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# FIELD MAINTENANCE PRINT SET

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RL02 Disk Drive Assembly  
Power Panel Assembly

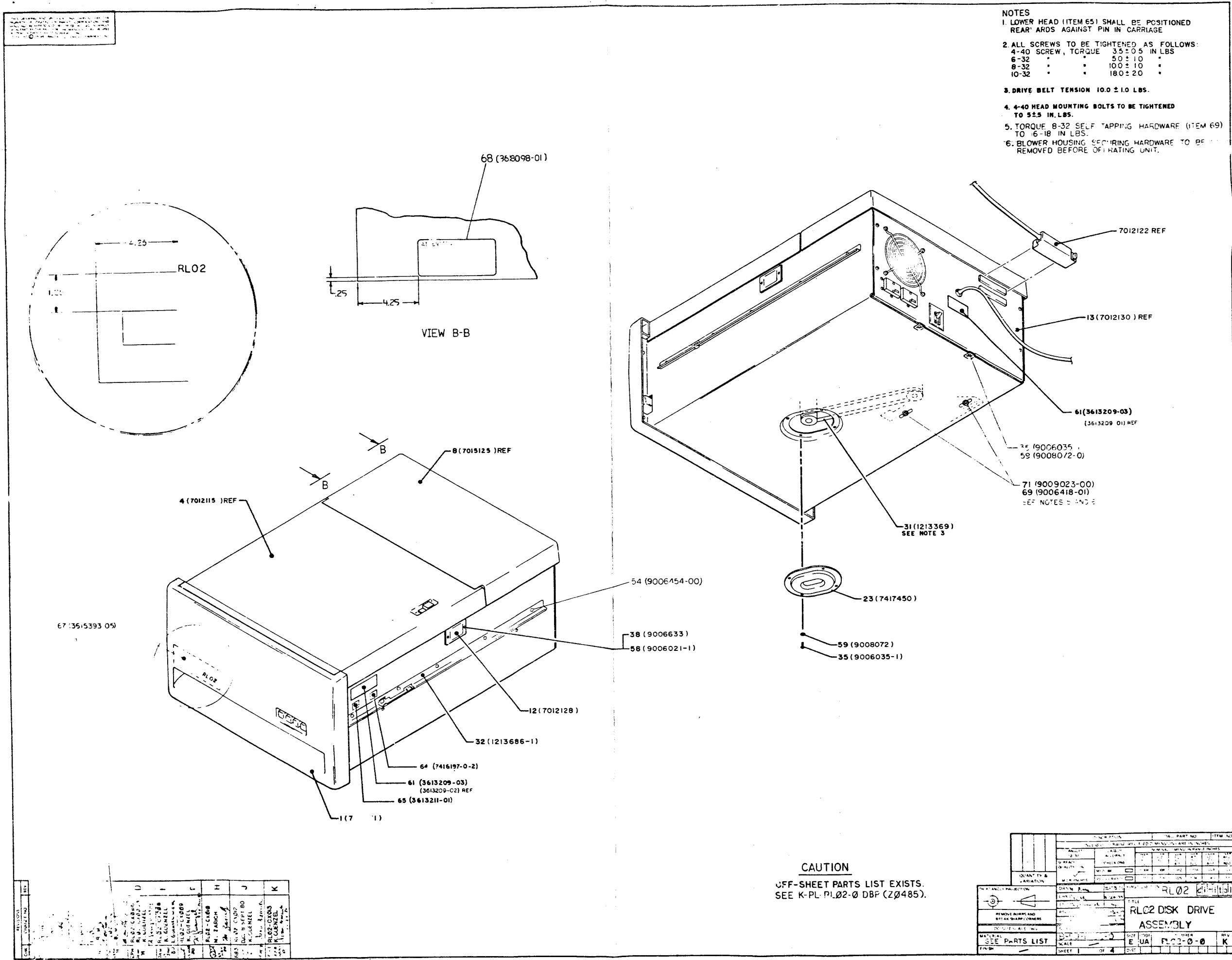
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K-PL-7012130-0-DBP

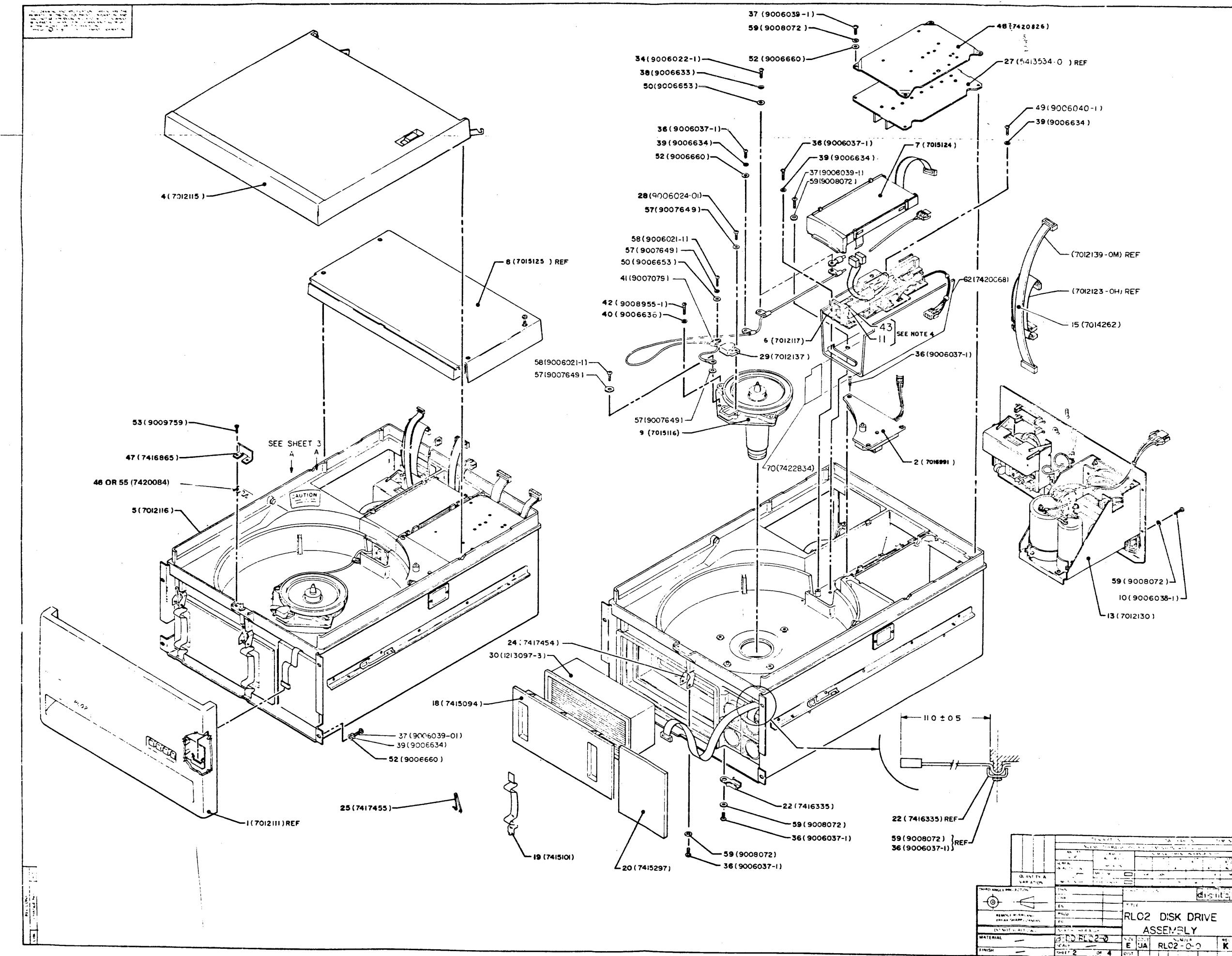
UNIT VARIATIONS  
COVERED BY THIS  
PRINT SET

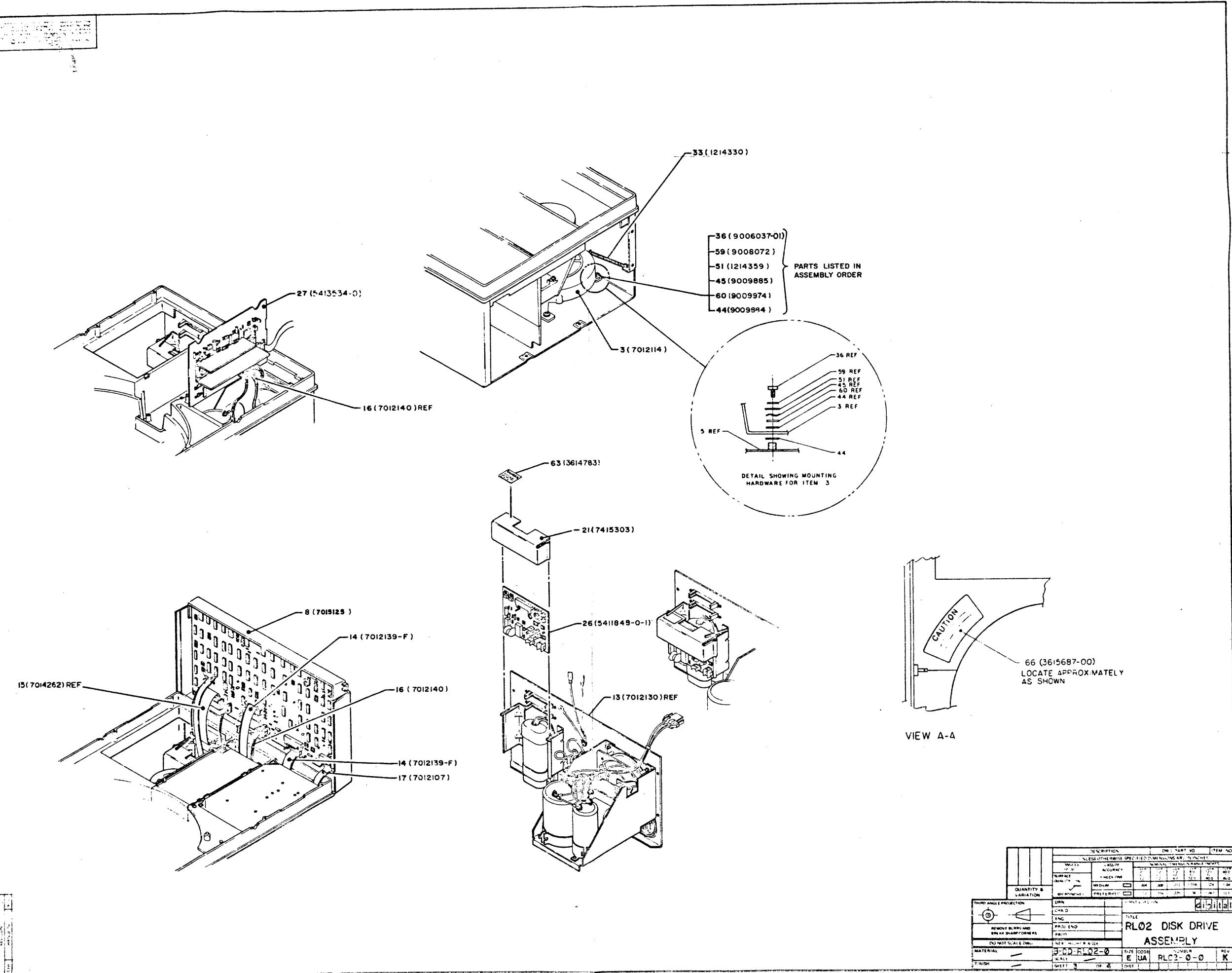
RL02  
Field Maintenance  
Print Set

Digital Equipment  
Corporation  
PRINT SET NO.  
MP00553

REVISIONS	CHG. NO.	REV.	DATE	USED ON OPTION/MODEL	DRN.	DATE	TITLE:	SIZE	CODE	NUMBER	REV.
	RL02-CX005	A	RPM-1 23 Aug 79	B.MILLER B.MILLER RL02-CX007 K.GUENZEL 7X.Sun-req	R.Lichard	21 Sep 78	RL02 DISK DRIVE			digital	
			RPM-1 28 Nov 79		CHK'D	DATE					
					W.Mair	6 Jun 79					
					PROJ. ENG.	DATE					
					M.A.Lohr	6-6-79					
					FIELD SERV.	DATE					
				SHEET 1 OF 1	Clay Morse	6 Jun 79	RL02-0-1	B	TC		B
					DIST.						





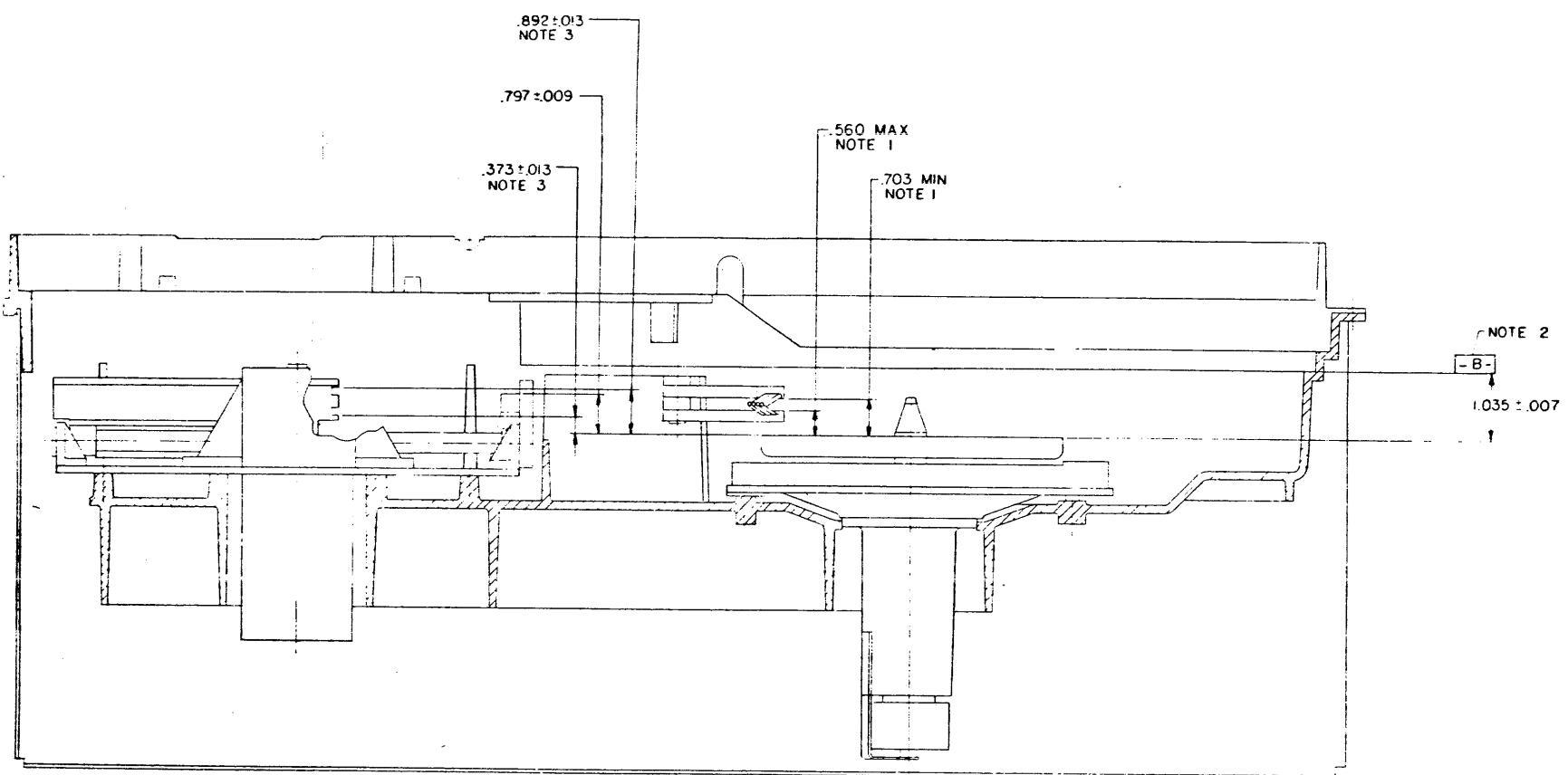


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NOTES: (THIS SHEET ONLY)

1. DIMENSION APPLIES TO HIGHEST OR LOWEST POINT ALONG BRUSH ARM OR BLOCK OF BRUSH.
2. 3. TOOLING POINTS SEE DRAWING 7416846 OR 7415237.
3. DIMENSION HAS TO BE WITHIN .004 AT BOTH EXTREMES OF CARRIAGE TRAVEL.

DESCRIPTION		ITEM PART NO	ITEM NO
UNLESS OTHERWISE SPECIFIED, REFER TO DRAWINGS			
AMOUNT	CLASS OF		
1	ACCURACY		
QUANTITY	INSPECTION		
1	QUALITY		
QUANTITY	METHOD		
1	MANUFACTURE		
QUANTITY	TEST		
1	TEST		
THIRD ANGLE PROJECTION		FIRST ANGLE ON	
DRAWN BY		CHECKED BY	
END		END	
PROJ. END		TITLE	
END		RLO2 DISK DRIVE ASSEMBLY	
MATERIAL		DATE 10/10/84	
FINISH		REV K	

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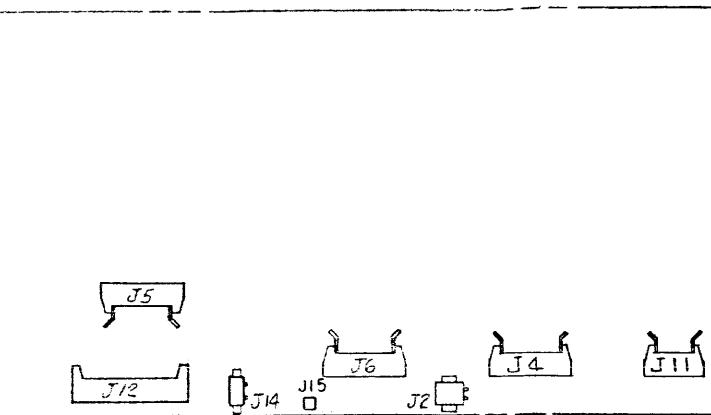
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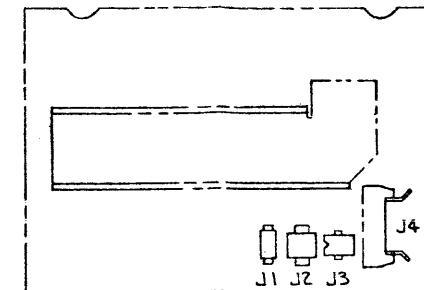
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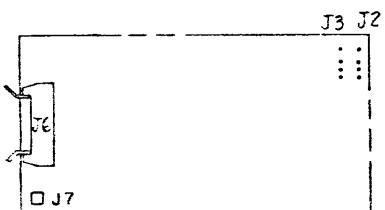
LOGIC BOARD

FIG 1



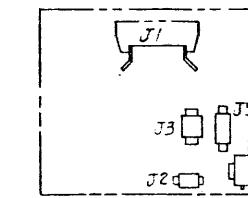
D.C. SERVO BOARD

FIG 4



R/W BOARD

FIG 2



A.C. SERVO BOARD

FIG 5



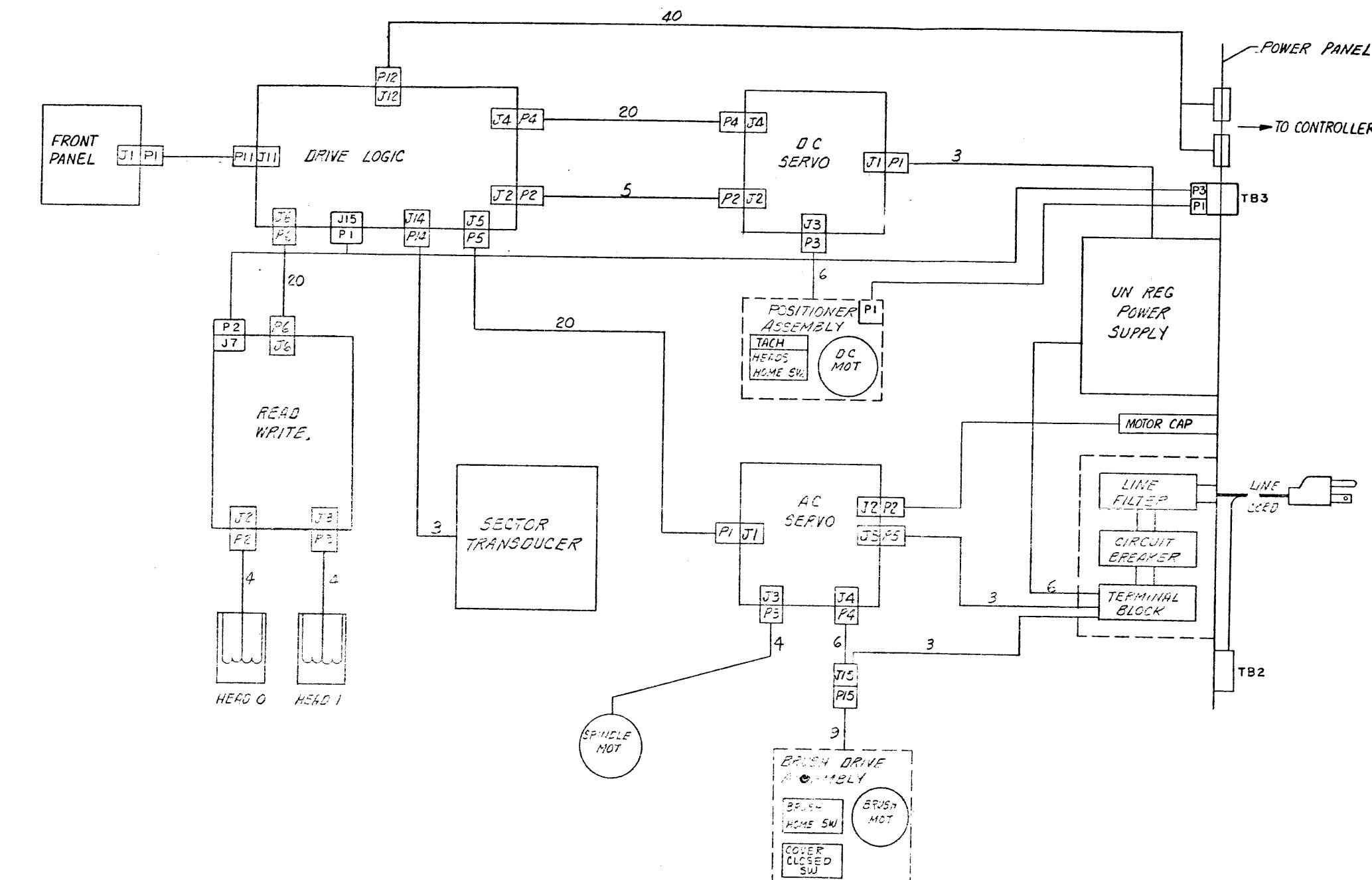
FRONT PANEL BOARD

FIG 3

	A	B	C
RL02-C2001			
B. MILLER			
K. GUENTZEL			
RL02-CX018			
JAN K. GUNZEL			
M. ZARICH			
M. Zarich			

DESCRIPTION		DWG./PART NO.		ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES				
ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	OVER	OVER	OVER
		0.04	0.4	1.2
		0.2	1.2	4.0
		1.2	4.0	12.0
		1.2	4.0	40.0
		1.2	4.0	80.0
SURFACE QUALITY IN MEDIUM		0.004	±0.08	±0.12
QUANTITY & VARIATION		±0.04	±0.16	±0.24
PREFERRED		±0.12	±0.16	±0.24
INTERFERENCES				
BHN K Hard 25Sep78 PART USED ON RL02				
S. K. Miller 3 May TITLE				
ENG. K. Miller 15-9-78				
FROZEN 15-9-78 S-4-78				
FROZEN 15-9-78 S-4-78				
DO NOT SCALE DIA.				
NEXT FLOOR KSY.				
MATERIAL B-DD-RL02-0				
FINISH D IC				
SHEET 1 OF 2 D-7				

RL02  
SYSTEM CABLING



DESCRIPTION		DWG. PART NO.		ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES				
ANGLES ED 30	CLASS OF ACCURACY	NOMINAL DIMENSION IN INCHES		
		OVER	UNDER	UPPER
SURFACE QUALITY IN	1 CHECK ONE	0.2	0.2	0.2
MATERIAL	MEDIUM	0.04	0.05	0.04
	PREFERRED	0.03	0.04	0.03
THIRD ANGLE PROJECTION		25See 18		
		RL02		
REMOVED BURRS AND BREAK SHARP CORNERS		TITLE		
SPECIFICATIONS		RL02		
MATERIAL		SYSTEM CABLING		
FINISH		D	C	RL02-C-3
SCALE		REV C		

## PARTS LIST

QUANTITY PER VARIATION  
00

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY
1	1 D-AD-7012111-0-0	7012111-00	BEZEL ASSY	1
2	2 D-AD-7012112-0-0	7012112-00	BRUSH DRIVE ASSY	1
3	3 E-AD-7012114-0-0	7012114-00	DISK MOTOR ASSY	1
4	4 E-AD-7012115-0-0	7012115-00	FRONT COVER ASSY	1
5	5 E-AD-7012116-0-0	7012116-00	MAIN CHASSIS ASSY	1
6	6 D-AD-7012117-0-0	7012117-00	POSITIONER ASSY	1
7	7 D-AD-7015124-0-0	7015124-00	RL02 R/W BOX ASSY	1
8	8 D-AD-7015125-0-0	7015125-00	RL02 REAR COVER ASSY	1
9	9 D-AD-7015116-0-0	7015116-00	SPINDLE ASSY	1
10	10 9006038-01	9006038-01	SCREW,PAN,PHIL 8-32X 7/16 SS	4
11	11 D-IA-7015637-0-0	7015637-00	RL02 DATA HEAD "A" UP	1
12	12 B-AD-7012128-0-0	7012128-00	ACCESS COVER ASSEMBLY	1
13	13 D-AD-7012130-0-0	7012130-00	POWER PANEL ASSEMBLY	1
14	14 B-IA-7012139-0-0	7012139-0F	INTERCONNECT CABLE	2
15	15 B-IA-7014262-0-0	7014262-00	INTERCONNECT CABLE ASSEMBLY	1
16	16 C-IA-7012140-0-0	7012140-00	POWER HARNESS DC	1
17	17 B-IA-7012107-0-0	7012107-3D	INTERCONNECT CABLE	1
18	18 D-MD-7415094-0-0	7415094-00	REAR COVER	1
19	19 C-MD-7415101-0-0	7415101-00	SPRING, PLENUM COVER	2
20	20 C-MD-7415297-0-0	7415297-00	FILTER, PAD	1
21	21 C-MD-7415303-0-0	7415303-00	COVER AC SERVO	1
22	22 C-MD-7416335-0-0	7416335-00	CABLE RETAINER	1
23	23 D-MD-7417450-0-0	7417450-00	HATCH	1
24	24 C-MD-7417454-0-0	7417454-00	BRACKET PLENUM	2
25	25 C-MD-7417455-0-0	7417455-00	LATCH PLENUM	2
26	26 D-UA-5411848-0-0	5411848-00	ETCH BRD 54-11848	1
27	27 D-UA-5413534-0-0	5413534-00	DC SERVO + POWER SUPPLY (RL02)	1
28	28 9006024-01	9006024-01	SCREW,PAN,PHIL 6-32X 1/2 SS	2
29	29 D-AD-7012137-0-0	7012137-00	TRANSDUCER ASSY	1
30	30 1213097-00	1213097-00	FILTER,AIR,HEPA,33CFM	1

REVISION HISTORY		BASIC PART NO: ORL02		! DRN: W.GRIMES		DATE: 15 FEB 78		! B ! I ! G ! I ! T ! A ! L			
ENG!		ECO NUMBER		REV		SECTION A OF A					
---		---		---		---		TITLE			
! RL02-CZ002		! A		! SECTION, VARIATION INDEX		CHK'D: W.MAJOR		PARTS LIST			
! BM ! RL02-CX003		! B		! CAJ 00		---		RL02 DISK DRIVE ASSEMBLY			
! BM ! RL02-CX004		! C		---		DES.ENG.: B.MILLER		DOCUMENT NUMBER			
! KG ! RL02-CX006A		! D		! CBJ		---		SIZE!CODE! NUMBER			
! KG ! RL02-CX008		! E		---		RESP.ENG.: B.MILLER		! REV			
! KG ! RL02-CX009		! F		! CCJ		---		! DATE: 15 MAR 79 ! K ! PL ! RL02-0-DBP ! H			
! MZ ! RL02-CX010		! G		---		MFG.ENG.: D.LICK		! DATE: 15 MAR 79 ! K ! PL ! RL02-0-DBP ! H			
! MZ !		! H		---		ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER: FILE NAME: EDIT #			
! !		! I		! J		! E-U-A-RL02-0-0		! # B-00-RL02-0 Z0485H.FLS 18			
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## PARTS LIST

