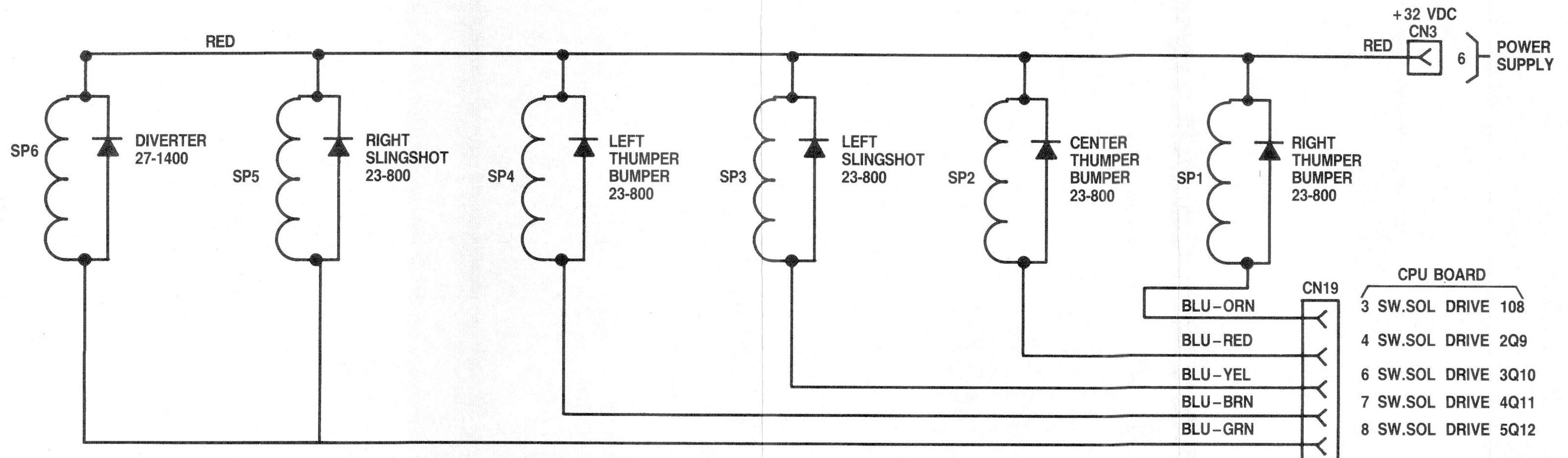
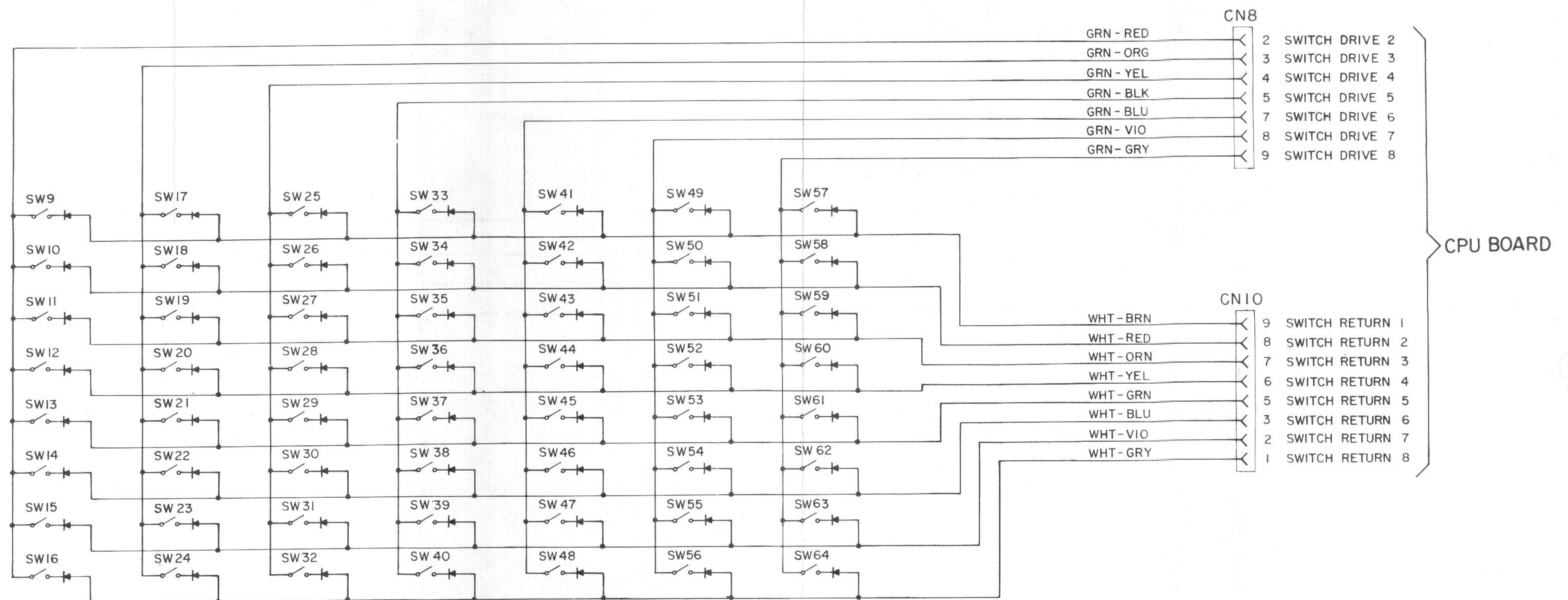




**Switch
Number Description**

01 *	Plumb Tilt	16 *	Right Flip. Cab. Switch	31	Skill Shot 1 (Upper)	46	Upper 3 Bank Bottom
02 *	4th Coin Chute Option	17	Left Toplane	32	Skill Shot 1 (Lower)	47	Upper Playfield Trough
03 *	Credit Button	18	Center Toplane	33	Right 3 Bank Top	48	Power Scoop
04 *	Right Coin	19	Right Toplane	34	Right 3 Bank Middle	49	Right 10 Point
05 *	Center Coin	20	Right Single Target	35	Right 3 Bank Bottom	50	Upper Right Rollover
06 *	Left Coin	21	Left Return	36	Left Ramp Entrance	51	Upper Left VUK
07 *	Slam Tilt	22	Right Return	37	Left Ramp #2	52	Left Slingshot
08	Not Used	23	Left Outlane	38	Not Used	53	Right Slingshot
09	Not Used	24	Right Outlane	39	Right Ramp Entrance	54	Left Turbo Bumper
10	Out Hole	25	Left Drop Target 1 Top	40	Right Ramp #2	55	Center Turbo Bumper
11	Trough #1 (Left)	26	Left Drop Target 2	41	Left 3 Bank Top	56	Right Turbo Bumper
12	Trough #2 (Center)	27	Left Drop Target 3	42	Left 3 Bank Middle	57	Through 64 Not Used
13	Trough #3 (Right)	28	Left Drop Target 4 Bottom	43	Left 3 Bank Bottom		
14	Shooter Lane	29	Skill Shot 3	44	Upper 3 Bank Top		
15 *	Left Flip. Cab. Switch	30	Skill Shot 2	45	Upper 3 Bank Middle		

*Indicates Cabinet Switches.



