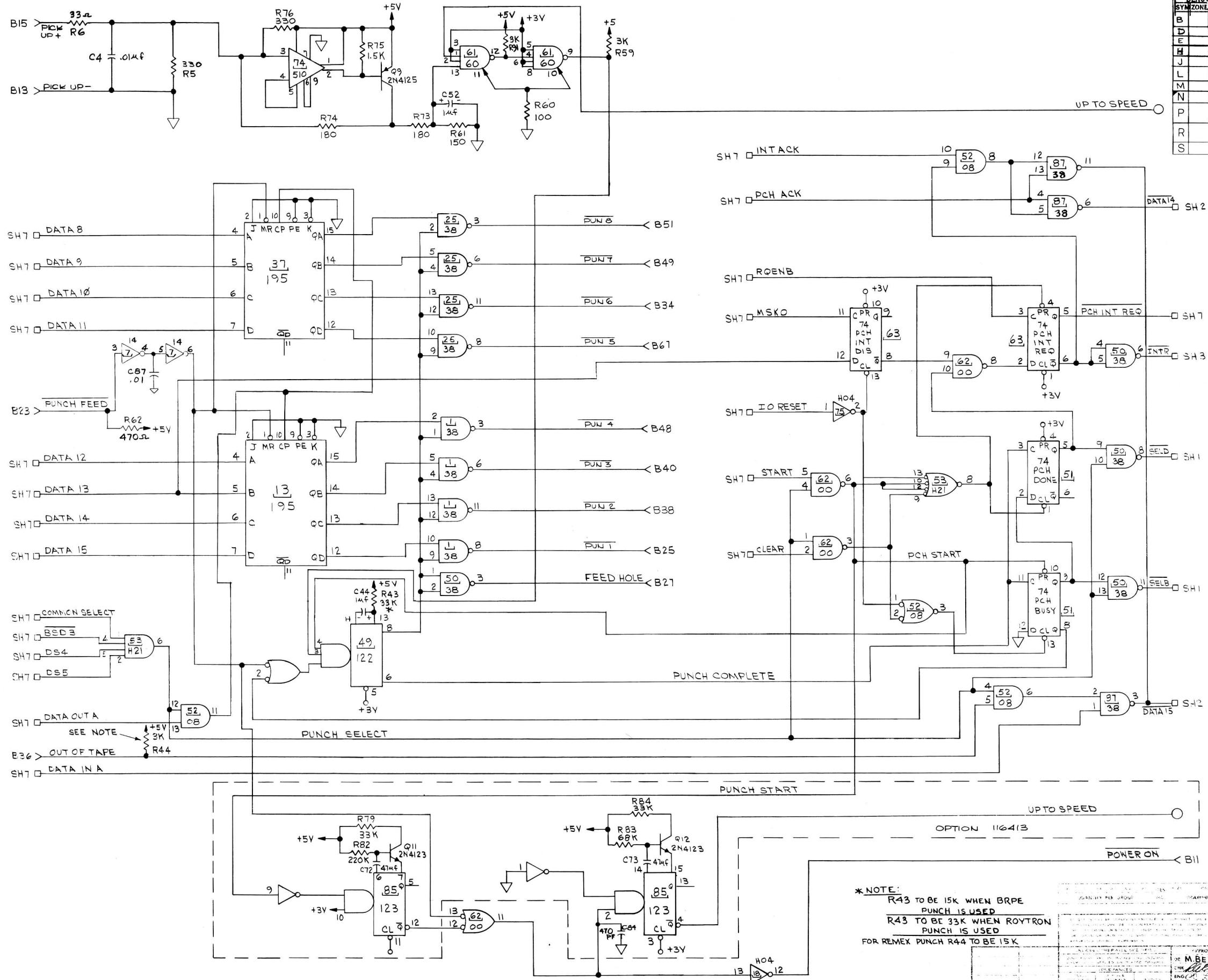




DENOTES MICROFILMED REVISIONS		
SYN. ZONE	DESCRIPTION	DATE APPROVED
B	REVISED PER ECN 0433	2/29/74 P/R
C	REVISED PER ECN 0511 CG 5/1/72	5/1/72
H	REVISED PER ECN 0719	11-10-74
J	REVISED PER ECN 1153 BE	9-5-73
M	REVISED TO CURRENT REV LEV/ECN 1869 BR	3/25/74 P/R
N	UPDATED REVISION AW REV H	4/25/74 P/R
P	REVISED PER MCS 2994 - RET UPDATED REVISION AW REV H	7/29/74 P/R
R	UPDATED REVISION - ECN 2386 & 2486 AW REV H LEVEL 10 PSHS	1/9/75 P/R
S	AW REV H - LEVEL 13 4F00301 4/29/75 P/R	





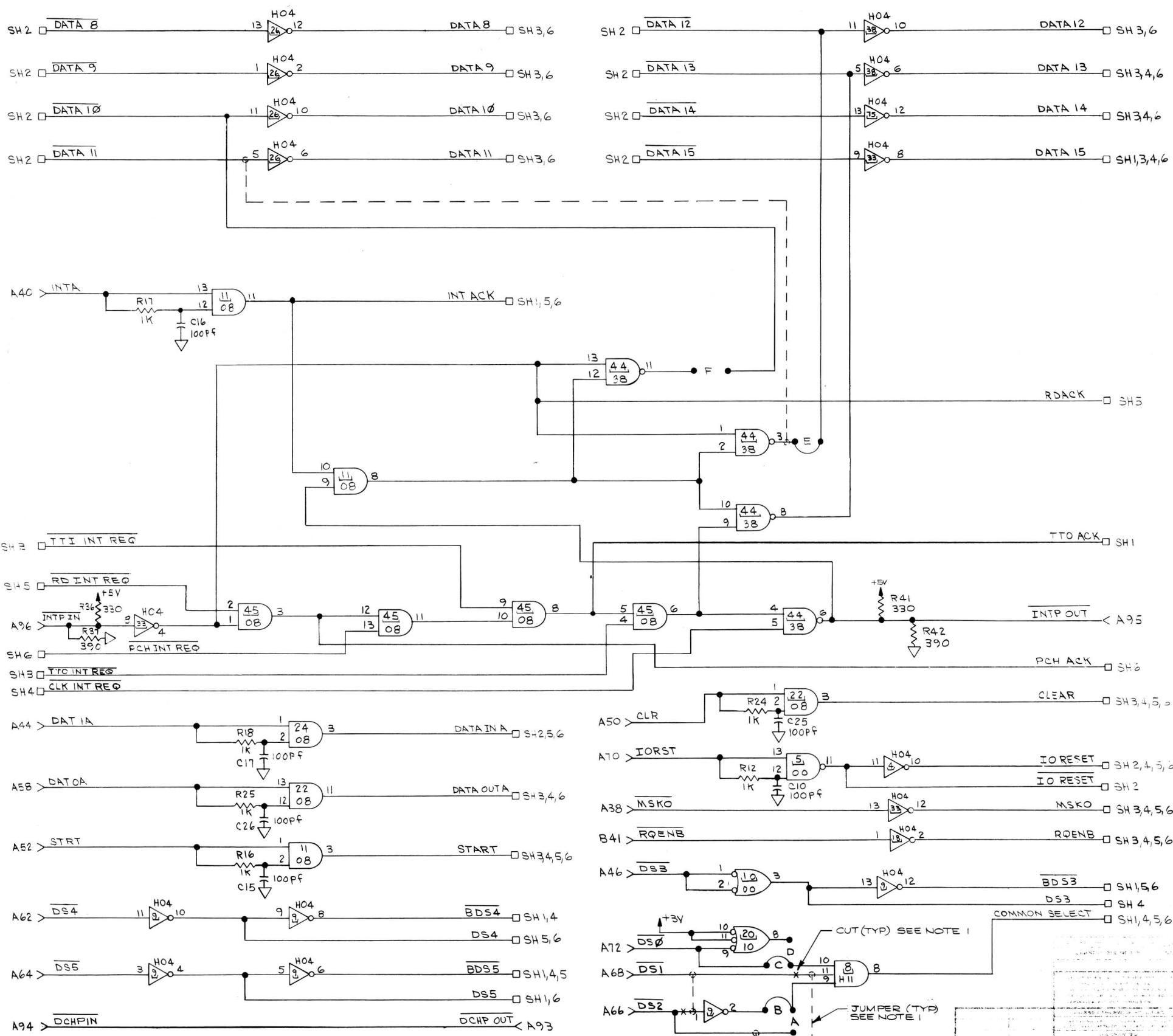


DENOTES MICROFILMED		REVISIONS	
SYM/ZONE		DESCRIPTION	DATE APPROVED
B		REVISED PER ECN 043B	2/27/76 <i>SP</i>
D		REVISED PER ECN 063Z	6/1/72 <i>SP</i>
E		REVISED/ECN 0726,0756	2/25/72 <i>SP</i>
H		REVISED PER ECN 0795,1043	11-14-71 <i>SP AAC</i>
J		REVISED PER ECN 1153	4/15/73 <i>SP AAC</i>
L		REVISED PER ECN 1542	7/6/73 <i>SP AAC</i>
M		ADDED NOTE FOR R44/ECN 1869	3-25-74 <i>SP AAC</i>
N		UPDATED REVISION - AW REV H	4/25 <i>SP AAC</i>
P		REVISED PER MCS 2334 - UPDATED REVISION AW REV H	7/30/74 <i>SP AAC</i>
R		UPDATED REVISION - ECN 238G ¶ 248G AW REV H LEVEL 10	9/15/75 <i>SP AAC</i>
S		AW REV H - LEVEL 13	4/25/76 <i>SP AAC</i>

I.C.	GATES	PKGS
7400	4	1
7403	4	1
7474	4	2
7438	13	3 3/4
74195	2	2
74122	1	2
74123	2	1
74H04	2	2/6
NE510A	1	1
7414	2	3/6
74H21	2	1
7430	1	1

<p>*NOTE:</p> <p>R43 TO BE 15K WHEN BRPE PUNCH IS USED</p> <p>R43 TO BE 33K WHEN ROYTRON PUNCH IS USED</p> <p>FOR REMEX PUNCH R44 TO BE 15K</p>		<p>JOINTED PAPER GROUP</p> <p>PRINTING NO.</p> <p>DESCRIPTION</p>																																			
		<p>LIST OF MATERIALS</p> <p>DIGITAL COMPUTER CONTROLS, INC.</p> <p>PATRIOT FIELD, NEW JERSEY 07046</p>																																			
<table border="1"> <tr> <td>ITEM NO.</td> <td>DESCRIPTION</td> <td>QTY</td> <td>APPROVAL</td> <td>DATE</td> </tr> <tr> <td>1</td> <td>ONE QUARTER INCH DIA. HOLE PUNCH</td> <td>1</td> <td>DR M BERTANI</td> <td>9-21-71</td> </tr> <tr> <td>2</td> <td>ONE QUARTER INCH DIA. HOLE PUNCH</td> <td>1</td> <td>CH [initials]</td> <td>10-8-71</td> </tr> <tr> <td>3</td> <td>ONE QUARTER INCH DIA. HOLE PUNCH</td> <td>1</td> <td>ENG C [initials]</td> <td>10-8-71</td> </tr> <tr> <td>4</td> <td>ONE QUARTER INCH DIA. HOLE PUNCH</td> <td>1</td> <td>APPROV. 2 CIRCLES</td> <td>10-8-71</td> </tr> <tr> <td colspan="5">MATE</td> </tr> <tr> <td colspan="5">FINISH</td> </tr> </table>		ITEM NO.	DESCRIPTION	QTY	APPROVAL	DATE	1	ONE QUARTER INCH DIA. HOLE PUNCH	1	DR M BERTANI	9-21-71	2	ONE QUARTER INCH DIA. HOLE PUNCH	1	CH [initials]	10-8-71	3	ONE QUARTER INCH DIA. HOLE PUNCH	1	ENG C [initials]	10-8-71	4	ONE QUARTER INCH DIA. HOLE PUNCH	1	APPROV. 2 CIRCLES	10-8-71	MATE					FINISH					<p>D-116</p> <p>I/O</p> <p>TAPE PUNCH CONTROL</p> <p>REV B</p> <p>F 400301</p> <p>SCALE</p> <p>SHUTTER</p> <p>G OF 8</p>
ITEM NO.	DESCRIPTION	QTY	APPROVAL	DATE																																	
1	ONE QUARTER INCH DIA. HOLE PUNCH	1	DR M BERTANI	9-21-71																																	
2	ONE QUARTER INCH DIA. HOLE PUNCH	1	CH [initials]	10-8-71																																	
3	ONE QUARTER INCH DIA. HOLE PUNCH	1	ENG C [initials]	10-8-71																																	
4	ONE QUARTER INCH DIA. HOLE PUNCH	1	APPROV. 2 CIRCLES	10-8-71																																	
MATE																																					
FINISH																																					

DENOTES MICROFILMED REVISIONS			
REV. ZONE	DESCRIPTION	DATE	APPROVED
B	REVISED PER ECN 0-433 RET	2/27/76	OK
E	REVISED/ECN 0726	6/5/76	ARC
J	REVISED PER ECN 1153 DC	4-5-76	RET
K	REVISED PER SO. MCS 2282 ADDED NOTE 1 & SHOWED MODIFICATION FOR DEVICE CODE 60-61	1/27/76	708
M	REVISED TO CURRENT REV LEV/ECN 1B69 BR	3/25/76	RET
N	UPDATE REVISION-AW REV H	4/25/76	AW REV H
P	REVISED PER MCS 2994 - UPDATED REVISION AW REV H	7/25/76	RET
R	UPDATED REVISION - ECN 238G \$248G AW REV H LEVEL 10	10/15/76	RET
S	AW REV H - LEVEL 13	4/28/76	RET



DENOTES MICROFILMED	
A	REVISED PER ECN 0220 PRT 11/17/71
B	REVISED PER ECN 0433 PRT 2/20/72
C	REVISED PER ECN 0511 GG 5/9/72
D	REVISED PER ECN 0632 4/6/72
E	REVISED/ECN 0726,0740,0756 5/5/72
F	REVISED /ECN 0848 PRT 5/24/72
G	REVISED PER ECN 0974 & 0975 NC 11-10-72
H	REVISED/ECN 0719, 1009, 1043 P 13-9-72
J	REVISED PER ECN 1153, 1134 R 4-5-73
K	REVISED SHT 7 PER S.O. MCS 2282 RET 2/27/73
L	REVISED PER ECN 1542 RET 4/1/73
M	REVISED REV TABLE/ECN 1869 BR 3/25/74
N	REVISED PER ECN 1785 - CHGD RBS TO 1K Y2W, R2 TO 6802 AW REV H PRT 4/25/74
P	REVISED PER MCS 2994 - UPDATED REV AW REV H PRT 7/25/74
R	UPDATED REVISION - ECN 2566 & 2486 AW REV H LEVEL 10 VERTS 9/9/75
S	Sheets 2-8 NO CHANGES Sheet 1 : ADDED JUMPER AND NOTE 1 PER MCS 5823 AW REV H - LEVEL 13 RET 4/26/75

PART LIST TABLE

COMPONENT	SHEET 1	SHEET 2	SHEET 3	SHEET 4	SHEET 5	SHEET 6	SHEET 7	SHEET 8	SPARE	TOTAL	DCC PART NUMBER
7400	3/4	2	2 1/4	1 3/4	1 3/4	1	2 1/4		0	10	000100
7438	1 1/4	3	2 1/4	3/4	3	3 3/4	1		3/4	14	000103
7408	2/4	2/4	2/4	1	3/4	1	2 2/4		1/4	7	000108
7410	2/3						1/3		0	2	000110
7430			1							1	000180
7460						1				1	000160
7474	1	4 1/2	4 1/2	3	3	2			0	18	000174
74122						1/2			1/2	1	000222
74123						1	1			2	000223
74195		2	3		2	2				9	000295
74196				2						2	000296
74197				1						1	000297
N8T80	1/4		1/4						2/4	1	000480
74H04	3/6	1	1 4/6	3/6	5/6	2/6	3		1/2/6	9	000104H
74H11	1/3		1/3				1/3		0	1	000111H
74H21	1		1/2	1	1	1			1/2	5	000121H
74H54				1						1	000154H
.5056 MHZ	Y2									1	009262
4.096 MHZ			Y1							1	009261
2N4123	Q6	Q1,2,3,4		Q13		Q11,12				8	001506
2N4125	Q5, 15		Q10	Q14		Q9				5	001507
1K	R31,15,19, 7	R14,13	R38			R216,7,18, 24,25				13	002762
1.2K	R5G		R53							2	002764
7490	1									1	000190
1.5K	R26,33	R77	R87		R75					5	002766
4.7K	R90	R3,11,4		R30						5	002778
33R					RG					1	002726
3K	R57,35,67	R1,8,9,10	R23,63	R54,66,68	R21,28, 24,25	R44,59, 91				25	002773
110R	R20,32									2	002739
180R					R73,74					2	002744
220R	R58,69			R55,65	R39					5	002746
470R				R80	R22,40	R62				4	002754
100R			R85			R60				2	002738
470L	R72									1	002730
750R	R27,34	R78								3	002759
.01uF	R29,30,66, 79,58,6		C77		C4,87					9	007001
.05uF	C64		C69			B	39			007005	
1Mf	C82		C34	C52,44			4			4	007320
6.8uF	C59,5					A	14			14	007139
100PF	C13,83	C12,11	CB2		C10,15,16, 17,25,26				11	007292	
680R		R2								1	002758
820PF	C28								1	007297	
470PF				C41	C84				2	007032	
0.1uF				C33			1			1	007006
7.5K			R29						1	002783	
220K				R82			1			1	002860
330R			R5,76	R36,41			4			4	002750
68K				R83			1			1	002805
150R				R61			1			1	002742
1K, 1/2W		R89							1	002962	
390R	R68		R64		R37,42			4		4	002752
NE510A					1				1	000410	
33PF	C61		C60						2		007296
7493	3		2						5		000193

COMPONENT	SHEET 1	SHEET 2	SHEET 3	SHEET 4	SHEET 5	SHEET 6	SHEET 7	SHEET 8	SPARE	TOTAL	DCC PART NUMBER
2.2K				R81						1	002772
15K										3	002739
33K										3	002747
20KPOT				R86						1	006503
.01uF				C23						1	007321
IN4148	CR1-4		CR10	CR5						6	00500
IN4933	CR6-9									4	00501
47uF										2	007322
7414										1	000114

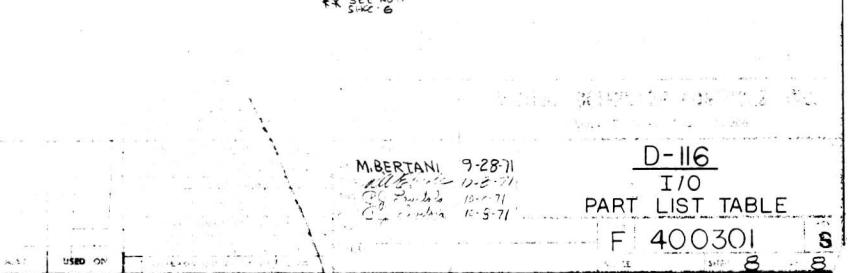
*X SEE NOTE

M.BERTANI 9-28-71
ALL 10-5-71
Circuit 10-5-71

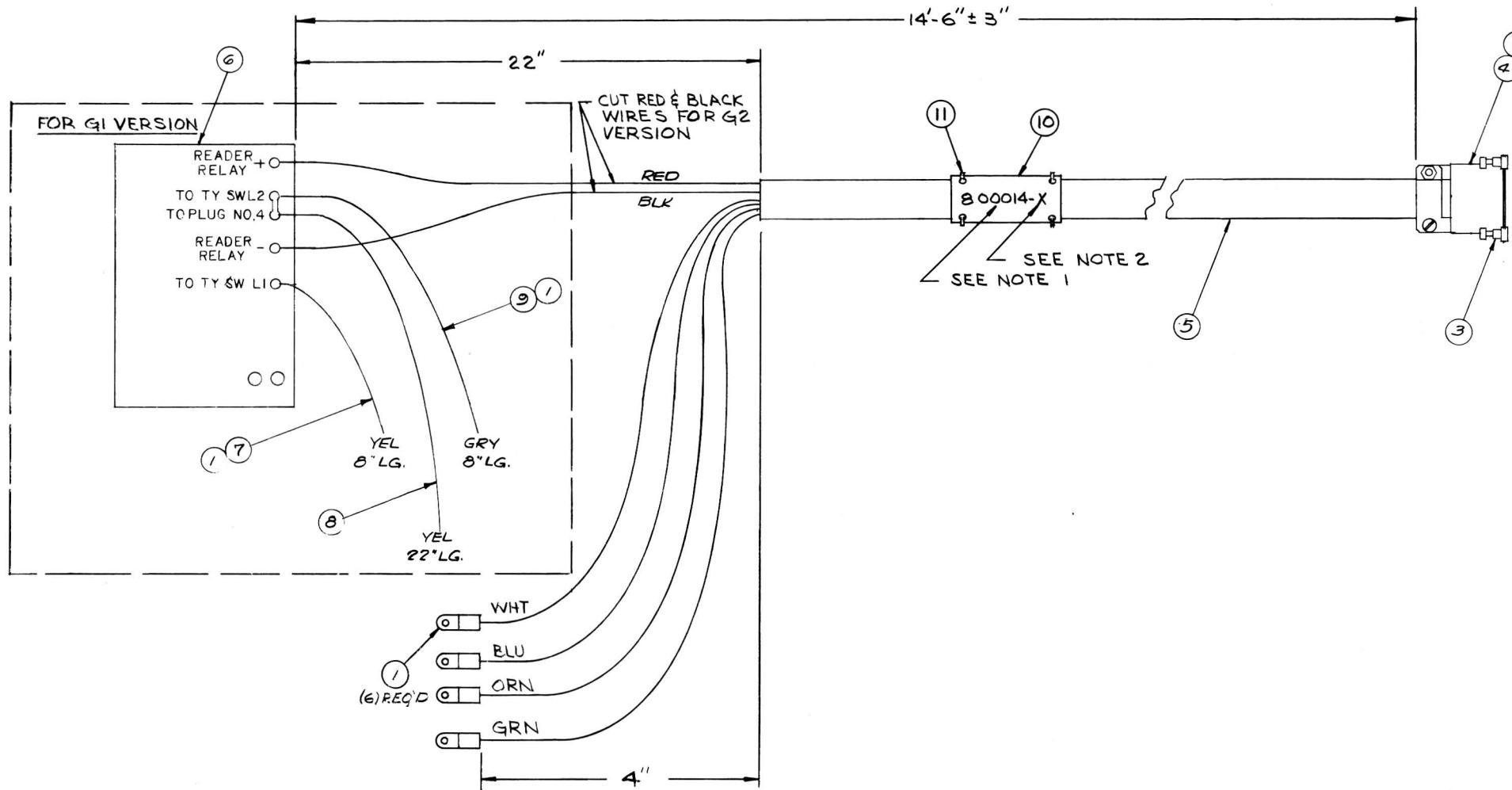
D-116

I/O PART LIST TABLE

F 400301 S



DENOTES MICROFILMED		REVISIONS	
SYM/ZONE	DESCRIPTION	DATE	APPROVED
B	REVISED & REDRAWN ECN 0283 GG 707A 11-15-71	11-15-71	G.J.L.
C	ADDED LM, NOTES AND G2 VERSION/ECN 2283 BR 10-2-74	10-2-74	G.J.L.