QUANTITY PER VARIATION  
00

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY
31	31 1213369-00	1213369-00	BELT,WOVEN,ENDLESS,375WX27.14BLG	1
32	32 1213686-01	1213686-01	MOUNTING RAIL FOR 12-13686-00	1
33	33 1214330-00	1214330-00	SPRING,EXTENSION,2.5LGX.360I	1
34	34 9006022-01	9006022-01	SCREW,FAN,PHIL 6-32X 3/8 SS	2
35	35 9006035-01	9006035-01	SCREW,FAN,PHIL 6-32X 1/4 SS	6
36	36 9006037-01	9006037-01	SCREW,FAN,PHIL 6-32X 3/8 SS	13
37	37 9006039-01	9006039-01	SCREW,FAN,PHIL 6-32X 1/2 SS	12
38	38 9006633-00	9006633-00	WASHER,LOCK,INT.,.28000 X .146ID	4
39	39 9006634-00	9006634-00	WASHER,LOCK,INT.,.23000 X .172ID	15
40	40 9006636-00	9006636-00	WASHER,LOCK,INT.,.38000 X .200ID	3
41	41 9007079-00	9007079-00	CLAMP, CABLE, SCREW MNT, 1/8"	4
42	42 9008955-01	9008955-01	SCREW,FAN,PHIL 10-32X 15/16SS	3
43	43 D-IA-7015637-0-0	7015637-01	RL02 DATA HEAD "A" IN	1
44	44 9009884-00	9009884-00	WASHER, FLAT, TEFLON,.62 OD X .31	4
45	45 9009885-00	9009885-00	WASHER, SPRING	2
46	46 B-MD-7420084-0-0	7420084-00	SHIM, LATCH	A/R
47	47 C-MD-7416865-0-0	7416865-00	BRACKET LATCH	1
48	48 D-MD-7420826-0-0	7420826-00	COVER, DC SERVO BOARD	1
49	49 9006040-01	9006040-01	SCREW,FAN,PHIL 6-32X 5/8 SS	2
50	50 9006653-00	9006653-00	WASHER, FLAT, .375 O.D. X .156 I	3
51	51 1214359-00	1214359-00	WASHER,FLAT,S/S .169ID X .6200 X	2
52	52 9006660-00	9006660-00	WASHER, FLAT, .375 O.D. X .187 I	11
53	53 9009759-00	9009759-00	SCREW,FLAT,PHIL, 6-32X 3/8	2
54	54 9006454-00	9006454-00	RIVET, BLIND, .156 DIA X .254 LG	10
55	55 B-MD-7420084-0-0	7420084-01	SHIM LATCH	A/R
56	56 3700406-00	3700406-00	INSTR PKG DISK RL01 DRIVE	1
57	57 9007649-00	9007649-00	WASHER, LOCK, EXTERNAL TOOTH #6	5
58	58 9006021-01	9006021-01	SCREW,FAN,PHIL 6-32X 5/16 SS	4
59	59 9006072-00	9006072-00	WASHER, LOCK, EXTERNAL TOOTH #8	21
60	60 9009974-00	9009974-00	WASHER, FLAT, METAL,.62 O.D. X	2
61	61 3613209-03	3613209-03	LABEL,ELECTRICAL DATA VARIATIO	1
62	62 D-MD-7420068-0-0	7420068-00	SHIELD POSITIONER	1
63	63 3614783-00	3614783-00	LABEL,ADH BACK "DANGER HIGH VOLT	1
64	64 A-DC-7416197-0-0	7416197-02	DECAL, LA36	1
65	65 3613211-01	3613211-01	DECAL,CLEAR PREPRINTED CSA 1-1/4	1
66	66 3615687-00	3615687-00	LABEL,AD	

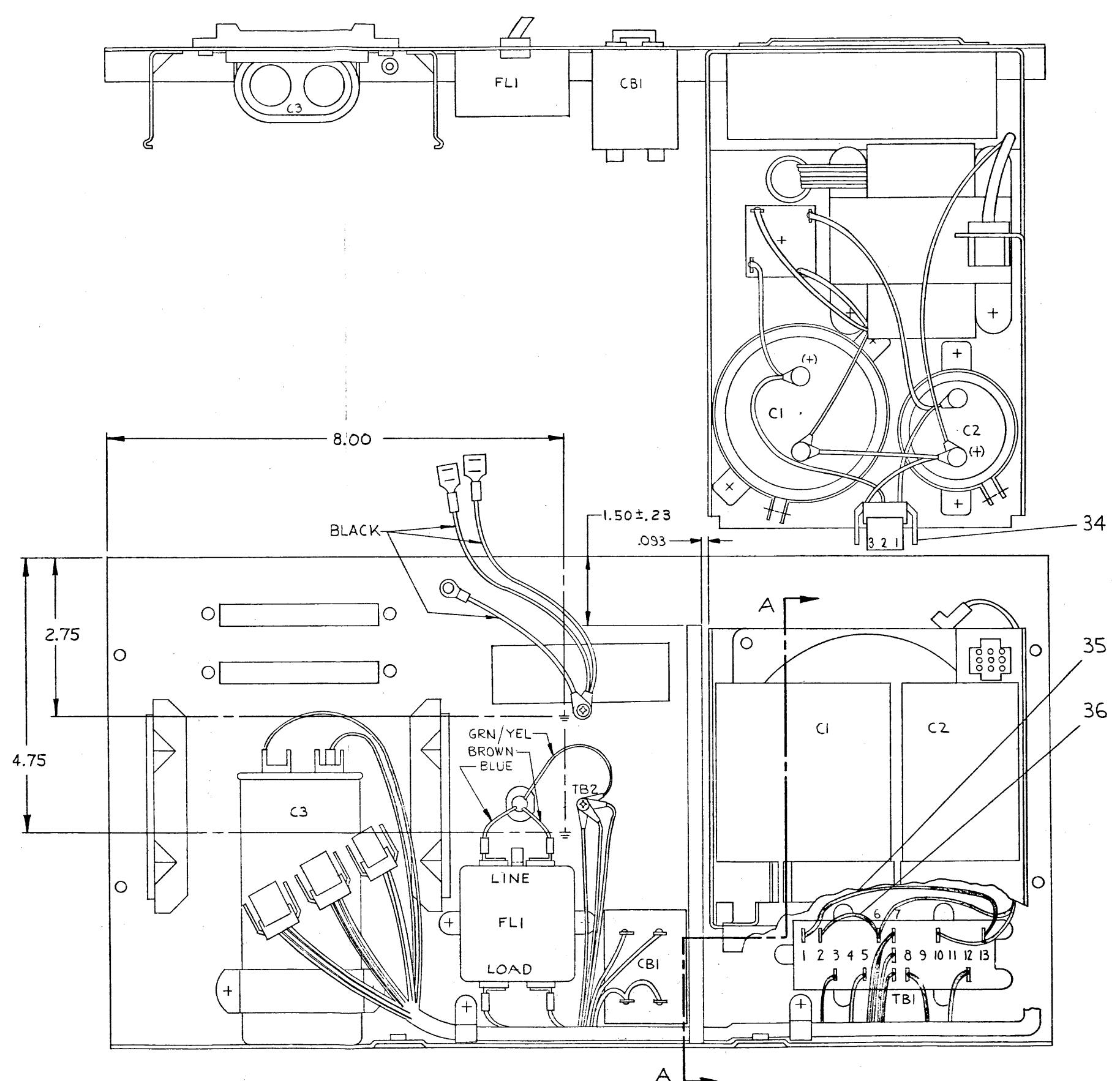
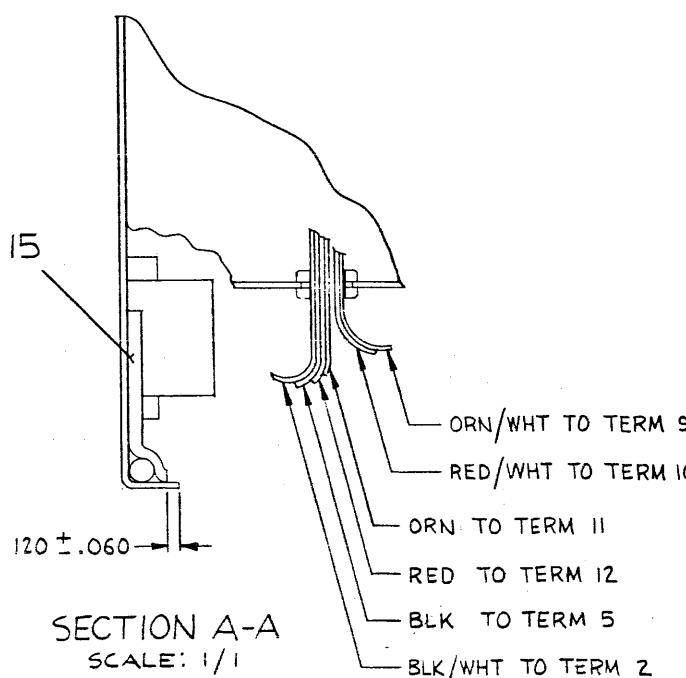


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NOTES:

1. INPUT VOLTAGE 50 OR 60 HZ  
90 - 110, 105 - 128 VAC  
180 - 220, 210 - 256 VAC
2. OUTPUT VOLTAGE  $\pm 11.5$  VDC MIN AT  
MIN POINT OF THE RIPPLE. 18 VDC MAX  
AT HIGH LINE. (MAX OF 25 VDC AT HIGH LINE NO LOAD).
3. OUTPUT CURRENT: POSITIVE OUTPUT  
2.5 AMP CONTINUOUS  
3.5 AMP PULSE "25 MS"  
NEGATIVE OUTPUT  
.25 AMP CONTINUOUS  
3.5 AMP PULSE "25 MS"
- PULSE CURRENT ON ALTERNATE OUTPUT AT  
A 65 MS OUT CYCLE.
4. OUTPUT RIPPLE AT 110 VOLTS
 

A. NO LOAD	100 MV P/P
B. + 2.5 A	600 MV P/P
- .25 A	300 MV P/P
C. + 2.5 A	600 MV P/P
- 3.75 A	1.5 V DURING PULSE
5. HIGH POT TEST PER UL 478  
CONNECT BOTH AC LEADS TO THE POSITIVE TERMINAL OF THE SUPPLY AND GRN WIRE GROUND TO THE NEGATIVE TERMINAL OF THE SUPPLY. CLOSE CIRCUIT BREAKER AND INCREASE VOLTAGE TO 1750 VDC, ANY CURRENT INDICATES FAILURE.



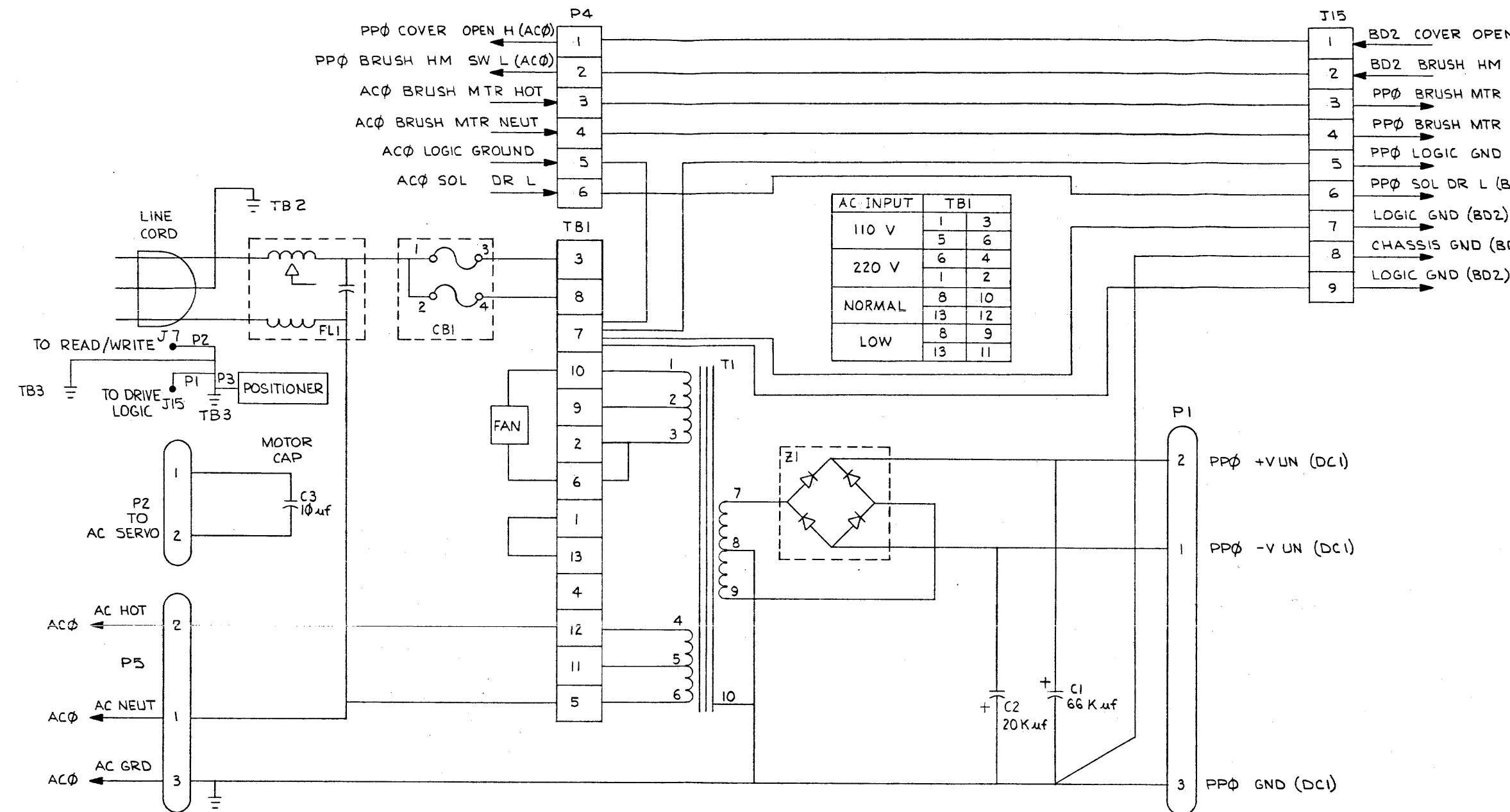
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE  
POWER PANEL ASSY.

SIZE CODE  
D AD 7012130-0-0  
NUMBER  
REV. V

SCALE: 1/1 SHEET 2 OF 3 DIST.

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REVISIONS		
CHK	CHANGE NO.	REV.

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
1	1	9006070-01	SCREW,FAN,PHIL 10-32X 5/16 SS	4
2	2	D-IA-7416326-0-0	7416326-00 CHASSIS	1
3	3	9006028-01	SCREW,FAN,PHIL 6-32X1 SS	1
4	4	C-AD-7012127-0-0	7012127-00 CHASSIS ASSY	1
5	5	9008072-00	WASHER, LOCK, EXTERNAL TOOTH #8	4
6	6	1210430-00	BRACKET,CAPACITOR,2"	1
7	7	1210431-00	BRACKET,CAPACITOR,3-1/16"	1
8	8	1213156-01	BRACKET,CAPACITOR,WRAP-AROUND	1
9	9	9007016-00	GROMMET, RUBBER	1
10	10	1213683-00	BOOT,CAFACTOR,RUBBER	1
11	11	9007113-00	*** THIS ITEM IS NOT USED ***	-
12	12	9009768-01	BUSHING,STRAIN RELIEF .280-.393W	1
13	13	9007082-00	CLAMP,CABLE,SCREW MTD. 5/16"	3
14	14	9009800-01	SCREW,FAN,PHILLIPS, 6X7/8 SELF-	4
15	15	9009059-01	TAPE,FOAM, 1/2W X 1/4THK W/ ADH	A/R
16	16	9006020-01	SCREW,PAN,PHIL 6-32X 1/4 SS	12
17	17	9006023-01	SCREW,PAN,PHIL 6-32X 7/16 SS	3
18	18	9006036-01	SCREW,PAN,PHIL 8-32X 5/16 SS	4
19	19	9006027-01	SCREW,FAN,PHIL 6-32X 7/8 SS	3
20	20	1013102-00	10 MFD 370VAC 6% PAPER/OIL	1
21	21	D-IA-7012108-0-0	7012108-00 POWER PANEL HARNESS	1
22	22	1215360-00	FILTER,LINE,115/250V,47-400HZ, F	1
23	23	9006633-00	WASHER,LOCK,INT.,.280OD X .146ID	11
24	24	1216827-00	CKT BKR 2.5 A 250V 2P MAGNETIC	1
25	25	1209403-01	FAN,115CFM,SLEEVE BRNG	1
26	26	E-IA-7012110-0-0	7012110-00 HARNESS AC-TB	1
27	27	1210263-00	GUARD,FINGER 4.125 X 4.125 MTG H	1
28	28	1613897-00	XFMER F=AB S=11.506A	1
29	29	1110051-00	DM 16 ASSY@200V & 25A #990-3	1
30	30	1013530-00	66,000 MFD 30V +75-10% AL EL	1

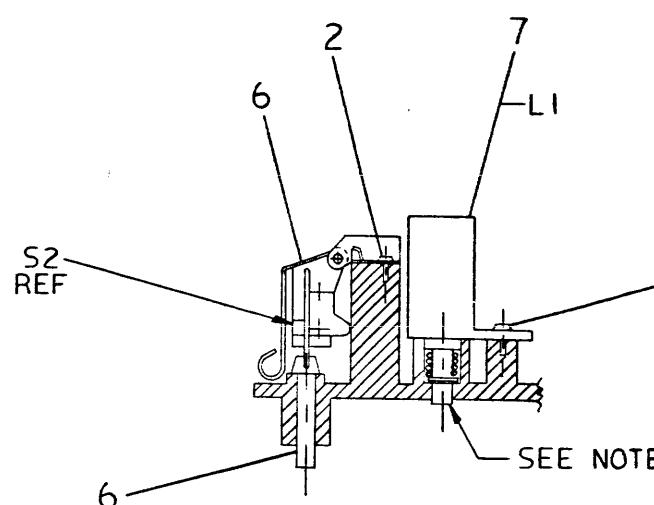
REVISION HISTORY		BASIC PART NO: ORL01		DRN:	D. MELCHOIR	DATE: 12-AUG-76	D I G I T A L
ENG!	ECO NUMBER	I REV	SECTION A OF A				
IKG	17012130-CX010	I P	SECTION, VARIATION INDEX	CHK'D!	G. SCHNEIDER	DATE: 24-AUG-77	TITLE PARTS LIST
IKG	1RL02-CX008	I R	[A] 00				POWER PANEL ASSEMBLY
IKG	17012130-CX011	I S					
IMZ	1RL02-CX010	I T	[B]		DES.ENG.: G. SCHNEIDER	DATE: 24-AUG-77	
IKG	17012130-CX012	I U					
IW	17012130-CX013	I V	[C]		RESP.ENG.: P. ARNOLD	DATE: 30-AUG-77	DOCUMENT NUMBER
<i>Drawn by [Signature] 12-5-80</i>			[D]				
			[E]		MFG.ENG.: B. RYLANDER	DATE: 30-AUG-77 K PL 7012130-0-DBP	SIZE!CODE! NUMBER ! REV
			[F]		ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER: FILE NAME: EDIT #	
					ID-AD-7012130-0-0	* B-DD-RL02-0 Z0849U.PLS	17

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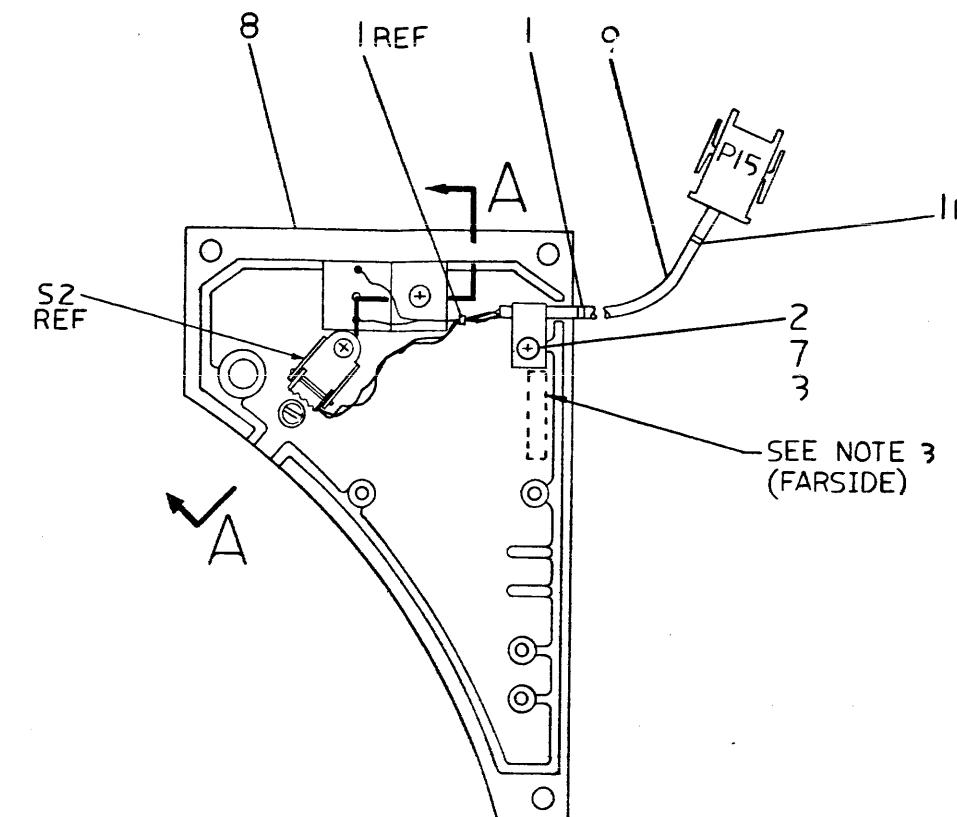
LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
31	31	1013531-00	20,000 MFD 40V +75-10% AL EL	1
32	32	B-IA-7012109-0-0	7012109-00 POWER HARNESS	1
33	33	9006560-00	NUT,KEP , 6-32 X5/16AF	6
34	34	C-IA-7012142-0-0	7012142-00 CABLE	1
35	35	B-IA-7012125-0-0	7012125-0E INTERCONNECT CABLE	1
36	36	B-IA-7012125-0-0	7012125-0B TB INTERCONNECTOR HARNESS	1
37	37	9006653-00	WASHER, FLAT, .375 O.D. X .156 I	7
38	38	9009800-06	SCREW,PAN,PHILLIPS, 6X.38	3
39	39	9006635-00	WASHER,LOCK,INT.,.310OD X .200ID	4
40	40	9007649-00	WASHER, LOCK, EXTERNAL TOOTH #6	8
41	41	9006021-01	SCREW,PAN,PHIL 6-32X 5/16 SS	4
42	42	1211591-35	CONN,ZIF 40PIN RCPT ASSY	2
43	43	1211591-38	CONN,ZIF 40PIN RCPT,SWAP IN GU	4
44	44	9008301-01	SCREW,PAN,PHIL 4-40X 1/4 SS	4
45	45	B-IA-70121609-0-0	70121609-00 GROUND HARNESS	1
46	46	C-IA-70121608-0-0	70121608-00 GROUND HARNESS	1
47	47	9009255-00	LABEL, POWER SUPPLY, 2-15/16 " L	1
48	48	3612680-00	DECAL, GROUND SIGN PER 3E6 *	2

D I G I T A L	TITLE	SECTION A OF A	SIZE!CODE! DOCUMENT NUMBER ! REV
	POWER PANEL ASSEMBLY		K PL 7012130-0-DBP V

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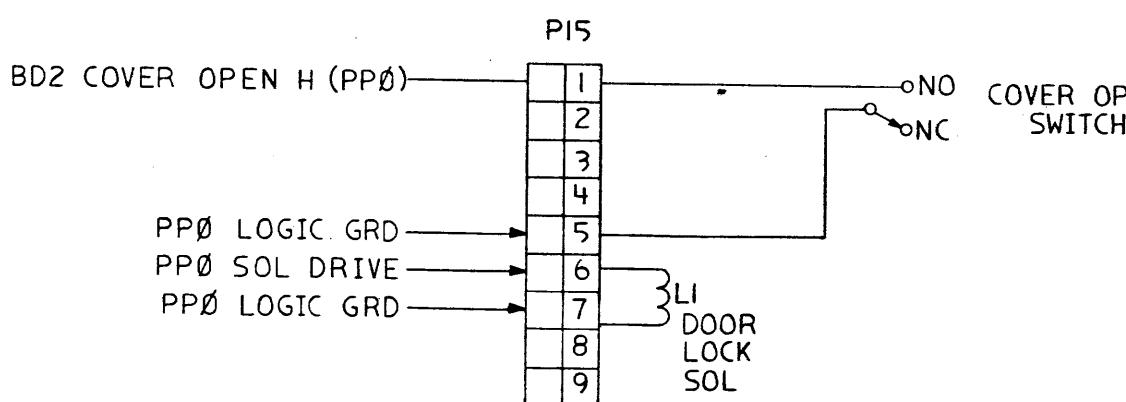


SECTION A-A



## NOTES:

- PLUNGER OF SOLENOID, COVER LOCK (ITEM 5) MUST MOVE FREELY. WHEN ASSEMBLY IS POSITIONED IN "UP" POSITION (TIP OF PLUNGER POINTING UP) A DC VOLTAGE OF 6.9 VOLTS SHALL PULL THE PLUNGER DOWN.
- CONNECT LEADS OF SOLENOID, COVER LOCK (ITEM 5) TO PINS 6&7 OF CONNECTOR BODY (P15). DRESS WIRES AND TIE TO COVER, SWITCH HARNESS (ITEM 9) WITH TIE CABLE (ITEM 1) AS SHOWN.
- PART TO BE MARKED WITH PART NO. (7016991-00) AND LATEST REVISION LETTER IN AREA SHOWN (FAR SIDE).



CIRCUIT SCHEMATIC

CAUTION: OFF SHEET PARTS LISTS EXISTS.  
SEE K-PL-7016991-0-DBP (Z0984).

REVISION HISTORY	REV	*
ECO RELEASED TO ECO CONTROLLED BY 1000-582 AT REV 1.0		
		K.D. QUENZEL

	DESCRIPTION		DRAWING NO.	PART NO.	ITEM NO.			
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114)							
INCHES TOLERANCES	ANGLES ±0°30'	APPLICABLE DIMENSION RANGE (CHECK ONE)	OVER 0 TO 0.2	OVER 0.2 TO 1.2	OVER 1.2 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0	OVER 40.0 TO 60.0
X = ± .1 XX = ± .02 XXX = ± .005	SURFACE QUALITY 		<input type="checkbox"/>	± .02	± .03	± .05	± .10	
QUANTITY & VARIATION	MICRONES	<input type="checkbox"/>	± .004	± .008	± .012	± .016	± .024	± .04
THIRD ANGLE PROJECTION		DRN	K.S. 003	DATE	1 OCT 80	TITLE	digital	
DO NOT SCALE DRAWING		CHG'D	P.C. Dill	DATE	22 OCT 80			
REMOVE BURRS AND BREAK SHARP CORNERS		DES ENG	J.D. Tolson	DATE	2 NOV 80			
MATERIAL SEE PARTS LIST		RES ENG	J.T. Morris	DATE	2 NOV 80			
FINISH		MFG ENG	C. L. O'Farrell	DATE				
		MFG MNG		DATE				
		NEXT HIGHER DOC	E-U-A-RL01-0-0	REV.				
		SIZE CODE	NUMBER	REV.				
		D	AD7016991-0-0	*				
		SCALE	1 / 1	SHEET	OF 1			

AUTOMATED BY PRTLST.3L(40)

P A R T S      L I S T

SHEET A1 OF A1

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
1	1	9007031-00	TIE,CABLE BUNDL.DIA 0- .3/4*=101	3
2	2	9009800-06	SCREW,FAN,PHILLIPS, .6X.38	3
3	3	9007081-00	CLAMP,CABLE,SCREW MTD. 1/4"	1
4	4	C-AD-7012132-0-0	CARTRIDGE SENSE SWITCH ASSY.	1
5	5	C-PS-1213204-0-0	SOLENOID,COVER LOCK	1
6	6	B-MD-7416858-0-0	CART SENSE PLUNGER	1
7	7	9006653-00	WASHER, FLAT, .375 O.D. X .156 I	1
8	E-IA-7415224-0-0	7415224-00	COVER BRUSH DRIVE	1
9	C-IA-7017333-0-0	7017333-00	COVER, SWITCH HARNESS	1

REVISION HISTORY		BASIC PART NO: 7016991	DRN:	K. DAVIS	DATE: 1 OCT 80	D I G I T A L	
ENG!	ECO NUMBER	REV	SECTION A OF A			TITLE	
KG	RLO1-CX048	*	SECTION, VARIATION INDEX	CHK'D: <i>D. Miller</i>	DATE: 20 OCT 80	PARTS LIST	
W. MAJOR FOR K. GUENZEL			[A]			SWITCH COVER ASSY	
			[B]	DES.ENG.: K. GUENZEL	DATE: 22 OCT 80		
			[C]	<i>Ivan Walenta</i>		DOCUMENT NUMBER	
			[D]	RESP.ENG.: I. WALENTA	DATE: 22 OCT 80	SIZE	
			[E]	<i>H.C. Brown</i>	CODE: 7016991-0-DBP	NUMBER	
			[F]	MFG.ENG.: J. BLAND	DATE: 22 OCT 80	REV	
			[G]		K PL	*	
			[H]	ASSEMBLY NUMBER: ID-AD-7016991-0-0	TOP DOCUMENT NUMBER: #E-DD-RLO1-0	FILE NAME: Z0984*.PLS	EDIT
							6

