

- NOTES**
- \* INDICATES "AID" TEST POINT.
  - REMOVE A3J4 BEFORE USING AS AID TEST POINT
  - PREFIX ALL REFERENCE DESIGNATIONS WITH "A4"
  - EXACT CHIP COMPLEMENT USED IN SOCKETS U1 THRU U6 CAN VARY FOR DIFFERENT GAMES AND PRODUCTION LOTS. TABLES OF MEMORY CHIPS AND CORRESPONDING JUMPERS FOR DIFFERENT GAMES AVAILABLE FROM BALLY FIELD SERVICE DEPARTMENT.

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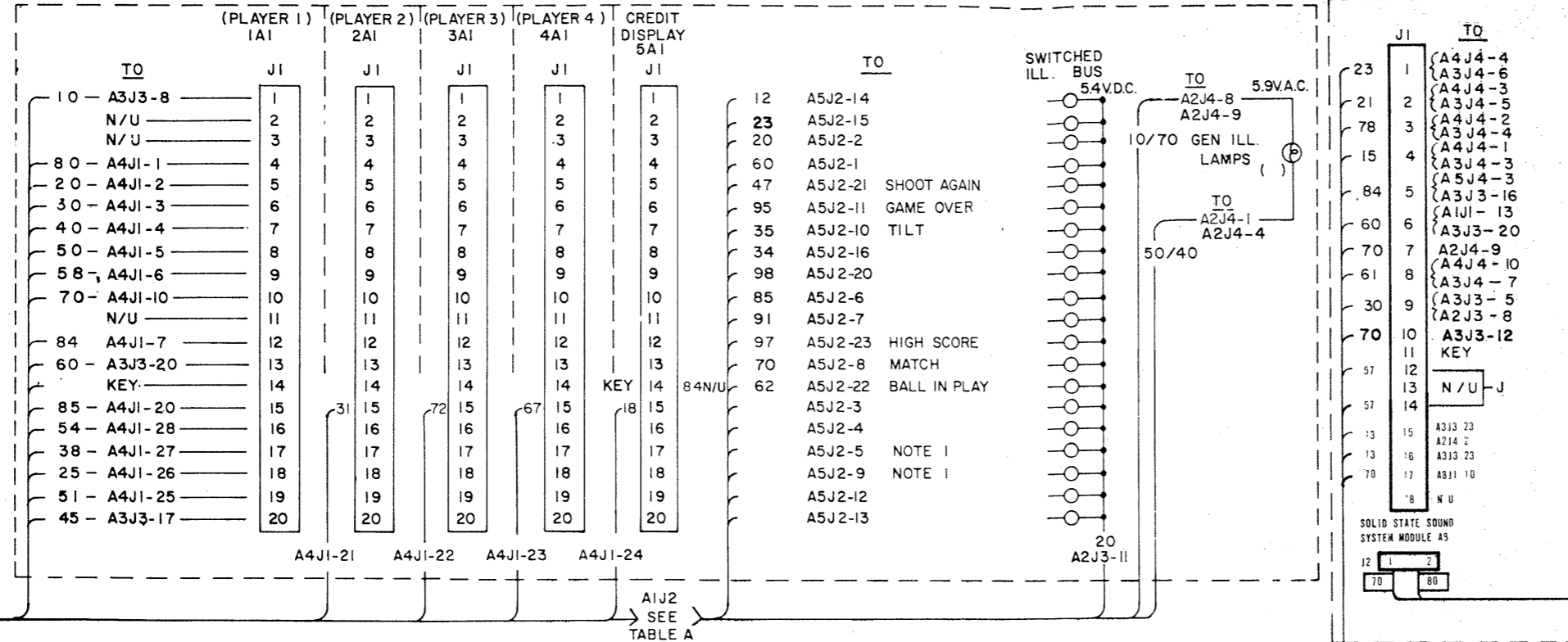
REMOVE ALL BURRS		DATE: 5-11-78	
TOLERANCES ON DIMENSIONS UNLESS OTHERWISE SPECIFIED: FRACTIONS - 1/64 DECIMALS - .005 ANGLES - 1°		Bally MANUFACTURING CORP. 2640 BELMONT AVENUE CHICAGO, ILLINOIS 60618	
DO NOT SCALE DRAWING		M.P.U. CONTROL BOARD SCHEMATIC	
HARDENING:		PART NO. W-1181-3c	

TABLE A AIJ2

FROM	PIN	WIRE
A2J3-11	1	20
A5J2-14	2	12
A2J4-1	3	50
A2J4-8	4	10
A5J2-23	5	97
A5J2-15	6	23
A5J2-22	7	62
A5J2-8	8	70
A5J2-1	9	60
A5J2-2	10	20
A5J2-11	11	95
A5J2-21	12	47
A5J2-10	13	35
A5J2-7	14	91
A5J2-6	15	85
A5J2-20	16	98
A5J2-16	17	34
A2J4-4	18	40
A2J4-9	19	70
A5J2-13	20	
A5J2-12	21	
A4J4-16	22	96
A4J4-8	23	72
A8J1-7	24	70