**Lamp
Number Description**

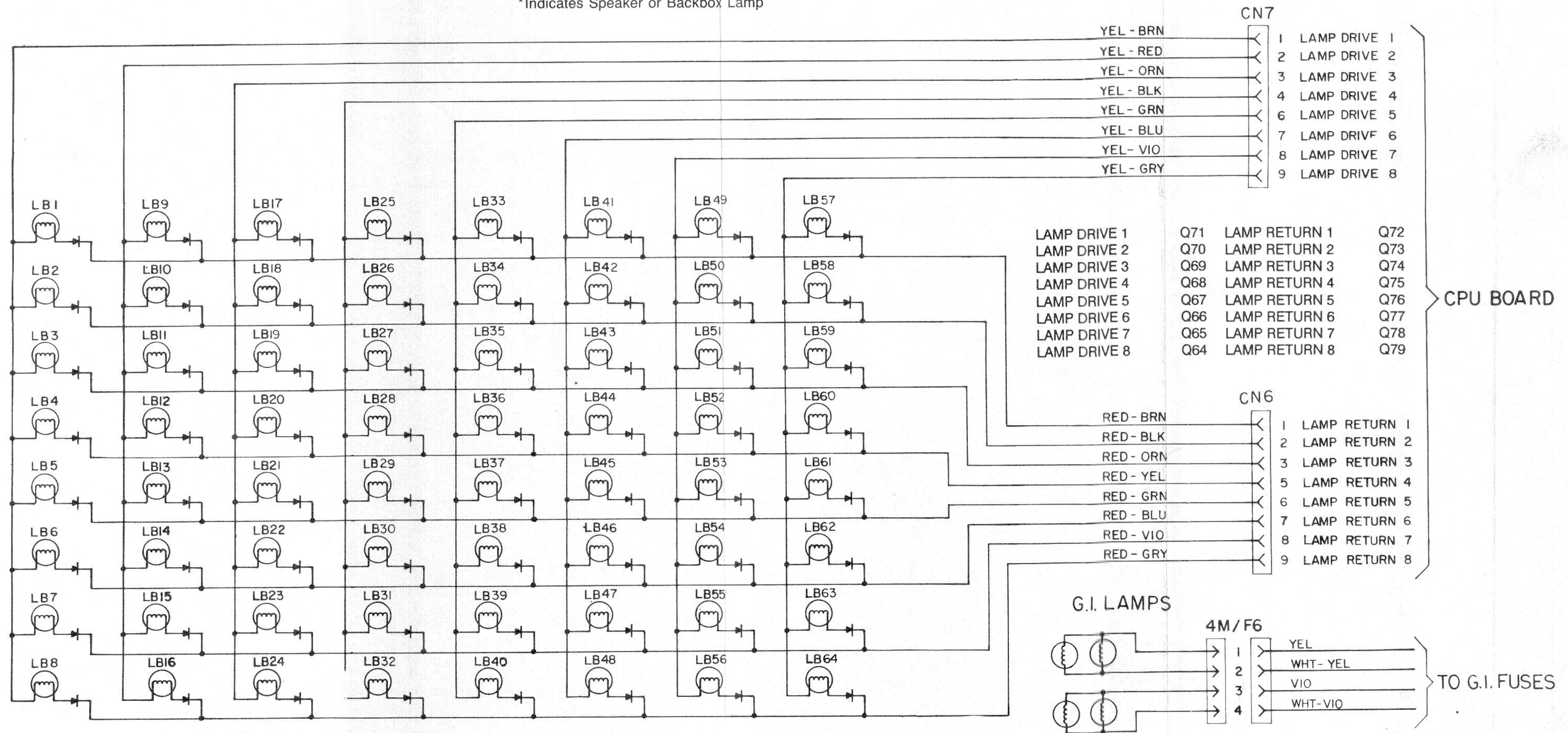
01 250K
02 500K
03 750K
04 1 Million
05 2 Million
06 3 Million
07 Right Ramp (AM)
08 Right Ramp (PM)
09 2X
10 4X
11 6X
12 8X
13 10X
14 Shoot Again
15 Right Ramp Croc Clock
16 Left VUK Top Arrow

17 * Backpanel Left
18 * Backpanel Center
19 * Backpanel Right
20 Laser Kick Ready
21 Left Return & Right Target
22 Right Return Lane
23 Left Outlane Top
24 Right Outlane
25 Multiball Bottom
26 Skill Shot Bottom
27 Multiball Middle
28 Skill Shot Middle
29 Multiball Top
30 Skill Shot Top
31 Start Button
32 Top Left VUK Lock

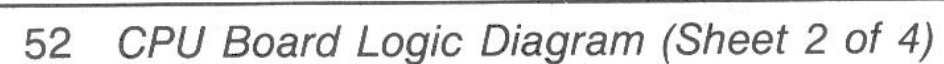
33 Right 3 Bank Top
34 Right 3 Bank Middle
35 Right 3 Bank Bottom
36 Left Toplane
37 Center Toplane
38 Skull Left Eye
39 Skull Right Eye
40 Left Ramp Entry
41 Left 3 Bank Top
42 Left 3 Bank Middle
43 Left 3 Bank Bottom
44 Upper 3 Bank Top
45 Upper 3 Bank Middle
46 Upper 3 Bank Bottom
47 Extra Ball
48 Skull 10 Million Arrow

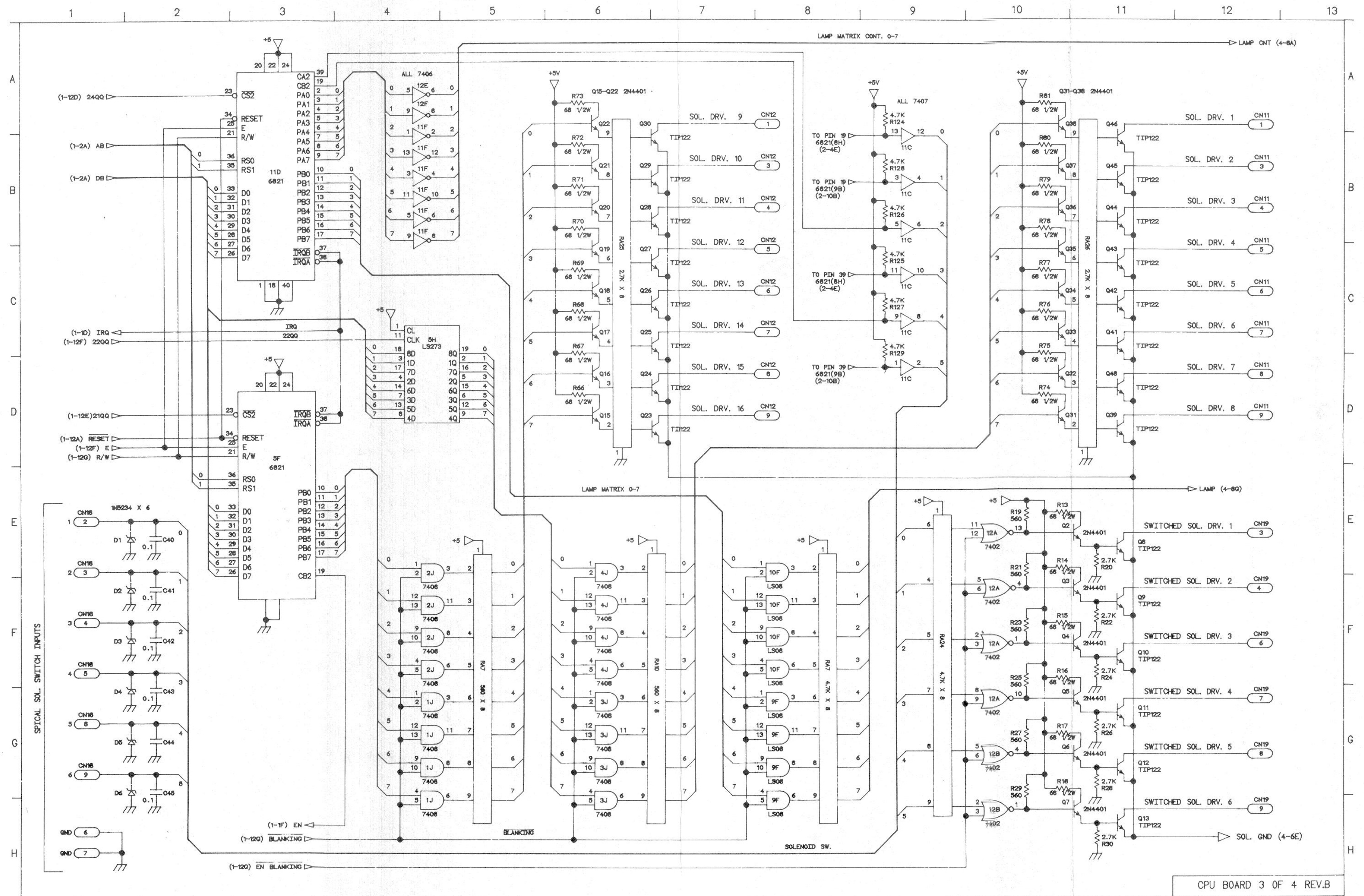
49 Pirate Town Special
50 Pirate Town 10 Million
51 Pirate Town Extra Ball
52 Strike
53 Right Ramp Entry
54 Left Turbo Bumper
55 Center Turbo Bumper
56 Right Turbo Bumper
57 Light Bumpers
58 2 Million
59 Light Croc Time
60 Fast
61 Skull 10 Million
62 Light Extra Ball
63 Bangarang
64 Right Toplane

