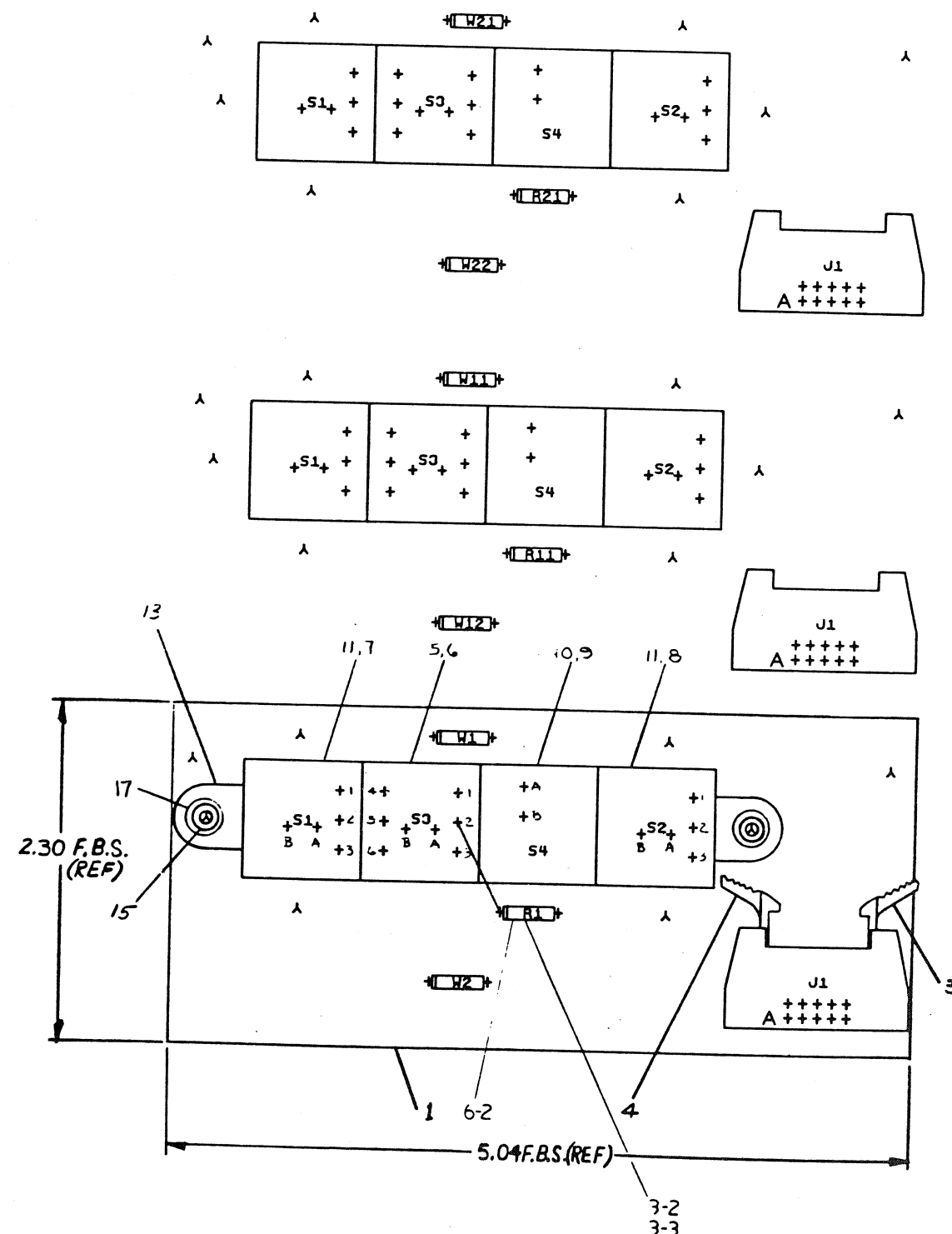


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REVISED © 1976 DIGITAL EQUIPMENT CORPORATION

1 2 3 4 5 6 7 8
DUA 5411846-0-0 J

COMPONENT SIDE VIEW



NOTES:

ALL MANUFACTURING INFORMATION DATE - - -
CIRCUIT SCHEMATIC, REL. QUALITY CONTROL STAMPS,
ETC. ARE TO BE STAMPED ON EACH SIDE (SIDE 2) OF
MODULE.