INSERT TO BACK CAB. PLUG

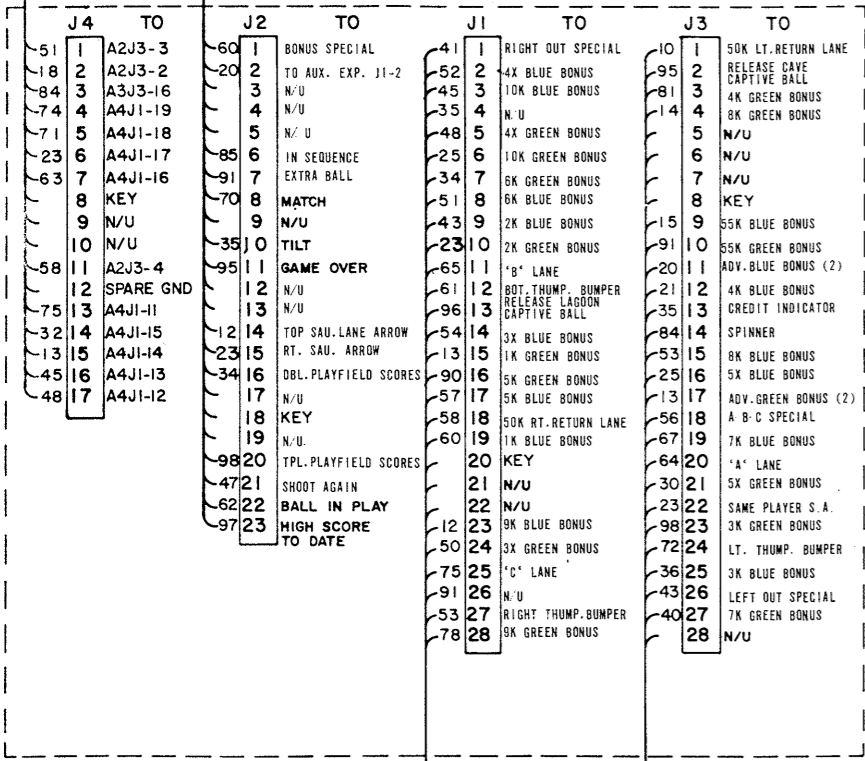
AI INSERT



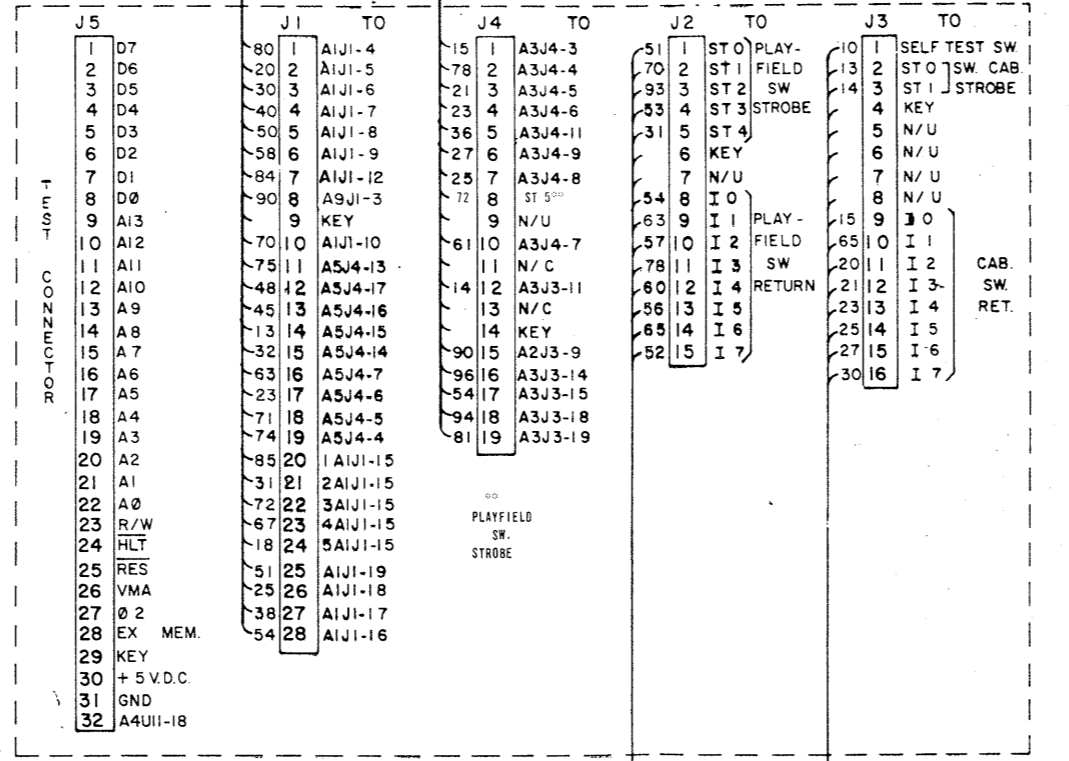
24 PIN PLUG		
FROM	PIN	WIRE
A2J4-4	1	40
A2J4-1	2	50
A2J3-2	3	18
A2J3-3	4	51
A2J4-8	5	92
A2J3-11	6	20
A2J3-10	7	70
A2J3-5	8	30
A2J4-9	9	70
A2J4-8	10	10
A2J3-9	11	90
A2J3-4	12	58
A2J3-5	13	52
A2J3-6	14	82
A2J3-1	15	56
A2J3-7	16	50
A2J4-2	17	13
A2J4-3	18	57
CABINET TO BACK BOX		

12 PIN PLUG		
FROM	PIN	WIRE
A5J2-14	1	12
A5J2-2	2	20
A5J2-15	3	23
A5J2-16	4	34
A5J2-1	5	60
A4J4-8	6	72
A5J2-6	7	85
A5J2-7	8	91
A4J4-16	9	96
A5J2-20	10	98
PANEL TO BACK BOX		

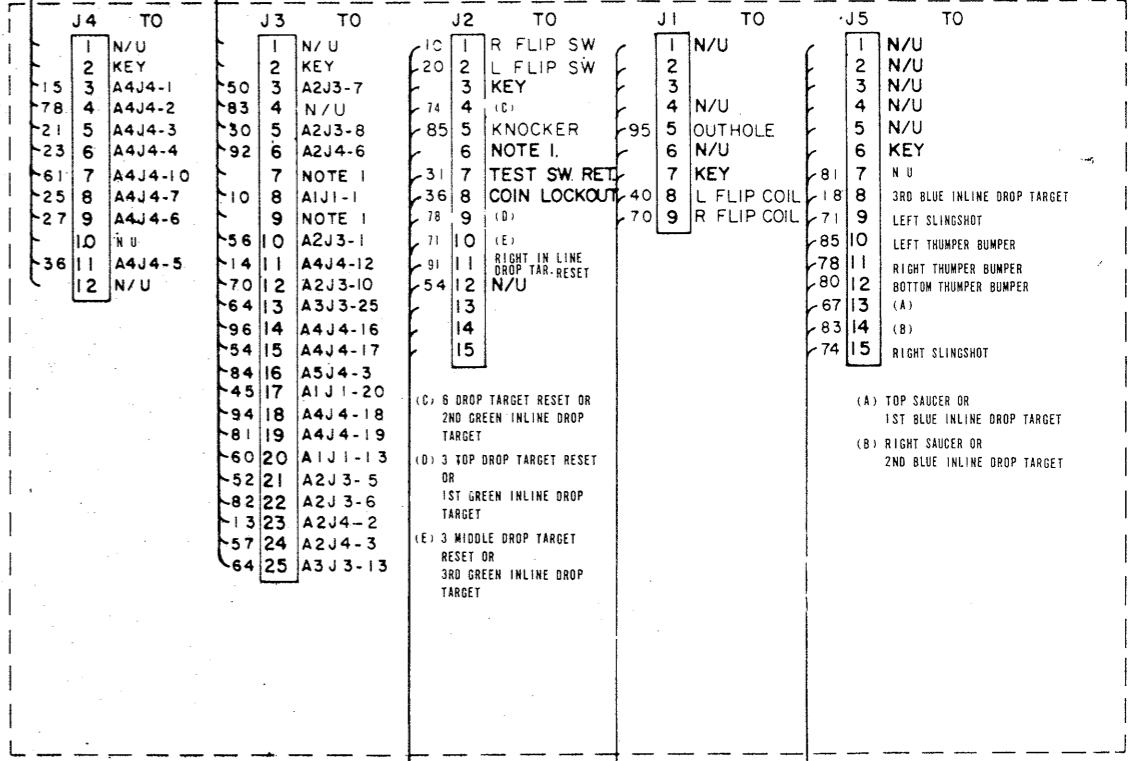
LAMP DRIVER A5



MPU A4



VOLTAGE REGULATOR / SOLENOID DRIVER A3



TO LOWER CABINET  
TO PLAYFIELD

- NOTES:
1. THESE PINS ARE RESERVED FOR FUTURE USE.
  2. WIRE COLOR ARE SHOWN FOR ALL CONNECTOR PINS, SOME WIRE MAY NOT BE USED IN ALL GAMES.
  3. \* INDICATES AID TEST POINT.