*Indicates Speaker or Backbox Lamp

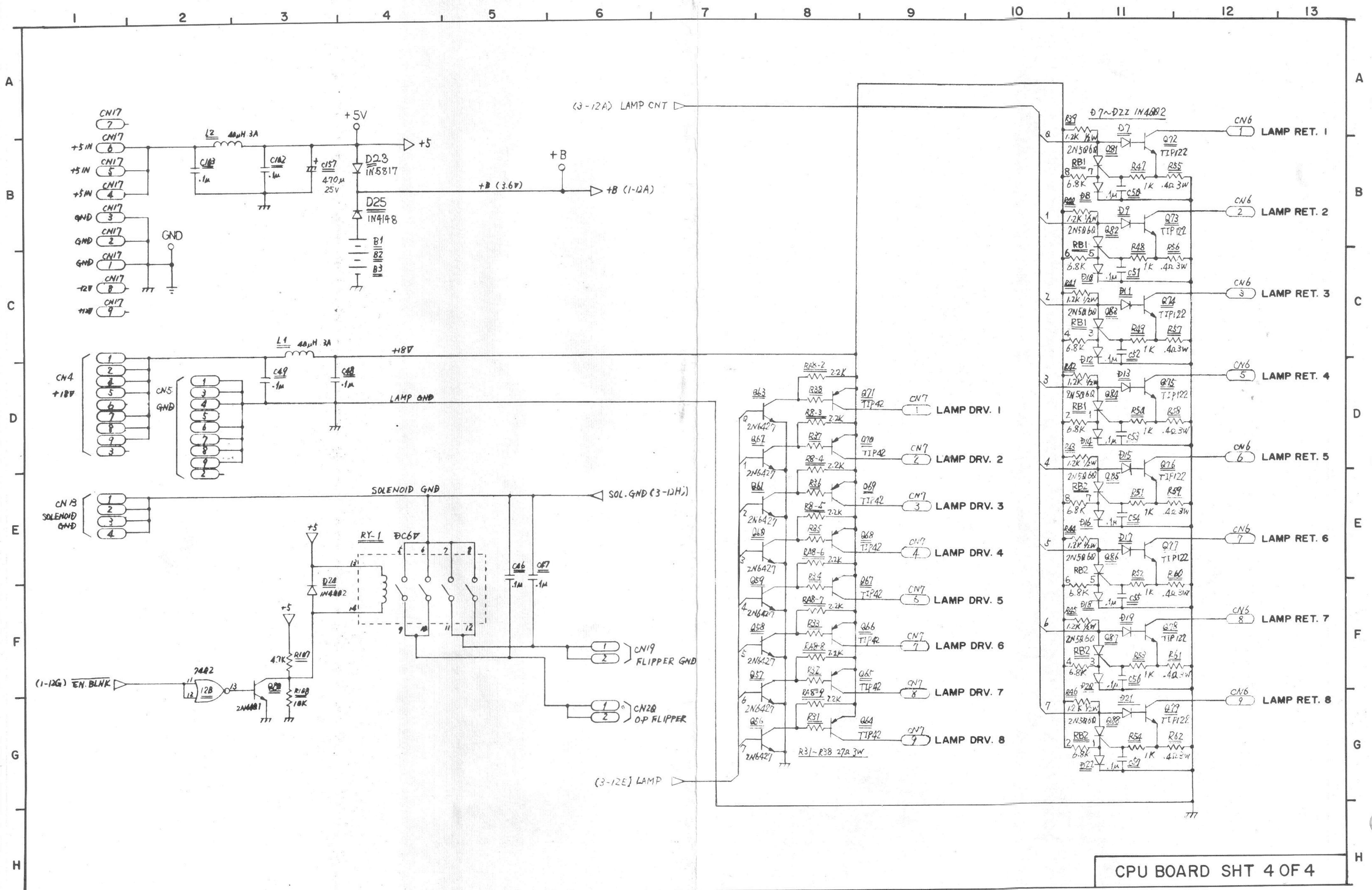


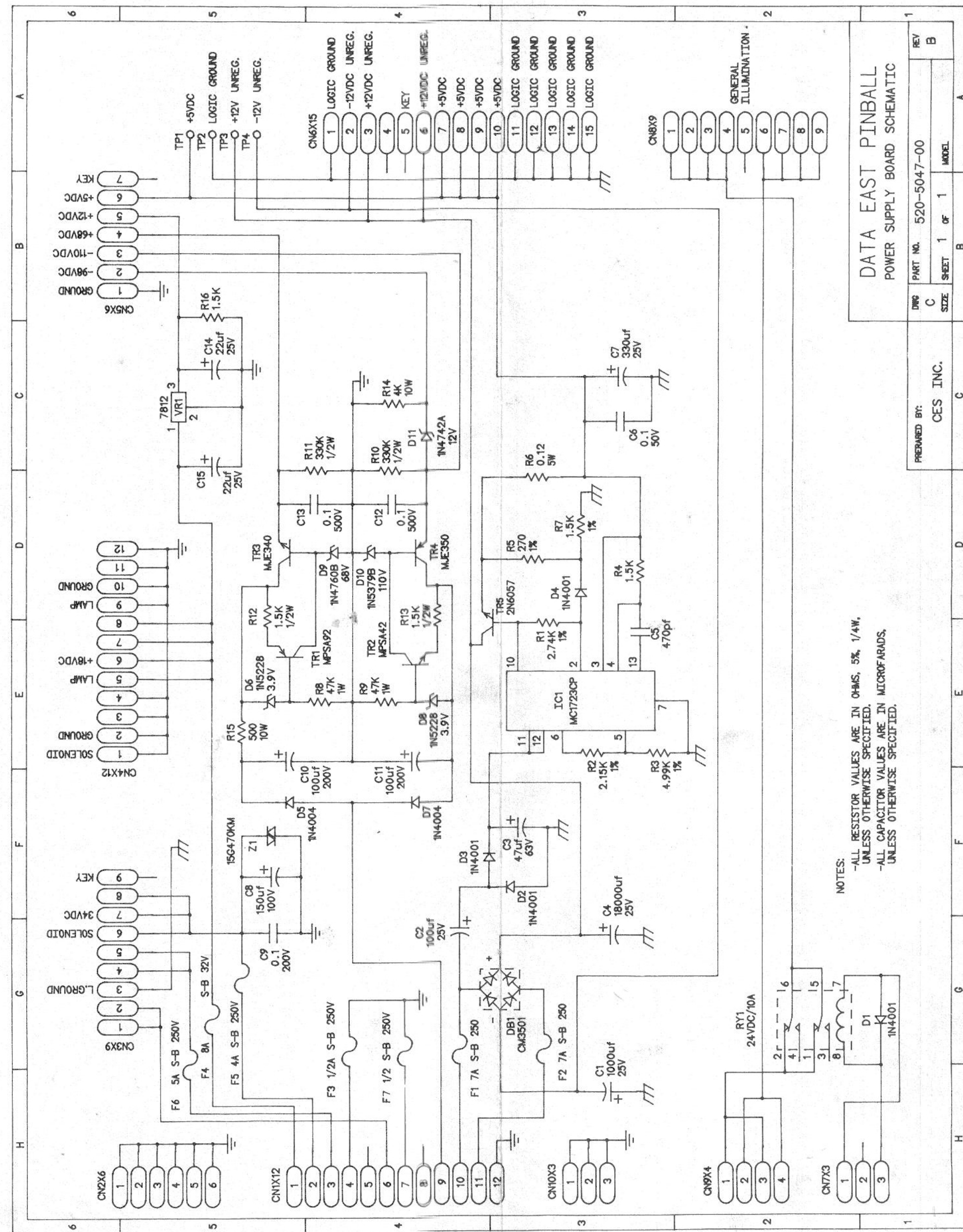
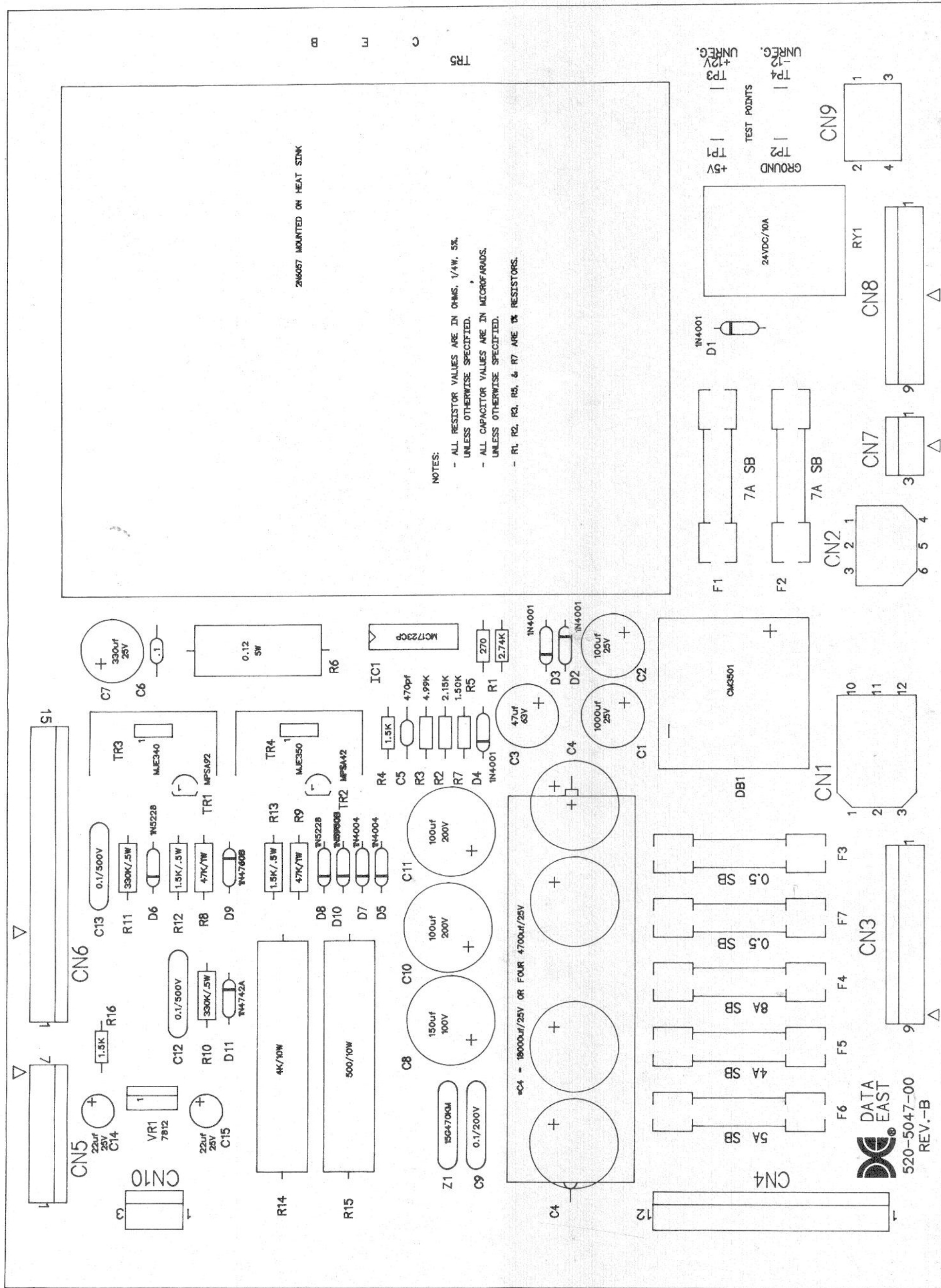