COLOR	CANNON DEC-9P	SIGNAL	BACK PANEL PIN
RED	1	+5V	3A98
BLK	2	RD RUN	3A89
BLU	3	TT IN	3B60
WHT	4	-5 VOLT	3A6
	5	SPARE	
ORN	6	TT OUT	3A85
GRN	7	+V(LOOP)	3A83
JUMPER TO PIN 9	8	DATA IN STOP	3A87
JUMPER TO PIN 8	9	GRD	3A100

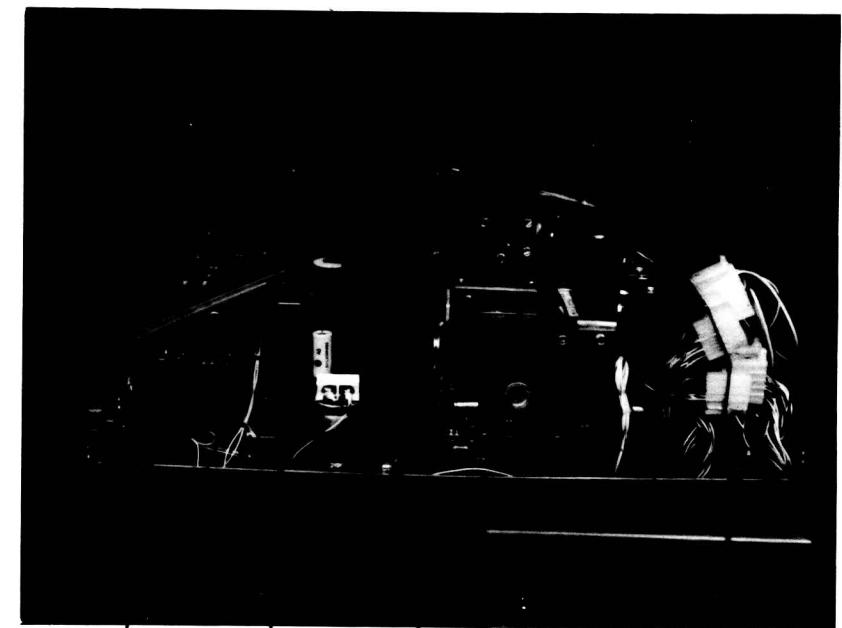
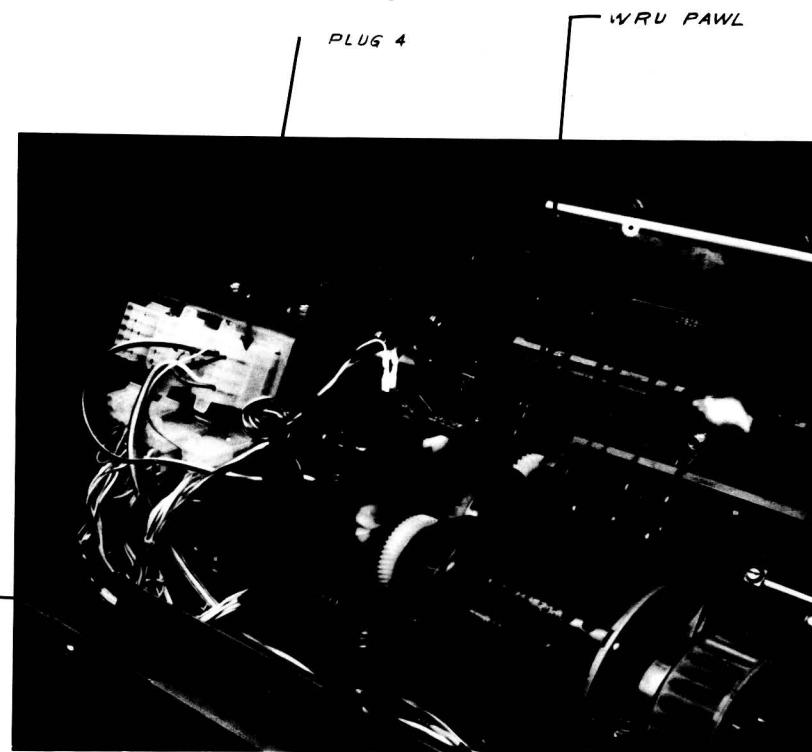
G6	G9	G4	G3	G2	G1	ITEM	SIZE	PART NO.	DESCRIPTION
QUANTITY FOR GROUP NO. DRAWING NO.									

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DIGITAL COMPUTER CONTROLS, INC.
FAIRFIELD, NEW JERSEY 07006

UNLESS OTHERWISE SPECIFIED	APPROVAL	DATE
DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES	DR. M. SARTORI	11-15-71
TOLERANCES	CHC. P.J.L.	11-15-71
2 PLACE DECIMALS 3 PLACE DECIMALS ANGLES ± .01 ± .001 ° / ′ / ″	ENG. P.J.L.	11-15-71
HOLE DIAMETER TOLERANCE 0 THRU .380 .381 THRU .360 .301 + LARGER + .003 + .008 + .010 - .002 - .008 - .008	APP'D. P.J.L.	11-15-71
MATL.		
NEXT ASSY.	USED ON	
CABLE ASS'Y. ASR-33 TELETYPE D11G		
SIZE D 800014 C SCALE NONE SHEET 12/1		

REVISIONS			
SYMBOL	ZONE	DESCRIPTION	DATE APPROVED
X		REVISED FOR ENTRANCE OF 33KSR	6/12/74
E		ADDED ASSEMBLY 2253 MB	10-12-74 P
C		ADDED ASSEMBLY TO NOTE 3 ECN 2285 BR 9-27-74	10/14/74 JRP
D		ADDED TO NOTE 3.D THE 24" YELLOW WIRE SHOULD BE SHIELDED FROM OTHER CIRCUITRY BY RUNNING IT UNDER THE BASE PLATE OF THE ELECTRICAL SERVICE UNIT PER ECN 2816 3-19-76 RYR	3/22/75 PJK



NOTES:

1 TERMINAL BOARD CHANGES

- A REMOVE BRN-YEL WIRE FROM LUG 3 & PLACE ON LUG 5
- B REMOVE BLU-WHT WIRE FROM LUG 4 & PLACE ON LUG 5
- C REMOVE VIOLET WIRE FROM LUG 8 & PLACE ON LUG 9

2 REMOVE WRU PAWL SPRING & PAWL FROM FUNCTION ASSY

*3. ~ 0004 D-112 DRBD011D116, ASSESSY INSTALLATION

- A INSTALL READER CONTROL BOARD (400065) AS SHOWN
- B CONNECT 7 IN YEL WIRE ON READER CONT BD TO L1 ON READER

SWITCH (EXISTING ORN WIRE)

- C CONNECT GY WIRE ON READER CONT BD TO L2 ON READER SWITCH
- D DISCONNECT LARGE BROWN WIRE IN PLUG #4 OF PLUG PANEL & SPLIC TO 24" YELLOW WIRE ON 400065 & REINSERT INTO ANY BLANK POSITION IN PLUG #4. THE 24" YELLOW WIRE SHOULD BE SHIELDED FROM OTHER CIRCUITRY BY RUNNING IT UNDER THE BASE PLATE OF THE ELECTRICAL SERVICE UNIT.

- E CONNECT FOUR WIRES WITH TERMINAL LUGS IN CABLE ASSY TO TERMINAL BOARD AS FOLLOWS:

WIRE COLOR	TERM NO.
BLU	3
WHT	4
ORN	6
GRN	7

4 CHANGE POWER RESISTOR SETTING FROM 750Ω TAP TO 1400Ω TAP

400065 (REF)
ASSEMBLE WITH (2)
#6-32 x 1/4 LG MACHINE
SCREWS WITH FLAT
& LOCKWASHERS

* OMIT ENTIRE NOTE 3 FOR 33KSR & FOR
33ASR WITH AUTOMATIC READERS WHERE
COMPUTER IS NOT REQUIRED (i.e X-ON & X-OFF
CHARACTERS CONTROL READER)

G6	G5	G4	G3	G2	G1	ITEM SIZE	PART NO.	M / U
QUANTITY PER GROUP							DRAWING NO.	P OF M

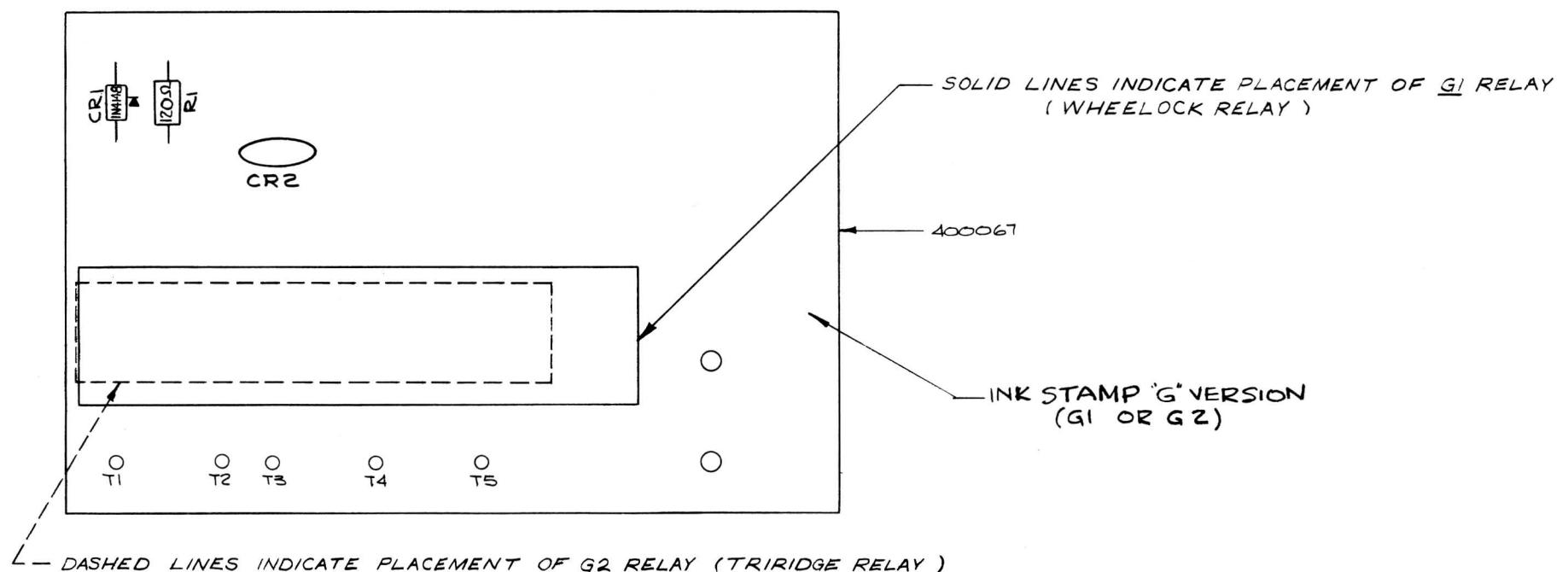
LIST OF MATERIAL

DIGITAL COMPUTER CONTROLS, INC.
FAIRFIELD, NEW JERSEY 07006

UNLESS OTHERWISE SPECIFIED	APPROVAL	DATE
DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES	DR. J P SHAW	11-5-74
TOLERANCES	CHK. F J ZEMICK	1-2-75
2 PLACE DECIMALS 3 PLACE DECIMALS ANGLES ± .01 ± .008 ± 1/2°	ENG.	1-2-75
HOLE DIAMETER TOLERANCE 0 THRU .250 .251 THRU .300 .301 & LARGER + .002 + .006 + .010 - .002 - .003 -.008	APP'D	1-2-75
MAT'L.		
THREADS: EXT CL 2A, INT CL 2B	FINISH	
		SIZE D
		800005 D
	SCALE NONE	SHEET 1 OF 1

DENOTES MICROFILMED				
ITEM NO.	DESCRIPTION	REV LEVEL	DATE	APPROVAL
A	REVISED / ECN 0910	G.G.	11-16-72	K. Thyrey
B	REVISED / ECN 0916	D.R.	11-16-72	J. Bergman
D	UPDATED REV LEVEL TO AGREE WITH LM/ECN 2158. AW REV B BR 9-2574	9/24/74	10/1/74	J. Bergman
E	UPDATED REV LEVEL TO AGREE WITH NEW AW/ECN 2891 NR. AWREVC	10/1/75	10/1/75	J. Bergman
F	CR2 WAS THYRECTOR DIODE P/N 000503 AW REV D, LEVEL 3 ECN 3424 Rev 11-8-70	11-8-70 10/1/76	10/1/76	P. J. H. 10/1/76 F&G (REV)

COMPONENT SIDE *



	DESCRIPTION	QUANTITY	G 1	G 2
RELAY	WHELOCK RELAY	1	009203	
CRI	IN4148	1	000500	000500
R1	120Ω, 1/4W, 5%	1	002740	JUMPER
CR2	VARISTOR	1	009690	009690
T1-5	TERMINAL	5	008703	008703
RELAY	TRIRIDGE RELAY	1		009279

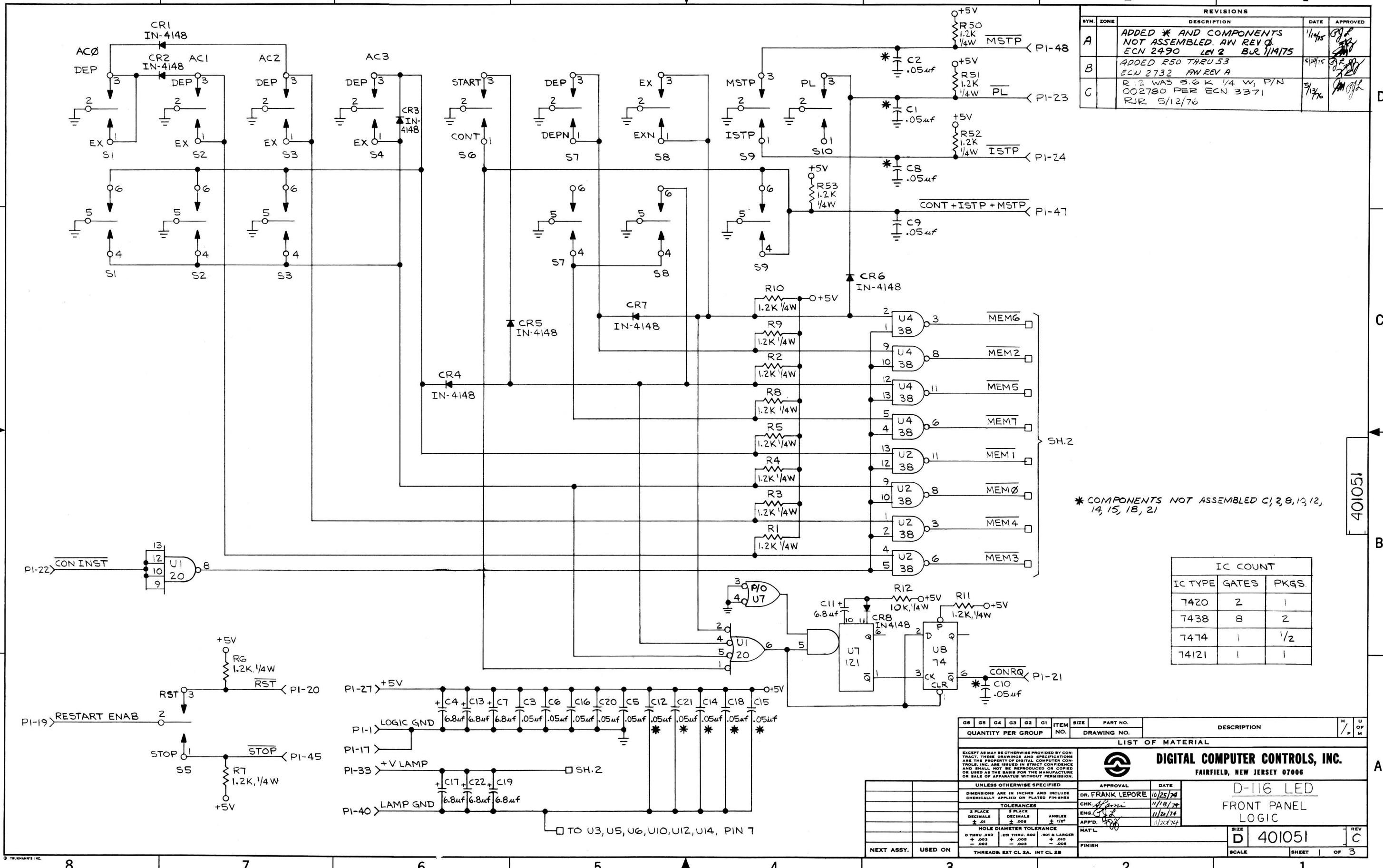
* CIRCUITRY ON OPPOSITE SIDE

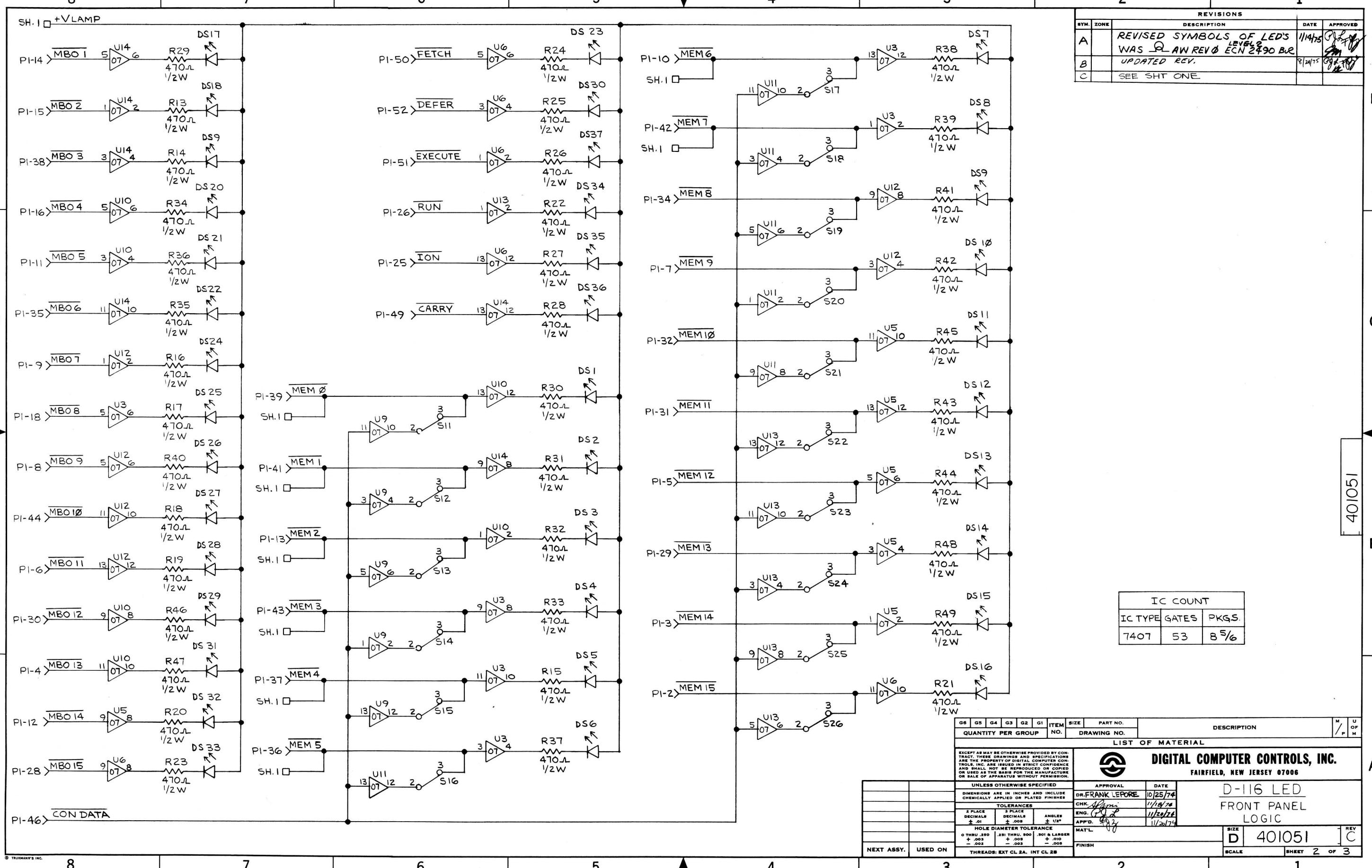
K. Thyrey 10/18/70
J. Bergman 10/12/70
P. J. H. 10/1/70