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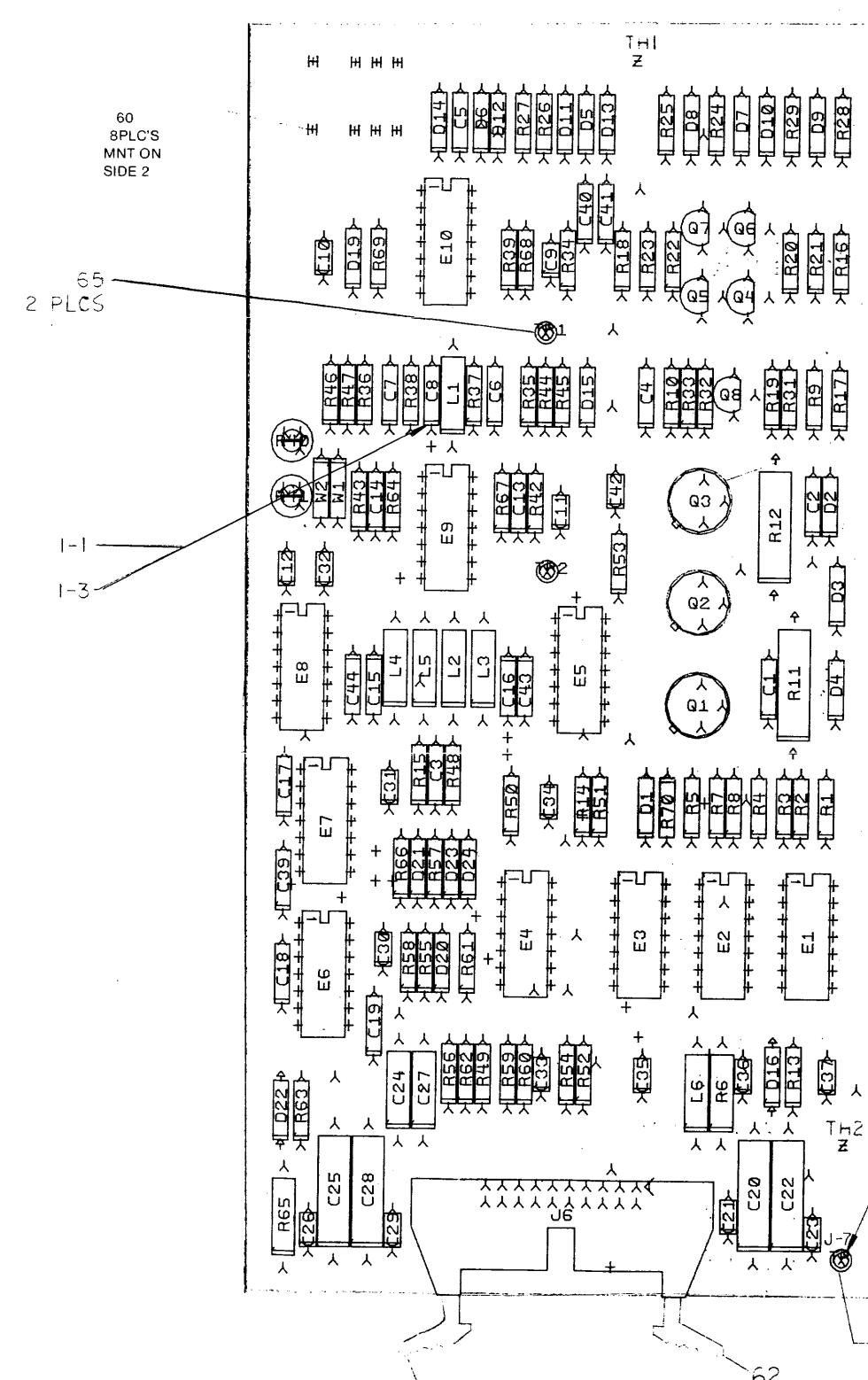
2

1

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COMPONENT SIDE VIEW



AUTOMATED BY PRTLST.2E(3)

## PARTS LIST

QTY PER VARIATION

SHEET A1 OF A2

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	REFERENCE DESIGNATOR	
1	1	D-MD-5013535-0-0	5013535-00	ETCHED CIRCUIT BD	1	
2	2	1001610-00	.01 MFD 50V -20+80 Z5U AXIAL	17	C9-C12,C21,C23,C26,C29-C37,C42	
3	3	1005306-00	.68MFD 35V 10% S.TANT	4	C20,C22,C25,C28	
4	4	1013466-14	82.0 MMF 50V 5% CER.	2	C16,C43	
5	5	1013466-06	100.0 MMF 50V 5% CER.	1	C8	
6	6	1013466-05	56.0 MMF 50V 5% CER.	1	C5	
7	7	1013466-07	220.0 MMF 50V 5% CER.	5	C1-C2,C4,C17,C39	
8	8	1013466-09	1000.0 MMF 50V 10% CER.	1	C18	
9	9	1013466-11	.22 MFD 50V +80/-20% CER.	2	C24,C27	
10	10	1013466-15	1200.0 MMF 50V 5% CER.	3	C19,C40,C41	
11	11	1109943-00	1N 4733A VZ= 5.1 5% 1W Y	2	D16,D22	
12	12	1113953-00	1N 5523D VZ= 5.1 1%	1	D1	
13	13	1100122-00	1N 748A VZ= 3.9 5%	1	D19	
14	14	1111577-00	IN 4454 TR= 4NS PIV= 50 S	11	D5-D10,D15,D20,D21,D23,D24	
15	15	1300250-00	150.0 .25 W 5.0 % CC	1	R5	
16	16	1300229-00	100.0 .25 W 5.0 % CC	5	R39,R52,R54,R59,R69	
17	17	1300232-00	100.0 1.0 W 5.0 % CC	2	R11,R12	
18	18	1300247-00	120.0 .25 W 5.0 % CC	1	R56	
19	19	1300365-00	1.0 K .25 W 5.0 % CC	8	R13,R14,R35,R36,R48,R49,R66,R70	
20	20	1300444-00	3.90 K .25 W 5.0 % CC	1	R46	
21	21	1300447-00	4.70 K .25 W 5.0 % CC	3	R9,R10,R32	
22	22	1301775-00	820.0 .25 W 5.0 % CC	1	R31	
23	23	1301317-00	10.0 .25 W 5.0 % CC	1	R63	
24	24	1302612-00	1.78 K 1/4W 1% RN55D-F 100PPM	2	R50,R51	
25	25	1300195-00	33.0 .50 W 5.0 % CC	2	R6,R65	
26	26	1304725-00	300 1/4W 1% RN55D-F 100PPM	1	R62	
27	27	1312930-00	5.10 K .25 W 5.0 % CC	2	R55,R58	
28	28	1301424-00	680.0 .25 W 5.0 % CC	4	R16,R18,R21,R23	
29	29	1302391-00	20.0 K .25 W 5.0 % CC	1	R60	
30	30	1300423-00	2.70 K .25 W 5.0 % CC	1	R33	

REVISION HISTORY	BASIC PART NO:	13536	DRN:	JERRY BEST	DATE:	14-AUG-78	D ! I ! G ! I ! T ! A ! L
ENG! ECO NUMBER	REV	SECTION A OF A	!SECTION.VARIATION INDEX	CHK'D:	L. ROOHR	DATE: 14-AUG-78	TITLE PARTS LIST
INIT	A	DAJ 00					READ/WRITE BOARD
M.ZACH W.C.M. 17 JAN 80	B	DAJ 00					
	C			DES.ENG:	B. NOGUCHI	DATE:	
	D						
	E			RESP.ENG.:	B. NOGUCHI	DATE: 14-AUG-78	DOCUMENT NUMBER
	F						SIZE!CODE! NUMBER ! REV
	G						
	H						
	I			MFG.ENG.:	P. CHURCH	DATE:	! K ! PL ! 5413536-0-DBP ! R
	J						
	K			ASSEMBLY NUMBER:	!TOP DOCUMENT NUMBER:	! FILE NAME!	EDIT #
	L			!D-UA-5413536-0-0	!RL02	Z1091B.PLS	7
	M						
	N						

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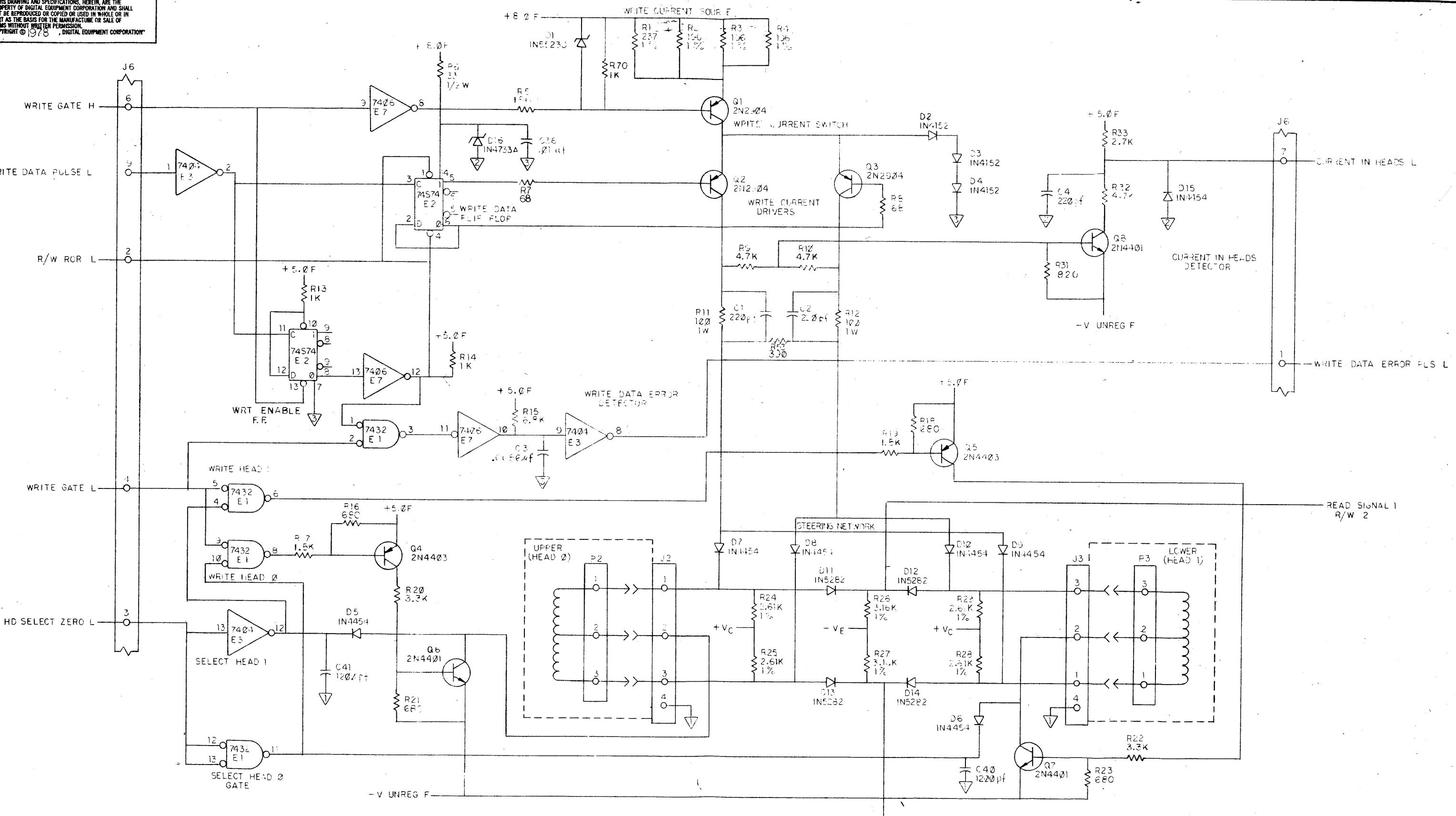
LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	REFERENCE DESIGNATOR
31	31	1302956-00	196 1/4W 1% RN55D-F 100PPM	3	R2,R3,R4
32	32	1300439-00	3.30 K .25 W 5.0 % CC	2	R20,R22
33	33	1305143-00	825 1/4W 1% RN55D-F 100PPM	2	R44,R45
34	34	1303303-00	2.61 K 1/4W 1% RN55D-F 100PPM	4	R24,R25,R28,R29
35	35	1302645-00	1.1 K 1/4W 1% RN55D-F 100PPM	1	R61
36	36	1301477-00	82.0 .25 W 5.0 % CC	1	R68
37	37	1301323-00	180.0 .25 W 5.0 % CC	2	R37,R38
38	38	1313469-00	240.0 .25 W 5.0 % CC	1	R34
39	39	1303045-00	3.16 K 1/4W 1% RN55D-F 100PPM	2	R26,R27
40	40	1501913-00	2N 2904A PNP 600MW SI 60 40 Y	3	Q1-Q3
41	41	1513489-00	2N 4401 NPN 350MW SI 40 20	3	Q6-Q8
42	42	1513490-00	2N 4403 PNP 350MW SI-40 30	2	Q4,Q5
43	43	1210001-00	HEAT SINK BLACK	3	
44	44	9007201-00	TRANSIFADS #10253	3	
45	45	9008268-00	COMPOUND, THERMAL JOINT	\$ A/R	
46	46	1611257-01	CHOKE(CERAMIC BEAD)AXIAL LEAD,ON	1	L6
47	47	1613898-01	33.0 UH INDUCTOR	4	L2-L5
48	48	1613898-02	39.0 UH INDUCTOR	1	L1
49	49	1910268-00	DEC 75107B RECEIVER,LINE-DUAL,	1	E8
50	50	1909686-00	7404 INVERTER GATE-HEX II	1	E3
51	51	1910544-00	74974 FF-0 DUAL,EDGE TRIGG	1	E2
52	52	1910644-00	733 DIFFERENTIAL AMP,WID	2	E9,E10
53	53	1910741-00	7406 INVERTER GATE-HEX II	1	E7
54	54	1911521-00	7432 OR GATE-QUAD 2IN, PO	1	E1
55	55	1910268-01	DEC 75107B-01 RECEIVER,LINE,DUAL	2	E5,E4
56	56	1910725-00	75108B RECEIVER,LINE,DUAL,	1	E6
57	57	1209941-06	HEADER,100 20POS RT ANGLE	1	J6
58	58	1209941-03	HEADER RT ANGLE,LEFT L	1	
59	59	1209941-04	HEADER RT ANGLE,RIGHT	1	
60	60	1210385-01	FIN 1POS WIRE WRAP	8	
61	61	9007291-00	TERM PCB 2FOS SOLDIER,TURRET	2	
62	62	1303067-00	422 1/4W 1% RN55D-F 100PPM	2	R42,R43
63	63	1300219-00	48.0 .25 W 5.0 % CC	4	R7,R8,R47,R57
64	64	1301423-00	6.80 K .25 W 5.0 % CC	3	R15,R64,R67
65	65	1300391-00	1.50 K .25 W 5.0 % CC	2	R17,R19
66	66	11114117-00	IN 4152 PIV=450 I=75M	3	D2-D4
67	67	1113003-00	IN 52B2 PIV=55 I=500M D035	4	D11-D14
68	68	1015573-01	5600.0 MMF 50V 5% CER. *	5	C3,C6,C7,C13,C14
69	69	1304857-00	237 1/4W 1% RN55D-F 100PPM	1	R1
70	70	1300309-00	390.0 .25 W 5.0 % CC	1	R53
71	71	1013466-17	150 MMF 50V 5% CER	2	C15,C44
72	72	1309150-07	2 K 1/2W10% POT 100PPM	2	R40,R41
73	73	9009185-00	JUMPER, WIRE, INSULATED, BLACK B	2	W1,W2
74	74	1217377-00	TERM QUICK 1POS TAB PC MNT	1	J7
			UNDERGOING CHANGE		

D ! I ! G ! I ! T ! A ! L	TITLE	SECTION A OF A	SIZE!CODE! DOCUMENT NUMBER ! REV
	READ/WRITE BOARD		

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2

1

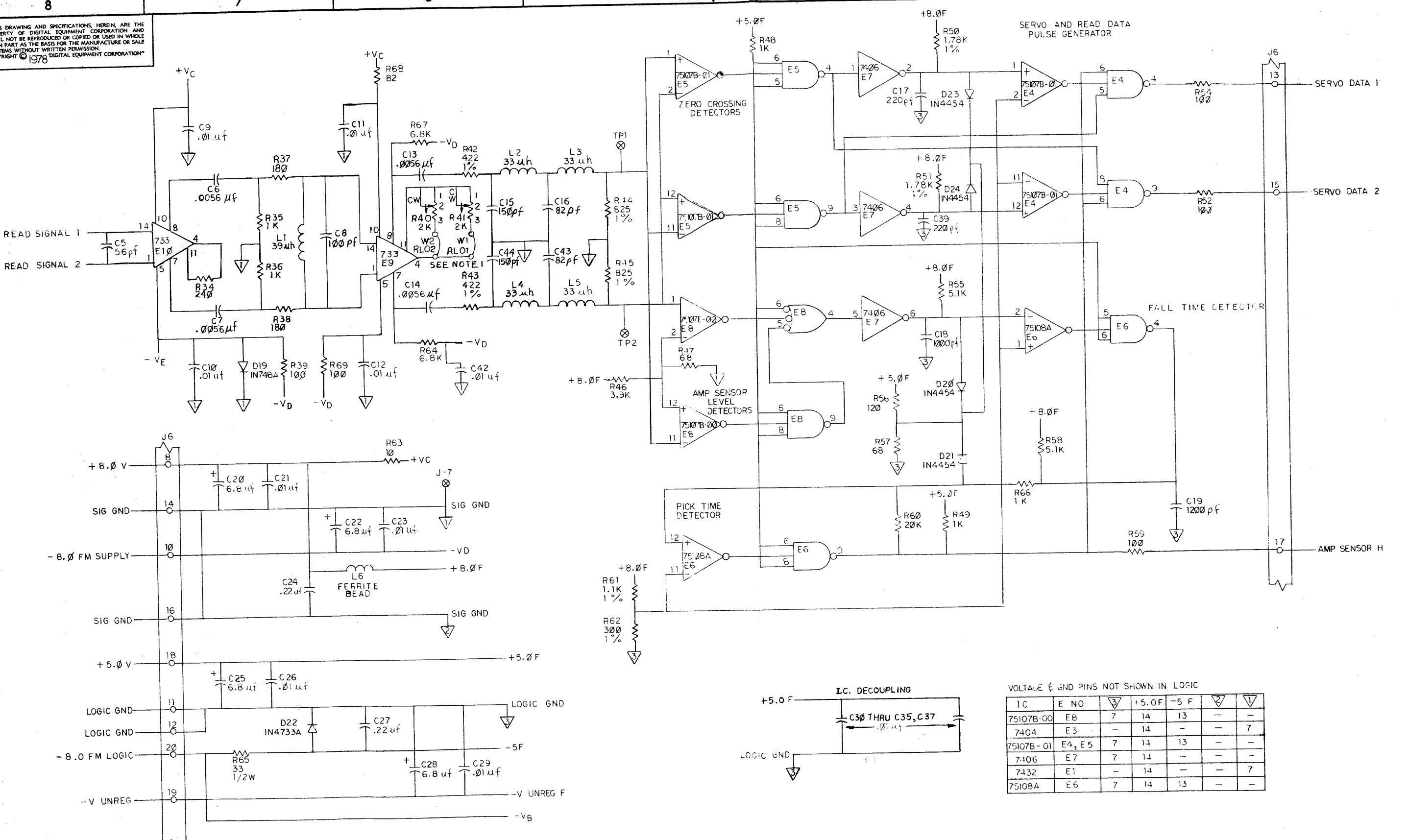


NOTE  
1. FOR RLO1 CUT W2 AND LEAVE IN W1.  
FOR RLO2 CUT W1 AND LEAVE IN W2.

DRN. E. Nichols	4/14/78	FIRST USED ON			
CHK'D L. Rock	5/8/78	RLO2			
ENG. R. H. Jack	4/18/78	TITLE			
PROJ. ENG. M. Zarich	4/18/78	READ / WRITE			
PROD. PC H. W. Miller	4/18/78	BOARD			
NEXT HIGHER ASSY.		digital			
SCALE	1	SIZE	CODE	NUMBER	REV.
D	CS	5413536-0-1	B		
SHEET	1	OF	2	DIST.	

REVISIONS	REV.	B
CHARGE NO.	5413536-CX01	
DATE	M. ZARICH	

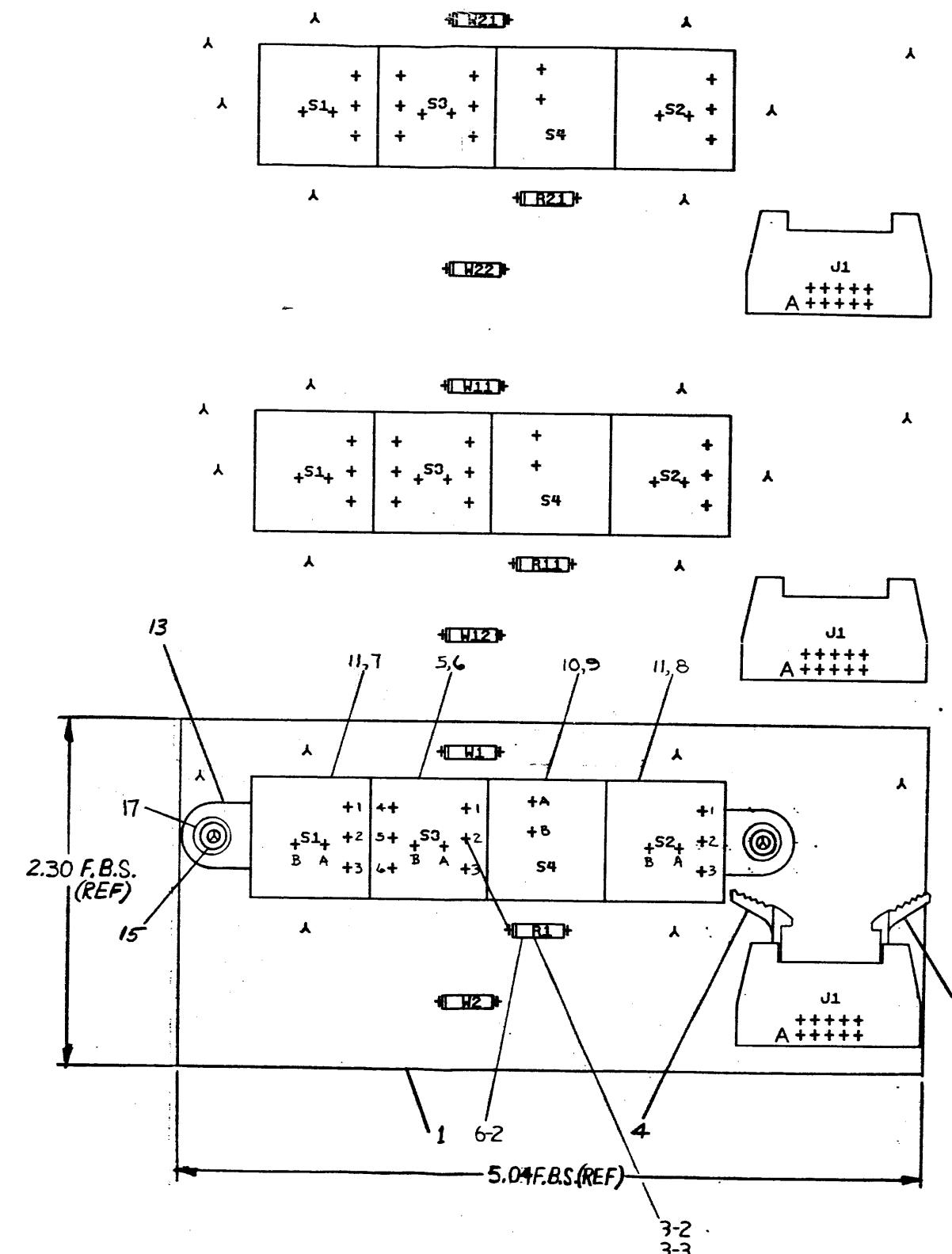
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IC	E NO	V	+5.0F	-5 F	V	V
75107B-00	E8	7	14	13	-	-
7404	E3	-	14	-	-	7
75107B-01	E4, E5	7	14	13	-	-
7406	E7	7	14	-	-	-
7432	E1	-	14	-	-	7
75108A	E6	7	14	13	-	-

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**COMPONENT SIDE VIEW**

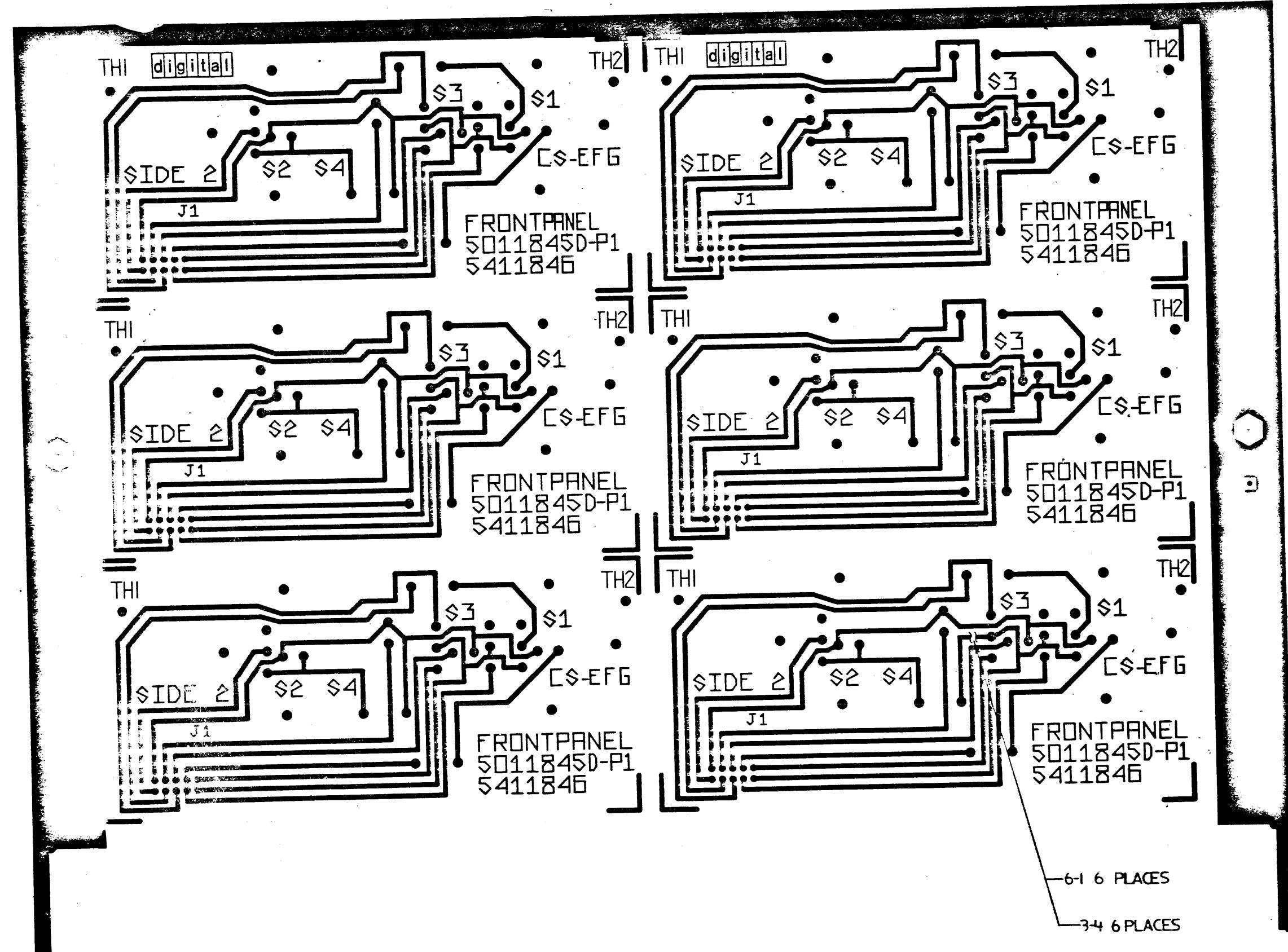


## NOTES:

ALL MANUFACTURING INFORMATION, DATE CODE,  
CIRCUIT SCHEMATIC REV, QUALITY CONTROL STAMPS,  
ETC. ARE TO BE STAMPED ON ETCH SIDE (SIDE 2) OF  
MODULE.

CHK	CHANGE	NO	REV
AB	5411846-0001	E	
1/26/71	Bureau C		
1/26/71	REICHENBERG		
1/26/71	D.C. ZURICH		
1/26/71	REICHENBERG	F	
1/26/71	5411846-		
1/26/71	CX2002		
1/26/71	G.		
1/26/71	REICHENBERG		
1/26/71	D.C. ZURICH	H	
1/26/71	5411846-		
1/26/71	CX2005		
1/26/71	D.C. ZURICH		
1/26/71	M.ZARICH		
1/26/71	M.ZARICH	J	
1/26/71	5411846-		
1/26/71	CX2006		
1/26/71	RPH		
1/26/71	D.C.29 SEP B0		
1/26/71	M.ZARICH		
1/26/71	M.ZARICH	J	
1/26/71	5411846-		
1/26/71	CX2007		
1/26/71	RPH		
1/26/71	D.C.29 SEP B0		
1/26/71	M.ZARICH		
1/26/71	M.ZARICH	J	

SIGNATURES MR. McReynolds	DATE 11/5/76	digital			
THK D. B. Burnell	1-11-77				
ING.	3211	TITLE			
PROJ. ENG. P. A. C.	3/6/77	FRONT PANEL			
ROD.					
CALE 2/1	SIZE	CODE	NUMBER	REV	J
HT. OF 3	D	UA	5411846-0-0		
NEXT HIGHER ASSY. B-DD-5411846-0					



8	7	6	5	4	3	2	1
OK	CHANGE NO.	PP:					

8

D

C

B

A

J

REV. J

TITLE FRONT PANEL

SIZE CODE D UA 5411846-0-0

SCALE NONE SHEET 2 OF 3 DIST.

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## REWORK INSTRUCTIONS:

### ECO 541846-CX005:

3-1 SEE D-EC-5011845-0-0 FOR EC REWORK INSTRUCTIONS.

#### COMPONENT DELETES:

3-2 DELETE R1.

#### COMPONENT ADDS:

3-3 ADD R1 (180  $\mu$ A).

#### WIRE ADDS:

3-4 SIDE 2-ADD WIRE FROM S3 PIN 2 TO R1 ETCH  
(SOLDER FLAT TO ETCH) (6 PLACES).

### ECO 541846-CX006:

#### WIRE DELETES:

6-1 SIDE 2-DELETE WIRE FROM S3 PIN 2 TO R1 ETCH.  
(6 PLACES).

#### WIRE ADDS:

6-2 SIDE 1-ADD WIRE ON LEFT SIDE OF R1 TO S3 PIN 2.

REVISION HISTORY		
DATE	ECO NUMBER	REV.