WIRE COLOR CODE	
1-RED	6-BROWN
2-BLUE	7-ORANGE
3-YELLOW	8-BLACK
4-GREEN	9-GRAY
5-WHITE	0-NO TRACE

REMOVED ALL BURRS

TOLERANCES ON DIMENSIONS UNLESS OTHERWISE SPECIFIED  
FRACTIONS - 1/64  
DECIMALS - .005  
ANGLES - °

DO NOT SCALE DRAWING

DATE: 5-8-81

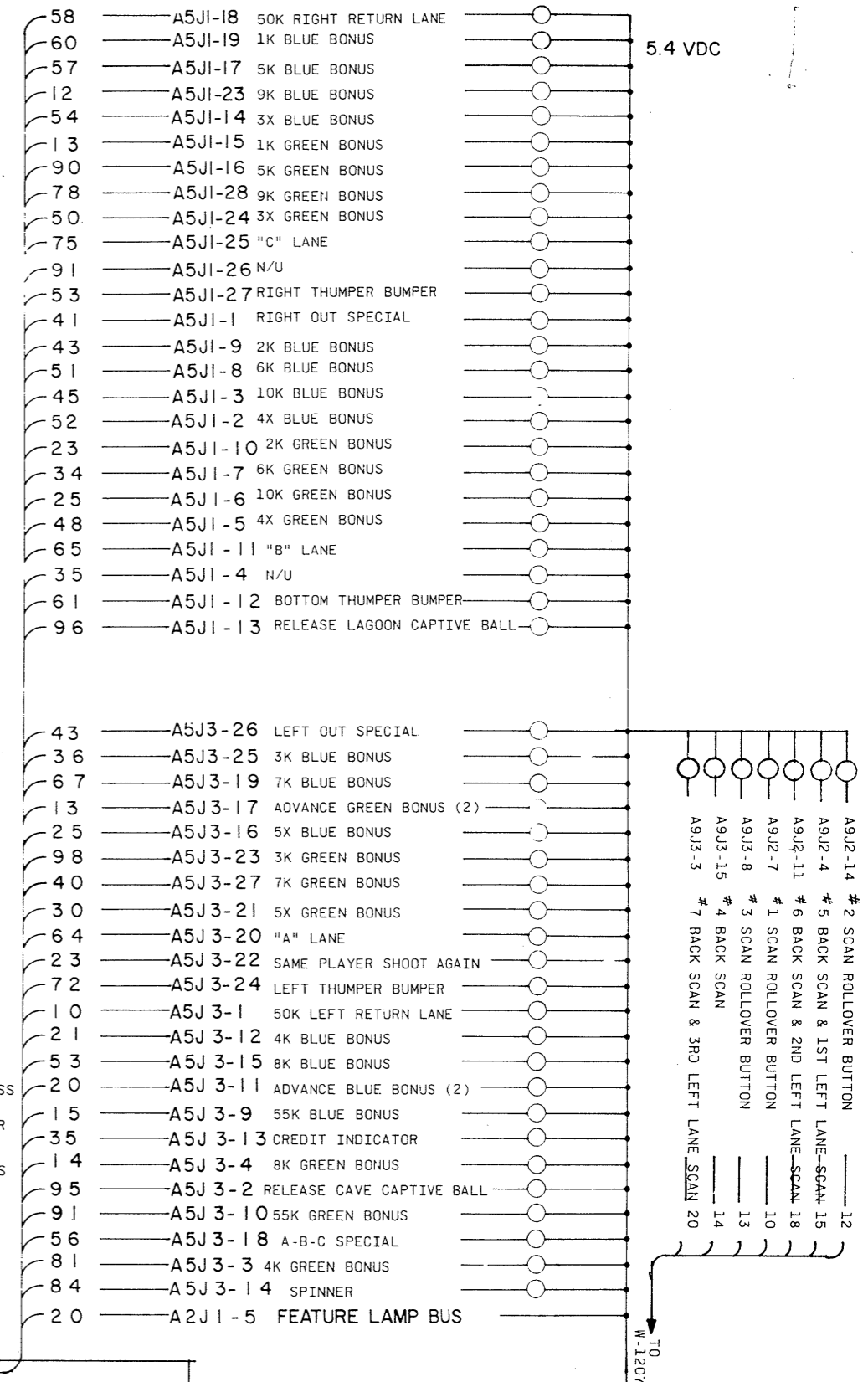
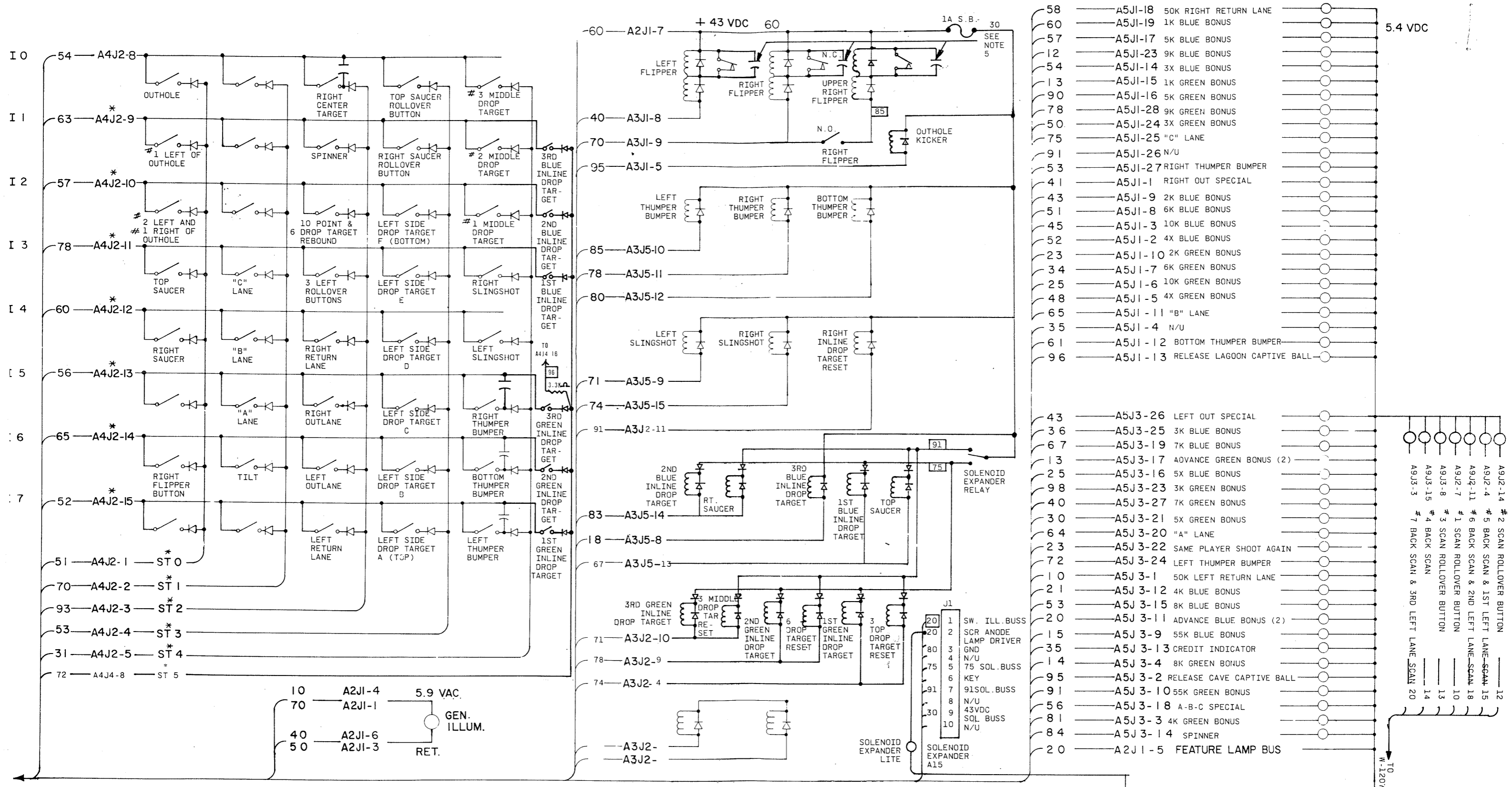
BY: J.D.

NAME: WIRING DIAGRAM BACKBOX

MATERIAL: FATHOM

PART NO: W-1187-30

Bally MANUFACTURING CORP.  
2640 BELMONT AVENUE  
CHICAGO, ILLINOIS 60647



- NOTES**
1. INDICATES NOT USED
  2. N/U = NOT USED ON PLAYFIELD
  3. \* INDICATES AID TEST POINT
  4. COIL DIODES ARE IN4004, (E-587-6) SWITCH DIODES ARE IN 4148, (E-587-14) ALL CAPACITORS ARE .05 MFD. (E-586-80)
  5. GERMANY ONLY - CAPACITOR .01 MFD. @ 500V. (E-586-65)

**PLAYFIELD A6**

- 20 A5J2-2 TO AUX. EXPANDER J1-2
- 12 A5J2-14 TOP SAUCER LANE ARROW
- 23 A5J2-15 RIGHT SAUCER ARROW
- 98 A5J2-20 TRIPLE PLAYFIELD SCORES
- 10 A5J2-6 IN SEQUENCE
- 91 A5J2-7 EXTRA BALL
- 60 A5J2-1 BONUS SPECIAL
- 34 A5J2-16 DOUBLE PLAYFIELD SCORES

