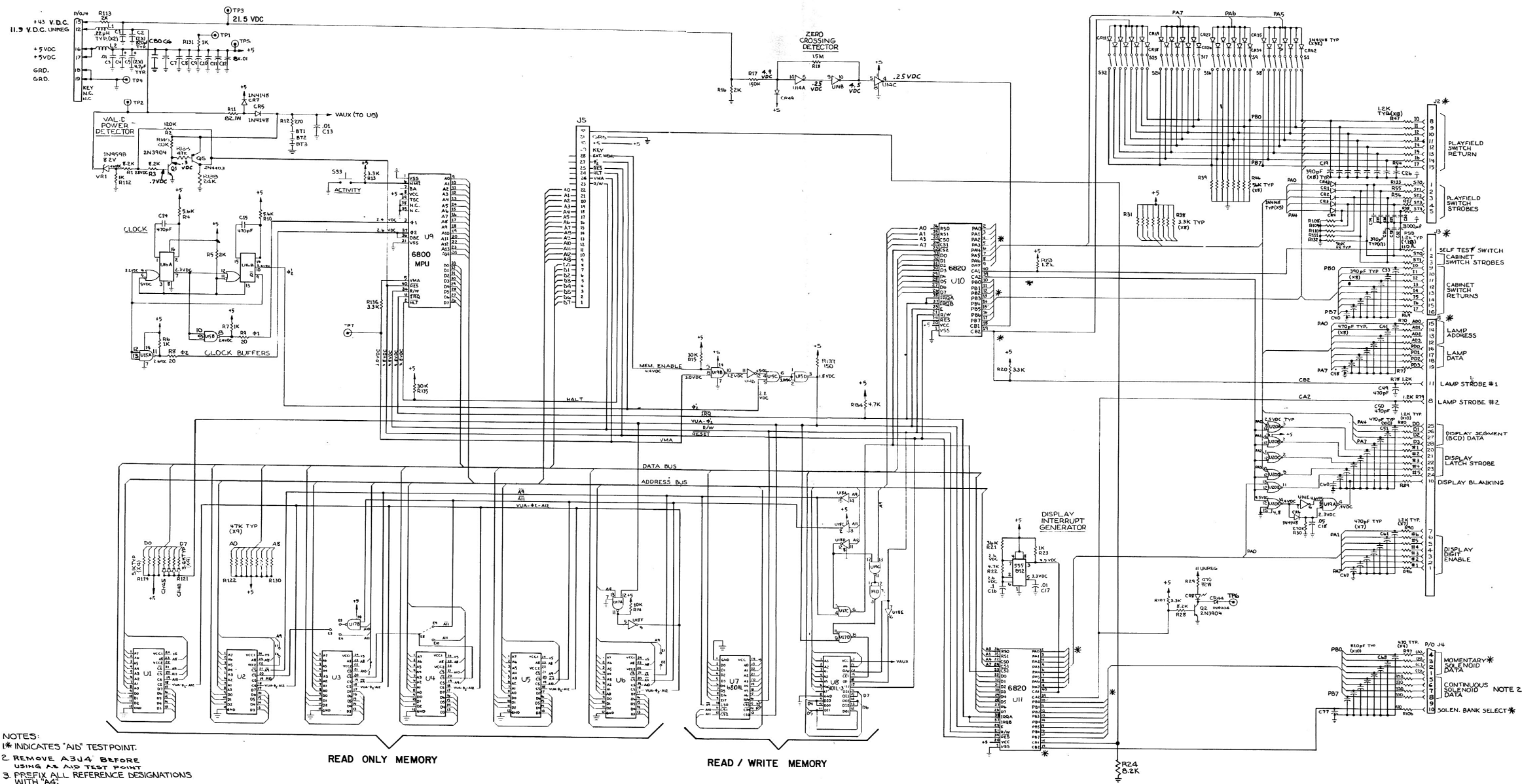




NOTES:

- 1* INDICATES "AID" TEST POINT.
2. REMOVE A3J4 BEFORE USING A6 AID TEST POINT
3. PREFIX ALL REFERENCE DESIGNATIONS WITH "A4".