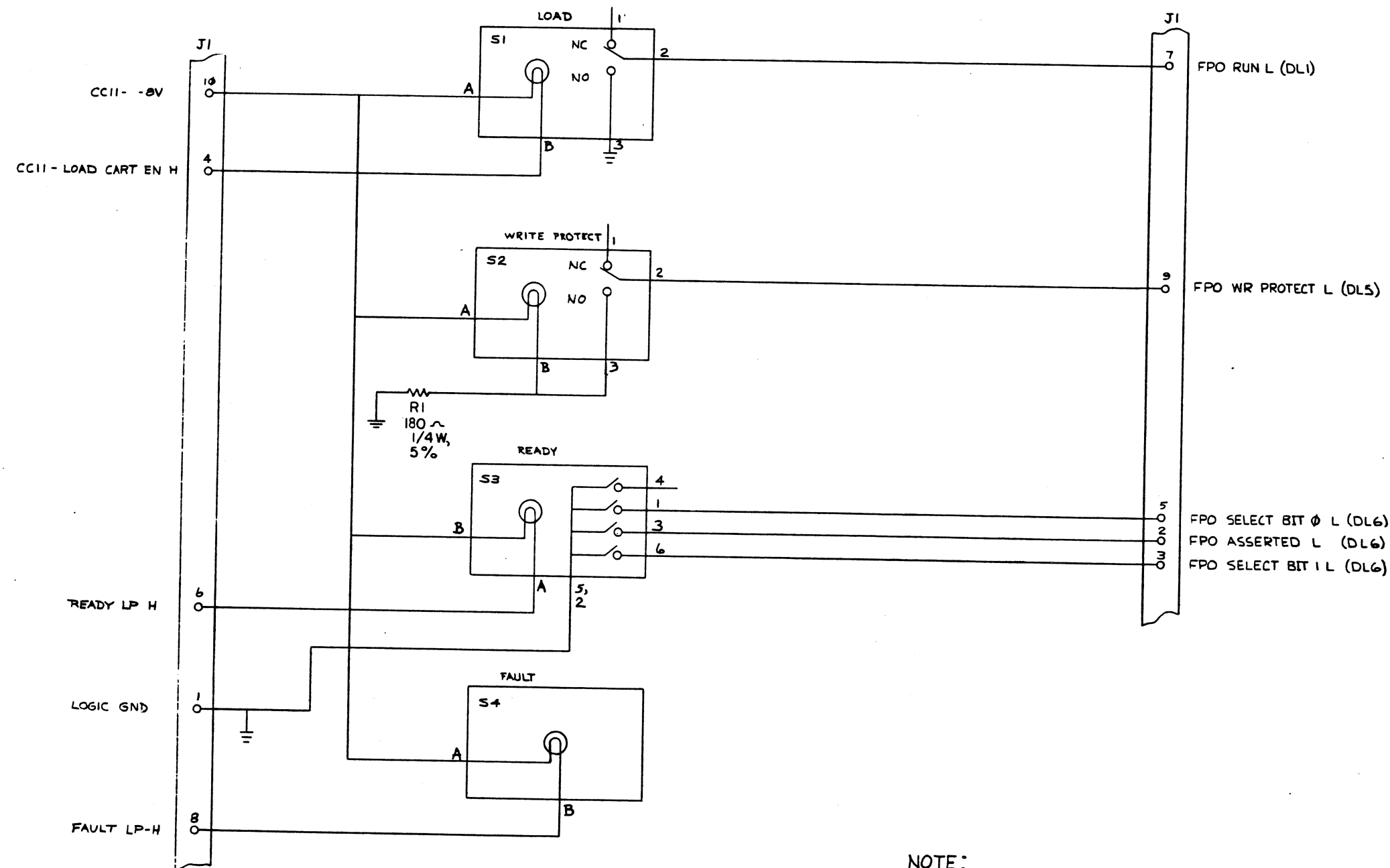
CHG	NO	REV	E	F	H	J
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2	1	1	1	1	1	1
3	1	1	1	1	1	1
4	1	1	1	1	1	1
5	1	1	1	1	1	1
6	1	1	1	1	1	1
7	1	1	1	1	1	1
8	1	1	1	1	1	1

ETCH REV. D
P.C. DESIGN DATA BASE REV. D

SIGNATURES	DATE	TITLE
DRM. M. J. J.	11/5/76	digital
CHK'D. P. J. J.	11-77	FRONT PANEL
ENG. J. J. J.	11-77	
PROJ. ENG. J. J. J.	11-77	
PROD. J. J. J.		
SCALE 2/1		
SHT. 1 OF 3		
NEXT HIGHER ASSY. B-DD-5411846-0		

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5411846-0-1
K
CS 5411846-0-1
2