DOCUMENT NUMBER  
SIZE CODE NUMBER REV.  
**DUA541846-0-0 J**  
SCALE NONE SHEET 3 OF 3

AUTOMATED BY PRTLST.3P(44)

EASTERN LISTS

SHEET A1 OF A1

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
				00	
1	1	B-MD-5011845-0-0	5011845-00	54-11846 ETCH CRKT BRD	1
2	2		1209941-05	HEADER,100 10POS RT ANGLE	1
3	3		1209941-04	HEADER, RT ANGLE,RIGHT	1
4	4		1209941-03	HEADER RT ANGLE LEFT L	1
5	5		1212690-02	SW,PB 1P RK06 UNIT SELECT	1
6	6		1212691-00	SW,PP CAP "0/READY" FOR 12-1	1
7	7		1212714-05	SW,PB CAP,YEL/BLK,"LOAD"	1
8	8		1212714-01	SW,PB CAP,YEL/BLK,"WRITE PROT"	1
9	9		1212714-02	SW,PB CAP,RED/BLK,"FAULT"	1
10	10		1212715-02	INDICATOR,DISPLAY PANEL,W/14V LA	1
11	11		1212717-05	SW,PB 1P 3A W/14V LAMP	2
12	12		1212716-01	LAMP,WEDGE,14V	1
13	13		1213188-01	MOUNTING BRACKET,SWITCH	1
14	14		1301322-00	180.0 .25 W 5.0 % CC	1
15	15		9006732-00	EYELET, ROLLED FLANGE, .121 OD X	2
16	16		9107560-01	WIRE,BUSS,22AWG	2
17	17		9006655-00	WASHER, FLAT, .312 O.D. X .125 I	2

REVISION HISTORY		BASIC PART NO: 5411846		DRN:	S. MARLOW	DATE: 7-APR-76	D	I	G	I	T	A	L
ENG!	ECO NUMBER	REV	SECTION A OF A					TITLE		PARTS LIST			
MZ	5411846-CX005	J	SECTION,VARIATION INDEX	CHK'D:	P. BURNELL	DATE: 10-JAN-77				FRONT PANEL			
			CAJ 00							DOCUMENT NUMBER			
			CBJ										
			CCJ	DES.ENG:	G. REICHENBERG	DATE: 7-MAR-77							
			CDJ							SIZE!CODE! NUMBER			
			CEJ										
			CFJ	RESP.ENG.:	G. REICHENBERG	DATE: 7-MAR-77							
			CHJ										
			CJJ										
			CKJ	MFG.ENG.:	L. KIRK	DATE: 9-MAR-77	K	PL	5411846-0-DBP				
			CLJ										
			CMJ	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:			FILE NAME:	EDIT #			
			CNJ	ID-UA-5411846-0-0		# B-ID-5411846-0			Z1580J.PLS	3			

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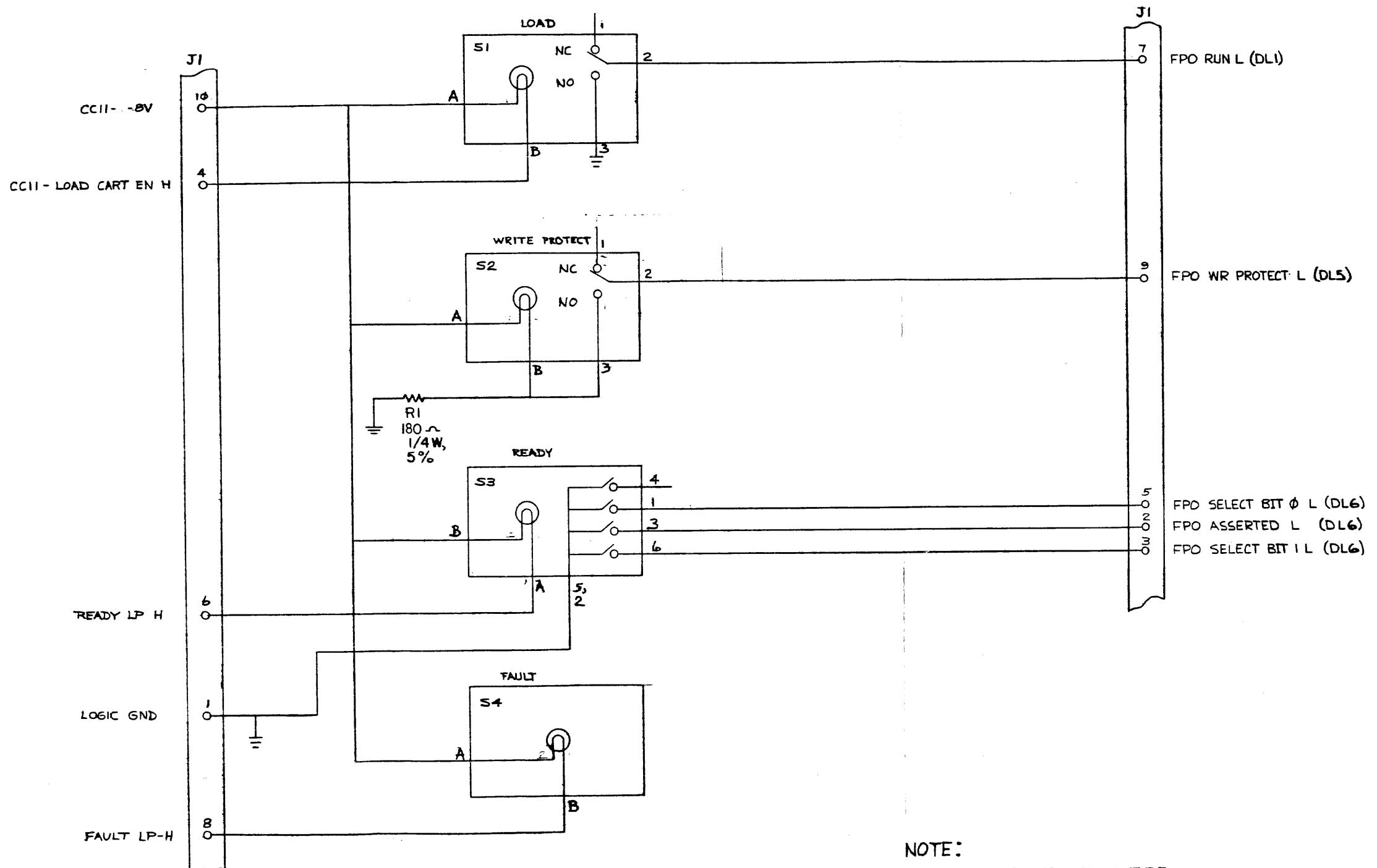
5

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1



NOTE:

- ALL LAMPS ARE 6E-73 TYPE

REVISIONS		CHANGE NO.	REV.
C1	5411846-CZ001	E	
C2	5411846-CZ002	F	9-77
C3	5411846-CZ003	G	9-77
C4	5411846-CZ004	H	9-77
M1	5411846-CZ005	I	
M2	5411846-CZ006	J	
M3	5411846-CZ007	K	
M4	5411846-CZ008	L	

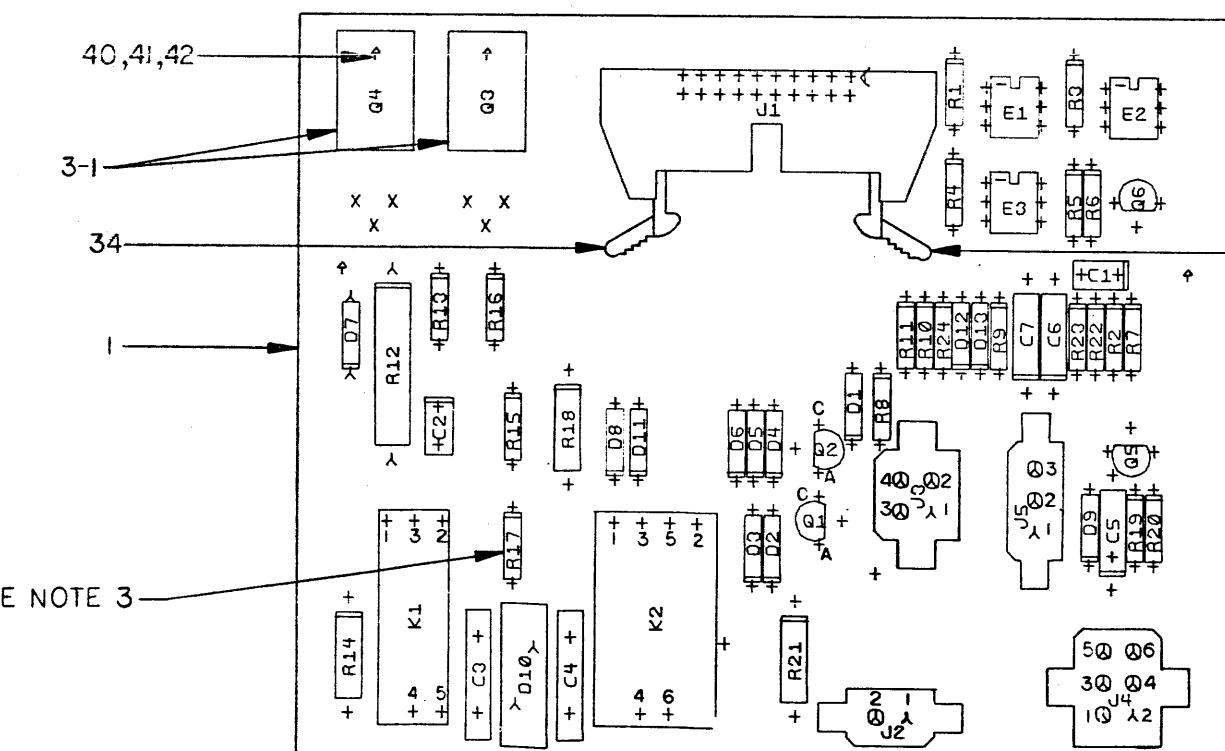
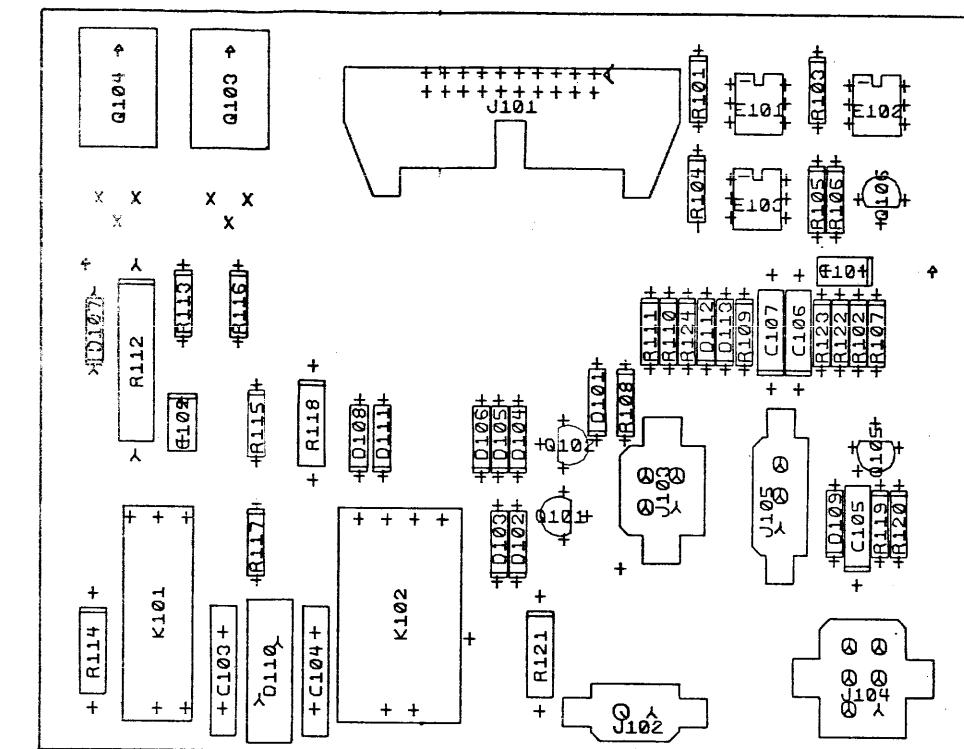
DRN. K. Heijnen	27-07-76	FIRST USED ON	digital
CHK'D. E. U. V. M.	1-11-77	TITLE	FRONT PANEL
ENG. K. Heijnen	3-7-77	PROJ. ENG. 961	3-10-77
PROD. K. Heijnen	3-9-77	NEXT HIGHER ASSY.	
SCALE 1/1	CODE CS	NUMBER 5411846-0-1	REV. K
SHEET 1 OF 1	DIST.		

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COMPONENT SIDE VIEW

1977

ACTUAL REF DESIGNATORS	SUPERFICIAL REF DESIGNATORS
C1,C2,C3,C4,C5,C6,C7	C101 , C102 , C103 , C104 , C105 , C106 , C107
D1,D2,D3,D4,D5,D6,D7	D101 , D102 , D103 , D104 , D105 , D106 , D107
D8,D9,D10,D11,D12,D13	D108 , D109 , D110 , D111 , D112 , D113
E1,E2,E3	E101 , E102 , E103
K1,K2,K3	K101 , K102 , K103
J1,J2,J3,J4,J5	J101 , J102 , J103 , J104 , J105
Q1,Q2,Q3,Q4,Q5,Q6	Q101 , Q102 , Q103 , Q104 , Q105 , Q106
R1,R2,R3,R4,R5,R6,R7	R101 , R102 , R103 , R104 , R105 , R106 , R107
R8,R9,R10,R11,R12,R13,R14	R108 , R109 , R110 , R111 , R112 , R113 , R114
R15,R16,R17,R18,R19,R20,R21,R22	R115 , R116 , R117 , R118 , R119 , R120 , R121 , R122



## NOTES:

- 8 HOLES .0465 (+.000-.0045) MAYNARD ONLY
- UL APPROVAL REQUIRED
- REWORK INSTRUCTIONS:
  - REMOVE R17 (330Ω, 1/4W, 5%)
  - INSTALL R17 (330Ω, 1/2W, 5%)

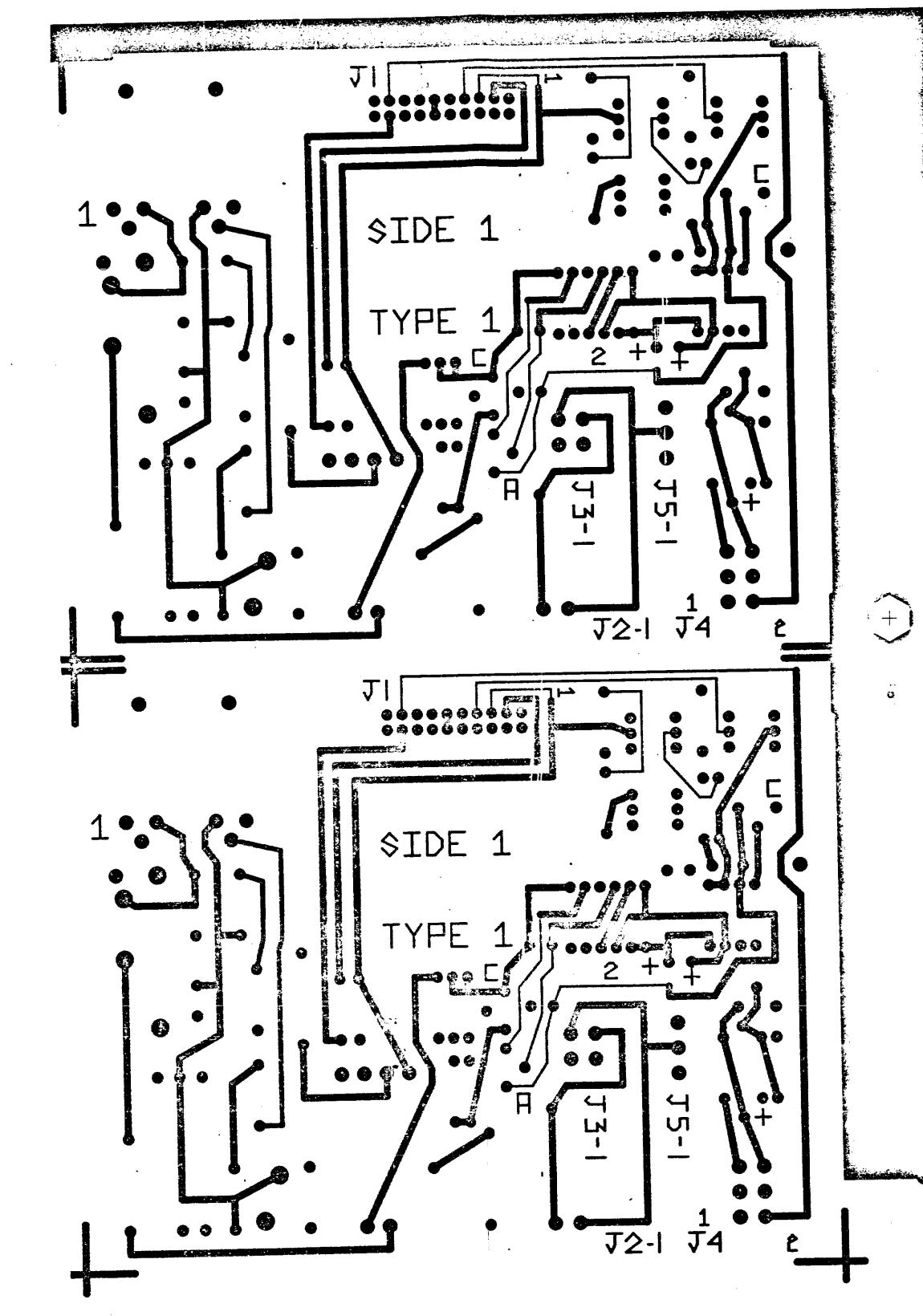
STEP E ↑ Y AXIS STEP TIMES  
REPEAT → X AXIS STEP TIMES

CHK	CHANGE NO	REV	L	M	N	O	P	Q	R	S	T	U	V
	5411848-0001	D	P. BURNELL										
10-10	REICHENBERG	E		CX002									
77				W.M.	5411848-								
				78	W.M.	5411848-							
					18	CZ 003							
						MAR 79							
						M ZARICH							
						5 JUNE 80							


ETCH REV. E-P2  
P.C. DESIGN DATA BASE REV. E-P2

SIGNATURES	DATE	digital
DRN. T. SHETRAWSKI	15-9-77	
CHK D. T. SHETRAWSKI	15-9-77	
MECH. ENG. G. RIECHENBERG	26-9-77	TITLE AC
PROJ. ENG. P. ARNOLD	26-9-77	SERVO
PROD. R. STROTT	26-9-77	
SCALE 2/1	SIZE CODE	NUMBER
SHT. 1 OF 4	D	5411848-0-0
	F	

NEXT HIGHER ASSY. B - DD - 5411848-0-0



U/L APPROVAL REQUIRED

VIEWED FROM SIDE 1

REVISIONS		
CHK	CHANGE NO	REV

DEC FORM NO  
DOD FORM 137

8

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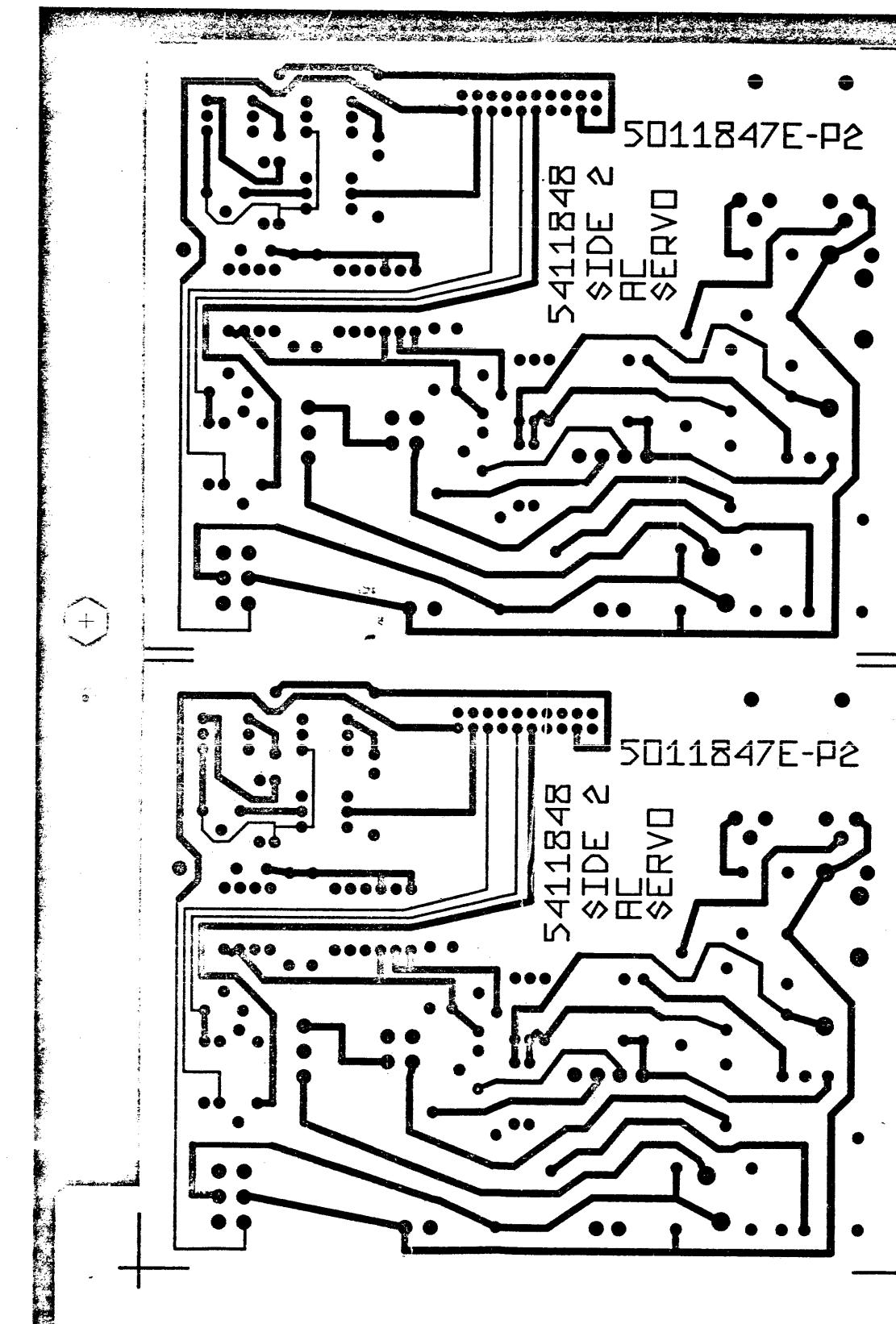
1

TITLE		
AC SERVO		
SCALE	2:1	1 SHEET OF 4
CODE	DCA-11848	NUMBER
REV.	Q-3	F

CST

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DUA 5411848 -0-0 F  
REV. E  
DATE 3/2/75



U/L APPROVAL REQUIRED

VIEWED FROM SIDE 2

REVISIONS		
CHK	CHANGE NO	REV

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## REWORK INSTRUCTIONS

3-1. CHANGE Q3 AND Q4 TO 1510070-00, ITEM 38.

REVISIONS		
CHK	CHANGE NO.	REV.

DRAFTSPRINT P-1074

8 7 6 5 4 3 2 1

REV. F SIZE CODE 5411848-0-0 NUMBER 1

SCALE ↑ ↓ SHEET 4 OF 4 DIST. 1 2 3 4 5 6 7 8 9

TITLE AC SERVO

SIZE CODE D UA NUMBER 5411848-0-0 REV. F

AUTOMATED BY PRTLST.3K(27)

PARTS LIST

SHEET A1 OF A2

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
1	1	D-MD-5011847-0-0	5011847-00	ETCH CRKT BRD	1	
2	2		1011683-00	.022 MFD 50V 1%	1	C1
3	3		1012312-01	.47 MFD 50V X%	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		11010856-00	1N 970B VZ= 24.0 -5% .40W Y	1	D1
7	7		1111577-00	1N 4454 TR= 4NS FIV= 50 S	10	D2-D6,D8,D9,D11-D13
8	8		1105796-00	1N 4004 FIV=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. SUPRESS.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%	2	R14,R21
19	19		1300271-00	220 1/4W 5%	3	R1,R3,R4
20	20		1311220-00	5.1 1/2W 5%	1	R18
21	21		1301327-00	68 K 1/4W 5%	1	R6
22	22		1302466-00	100 K 1/4W 5%	2	R5,R8
23	23		1300444-00	3.9 K 1/4W 5%	1	R20
24	24		1314516-00	200 K 1/4W 5%	2	R7,R23
25	25		1300496-00	15 K 1/4W 5%	1	R10
26	26		1300479-00	10 K 1/4W 5%	2	R11,R24
27	27		1300482-00	10 K 2W 10%	1	R12
28	28		1312927-00	16 1/4W 5%	2	R15,R16
29	29		1314649-00	430 K 1/4W 5%	1	R22

REVISION HISTORY ! BASIC PART NO! 5411848 !

ENG	ECO NUMBER	REV	SECTION A OF A	IDRN:	H. RICHER	DATE: 23 MAR 76	DIGITIZA
INITIAL	E		SECTION.VARIATION INDEX	CHK'D:	P. BURNELL	DATE: 10 JAN 77	TITLE PARTS LIST
IMZ 5411848-CZ003	F		EAJ-00				AC SERVO
INJM ISAPR 77		CBJ					
		ECJ		DES.ENG:	P. BADUM	DATE: 7 JUN 77	
		EDJ					
		EEJ					DOCUMENT NUMBER
		EFJ		RESP.ENG.:	P. BADUM	DATE: 7 JUN 77	
		EHJ					SIZE CODE NUMBER
		EIJ					REV
		EKJ		MFG.ENG.:	D. LESAGE	DATE: 7 JUN 77	K PL 5411848-0-DBP.
		ELJ					F
		EMJ		ASSEMBLY NUMBER:			FILE NAME:
		ENJ		ID-UA-5411848-0-0			Z0491.PLS EDIT # 3

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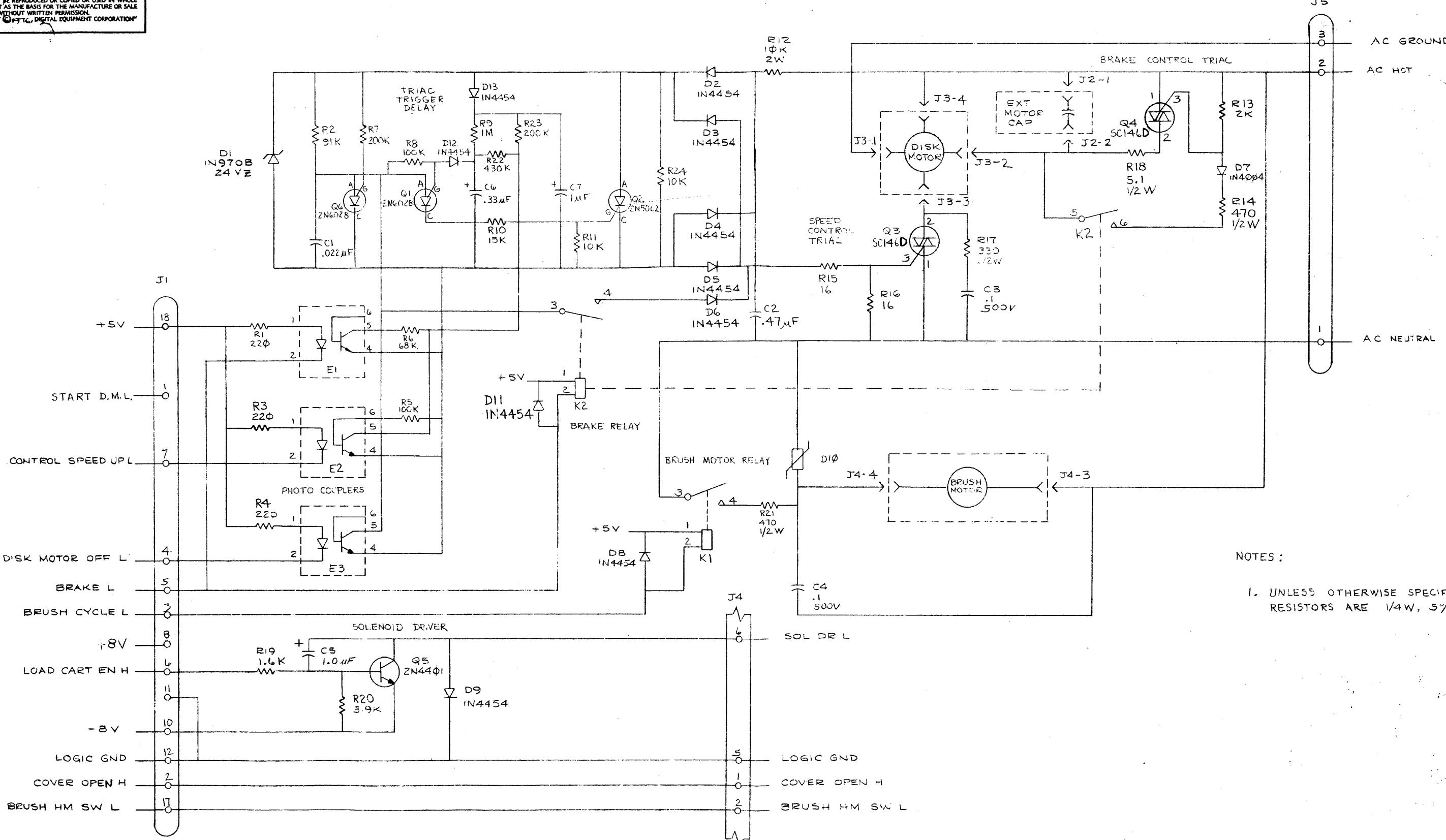
PARTS LIST

SHEET A2 OF A2

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
				00	
30	30	1300296-00	330 1/2W 5% CC	1	R17
31	31	1302388-00	2 K 1/4W 5% CC	1	R13
32	32	1309595-00	1 M 1/4W 5% CC	1	R9
33	33	1303176-00	1.6 K 1/4W 5%	1	R19
34	34	1209941-03	HEADER RT ANGLE LEFT L	1	J1
35	35	1209941-04	HEADER RT ANGLE,RIGHT	1	J1
36	36	1510877-00	2N 6028 UJT 300MW R67B	2	Q1,Q6
37	37	1110968-00	2N 5062 SCR@100V I=.8A T092	1	Q2
38	38	1510070-00	TRIAC@400V, I> 8A #RCA40669 M	2	Q3,Q4
39	39	1513489-00	2N 4401 NPN -350MW SI-40-20	1	Q5
40	40	9006557-00	NUT,KEP , 4-40X 1/4 AF	2	Q3,Q4
41	41	90066010-01	SCREW,PAN ,PHIL , 4-40X 5/16	2	Q3,Q4
42	42	9006655-00	WASHERY,FLAT, .312 O.D., X .125 I	2	Q3,Q4
43	43		*** THIS ITEM IS NOT USED ***	-	
44	44	1000002-04	.33 MFD 35V 10% .150D S.TA	1	C6
45	45	1314650-00	91 K 1/4W 5% CC	1	R2

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## NOTES :

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

DRN. 9	3/16/76	FIRST USED ON RLO1	digit
CHK'D E Burnell	1-14-77	TITLE	
ENG. P. B. Burnell	6-8-77	AC SERVO	
PROJ. ENG. M. H. G. 6/17/77			
PROD. D. W. Basile 6/17/77			
NEXT HIGHER ASSY.			
D-UA-5411848-0-0	SIZE	CODE	NUMBER
SCALE + +	D	CS	5411848-0-1
SHEET 1 OF 1	DIST.		