READ ONLY MEMORY

READ / WRITE MEMORY

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REMOVE ALL BURRS	DR. BY <i>Don</i>	DATE <i>2-77</i>	<i>Bally</i> MANUFACTURING CORP. 1094-E 2640 BELMONT AVENUE
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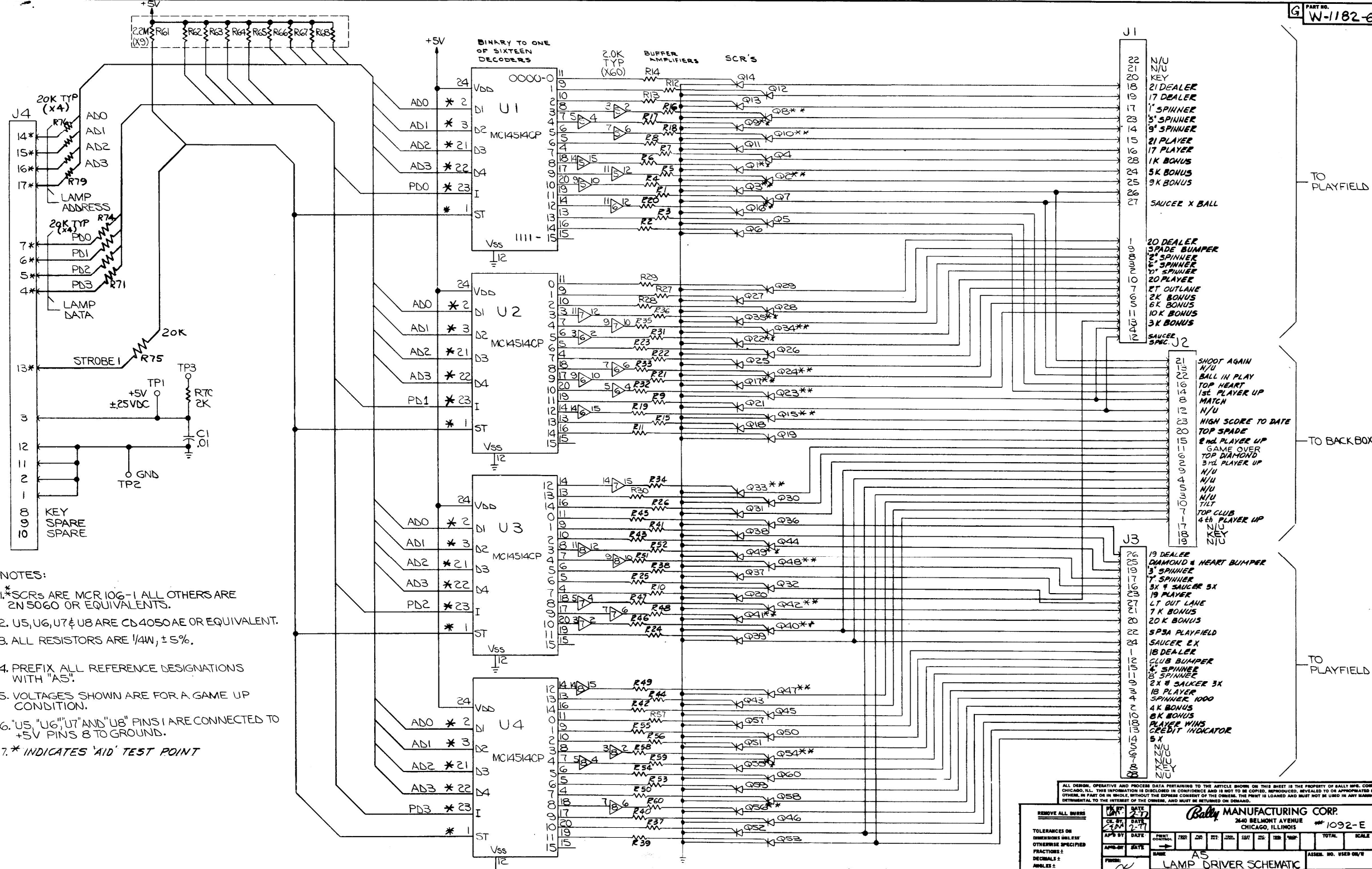
TOLERANCES ON		CR. BY	DATE	2840 BELMONT AVENUE CHICAGO, ILLINOIS										1118-E			
		2-77	FEB 21 1977														
AP'D BY		DATE	PRINT	PROD.	PUR.	ENG.	TOOL	COST	INC.	TOOL	MACH.	TOTAL		SCALE			

APPROVED BY: DATE: 3/2/73 CONTROL: CONT. DPT. FILE. DESIGN. DFT. IMP. ISIP. INSP. NAME: ARMED NO. USED ON/W

DECIMALS $\pm .005$ ANGLES $\pm 1^\circ$	FINISH:	NAME: (24) MPU CONTROL BOARD SCHEMATIC	ASSEMB. NO. USED ON: W
---	---------	---	------------------------

DO NOT SCALE DRAWING	HARDENING:	MATERIAL	PART NO.
			W-1181-2c

[illegible]



NOTES:

1. *SCRs ARE MCR 10G-1 ALL OTHERS ARE 2N 5060 OR EQUIVALENTS.
2. U5, U6, U7 & U8 ARE CD4050AE OR EQUIVALENT.
3. ALL RESISTORS ARE 1/4W, $\pm 5\%$.
4. PREFIX ALL REFERENCE DESIGNATIONS WITH "A5".
5. VOLTAGES SHOWN ARE FOR A GAME UP CONDITION.
6. "U5," "U6," "U7" AND "U8" PINS 1 ARE CONNECTED TO +5V PINS 8 TO GROUND.
7. * INDICATES 'AID' TEST POINT

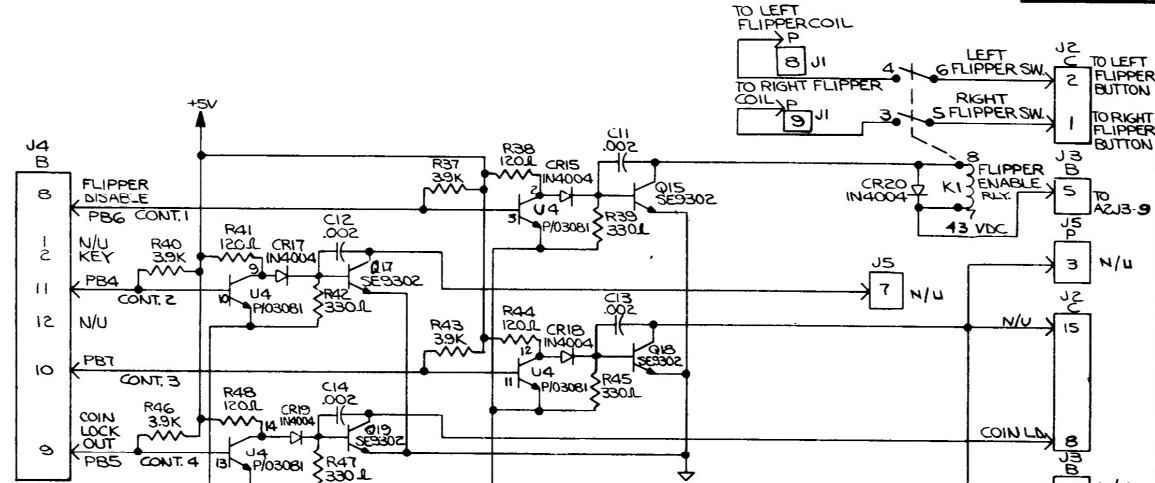
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VE ALL DUTIES		DATE MAY 27 1974		Bally MANUFACTURING CORP. 2640 BELMONT AVENUE CHICAGO, ILLINOIS #1092-E									
CO. BY DATE		DATE MAY 27 1974											
APR BY DATE		PRINT JOURNAL		7501	201	221	230L	504T	255	1200	760P	TOTAL	SCALE
APR BY DATE		DATE											
FIRING		NAME AS										ASSER. NO. USED ON/H	
NO. 1		LAMP DRIVER SCHEMATIC											
SCALE DRAWING		MATERIAL		BLACK JACK								PART NO.	W-1182-6

OPER.	DEPT.	DESCRIPTION	TOOL No.
-------	-------	-------------	----------

NO.	LET.	CHANGE	DATE	BY	CK.
-----	------	--------	------	----	-----

FD-204 (2-7)		CHICAGO, ILLINOIS										1092-E	
APR 27	DATE	PRINT CONTROL		7500	2500	2212	2200	1507	250	1000	5000	TOTAL	SCALE
APR 27	DATE												
FBIHQ:		AS LAMP DRIVER SCHEMATIC										ASSEM. NO. USED ON/7	
HARDWARE:		BLACK JACK										PART NO. W-1182-6	



LAST NUMBER USED

REG & SOLENOID DRIVE ASSEMBLY A3

+5VDC REGULATOR

TP7
R72 1.2K
TP6
R36 120Ω
TP3
+5V BUS LINE
C22 0.1μfd
+5VDC REGULATOR

+190VDC REGULATOR

TP4
C26 160μF 550V
R35 100K 1W
C27 0.1
Q21 1N4004
Q22 2N3440 100VDC
R52 390
TP2
R54 0.2K
R55 1.2K
R56 0.2K 1/2W
RT1 25K
VR1 4140 ±14VDC
IN5275A
3/16 AMP B A6 E133-29

Notes:

(NOTE 1)
E-710
+5V REG
Q20
3(CASE)
R49 100 1/2W
R50 2.2Ω

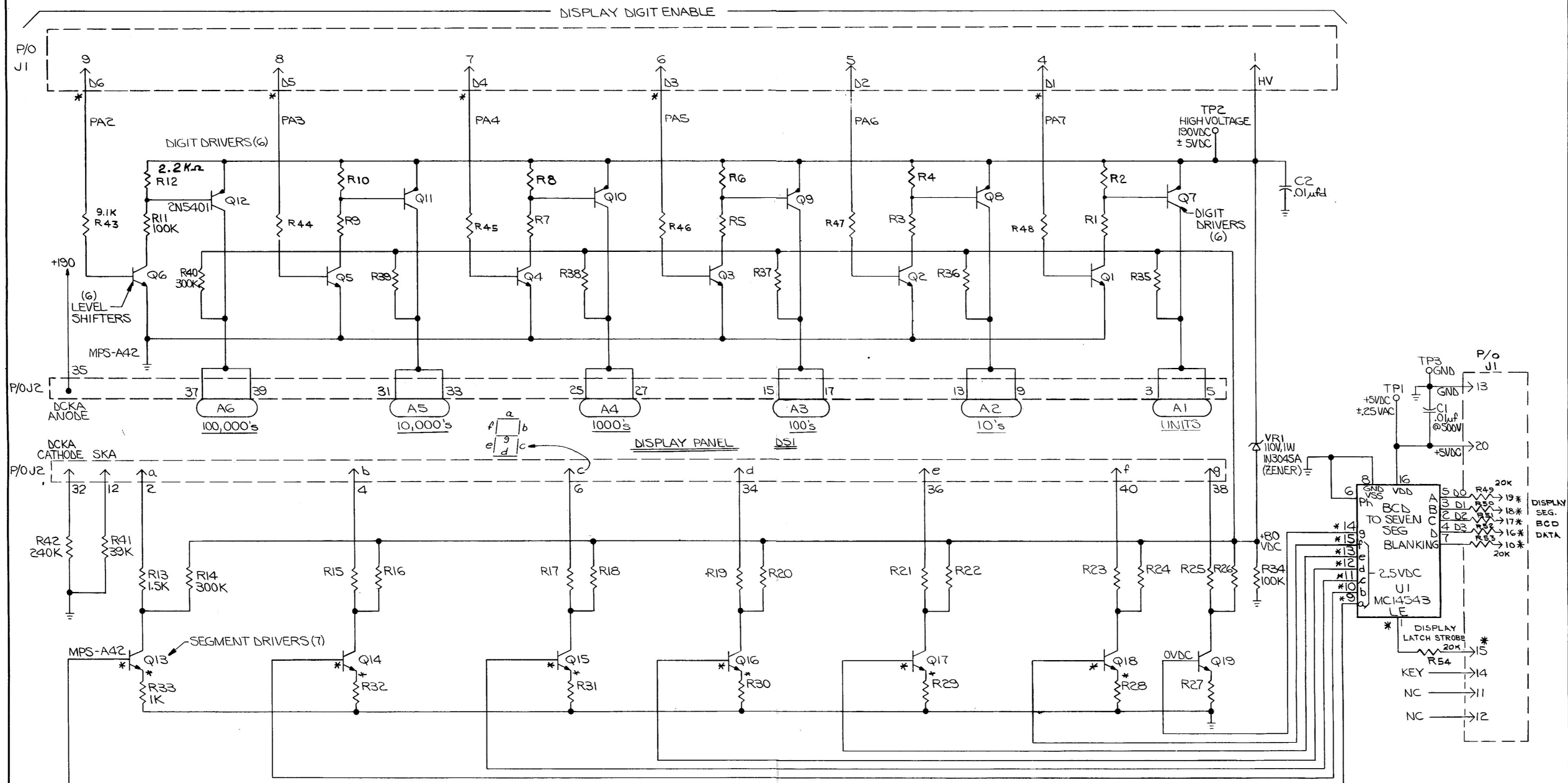
Connections:

J3 B
11 11.9VDC
12 UNREGULATED FROM A2J3-18
10 TO TRANSFORMER (BRIDGE AND GND) A2J3-17

J3 B
13 +5VDC ±.25VDC
14 2X#22AWG TO MPU
15 ASJ4-3 LAMP DRIVER
16 DISPLAYS A1J1-18
17 2X#22AWG TO MPU
18 DISPLAYS A1J1-18
19 TRANSFORMER A2J3-14
20
21
22

J2 C
7
J3 B
8

[illegible]



NOTES:

1. UNLESS OTHERWISE SPECIFIED ALL RESISTORS ARE $\pm 5\%$, 1/4W.
2. PREFIX ALL REFERENCE DESIG. WITH ASSEMBLY REFERENCE DESIG. "A1"
3. * INDICATES 'A1D' TEST POINT.