TTY READER
CONTROL BOARD
ASSEMBLY

C 400065 F

2/1 1 1





8 | 7 | 6 | . | 5 | **4** | 3 | 2 | 1

REVISIONS				
BYM.	ZONE	DESCRIPTION	DATE	APPROVED
A		CHG. PN. PN 002954 WAS 002754. AW REV B ECN 2490	11/17/75	JKR
B		ADDED R50 THRU R53 ECN 2732 AW REV A	5/21/76	JKR RLF
C		R12 WAS 5.6K 1/4W P/N 002780 PER ECN 3371 5/12/76 BR	5/12/ 76	JKR

PARTS LIST

SPARE GATES (OUTPUTS LISTED ONLY)

TYPE - 74

IC 8-8

TYPE - 07

IC9-8

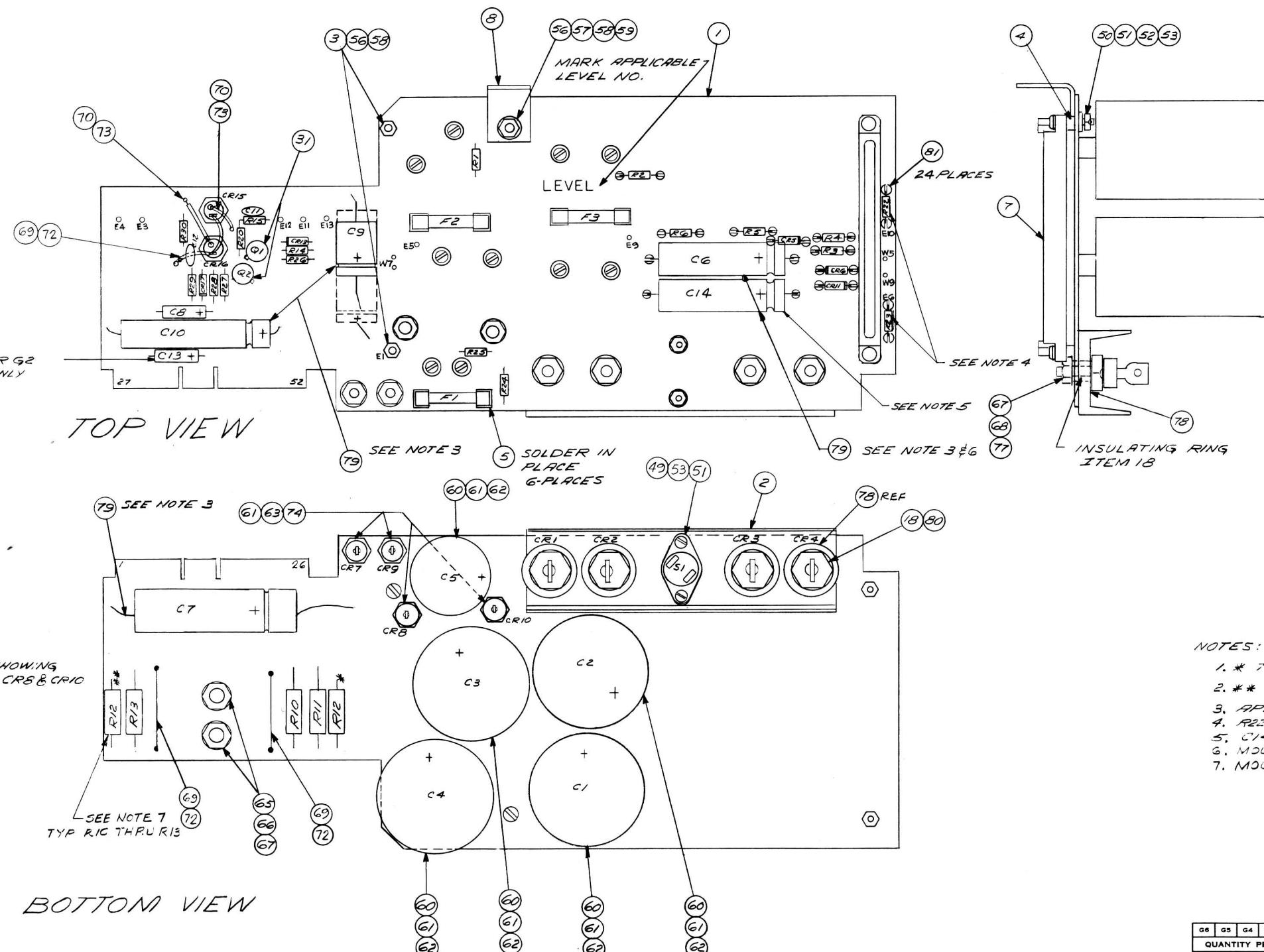
A C1,C2,C3,C5,C6,C8,C9,C10
C12,C14,C15,C16,C18,C20,C22

G6	G5	G4	G3	G2	G1	ITEM NO.	SIZE	PART NO.	DESCRIPTION	M /P	U OF M
QUANTITY PER GROUP						DRAWING NO.		LIST OF MATERIAL			
<p>EXCEPT AS MAY BE OTHERWISE PROVIDED BY CONTRACT, THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL COMPUTER CONTROLS, INC., FAIRFIELD, NEW JERSEY 07006, AND SHALL NOT BE REPRODUCED OR COPIED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS WITHOUT ITS PERMISSION.</p>											
UNLESS OTHERWISE SPECIFIED						APPROVAL		DATE	DIGITAL COMPUTER CONTROLS, INC.		
						DR. FRANK LEPORE		10/25/74	FAIRFIELD, NEW JERSEY 07006		
						CHK. <i>[Signature]</i>		1/16/74	D-116 LED		
						ENG. <i>[Signature]</i>		1/16/74	FRONT PANEL		
						APPD. <i>[Signature]</i>		1/17/74	LOGIC		
						MAT'L <i>[Signature]</i>					
						FINISH			SIZE	REV	
								D	401051	C	
								SCALE	SHEET	3 OF 3	
DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES											
TOLERANCES											
2 PLACE DECIMALS		DECIMALS		ANGLES							
.01		.008		± 1/8°							
HOLE DIAMETER TOLERANCE											
0 THRU .250 .251 THRU .500 .501 & LARGER											
+.003 -.002						+.010					
-.002						-.008					
THREADS: EXT CL 2A INT CL 2B											

8

D

1



NOTE

1. * THIS R12 LOCATION USED ON S3 ONLY.
 2. ** THIS R12 LOCATION USED ON ALL VERSIONS EXCEPT S3.
 3. APPLY BEAD OF ITEM T9 AROUND C6, C7, C9, & C10, C4.
 4. R22 & F23 ARE SELECTED AT TEST. SEE SHEET 2.
 5. C14 IS USED ON S4 ONLY.
 6. MOUNT C6 & C14 .03 OFF THE BOARD.
 7. MOUNT R10 THRU R13 .25 OFF THE BOARD.

DIGITAL COMPUTER CONTROLS, INC.

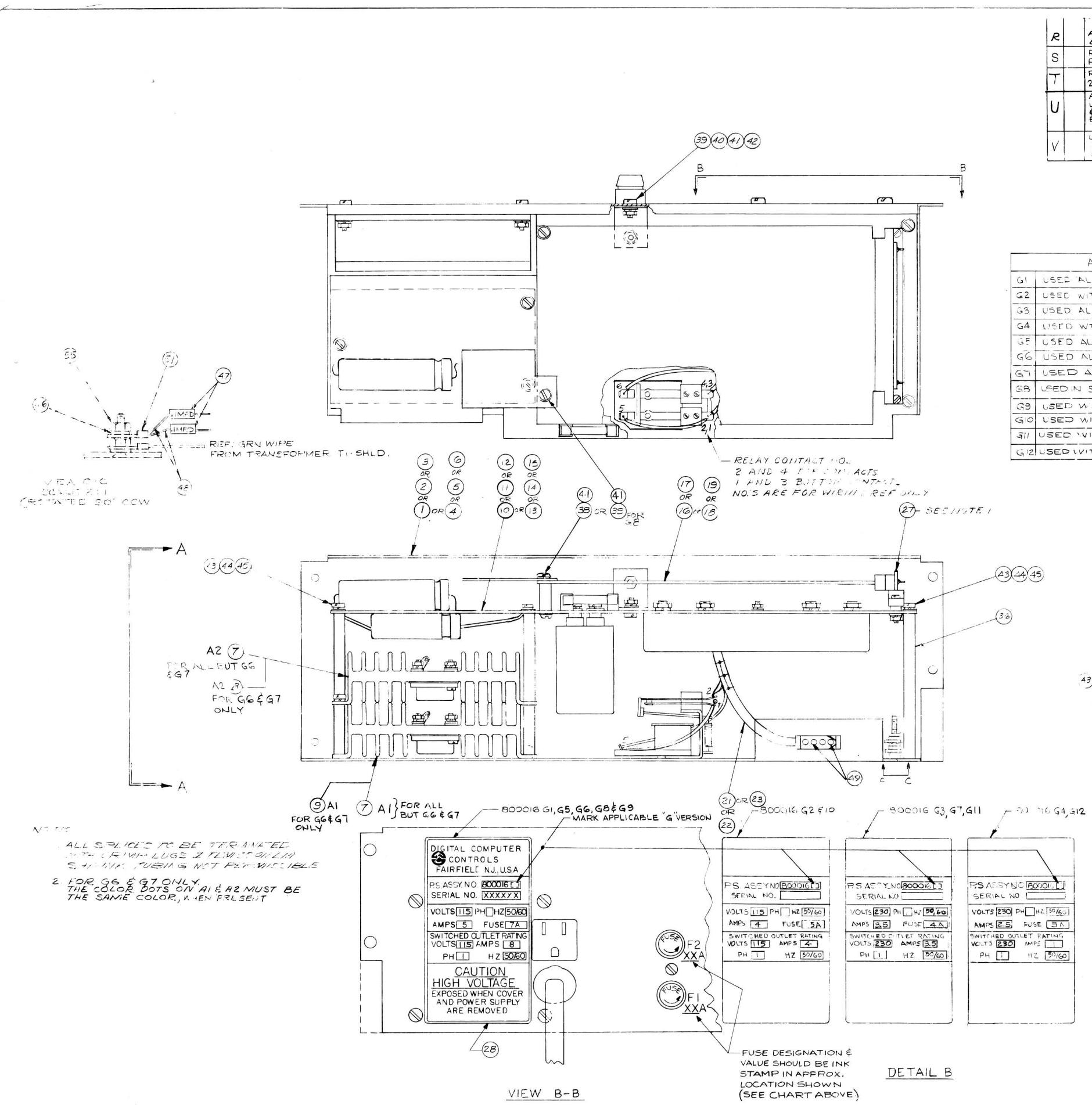
POWER SUPPLY
MOTHER BOARD ASSY

		OR USED AS A PART OR ASSEMBLED IN A STRUCTURE OR APPARATUS WITHOUT PERMISSION		FAIRFIELD, NEW JERSEY 07006			
		UNLESS OTHERWISE SPECIFIED		APPROVAL DATE			
		DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES		DR. G CICCARIELLI	7/26/72		
		TOLERANCES		CHK/P.J. LAVITOLA	8/9/72		
		2 PLACE DECIMALS .01	3 PLACE DECIMALS .000	ANGLES ± .005	ENG/P.J. LAVITOLA	8/9/72	
		SMALLEST DIAMETER TOLERANCE		APPD/M. MERNANDER	8/16/72		
800016 D-116		0 THRU .250 ± .003 THRU .500 + .005 & LARGER -.002 -.002 -.005		MATT SEE LM 400660	SIZE D	400660	REV P
NEXT ASSY. USED ON		THREADS: EXT CL 2A, INT CL 2B		FINISH NONE	SCALE X	SHEET 1 OF 2	

LM ITEM NO.	DESCRIPTION	DCC P/N	G1 COMPONENTS	G2 COMPONENTS	G3 COMPONENTS	G4 COMPONENTS	G5 COMPONENTS	G6 COMPONENTS
9	23,000 UF 15V	007198	C1, C2	C1, C2, C3, C4	C2	C2	C1, C2	C1, C2, C3, C4
10	12,000 UF 35V	007190	C3, C4	-	C3, C4	C3, C4	C3, C4	-
11	5400 UF 25V	007181	C5	C5	C5	C5	-	-
12	150 UF 50V	007158	C6	C6	-	C6, C14	C6	C6
13	1000 UF 25V	007175	C7	C7	C7	C7	C7	C7
42	11000UF 30V	007258	-	-	-	+	C5	C5
15	500 UF 25V	007170	C9	-	C9	C9	C9	-
16	6000 UF 6V	007193	C10	C9, C10	C10	C10	C10	C9, C10
17	56,000 UF 16V	007200	-	-	C1	C1	-	-
18	IN1164A	000518	CR1 THRU CR4	CR1 THRU CR4	CR1 THRU CR4	CR1 THRU CR4	CR1 THRU CR4	CR1 THRU CR4
19	IN4003	000516	CR5, CR6, CR11	CR5, CR6, CR11	CR5, CR6, CR11	CR5, CR6, CR11	CR5, CR6, CR11	CR5, CR6, CR11
20	IN1202	000519	CRT, CR9	CRT, CR9	CRT, CR9	CRT, CR9	CRT, CR9	CRT, CR9
21	IN1201R OR IN1202AR	000520	CR8, CR10	CR8, CR10	CR8, CR10	CR8, CR10	CR8, CR10	CR8, CR10
22	IN752A 5.6V	000514	CR13	CR13, CR17	CR13	CR13	CR13	CR13, CR17
23	IN967B 18V	000567	CR17	-	CR17	CR17	CR17	-
24	2N681	000522	CR15, CR16	CR15, CR16	CR15, CR16	CR15, CR16	CR15, CR16	CR15, CR16
27	2A, 250V	009014-200	F1	F1	F1	F1	F1	F1
28	12A, 250V	0C9024-15	F2	-	F2	F2	F2	-
25	15A, 250V	0C9024-16	F3	F2, F3	-	F3	F3	F2, F3
26	20A, 250V	0C9024-17	-	-	F3	-	-	-
30	2N2905	001523	Q1, Q2	Q1, Q2	Q1, Q2	Q1, Q2	Q1, Q2	Q1, Q2
43	.1 OHM 7W/SW	004327	R10, R11, R12, R13	R10, R11, R12, R13	-	R10, R11, R12, R13	R10, R11, R12, R13	R10, R11, R12, R13
45	.1 OHM 7W/10W	004328	-	-	R10, R11, R12, R13	-	-	-
32	2.2K 1/2W	0C2900-222	R1, R24, R25	R1, R24, R25	R1, R24, R25	R1, R24, R25	R1, R24, R25	R1, R24, R25
33	1K 1/2W	-102	R2	R2	R2	R2	R2	R2
34	16 OHM 1/2W	-180	R3, R4	R3, R4	R3, R4	R3, R4	R3, R4	R3, R4
35	6.8K 1/2W	-682	R5	R5	R5	R5	R5	R5
36	2.7K 1/2W	002900-272	R6	R6	R6	R6	R6	R6
84	27 OHM 1/4W	0C2700-270	R26, R27	R26, R27	R26, R27	R26, R27	R26, R27	R26, R27
86	470 OHM 1/4W	002700-471	R15, R30	R15, R30	R15, R30	R15, R30	R15, R30	R15, R30
95	100 OHM 1/2W	002900-101	R22, R23 (SEE NOTE 4)	R22, R23 (SEE NOTE 4)	-	R22, R23 (SEE NOTE 4)	R22, R23 (SEE NOTE 4)	R22, R23 (SEE NOTE 4)
85	62 OHM 1/4W	0C2700-620	R20, R29	R20, R29	R20, R29	R20, R29	R20, R29	R20, R29
48	SWITCH THERMOSTAT N.C. 200°F	009498	-	-	-	S1	-	-
46	SWITCH THERMOSTAT N.C. 125°F	009350	S1	S1	-	-	S1	S1
47	SWITCH THERMOSTAT N.C. 225°F	009682	-	-	S1	-	-	-
82	.01MF, 100V	007333	C11, C12	C11, C12	C11, C12	C11, C12	C11, C12	C11, C12
83	10 OHM 1/4W	0C2700-100	R14, R28	R14, R28	R14, R28	R14, R28	R14, R28	R14, R28
88	120KAF 10V	007156	C8	C8, C13	C8,	C8	C8	C8, C13
87	200MF 50V	007165	-	-	C6	-	-	-
89	56n 1/2W	002900-560	-	-	R22 (SEE NOTE 4)	R22	-	-
90	62n 1/2W	-620	R22 SEE NOTE 4	-	-	SEE R22 SEE NOTE 4	-	-
91	68n 1/2W	-680	-	-	R22	NOTE	-	-
92	75n 1/2W	-750	-	-	R22	SEE NOTE 4	4	-
93	82n 1/2W	-820	R23	R22, R23	R22	R23	R23	R22, R23
94	91n 1/2W	-910	R22,	-	R22	R22	R22	-
96	110n 1/2W	-111	-	-	-	-	-	-
97	120n 1/2W	-121	-	SEE NOTE 4	R23	-	-	SEE NOTE 4
98	130n 1/2W	-131	SEE NOTE 4	-	-	SEE NOTE	SEE NOTE 4	-
99	150n 1/2W	-151	-	-	-	4	-	-
100	160n 1/2W	-161	-	-	SEE NOTE 4	-	-	R22, R23
41	180n 1/2W	-181	R23	R22, R23	-	R23	R23	R22, R23
101	200n 1/2W	-201	-	-	-	-	-	-
102	220n 1/2W	-221	-	-	-	-	-	-
103	240n 1/2W	-241	-	-	-	-	-	-
104	270n 1/2W	-271	-	-	-	-	-	-
105	300n 1/2W	002900-301	-	-	R23	-	-	-

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APPROVED
K		SEE SHEET 1 FOR REVISION	9/10/57 10/10/57
L		SEE SHEET 1 FOR REVISION	9/15/57 10/10/57
M		SEE SHEET 1 FOR REVISION	5/4/57 10/10/57
N		SEE SHEET 1 FOR REVISION	11/4/57 10/10/57
P		SEE SHEET 1 FOR REVISION	10/29/57 10/10/57

G6	G5	G4	G3	G2	G1	ITEM	SIZE	PART NO.	M / U OF M
QUANTITY PER GROUP	NO.	DRAWING NO.	DESCRIPTION						
LIST OF MATERIAL									
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DIGITAL COMPUTER CONTROLS, INC. <small>FAIRFIELD, NEW JERSEY 07006</small>									
UNLESS OTHERWISE SPECIFIED <small>DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES</small>									
TOLERANCES <small>A PLACE DECIMALS ± .01 ± .005 ± 1/3° B PLACE DECIMALS ± .005 ± .001 ± 1/16° C PLACE DECIMALS ± .001 ± .0005 ± 1/64° HOLE DIAMETER TOLERANCE Ø THRU .250 .251 THRU .260 .261 & LARGER + .001 -.002 + .001 -.002 .003</small>									
APPROVAL DATE <small>DR. H. RIVERA 10/17/57 CHK 10/17/57</small>									
POWER SUPPLY <small>MOTHER BOARD ASSY</small>									
MATEL SEE LM 400660 SIZE D 400660 REV E <small>NEXT ASSY. USED ON THREADS: EXT CL 2A. INT CL 2B FINISH</small>									
SCALE X SHEET 2 OF 2									