REMOVE ALL BURRS

TOLERANCES ON DIMENSIONS UNLESS OTHERWISE SPECIFIED: FRACTIONS - .064 DECIMALS - .001 ANGLES -

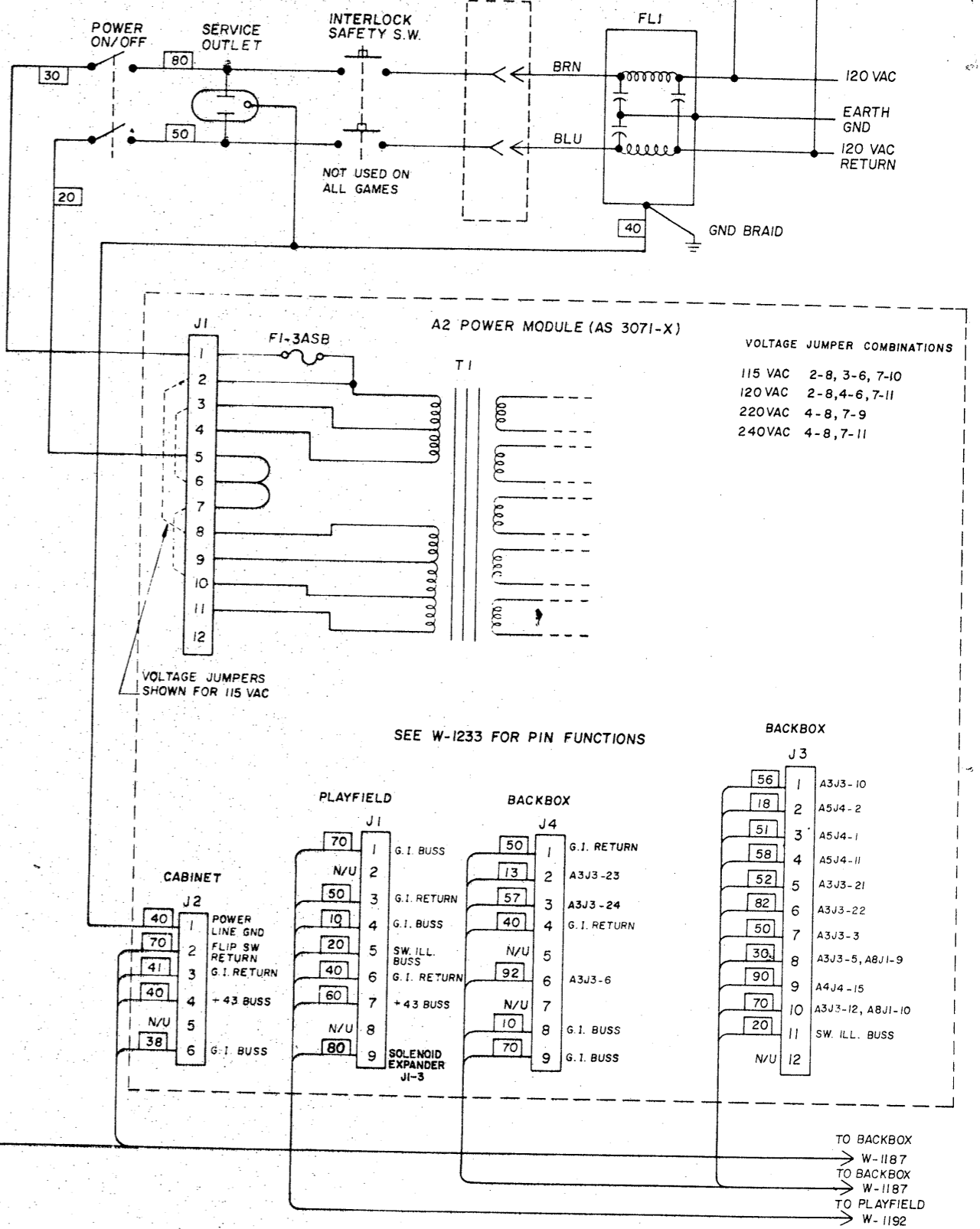
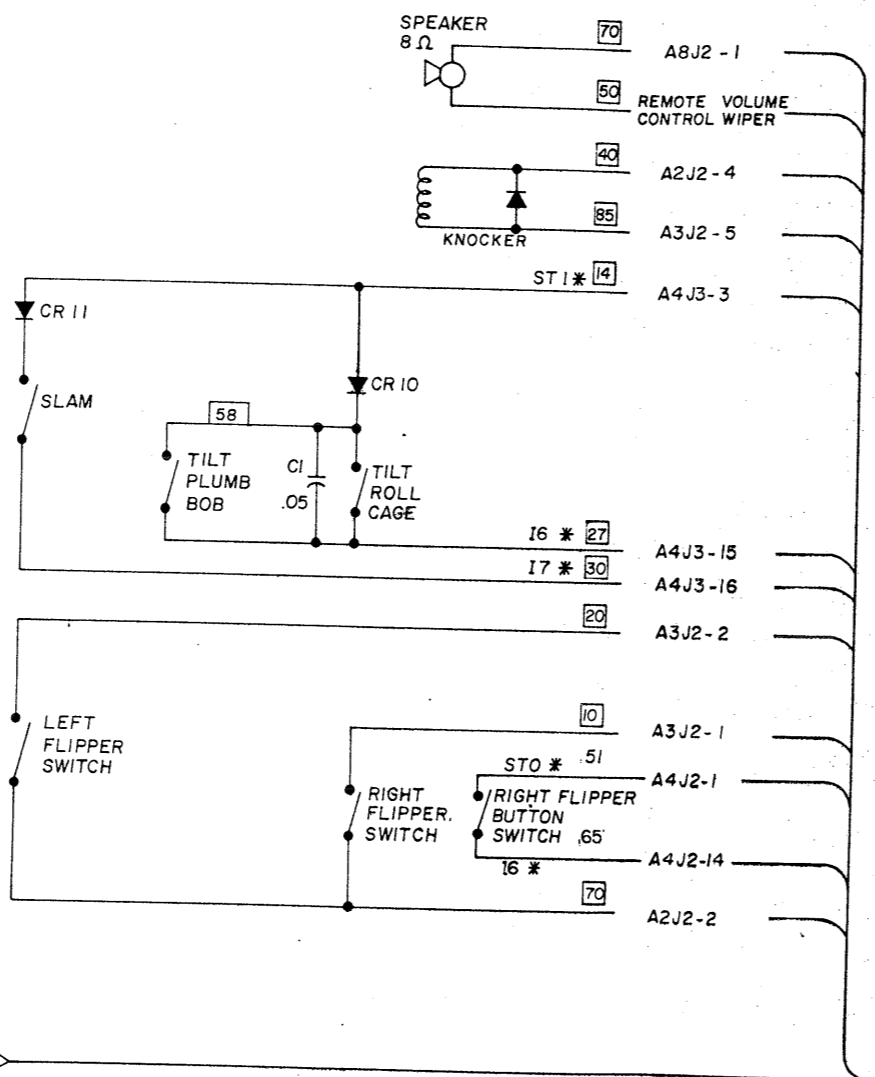
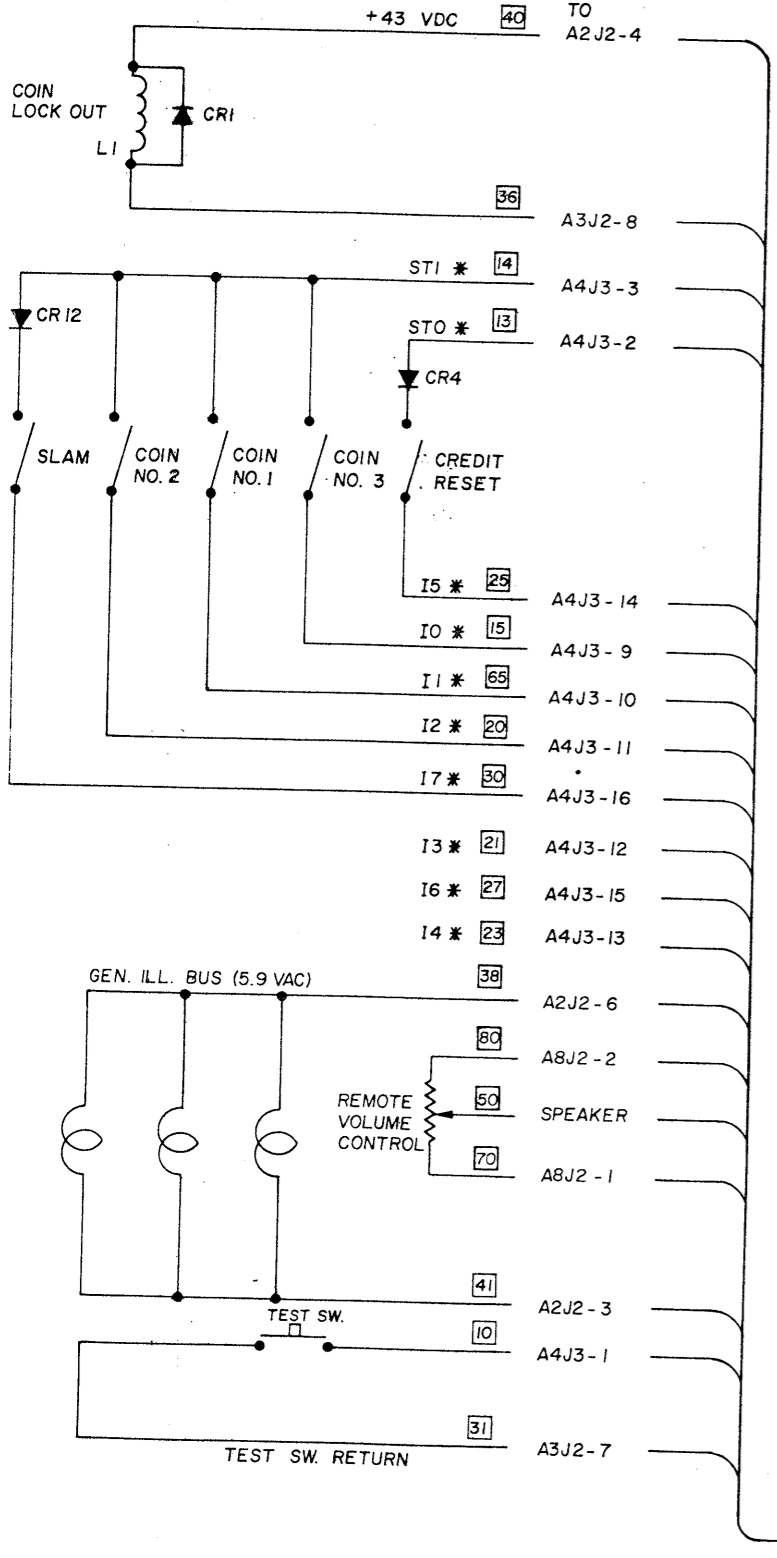
DATE: 5-3-81