NOTE:
1. ALL LAMPS ARE GE-73 TYPE

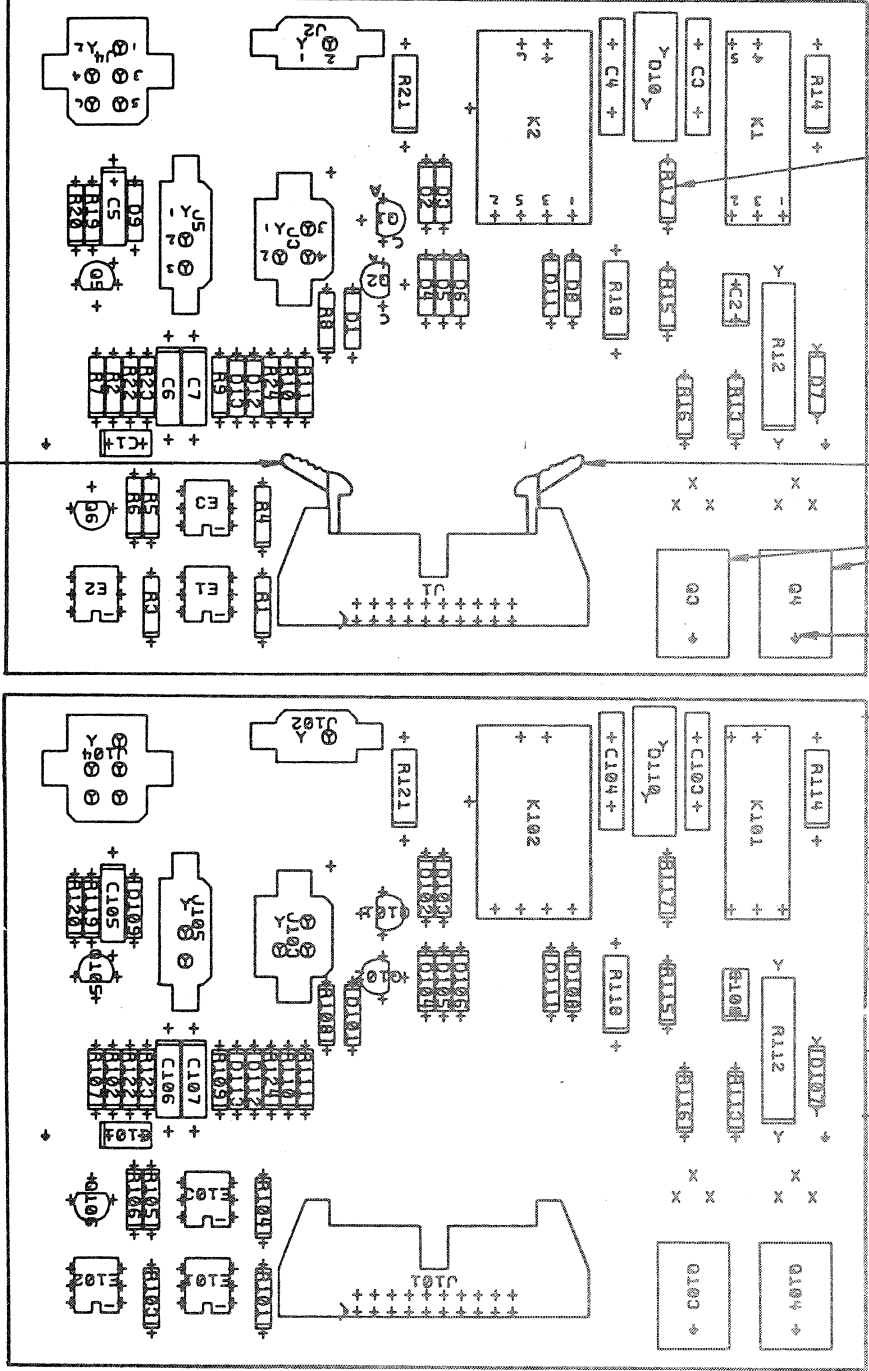
REV.	CHANGE NO.	DATE	BY	CHK'D	APP'D
E	5411846-0-001	1-11-77	G. REICHENBERG		
F	5411846-C2002	3-7-77	G. REICHENBERG		
H	5411846-C2003	3-10-77	M. ZARICH		
J	5411846-C2005	3-10-77	M. ZARICH		
K	5411846-C2006	3-10-77	M. ZARICH		

DRN. <i>H. Karp</i>	275076	FIRST USED ON	<i>1-11-77</i>
CHK'D <i>B. Smith</i>	1-11-77	TITLE	FRONT PANEL
ENG. <i>B. Smith</i>	3-7-77	SCALE	1 OF 1
PROJ. ENG. <i>701</i>	3-10-77	SHEET	1 OF 1
PROD. <i>701</i>	3-9-77	SIZE	D
NEXT HIGHER ASSY.		CODE	CS
		NUMBER	5411846-0-1
		REV.	K

NOTES:	
1.	8 HOLES (+0.008-0.015) MOUNTED ONLY
2.	U/L APPROVAL REQUIRED
3.	REWORK INSTRUCTIONS:
1.	REMOVE R17 (330R 1/4W, 5%)
2.	INSTALL R17 (330R 1/2W, 5%)

CHANGE NO. REV.	
1	1
2	1
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99	1
100	1

SUPERFICIAL REF. DESIGNATORS	
C102, C3, C4, C5, C6, C7	D102, D3, D4, D5, D6, D7, D8, D9, D10
D101, D102, D103, D104, D105, D106, D107, D108, D109, D110, D112	D11, D12, D13
E101, E102, E103	K101, K102, K103
J101, J102, J103, J104, J105	Q102, Q3, Q4, Q5, Q6
Q101, Q102, Q103, Q104, Q105, Q106	R101, R102, R103, R104, R105, R106, R107, R108, R109, R110, R111, R112
R113, R114, R115, R116, R117, R118, R119, R120, R121, R122	R20, R21, R22



SEE NOTE 3

40, 41, 42
3-1
3

ETCH REV.	
E-P2	E-P2
P.C. DESIGN DATA BASE REV.	
SIGNATURES	
DATE	CHK. D.
ENC.	PROJ. ENG.
PROJ. ENG.	SCALE 2/1
SCALE 2/1	SHIT. 1 OF 4
SIZE CODE	REV. 1
NUMBER	REV. 1
5411848-0-0	REV. 1
1 MS#260285	REV. 1