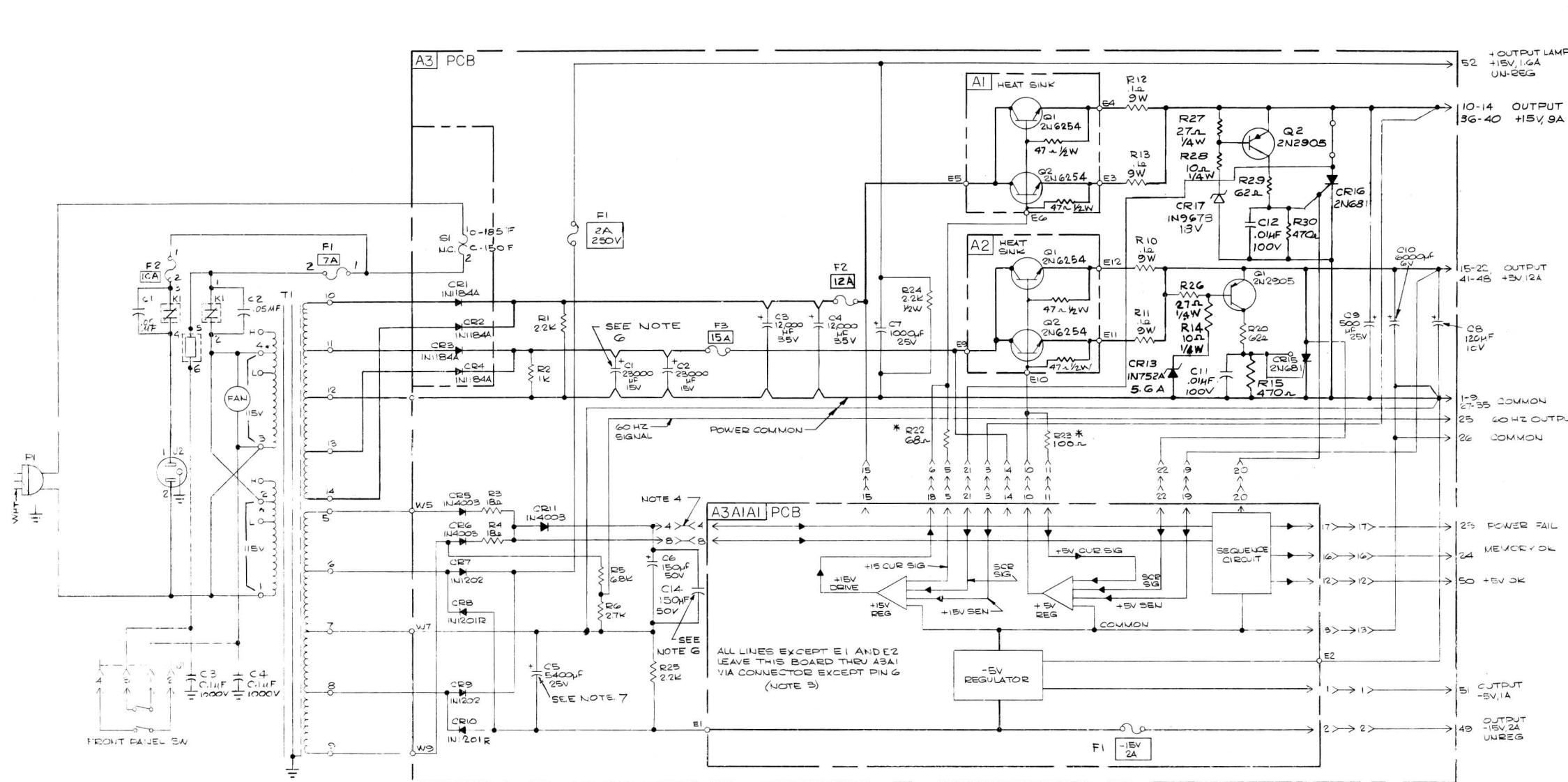


DENOTES MICROFILMED			
R	ADDED NOTE 2 PER ECN 2371 BR 11/8/74	AD 11/8/74 TAX	B1570 C1
S	REVISED W/ ADDITION OF G8 PER ECN 2438 RLT 12/13/74	12/13/74 TAX	D102120 D102120
T	REVISED PER ECN'S 2725, 2742, 2785, 3019 & 3151, 3196 NM	1/1/75 TAX	E11/12/74 F11/12/74
U	ADDED G9 THRU G12 VERSIONS, UPDATED PER L/M REVISIONS & RENUMBERED ITEMS. PER ECN 3252, 3310, 3311 & 3340 HR 4/12/76	5/1/76 TAX	G11/12/74 H11/12/74 I11/12/74 J11/12/74 K11/12/74
V	UPDATED REVISION LETTER TO AGREE WITH SHT 2/ECN 3706, 3656 3433 & 3197.	11/4/76 TAX	L ADDED F16 & F24 FUSE ITEM NO. CHART, DELETE ITEM NO 20. ITEM 3 & NOTE 1, REVISED PER ECN 1707, 1755, 1778, & 1840 10/4/6/74
			M ADDED NOTE 1 PER ECN 510 4/1/75
			P ADDED VIEW CC & ITEM 49 PER ECN 2216 FADDER ST HD 5/1/74

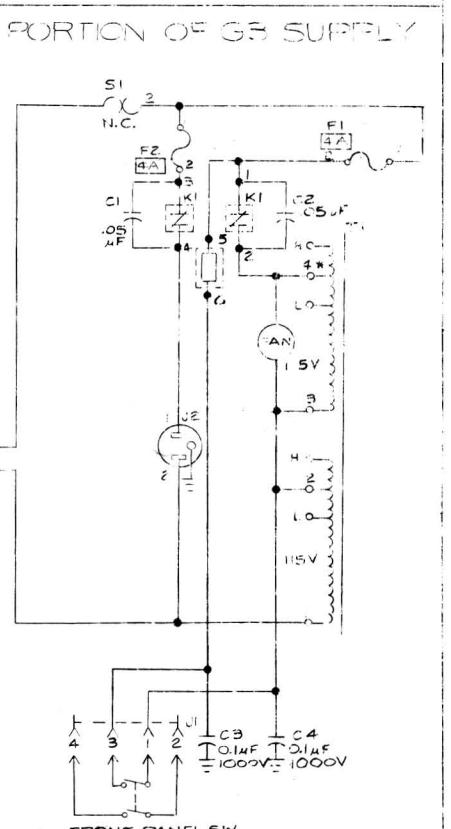
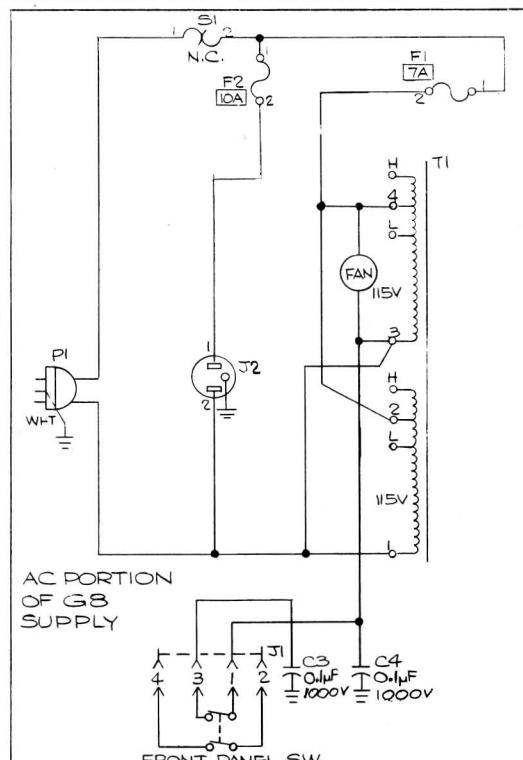
APPLICATIONS OF 'G' VERSIONS				USE/ITEM NO.	ITEM NO.	MARKING	
				F1	F2	F1	F2
G1	USED ALONE OR WITH G2	115 ± 10% VAC INPUT		29	31	7A	1CA
G2	USED WITH G1 IN 17 SLOT CHASSIS	115 ± 10% VAC INPUT		31	3	5A	5A
G3	USED ALONE OR WITH G4	230 ± 10% VAC INPUT		32	42	4A	4A
G4	USED WITH G3 IN 17 SLOT CHASSIS	230 ± 10% VAC INPUT		33	34	3A	1A
G5	USED ALONE	115 ± 2% VAC INPUT		39	3	7A	1CA
G6	USED ALONE IN 10 SLOT CHASSIS	135 ± 10% VAC INPUT		39	3	7A	1A
G7	USED ALONE IN A 12 SLOT CHASSIS	230 ± 10% VAC INPUT		52	31	4A	4A
G8	USED IN ECR-900 & G3 & G4 (BENDIX)	115 ± 10% VAC INPUT		29	31	7A	1A
G9	USED WITH ECR-900	115 ± 10% VAC INPUT		29	31	7A	1CA
G10	USED WITH ECR-900 & G3 ON 17 SLOT	115 ± 10% VAC INPUT		31	3	5A	5A
G11	USED WITH ECR-900	230 ± 10% VAC INPUT		51	42	4A	4A
G12	USED WITH ECR-900 & G11 ON 7 SLOT	230 ± 10% VAC INPUT		53	31	3A	1A

Hewlett 8-9-72 D116
8-10-72 POWER SUPPLY
8-10-72 (FINAL ASSEMBLY)
F 800016 ✓

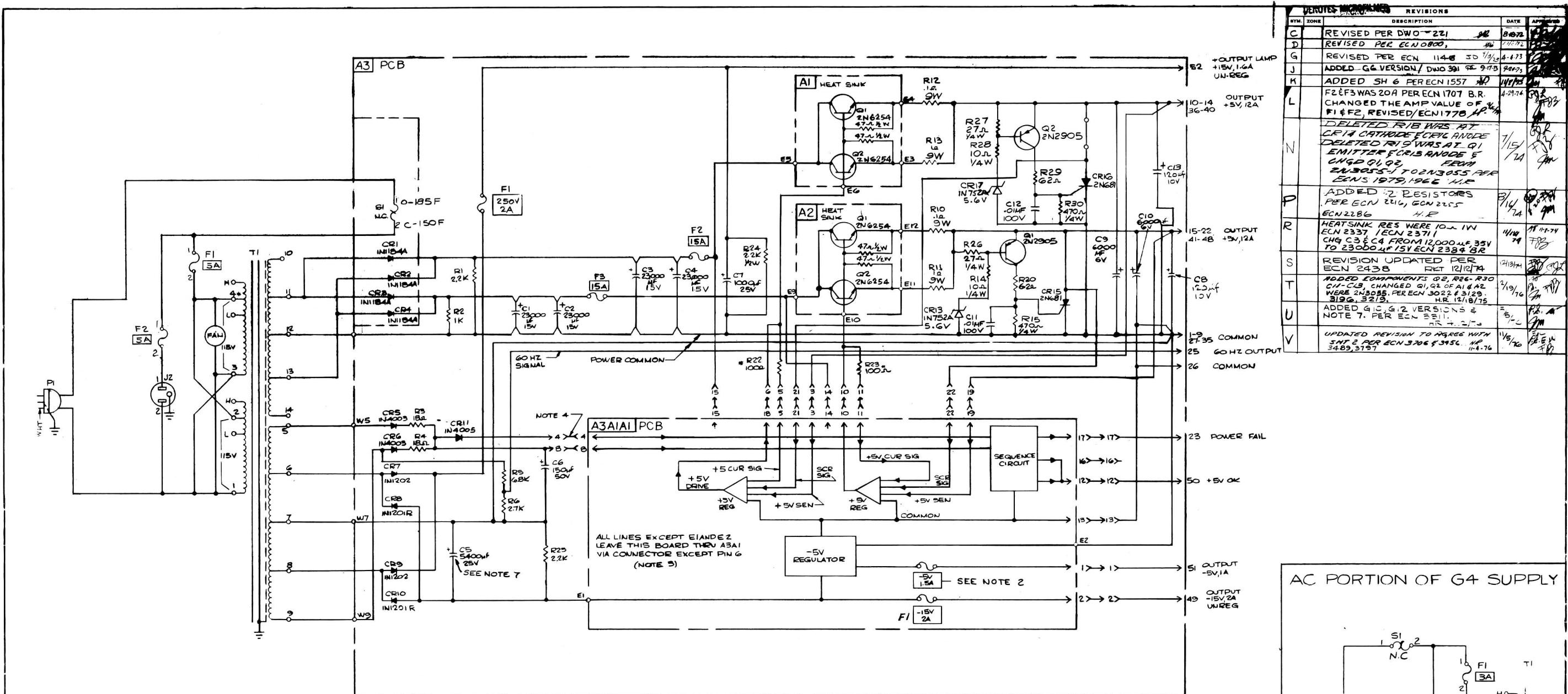
DENOTES MICROFILMED	
C	REVISED PER ECN 0509 04N 6/16/72 31711 REVISED PER DWO #221 96 9/19/72
D	REVISED /ECN 0800 GG 10/6/72 11/1/72
G	REVISED /ECN 1058, 1145 DC 2-14-73 11/1/73
J	REVISED REVISION LEVEL DUOAR 9-17-73 9-24-73 11/1/73
K	ADDED SH 3 PER ECN 1537 AD 11/1/73 4-7-74 11/1/73
L	F2 & F3 WAS 20 AMPS PER ECN 1707 BR. 4-7-74 11/1/73
N	DELETED R18 WRS AT P 14. CATHODE & EBG ANODE DELETED R19 WAS AT Q1 Emitter & CR15 Anode CHANGED Q1, Q2 FROM 2N3055-1 TO 2N3055 PER ERIN'S 19-66, 1979 HR
P	ADDED RESISTOR BY 9-15-72 PER ECN 2-11 ECN 1058, 1145 11/1/72
R	HEATSINK REG WERE TO 2 IN ECN 12337 /ECN 23711 BR 11/1/73
S	REVISED IN ADDITION TO G8 PER ECN 2-13-72
T	CHANGED 5.3V TO 5.4V FOR 5.4V PLAT. A CHANGED 120UF TO 110UF PER 6-14-72 600V. ADDED THE FOLLOWING COMPONENTS Q8, R26, R30 C11, C12, C13, C14, C15, C16 CHANGED VALUE OF 4.5K2 WHILE 2N3055 PER ECN 2-16-5, 3C2-2 #3129, 3136, 3219, HR. 11/1/73
U	ADDED R10 TO AC PORTION OF G8 SUPPLY PER ECN 3315 2-28-72 4R 4-12-72



G1 SCHEMATIC ONLY
G5 SCHEMATIC SAME
EXCEPT THAT POWER FAIL
PIN 23 IS INACTIVE
G8 SCHEMATIC
SEE NOTE 6
G9 SCHEMATIC
SEE NOTE 7



R.D.Thiele 2/17/72
G.L.Lund 2-18-72
P.L.Schaefer 2-18-72
F.800016 V
None 2 11

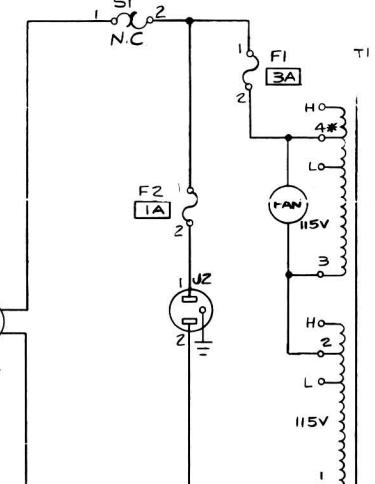


NOTES:

1. OUTPUT CONNECTOR PINS 27 THRU 52 ARE ON TOP OF THE CONNECTOR PANEL. PINS 1 THRU 26 ARE ON BOTTOM.
2. OUTPUT CONNECTOR IS KEYED BETWEEN 9/10 AND 14/15.
3. CROSS CONNECTION BETWEEN A3A1 PIN 6 AND A3A1 PIN 10.
4. ALL LINES ON A3A1A1 EXCEPT E1&E2 EXIT BOARD THRU A3A1 ASSEMBLY WHICH IS A THRU CONNECTOR EXCEPT PIN 6 (SEE NOTE 3).
5. # THESE RESISTORS CONTROL THE CURRENT FOLDBACK AT THE TWO REGULATED SUPPLIES AND MAY CHANGE IN VALUE SLIGHTLY FROM UNIT TO UNIT.
6. THIS FUSE IS ELIMINATED ON AW REV D OF THIS BOARD (A3A1A1) REGULATOR BOARD.
7. FOR G10 & G12 ONLY
C5 IS 11,000 UF .30V P/N 007258

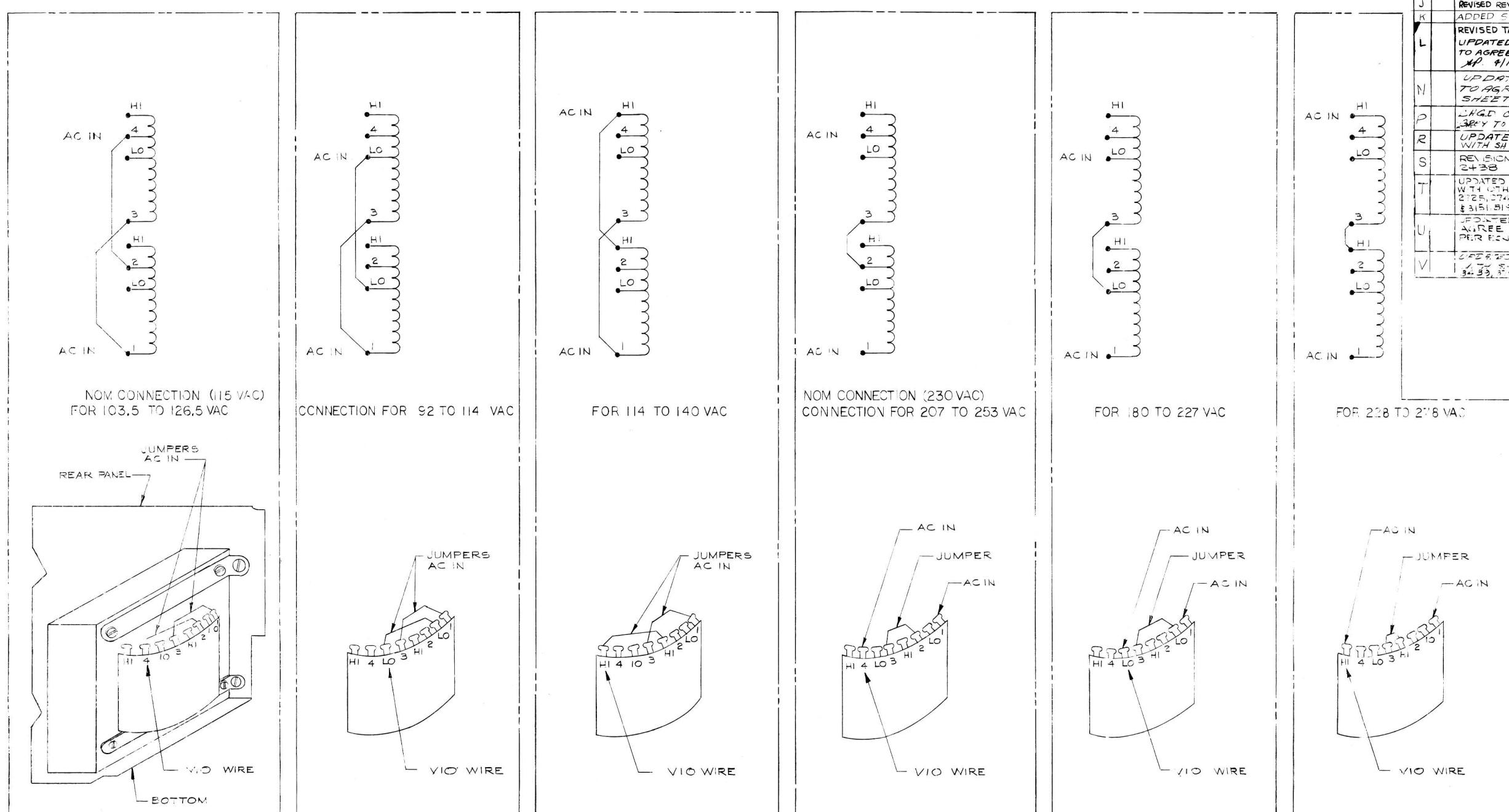
G2 SCHEMATIC ONLY
G10 & G12 SCHEMATIC ONLY
SEE NOTE 7

AC PORTION OF G4 SUPPLY



ITEM NO.	PART NO.	SIZE	U / P
QTY / GROUP	DRAWING NO.		
LIST OF MATERIAL			
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE COMMISSIONAL MARGIN UNLESS OTHERWISE SPECIFIED. ALL PLATES ARE 1/8 INCH THICK HOLE SIZES AND TOLERANCES 4 THREADS PER INCH, 1/2" MIN. B.D. & 1/2" MAX. T.D. THREADED EX. 6L. 6A. 6T. CL. 50			
APPROVAL	DATE		
SL. D-116-004	2/17/74		
SL. D-116-005	2-8-74		
SL. D-116-006	2-8-74		
SL. D-116-007	2-8-74		
D-116 POWER SUPPLY (G2 SCHEMATIC DIAG)			
F	800016	REV.	