WIRING DIAGRAM PLAYFIELD

FATHOM

Bally MANUFACTURING CORP. 2640 BELMONT AVENUE CHICAGO ILLINOIS # 1233

ASSEMBLY NO. USED ON W: W-1192-30



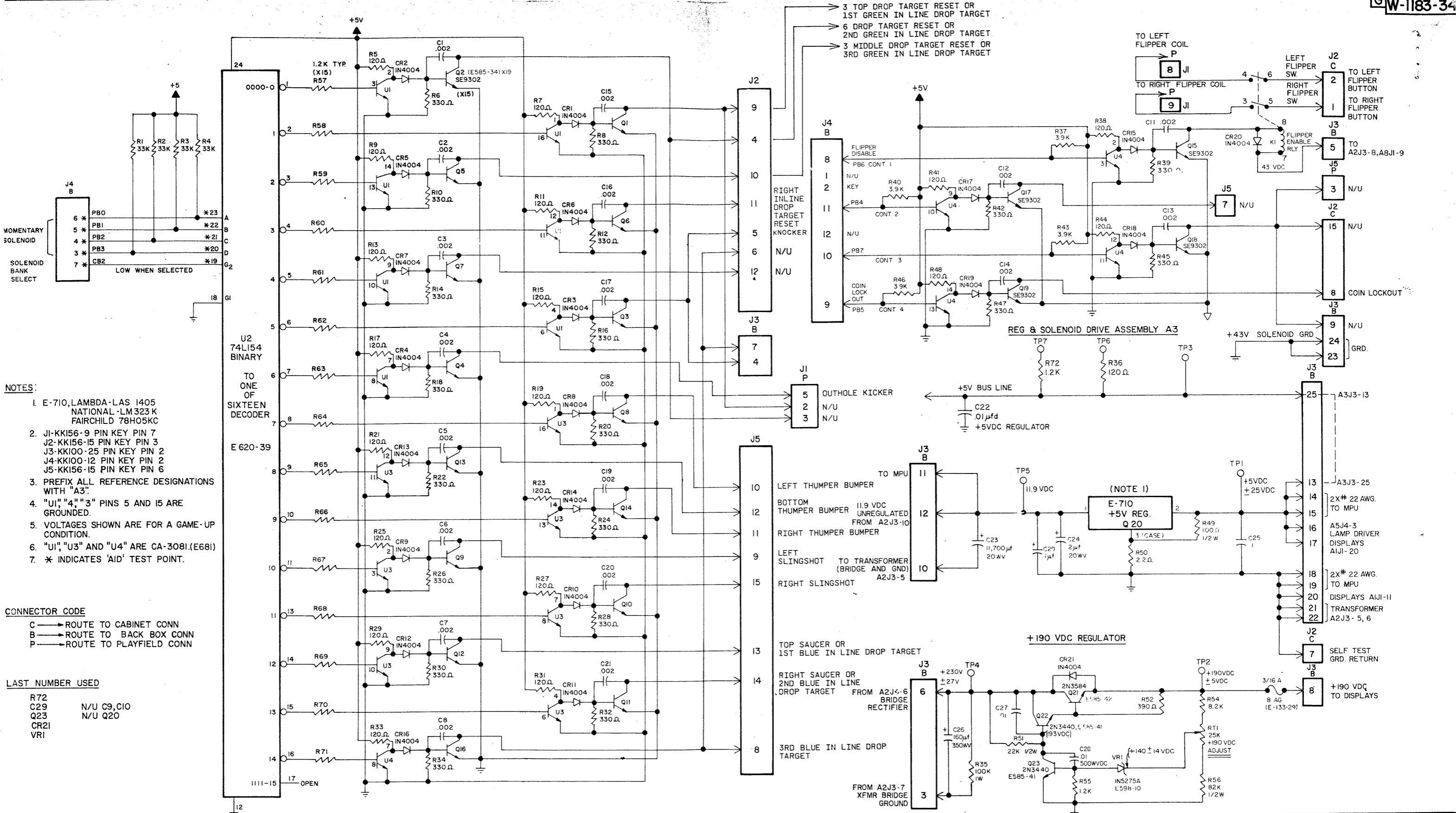
NOTES: (CAUTION)  
 1. USE BALLY PART NO. E-713 FOR 115-120 VAC.  
 2. USE BALLY PART NO. E-713-1 FOR 220-240 VAC.  
 3. \* INDICATES AID TEST POINT.

TO	J1 PIN	TO	J1 PIN
A4J3-9	1	A4J3-3	11
A4J3-10	2	A2J2-4	15
A4J3-11	3	A3J2-8	16
A4J3-12	4	A2J2-6	17
A4J3-13	5	A2J2-3	18
A4J3-14	6	A4J3-1	19
A4J3-15	7	A3J2-7	20
A4J3-16	8	SPEAKER	9
A4J3-2	10	ABJ2-1	12
DOOR PLUG		ABJ2-2	13

A7 CABINET ASS'Y. WIRING  
 NOTE: DIODES ARE IN4004, (E-587-6)

REMOVED		DR BY	DATE	Bally MANUFACTURING CORP. 2640 BELMONT AVENUE CHICAGO ILLINOIS #1233		
CHECKED		CK BY	DATE	DIE SIZE	C.C.	FT PER M
APPROVED		APPROV	DATE	LBS. PER M.		
DESIGNED		DESIGN	DATE	WIRING DIAGRAM - CABINET		
DRAWN		DRAWN	DATE	ASSEM NO USED		
FINISH		FINISH	DATE	SCALE		
HARDENING		HARDENING	DATE	MATERIAL		
NO		LET	CHANGE	DATE		
				BY		
				PART NO		
				W-1186-13 c		

DEPT.	DESCRIPTION	TOOL NO.



- NOTES:**
- E-710, LAMBDA-LAS 1405 NATIONAL-LM323 K FAIRCHILD 78H05KC
  - J1-KK156-9 PIN KEY PIN 7  
J2-KK156-15 PIN KEY PIN 3  
J3-KK100-25 PIN KEY PIN 2  
J4-KK100-12 PIN KEY PIN 2  
J5-KK156-15 PIN KEY PIN 6
  - PREFIX ALL REFERENCE DESIGNATIONS WITH "A3"
  - "U1", "U4", "U3" PINS 5 AND 15 ARE GROUNDED.
  - VOLTAGES SHOWN ARE FOR A GAME-UP CONDITION.
  - "U1", "U3" AND "U4" ARE CA-3081.(E681)
  - \* INDICATES 'AID' TEST POINT.