DIE SIZE — C.C. — FT. PER M — LBS. PER M —

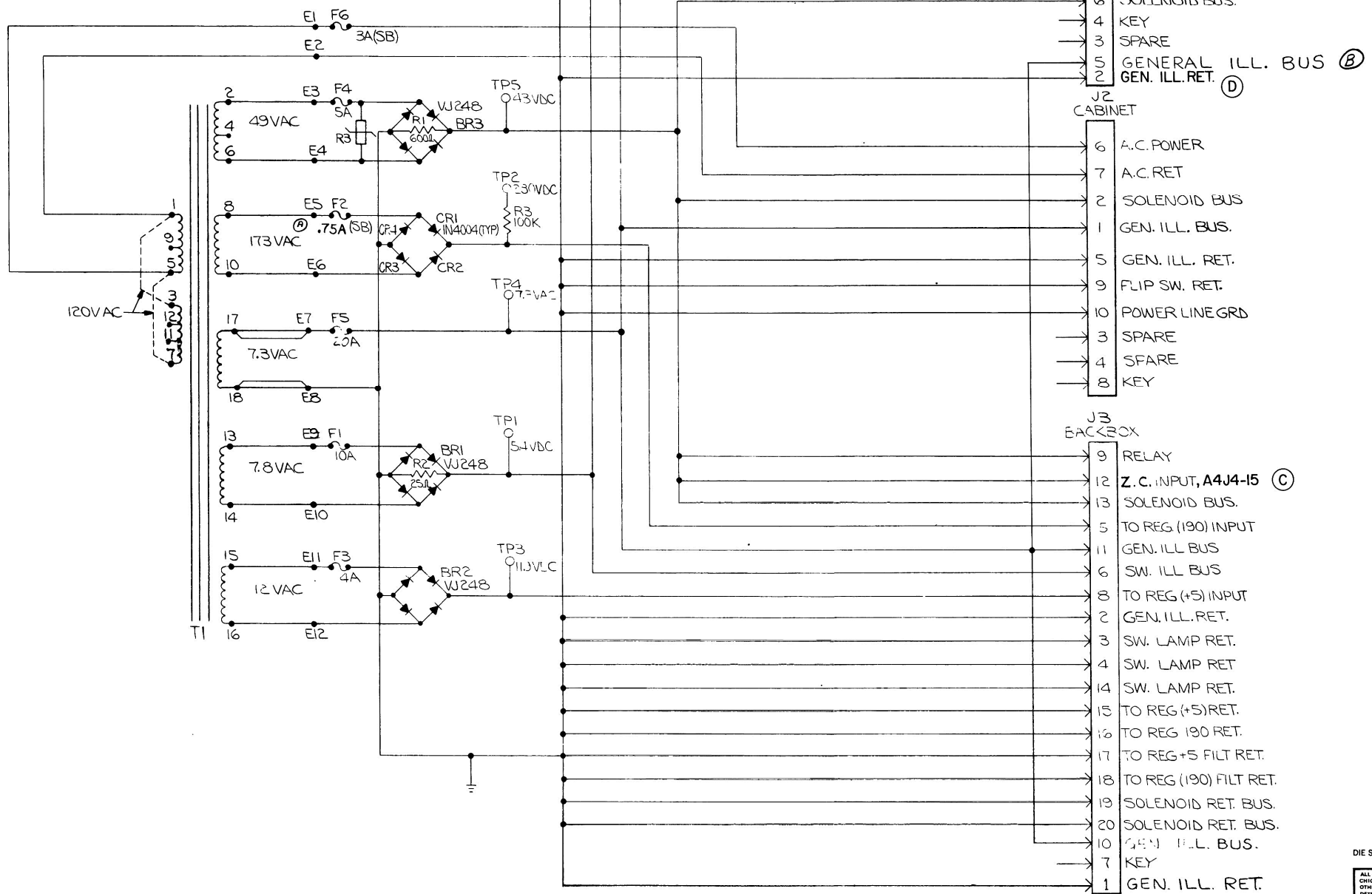
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REMOVE ALL BURNS		DR. BY DATE <i>DS 7/27</i>		Bally MANUFACTURING CORP. #1120-E									
TOLERANCES ON DIMENSIONS UNLESS OTHERWISE SPECIFIED (FRACTIONS): ANGLES ±		CR. BY DATE <i>DS 7-8-71</i>		2640 BELMONT AVENUE CHICAGO, ILLINOIS NOVELTIES									
DO NOT SCALE DRAWING		INT. BY DATE <i>DS 10/17/71</i>		PROV. CONTROL									
		DR. BY DATE <i>DS 9/17/71</i>		NAME DISPLAY BOARD SCHEMATIC "A"									
		FINISH <i>W</i>		ASSN. NO. USED ON A-2518-21									
		HARDENING <i>W</i>		MATERIAL PART NO. W-1184-1e									