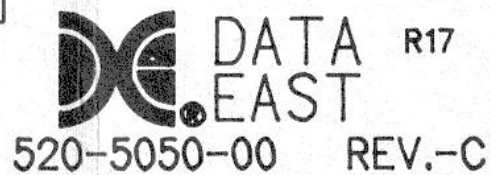
CPU BOARD 3 OF 4 REV.B



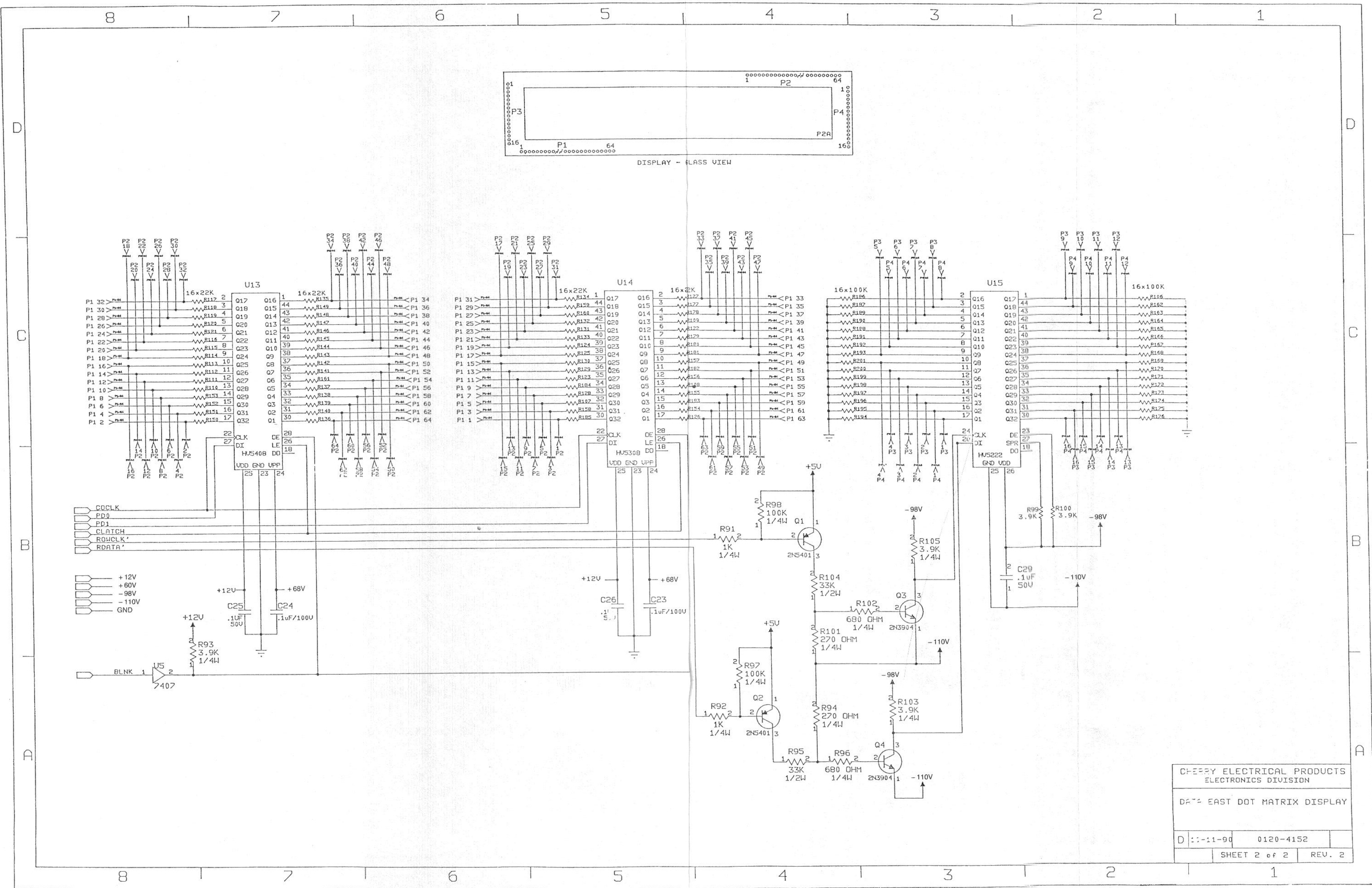


DATA EAST PINBALL POWER SUPPLY BOARD SCHEMATIC			
REV	PART NO.	SIZE	MODEL
B	520-5047-00	1 OF 1	

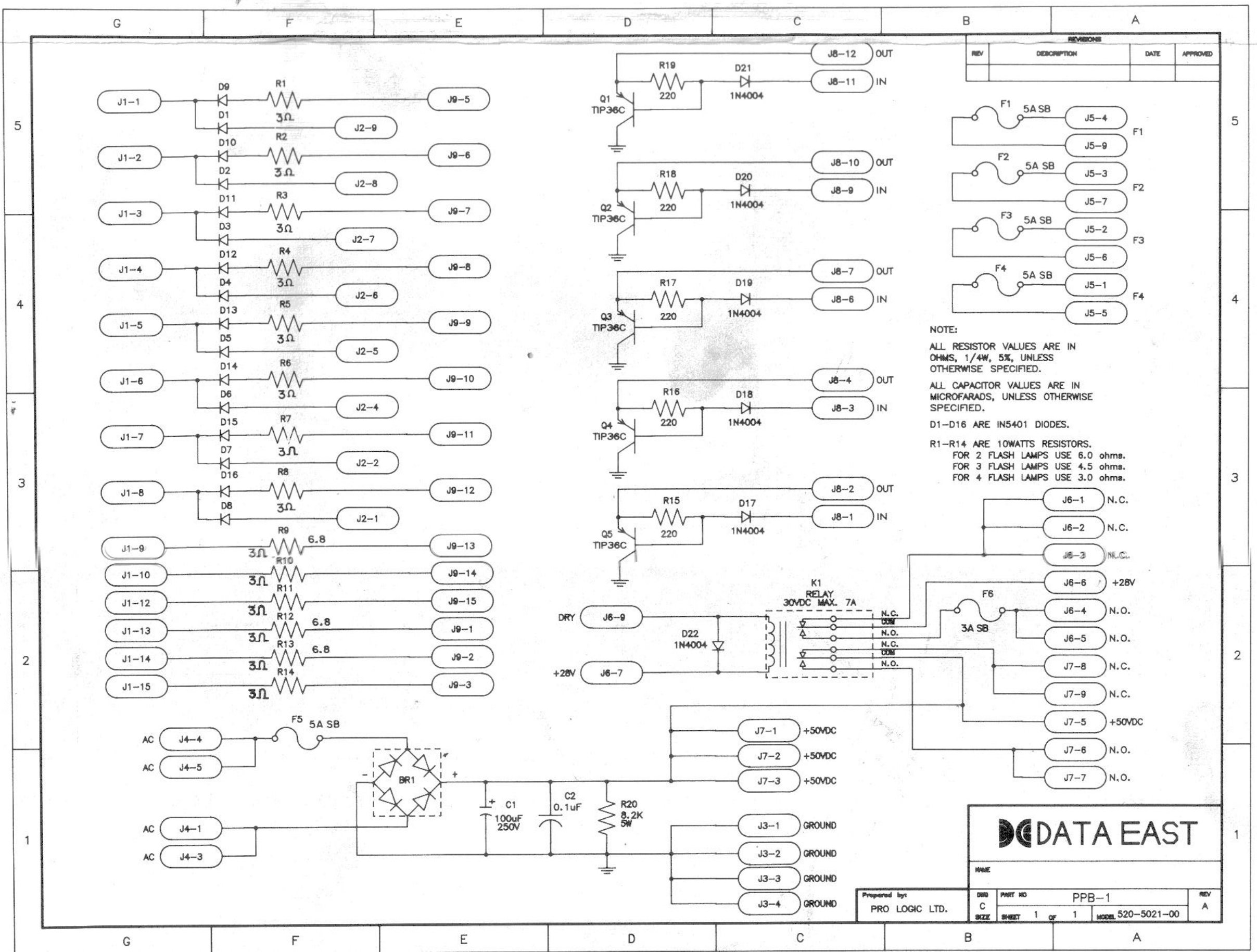
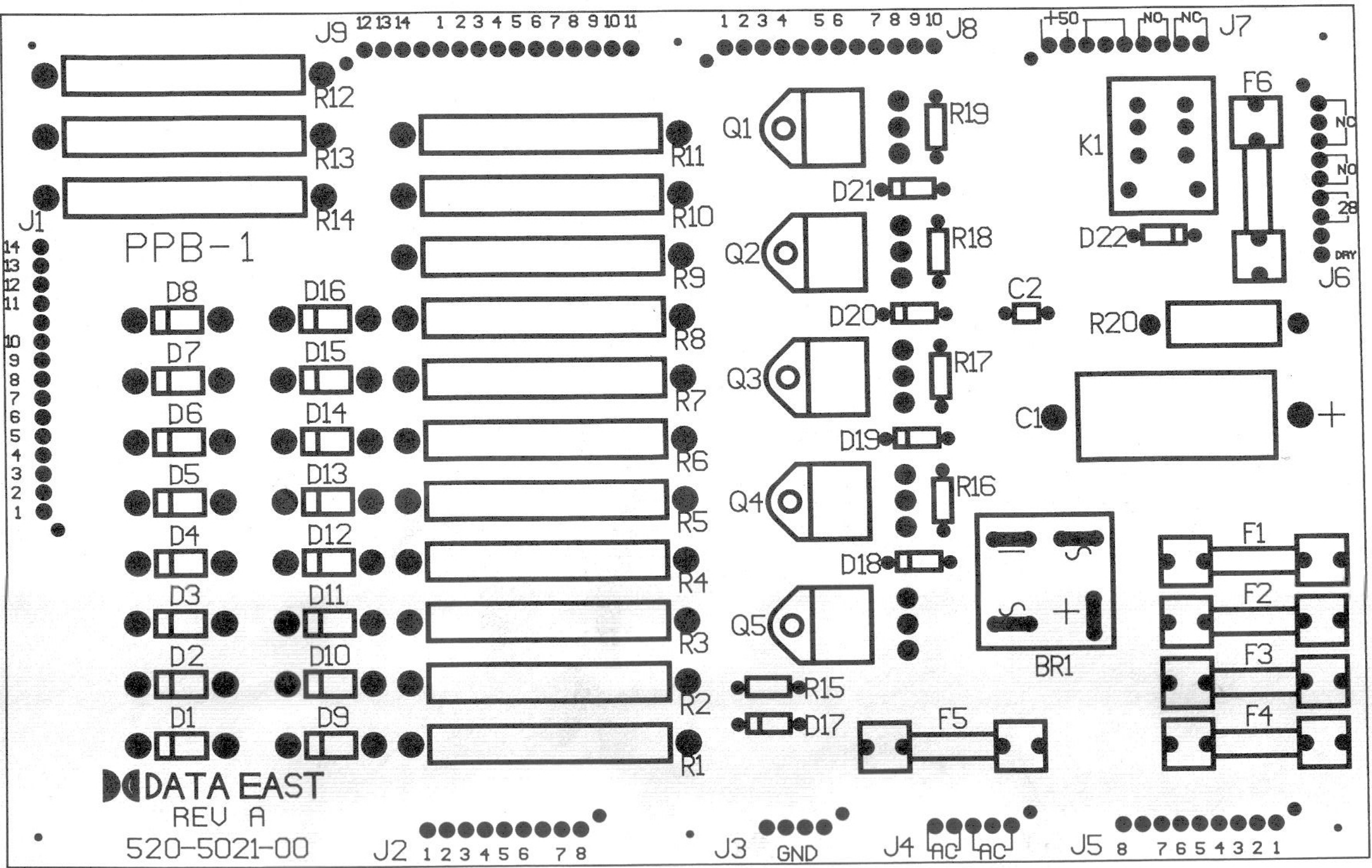
PREPARED BY:
 CES INC.

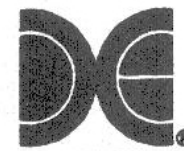