DENOTES MICROFILMED	
C	REVISED PER DWO 221 4-1870
G	REVISED PER ECN 11456 10587 4-4-73
H	REVISED PER ECN 1416 IS 5-4-73
J	REVISED REVISION LEVEL DWO 931 4-9-73 9/14/73
K	ADDED SH. 6 PER ECN 1557 4-10-73
L	REVISED TABLE PER ECN 1707 BR UPDATED REVISIONS LETTER TO AGREE WITH OTHER SHEETS XP 9/16/74
M	UPDATED REVISION LETTER TO AGREE WITH OTHER SHEETS HR 9/17/74
P	CHANGED COLOR OF WIRES FROM GRAY TO VIOLET FOR 2745, 2746, 2747, 2748 W/T 4 OTHER SHEETS ECN'S 2537, 2725, 2745, 2746, 2747, 2748 \$3151.51 9/2 12-8-75
R	UPDATED REV LEVEL TO AGREE WITH SH 1/ECN 2371/82 11/8/74
S	REVISION UPDATED PER ECN 2438 RET 12/1/74
T	UPDATED REV LEVEL TO AGREE W/T 4 OTHER SHEETS ECN'S 2537, 2725, 2745, 2746, 2747, 2748 \$3151.51 9/2 12-8-75
U	UPDATED REVISION LEVEL TO AGREE W/T 4 OTHER SHEETS PER ECN 3252, 3346, 3411 8/24/74
V	CHANGED REV LEVEL TO AGREE W/T 4 OTHER SHEETS 9/14/74

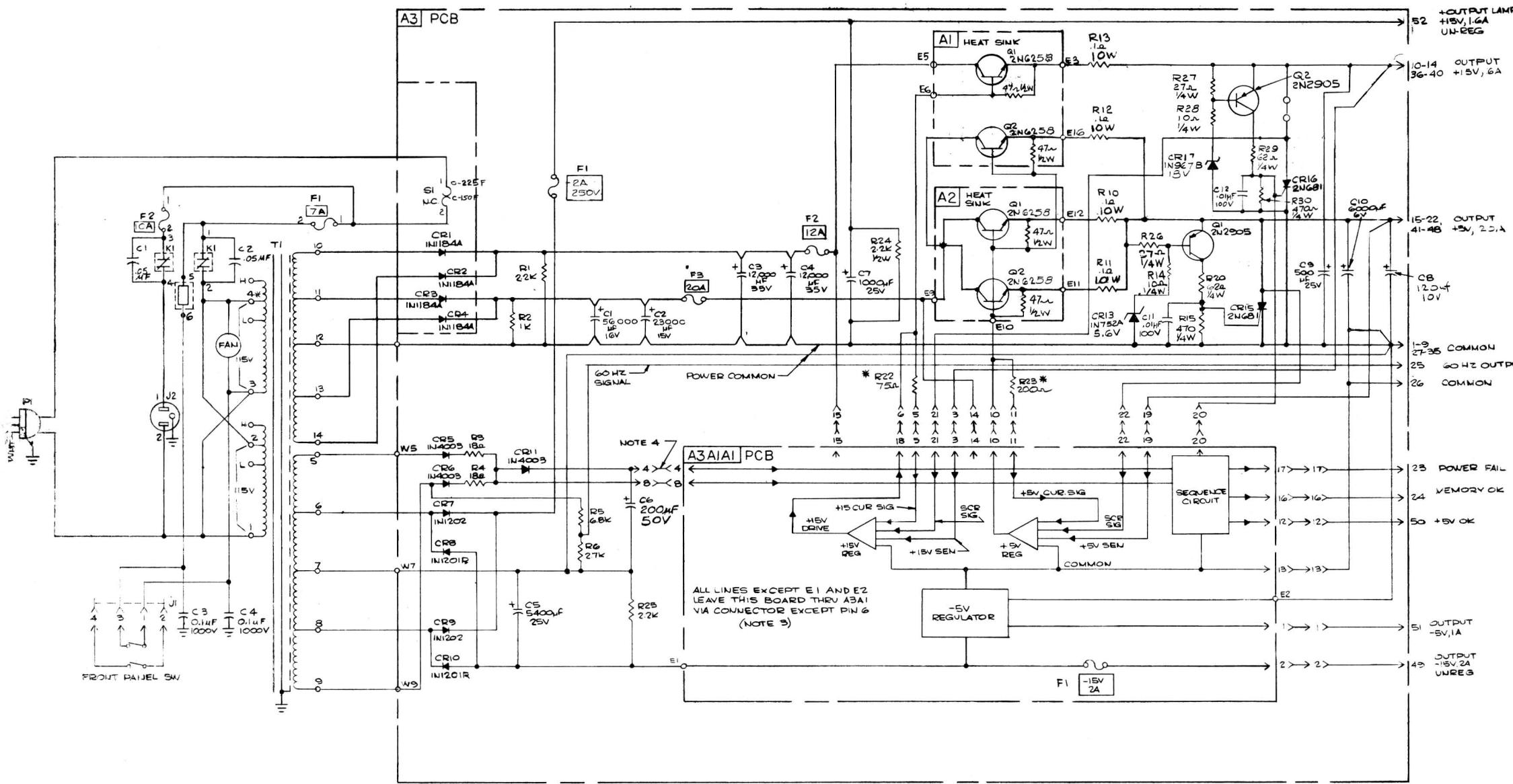


NOTE:

1. ALL COLOR CODED WIRES, WIRED TO PRIMARY REMAIN CONSTANT EXCEPT GRAY WIRE WHICH WILL VARY AS SHOWN IN EACH DRAWING.
2. APPLIES TO TRANSFORMERS WITH TERMINALS MARKED H & L, SEE SHEET 6 FOR TRANSFORMERS WITH TERMINALS MARKED + & -

SHEET	1	2	3	4	5	6
REVISION	U	U	4	U	U	U

D-116
POWER SUPPLY
(TRANSFORMER WIRING)
F 800016
NONE



G6 SCHEMATIC ONLY

ITEM	DESCRIPTION
J	SHEET 200 OF 266 SCHEMATIC DRAWING
K	ADDED 3 HAQ PER ECN 1778
L	CHANGED THE AMP VALUE OF F1/F2/F3/F4, DELETED F2OP AS AT ECN 1778, REVISED/ECN 1707, 1778 MP 9/16/79
M	DELETED R18 WAS AT CR14 CATHODE & CR15 ANODE. DELETED R19 WAS AT THE Emitter & CR15 ANODE. GND Q1, Q2 FROM E12/13 TO EV3055 PER ECN 1707, 1778 MP
N	ADDED 3T PER ECN 1778
P	SCN 2251, ECN 2253 MP
R	HEAT SINK RES WERE 10W IN ECN 23371//ECN 2371/B2//B3//B4
S	REVISION UPDATED PER ECN 2428
T	ADDED COMPONENTS 4C1056, R30, 111-C3. CHANGED Q1, Q2 OF A1 & A1 WERE BY 3555. R10, R11, 2+1, C3 & C4 VALUES WERE 600V. C WAS 0.3333A 5V, FER SCN 2557, 2735 B2/B2, 5002 2, 3, 29, 41, 42, 52, 53, 7R 3, 971
U	CHANGED Q1 WAS RECOM'D. 3L TYP T31 W/ 12A, 175°C. ECN 3252, 3244-1 MR 414/3, 5174/5200D 1-7, 1-11, 9-2, 9-11, 11-12, 12-13, 13-14, 14-15, 15-16, 16-17, 17-18, 18-19, 19-20, 20-21, 21-22, 22-23, 23-24, 24-25, 25-26, 26-27, 27-28, 28-29, 29-30, 30-31, 31-32, 32-33, 33-34, 34-35, 35-36, 36-37, 37-38, 38-39, 39-40, 40-41, 41-42, 42-43, 43-44, 44-45, 45-46, 46-47, 47-48, 48-49, 49-50, 50-51, 51-52, 52-53, 53-54, 54-55, 55-56, 56-57, 57-58, 58-59, 59-60, 60-61, 61-62, 62-63, 63-64, 64-65, 65-66, 66-67, 67-68, 68-69, 69-70, 70-71, 71-72, 72-73, 73-74, 74-75, 75-76, 76-77, 77-78, 78-79, 79-80, 80-81, 81-82, 82-83, 83-84, 84-85, 85-86, 86-87, 87-88, 88-89, 89-90, 90-91, 91-92, 92-93, 93-94, 94-95, 95-96, 96-97, 97-98, 98-99, 99-100, 100-101, 101-102, 102-103, 103-104, 104-105, 105-106, 106-107, 107-108, 108-109, 109-110, 110-111, 111-112, 112-113, 113-114, 114-115, 115-116, 116-117, 117-118, 118-119, 119-120, 120-121, 121-122, 122-123, 123-124, 124-125, 125-126, 126-127, 127-128, 128-129, 129-130, 130-131, 131-132, 132-133, 133-134, 134-135, 135-136, 136-137, 137-138, 138-139, 139-140, 140-141, 141-142, 142-143, 143-144, 144-145, 145-146, 146-147, 147-148, 148-149, 149-150, 150-151, 151-152, 152-153, 153-154, 154-155, 155-156, 156-157, 157-158, 158-159, 159-160, 160-161, 161-162, 162-163, 163-164, 164-165, 165-166, 166-167, 167-168, 168-169, 169-170, 170-171, 171-172, 172-173, 173-174, 174-175, 175-176, 176-177, 177-178, 178-179, 179-180, 180-181, 181-182, 182-183, 183-184, 184-185, 185-186, 186-187, 187-188, 188-189, 189-190, 190-191, 191-192, 192-193, 193-194, 194-195, 195-196, 196-197, 197-198, 198-199, 199-200, 200-201, 201-202, 202-203, 203-204, 204-205, 205-206, 206-207, 207-208, 208-209, 209-210, 210-211, 211-212, 212-213, 213-214, 214-215, 215-216, 216-217, 217-218, 218-219, 219-220, 220-221, 221-222, 222-223, 223-224, 224-225, 225-226, 226-227, 227-228, 228-229, 229-230, 230-231, 231-232, 232-233, 233-234, 234-235, 235-236, 236-237, 237-238, 238-239, 239-240, 240-241, 241-242, 242-243, 243-244, 244-245, 245-246, 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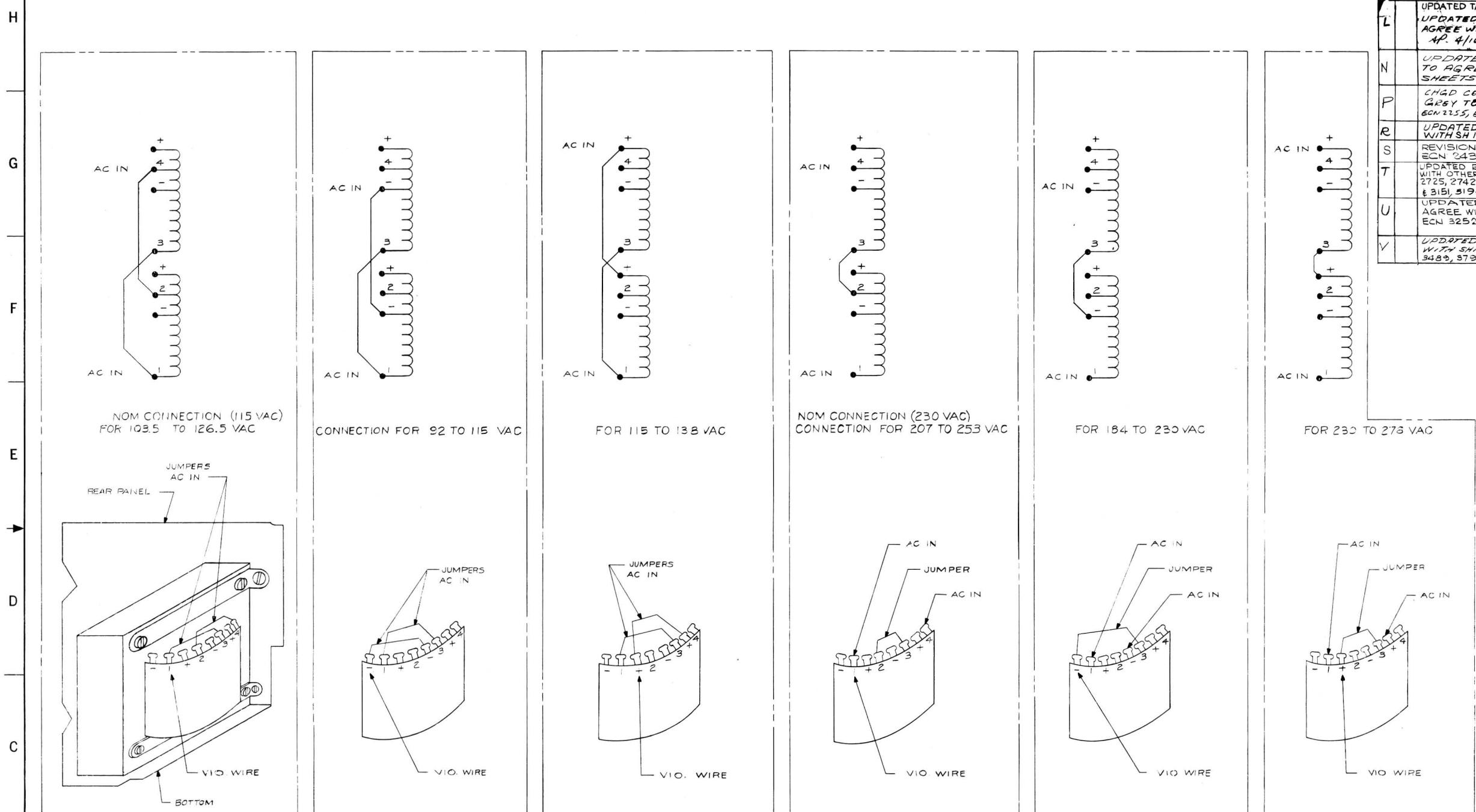
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4

3

2

1



DENOTES MICROFILMED REVISIONS			
SYM	ZONE	DESCRIPTION	DATE APPROVED
K		THIS SHEET ADDED PER ECN 1557 10/16/73 C.M. P.D.	
L		UPDATED TABLE PER ECN 1707 B.R. 1-2-74 G.P. F.B.	
M		UPDATED REVISION LETTER TO AGREE WITH OTHER SHEETS AP. 4/16/74	
N		UPDATED REVISION LETTER TO AGREE WITH OTHER SHEETS H.P. 7/16/74 G.P. F.B.	
P		CHGD COLOR OF WIRES FROM GRAY TO VIO PER ECN 2216 ECN 2255, ECN 2286 H.P.	9/16/74 G.P. F.B.
R		UPDATED REV LEVEL TO AGREE WITH SH.1./ECN 2371//BR 11/8/74	
S		REVISION UPDATED PER ECN 2438 RLT 12/1/74 12/13/74 G.P. F.B.	
T		UPDATED REV LEVEL TO AGREE WITH OTHER SHEETS /ECNS. 2537, 2725, 2742, 2785, 3019, 3022, 3129, & 3151, 5196 H.R. 12-18-75	12/13/74 G.P. F.B.
U		UPDATED REVISION LEVEL TO AGREE WITH OTHER SHEETS PER ECN 3252, 3310, 3311, 3340, H.R. 4/12/76	5/16/76 G.P. F.B.
V		UPDATED REV LEVEL TO AGREE WITH SH.1./ECN 3706, 3455, 3456, 3483, 3737	5/16/76 G.P. F.B.

800016

NOTE:

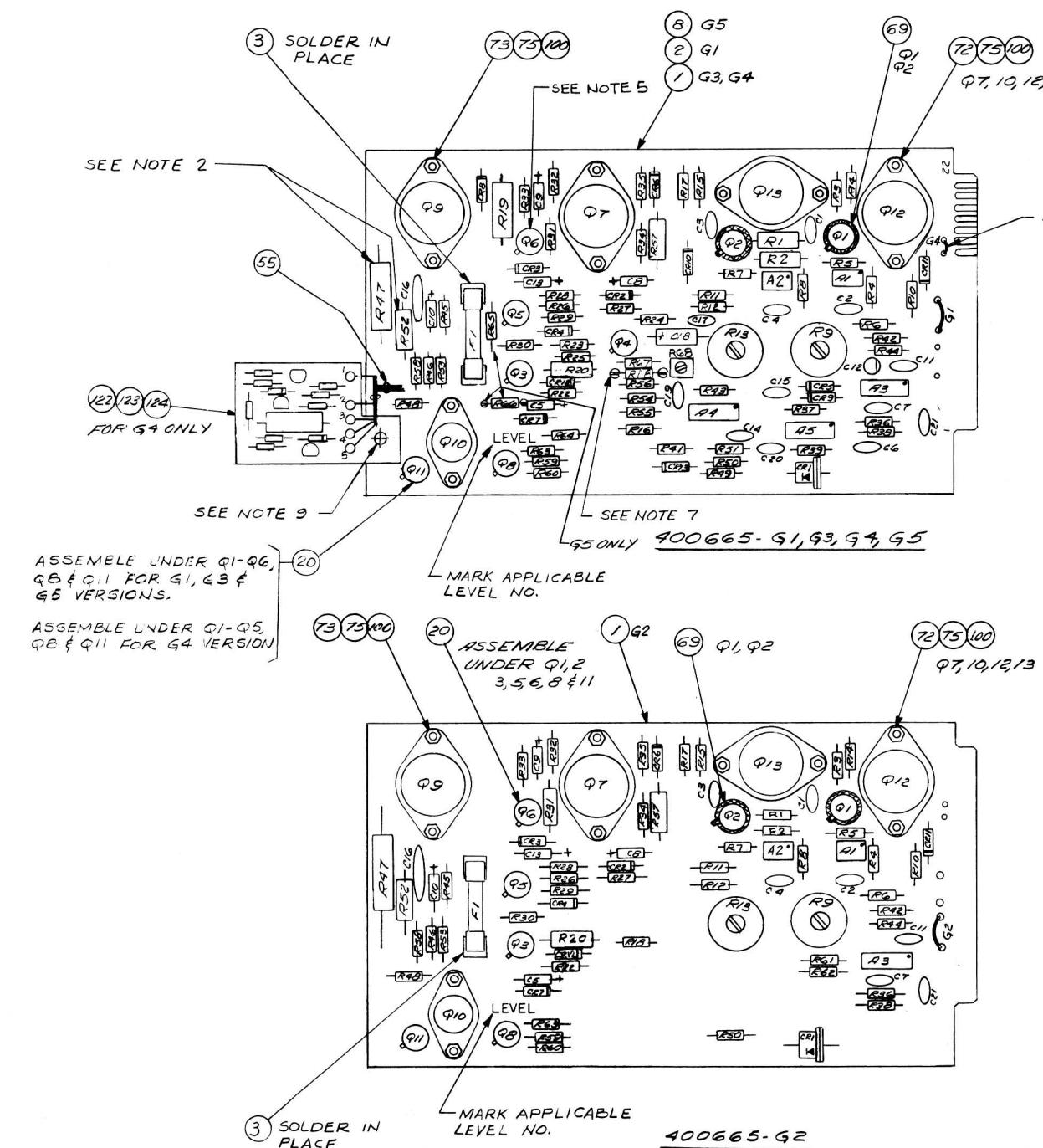
1. ALL COLOR CODED WIRES, WIRED TO PRIMARY REMAIN CONSTANT EXCEPT GRAY WIRE WHICH WILL VARY AS SHOWN IN EACH DRAWING
2. APPLIES TO TRANSFORMERS WITH TERMINALS MARKED + & -, SEE SHEET 4 FOR TRANSFORMERS WITH TERMINALS MARKED H & L

G6	G5	G4	G3	G2	G1	ITEM SIZE	PART NO.	DESCRIPTION	M OF P
QUANTITY PER GROUP	NO.	DRAWING NO.							
LIST OF MATERIAL									
EXCEPT AS MAY BE OTHERWISE PROVIDED BY CONTRACT, THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL COMPUTER CONTROLS, INC. AND ARE ISSUED IN STRICT CONFIDENCE AND SHALL NOT BE COPIED OR USED AS THE BASIS FOR THE MANUFACTURE OF EQUIPMENT UNLESS AUTHORIZED IN WRITING BY THE COMPANY.									
UNLESS OTHERWISE SPECIFIED									
DIMENSIONS ARE IN INCHES AND INCLUDES CHEMICALLY APPLIED AND PLATED FINISHES									
TOLERANCES									
2 PLACE DECIMALS	3 PLACE DECIMALS	DECIMALS	AMOUNT						
.00	.000	.000	± .001						
HOLE DIAMETER TOLERANCE									
0 THRU .350	.351 THRU .800	.801 & LARGER	.003						
.000	.000	.000	.000						
NEXT ASSY. USED ON									
THREADS: EXT CL 2A, INT CL 2B									
APPROVAL DR. [Signature] DATE 11/15/73									
CNC: [Signature] 1-2-74									
ENG. APP'D. MATEL									
FINISH									
SIZE F 800016 REV. V									
SCALE NONE SHEET 6 OF 6									

DIGITAL COMPUTER CONTROLS, INC.
FAIRFIELD, NEW JERSEY 07006D-116
POWER SUPPLY
(TRANSFORMER WIRING)

8 | 7 | 6 | 5 | 4 | 3 | 2 | 1

D



NOTES:

- 1) ON G1&G5 BOARD VALUE OF R18 IS TO BE SELECTED AT TEST TO CAUSE PWR FAIL SIGNAL TO GO FROM LOGIC 1 TO LOGIC 0 AT 97 VAC ± 2 VAC INPUT VOLTAGE NOMINAL VALUE IS 17.4K (002599-1472) EUT TYPICAL RANGE IS FROM 14.7K TO 22.6K.
2. RAISE R47 & R52 0.25 INCHES OFF P.C.B. TO PROMOTE PROPER COOLING.
3. ON G3 BOARD VALUE OF R18 IS 15.15K 1/4W ± 5% POWER FAIL OPTION IS NOT USED.
4. G1, 3, 4 & 5 VERSIONS RAISE R1 & R2 .125 OFF THE BOARD.
5. ON G4 BOARD Q6 IS NOT USED. R67 & R68 ARE ADDED & R18 IS 470Ω 1/4 ± 5%.
6. ON G5 BOARD VALUE OF R66 IS TO BE SELECTED AT TEST TYPICAL RANGE IS FROM 4.7K TO 16K
7. TERMINALS PRESENT ON G VERSIONS USING ITEMS 2 AND 8 ONLY.
8. INSTALL JUMPER G4 ON "G4" VERSION ONLY.
9. LINE UP MOUNTING HOLES IN BOTH BOARDS PRIOR TO WIRING.

