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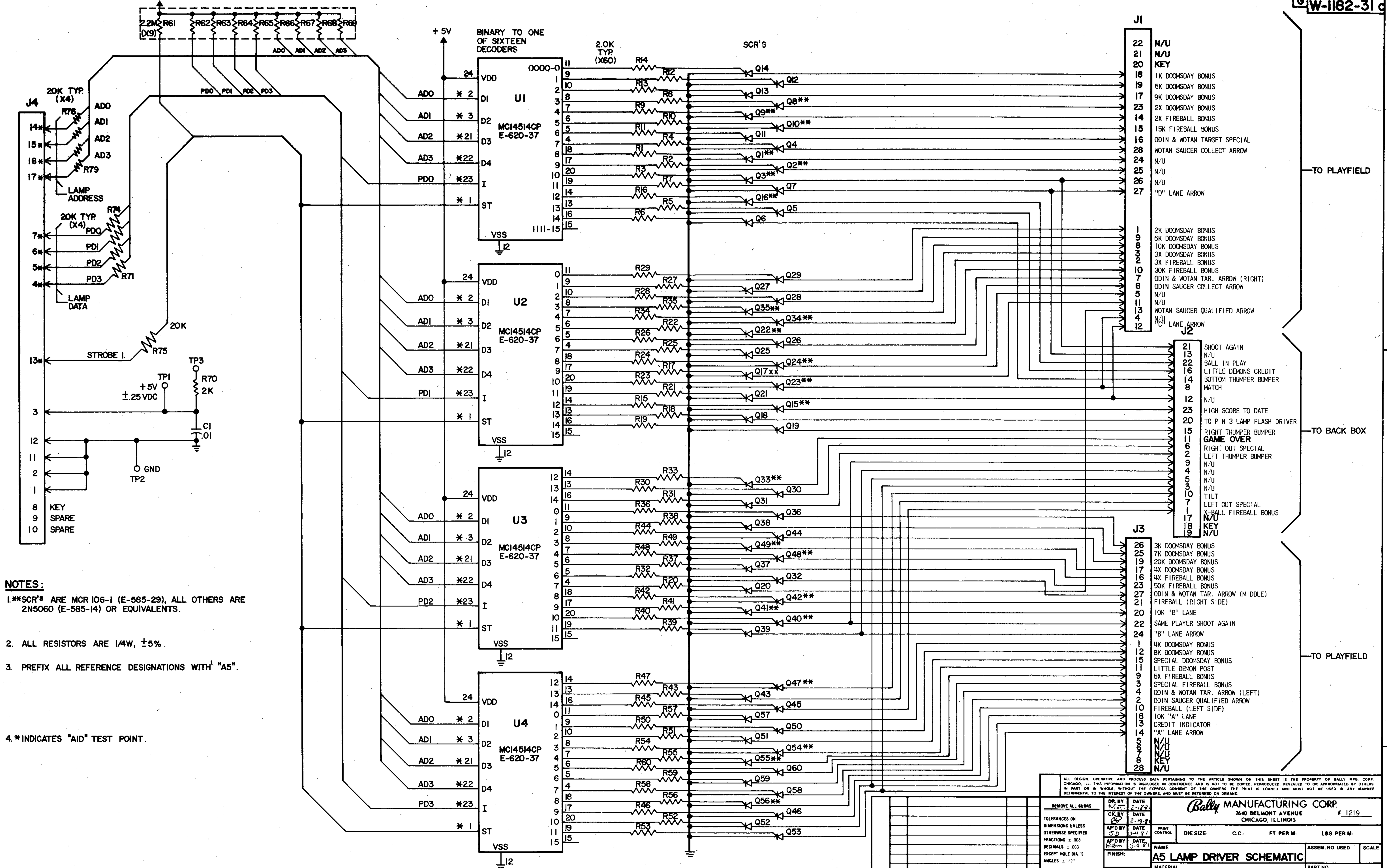


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Provided by:  
Dan Worth



**FLIPPERSPILL.COM**



- 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".
  4. \* INDICATES "AID" TEST POINT.