CHEERY ELECTRICAL PRODUCTS
ELECTRONICS DIVISION
DATA EAST DOT MATRIX DISPLAY
D 11-11-90 0120-4152
SHEET 2 of 2 REV. 2



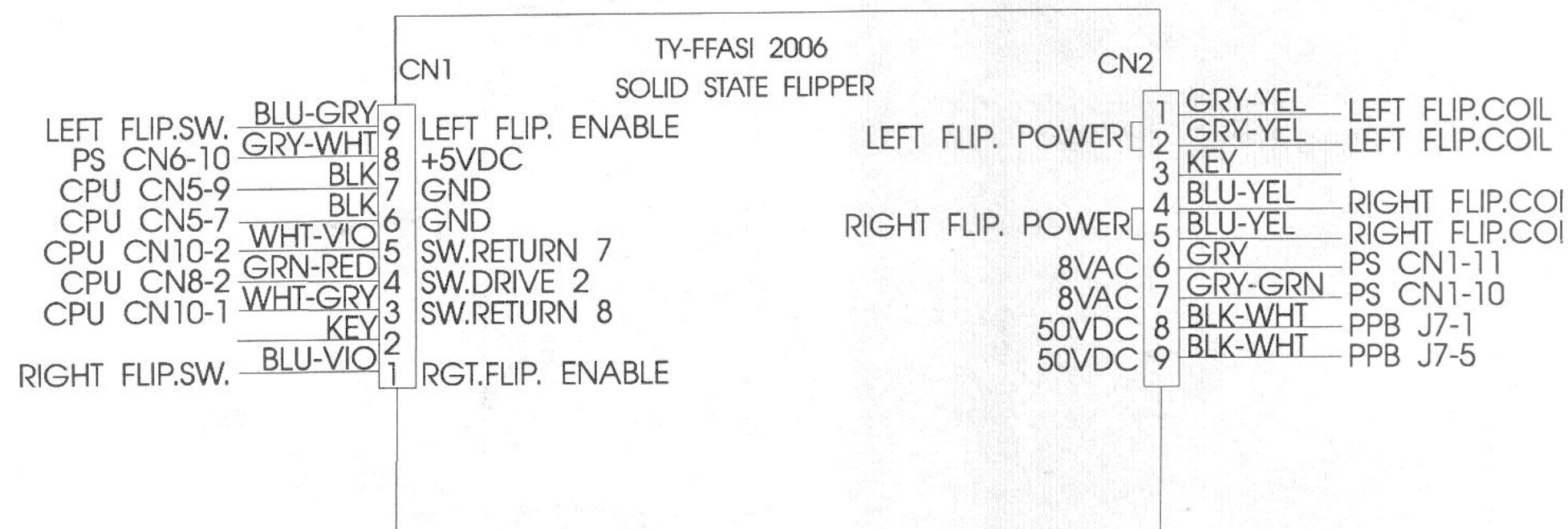


Theory of Operation for the Solid State Flippers

- The solid state flipper board is a dual flipper solenoid driver circuit. Each solenoid driver circuit contains a one shot timer, a 50V driver, and an 8V driver.