SEE SHEET 2 FOR PARTS TO BE ASSEMBLED FOR "G" OPTIONS.

REVISIONS			
SYM	ZONE	DESCRIPTION	DATE APPROVED
V		REDRAWN & REVISED PER ECN 2620, 2783, 2786, 2839, 2849, 2861, 2882, 2886, 3019 AW REV K LEVEL 14 MR SEE VOID FILE FOR PREVIOUS ISSUE, LRM 3306	1/25/75 AF
W		REVISED TO AGREE WITH LM PER ECN 3110 AW REV L RLM 1/30/76	2/6/76 AF
X		REVISED PER ECN 2289, 3170, 3192 AW REV M RLM 2/27/76	3/2/76 AF
Y		UPDATED TO AGREE WITH LEVEL SHT PER ECN 3253 (NO CHANGE) AW REV N RLM 4/6/76	4/6/76 AF
Z		ADDED ITEM 55, 122, 123, 124 & ADDED NEW LEVEL 16-1 PER ECN 2786, 3304 & 4/27/76 AW REV N LEVEL 16	5/4/76 AF
AA		CHANGES ON G2 VERSION ONLY: R36 WAS 470Ω PN 0029C0-471 DELETED C18 PN 007154 PER ECN 3428. CHANGES ON ALL VERSIONS EXCEPT G2: R49 WAS 100Ω PN 0029370 R50 WAS 15K PN 002633 R51 WAS 6EIK PN 0022061 PER ECN 3384. CHANGES ON G4 VERSION ONLY: R18 WAS 10K PN 0027355 C5 WAS 120.4F 10V PN 007156 C17 WAS 100.4F 4V PN 007154 DELETED C18 PN 007153 ADDED R67 PN 0027100-471 ADDED R68 PN 003514 PER ECN 3522 AW REV P LEVEL 25 PB 9/17/76	9/17/76

400665

G6	G5	G4	G3	G2	G1	ITEM	SIZE	PART NO.	M / P	U / OF M
QUANTITY PER GROUP										DESCRIPTION
DRAWING NO.										
DR. <i>Hannalle</i>	9/17/76	CHK P.J. LAWRENCE	9/17/76	ENG P.J. LAWRENCE	9/17/76	APPROVAL	DATE	DIGITAL COMPUTER CONTROLS, INC.		
FAIRFIELD, NEW JERSEY 07006										
UNLESS OTHERWISE SPECIFIED										
DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES										
TOLERANCES										
A PLACE	DECIMALS	DECIMALS	DECIMALS	DECIMALS	DECIMALS	DECIMALS	ANGLES	D-116 PWR. SUPPLY		
DECIMALS	± .01	± .005	± .005	± .005	± .005	± .005	± 1/16	REGULATOR BD. ASSY.		
O TOLERANCE	+.005	-.005	-.005	-.005	-.005	-.005				
HOLE DIAMETER TOLERANCE	.030 THRU .060	.030 THRU .060	.030 THRU .060	.030 THRU .060	.030 THRU .060	.030 THRU .060				
THREADS: EXT CL 2A, INT CL 2B										
NEXT ASSY.	USED ON	APPR'D	MANUF'D	SEE L/M 400665	SIZE	D	400665	REV		
					SCALE	1/1	SHEET	1 OF 2		

8 | 7 | 6 | 5 | 4 | 3 | 2 | 1

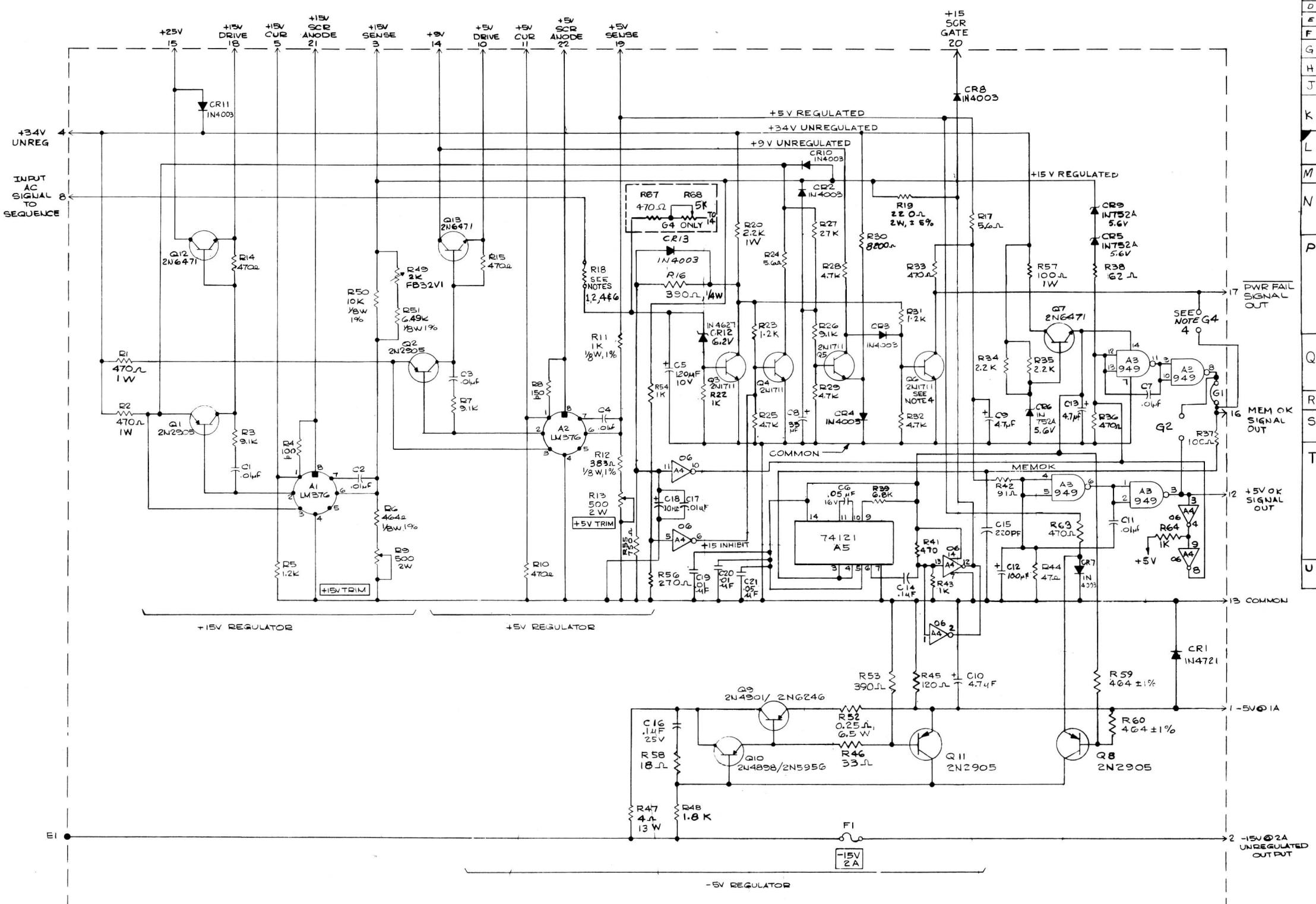
8 7 6 5 4 3 2 1

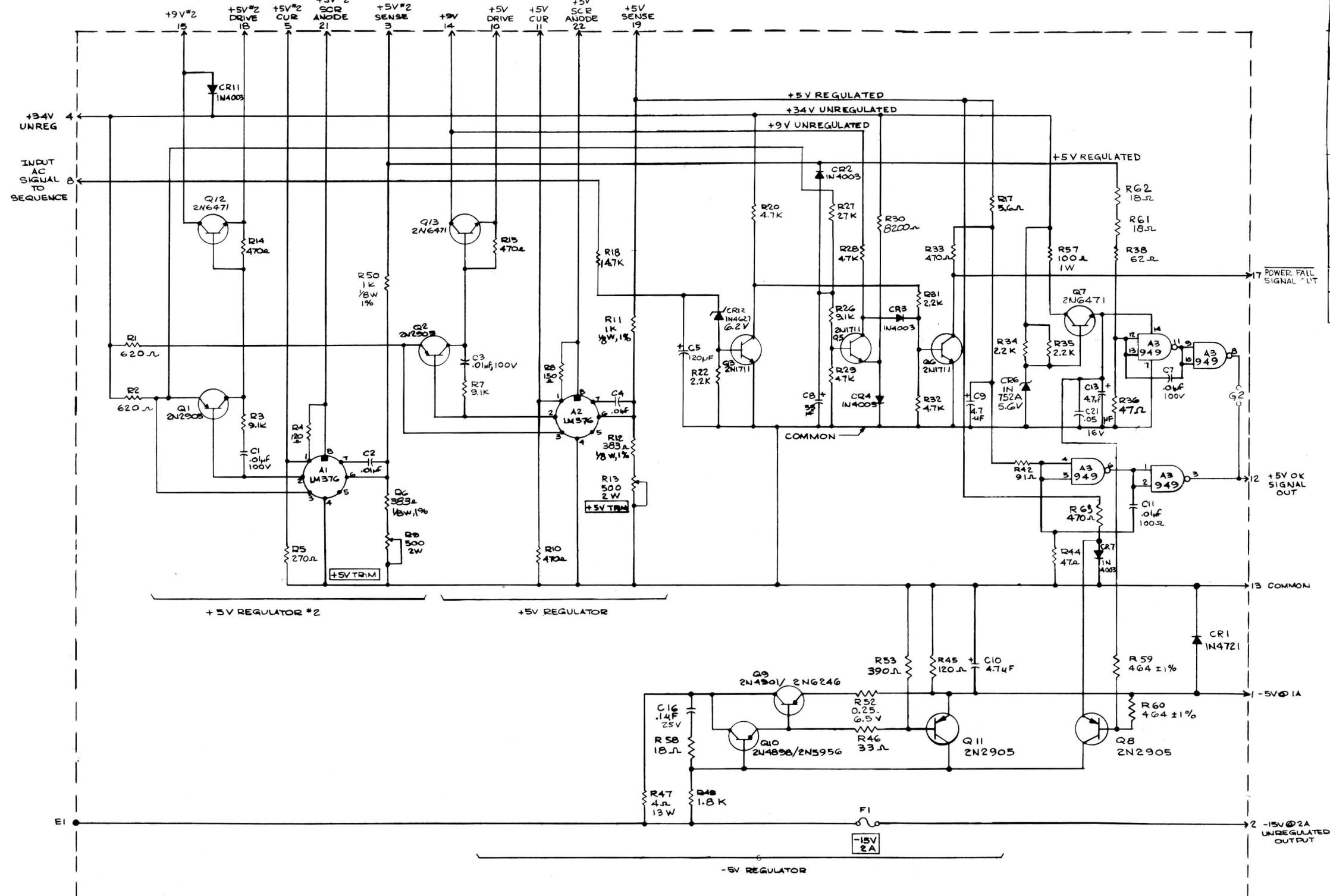
ITEM NO	DCC PIN	DESCRIPTION	G1 & G5 COMPONENTS	G2 COMPONENTS	G3 COMPONENTS	G4 COMPONENTS
6	000412	LM376N	R1, R2	R1, R2	R1, R2	R1, R2
7	000449	SN15849N	R3	R3	R3	R3
4	000106	SN7406	R4	-	R4	R4
5	000221	SN74121	R5	-	R5	R5
11	007003	.054F, 50V	C6, 21	C21	C6, 21	C6, 21
94	007124	104F15V10%	C18	-	C18	-
12	007137	4.741F 35V	C9, 10, 13	C9, 10, 13	C9, 10, 13	C9, 10, 13
13	007149	334F 10V	C8	C8	C8	C8
96	007156	1204F 10V	C5	C5	C5	-
9	007314	.14F 25V	C14, 16	C16	C14, 16	C14, 16
10	007333	.014F 100V	C1-4, 7, 11, 17, 19, 20	C1-4, 7, 11, 17, 19, 20	C1-4, 7, 11, 19, 20, 17	C1-4, 7, 11, 19, 20, 17
15	007154	1004F 4W10%	C12	-	C12	C12
16	000514	IN752A	CR5, 6, 9	CR6	CR5, 6, 9	CR5, 6, 9
18	000516	IN4003	CR2, 3, 7, 8, 10, 11, 13	CR2, 3, 7, 8, 10, 11, 13	CR2, 3, 7, 8, 10, 11, 13	CR2, 3, 7, 8, 10, 11, 13
19	000517	IN4721	CR1	CR1	CR1	CR1
21	000536	IN4627	CR12	CR12	CR12	CR12
22	005014-210	2A, 250V	F1	F1	F1	F1
29	001517	2N4901	Q9	Q9	Q9	Q9
30	001521	2N4898	Q10	Q10	Q10	Q10
26	001522	2N1711	Q3, 4, 5, 6	Q3, 5, 6	Q3, 5, 6	Q3, 5
25	001523	2N2905	Q1, 2, 8, 11	Q1, 2, 8, 11	Q1, 2, 8, 11	Q1, 2, 8, 11
71	001555	2NG471	Q12, 13, 7	Q12, 13, 7	Q12, 13, 7	Q12, 13, 7
31	002500-621	620n 1W	-	R1, R2	-	-
42	-102	1K 1/2W	R43, 54, 64 (P22 G1)	-	R22, 43, 54, 64	R22, 43, 54, 64
34	-471	970n 1/2W	R10, 14, 15, 33, 36, 41, 63	R10, 14, 15, 33, 63	R10, 14, 15, 33, 36, 41, 63	R10, 14, 15, 33, 36, 41, 63
40	-312	5.1K 1/2W	R3, 7, 26	R3, 7, 26	R3, 7, 26	R3, 7, 26
37	-121	120n 1/2W	R45	R45	R45	R45
41	-122	1.2K 1/2W	R5, 23, 31	-	R5, 23, 31	R5, 23, 31
43	-51	150n 1/2W	R8	R8	R8	R8
33	002500-516	5.6n 1/2W	R17, 24	R17	R17, 24	R17, 24
44	002559-1472	14.7K 1/8W1%	-	R18	-	-
36	002300-472	4.7K 1/2W	R25, 28, 29, 32	R25, 28, 29, 32	R25, 28, 29, 32	R25, 28, 29, 32
35	-222	2.2K 1/2W	R34, 35	R22, 31, 34, 35	R34, 35	R34, 35
45	-273	27K 1/2W	R27	R27	R27	R27
102	-822	6200. 1W	R30	R30	R30	R30
38	-620	62n 1/2W	R38	R38	R38	R38
47	-271	270n 1/2W	R56	R5	R56	R56
95	-391	390n 1/2W	R53	R53	R53	R53
45	-910	510n 1/2W	R42	R42	R42	R42
50	002500-470	47n 1/2W	R44	R44, R36	R44	R44
57	003100-222	2.2K 1W	R20	-	R20	R20
53	002500-182	1.8K 1/2W	R48	R48	R48	R48
54	002500-101	100n 1/2W	R4, 37	-	R4, 37	R4, 37
56	002500-440	464n 1/8W	R6, 59, 60	R59, 60	R6, 59, 60	R6, 59, 60
57	-1001	1K 1/8W	R11	R11, 50	R11	R11
58	-1002	10K 1/8W	R50	-	R50	R50
59	002599-6491	6.45K 1/8W	R51	-	R51	R51
33	006502	500n 2W	R9, 13	R9, 13	R9, 13	R9, 13
32	003300-221	220n 2W	R19	-	R19	R19
61	004315	4n 13W	R47	R47	R47	R47
62	005687	2K (THERMISTOR)	R49	-	R49	R49
32	002500-180	18n 1/2W	R58	R61, 62, 58	R58	R58
60	002500-330	33n 1/2W	R46	R46	R46	R46
83	002599-1472	14.7K 1/8W1%	R18 SEE NOTE 1 ON SH 1	-	-	-
84	-1542	15.4K 1/8W1%	-	-	-	-
85	-1622	16.2K 1/8W1%	-	-	-	-
86	-1692	16.9K 1/8W1%	-	-	-	-
87	-1782	17.8K 1/8W1%	-	-	-	-
88	-1872	18.7K 1/8W1%	-	-	-	-
89	-1962	19.6K 1/8W1%	-	-	-	-
90	-2052	20.5K 1/8W1%	-	-	-	-
91	-2152	21.5K 1/8W1%	-	-	-	-
92	002599-2262	22.6K 1/8W1%	R18 SEE NOTE 1 ON SH 1	-	-	-

LIN ITEM NO	DCC PIN	DESCRIPTION	G1 & G5 COMPONENTS	G2 COMPONENTS	G3 COMPONENTS	G4 COMPONENTS
63	002900-682	6.8K 1/2W	R39	-	R39	R39
93	002700-391	390n 1/4W	R16	-	R16	R16
64	002900-751	750n 1/2W	R55	-	R55	R55
66	004317	.25n 6.5W	R52	R52	R52	R52
76	002599-3830	383n 1/8W1%	R12	R6, 12	R12	R12
65	003100-471	470n 1W	R1, R2	-	R1, R2	R1, R2
51	002700-158	15K 1/4W	-	-	R18	-
14	007327	220PF 500V	C15	-	C15	C15
	JUMPER	JUMPER	G1	G2	G1	G1, G4
127	007322	.474F 20V	-	-	-	C5
78	003100-101	100n 1W	R57	R57	R57	R57
104	002700-472	4.7K 1/4W1%	R66	-	-	-
105	-512	51K	FOR	-	-	-
106	-562	5.6K	G5	-	-	-
107	-622	6.2K	ONLY	-	-	-
108	-682	6.8K	SEE	-	-	-
109	-752	7.5K	NOTE	-	-	-
110	-912	9.1K	G	-	-	-
111	-103	10K	-	-	-	-
112	-113	11K	-	-	-	-
113	-123	12K	-	-	-	-
114	-133	13K	-	-	-	-
115	-153	15K	-	-	-	-
116	002700-163	16K 1/4W1%	R66	-	-	-
103	002900-152	1.5K 1/2W	R22 (G5)	-	-	-
99	002599-4642	46.4K 1/8W1%	R65 (G5)	-	-	-
117	-2492	24.9K 1/8W1%	R18 (G5)	-	-	-
118	-2612	26.1K	(NOM)	-	-	-
119	-2742	27.4K	(NOM)	-	-	-
120	-2872	28.7K	-	-	-	-
121	002599-3012	30.1K 1/8W1%	R18 (G5)	-	-	-
125	006514-502	5K POT	-	-	-	R68
126	002700-471	470n 1/4W	-	-	-	R18 R67

UNLESS OTHERWISE SPECIFIED	DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY PLATED OR FLAT FINISHES		
TOLERANCES			
2 PLACE DECIMALS	3 PLACE DECIMALS	ANGLES	± 1/8"
± .01	± .001	°, °, °	± 1/16"
HOLE DIAMETER TOLERANCE			
0.75 ± .002 .281 THRU .500 .101 & LARGER			
.002 .001 .0005 .0003 .0002 .0001			
.0001			
.00005			
.00001			
.000005			
.000001			
.0000005			
.0000001			
.00000005			
.00000001			
.000000005			
.000000001			
.0000000005			
.0000000001			
.0000			