REVISIONS		REV.	CHANGE NO.	REV.
CHNR	CHNR			
28	28	C	RELEASED AT REV C EQUAL TO C1 RDS FIELD SERVICE AMMO- TATIION	D
28	5411848-0001			
			PHYLLIS BURNELL	
			S. REICHENBERG	
			Office in Germany	
			H. B. HARRIS	
			L. J. LEE	
			J. C. COOPER	
			M. ZURICH	
			<i>M. Janice</i>	
				F

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	REFERENCE DESIGNATOR
1	1	D-MD-5013533-0-0	5013533-00	ETCHED CIRCUIT BOARD	1		
2	2		1013466-08	.680.0 MMF 50V 10% CER.	1		C12
3	3		1016009-00	.2200 MMF 50V 5% CER.	1		C7
4	4		1001610-00	.01 MFD 50V -20+80 Z5U AXIAL	4		C1,C9,C10,C15
5	5		1002630-00	.015 MFD 100V 10% 663UW MYLR	1		C8
6	6		1013466-11	.22 MFD 50V +80/-20% CER.	4		C3,C5,C11,C16
7	7		1005306-00	.6.8MFD .35V 10% S.TANT	4		C4,C6,C13,C14
8	8		1000076-00	.39 MFD 10V 10% 150D S.TA	1		C2
9	9		1309422-00	5.1 1/4W 5% CC	1		R58
10	10		1312929-00	62 1/4W 5% CC	2		R3,R23
11	11		1311523-00	110 1/4W 5% CC	1		R22
12	12		1300247-00	120 1/4W 5% CC	1		R13
13	13		1300271-00	220 1/4W 5% CC	1		R59
14	14		1301425-00	300 1/4W 5% CC	1		R55
15	15		1303178-00	620 1/4W 5% CC	1		R6
16	16		1300365-00	1 K 1/4W 5% CC	5		R1,R7,R39,R44,R57
17	17		1300391-00	1.5 K 1/4W 5% CC	1		R5
18	18		1302388-00	2 K 1/4W 5% CC	2		R31,R43
19	19		1300426-00	2.7 K 1/4W 5% CC	2		R46,R47
20	20		1302389-00	4.3 K 1/4W 5% CC	1		R53
21	21		1300447-00	4.7 K 1/4W 5% CC	10		R10-R12,R14,R15,R19,R20,R24,R49,R68
22	22		1303179-00	8.2 K 1/4W 5% CC	3		R9,R16,R17
23	23		1300488-00	12 K 1/4W 5% CC	4		R25,R26,R45,R56
24	24		1305346-00	27 K 1/4W 5% CC	1		R21
25	25		1305131-00	*** THIS ITEM IS NOT USED ***	-		
26	26		1312923-00	2.10 K 1/4W 1Z RN55D-F 100PPM	1		R41
27	27		1305114-00	3.48 K 1/4W 1Z RN55D-F 100PPM	1		R34
28	28		1314763-00	4.12 K 1/4W 1Z RN55D-F 100PPM	1		R36
29	29		1303312-00	10.0 K 1/4W 1Z RN55D-F 100PPM	3		R28,R29,R62

— 10 — READING HISTORY

1 BASIC PAGE NO: 5413534

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www.babes-with-arms.com  
www.babes-with-arms.com

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REVISION HISTORY		PART NO. 5413534		DRN:	JERRY BEST	DATE: 26-JUL-78	DRAFTING		
ENG.	ECO NUMBER	REV	SECTION A OF A				TITLE	PARTS LIST	
	INIT BN 5413534-CZ001	A	SECTION-VARIATION INDEX	CHK'D:	JERRY BEST	DATE: 26-JUL-78		TITLE	
		B	[A] 00					PARTS LIST	
			CBJ					D.C. SERVO AND POWER SUPPLY	
			CCJ						
			CDJ	DES.ENG:	R. NOGUCHI	DATE:			
			CEJ					DOCUMENT NUMBER	
			CFJ	RESP.ENG.:	R. NOGUCHI	DATE: 26-JUL-78			
			CHJ					SIZE	CODE
			CJJ					NUMBER	REV
			CKJ	MFG.ENG.:	P. CHURCH	DATE:	K	PL	5413534-0-DBP
			CLJ						B
			CMJ	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:	FILE NAME:	EDIT	
			CNJ	D-UA-5413534-0-0		RL02	Z0494B.PLS	13	

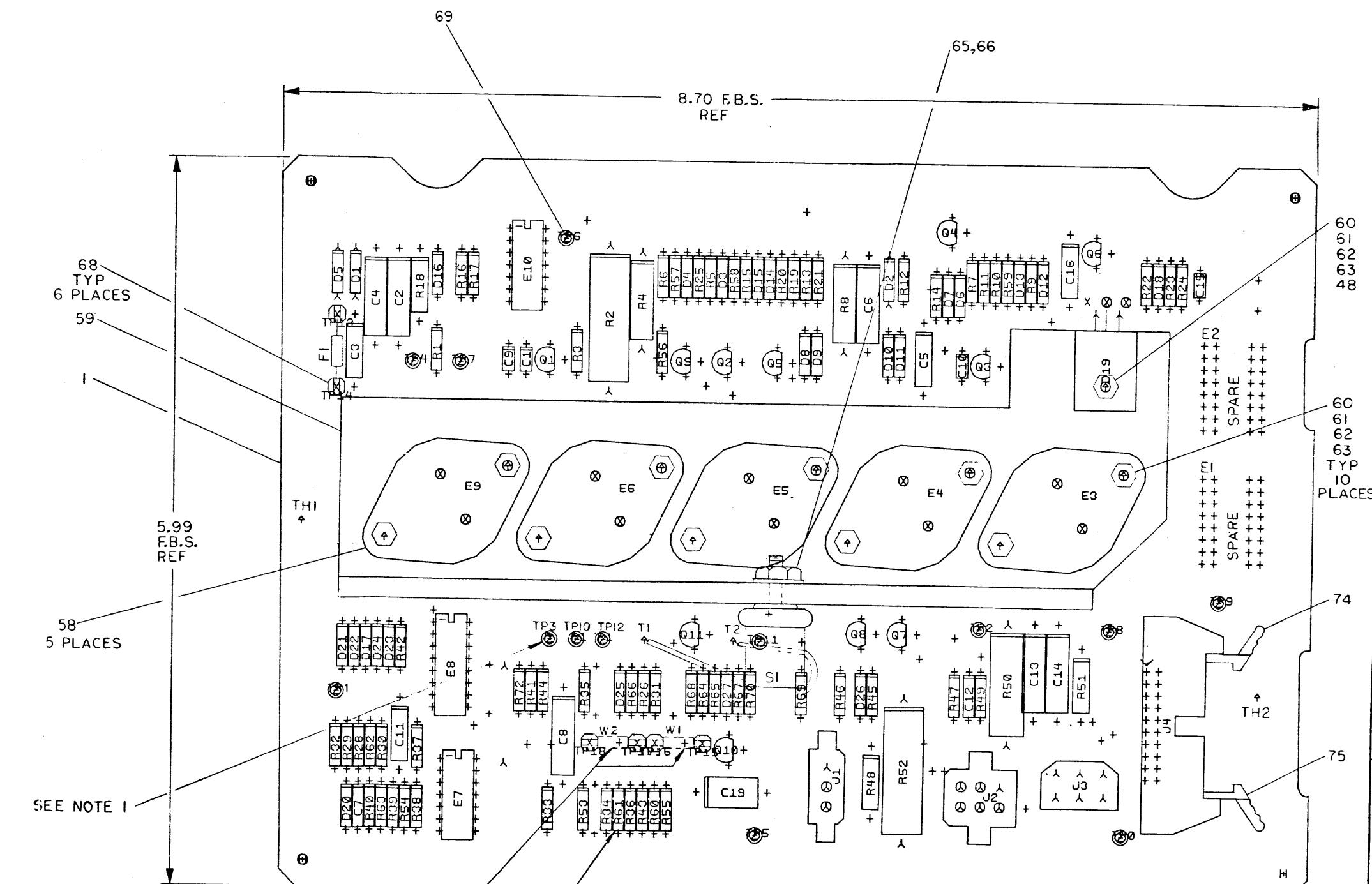
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P A R T S      I I S I

SHEET A3 OF A7





AUTOMATED BY PRTLST.2E(2)

P A R T S      L I S T

SHEET A1 AE A3

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION		REFERENCE DESIGNATOR
					00		
1	1	D-MD-5013533-0-0	5013533-00	ETCHED CIRCUIT BOARD			
2	2		1013466-08	680.0 MMF 50V 10% X7R CER	1		C12
3	3		1016009-00	2200.0 MMF 50V 5% CER	1		C7
4	4		1001610-00	.01 MFD 50V +80-20% 25U CER	4		C1,C9,C10,C15
5	5		1002630-00	.015 MFD 100V 10% MYLR	1		C8
6	6		1013466-11	.22 MFD 50V +80-20% 25U CER	4		C3,C5,C11,C16
7	7		1005306-00	6.8MFD 35V 10% S.TANT	4		C4,C6,C13,C14
8	8		1000076-00	.39 MFD 10V 10% S.TANT	1		C2
9	9		1309422-00	5.10 .25 W 5.0 % CC	1		R58
10	10		1312929-00	62.0 .25 W 5.0 % CC	2		R3,R23
11	11		1311523-00	110.0 .25 W 5.0 % CC	1		R22
12	12		1300247-00	120.0 .25 W 5.0 % CC	1		R13
13	13		1300271-00	220.0 .25 W 5.0 % CC	1		R59
14	14		1301425-00	300.0 .25 W 5.0 % CC	1		R55
15	15		1303178-00	620.0 .25 W 5.0 % CC	1		R6
16	16		1300365-00	1.00 K .25 W 5.0 % CC	5		R1,R7,R39,R44,R57
17	17		1300391-00	1.50 K .25 W 5.0 % CG	1		R5
18	18		1302388-00	2.00 K .25 W 5.0 % CC	2		R31,R43
19	19		1300426-00	2.70 K .25 W 5.0 % CC	2		R46,R47
20	20		1302389-00	4.30 K .25 W 5.0 % CC	1		R53
21	21		1300447-00	4.70 K .25 W 5.0 % CC	10		R10-R12,R14,R15,R19,R20,R24,R49
22	22		1303179-00	8.20 K .25 W 5.0 % CC	3		CONT R68
23	23		1300488-00	12.0 K .25 W 5.0 % CC	4		R9,R16,R17
24	24		1305346-00	27.0 K .25 W 5.0 % CC	1		R25,R26,R45,R56
25	25		1305131-00	*** THIS ITEM IS NOT USED ***	-		R21
26	26		1312923-00	2.10 K .25 W 1.0 % RN550-F10	1		R41
27	27		1305114-00	3.48 K .25 W 1.0 % RN550-F10	1		R34
28	28		1314763-00	4.12 K .25 W 1.0 % RN550-F10	1		R36
29	29		1303312-00	10.0 K .25 W 1.0 % RN550-F10	3		R28,R29,R62

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

!-----!  
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AUTOMATED BY PRTLIST, 2E (2)

E A R T H S I L I S T

SHEET A3 OF A3

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
30	30		1312924-00	.10.70 K .25 W 1.0 % RN55D-F10	1	R32	
31	31		1309412-00	.18.20 K .25 W 1.0 % RN55D-F10	1	R33	
32	32		1315436-00	.52.30 K .25 W 1.0 % RN55D-F10	1	R54	
33	33		1304843-00	.243.0 K .25 W 1.0 % RN55D-F10	1	R72	
34	34		1315437-00	.237.0 K .25 W .10% RN55D-F10	1	R38	
35	35		1302378-00	.51.0 .50 W 5.0 % CC	1	R51	
36	36		1300364-00	.1.0 K .50 W 5.0 % CC	2	R18,R48	
37	37		1314068-00	.360.0 1.0 W 5.0 % CC	1	R4	
38	38		1300368-00	.1.0 K 1.0 W 5.0 % CC	1	R8	
39	39		1301494-00	.200.0 2.0 W 5.0 % CC	1	R50	
40	40		1313358-00	.20 5.0 W 3.0 % WW	2	R2,R52	
41	41		1105796-00	1N 4004 PIV=400 I= 1A D041 SF	3	D1,D2,D5	
42	42		1113953-00	1N 5523D VZ= 5.1 1%	8	D4,D6,D8,D9,D16,D18,D21,D22	
43	43		1109990-00	1N 757A VZ= 9.1 5% .40W P	2	D23,D24	
44	44		1110994-00	1N 751A VZ= 5.1 5% .40W	1	D14	
45	45		1114117-00	1N 4152 PIV=450 I=75M	6	D3,D7,D10,D11,D12,D13	
46	46		1111577-00	1N 4454 TR= 4NS PIV= 50 S	6	D15,D17,D20,D25-D27	
47	47		1513698-00	TRIAC@200V, I>14A	1	D19	
48	48		9009597-00	INSULATOR, THERMA-FILM	1		
49	49		1513489-00	2N 4401 NPN 350MW SI 40 20	4	Q2,Q4,Q8,Q9	
50	50		1513490-00	2N 4403 PNP 350MW SI-40 30	6	Q1,Q3,Q5-Q7,Q11	
51	51		1511282-00	MJ2500 PNP 150WC SI 60 5 1K 5A	2	E4,E6	
52	52		1511349-00	TIP 640 (OR MJ3000) NPN DARLINGT	1	E3	
53	53		1911706-00	5012 ANALOG SWITCH,4CHNL	1	E8	
54	54		1912818-00	LS38 NAND BUFFER-QUAD 2IN	1	E10	
55	55		1912107-01	324ANOF AMP,QUAD	1	E7	
56	56		1913695-00	7808 VOLT REG,FIX +8V	1	E9	
57	57		1913694-00	7908 VOLT REG,FIX -8V	1	E5	
58	58		90008419-00	WASHER, FLAT, THERMAFILM .002THK	5		
59	59		7418595-00	HEATSINK ASSEMBLY	1		
60	60		90008033-01	SCREW,FAN,PHIL 4-40X 9/16 SS	11		
61	61		9006557-00	NUT,KEP , 4-40X 1/4 AF	11		
62	62		9006655-00	WASHER, FLAT, .312 O.D. X .125 I	11		
63	63		90008268-00	COMPOUND, THERMAL JOINT	A/R		
64	64		1210824-00	THERMOSTAT,0@215C@156,SPST,NORM	1	S1	
65	65		90008185-00	NUT,KEP , 6-32X1/4 AF	1		
66	66		9006653-00	WASHER, FLAT, .375 O.D. X .156 I	1		
67	67		1205747-00	FUSE, SUB-MINI, 5.000A, 125V, A	1	F1	
68	68		90006735-00	EYELET, FUNNEL FLANGE, .059 OD X	6	TP13-TP18	
69	69		90007791-00	TERM PCB 2F05 SOLDER,TURRET	13	TP0-TP12	
70	70		1213922-01	HEADER 3POS	1	J1	
71	71		1213922-04	HEADER 6POS	1	J2	
72	72		1213900-00	CONN,RCFT 6POS	1	J3	
73	73		1209941-06	HEADER.100 20POS RT ANGLE	1	J4	
74	74		1209941-04	HEADER RT ANGLE,RIGHT	1		
75	75		1209941-03	HEADER RT ANGLE LEFT L	1		
76	76		1305324-00	4.99 K .25 W 1.0 % RN55D-F10	2	R37,R30	
77	77		1300250-00	150.0 .25 W 5.0 % CC	1	R42	

AUTOMATED BY PRTLST.2E(2)

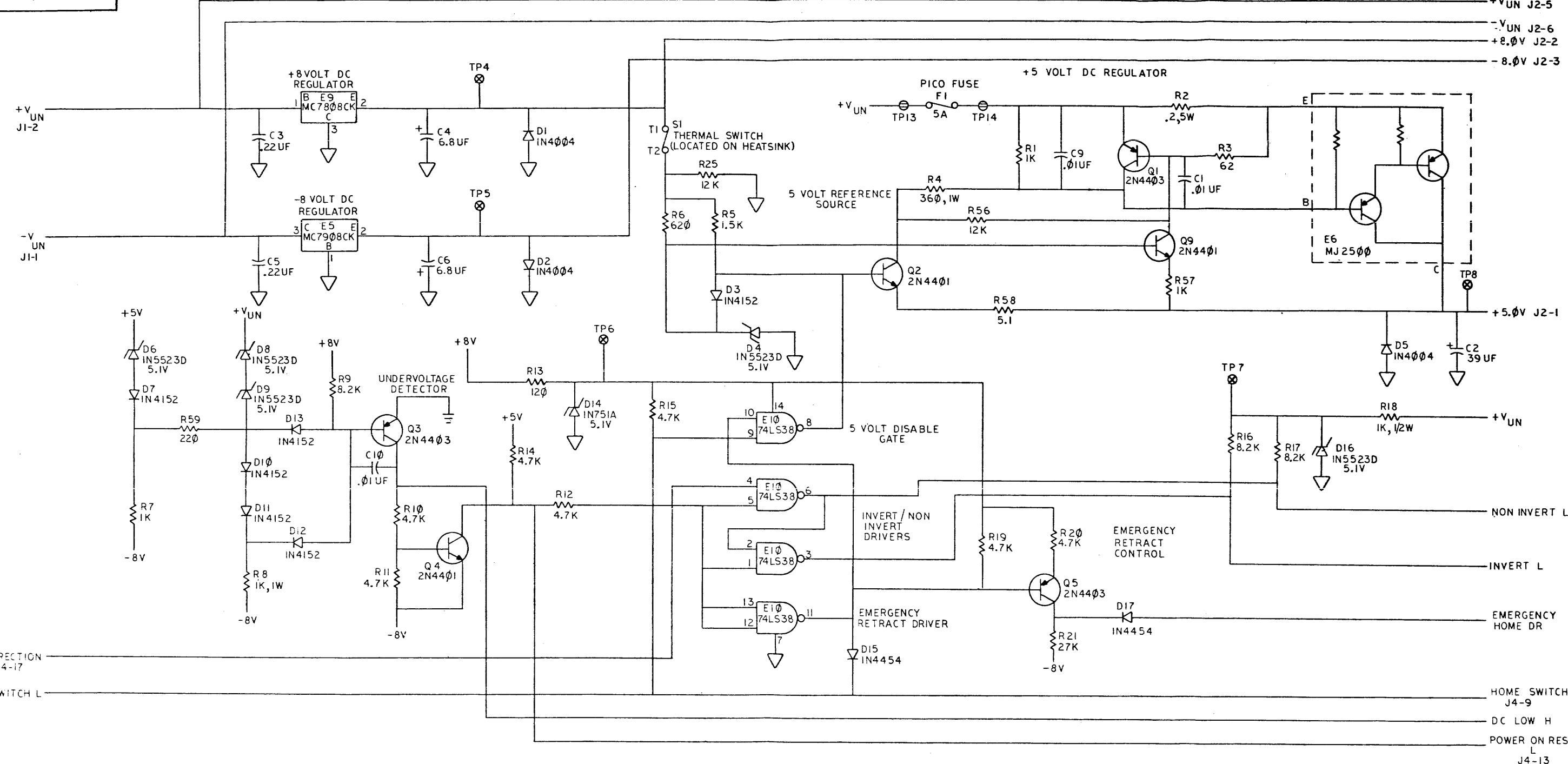
P A R T S      L I S T

SHEET A3 OF A3

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	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	Q10
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

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

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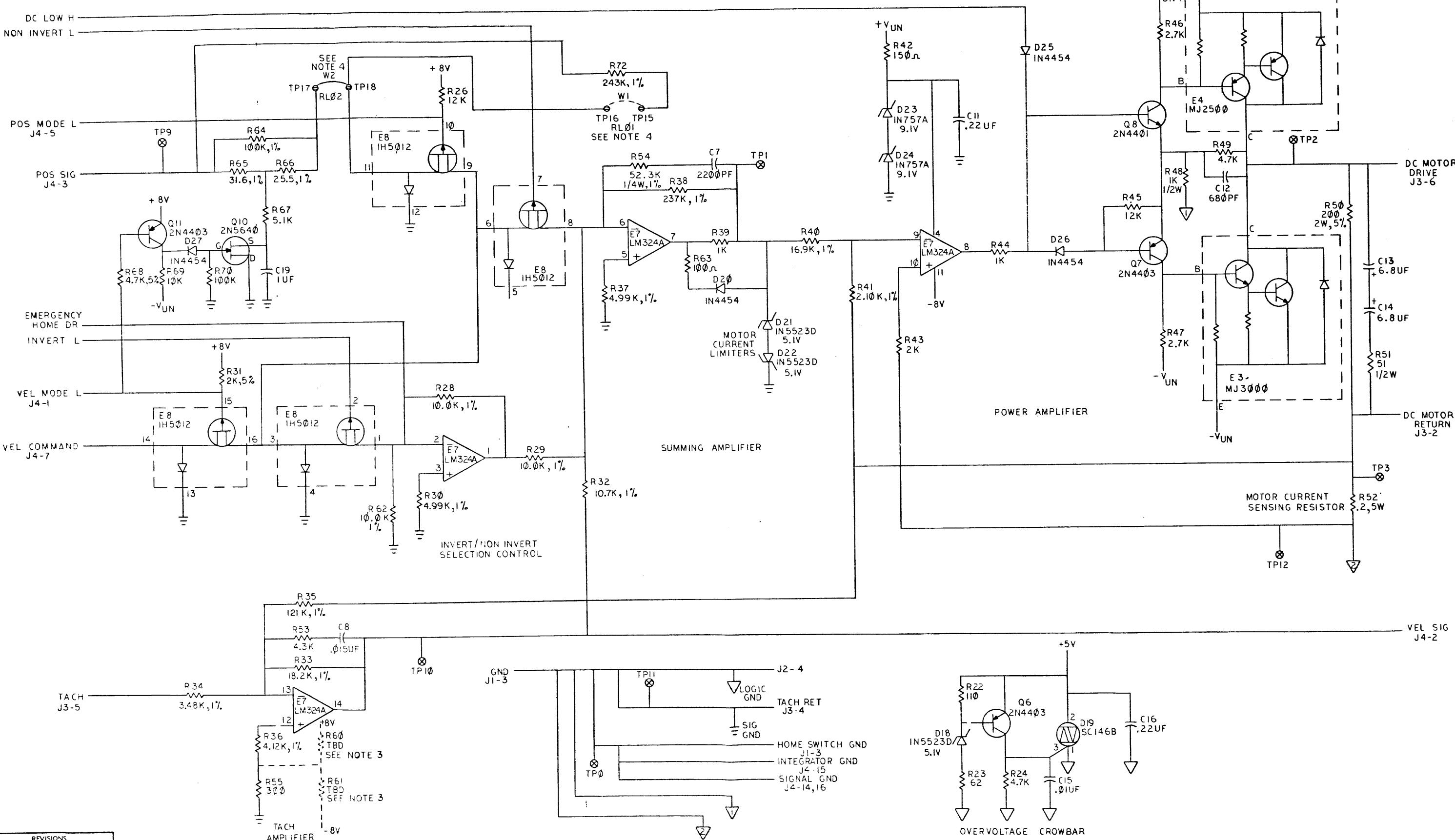
## NOTES:

- ALL RESISTORS TO BE 1/4W, 5%; UNLESS OTHERWISE SPECIFIED.
- E1 AND E2 ARE SPARES.
- VALUE OF R60 OR R61 WILL BE DETERMINED IN TESTING.
- INSTALL W1 AND W2 FOR RL01 ON SIDE 2. INSTALL W2 ONLY FOR RL02 ON SIDE 2.

DESCRIPTION		DWG./PART NO.		ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES				
ANGLES ±0° 30'	CLASS OF ACCUARCY	OVER TO .02	OVER TO .12	OVER TO .20
SURFACE QUALITY IN	CHECK ONE	.02	.12	.20
MEDIUM		±.004	±.008	±.016
MICROINCHES	PREFERRED	±.012	±.016	±.025
REV.		±.008	±.012	±.024
DRN. R. 1	FIRST USED ON	digital		
CHK'D	TITLE	DC SERVO AND POWER SUPPLY		
ENG.	PROJ. ENG.	PROD.	NEXT HIGHER ASSY.	D-U-A-5413534-0-0
PROD.	PROD.	PROD.	MATERIAL	SIZE
DO NOT SCALE-DWG	FINISH	SCALE	CODE	NUMBER
REMOVE BURRS AND BREAK SHARP CORNERS		✓	D CS	5413534-0-1
DO NOT SCALE-DWG		✓	REV.	
NEXT HIGHER ASSY.				
MATERIAL				
FINISH				

REVISIONS	REV.
CHANGE NO.	C2M
DATE	10/10/78
PROJ. NO.	NOV. HI
DESIGNER	J. K. H.
CHK'D	M. ZARICH
DATE	10/10/78
PROJ. NO.	NOV. HI
DESIGNER	J. K. H.
CHK'D	M. ZARICH
DATE	10/10/78

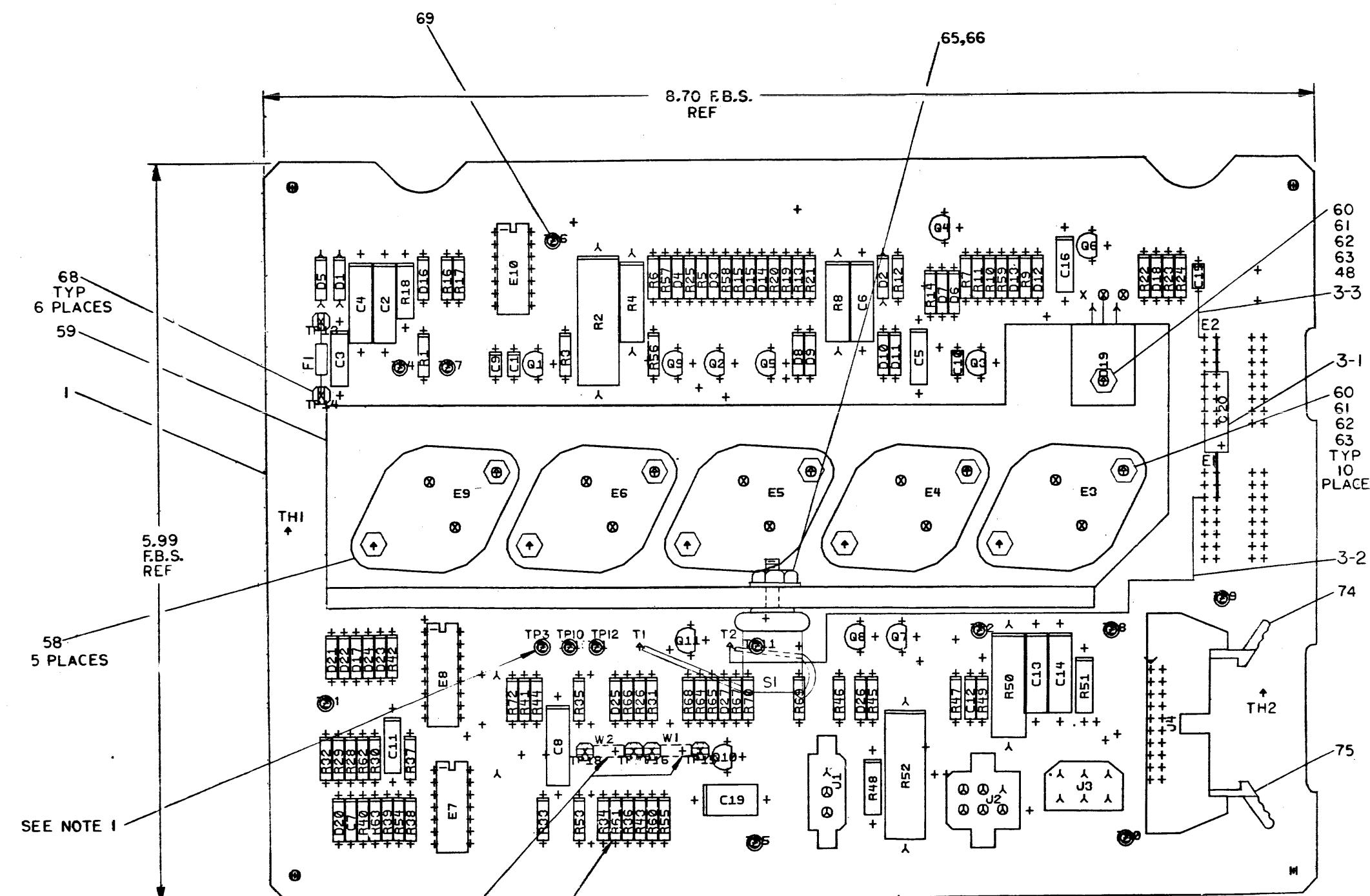
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REVISIONS		
CHK	CHANGE NO	REV

TITLE		DC SERVO AND POWER SUPPLY		SIZE	CODE	NUMBER		REV.
SCALE		SHEET	2	OF	2	DIST.		

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CHANGE NO	REV	DATE	CHANGED BY	APPROVED BY
5413534-C001	B	10/10/80	BOB NOGUCHI	
5413534- C	C	10/10/80	M. ZARICH <i>M. Zarich</i>	
5413534- D	D	10/10/80	CX003 M. ZARICH <i>M. Zarich</i>	

SIGNATURES	DATE	d i g i t a l		
DRN. <i>Faulk &amp; Kendrich</i>	6/5/76			
CHK. D. <i>Bill - A.M.</i>	6/5/76			
ENG. <i>John W. Hilt</i>	6/5/76			
PROJ. ENG. <i>John W. Hilt</i>	6/5/76	TITLE DC SERVO		
PROD. <i>John W. Hilt</i>	6/27/78	& POWER SUPPLY		
SCALE 2/1	SIZE	CODE	NUMBER	RE
SHT. 1 OF 2	D	UA	5413534-0-0	D
NEXT HIGHER ASSY. B-DD-5413534-0				

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### REWORK INSTRUCTIONS:

ECO 5413534-CX003

#### COMPONENT ADDS SIDE 1:

- 3-1 ADD POLARIZED SIDE OF C20 (1002781-00) AT E1-3 AND THE GND SIDE AT E2-1.