DUA5411848-0-0 F

COMPONENT SIDE VIEW

DUA5411848-0-0 F

P A R T S L I S T

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1	D-MD-5011847-0-0	5011847-00	ETCH CRKT BRD	1	
2	2		1011683-00	.022 MFD 50V 10% 2C067 CER.	1	C1
3	3		1012312-01	.47 MFD 50V XZ	1	C2
4	4		1013682-00	.1 MFD 500V +80 -20% CER.	2	C3,C4
5	5		1001776-00	1 MFD 35V 10% S.TANT	2	C5,C7
6	6		1110856-00	1N 970B VZ= 24.0 5% .40W Y	1	D1
7	7		1111577-00	1N 4454 TR= 4NS PIV= 50 S	10	D2-D6,D8,D9,D11-D13
8	8		1105796-00	1N 4004 PIV=400 I= 1A D041 SP	1	D7
9	9		1510727-01	OPTO COUPLED ISOLATOR	3	E1-E3
10	10		1213917-00	RLY,REED 5V COIL,DPDT	1	K2
11	11		1213915-00	RLY,REED, 5V COIL,SPDT	1	K1
12	12		1110997-00	VP 130A10 VOLT. SUPPRESS.130VAC	1	D10
13	13		1209941-06	HEADER.100 20POS RT ANGLE	1	J1
14	14		1213922-00	HEADER 2POS	1	J2
15	15		1213922-01	HEADER 3POS	1	J5
16	16		1213922-03	HEADER 4POS	1	J3
17	17		1213922-04	HEADER 6POS	1	J4
18	18		1300315-00	470 1/2W 5% CC	2	R14,R21
19	19		1300271-00	220 1/4W 5% CC	3	R1,R3,R4
20	20		1311220-00	5.1 1/2W 5% CC	1	R18
21	21		1301327-00	68 K 1/4W 5% CC	1	R6
22	22		1302466-00	100 K 1/4W 5% CC	2	R5,R8
23	23		1300444-00	3.9 K 1/4W 5% CC	1	R20
24	24		1314516-00	200 K 1/4W 5% CC	2	R7,R23
25	25		1300496-00	15 K 1/4W 5% CC	1	R10
26	26		1300479-00	10 K 1/4W 5% CC	2	R11,R24
27	27		1300482-00	10 K 2W 10% CC	1	R12
28	28		1312927-00	16 1/4W 5% CC	2	R15,R16
29	29		1314649-00	430 K 1/4W 5% CC	1	R22

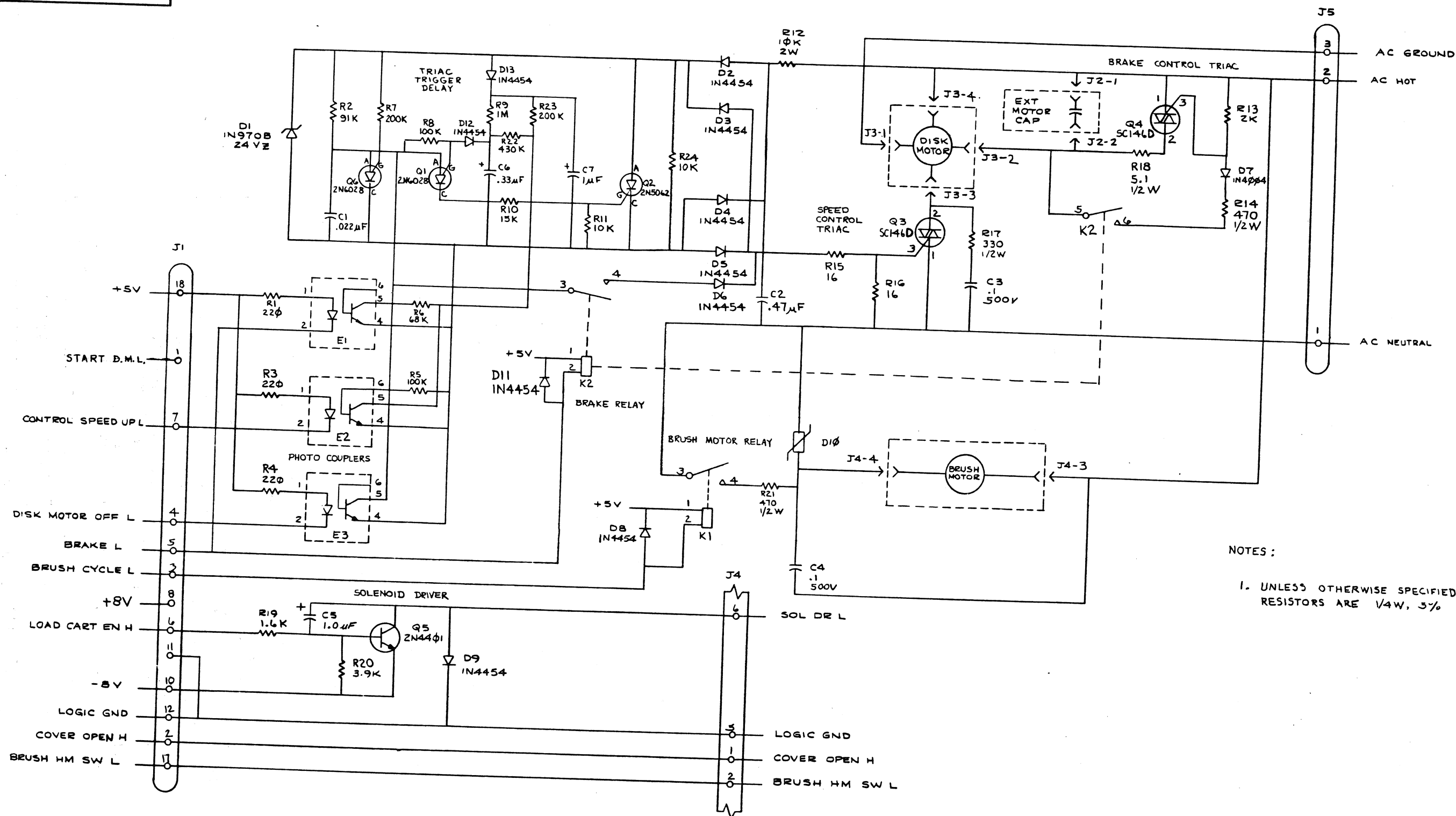
REVISION HISTORY		BASIC PART NO: 5411848		DRN: H. RICHER	DATE: 23 MAR 76	D I G I T A L			
ENG: ECO NUMBER	REV	SECTION A OF A	CHK'D: P. BURNELL	DATE: 10 JAN 77	TITLE PARTS LIST				
INITIAL	E	SECTION VARIATION INDEX	DES.ENG: P. BADUM	DATE: 7 JUN 77	AC SERVO				
MZ 5411848-CZ003	F	[A] 00	RESP.ENG.: P. BADUM	DATE: 7 JUN 77	DOCUMENT NUMBER				
		[B]	MFG.ENG.: D. LESAGE	DATE: 7 JUN 77	SIZE	CODE	NUMBER	REV	
		[C]	ASSEMBLY NUMBER:		K	PL	5411848-0-DBP	F	
		[D]	D-UA-5411848-0-0		FILE NAME:			EDIT #	
		[E]			Z0491.PLS			3	
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		[G]	COPYRIGHT (C) 1979. DIGITAL EQUIPMENT CORPORATION						