OPER.	DEPT.	DESCRIPTION	TOOL No.
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NO.	LET.	CHANGE	DATE	BY
-----	------	--------	------	----

TRANSFORMER ASSEMBLY A2



- NOTES:
1. WIRE A.C. POWER AND TERMINALS PER TABLE 1.
 2. VOLTAGES SHOWN ARE FOR GAME IN POWER-UP CONDITION.
 3. PREFIX ALL REFERENCE DESIGNATIONS WITH A2.

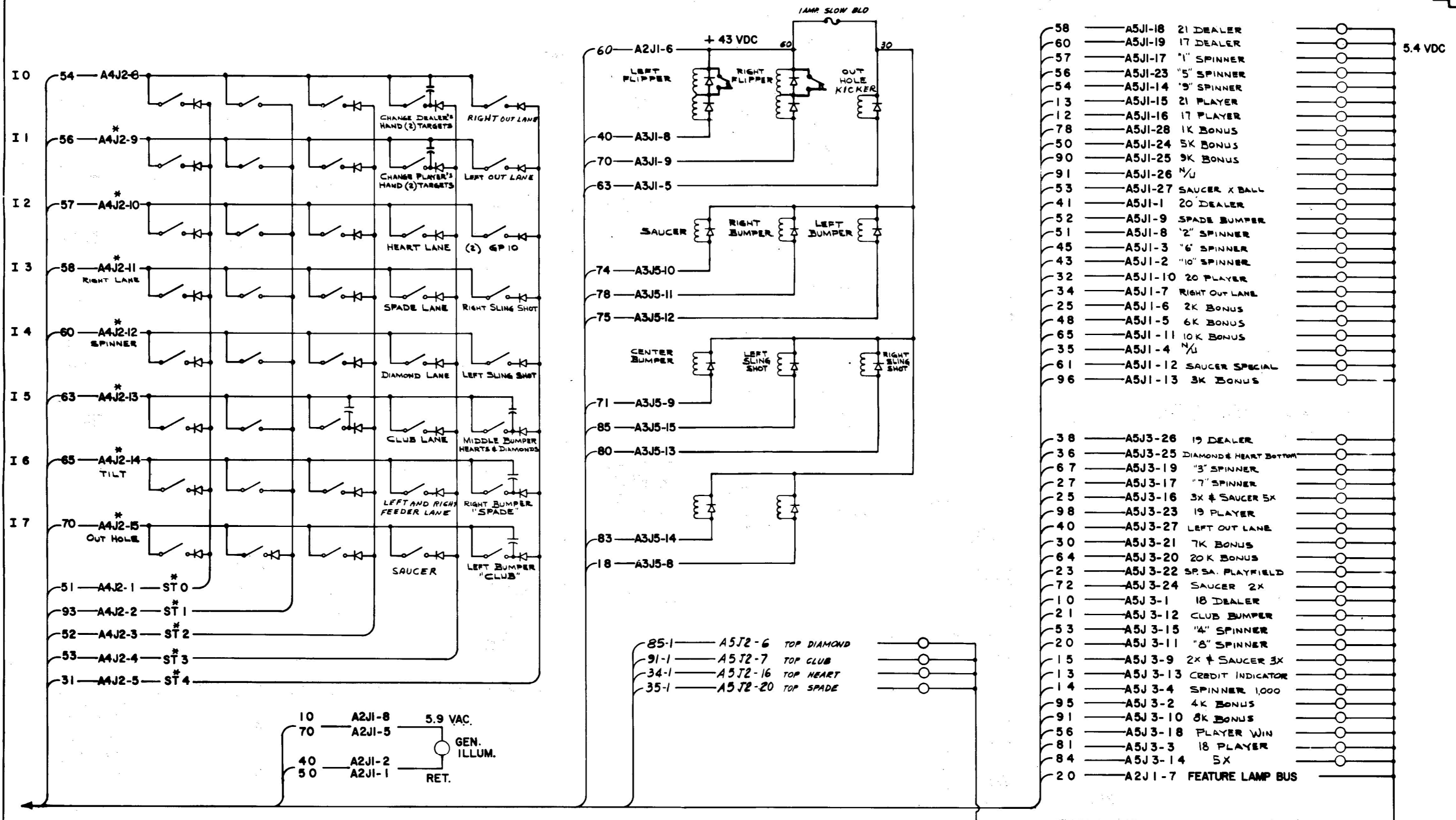
TABLE 1 POWER LINE CONNECTIONS		
LINE VOLTAGE VRMS A.C.	STRAP TERMINALS	APPLY POWER TO TERMINALS
115	1T03 AND 9T011	1 AND 9
120	1T03 AND 5T07	1 AND 5
220	3T05	1 AND 12
240	3T05	1 AND 7