#### WIRE ADDS SIDE 1:

- 3-2 ADD WIRE FROM THE PTH NEXT TO E1-3 TO T2.
- 3-3 ADD WIRE FROM THE PTH NEXT TO E2-1 TO C15 GND (BOTTOM).

REVISION HISTORY		
DATE	ECO NUMBER	REV.

DRD137A

6

5

4

3

2

1

8 7 6 5 4 3 2 1

DOCUMENT NUMBER		
SIZE	CODE	NUMBER
D	UA	5413534-0-0

TITLE DC SERVO AND  
POWER SUPPLY

SCALE -/- SHEET 2 OF 2

## PARTS LIST

SHEET A1 OF A3

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	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	C12
3 3		1016009-00	2200.0 MMF 50V 5% CER	1	C7
4 4		1001610-00	.01 MFD 50V +80-20% Z5U CER	4	C1,C9,C10,C15
5 5		1002630-00	.015 MFD 100V 10% MYLR	1	C8
6 6		1013466-11	.22 MFD 50V +80-20% Z5U CER	4	C3,C5,C11,C16
7 7		1005306-00	*** THIS ITEM IS NOT USED ***	-	
8 8		1000076-00	*** THIS ITEM IS NOT USED ***	-	
9 9		1309422-00	.5.10 .25 W 5.0 % CC	1	R58
10 10		1312929-00	.62.0 .25 W 5.0 % CC	2	R3,R23
11 11		1311523-00	.110.0 .25 W 5.0 % CC	1	R22
12 12		1300247-00	.120.0 .25 W 5.0 % CC	1	R13
13 13		1300271-00	.220.0 .25 W 5.0 % CC	1	R59
14 14		1301425-00	.300.0 .25 W 5.0 % CC	1	R55
15 15		1303178-00	.620.0 .25 W 5.0 % CC	1	R6
16 16		1300365-00	1.0 K .25 W 5.0 % CC	5	R1,R7,R39,R44,R57
17 17		1300391-00	1.50 K .25 W 5.0 % CC	1	R5
18 18		1302388-00	2.0 K .25 W 5.0 % CC	2	R31,R43
19 19		1300426-00	2.70 K .25 W 5.0 % CC	2	R46,R47
20 20		1302389-00	4.30 K .25 W 5.0 % CC	1	R53
21 21		1300447-00	4.70 K .25 W 5.0 % CC	10	R10-R12,R14,R15,R19,R20,R24,R49,R68
22 22		1303179-00	8.20 K .25 W 5.0 % CC	3	CONT R9,R16,R17
23 23		1300488-00	12.0 K .25 W 5.0 % CC	4	R25,R26,R45,R56
24 24		1305346-00	27.0 K .25 W 5.0 % CC	1	R21
25 25		1305131-00	*** THIS ITEM IS NOT USED ***	-	
26 26		1312923-00	2.10 K .25 W 1.0 % RN55D-F10	1	R41
27 27		1305114-00	3.48 K .25 W 1.0 % RN55D-F10	1	R34
28 28		1314763-00	4.12 K .25 W 1.0 % RN55D-F10	1	R36
29 29		1303312-00	10.0 K .25 W 1.0 % RN55D-F10	3	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								
INIT	A		SECTION.VARIATION INDEX	CHK'D:	JERRY BEST			DATE: 26-JUL-78		TITLE	PARTS LIST
EN	5413534-CZ001	B	[CA] 00							D.C. SERVO AND POWER SUPPLY	
MZ	5413534-CX003	C	[CB]								
MZ	5413534-CX004	D	[CC]	DES.ENG:	R. NOGUCHI			DATE:			
			[CD]								
			[CE]								
			[CF]	RESP.ENG.:	R. NOGUCHI			DATE: 26-JUL-78			
			[CH]								
			[CJ]								
			[CK]	MFG.ENG.:	P. CHURCH			DATE:			
			[CL]								
			[CM]	ASSEMBLY NUMBER:							
			[CN]	ID-UA-5413534-0-0							

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## PARTS LIST

SHEET A2 OF A3

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
30 30		1312924-00	10.70 K .25 W 1.0 % RN55D-F10	1	R32
31 31		1309412-00	18.20 K .25 W 1.0 % RN55D-F10	1	R33
32 32		1315436-00	52.30 K .25 W 1.0 % RN55D-F10	1	R54
33 33		1304843-00	243.0 K .25 W 1.0 % RN55D-F10	1	R72
34 34		1315437-00	237.0 K .25 W .10% RN55D-F10	1	R38
35 35		1302378-00	51.0 .50 W 5.0 % CC	1	R51
36 36		1300364-00	1.0 K .50 W 5.0 % CC	2	R18,R48
37 37		1314068-00	360.0 1.0 W 5.0 % CC	1	R4
38 38		1300368-00	1.0 K 1.0 W 5.0 % CC	1	R8
39 39		1301494-00	200.0 2.0 W 5.0 % CC	1	R50
40 40		1313358-00	.20 5.0 W 3.0 % WW	2	R2,R52
41 41		1105796-00	1N 4004 PIV=400 I= 1A D041 SP	3	D1,D2,D5
42 42		1113953-00	1N 5523D VZ= 5.1 1%	8	D4,D6,D8,D9,D16,D18,D21,D22
43 43		1109990-00	1N 757A VZ= 9.1 5% .40W P	2	D23,D24
44 44		1110994-00	1N 751A VZ= 5.1 5% .40W	1	D14
45 45		1111417-00	1N 4152 PIV=40 I=75	6	D3,D7,D10,D11,D12,D13
46 46		1111577-00	1N 4454 TR= 4NS PIV= 50 S	6	D15,D17,D20,D25-D27
47 47		1513698-00	TRIAC@200V, I>14A	1	D19
48 48		9009597-00	INSULATOR, THERMA-FILM	1	
49 49		1513489-00	2N 4401 NPN 350MW SI 40 20	4	Q2,Q4,Q8,Q9
50 50		1513490-00	2N 4403 PNP 350MW SI-40 30	6	Q1,Q3,Q5-Q7,Q11
51 51		1511282-00	MJ2500 PNP 150WC SI 60 5 1K EA	2	E4,E6
52 52		1511349-00	TIP 640 (OR MJ3000) NPN DARLINGT	1	E3
53 53		1911706-00	5012 ANALOG SWITCH,4CHNL	1	E8
54 54		1912818-00	LS38 NAND BUFFER-QUAD 2IN	1	E10
55 55		1912107-01	324ANOP AMP,QUAD	1	E7
56 56		1913695-00	7808 VOLT REG,FIX +8V	1	E9
57 57		1913694-00	7908 VOLT REG,FIX -8V	1	E5
58 58		9008419-00	WASHER, FLAT, THERMAFILM .002THK	5	
59 59		7418595-00	HEATSINK ASSEMBLY	1	
60 60		9008033-01	SCREW,FAN,PHIL 4-40X 9/16 SS	11	
61 61		9006557-00	NUT,KEP , 4-40X 1/4 AF	11	
62 62		9006655-00	WASHER, FLAT, .312 O.D. X .125 I	11	
63 63		9008268-00	COMPOUND, THERMAL JOINT	A/R	
64 64		1210824-00	THERMOSTAT,0@215,C@156,SPST,NORM	1	S1
65 65		9008185-00	NUT,KEP , 6-32X1/4 AF	1	
66 66		9006653-00	WASHER, FLAT, .375 O.D. X .156 I	1	
67 67		1205747-00	FUSE, SUB-MINI, 5.000A, 125V, A	1	F1
68 68		9006735-00	EYELET, FUNNEL FLANGE, .059 OD X	6	TP13-TP18
69 69		9007791-00	TERM PCB 2POS SOLDER,TURRET	13	TP0-TP12
70 70		1213922-01	HEADER 3POS	1	J1
71 71		1213922-04	HEADER 6POS	1	J2
72 72		1213900-00	CONN,RCPT 6POS	1	J3
73 73		1209941-06	HEADER,100 20POS RT ANGLE	1	J4
74 74		1209941-04	HEADER RT ANGLE,RIGHT	1	
75 75		1209941-03	HEADER RT ANGLE LEFT L	1	
76 76		1305324-00	4.99 K .25 W 1.0 % RN55D-F10	2	R37,R30
77 77		1300250-00	150.0 .25 W 5.0 % CC	1	R42

## PARTS LIST

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION		REFERENCE DESIGNATOR
				00		
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		
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		Q10
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		
93	93	1017472-00	10 MFD 35V +50-10% AL EL	4		C4,C6,C13,C14
94	94	1016549-00	47 MFD 10V +50-10% AL EL	1		C2

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

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS																								
D-UA-5413534-0-0	2		D.C. SERVO AND POWER SUPPLY	A B C D E 2PM 23 MAY 80 REV. C NOV 80 P-2764																								
D-CS-5413534-0-1	2		D.C. SERVO AND POWER SUPPLY	A B C D E																								
D-MD-5013533-0-0	4		DRILL & ETCH DRAWING	A A A A A																								
	5013533		ETCHED BOARD	B B B B A																								
K-PC-5413534-0-DBC	-		P.C. DESIGN DATA BASE	A A A A A																								
K-PL-5413534-0-DBP	-		INSERTION PARTS LIST DATA BASE	A B B C D																								
D-EG-5013533-0-0	2		ETCH CUT DRAWING	-- A A A																								
NOTES:				<table border="1"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>DATE</th> <th>CHG NO.</th> <th>REV.</th> </tr> </thead> <tbody> <tr> <td>7/20/78</td> <td>*</td> <td>A</td> </tr> <tr> <td>12 APR 78</td> <td>5413534- C X 0 0 1</td> <td>A</td> </tr> <tr> <td>23 MAY 80</td> <td>5413534- C X 0 2 A</td> <td>B</td> </tr> <tr> <td>10 NOV 80</td> <td>5413534- C X 0 3 A</td> <td>C</td> </tr> <tr> <td>17 JUNE 81</td> <td>5413534- C X 0 0 4</td> <td>D</td> </tr> </tbody> </table>	REVISIONS			DATE	CHG NO.	REV.	7/20/78	*	A	12 APR 78	5413534- C X 0 0 1	A	23 MAY 80	5413534- C X 0 2 A	B	10 NOV 80	5413534- C X 0 3 A	C	17 JUNE 81	5413534- C X 0 0 4	D			
REVISIONS																												
DATE	CHG NO.	REV.																										
7/20/78	*	A																										
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23 MAY 80	5413534- C X 0 2 A	B																										
10 NOV 80	5413534- C X 0 3 A	C																										
17 JUNE 81	5413534- C X 0 0 4	D																										
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		USED CN OPTION/MODEL	DRW	4/18/78	TITLE																							
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			ENG.	8/11/78																								
			PROD. P. CHURCH	8/11/78																								
	REASON	9/27/78																										

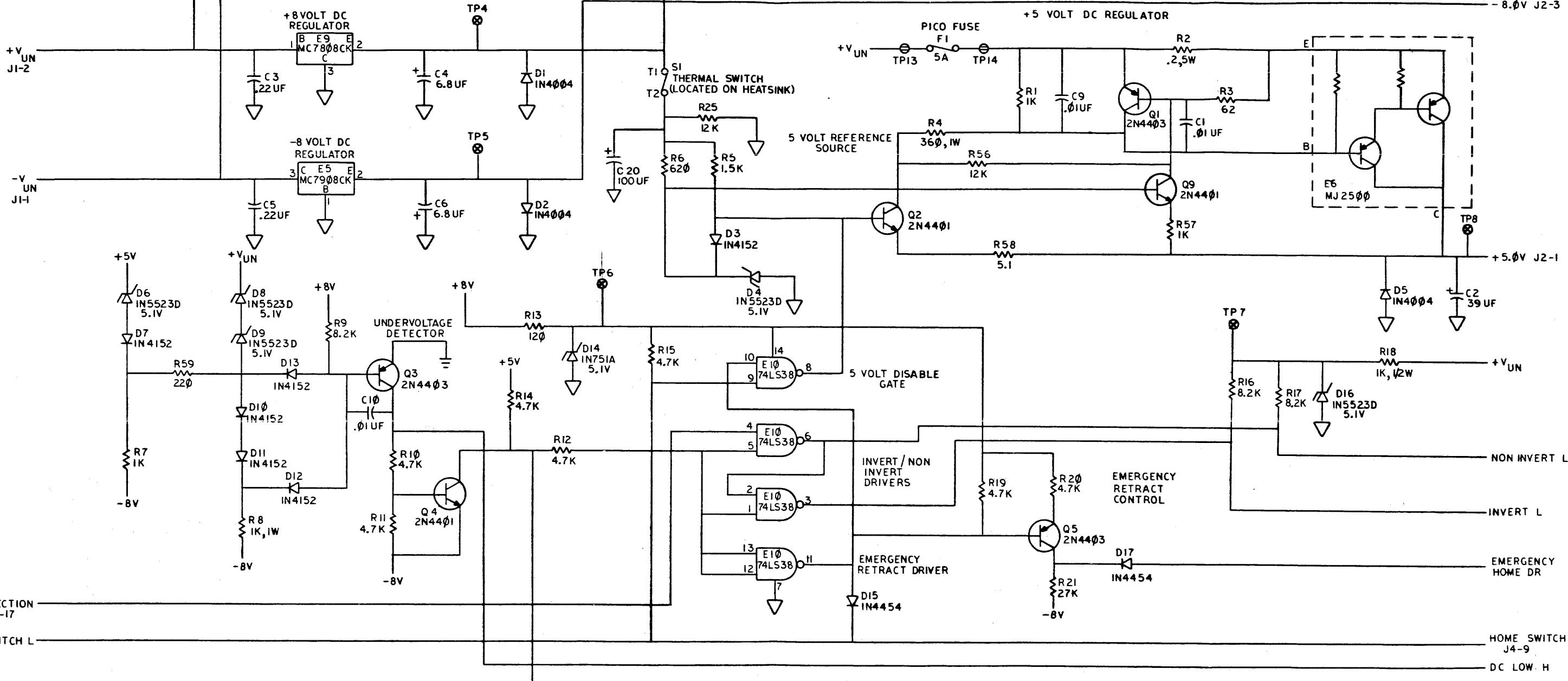
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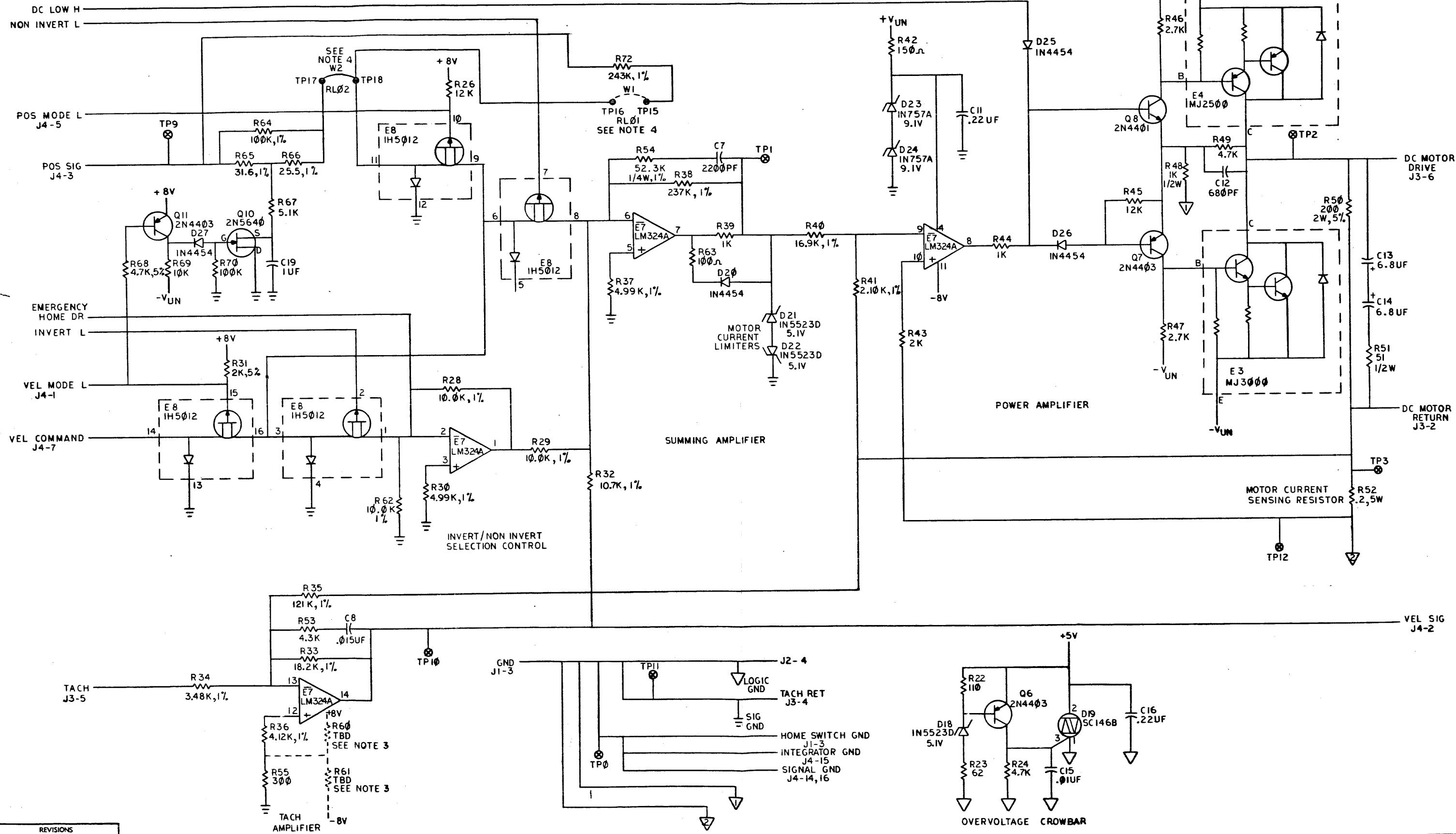
## NOTES

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 RL01 ON SIDE 2.  
INSTALL W2 ONLY FOR RL02 ON SIDE 2.

REVISIONS		CHANGE NO.	
CHNR	DATE	DESCRIPTION	APPROVAL
1	5-14-68	5413534-CX001 BOB NOGUCHI	B
2	5-16-68	5413534-CX002 M. ZARICH	C
3	5-17-68	5413534-CX003 M. ZARICH	D

QUANTITY & VARIATION	MICROINCHES	DESCRIPTION		DWG./PART NO.					ITEM NO.
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		NOMINAL DIMENSION RANGE INCHES					
ANGLES ±0° 30'		CLASS OF ACCURACY		OVER	OVER	OVER	OVER	OVER	OVER
SURFACE QUALITY IN		(CHECK ONE)		0	0.2	1.2	4.0	12.0	40.0
		MEDIUM		±.004	±.008	±.012	±.016	±.024	±.04
		PREFERRED		±.012	±.016	±.025	±.04	±.065	±.1
<b>FIRST ANGLE PROJECTION</b>									
DRN. R. Michael		E/15/12		FIRST USED ON					<b>digital</b>
CHK'D		R. L. Jones							
ENG. R. L. Jones		S/17/12							
PROJ. ENG. R. L. Jones		S/17/12							
PROD. P. C. Jones		S/27/12							
REMOVE BURRS AND BREAK SHARP CORNERS									
DO NOT SCALE DWG									
NEXT HIGHER ASSY.									
MATERIAL		D - UA-5413534-0-0		SIZE	CODE	NUMBER			REV.
FINISH		SCALE + +		D	CS	5413534-0-1			D
SHEET 1		OF 2		DIST					

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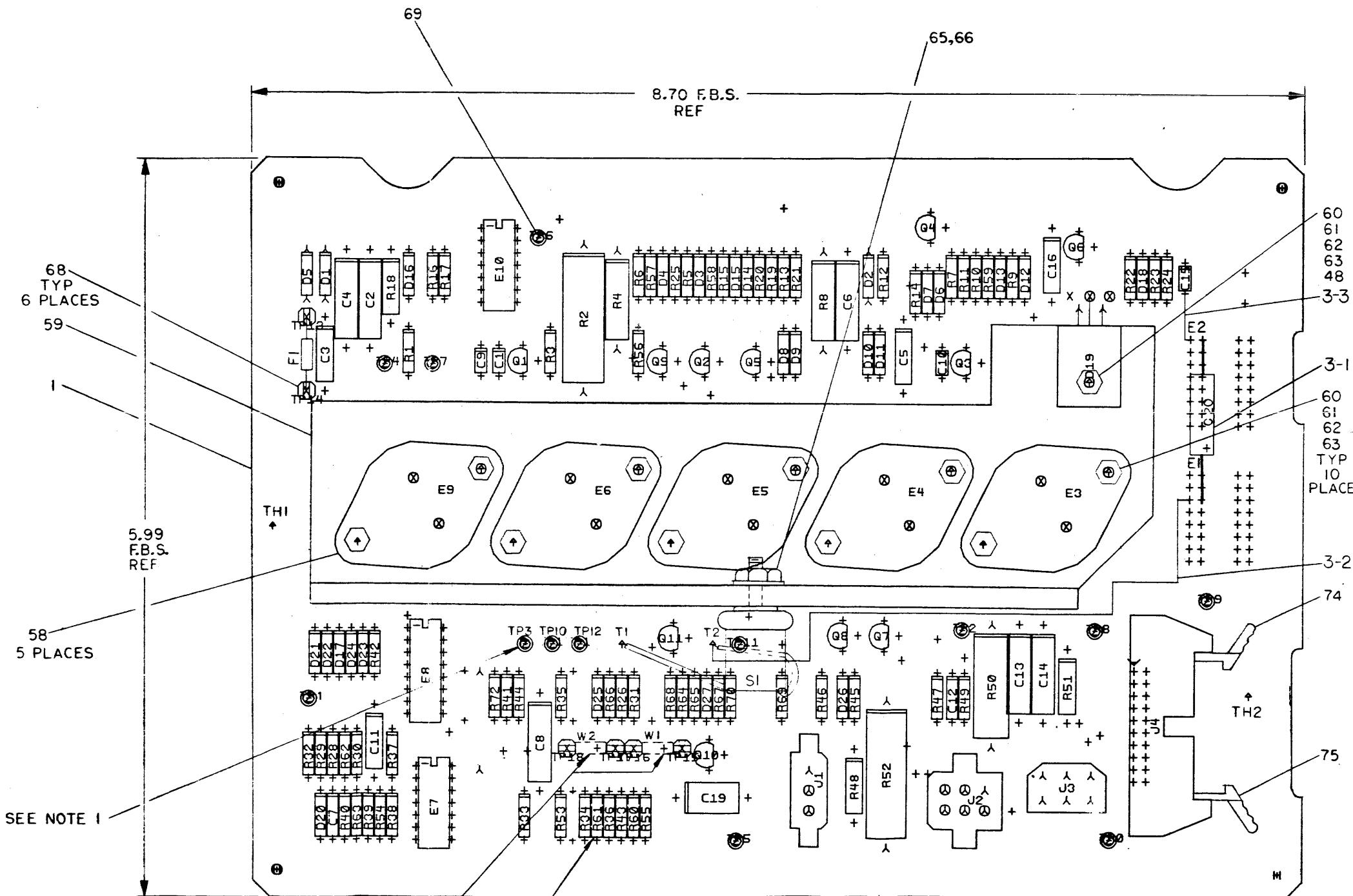


REVISIONS		
CHK	CHANGE NO.	REV.

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COMPONENT SIDE VIEW



## NOTES:

1. TP3, TP11, TP12 & TP15 THRU TP18 TO BE MOUNTED ON SIDE 2.
2. R60 AND R61 ARE TO BE INSTALLED AFTER FINAL TEST.
3. INSTALL W1 AND W2 FOR RL01.  
INSTALL W2 ONLY FOR RL22.  
W1, W2 ARE LOCATED ON SIDE 2.
4. CS REV TO BE MARKED ON SIDE TWO (2).

CHK	CHANGE NO	REV	A	B	C	D	E	F
	5413534-2001	B						
	ROB NOGUCHI							
	CPM							
	X155.3-1-							
	C X1/2A							
	M. ZARICH							
	M. Zarich							
	5413534-							
	CX0003							
	80							
	5413534-							
	DR17 JUN 81							
	M. Zarich							
	5413534-							
	DR17 JUN 81							
	M. Zarich							

ETCH REV. B
P.C. DESIGN DATA BASE REV. E

SIGNATURES	DATE
DRN. Paul K. Kendall	6/15/78
CHK D. [Signature]	6/15/78
ENG. [Signature]	6/15/78
PROJ. ENG. [Signature]	6/15/78
PROD. ENG. [Signature]	6/21/78
SCALE 2/1	SIZE CODE
SHT. 1 OF 2	NUMBER
D UA 5413534-0-0	REV E
NEXT HIGHER ASSY: B-CD-5413534-C	

D

C

B

A

1

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REVISION HISTORY			DOCUMENT NUMBER				
DATE	ECO NUMBER	REV.	SIZE	CODE	NUMBER	REV.	
			D	UA	5413534-0-0	E	
			SCALE	—/-	SHEET 2	OF 2	

## REWORK INSTRUCTIONS:

ECO 5413534-CX003

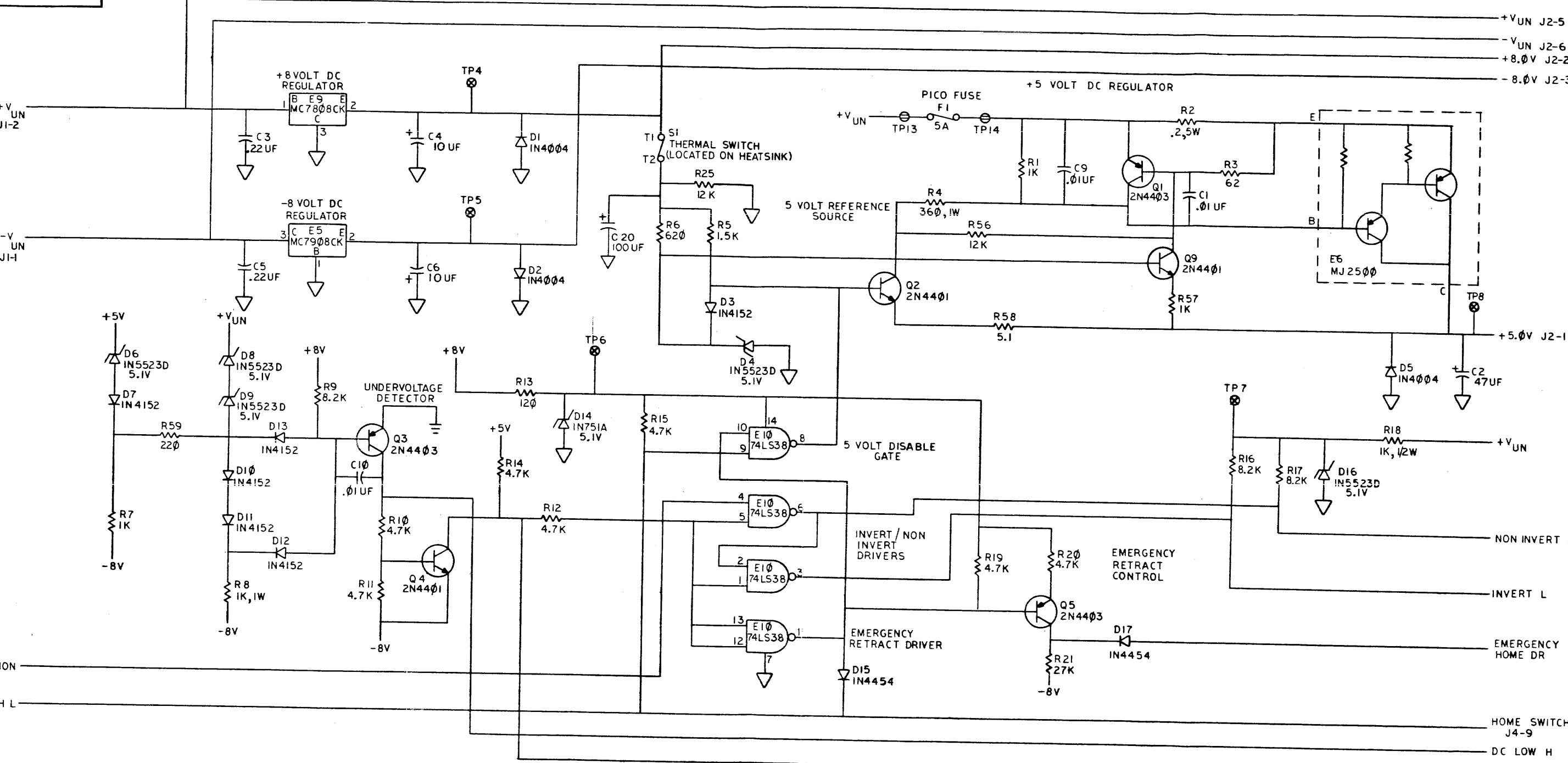
### COMPONENT ADDS SIDE 1:

- 3-1 ADD POLARIZED SIDE OF C20 (1002781-00) AT E1-3 AND THE GND SIDE AT E2-1.

### WIRE ADDS SIDE 1:

- 3-2 ADD WIRE FROM THE PTH NEXT TO E1-3 TO T2.
- 3-3 ADD WIRE FROM THE PTH NEXT TO E2-1 TO C15 GND (BOTTOM).

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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 RL01 ON SIDE 2. INSTALL W2 ONLY FOR RL02 ON SIDE 2.