Looking at one circuit, Schmidt NAND gates U1A, U1B, and U1D make up the one shot timer. The timer length is controlled by R10, R33 and C2. The output of the timer is gated at U1C with the buffered switch input from Q6. The output of U1C controls the 50V driver circuit consisting of Q4, Q1, Q2, Q3, and D1. As long as the flipper button is activated, Q6 will keep the 8V driver circuit, SR1, on.

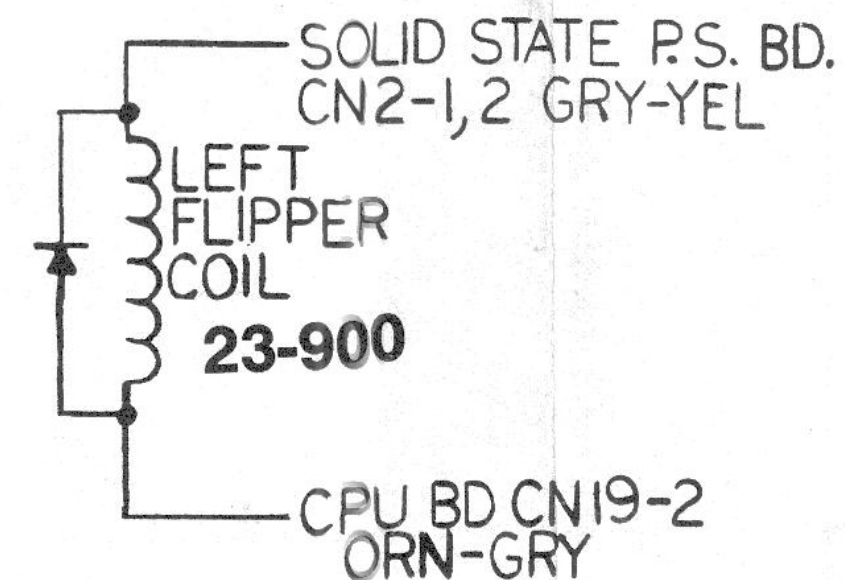
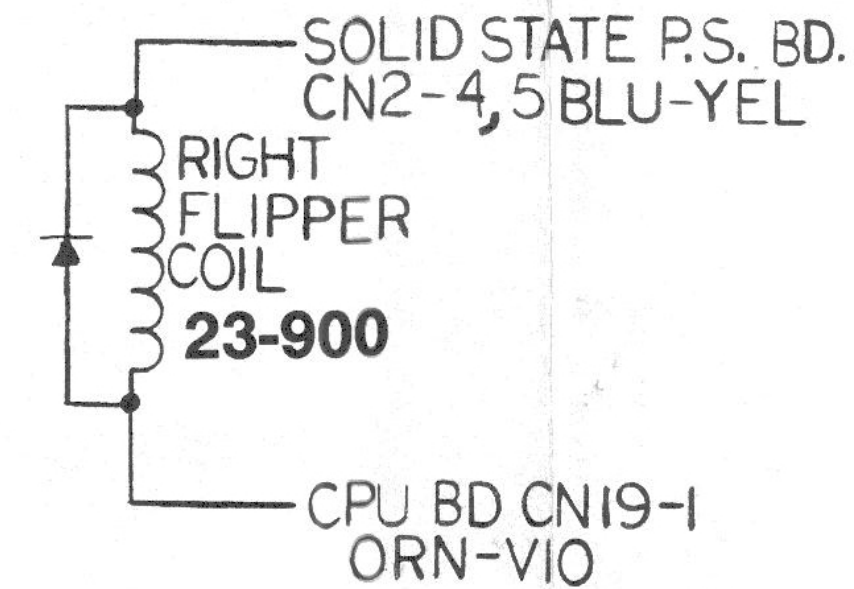
The 50V provides the actuation power to the flipper solenoid while the 8V provides the holding power.