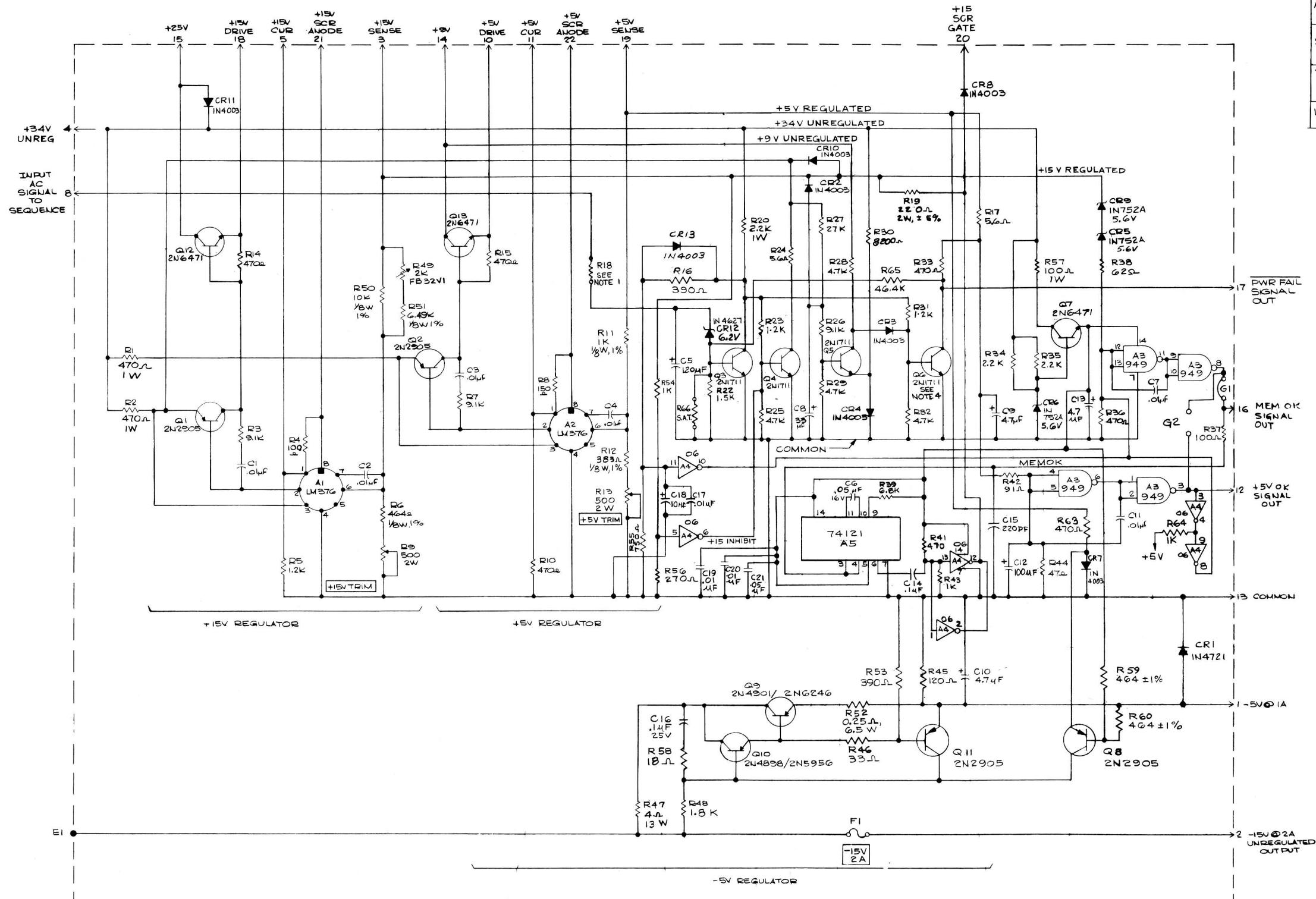
DENOTES MICROFILMED REVISIONS		
SYM/ZONE	DESCRIPTION	DATE APPROVED
A	REVISE PER ECN 0764 G.G.	5/27/73
B	REVISED PER ECN 0798	10/11/73
C	REVISED PER ECN 0908	DR 11/12/73
D	REVISED PER ECN 1029	DR 1-9-73
E	REVISED / ECN 1063	DR 2-6-73
F	REVISED / ECN 1058	EC 2-13-73
G	REVISED / ECN 1188 JED 4/24/73	4/25/73
H	REVISED / ECN 1209 JD 5-8-73	5/27/73
J	REVISED / ECN 1248 JED 5/24/73	5/24/73
K	RESISTOR R19 WAS 470 Ω . ADDED ADDITIONAL CONTACTS TO IC-A4 AND ADDED RESISTOR R64 PER ECN 1587	BR 11-21-73
L	DELETED RG4 & ADDED JUMPER G2 REVISED / ECN 1806 AW REV H .44 4/15/74	4/15/74
M	CHGD R52 FROM 470 Ω TO 560 Ω PER ECN 2063 AW REV H 7-12-74	7-12-74
N	CHGD R20 FROM 4.7K TO 2.2K CHGD C5 FROM 33UF TO 120UF PER ECN 2243 AW REV H 4.0 CHGD CR12 FROM INT753A TO IN4621 / ECN 2289	4.0 7-12-74
P	DELETED JUMPER G2, ADDED R64, VOIDED CHANGES OF ECN 1806 PER ECN 2419 AW REV J BR 11-27-74 ALSO ADDED NOTE 3 PER ECN 2438 (G4) RLT 12/11/74 CHG VALUE OF C2 FROM .05 μ F TO 100 μ F AW REV J ECN 2434 BR 1/4 W & NOTE 4 AW REV J ECN 2456 BR 012 & Q13 WERE EN3055-2 PER ECN 2364 AW REV J BR 11/7/75	11/7/75
Q	CHANGED R18 ON G4 WAS 15K CHGD R12 WAS 469 Ω VBW PER ECN 2849, 2799, 9013 2839 AW REV K LEVEL 1A	12/1/75
R	ADDED NOTE 4 / ECN 3152 AW REV L LEVEL 16	12/1/75
S	REDRAWN AND REVISED PER ECN 3170, 3192 AW REV M, LEVEL 17 3-1-76 RIM	3-1-76
T	CHANGED FOR G4 VERSION ONLY. ADDED RG7, RGB & NOTE G, RG6 & C18 NOT USED, R18 WAS 10K, C5 WAS 120UF, 10V, C17 WAS 100MF, REVISED NOTE 4 & DELETED NOTE 3.	12/1/76
	CHANGED FOR G1, 3 & 4 VERSIONS ONLY - R42 WAS 1000 Ω , R50 WAS 15K & R51 WAS 6.81K. AW REV P LEVEL 25 PS. ECN 3384 & 3522 8/18/76	8/18/76
U	NOTE 4 - 7.8 TO 8.0 VDC WAS 8.0 TO 8.1 VDC PER ECN 3706 P.S. 11-4-76	11-4-76





LIST OF MATERIAL									
G6	G8	G4	G3	G2	G1	ITEM	SIZE	PART NO.	U/P
QUANTITY PER GROUP	NO.					DRAWING NO.			E
EXCEPT AS MAY BE OTHERWISE PROVIDED BY CONTRACT, THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL COMPUTER CORPORATION, INC. AND ARE NOT TO BE COPIED, USED OR DISCLOSED WITHOUT WRITTEN PERMISSION OR COPIES OR USES AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS WITHOUT PERMISSION.									
UNLESS OTHERWISE SPECIFIED									
DIMENSIONS ARE IN INCHES AND INCLUDE									
GEOMETRICAL DIMENSIONS									
TOLENCES									
2 PLACE DECIMAL INCHES ± .01									
1 PLACE DECIMAL INCHES ± .1									
APPARATUS DIMENSIONS IN VOLTMETERS									
• THRU 1000 OHM THRU 10000 OHM & LOWER									
• 10000 OHM THRU 100000 OHM & LOWER									
• 100000 OHM & LOWER									
APPROVAL									
DR. [Signature]									
DATE									
6-17-72									
COR. DR. [Signature]									
DATE									
6-18-72									
APPR. DR. [Signature]									
DATE									
6-19-72									
APPL.									
4000665	D-116								
NEXT ASSY.	USED ON								
F1									
THREADS: 32 TPI. DA. NYL CL. 50									
4000666	0								
REV. HOME									

D-116
POWER SUPPLY
REGULATOR BD REV F G2



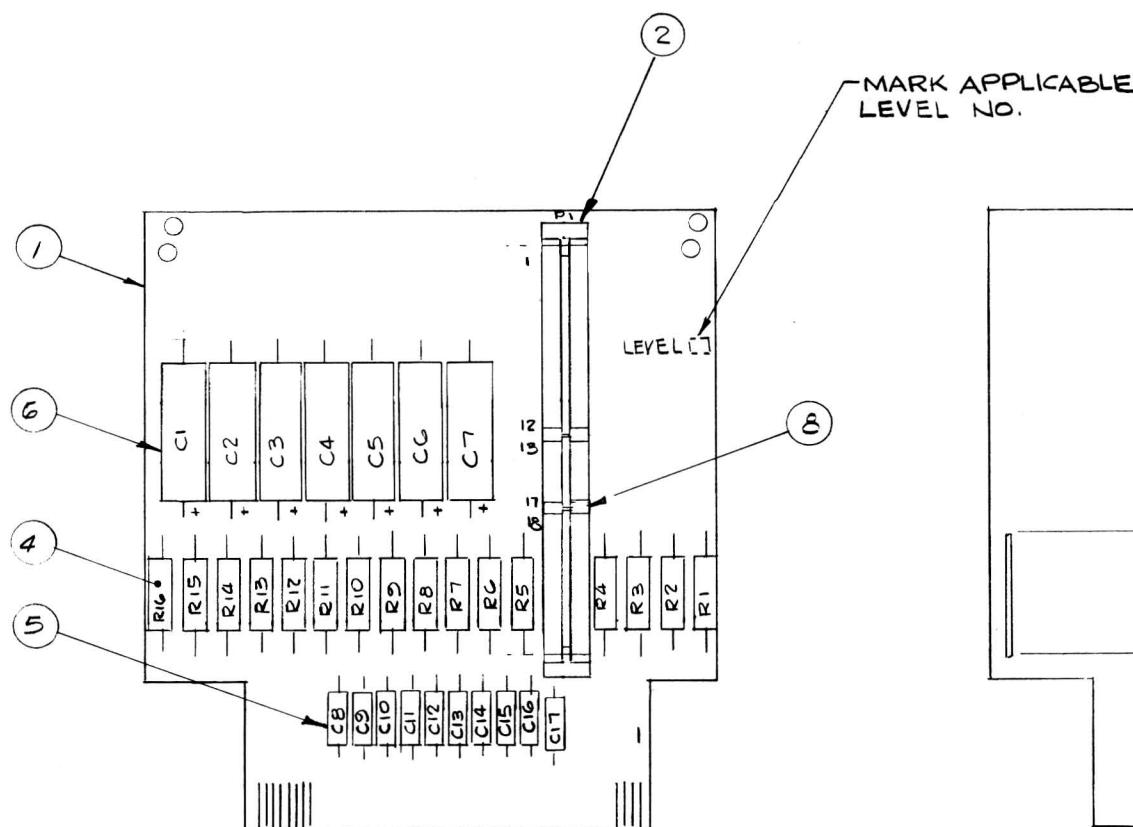
G5 SCHEMATIC ONLY

NOTE

- THE VALUES OF RIB AND RGG ARE SELECTED AT TEST TO
CAUSE THE POWER FAIL SIGNAL TO GO FROM LOGIC "1" TO
LOGIC "0" AT APPROX. 95V AC INPUT, AND FROM LOGIC "0"
TO LOGIC "1" AT APPROX 100V AC INPUT. TYPICAL VALUES
FOR RIB RANGE FROM 24.9K TO 30.1K OHMS, (NOMINAL 27.4K),
AND FOR RGG RANGE FROM 4.7K TO 16K OHMS, (NOMINAL 10K).

G6	G5	G4	G3	G2	G1	ITEM NO.	SIZE	PART NO.	DESCRIPTION	M U F M	
QUANTITY PER GROUP						NO.	DRAWING NO.		LIST OF MATERIAL		
EXCEPT AS MAY BE OTHERWISE PROVIDED BY CONTRACT, THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL COMPUTER CONTROLS, INC. AND ARE NOT TO BE COPIED, REPRODUCED, OR USED FOR ANY PURPOSE OTHER THAN IN THE MANUFACTURE AND SALE OF APPARATUS UNLESS WITH PERMISSION.											
UNLESS OTHERWISE SPECIFIED											
DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES											
TOLERANCES											
8 PLACE DECIMALS	2 PLACE DECIMALS	MM	MM	MM	MM	MM	MM	MM	APPROVAL	DATE	
0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	DR. G. L. CARR	8/17/72	
0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	CHE. C. J. HARRIS	8/17/72	
0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	ENG. J. A. WILSON	8/17/72	
0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	APP'D. J. A. WILSON	8/17/72	
5.0 MIL LINEAR TOLERANCE											
0 THRU .050 .051 THRU .060 .061 & LARGER											
.002	.001	.000	.000	.000	.000	.000	.000	.000	MATERIAL	SIZE	
THREADS, EXT CL SA, INT CL SB										F	400666 U
SCAL. NONE										REF	3 OF 3

DENOTES MICROFILMED		REVISIONS	DATE	APPROVAL
A	REVISED/DWO 365	FD 7-13-73	7-16-73	RJH
E	DELETED STIFFENER AW REV E BRACKET PER UCN 3074	12-26 73	RKT JAM	PJB
F	UPDATED REV LEVEL TO AGREE WITH LM. ECN 2120 AW REV E BR	8/23/74	JAM	PJB
G	INCREASE SPACING OF CAPACITORS C1 THRU C7, ADDED NOTES 1&2. PER ECN 3060. MR. AW REV F LEVEL 10.	7/20/ 1/76	PJB JAM	PJB
H	UPDATED REV TO AGREE WITH LM PER ECN 3676, AW REV F, LEVEL 11	9/20/76	JAM	SG



G /

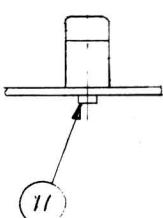
RI THRU R16 8Ω 3W (16 REQ.)

C1 THRU C7 50μf (7 REQ.)

C8 THRU C17 6.8μf (10 REQ.)

NOTES:

1. INSERT COMPONENTS AND CLINCH LEADS AS APPLICABLE. EXTENSIONS BEYOND THE BOTTOM SIDE OF THE BOARD SHALL NOT EXCEED .06 (1.5MM)
 2. COMPLETELY MASK AND PROTECT THE EDGE CONNECTOR CONTACTS ON BOTH SIDES OF THE BOARD BEFORE WAVE SOLDER PROCESS



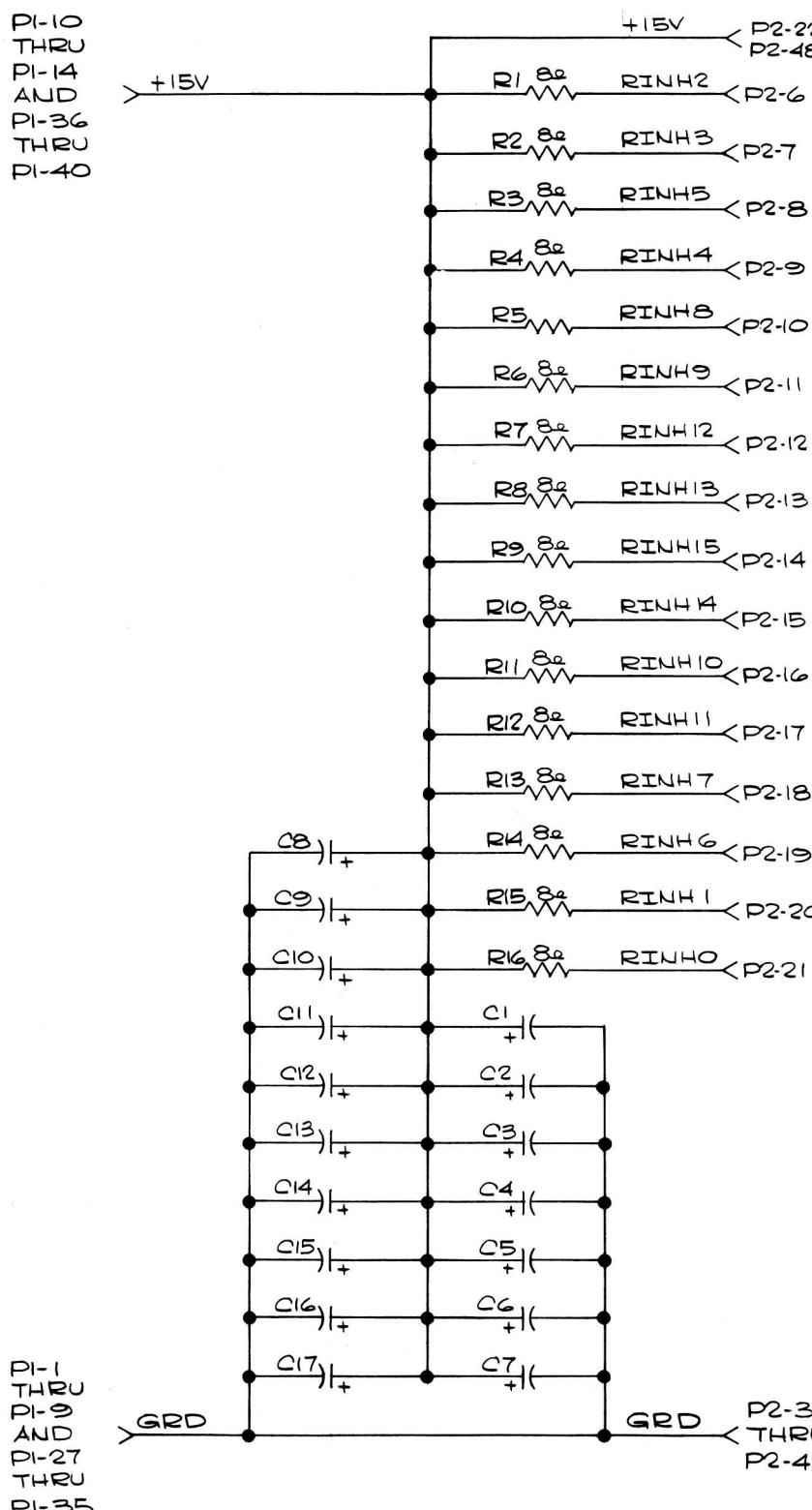
G2

Gillier 11/2/72 D116 RESISTOR
J. R. Green 11/4/72 BOARD ASS'Y.
B. Lantola 11/6/72

F900057 D116-E
E900061 D116

SEE L/M 400330
NONE

DENOTES MICROFILMED REVISIONS			
SYM	ZONE	DESCRIPTION	DATE APPROVED
A		REVISED/ DWO 291	JED 3/23/73

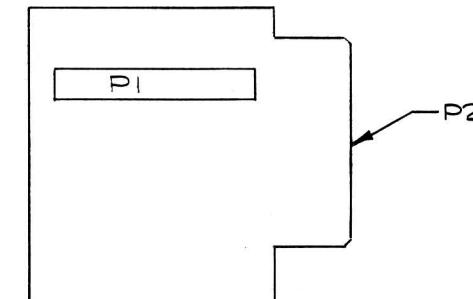


PI-23 > POWER FAIL ← P2-23
 PI-24 > MEM OK ← P2-24
 PI-25 > GND ← P2-25
 PI-26 > LAMP GRD ← P2-26
 PI-49 > -15V ← P2-49
 PI-50 > +5V OK ← P2-50
 PI-51 > -5V ← P2-51
 PI-52 > +V LAMP (+15V UNREG) ← P2-52

PI-15 THRU
PI-22 AND > +5V ← P2-1
 PI-41 THRU
PI-48 > AND ← P2-5
 PI-27 THRU
PI-31

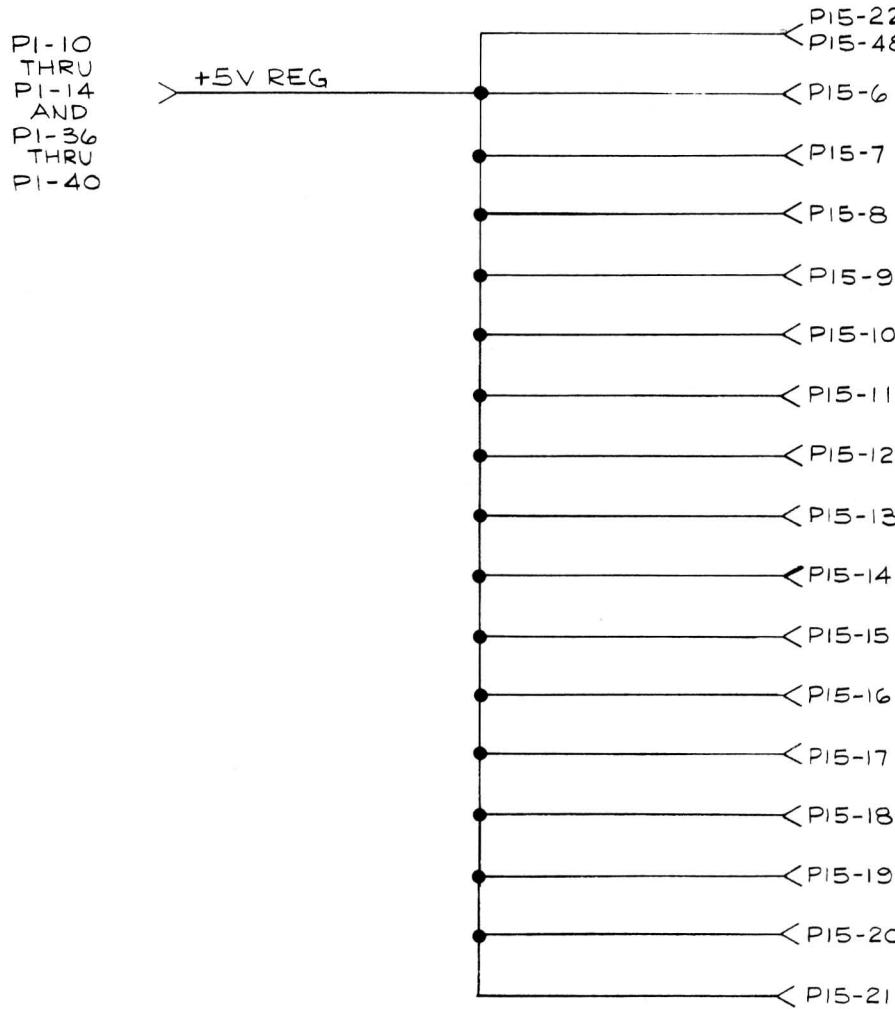
PART LIST TABLE

COMPONENT	DESCRIPTION	QTY	DOC PART NUMBER
C1-7	50μF	7	007254
C8-17	6.8μF	10	007139
R1-16	8Ω, 3W	16	003547
R1-16	JUMPER	16	—

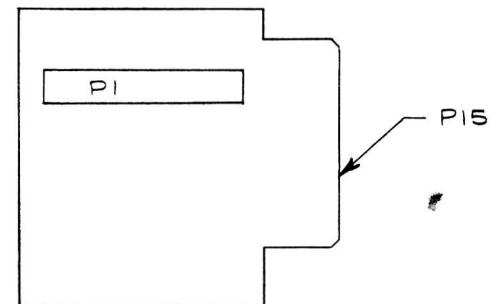


G6	G5	G4	G3	G2	G1	ITEM	SIZE	PART NO.	M / P	U OF M																																																																																																																								
QUANTITY PER GROUP						NO.	DRAWING NO.	DESCRIPTION																																																																																																																										
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UNLESS OTHERWISE SPECIFIED			APPROVAL			DATE																																																																																																																												
DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES			DR. R.K.Thierry			2/17/72																																																																																																																												
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										SCALE	SHEET 1	OF 2																																																																																																																						

DENOTES MICROFILMED REVISIONS			
SYMBOL/ZONE	DESCRIPTION	DATE	APPROVED
A	REVISED/DWO 291	JED 3/23/73	3/23/73



PI-23 > POWER FAIL < PI5-23
 PI-24 > _____ < PI5-24
 PI-25 > 60~ < PI5-25
 PI-26 > LAMP GRD < PI5-26
 PI-49 > -15 V < PI5-49
 PI-50 > +5V OK < PI5-50
 PI-51 > -5V < PI5-51
 PI-52 > +V LAMP (+15V UNREG) < PI5-52
 PI-15 THRU PI-22 > +5V REG < PI5-1
 AND PI-41 THRU PI-48 < PI5-5 AND PI5-27
 PI-41 THRU PI-48 < PI5-27
 PI-48 < PI5-31



PI-1 THRU PI-9 AND PI-27 THRU PI-35

QTY	GS	GS	GS	GS	ITEM	SIZE	PART NO.	DESCRIPTION	M	U	OF	IM
QUANTITY PER GROUP					NO.	DRAWING NO.						