REVISIONS		CHANGE NO.		REV.	
CHK	5413534-CX004 15413534-CX02A 15413534-CX003 15413534-CX004 15413534-CX003	N. BOB NOGUCHI M. ZARICH M. ZARICH M. ZARICH M. ZARICH	A. A. A. A. A. A.	C	D
REV.	1	2	3	4	5
DATE	1/24/78	2/1/78	2/1/78	2/1/78	2/1/78
SPC	1	2	3	4	5
DBL	1	2	3	4	5
REV. DATE	1/24/78	2/1/78	2/1/78	2/1/78	2/1/78

DESCRIPTION		DWG./PART NO.		ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES				
ANGLES ±0° 30'		CLASS OF ACCURACY		NOMINAL DIMENSION RANGE INCHES
SURFACE QUALITY IN (CHECK ONE)		OVER .02 TO .02	OVER .02 TO .02	OVER .02 TO .02
MICROINCHES		OVER .02 TO .02	OVER .02 TO .02	OVER .02 TO .02
PREFERRED		.012 ±.016	.025 ±.016	.024 ±.016
QUANTITY & VARIATION		.004 ±.008		
THIRD ANGLE PROJECTION		.012 ±.016		
REMOTE BURRS AND BREAK SHARP CORNERS		.012 ±.016		
DO NOT SCALE DWG		.012 ±.016		
NEXT HIGHER ASSY.		.012 ±.016		
MATERIAL		.012 ±.016		
FINISH		.012 ±.016		
FIRST USED ON		digital		
TITLE		DC SERVO AND POWER SUPPLY		
SIZE		CODE	NUMBER	REV.
D		CS	5413534-0-1	E
SCALE		1 OF 2 DIST		
SHEET		CS 5413534-0-1 REV. E		

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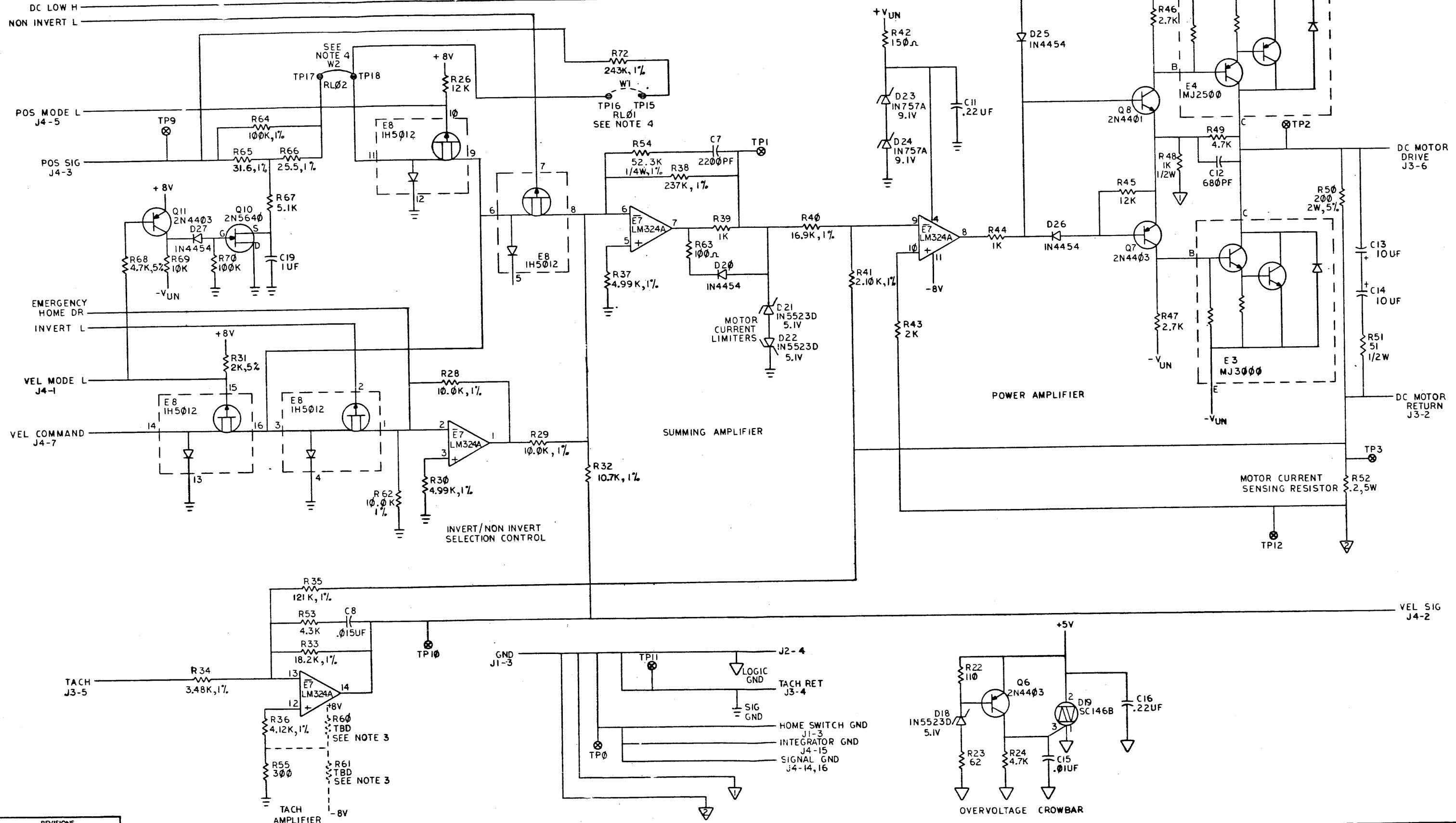
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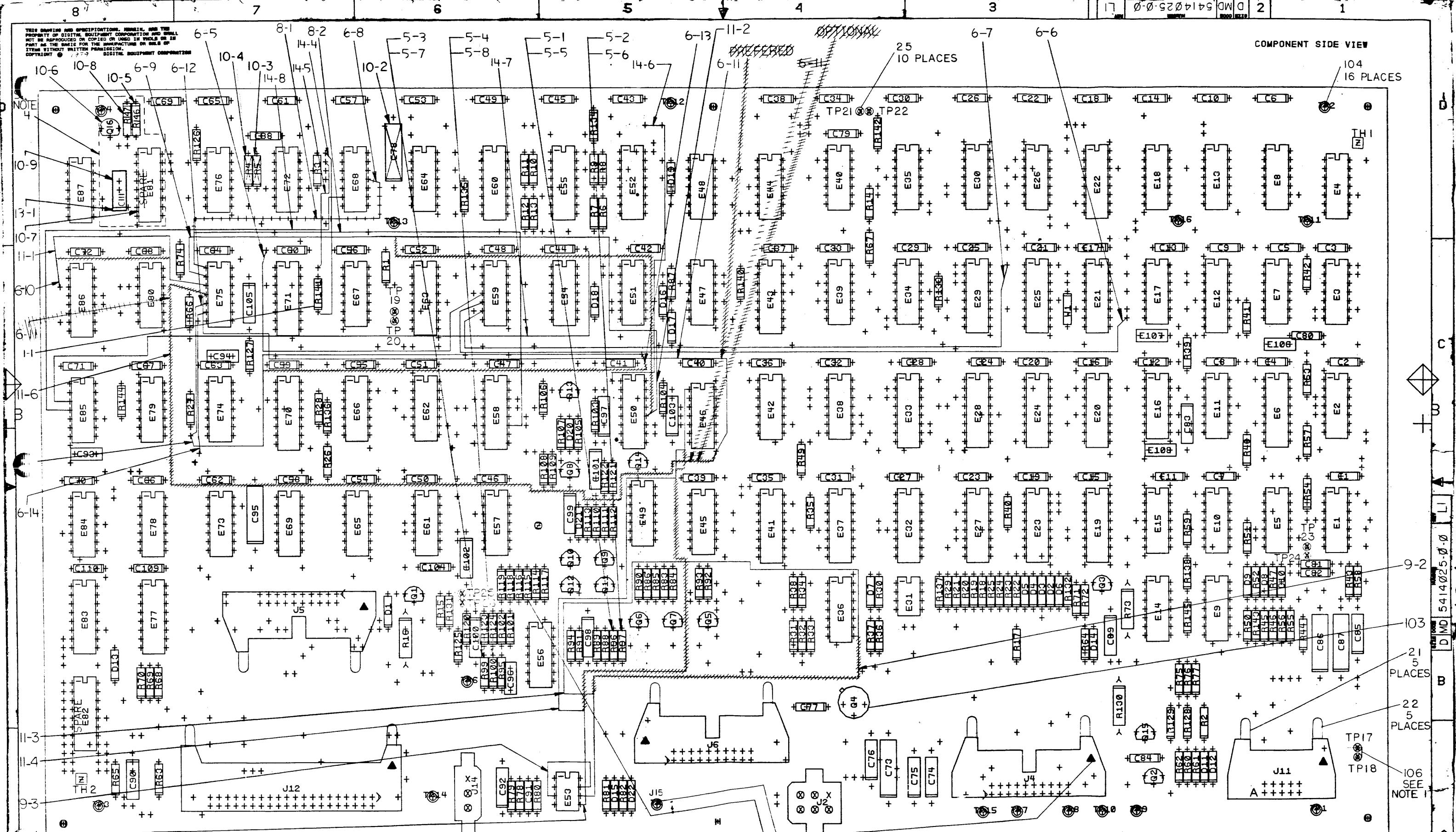


REVISIONS		
CHK	CHANGE NO.	REV.

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**COMPONENT SIDE VIEW**

1



CHG	CHANGE NO	REV
1A	5414025- CX001 M. BROWN	B
1B	5414025- CX003 M. ZARICH	C
1C	5414025- CX005 M. BROWN	D
1D	5414025- CX006A M. BROWN	E
1E	5414025- CX006A M. BROWN	F
1F	5414025- CX008 M. BROWN	G
1G	5414025- CX009 M. ZARICH	H
1H	5414025- CX009A M. BROWN	I
1I	5414025- CX009A M. BROWN	J
1J	5414025-CX011 CX0110 M. ZARICH	K
1K	5414025-CX011 CX0110 M. ZARICH	L
1L	5414025-CX014 CX0140 M. ZARICH	M
1M	5414025-CX014 CX0140 M. ZARICH	N

NOTES:

1. INSTALL ITEM 106 AFTER TEST  
(BETWEEN TPI7 & TPI8 ONLY).

2. VALUE OF ITEM 2 TO BE DETERMINED  
AT NEXT HIGHER ASSEMBLY.

**3. STAMP ORIENTATION TRIANGLES ON CONNECTORS AS SHOWN WITH A PENCIL INK.**

SEE NOTE 3  
3-1  
3-2  
SEE NOTE 3

SEE NOTE 2

SIGNATURES DRN. (44)	DATE 4-27-79	digital		
CHK'D. (initials)	4-27-79			
ENG. (initials) —	5/29/79	TITLE		
PROJ. ENG. (initials)	5/29/79	DRIVE LOGIC		
PROD. (initials)				
SCALE 271	SIZE D	CODE UA	NUMBER 5414025-0-0	REV. LI
SHT. 1 OF 2				
NEXT HIGHER ASSY. B-DD-5414025-2				

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## D

ECO#5414025-CX001

## COMPONENT DELETE:

- 1-1 REMOVE R141

ECO#5414025-CX003

## COMPONENT DELETE:

- 3-1 REMOVE TP5

## COMPONENT ADD:

- 3-2 ADD J15, ITEM 109 AT PTH FOR TP5

ECO#5414025-CX005

## COMPONENT DELETES:

- 5-1 R96,(365 K).
- 
- 5-2 R97,(30.1 K).
- 
- 5-3 R99,(365 K).
- 
- 5-4 R100,(30.1 K).

## COMPONENT ADDS:

- 5-5 R96,(3.65K).
- 
- 5-6 R97, (30).
- 
- 5-7 R99, (3.65K).
- 
- 5-8 R100, (30).

ECO#5414025-CX006

## ETCH CUTS:

- 6-1
- 
- 6-2
- 
- 6-3
- 
- 6-4 } SEE D-EC-5014024-0-0

## WIRE ADDS SIDE 1:

- 6-5 FROM E59-4 TO E71-2 (PTH TO THE LEFT OF C60).
- 
- 6-6 FROM E59-5 TO E21-7 (PTH TO THE RIGHT OF E21-10).
- 
- 6-7 FROM E59-6 TO E25-1 (PTH TO THE LEFT OF E25-1).
- 
- 6-8 FROM E75-1 TO E68-11.
- 
- 6-9 FROM E75-2 TO E50-12.
- 
- 6-10 FROM E75-3 TO PTH TO THE LEFT OF E86-3.
- 
- 6-11 FROM E75-4 TO PTH BELOW E46-8.
- 
- 6-12 FROM E75-5 TO PTH BELOW R27.
- 
- 6-13 FROM PTH BELOW R27 TO PTH TO THE UPPER
- 
- RIGHT OF C41.
- 
- 6-14 FROM E75-6 TO E73-1 (PTH ALONG ETCH
- 
- ABOVE E73-1).

ECO#5414025-CX008

## WIRE DELETE:

- 8-1 E68-11 TO E75-1.

## WIRE ADD:

- 8-2 E75-1 TO E58-11.

ECO#5414025-CX009

## WIRE ADDS:

- 9-1 E46 PIN 1 TO E53 PIN 5.
- 
- 9-2 E36 PIN 8 TO E53 PIN 6.
- 
- 9-3 E53 PIN 7 TO E53 PIN 3.

ECO#5414025-CX010A

## COMPONENT DELETES:

- 10-2 REMOVE C78 (I000076-00)
- 
- 10-3 REMOVE R5 (I300365-00)
- 
- 10-4 REMOVE R4 (I300447-00)

## COMPONENT ADDS:

- 10-5 ADD R146 (I302391-00)
- 
- 10-6 ADD Q16 (I513489-00)
- 
- 10-7 ADD E81 (I912837-00)
- 
- 10-8 ADD R147 (I305608-00)
- 
- 10-9 ADD C111 (I005334-00)

ECO#5414025-CX011

## REROUTING INSTRUCTIONS:

- II-1 REROUTE WIRE 6-10 (E75-3 TO PTH
- 
- TO THE LEFT OF E86-3).
- 
- II-2 REROUTE WIRE 6-9 (E75-2 TO E50-12).
- 
- II-3 REROUTE WIRE 9-2 (E36-8 TO E53-6).
- 
- II-4 REROUTE WIRE 9-1 (E46-1 TO E53-5).
- 
- II-5 REROUTE WIRE 6-13 (FROM PTH BELOW
- 
- R27 TO PTH TO THE UPPER RIGHT OF C41).

## WIRE DELETES:

- II-6 DELETE THE
- OPTIONAL
- ROUTING OF WIRE
- 
- (6-11).

ECO#5414025-CX013

## COMPONENT ADD:

- 13-1 REMOVE C111 (I005334-00)
- 
- ROTATE 180° AND REPLACE.

ECO#5414025-CX014

## WIRE ADDS:

- 14-4 ADD WIRE FROM THE FEED THRU
- 
- TO THE LEFT OF E68-1 TO THE
- 
- FEED THRU TO THE LEFT OF E67-6.
- 
- 14-5 ADD WIRE FROM THE FEED THRU
- 
- TO THE LEFT OF E68-2 TO THE
- 
- FEED THRU TO THE RIGHT OF E71-6.
- 
- 14-6 ADD WIRE FROM THE FEED THRU
- 
- DIRECTLY ABOVE E52-16 TO THE
- 
- FEED THRU TO THE LEFT OF E50-1.
- 
- 14-7 ADD WIRE FROM THE FEED THRU
- 
- GOING TO E54-12 ABOVE E54 TO
- 
- E85-3.
- 
- 14-8 ADD WIRE FROM E85-4 TO E68-6.

## NOTES: CONT.

- 4 THESE COMPONENTS MAY OR MAY NOT APPEAR
- 
- DEPENDING UPON THE ORIGINAL CS REV BEFORE
- 
- INSTALLING ECO 5414025-CX014.

REVISION HISTORY		
DATE	ECO NUMBER	REV.

ORD137A

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DOCUMENT NUMBER		
SIZE	CODE	NUMBER
D	UA	5414025-0-0
SCALE	NONE	SHEET 2 OF 2

AUTOMATED BY PRTLST.3H(20)

P A R T S      L I S T

SHEET A1 OF A3

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
1	1	D-MD-5014024-0-0	5014024-00	DRILL AND ETCH BRD	00	
2	2	EWS		RESISTOR,FINAL TEST, 1/4W, 1%	1	R115,R116,R118,R119
3	3		1000023-00	330.0 MMF 100V 5%Z200PPM MICA	4	C93,C106-C108
4	4		1000024-00	470.0 MMF 100V 5%Z200PPM MICA	4	C94
5	5		1000064-00	3.9MFD 10V 10% S.TANT	2	C76,C85
6	6		1000076-00	.39 MFD 10V 10% S.TANT	3	C73,C86,C95
7	7		1001610-00	.01 MFD 50V +30-20% 25U CER	74	C1-C6,C8-C39,C40-C45,C47-C49, C51-C53,C55-C68,C70,C71,C77,
8	8		1001776-00	1 MFD 35V 10% S.TANT	4	CONT C79-C82,C84,C88,C104
9	9		1004812-00	15 MFD 20V 10% S.TANT	1	CONT C74,C75,C92,C97 C87
10	10		1005784-00	.01 MFD 100V 10% MYLR	1	C101
11	11		1010978-32	.047 MFD 50V 10% CER	1	C96
12	12		1013466-07	220.0 MMF 50V 5% CER	1	C91
13	13		1013466-08	680.0 MMF 50V 10% X7R CER	2	C89,C90
14	14		1013466-09	1000.0 MMF 50V 10% X7R CER	1	C83
15	15		1013466-10	3300.0 MMF 50V 5% CER	4	C98,C100,C103,C105
16	16		1013466-11	.22 MFD 50V +30-20% Z5U CER	2	C99,C102
17	17		1111577-00	1N 4454 TR= 4NS PIV= 50 S	16	D1,D7-D20,D22
18	18		11113953-00	1N 5523D VZ= 5.1 1%	1	D21
19	19		1114117-00	1N 4152 PIV=40 I=75	5	D2-D6
20	20		1209941-02	HEADER 100 40POS RT ANGLE	1	J12
21	21		1209941-03	HEADER RT ANGLE LEFT L	5	
22	22		1209941-04	HEADER RT ANGLE,RIGHT	5	
23	23		1209941-05	HEADER,100 10POS RT ANGLE	1	J11
24	24		1209941-06	HEADER,100 20POS RT ANGLE	3	J4-J6
25	25		1210385-01	PIN 1POS WIRE WRAP	10	TP17-TP26
26	26		1213922-02	HEADER 3POS	1	J14
27	27		1213922-04	HEADER 6POS	1	J2
28	28		1300229-00	100.0 .25 W 5.0 % CC	5	R48-R133-R134

-----  
! REVISION HISTORY

ENG	ECO NUMBER	REV	SECTION A OF A	DRN:	ART SIMM	DATE: 18-APR-79	D	I	G	I	T	A	L
TITLE PARTS LIST													
---	INITIAL	A	SECTION.VARIATION INDEX	CHK'D:	P. KENDRICK	DATE: 18-APR-79	DRIVE LOGIC						
IMB	15414025-CX001	B	[A] 00										
IMB	15414025-CX002	C	[B]										
IMZ	15414025-CX003	D	[C]	DES.ENG:	MIKE BROWN	DATE: 18-APR-79							
IMB	15414025-CX005	E	[D]										
IMB	15414025-CX010A	F	[E]										
IMZ	15414025-CX014	H	[F]	RESP.ENG.:	MIKE BROWN	DATE: 18-APR-79	DOCUMENT NUMBER						
<i>W.C.M. 2 MAR 81 M. Janisch 3/2/81</i>			[G]										
			[H]				SIZE/CODE NUMBER						
			[I]										
			[J]										
			[K]	MFG.ENG.:	D. LICK	DATE: 18-APR-79	K	PL	5414025-0-DBP			H	
			[L]										
			[M]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:	FILE NAME:						
			[N]										

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P A R T S   L I S T

SHEET A2 OF A3

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
29	29	1300271-00	.220.0 .25 W 5.0 %	CC	4	R3,R14,R41,R143
30	30	1300315-00	.470.0 .50 W 5.0 %	CC	3	R16,R73,R130
31	31	1300316-00	.470.0 .25 W 5.0 %	CC	4	R1,R2,R79,R142
32	32	1300365-00	1.0 K .25 W 5.0 %	CC	15	R15,R39,R40,R42,R47,R52,R54,R56, R61,R72,R74,R101,R106,R129,R140 R144
33	33	1300411-00	2.0 K .25 W 1.0 %	RN55D-F10	1	CONT R93,R124,R126
34	34	1300439-00	3.30 K .25 W 5.0 %	CC	3	R6-R13,R26-R28,R34,R35,R38,R43, R44,R49,R53,R57,R58,R62,R75-R78,
35	35	1300447-00	4.70 K .25 W 5.0 %	CC	35	CONT R80,R82,R92,R102,R105,R123,R125, CONT R127,R138,R145 R70,R107 R18-R21,R45,R50,R66,R67,R71,R87, CONT R122,R128,R131 R59
36	36	1300479-00	10.0 K .25 W 5.0 %	CC	2	R95
37	37	1302388-00	2.0 K .25 W 5.0 %	CC	13	R55
38	38	1302391-00	20.0 K .25 W 5.0 %	CC	1	R121
39	39	1302394-00	30.0 K .25 W 5.0 %	CC	1	R91,R120
40	40	1302398-00	470.0 K .25 W 5.0 %	CC	1	R94
41	41	1302466-00	100.0 K .25 W 5.0 %	CC	1	R88
42	42	1302514-00	39.0 K .25 W 5.0 %	CC	1	R25
43	43	1302666-00	10.0 M .25 W 5.0 %	CC	2	R64,R65,R83,R85,R113
44	44	1302871-00	1.21 K .25 W 1.0 %	RN55D-F10	1	R89,R117
45	45	1303044-00	100.0 K .25 W 1.0 %	RN55D-F10	1	R17,R29-R31,R36,R60,R63
46	46	1303047-00	464.0 .25 W 1.0 %	RN55D-F10	5	R108
47	47	1303114-00	1.0 K .25 W 1.0 %	RN55D-F10	2	R81
48	48	1303312-00	10.0 K .25 W 1.0 %	RN55D-F10	7	R110
49	49	1304693-00	562.0 .25 W 1.0 %	RN55D-F10	1	R33
50	50	1304841-00	75.0 K .25 W 5.0 %	CC	1	R84,R86
51	51	1304862-00	1.62 K .25 W 1.0 %	RN55D-F10	1	R24
52	52	1304870-00	6.81 K .25 W 1.0 %	RN55D-F10	1	R96,R99
53	53	1305124-00	287.0 .25 W 1.0 %	RN55D-F10	2	R23
54	54	1305265-00	39.20 K .25 W 1.0 %	RN55D-F10	1	R46,R51,R132
55	55	1305337-00	3.65 K .25 W 1.0 %	RN55D-F10	1	R109
56	56	1305405-00	24.90 K .25 W 1.0 %	RN55D-F10	1	R97,R100
57	57	1309595-00	1.0 M .25 W 5.0 %	CC	3	R111,R112
58	58	1310632-00	2.37 K .25 W 1.0 %	RN55D-F10	1	R68,R69,R137
59	59	1317303-00	301.0 .25 W 1.0 %	RN55D-F10	2	R22,R103,R104
60	60	1312929-00	62.0 .25 W 5.0 %	CC	2	R90
61	61	1312930-00	5.10 K .25 W 5.0 %	CC	3	R32
62	62	1312989-00	17.80 K .25 W 1.0 %	RN55D-F10	3	R37
63	63	1313589-00	1.40 K .25 W 1.0 %	RN55D-F10	1	R114
64	64	1313846-00	2.26 K .25 W 1.0 %	RN55D-F10	1	Q7,Q10,Q12
65	65	1314041-00	3.01 K .25 W 1.0 %	RN55D-F10	1	Q1-Q3,Q5,Q6,Q8,Q9,Q11,Q13,Q15
66	66	1314491-00	1.02 K .25 W 1.0 %	RN55D-F10	1	Q14
67	67	1513489-00	2N 4401 NPN 350MW SI 40 20		4	E9,E10,E68,E85
68	68	1513490-00	2N 4403 PNP 350MW SI-40 30		10	F55
69	69	1513697-00	2N 5640 FET N CHNNL		1	
70	70	1909928-00	7416 INVERTER GATE-HEX II		1	
71	71	1910046-00	7442 DECODER-1 OF 10,BCD		1	

D	I	G	I	T	A	L	TITLE	DRIVE LOGIC	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	5414025-0-DBP	H

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
72	72	1910268-00	DEC 75107B RECEIVER,LINE,DUAL,	4	E57,E61,E65,E87
73	73	1910298-00	741 OP AMP GEN PURP. COM	1	E31
74	74	1910363-00	7496 SHIFT REG.,5BIT	1	E63
75	75	1910536-00	74S10 NAND GATE-TRIPLE 3IN	1	E45
76	76	1910655-00	74157 MUX 2 TO 1 QUAD	2	E23,E24
77	77	1911341-00	75113 DRIVER,LINE,DUAL,MA 324ANOP AMP,QUAD	3	E77,E83,E86 E49
78	78	1912107-01	339 VOLT CMPRT,QUAD	3	E5,E36,E56
79	79	1912108-00	79M05 VOLT REG,FIX -5V	1	Q4
80	80	1912541-00	LS174 FF-D HEX W/CLEAR	2	E37,E41
81	81	1912697-00	LS00 NAND GATE-QUAD 2IN,P	4	E7,E15,E44,E67
82	82	1912799-00	LS02 NOR GATE-QUAD 2IN	4	E1,E30,E39,E54
83	83	1912801-00	6904 INVERTER GATE,HEX	2	E79,E80
84	84	1912803-00	LS08 AND GATE-QUAD 2IN,PO	6	E14,E34,E38,E69,E72,E76
85	85	1912805-00	LS10 NAND GATE-TRIPLE 3IN	1	E18
86	86	1912807-00	LS20 NAND GATE-DUAL 4IN	1	E2
87	87	1912810-00	LS27 NOR GATE-TRIPLE 3IN	1	E73
88	88	1912813-00	LS32 OR GATE-QUAD 2IN,POS	4	E17,E35,E59,E84
89	89	1912816-00	LS74 FF-D DUAL,EDGE TRIGG	9	E3,E11,E16,E26,E42,E46,E47,E62, CONT E75
90	90	1912824-00	LS86 X-OR GATE-QUAD 2IN	3	E51,E66,E78
91	91	1912829-00	LS123 ONE SHOT-DUAL,RETRIG	1	E50
92	92	1912837-00	LS193 COUNTER,SYNCHR,4BIT,	3	E27,E28,E43
93	93	1912854-00	LS195 SHIFT REG.,4BIT PARA	5	E19-E22,E25
94	94	1912855-00	LS197 COUNTER,BINARY,PRESET	4	E4,E9,E13,E74
95	95	1912857-00	LS279 LATCH,QUAD-S-R	6	E6,E12,E29,E33,E58,E71
96	96	1912864-00	LS14 INVERTER GATE-HEX SC	2	E40,E48
97	97	1913414-00	LM 393 VOLT,COMPARATOR DUAL	1	E53
98	98	1914156-00	A2-02,A2-04	1	E52
99	99	23368A2-00	A2-02,A2-04	1	E60
100	100	23371A2-00	A2-02,A2-04	1	E70
101	101	23444A2-00	A2-02,A2-04	1	E32
102	102	23445A2-00	A2-02,A2-04	1	
103	103	9007201-00	TRANSIFADS #10253	1	TP1-TP4,TP6-TP16
104	104	9007791-00	TERM PCB 2POS SOLDER,TURRET	15	W1
105	105	9009185-00	JUMPER, WIRE, INSULATED, BLACK B	1	
106	106	9105740-55	WIRE(WRAP)30AWG UL1423	A/R	C7,C46,C50,C54,C69,C72,C109,C110
107	107	1012784-00	.047 MFD .50V +80-20% CER	8	
108	108	1911324-00	7414 INVERTER,HEX 1IN SCH	1	E64
109	109	1217377-00	TERM QUICK 1POS TAB PC MNT	1	J15
110	110	1005334-00	*** THIS ITEM IS NOT USED ***	-	
111	111	1305608-00	*** THIS ITEM IS NOT USED ***	-	

D	I	G	I	T	A	L	TITLE	!SIZE!	CODE!	DOCUMENT NUMBER	REV
							SECTION A	OF A			
									K	PL	5414025-0-DBP
									H		

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DLI LOAD HDS L (5)

DLI HOME SWITCH L (2)

DLI COVER OPEN H (2)

DLI SPIN UP L (5)

J5-1 START DM L

DISK MOTOR OFF L

POS MODE L

VEL MODE L

DLI LOCK ON L (3.5)  
BRAKE L

DLI SPIN DOWN L (4)

DLI STATUS BIT A (2)

DLI STATUS BIT B (2)

DLI STATUS BIT C (2)

DLI TIME OUT COMD L (5)

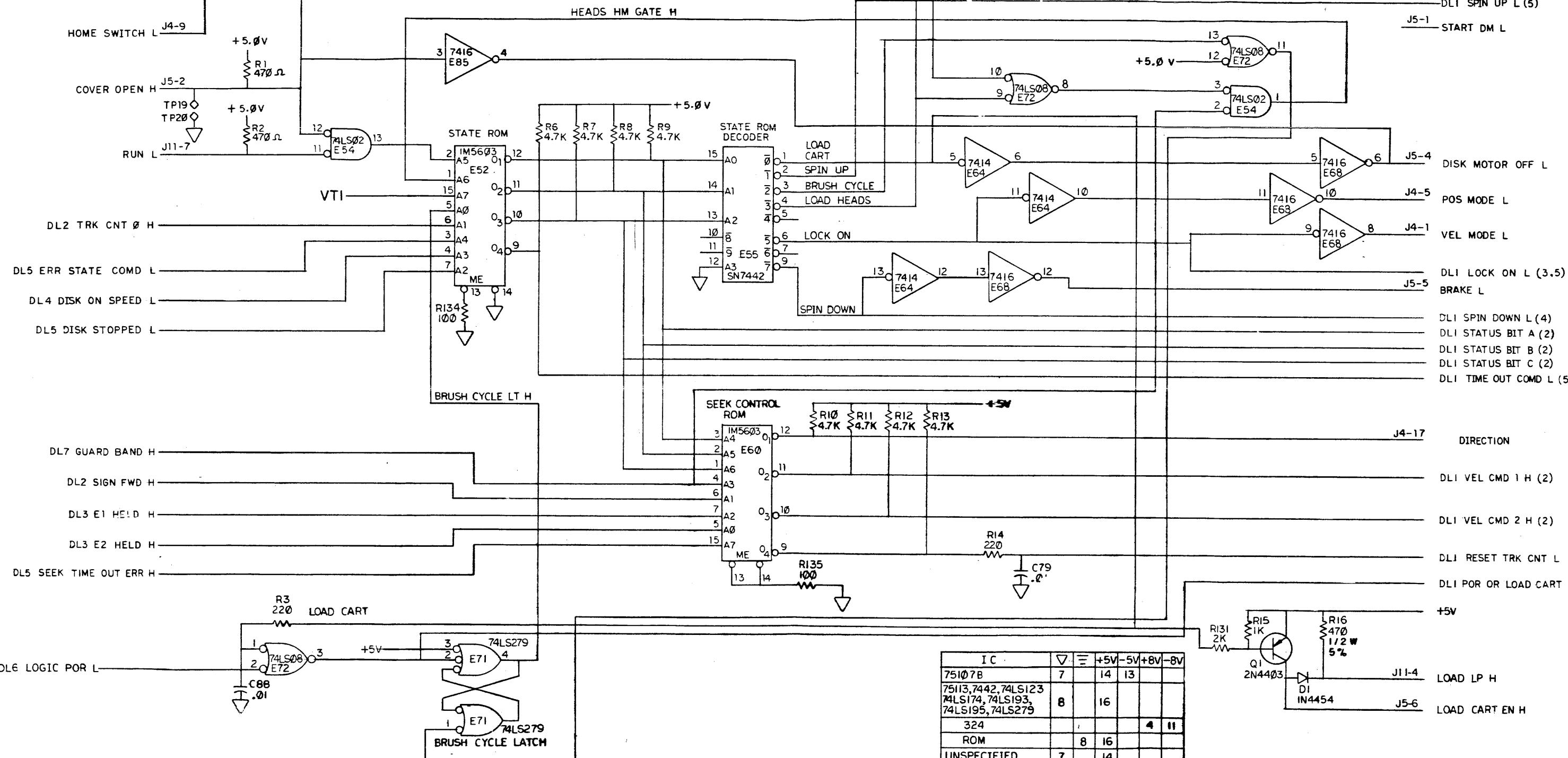
DIRECTION

DLI VEL CMD 1 H (2)

DLI VEL CMD 2 H (2)

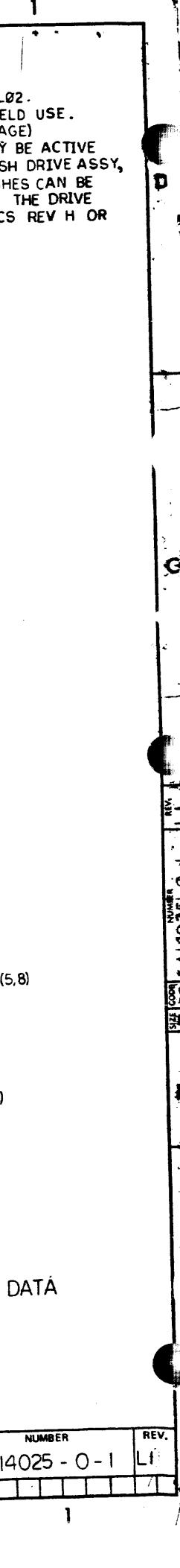
DLI RESET TRK CNT L (2)

DLI POR OR LOAD CART L(2),4)



IC	7	14	13	
75107B	7	14	13	
75113,7442,74LS123	8	16		
74LS174,74LS193, 74LS195,74LS279	8	16		
324			4	11
ROM	8	16		
UNSPECIFIED	7	14		
339	12		3	
339		3	12	
339	12		3	

DRN. X	51000	51000	FIRST USED ON	digital
CHK'D	W	1 MAY 78		
ENG.	W	5 JUNE 78		
PROJ. ENG.	W	5 JUNE 78		
PROD.	W			
NEXT HIGHER ASSY.	B-DD-5414025-C			
SCALE	+			
SHEET	1	OF 9	DIST.	
SIZE	D	CODE CS	NUMBER	5414025-0-1
REV.	L			



2

CS 5414025-0-1

REV.