**CONNECTOR CODE**

C → ROUTE TO CABINET CONN  
 B → ROUTE TO BACK BOX CONN  
 P → ROUTE TO PLAYFIELD CONN

**LAST NUMBER USED**

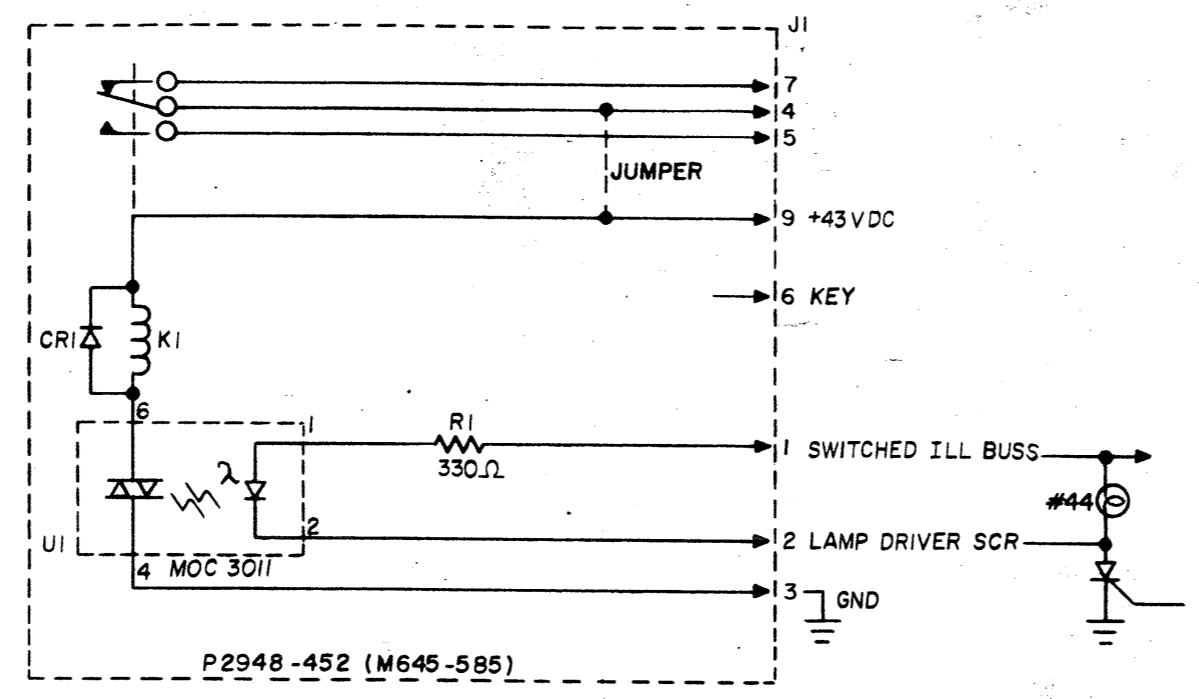
R72 N/U C9, C10  
 C29 N/U Q20  
 Q23 N/U Q20  
 CR21  
 VR1

OPER	DEPT.	DESCRIPTION	TOOL NO.

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REMOVE ALL BURRS		DR. BY	DATE	Bally MANUFACTURING CORP. # 1233	
TOLERANCES UNLESS OTHERWISE SPECIFIED		CK. BY	DATE	2640 BELMONT AVENUE CHICAGO, ILLINOIS	
FRACTIONS - 1/8"	DECIMALS - .01"	AP'D BY	DATE	DIE SIZE	C.C. FT. PER M. LBS. PER M.
EXCEPT HOLE DIA. S ANGLES	DO NOT SCALE DRAWING	DATE	PRINT CONTROL	NAME SOLENOID DRIVER VOLTAGE REGULATOR SCHEMATIC	
HARDENING:		FINISH:	ASSEMBLY	ASSEM. NO. USED	
MATERIAL		CODE		PART NO. W-1183-34c	

PART NO.  
W-1251 b

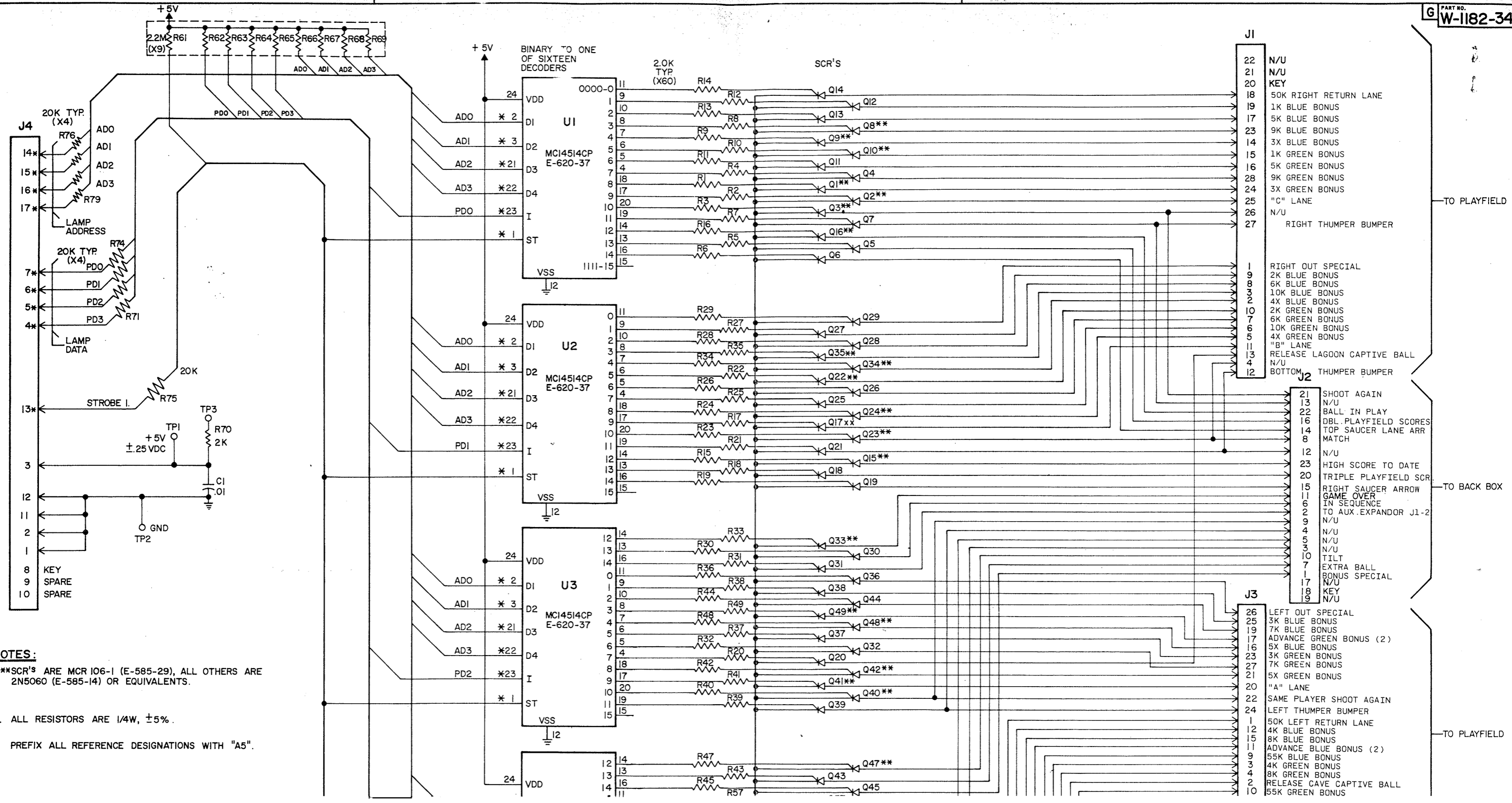


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NO.	LET.	CHANGE	DATE	BY

REMOVE ALL BURRS		DR. BY FFC	DATE 1-21-81	<b>Bally MANUFACTURING CORP.</b> 2640 BELMONT AVENUE # 1220 CHICAGO, ILLINOIS	
TOLERANCES UNLESS OTHERWISE SPECIFIED		CK. BY	DATE		
FRACTIONS ± .008		AP'D BY Wm	DATE 1-23-81	PRINT CONTROL	DIE SIZE
DECIMALS ± .003		FINISH:		C.C.	FT. PER M.
EXCEPT HOLE DIA.'S		HARDENING:		NAME	ASSEM. NO. USED
ANGLES ± 1/2°		DO NOT SCALE DRAWING		SOLENOID EXPANDER (SCHEMATIC)	AS-2518-66
				MATERIAL	SCALE
				CODE	W-1251 b

OPER.	DEPT.	DESCRIPTION	TOOL NO.