DIE SIZE — C.C. — FT. PER M — LBS. PER M —

ALL DESIGN, OPERATIVE AND PROCESS DATA PERTAINING TO THE ARTICLE SHOWN ON THIS SHEET IS THE PROPERTY OF BALLY MFG. CORP., CHICAGO, ILL. THIS INFORMATION IS DISCLOSED IN CONFIDENCE AND IS NOT TO BE COPIED, REPRODUCED, REVEALED TO OR APPROPRIATED BY OTHERS, IN PART OR IN WHOLE, WITHOUT THE EXPRESS CONSENT OF THE OWNERS. THE PRINT IS LOANED AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THE INTERESTS OF THE OWNERS, AND MUST BE RETURNED ON DEMAND.

REMOVE ALL BURRS		DATE: 2-21-77		Bally MANUFACTURING CORP. #1074-E	
TOLERANCES ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		CR. BY: C.S.		2640 BELMONT AVENUE CHICAGO, ILLINOIS	
FRACTIONS: 1/16, 1/8, 1/4, 1/2, 3/4, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100		DATE: FEB 21 1977		1074-E	
DECIMALS: .001, .002, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .021, .022, .023, .024, .025, .026, .027, .028, .029, .030, .031, .032, .033, .034, .035, .036, .037, .038, .039, .040, .041, .042, .043, .044, .045, .046, .047, .048, .049, .050, .051, .052, .053, .054, .055, .056, .057, .058, .059, .060, .061, .062, .063, .064, .065, .066, .067, .068, .069, .070, .071, .072, .073, .074, .075, .076, .077, .078, .079, .080, .081, .082, .083, .084, .085, .086, .087, .088, .089, .090, .091, .092, .093, .094, .095, .096, .097, .098, .099, .100		DATE: FEB 21 1977		1074-E	
ANGLES: 15, 30, 45, 60, 75, 90, 105, 120, 135, 150, 165, 180, 195, 210, 225, 240, 255, 270, 285, 300, 315, 330, 345, 360		DATE: FEB 21 1977		1074-E	
DO NOT SCALE DRAWING		DATE: FEB 21 1977		1074-E	
HARDENING: 1		DATE: FEB 21 1977		1074-E	
MATERIAL: 1		DATE: FEB 21 1977		1074-E	
PART NO. W-1185-1c		DATE: FEB 21 1977		1074-E	

OPER.	DEPT.	DESCRIPTION	TOOL No.
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PLAYFIELD A6