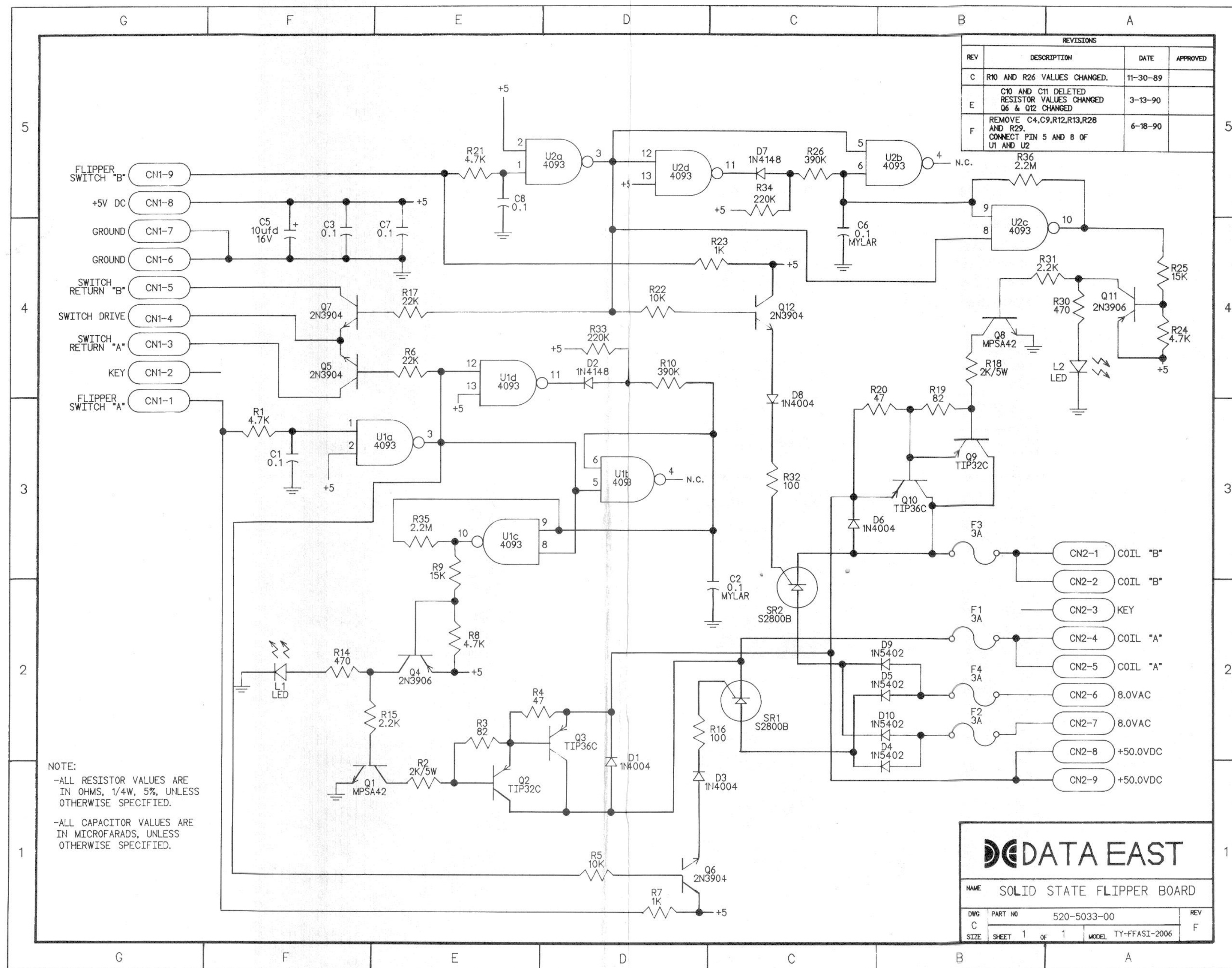


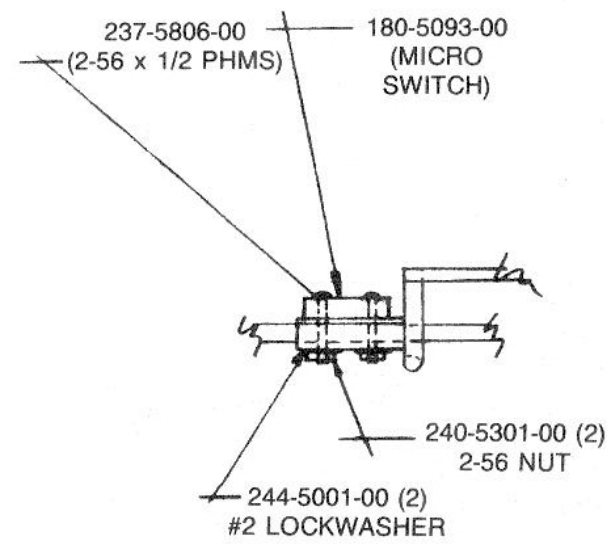
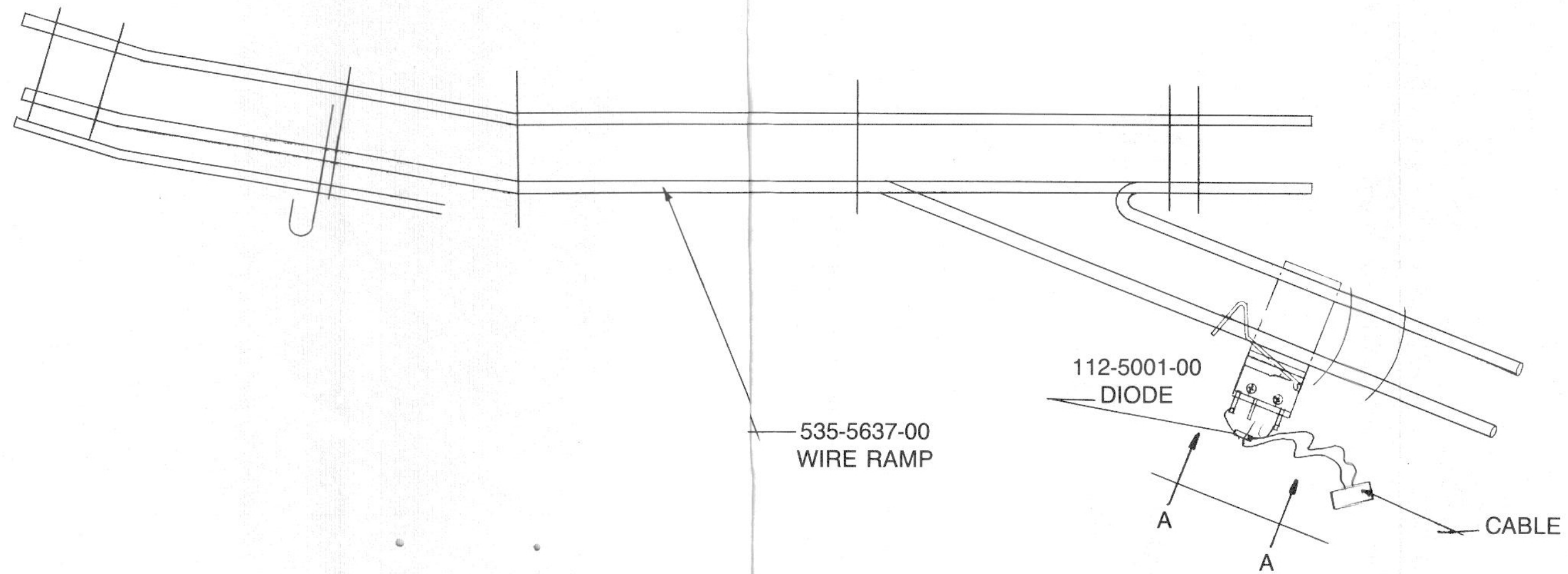
Solid State Flippers
PCB Wiring Diagram

Connector CN 1			
Pin #	Goes To	Wire Color	It Is
1	Rgt. Flipper Sw.	BLU-VIO	RGT. FLIP ENABLE
2			KEY
3	CPU CN10-1	WHT-GRY	SW. RET 8
4	CPU CN8-2	GRN-RED	SW. DRV 2
5	CPU CN10-2	WHT-VIO	SW. RET 7
6	CPU CN5-7	BLK	GND
7	CPU CN5-9	BLK	GND
8	PS CN6-10	GRY-WHT	+5VDC
9	Lft. Flipper Sw.	BLU-GRY	LFT. FLIP ENABLE

Connector CN 2			
Pin #	Goes To	Wire Color	It Is
1	Lft. Flip Coil	GRY-YEL	LFT. FLIP POWER
2	"" "" "" ""	"" "" ""	"" "" "" ""
3			KEY
4	Rgt. Flip Coil	BLU-YEL	RGT. FLIP POWER
5	"" "" "" ""	"" "" ""	"" "" "" ""
6	PS CN1-11	GRY	9 VAC
7	PS CN1-10	GRY-GRN	9 VAC
8	PPB J7-1	BLK-WHT	50 VDC
9	PPB J7-5	BLK-WHT	50 VDC