LIST OF MATERIAL

EXCEPT AS MAY BE OTHERWISE PROVIDED BY CONTRACT, THESE DRAWINGS ARE THE PROPERTY OF DIGITAL COMPUTER CONTROLS, INC. AND ARE HELD IN STRICT CONFIDENCE AND SHALL NOT BE REPRODUCED OR COPIED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS WITHOUT PERMISSION		APPROVAL		DATE		
		DR R.K. THIERY	2/17/72			
		CHK P.J. LAVITOLA	2/17/72			
		ENG P.J. LAVITOLA	2/17/72			
		APP'D A. HERNANDEZ	2/17/72			
				D-116		
				RESISTOR BOARD (G2)		
NEXT ASSY.	USED ON	HOLE DIAMETER TOLERANCE		SIZE	C 400331	REV
		.0 THRU .280 : .281 THRU .600 : .601 & LARGER				
		.003	.005	.010		
		.002	.003	.008		
		THREADS: EXT CL 2A, INT CL 2B		FINISH		
				SCALE	SHEET 2 OF 2	

"A" CONNECTOR			
1	GND	GND	2
3	+5V (PS)	+5V (PS)	4
5	POWER FAIL (PS)		6
7		+5 OK (PS)	8
9	MEM OK (PS)		10
11	EXEC (CP)	DEFER (CP)	12
13	FETCH (CP)	RUN (CP)	14
15	CARRY (CP)	TON (CP)	16
17	ISTP (CP)		18
19	PL (CP)	MSTP (CP)	20
21		CON INST (CP)	22
23			24
25	CONT + ISTP + MSTP (CP)		26
27	CON RO (CP)	CON DATA (CP)	28
29		RST (CP)	30
31	STOP (CP)	RESTART ENAB (CP)	32
33	GND	GND	34
35	MEM 13	MEM 12	36
37	MBO 13	MSKO (IO)	38
39	MBO 12	INTA (IO)	40
41	MBO 15	DATIB (IO)	42
43	MBO 14	DATIA (IO)	44
45	MEM 10	DS 3 (IO)	46
47	EXT LOAD	DATOC (IO)	48
49		CLR (IO)	50
51	MEM 11	STRT (IO)	52
53	MEM 9	DATIC (IO)	54
55	MEM 8	DATOR (IO)	56
57		DATOA (IO)	58
59		DCHA (IO)	60
61		DS 4 (IO)	62
63		DS 5 (IO)	64
65		DS 2 (IO)	66
67		DS 1 (IO)	68
69		IORT (IO)	70
71		DSO (IO)	72
73	LOAD IR	IOPLS (IO)	74
75			76
77	LOAD AC		78
79		SELB (IO)	80
81		SELB (IO)	82
83			84
85	FORCE LOAD IR		86
87	MD SEL 1		88
89	WAS JSR		90
91	DTIV	TEST	92
93			94
95			96
97	+5V (PS)	+5V (PS)	98
99	GND	GND	100

D-116 BACK PANEL SLOT 1 (CPU)

REV.

400341 SHT. 1 OF 2

"B" CONNECTOR			
1	GND	GND	2
3	+5V (PS)	+5V (PS)	4
5	MBO 11	WHOA	6
7	MA LOAD	MBO 10	8
9	MBO 9		10
11		MBO 8	12
13		MBO 7	14
15		MBO 6	16
17	DCHMO (IO)	MEM 15	18
19		STROBE	20
21	DCHM1 (IO)	MEM 6	22
23		MEM 7	24
25		MEM 5	26
27		MEM 4	28
29	INTR (IO)	INHIBIT	30
31		MBO 5	32
33	DCHO (IO)		34
35	DCHR (IO)		36
37	DCHI (IO)		38
39	OVFLO (IO)		40
41	RQENB (IO)	MBO 4	42
43	MBO 3	MBO 2	44
45	INH TRANS		46
47	MEM 2	CLK FLOP	48
49	EXT LOAD	GND	50
51			52
53			54
55	DATA 7 (IO)	DATA 14 (IO)	56
57	DATA 5 (IO)	DATA 11 (IO)	58
59	DATA 12 (IO)	DATA 8 (IO)	60
61	DATA 4 (IO)	DATA 0 (IO)	62
63	DATA 9 (IO)	DATA 13 (IO)	64
65	DATA 1 (IO)	DATA 15 (IO)	66
67		MEM 3	68
69	SKIP	MEM 1	70
71	MEM 0		72
73	DATA 3 (IO)	MB LOAD	74
75	DATA 10 (IO)	MEM 14	76
77	MBO 1		78
79	MBO 0		80
81		DATA 2 (IO)	82
83	READ TO		84
85		MB CLEAR	86
87	READ 1	DRIVE IO	88
89		READ 2	90
91	SHTET 3		92
93	SHTET 2	SHIFT 0	94
95	DATA 6 (IO)	SHIFT 1	96
97	+5V (PS)	+5V (PS)	98
99	GND	GND	100

NOTE: Signal lines connected to the control panel are designated (CP), while those lines connected to the power supply are designated (PS). Signals appearing on the I/O bus are labeled (IO).

DENOTES MICROFILMED REVISIONS			
SYM	ZONE	DESCRIPTION	DATE APPROVED
A		UPDATED REV. LEVEL TO AGREE WITH SHT 1 ECN 3003 <i>Hand 11-1-76</i>	1/1/76 <i>J.S. P.D.</i>

NOTE

Signal lines connected to the control panel are designated (CP) while those lines connected to the power supply are designated (PS). Signals appearing on the I/O bus are labeled (IO).

NFE 281380 4-15 40511*

G6	G5	G4	G3	G2	G1	ITEM NO.	SIZE	PART NO.	M / P	U OF M								
QUANTITY PER GROUP						NO.	DRAWING NO.											
LIST OF MATERIAL																		
<small>EXCEPT AS MAY BE OTHERWISE PROVIDED BY CONTRACT, THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL COMPUTER CONTROLS, INC. ARE ISSUED IN STRICT CONFIDENCE AND SHALL NOT BE REPRODUCED OR COPIED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS WITHOUT PERMISSION.</small>																		
DIGITAL COMPUTER CONTROLS, INC.																		
FAIRFIELD, NEW JERSEY 07006																		
<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES</small>																		
<small>TOLERANCES</small> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>2 PLACE DECIMALS ± .01</td> <td>3 PLACE DECIMALS ± .005</td> <td>ANGLES ± 1/2°</td> </tr> </table>										2 PLACE DECIMALS ± .01	3 PLACE DECIMALS ± .005	ANGLES ± 1/2°						
2 PLACE DECIMALS ± .01	3 PLACE DECIMALS ± .005	ANGLES ± 1/2°																
<small>HOLE DIAMETER TOLERANCE</small> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>0 THRU .250</td> <td>.251 THRU .500</td> <td>.501 & LARGER</td> </tr> <tr> <td>+ .003</td> <td>+ .005</td> <td>+ .010</td> </tr> <tr> <td>- .002</td> <td>- .003</td> <td>- .005</td> </tr> </table>										0 THRU .250	.251 THRU .500	.501 & LARGER	+ .003	+ .005	+ .010	- .002	- .003	- .005
0 THRU .250	.251 THRU .500	.501 & LARGER																
+ .003	+ .005	+ .010																
- .002	- .003	- .005																
<small>THREADS EXT CL 2A, INT CL 2B</small>																		
USED ON						APPROVAL	DATE	DI116 BACK PANEL SLOT 1										
						DR. G.C.	6/23/77											
						CHK.												
						ENG.												
						APP'D.												
						MAT'L.	SIZE	C 400341		REV.								
						FINISH	SCALE	1 OF 2										

"A" CONNECTOR			
1	GND	GND	2
3	+5V (PS)	+5V (PS)	4
5	RINH0	-5V (PS)	6
7	RINH 1	INH GND	8
9	RINH 2	+15V (PS)	10
11	RINH 3		12
13	RINH 4	INH GND	14
15	RINH 5	INH GND	16
17	RINH 7	RINH 6	18
19	RINH 8	INH GND	20
21	RINH 11	INH GND	22
23	RINH 10	RINH 9	24
25	RINH 13	INH GND	26
27	RINH 15	RINH 12	28
29	RINH 14	INH GND	30
31	INH GND		32
33	GND	GND	34
35	MEM 13	MEM 12	36
37	MBO 13	MSK0 (IO)	38
39	MBO 12	INTA (IO)	40
41	MBO 15	DATIB (IO)	42
43	MBO 14	DATIA (IO)	44
45	MEM 10	DS3 (IO)	46
47		DATOC (IO)	48
49		CLR (IO)	50
51	MEM 11	STRT (IO)	52
53	MEM 9	DATIC (IO)	54
55	MEM 8	DATOB (IO)	56
57		DATOA (IO)	58
59		DCHA (IO)	60
61		DS 4 (IO)	62
63		DS 5 (IO)	64
65		DS 2 (IO)	66
67		DS 1 (IO)	68
69		I0RST (IO)	70
71		DS 0 (IO)	72
73		I0PLS (IO)	74
75			76
77			78
79		SELD (IO)	80
81		SELB (IO)	82
83			84
85			86
87			88
89			90
91			92
93	DCHP OUT (IO)	DCHP IN (IO)	94
95	INTP OUT (IO)	INTP IN (IO)	96
97	+5V (PS)	+5V (PS)	98
99	GND	GND	100

"B" CONNECTOR			
1	GND	GND	2
3	+5V (PS)	+5V (PS)	4
5	MBO 11		6
7	MA LOAD	MBO 10	8
9	MBO 9		10
11		MBO 8	12
13		MBO 7	14
15		MBO 6	16
17	DCH MO (IO)	MEM 15	18
19		STROBE	20
21	DCH M1 (IO)	MEM 6	22
23		MEM 7	24
25		MEM 5	26
27		MEM 4	28
29	INTR (IO)	TINHBIT	30
31		MBO 5	32
33	DCHO (IO)		34
35	DCHR (IO)		36
37	DCHI (IO)		38
39	OVFLO (IO)		40
41	ROENB (IO)	MBO 4	42
43	MBO 3	MBO 2	44
45	INH TRANS	+V MEM	46
47	MEM 2		48
49		GND	50
51			52
53			54
55	DATA 7 (IO)	DATA 14 (IO)	56
57	DATA 5 (IO)	DATA 11 (IO)	58
59	DATA 12 (IO)	DATA 8 (IO)	60
61	DATA 4 (IO)	DATA 6 (IO)	62
63	DATA 9 (IO)	DATA 13 (IO)	64
65	DATA 1 (IO)	DATA 15 (IO)	66
67		MEM 3	68
69		MEM 1	70
71	MEM 0	RELOAD DISABLE	72
73	DATA 3 (IO)	MB LOAD	74
75	DATA 10 (IO)	MEM 14	76
77	MBO 1		78
79	MBO 0	EXT SELECT	80
81	-5V (PS)	DATA 2 (IO)	82
83	READ IO	+15V (PS)	84
85	SELECT	MB CLEAR	86
87	READ I	DRIVE IO	88
89	GND	READ 2	90
91		GND	92
93			94
95	DATA 6 (IO)		96
97	+5V (PS)	+5V (PS)	98
99	GND	GND	100

DENOTES MICROFILMED REVISIONS									
SYM	ZONE	DESCRIPTION			DATE	APPROVED			
A		ADDED "READ IO" TO B83 & DRIVE IO TO B88 ECN 3003			11-1-76	H.R.P.			

NOTE: Signal lines connected to the control panel are designated (CP) while those lines connected to the power supply are designated (PS). Signals appearing on the I/O bus are labeled (IO).

NOTE: Signal lines connected to the control panel are designated (CP), while those lines connected to the power supply are designated (PS). Signals appearing on the I/O bus are labeled (IO).

KME 28 / 380 4 15 905314

G6	G5	G4	G3	G2	G1	ITEM NO.	SIZE	PART NO.	DESCRIPTION	M / P	U OF M
QUANTITY PER GROUP						DRAWING NO.					

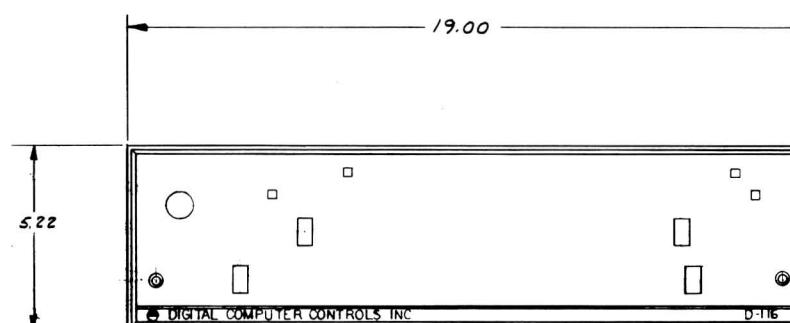
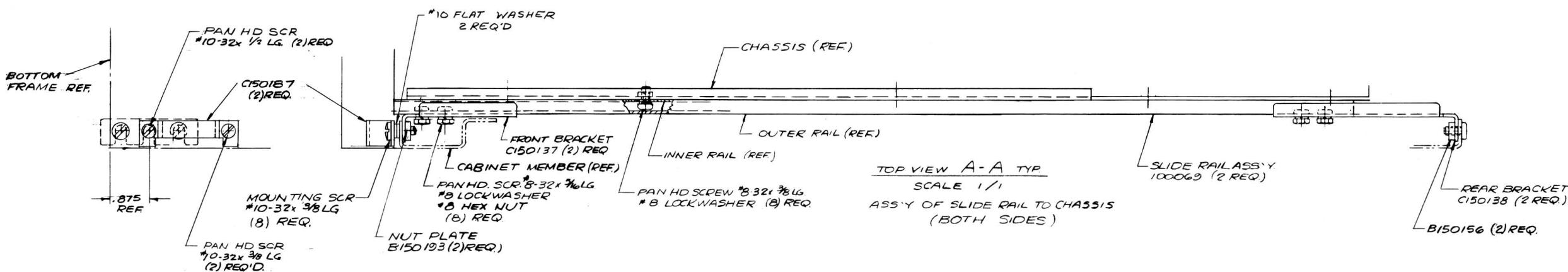
LIST OF MATERIAL

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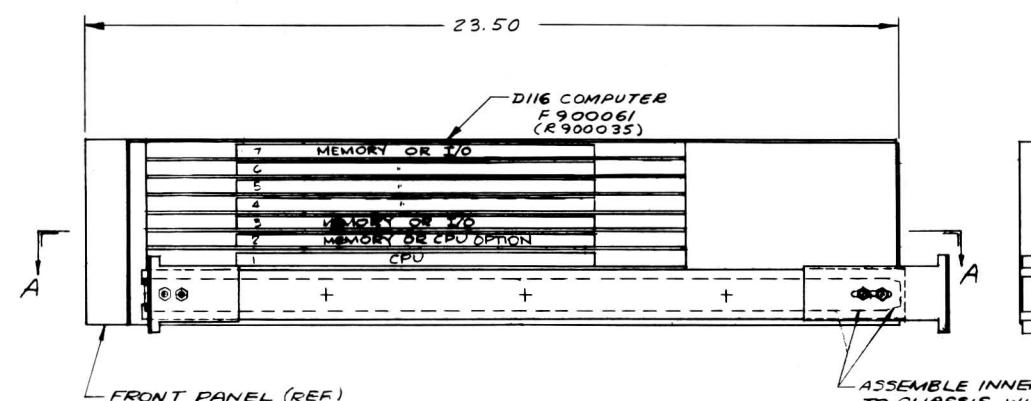
DIGITAL COMPUTER CONTROLS, INC.
FAIRFIELD, NEW JERSEY 07006

UNLESS OTHERWISE SPECIFIED	APPROVAL	DATE
DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APP COAT OR PLATED FINISHES	DR. C.G.	6/23/77
ERANCES	CHK.	
1 PLACE DECIMALS ± .01	ENG.	
2 PLACE DECIMALS ± .005	APP'D.	
ANGLES ± 1/2°	MAT'L.	
HOLE DIAMETER TOLERANCE	FINISH	
O THRU 250 .000 + .000 -.000	SIZE	C
.003 + .002 -.002	REV	A
BOI & LARGER		
+ .010 -.008		
THREADS: EX	SCALE	SHEET 2 OF 2
2A - NT CL 2B		

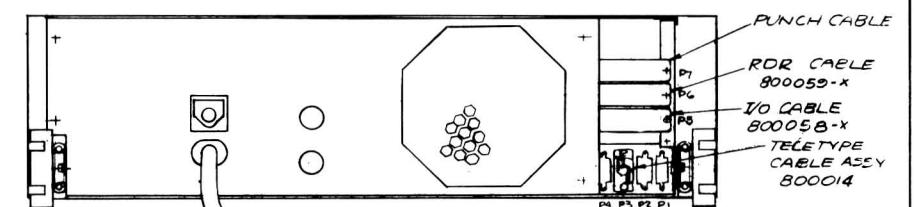
DENOTES MICROFILMED		REVISIONS	
ITEM NUMBER	DESCRIPTION	DATE APPROVED	APPROVING OFFICER
A	REVISED/MOD 0020 66-348772 PN 150/156 QTY WAS 4. PN 150/87 WAS 150/38 PER ECN 2258 BR 9-5-74	9-30-74	MM
B			MM
C	10-32 1/4" x 10-32 x 1/8" SCR WERE FILLISTER HEAD 10 MTR LONG QTY WAS 4. #32-14 PART HDS CR #WASH QTY WAS 7 ADDED 2 1/4" IN WASHERS BETWEEN BRACKET PN150187 & CABINET MEMBER ECN 2533 <i>Hand</i> 10-27-76	11-17-76	MM



FRONT VIEW



SIDE VIEW



REAR VIEW

G4	G5	G4	G3	G2	G1	ITEM NO.	SIZE DRAWING NO.	PART NO. DRAWING NO.	DESCRIPTION	M P	U D M P
QUANTITY PER GROUP						LIST OF MATERIAL					

LIST OF MATERIAL

DIGITAL COMPUTER CONTROLS, INC.

		APPROVAL		DATE	
UNLESS OTHERWISE SPECIFIED		DR. <i>S. Scialo</i>		5-3-72	
DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES		CRL. <i>J. L. Clegg</i>		5-5-72	
TOLERANCES		ENG. <i>J. G. Conroy</i>		5-5-72	
2 PLACES DECIMALS		APPR'D <i>J. G. Conroy</i>		5-5-72	
± .005		MTL. <i>J. G. Conroy</i>		5-5-72	
HOLD TOLERANCE		SPEC. <i>J. G. Conroy</i>		5-5-72	
3 TOLERANCES + .005 + .005 + .005		TYP. <i>J. G. Conroy</i>		5-5-72	
+ .010 + .010 + .010		LAD. <i>J. G. Conroy</i>		5-5-72	
+ .010 + .010 + .010		FINISH <i>J. G. Conroy</i>		5-5-72	
MATERIALS COPPER THERM. COUP. PLATE THERM. COUP. PLATE THERM. COUP. PLATE		MANUFACTURER THERM. COUP. PLATE THERM. COUP. PLATE THERM. COUP. PLATE		5-5-72	
NEXT AMT.		NBR. 100		ITEM NO. 100	
				F 950003 C	

DENOTES MICROFILMED		REF	DATE APPROVED
A	REVISED ECR 0020	CC 5/2/77	5/14/77
B	#10-32 X 1/4 & #10-32 X 3/8 SCRS WERE FILLISTER HD ADDED & 3/10 WASHERS ECR 2333	10-29-76	1/16