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
				00	

30	1300296-00	330	1/2W	5%	CC	1	R17
31	1302388-00	2	K 1/4W	5%	CC	1	R13
32	1309595-00	1	M 1/4W	5%	CC	1	R9
33	1303176-00	1.6	K 1/4W	5%		1	R19
34	1209941-03	HEADER	RT ANGLE LEFT L			1	J1
35	1209941-04	HEADER	RT ANGLE,RIGHT			1	J1
36	1510877-00	2N 6028	UJT 300MW	R67B		2	Q1,Q6
37	1110968-00	2N 5062	SCRQ100V	I=.8A 1092		1	Q2
38	1510070-00	1510070-00	TRIACQ400V,I>	8A #RCA40669 M		2	Q3,Q4
39	1513489-00	2N 4401	NPN 350MW	SI 40 20		1	Q5
40	9006557-00	NUT,KEP	4-40X 1/4 AF			2	Q3,Q4
41	9006010-01	SCREW,PAN ,PHIL,	4-40X 5/16			2	Q3,Q4
42	9006655-00	WASHER, FLAT,	.312 O.D. X .125 I			2	Q3,Q4
43		*** THIS ITEM IS NOT USED ***				-	
44	1000002-04	.33	MFD 35V 10%	.150D S.1A		1	C6
45	1314650-00	91	K 1/4W	5%	CC	1	R2

D	I	G	I	T	A	L	AC SERVO	SECTION A OF A	K	PL	5411848-0-DBP	F	
TITLE											SIZE CODE	DOCUMENT NUMBER	REV

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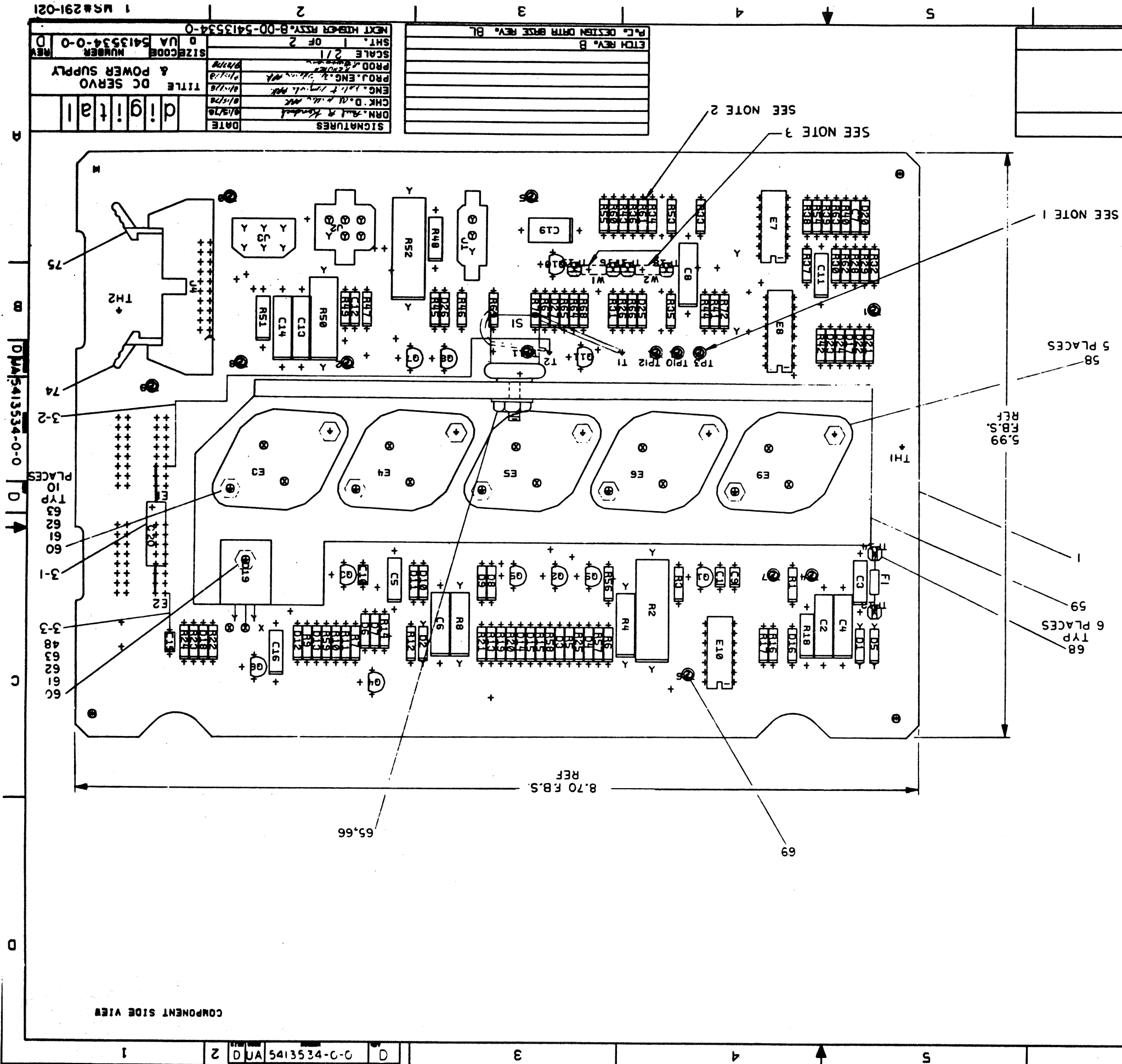
NOTES:
1. UNLESS OTHERWISE SPECIFIED:
RESISTORS ARE 1/4W, 5%