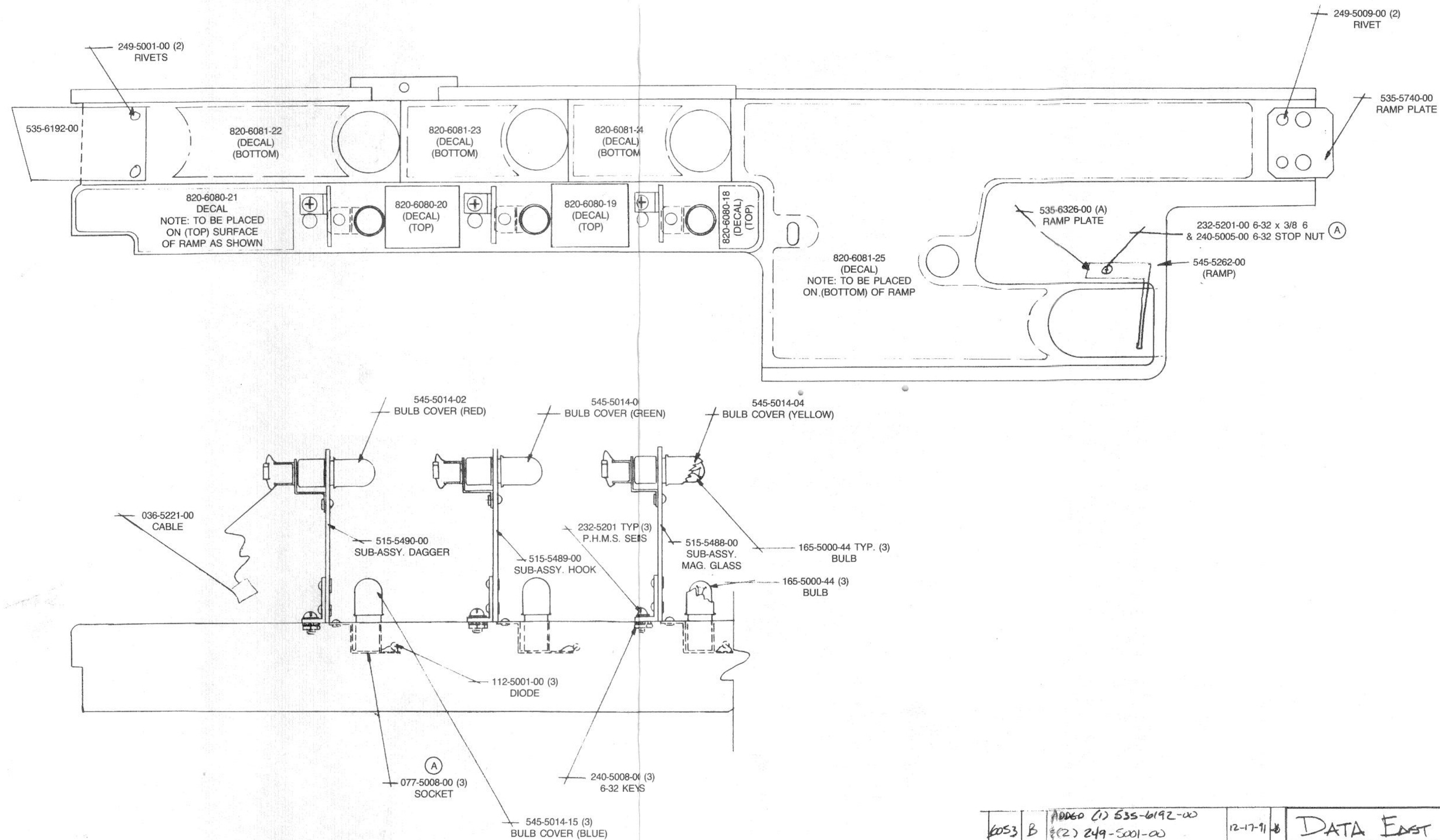






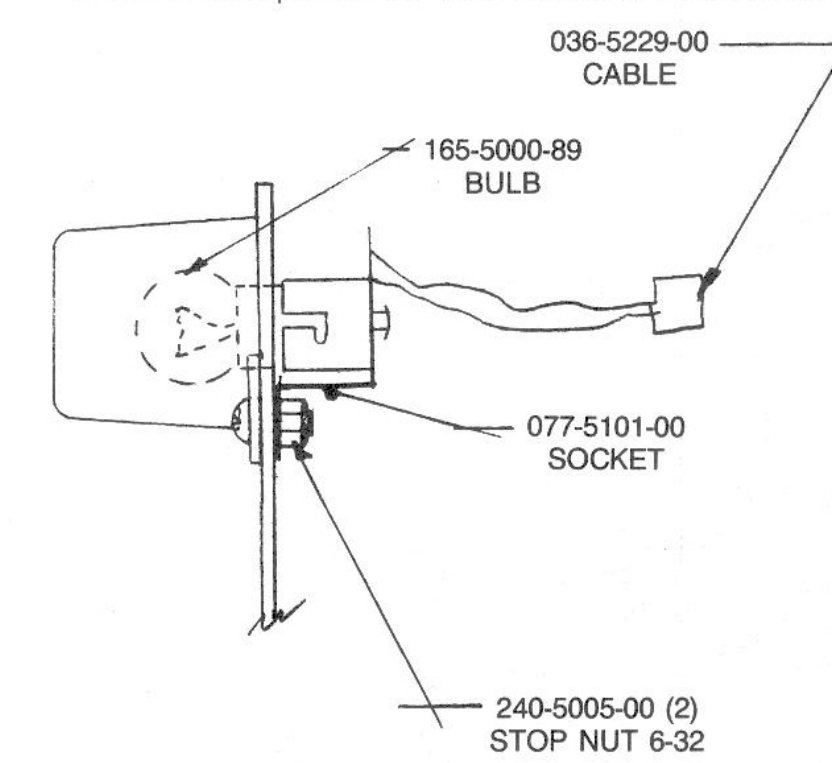
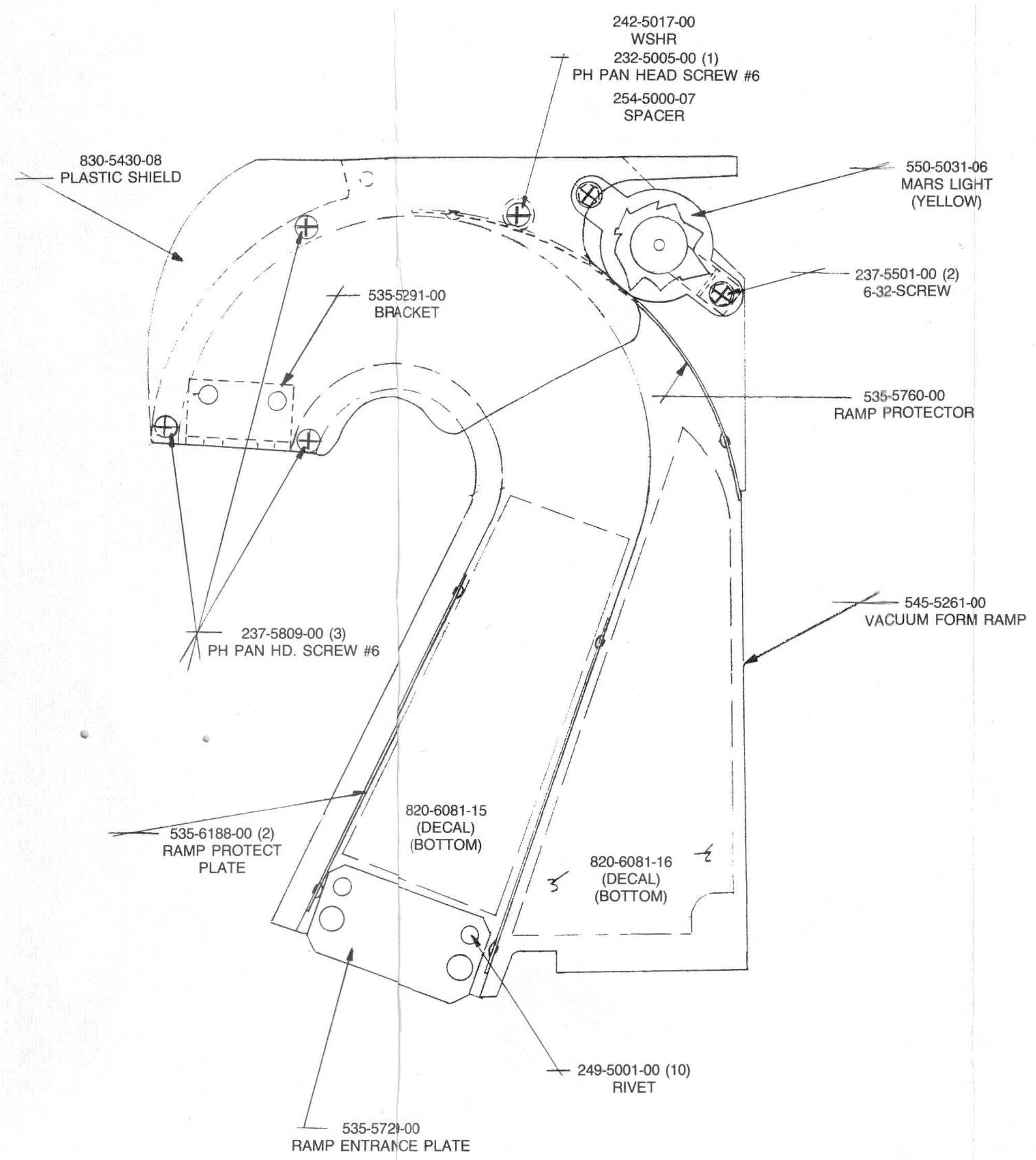
DETAIL A-A
SCALE: FULL

DATA EAST PINGALL		
SCALE: FULL	APPROVED BY: <i>[Signature]</i>	DRAWN BY: <i>[Signature]</i>
DATE: 8-15-91		
WIRE RAMP ASSY		
DRAWING NUMBER		515-5515-CU



6053	B	ADDED (1) 535-6192-00	12-17-91	DATA EAST PINBALL
		(2) 249-5001-00		
6053	A	ADDED 535-6326-00 PLATE	12-3-91	SHOOTER LANE RAMP- ASSY DWG.
		ADDED 232-5201-00 SCREW		
		ADDED 240-5005-00 NUT		
		077-5008-00 WAS 077-5008-00		
ECN	REV	DESC.	DATE	BY

ECN.	REV	DESCRIPTION	BY	DATE	APP
	A	535-6192-00 ADDED	JOB	10-7-91	
6053	B	DELETED 237-5003-00 254-5000-01 535-6192-00 4(2)249-5001-00	JOB	12-17-91	



TOLERANCE UNLESS OTHERWISE SPECIFIED
 DIM. X.X ± .05 X.XXX ± .005
 X.XX ± .015 X.XXXX ± .001
 ANGULAR XX ± 5° FRACTIONAL ± 1/64
 XXX ± .1°

REQ.	NEXT ASSEMBLY	DWN. TWS	DATE 8-6-91	TITLE Top Right Ramp Assy
MAT.		CHKD. JB	SCALE Full	
H.T.				
FIN.				
DATA EAST PINBALL, INC. 1990 JANICE AVE., MELROSE PARK, IL. 60160				PART NO. 515-5519-00

531-688