L1

CMD 2	CMD 1	MODE	VEL
0	0	OFF	0
0	1	GUARD BAND	3 IPS
1	0	HEAD LOAD	6 IPS
1	1	HEAD UNLOAD	15 IPS

NOTES:

- W1 IN FOR RL01.  
W1 OUT FOR RL02.
- W2 NOT FOR FIELD USE.  
(W2 IS ON DLS PAGE)
- J5-17 (SH.1) MAY BE ACTIVE  
FROM THE BRUSH DRIVE ASSY,  
BUT THE BRUSHES CAN BE  
REMOVED FROM THE DRIVE  
WHEN USING CS REV H OR  
LATER.

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DLI VEL CMD 2 H  
DLI VEL CMD 1 H  
DL3 CNT PLS H

DL6 DRIVE COMMAND L

DLS WRITE DATA ERR H  
DLS CURRENT HEAD ERR H  
DLS WRITE LOCK H  
DLS SEEK TIME OUT ERR H

DLS SPIN ERR H  
DLS WR GATE ERR H  
DLS VOLUME CHECK H  
DL8 DRIVE SELECT ERR H

DL1 POR OR LOAD CART L  
SEE NOTE 1  
DL1 COVER OPEN H  
DL1 HOME SWITCH L

+5.0 V  
DL1 STATUS BIT C H  
DL1 STATUS BIT B H  
DL1 STATUS BIT A H

DL2 VT2  
DL2 VT1 - VT1

DL1 RESET TRK CNT L

DL6 CLOCK L  
DL6 CLOCK H

DRIVE COMMAND/  
STATUS REGISTER

TRACK DIFFERENCE  
COUNTER

COUNT PULSE  
DISABLE

VEL ROM

R18 > R19 > R20 > R21  
2K 2K 2K 2K

R22 17.8K  
R23 24.9K  
R24 39.2K  
R25 100K  
D2 IN4152  
D3 IN4152  
D4 IN4152  
D5 IN4152

12 IPS  
12 IPS  
6 IPS  
3 IPS  
J4-7 VEL COMMAND  
DL2 BORROW H (3)  
DL2 TRK CNT 0 H (1)

DL2 ENABLE TIMEOUT H (7)

J5-11  
J5-12 LOGIC GND

J6-3 HD SELECT ZERO L  
DL2 SIGN FWD H (1,3)

DL2 RESET ERROR LATCHES L (5,8)

+8V J5-8

-8V J5-10

DL2 STATUS CLOCK GATE H (6)

DL6 STATUS DATA H (6)

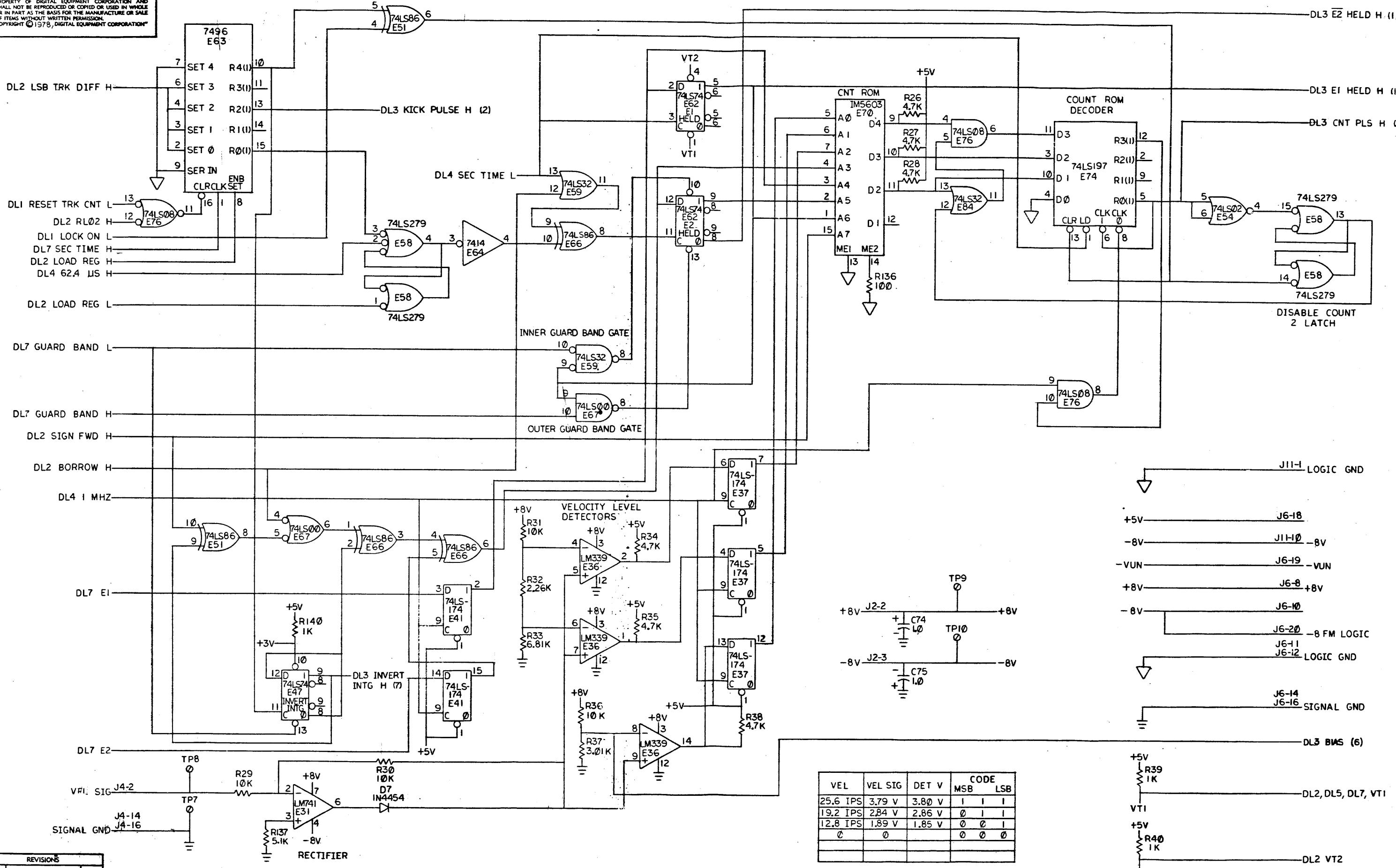
+5V J5-18

VELOCITY COMMAND AND STATUS DATA  
CONTROL LOGIC

REV.	CHANGE NO.	CHK	TITLE	SIZE CODE	NUMBER	REV.
			DRIVE LOGIC (DL2)	D	CS 5414025-0-1	L1
			SCALE	+	SHEET 2 OF 8	DIST.

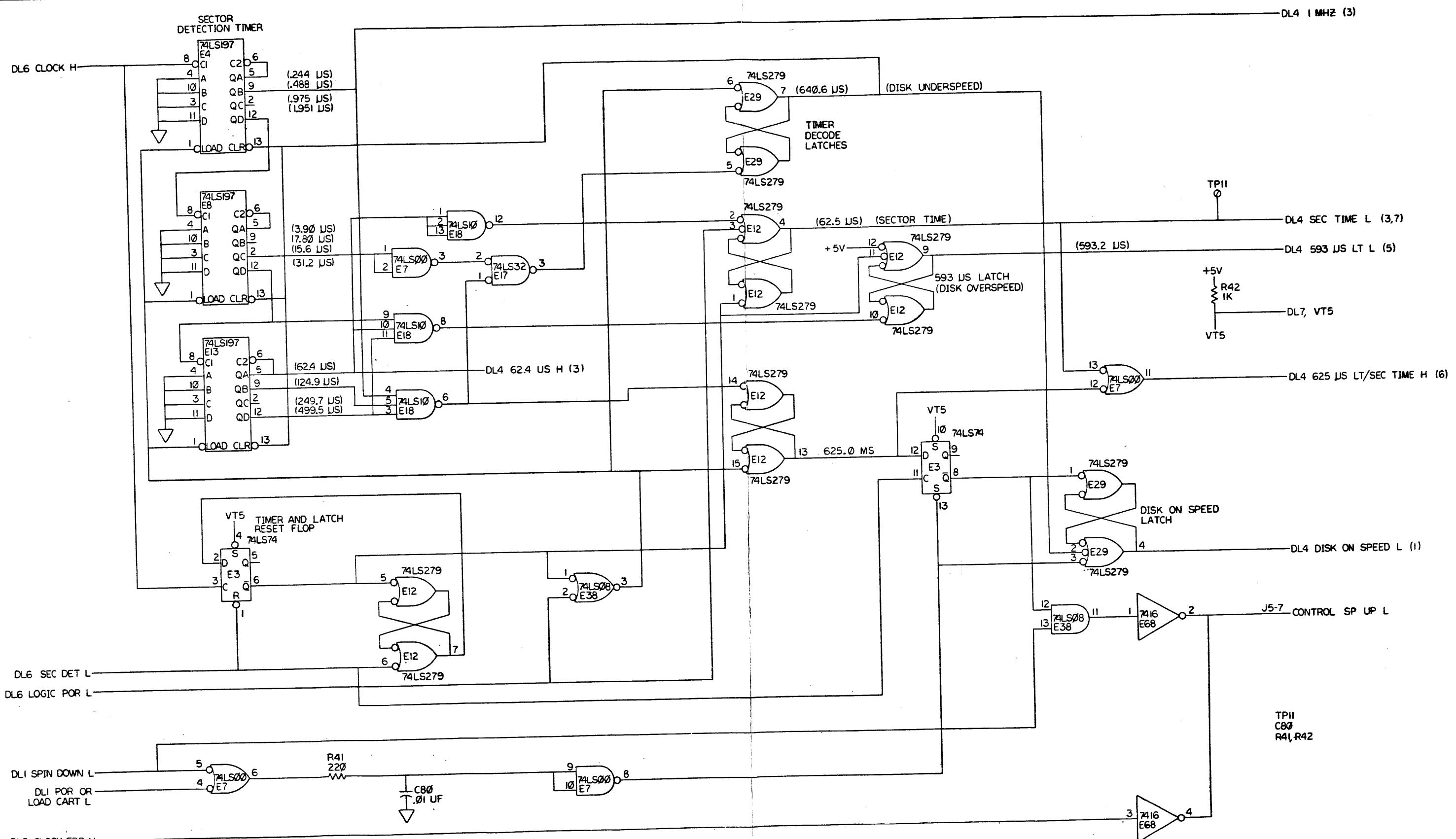
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DL3 E2 HELD H (I)



REVISIONS		
CHK	CHANGE NO.	REV.

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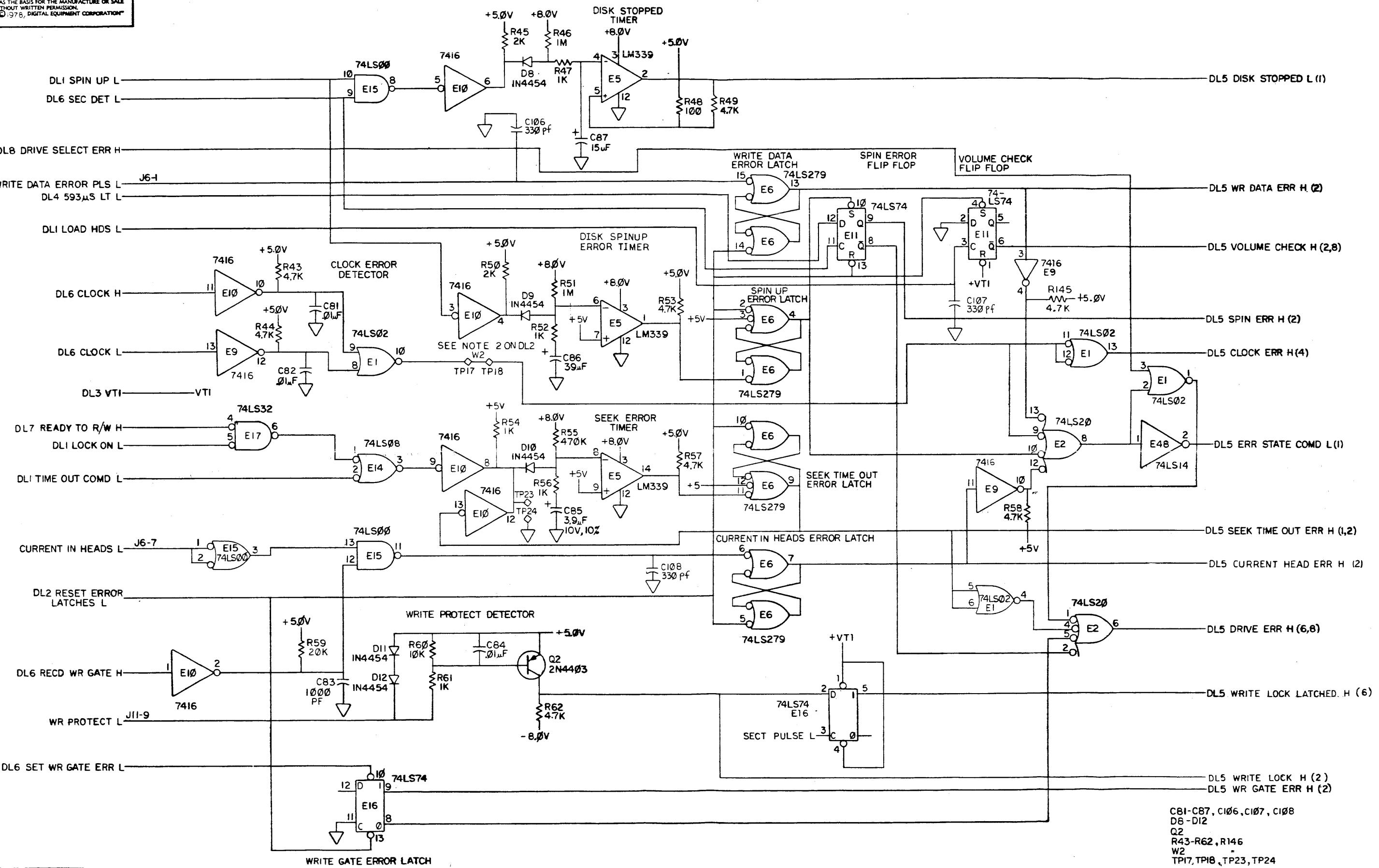


REVISIONS			TITLE			SIZE CODE		NUMBER	
CHK	CHANGE NO.	REV.	DRIVE LOGIC (DISK SPEED CONTROL) (DL4)			D	CS	5414025-0-1	
			SCALE	SHEET	4 OF 8		DIST.		

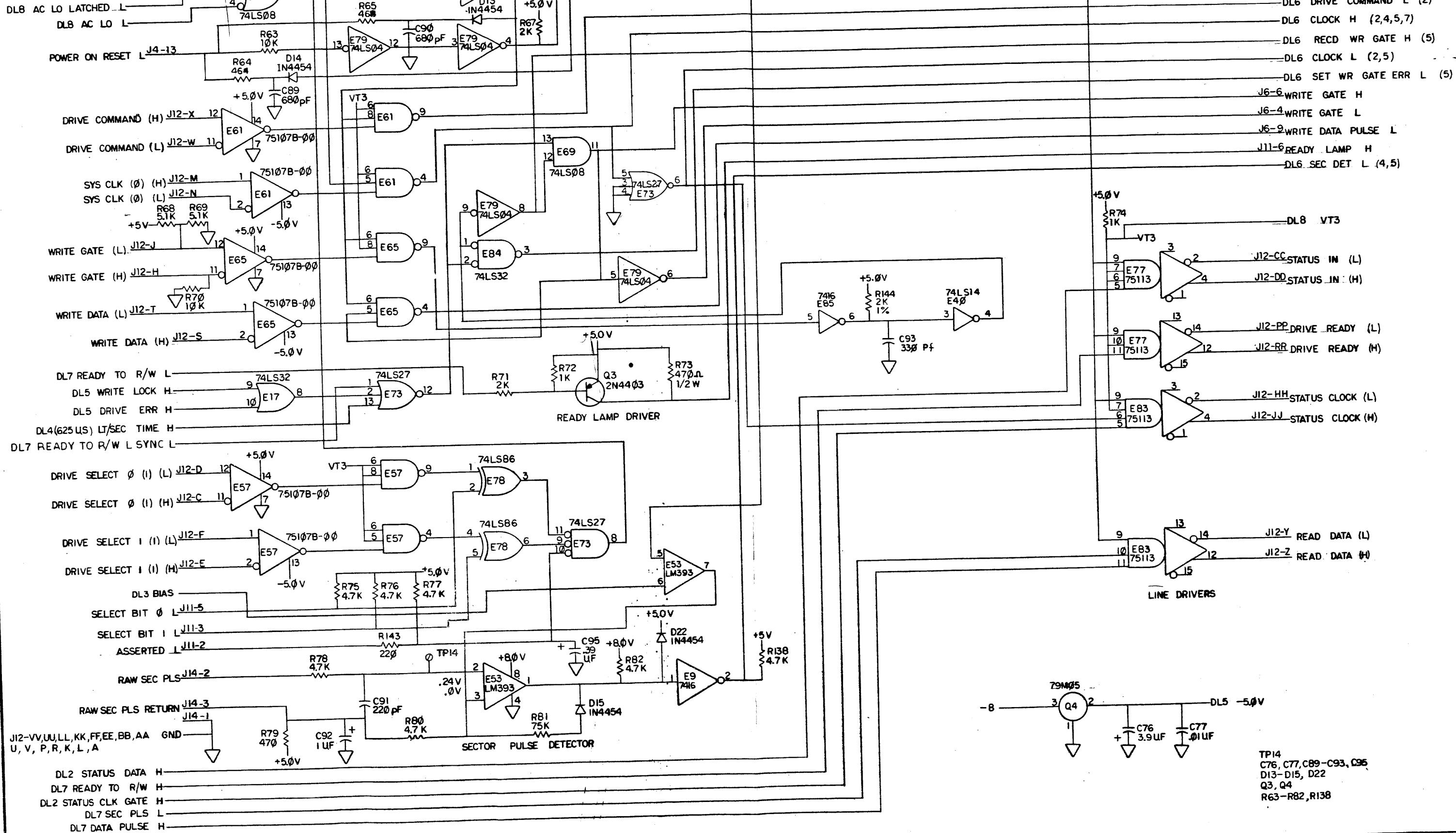
DEC FORM NO. 5010-10452-2  
GPO 1973

8 7 6 5 4 3 2 1

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REVISIONS			TITLE DRIVE LOGIC (INTERFACE LOGIC) (DL6)			SIZE CODE	NUMBER	REV.
CHK	CHANGE NO.	REV.				D CS	5414025-0-1	(L)

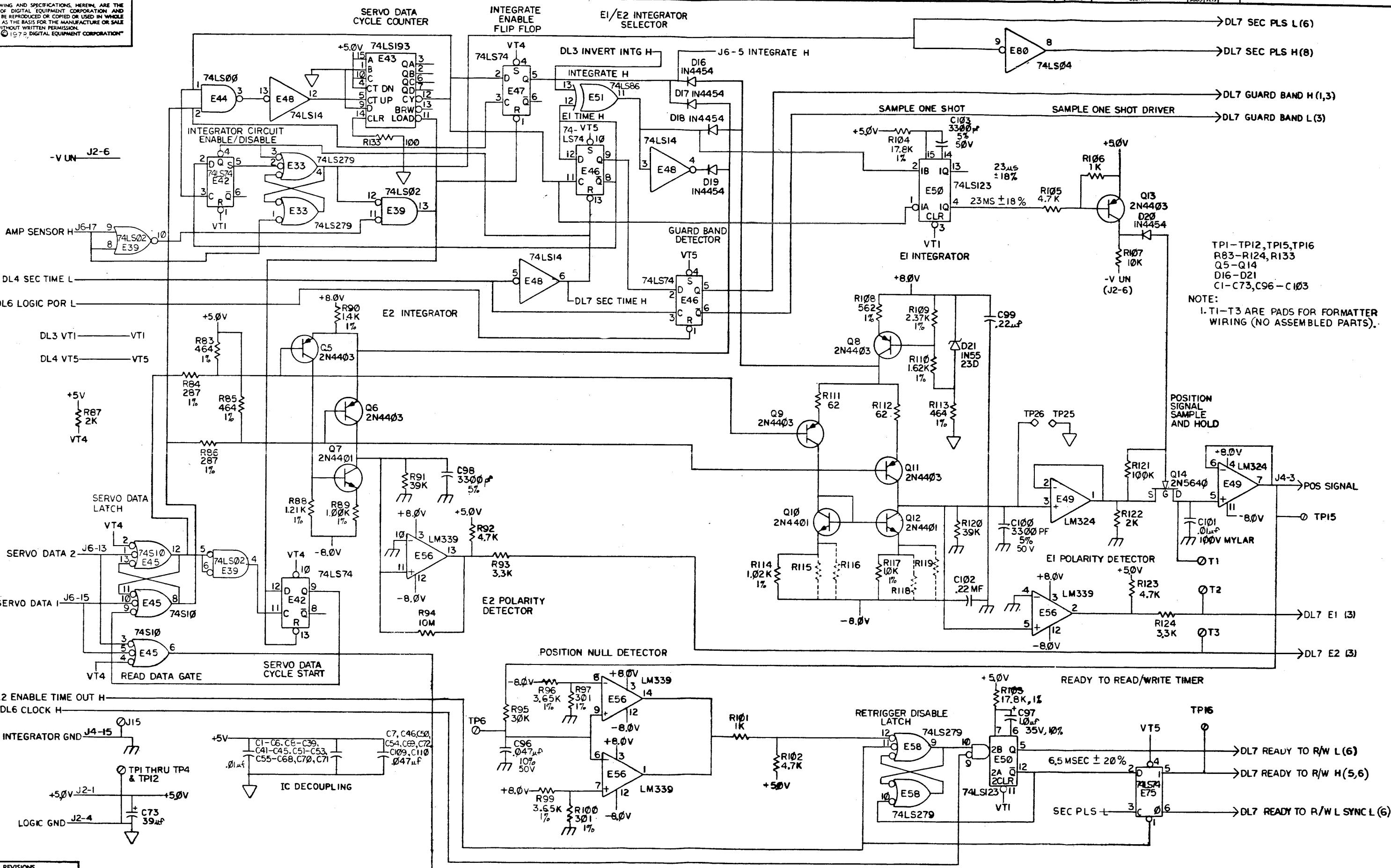
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REV. A

SIZE CODE

NUMBER

DATE



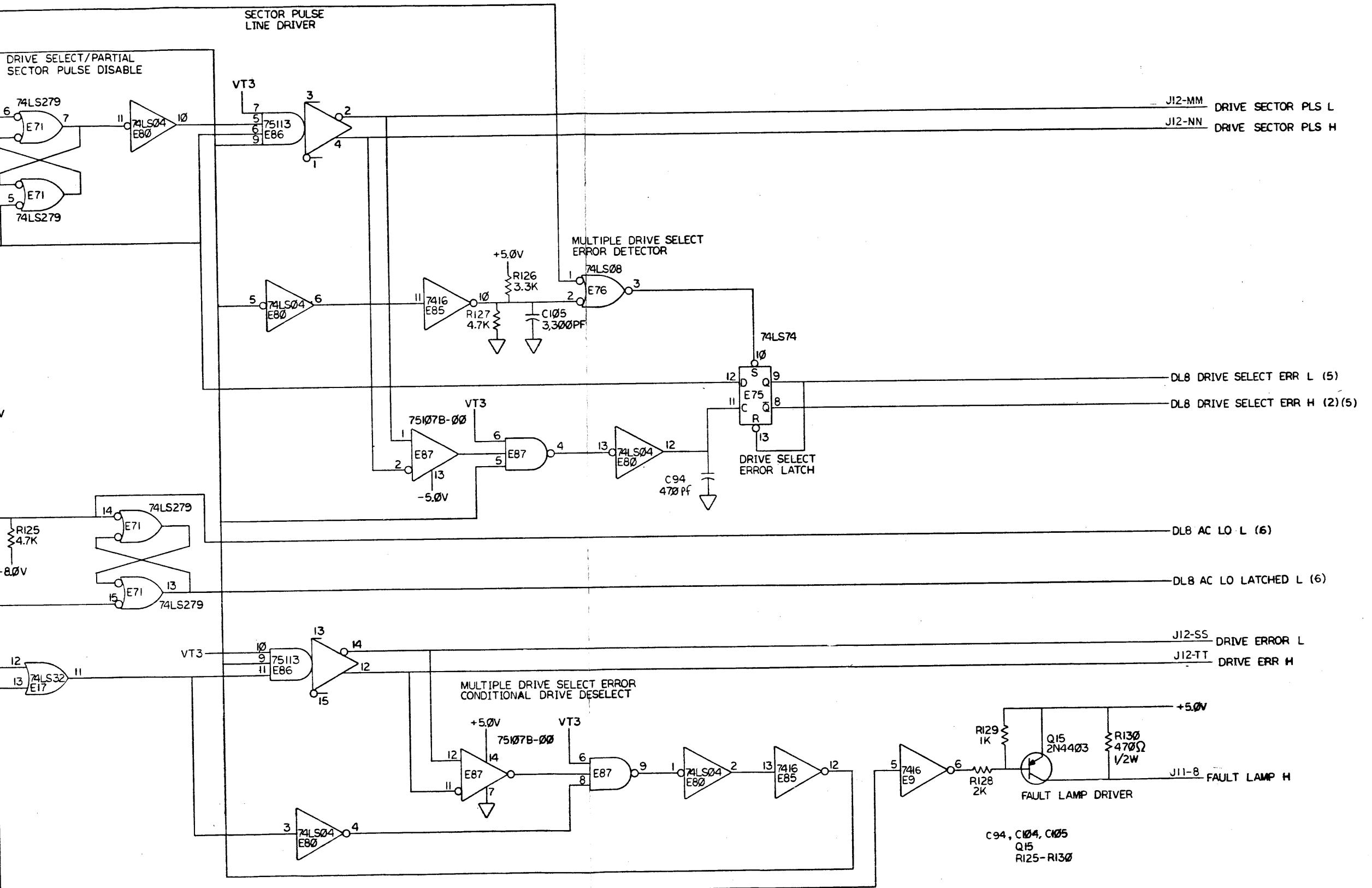
TPI-TPI2,TPI5,TPI6  
R83-R124,R133  
Q5-Q14  
D16-D21  
C1-C73,C96-C103

NOTE:  
1-T1-T3 ARE PADS FOR FORMATTER  
WIRING (NO ASSEMBLED PARTS).

REVISIONS		
CHK	CHANGE NO.	REV.

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8



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE		
DRIVE LOGIC (DL8)		
SCALE	SHEET	DIST.
8 OF 8		
REV.		