REV.	U	D	E	F
1	RELEASED AT REV C EQUAL TO CI PLUS FIELD SERVICE AMMO- TATION	5411848-0001 PHILIP BURNELL C. FISHBERG	5411848-0002 P. BURNELL M. ZARICH	5411848-0003 M. ZARICH M. ZARICH

DRN. D. W. 8/14/70	FIRST USED ON	RLO	TITLE
CHK'D. P. B. 1-14-71			
ENG. P. B. 1-14-71			
PROJ. ENG. 9/24/71			
PROD. 2/18/72			
NEXT HIGHER ASSY.			
D-VA-5411848-0-0	SIZE CODE	NUMBER	REV.
SCALE 1	D CS 5411848-0-1	F	
SHEET 1	OF 1		

1. TP3, TP11, TP12 & TP15 THRU TP19 TO BE MOUNTED ON SIDE 2.
2. R60 AND R61 ARE TO BE INSTALLED AFTER FINAL TEST.
3. INSTALL W1 AND W3 FOR RL01, INSTALL W2 ONLY FOR RL02.
W1 & W2 ARE LOCATED ON SIDE 2.

NOTES:



COMPONENT SIDE VIEW

AUTOMATED BY PRTLST.2E(2)

P A R T S L I S T

SHEET A1 OF A3

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1	D-MD-5013533-0-0	5013533-00	ETCHED CIRCUIT BOARD	1
2	2		1013466-08	680.0 MMF 50V 10% X7R CER	1
3	3		1016009-00	2200.0 MMF 50V 5% CER	1
4	4		1001610-00	.01 MFD 50V +80-20% 25U CER	4
5	5		1002630-00	.015 MFD 100V 10% MYLR	1
6	6		1013466-11	.22 MFD 50V +80-20% 25U CER	4
7	7		1005306-00	6.8MFD 35V 10% S.TANT	4
8	8		1000076-00	39 MFD 10V 10% S.TANT	1
9	9		1309422-00	5.10 .25 W 5.0 % CC	1
10	10		1312929-00	62.0 .25 W 5.0 % CC	2
11	11		1311523-00	110.0 .25 W 5.0 % CC	1
12	12		1300247-00	120.0 .25 W 5.0 % CC	1
13	13		1300271-00	220.0 .25 W 5.0 % CC	1
14	14		1301425-00	300.0 .25 W 5.0 % CC	1
15	15		1303178-00	620.0 .25 W 5.0 % CC	1
16	16		1300365-00	1.0 K .25 W 5.0 % CC	5
17	17		1300391-00	1.50 K .25 W 5.0 % CC	1
18	18		1302388-00	2.0 K .25 W 5.0 % CC	2
19	19		1300426-00	2.70 K .25 W 5.0 % CC	2
20	20		1302389-00	4.30 K .25 W 5.0 % CC	1
21	21		1300447-00	4.70 K .25 W 5.0 % CC	10
22	22		1303179-00	8.20 K .25 W 5.0 % CC	3
23	23		1300488-00	12.0 K .25 W 5.0 % CC	4
24	24		1305346-00	27.0 K .25 W 5.0 % CC	1
25	25		1305131-00	*** THIS ITEM IS NOT USED ***	-
26	26		1312923-00	2.10 K .25 W 1.0 % RN55D-F10	1
27	27		1305114-00	3.48 K .25 W 1.0 % RN55D-F10	1
28	28		1314763-00	4.12 K .25 W 1.0 % RN55D-F10	1
29	29		1303312-00	10.0 K .25 W 1.0 % RN55D-F10	3

CONT

R10-R12,R14,R15,R19,R20,R24,R49,
R68
R9,R16,R17
R25,R26,R45,R56
R21
R41
R34
R36
R28,R29,R62

REVISION HISTORY		BASIC PART NO: 5413534		DRN: JERRY BEST	DATE: 26-JUL-78	D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: JERRY BEST	DATE: 26-JUL-78	TITLE PARTS LIST	
INIT		A	SECTION VARIATION INDEX	DES.ENG: R. NOGUCHI	DATE:	D.C. SERVO AND POWER SUPPLY	
BN	5413534-CZ001	B	[A] 00	RESP.ENG.: R. NOGUCHI	DATE: 26-JUL-78	DOCUMENT NUMBER	
MZ	5413534-CX003	C	[B]	MFG.ENG.: P. CHURCH	DATE:	SIZE CODE NUMBER REV	
			[C]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	FILE NAME: EDIT #	
			[D]	D-UA-5413534-0-0	RL02	Z0494C.PLS 18	
			[E]	THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.			
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			[G]				
			[H]				
			[I]				
			[J]				
			[K]				
			[L]				
			[M]				
			[N]				