NOTES

1. INDICATES NOT USED
2. N/U = NOT USED ON PLAYFIELD
3. * INDICATES AID TEST POINT

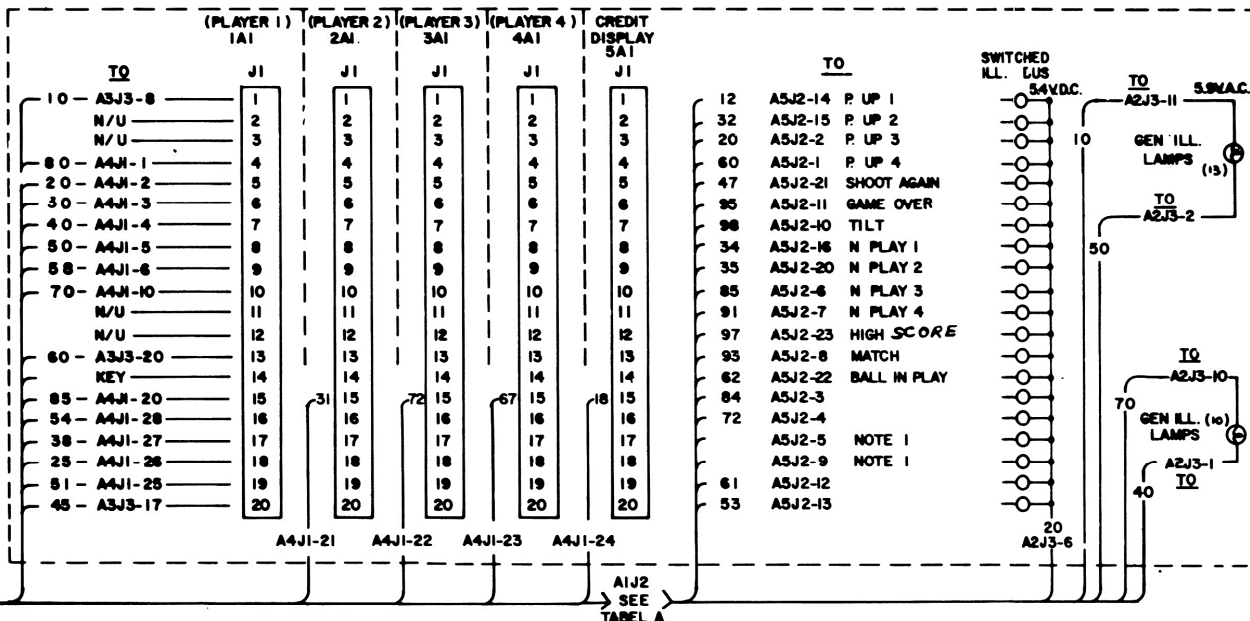
				ALL DESIGN, OPERATIVE AND PROGRAM DATA PERTAINING TO THE ARTICLE SHOWN ON THIS SHEET IS THE PROPERTY OF BALLY SHOE CO., CHICAGO, ILL. THIS INFORMATION IS DISCLOSED IN CONFIDENCE AND IS NOT TO BE COPIED, REPRODUCED, REVEALED TO OR APPROPRIATED BY OTHERS, IN PART OR IN WHOLE, WITHOUT THE EXPRESS CONSENT OF THE OWNER. THE PRINT IS LOANED AND MUST NOT BE USED IN ANY MANNER DETERMINED TO BE DETRIMENTAL TO THE INTEREST OF THE OWNER, AND MUST BE RETURNED TO THE OWNER PROMPTLY.																			
				<u>REMOVE ALL MARKS</u>				Bally MANUFACTURING CORP. 2640 BELMONT AVENUE CHICAGO, ILLINOIS #1092-E															
				TOLERANCES ON DIMENSIONS UNLESS OTHERWISE SPECIFIED				FRONT CONTROL															
				APPROX BY DATE				APPROX BY DATE															
				DO NOT SCALE BRANDS				NAME SWITCH MATRIX															
				LET. CHARGE DATE BY CR.				HARDWARE: MATERIAL BLACK JACK															
								PART NO. W-1192-2c															

TABEL A AIJ2

FROM	PIN	WIRE
A2J3-6	1	20
A5J2-14	2	12
A2J3-2	3	50
A2J3-11	4	10
A5J2-23	5	97
A5J2-15	6	32
A5J2-22	7	62
A5J2-8	8	93
A5J2-1	9	60
A5J2-2	10	20
A5J2-11	11	95
A5J2-21	12	47
A5J2-10	13	98
A5J2-7	14	91
A5J2-6	15	85
A5J2-20	16	35
A5J2-16	17	34
A2J3-1	18	40
A2J3-10	19	70
A5J2-13	20	53
A5J2-12	21	61
A5J2-4	22	72
A5J2-3	23	84
	24	

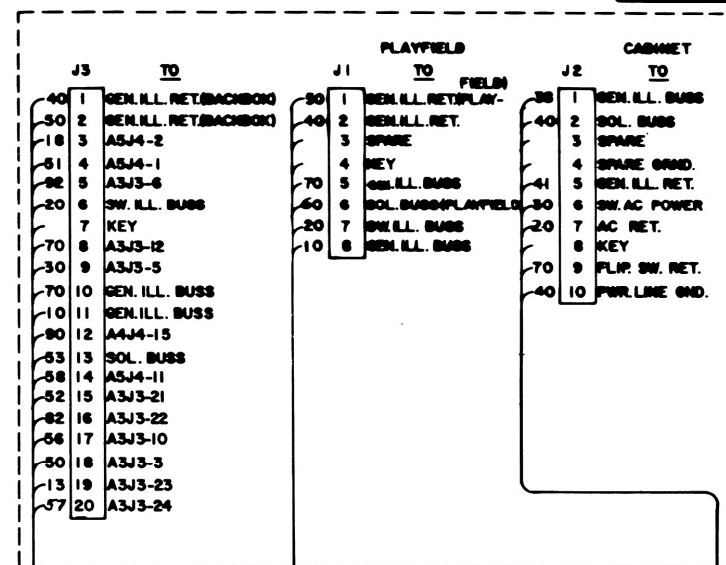
INSERT TO BACK
CABINET PLUG

AI INSERT



A2 TRANSFORMER

W-1187-2 6



LAMP DRIVER A5