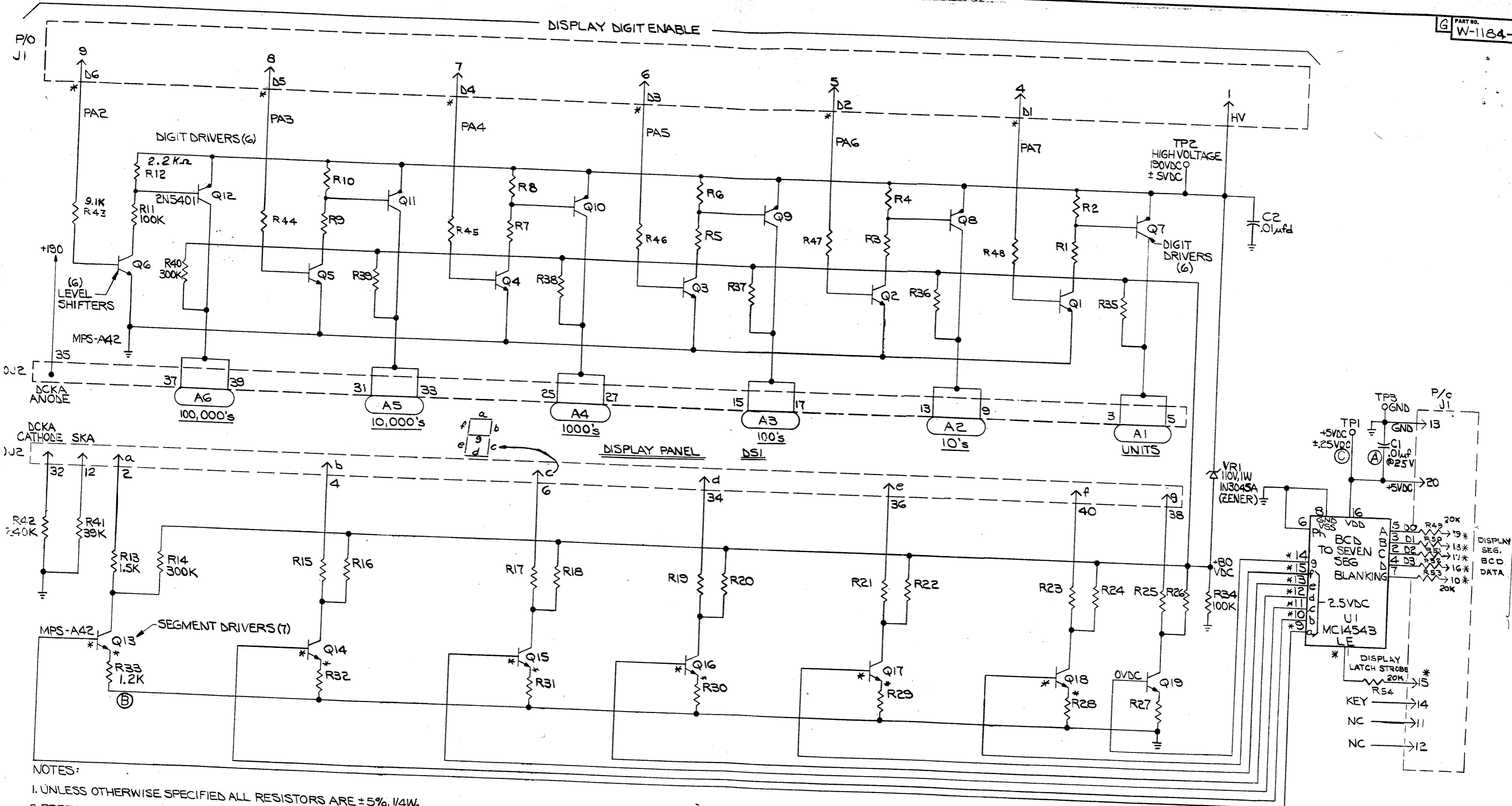
- NOTES:**
- 1.\*\*SCR'S ARE MCR 106-1 (E-585-29), ALL OTHERS ARE 2N5060 (E-585-14) OR EQUIVALENTS.
  2. ALL RESISTORS ARE 1/4W, ±5%.
  3. PREFIX ALL REFERENCE DESIGNATIONS WITH "A5".

TO PLAYFIELD

TO BACK BOX

TO PLAYFIELD





- NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL RESISTORS ARE ±5%, 1/4W.
  2. PREFIX ALL REFERENCE DESIG. WITH ASSEMBLY REFERENCE DESIG. "A1"
  3. \* INDICATES 'AID' TEST POINT.

EPT.	DESCRIPTION	TOOL No.

NO.	LET.	CHANGE	DATE	BY	CHK.
3	C	WAS VAC	4-20-86	J.D.	
2	B	WAS 1K	3-28-80	J.D.	
1	A	WAS 500V	4-16-79	J.D.	

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

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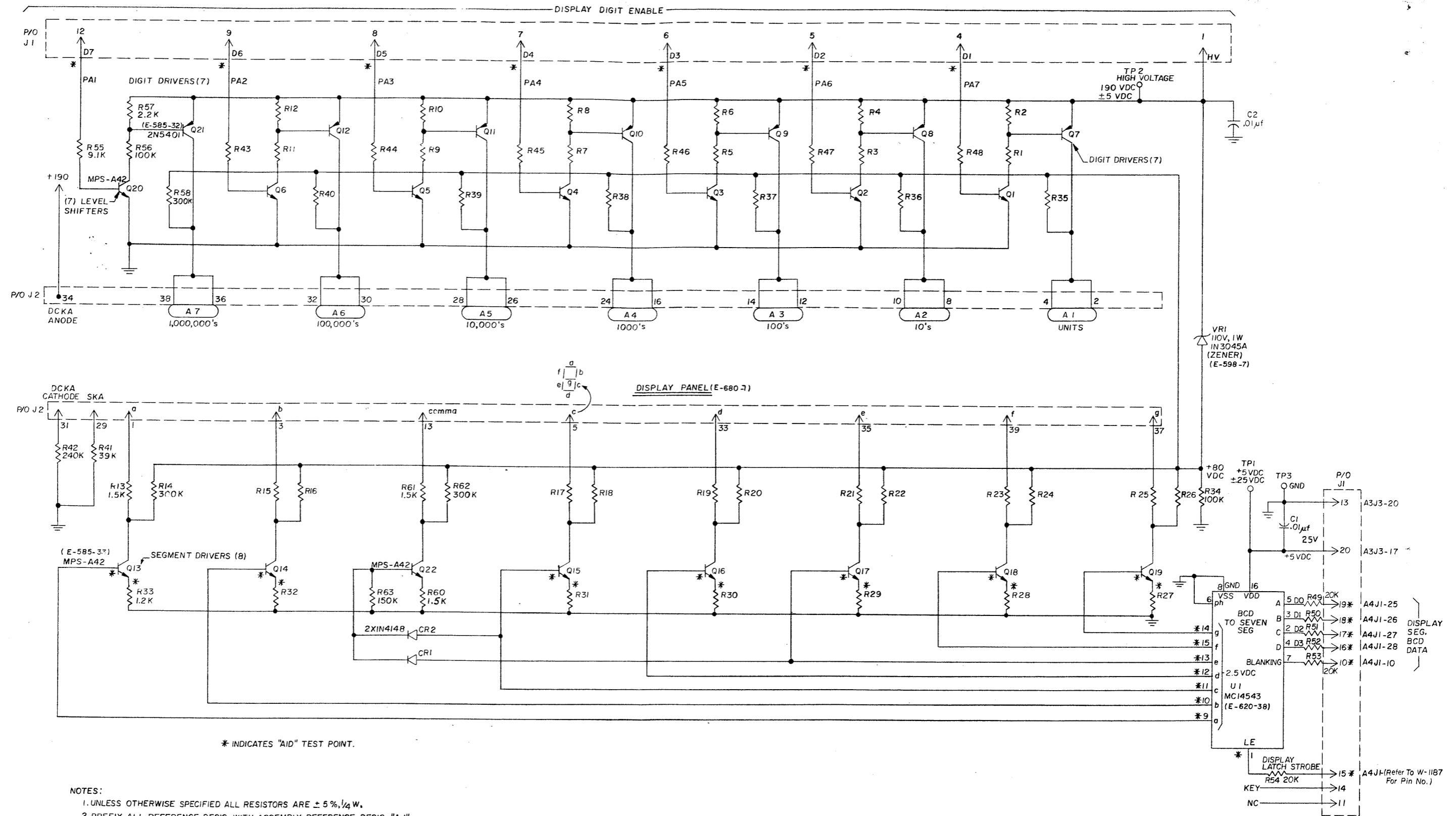
**Bally MANUFACTURING CORP. #1120-E**  
 2640 BELMONT AVENUE  
 CHICAGO, ILLINOIS

DR. BY: D.S. DATE: 7/27/77  
 CK. BY: J.D. DATE: 7/28/77  
 APP'D BY: DATE: 8/14/77  
 FINISH: 8/14/77

REMOVE ALL BURRS  
 TOLERANCES ON DIMENSIONS UNLESS OTHERWISE SPECIFIED  
 FRACTIONS ±  
 DECIMALS ±  
 ANGLES ±  
 DO NOT SCALE DRAWING

NAME: 6 DIGIT DISPLAY BOARD SCHEMATIC  
 ASSEMBLY NO. USED ON: AS-2518-21  
 MATERIAL:  

NO. 1984



PER.	DEPT.	DESCRIPTION	TOOL NO.