QTY PER VARIATION
REFERENCE DESIGNATOR

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
30	1312924-00	10.70 K	.25 W 1.0 % RN5SD-F10	1	R32
31	1309412-00	18.20 K	.25 W 1.0 % RN5SD-F10	1	R33
32	1315436-00	52.30 K	.25 W 1.0 % RN5SD-F10	1	R54
33	1304843-00	243.0 K	.25 W 1.0 % RN5SD-F10	1	R72
34	1315437-00	237.0 K	.25 W .10 % RN5SD-F10	1	R38
35	1302378-00	51.0	.50 W 5.0 % CC	1	R51
36	1300364-00	1.0 K	.50 W 5.0 % CC	2	R18,R48
37	1314068-00	360.0	1.0 W 5.0 % CC	1	R4
38	1300368-00	1.0 K	1.0 W 5.0 % CC	1	R8
39	1301494-00	200.0	2.0 W 5.0 % CC	1	R50
40	1313358-00	.20	5.0 W 3.0 % WM	2	R2,R52
41	1105796-00	1N 4004	FIV=400 I=1A D041 SF	3	D1,D2,D5
42	1113953-00	1N 5523D	VZ= 5.1 1%	8	D4,D6,D8,D9,D16,D18,D21,D22
43	1109990-00	1N 757A	VZ= 9.1 5% .40W F	2	D23,D24
44	1110994-00	1N 751A	VZ= 5.1 5% .40W	1	D14
45	1114117-00	1N 4152	FIV=450 I=75M	6	D3,D7,D10,D11,D12,D13
46	1111577-00	1N 4454	TR= 4NS FIV= 50 S	6	D15,D17,D20,D25-D27
47	1513698-00	TRIACQ200V,I>14A		1	D19
48	9009597-00	INSULATOR, THERMA-FILM		1	Q2,Q4,Q8,Q9
49	1513489-00	2N 4401	NPN 350MW SI 40 20	4	Q1,Q3,Q5-Q7,Q11
50	1513490-00	2N 4403	NPN 350MW SI-40 30	6	E4,E6
51	1511282-00	MJ2500	PMP 150WC SI 60 5 1K 5A	2	E3
52	1511349-00	TIP 640 (OR MJ3000)	NPN DARLINGT	1	E8
53	1911706-00	5012	ANALOG SWITCH,4CHNL	1	E10
54	1912818-00	LS38	NAND BUFFER-QUAD 2IN	1	E7
55	1912107-01	324AND	AMP,QUAD	1	E9
56	1913695-00	7808	VOLT REG,FIX +8V	1	E5
57	1913694-00	7908	VOLT REG,FIX -8V	1	
58	9008419-00	WASHER, FLAT, THERMAFILM .002THK		5	
59	7418595-00	HEATSINK ASSEMBLY		1	
60	9008033-01	SCREW,PAN,PHIL 4-40X 9/16 SS		11	
61	9006557-00	NUT,KEP , 4-40X 1/4 AF		11	
62	9006655-00	WASHER, FLAT, .312 O.D. X .125 I		11	
63	9008268-00	COMPOUND, THERMAL JOINT		A/R	
64	1210824-00	THERMOSTAT,00215,C0156,SFST,NORM		1	S1
65	9008185-00	NUT,KEP , 6-32X1/4 AF		1	
66	9006653-00	WASHER, FLAT, .375 O.D. X .156 I		1	
67	1205747-00	FUSE, SUB-MINI, 5.000A, 125V, A		1	F1
68	9006735-00	EYELET, FUNNEL FLANGE, .059 OD X		6	TF13-TF18
69	9007791-00	TERM PCB 2POS SOLDER,TURKRET		13	TF0-TF12
70	1213922-01	HEADER 3POS		1	J1
71	1213922-04	HEADER 6POS		1	J2
72	1213900-00	CONN,RCP1 6POS		1	J3
73	1209941-06	HEADER,100 20POS RT ANGLE		1	J4
74	1209941-04	HEADER RT ANGLE,RIGHT		1	
75	1209941-03	HEADER RT ANGLE LEFT L		1	
76	1305324-00	4.99 K	.25 W 1.0 % RN5SD-F10	2	R37,R30
77	1300250-00	150.0	.25 W 5.0 % CC	1	R42

SIZE CODE | DOCUMENT NUMBER | REV
K | PL | 5413534-0-DBP | C

AUTOMATED BY PRTLST.2E(2)