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**Bally MANUFACTURING CORP.** #1210  
 2640 BELMONT AVENUE  
 CHICAGO, ILLINOIS

REMOVE ALL BURRS

TOLERANCES ON DIMENSIONS UNLESS OTHERWISE SPECIFIED  
 FRACTIONS ± .008  
 DECIMALS ± .003  
 EXCEPT HOLE DIA.'S  
 ANGLES ± 1/2°

DR. BY: FFC DATE: 6-18-80  
 CK. BY: amc DATE: 6-19-80  
 AP'D BY: DATE: 6-19-80  
 FINISH:   
 HARDENING:   
 DO NOT SCALE DRAWING

PRINT CONTROL

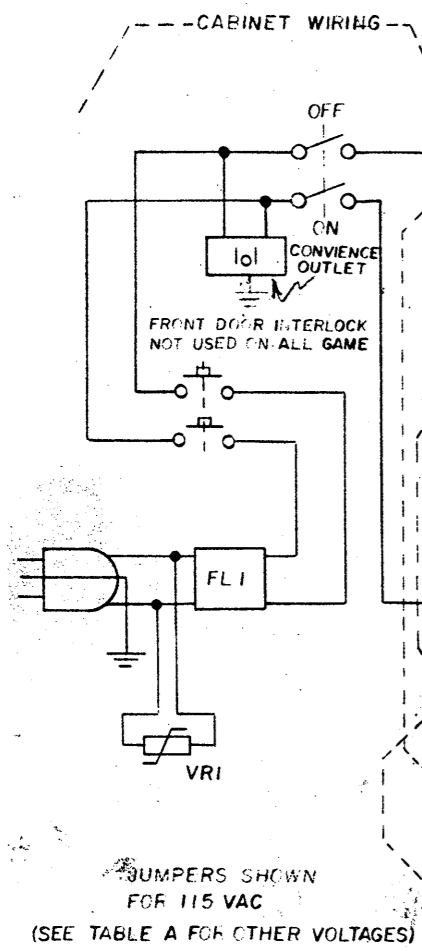
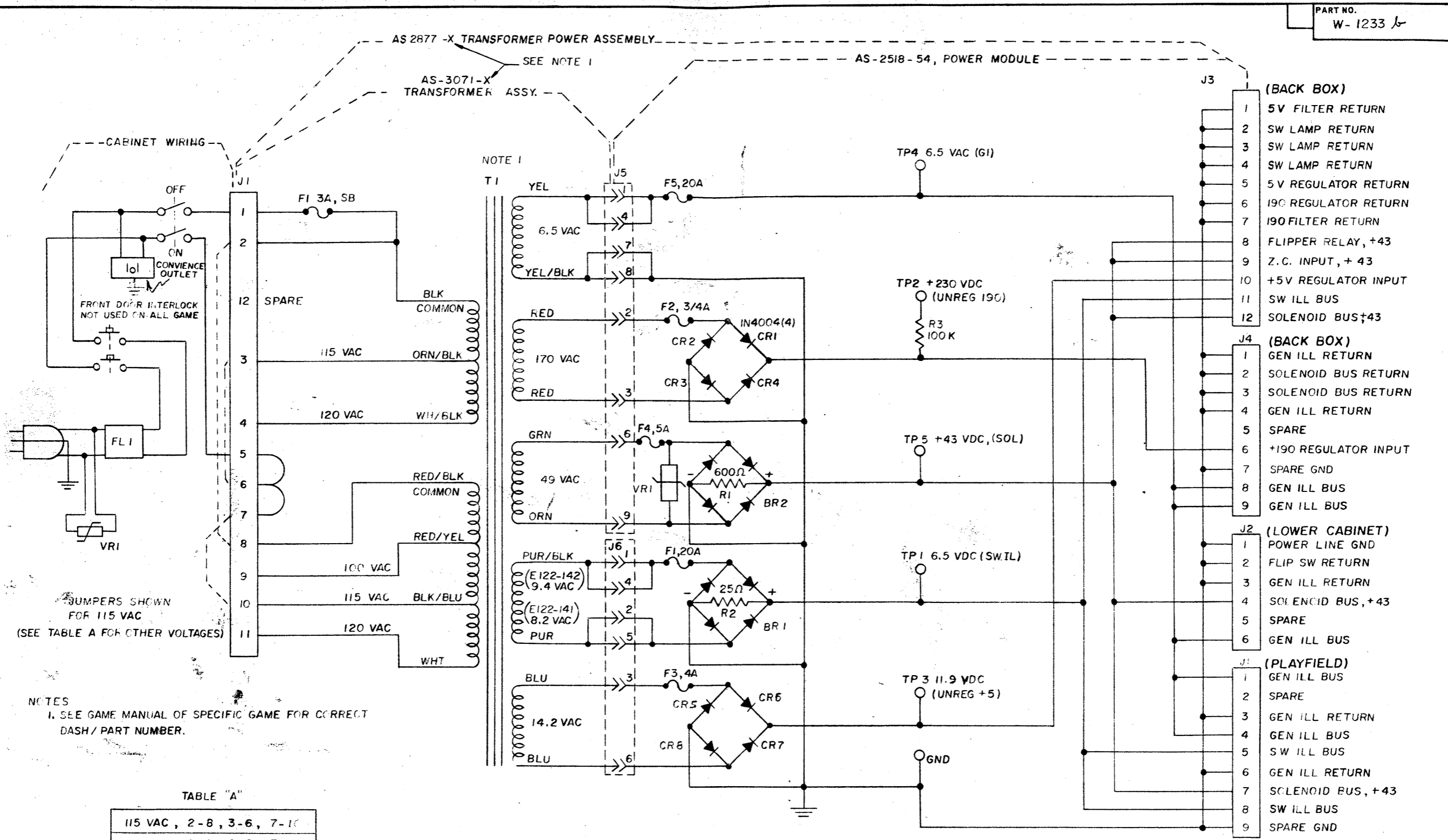
DIE SIZE: C.C. FT. PER M. LBS. PER M.

NAME: 7 DIGIT DISPLAY BOARD SCHEMATIC "A I"  
 ASSEM. NO. USED: AS-2518-58  
 MATERIAL:   
 PART NO.: W-1184-2c

NO.	LET.	CHANGE	DATE	BY



PART NO.  
W-1233 *h*



NOTE 1  
SEE NOTE 1

NOTES  
1. SEE GAME MANUAL OF SPECIFIC GAME FOR CORRECT DASH / PART NUMBER.

TABLE "A"

115 VAC, 2-8, 3-6, 7-10
120 VAC, 2-8, 4-6, 7-11
220 VAC, 4-8, 7-9
240 VAC, 4-8, 7-11

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REMOVE ALL BURRS		DR. BY FFC	DATE 7-10-80	 2640 BELMONT AVENUE CHICAGO, ILLINOIS # 1196	
TOLERANCES ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		CK. BY AMCR	DATE 7-11-80		
FRACTIONS ± .008		AP'D BY	DATE	PRINT CONTROL	DIE SIZE
DECIMALS ± .003		AP'D BY	DATE	C.C.	FT. PER M.
EXCEPT HOLE DIA.'S		FINISH:		NAME POWER SUPPLY SCHEMATIC	
ANGLES ± 1/2°		HARDENING:		ASSEM. NO. USED	
DO NOT SCALE DRAWING				PART NO. W-1233 <i>h</i>	
NO.	LET.	CHANGE	DATE	BY	SCALE

OPER.	DEPT.	DESCRIPTION	TOOL NO.