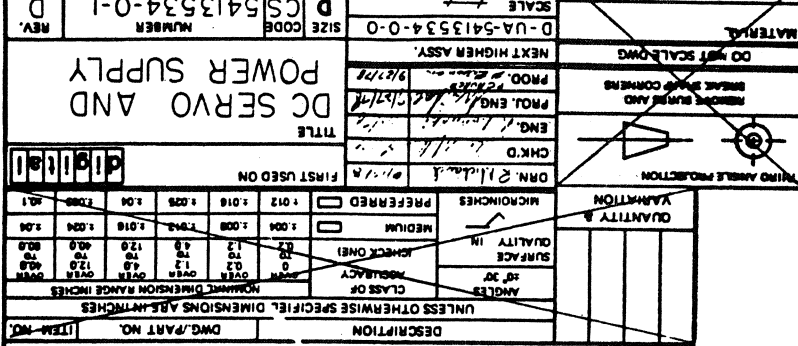
P A R T S L I S T

SHEET A3 OF A3

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
78	78		1312618-00	16.90 K .25 W 1.0 % RN55D-F10	1	R40
79	79		1300229-00	100.0 .25 W 5.0 % CC	1	R63
80	80		1305336-00	*** THIS ITEM IS NOT USED ***	-	
81	81		1309416-00	31.60 K .25 W 1.0 % RN55D-F10	1	R65
82	82		1002781-00	100 MFD 25V +75-10% AL EL	1	C20
83	83		9009185-00	JUMPER, WIRE, INSULATED, BLACK B	2	W1,W2
84	84		1303044-00	100.0 K .25 W 1.0 % RN55D-F10	1	R64
85	85		1015574-00	*** THIS ITEM IS NOT USED ***	-	
86	86		1315435-00	25.50 K .25 W 1.0 % RN55D-F10	1	R66
87	87		1312930-00	5.10 K .25 W 5.0 % CC	1	R67
88	88		1015520-00	1 MFD 100V 5% MET. MYLR	1	C19
89	89		1513697-00	2N 5640 FET N CHNNL	1	G10
90	90		1300479-00	10.0 K .25 W 5.0 % CC	1	R69
91	91		1302466-00	100.0 K .25 W 5.0 % CC	1	R70
92	92		9105740-55	WIRE(WRAP)30AWG UL1423	A/R	

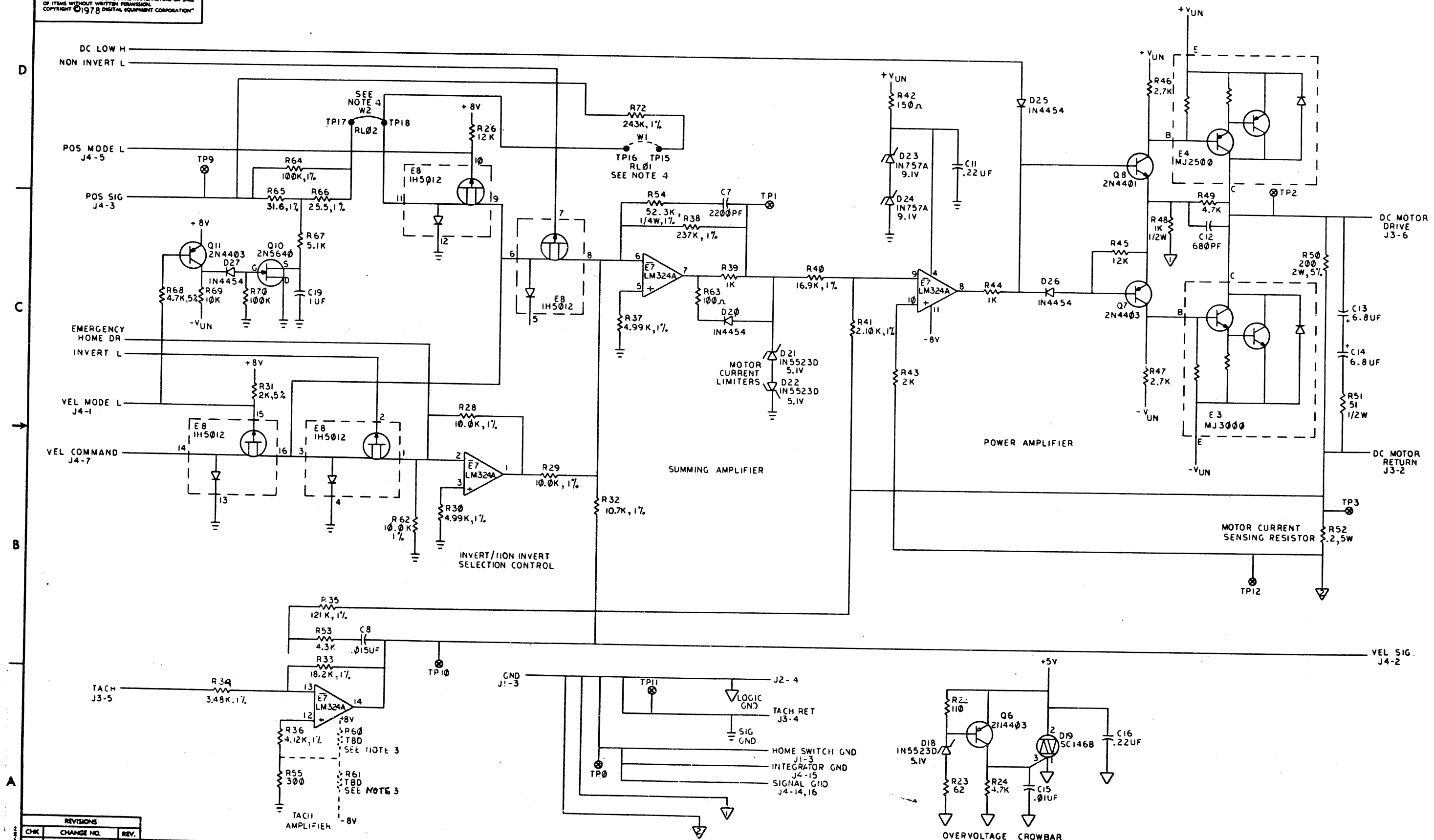
D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							D.C. SERVO AND POWER SUPPLY		K	FL	5413534-0-DBP	C

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NOTES:

1. ALL RESISTORS TO BE 1/4W, 5%; UNLESS OTHERWISE SPECIFIED.
2. ~~E1 AND E2 ARE SPARES.~~
3. VALUE OF R60 OR R61 WILL BE DETERMINED IN TESTING.
4. INSTALL W1 AND W2 FOR R102 ON SIDE 2. ONLY FOR R102 ON SIDE 2.



REVISIONS		
CHK	CHANGE NO.	REV.