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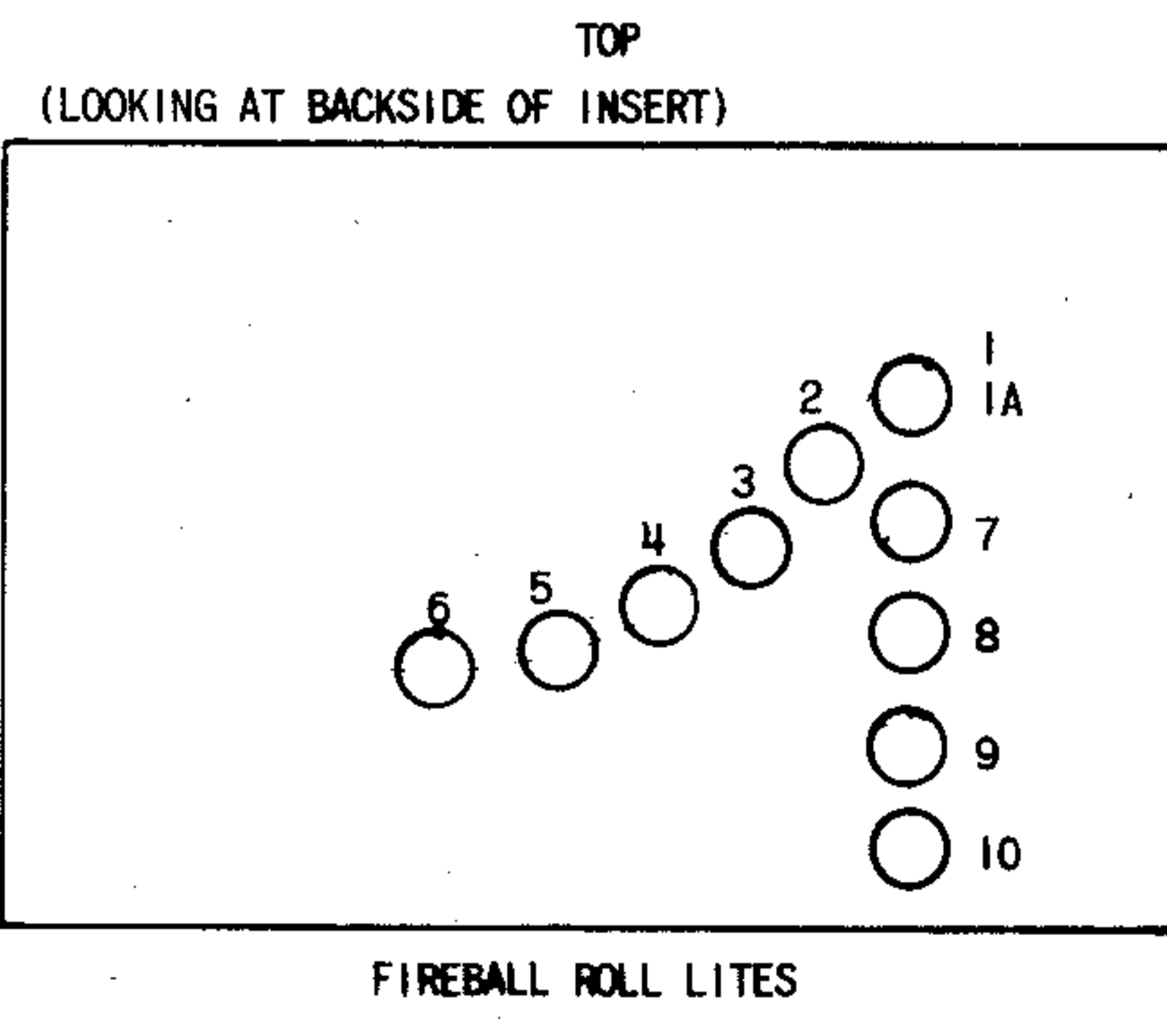
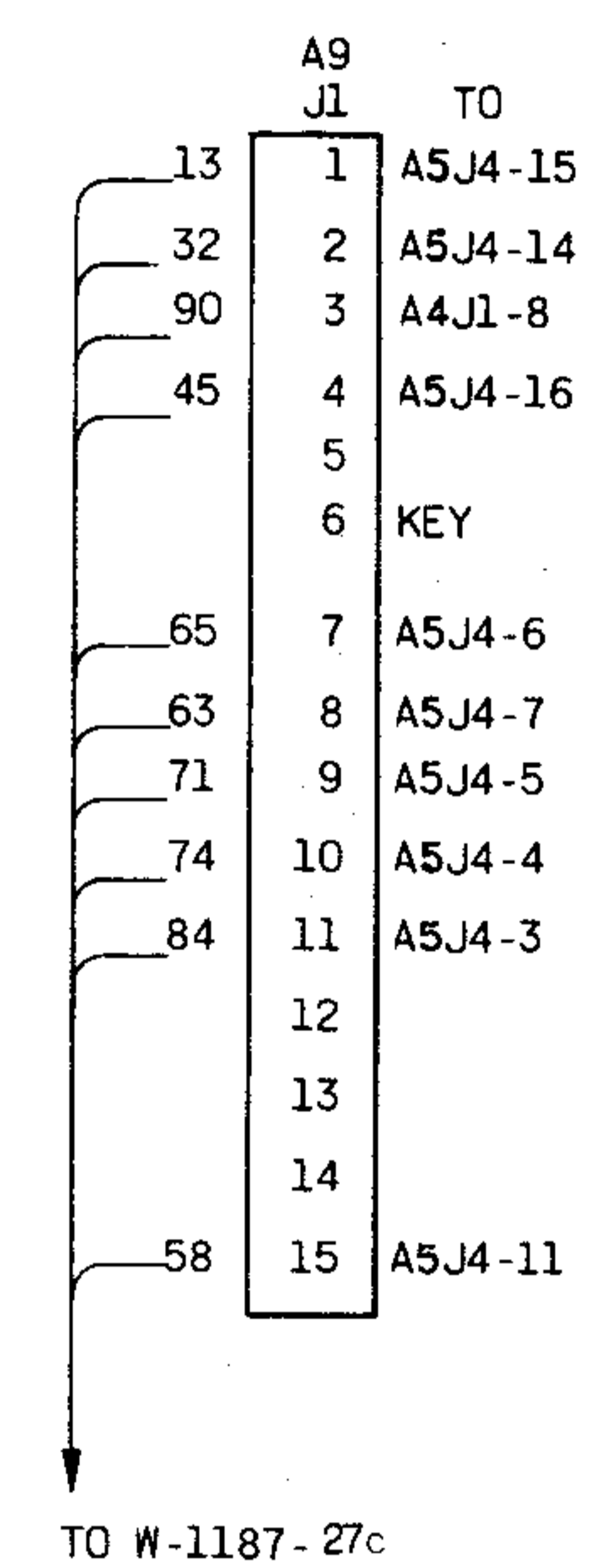
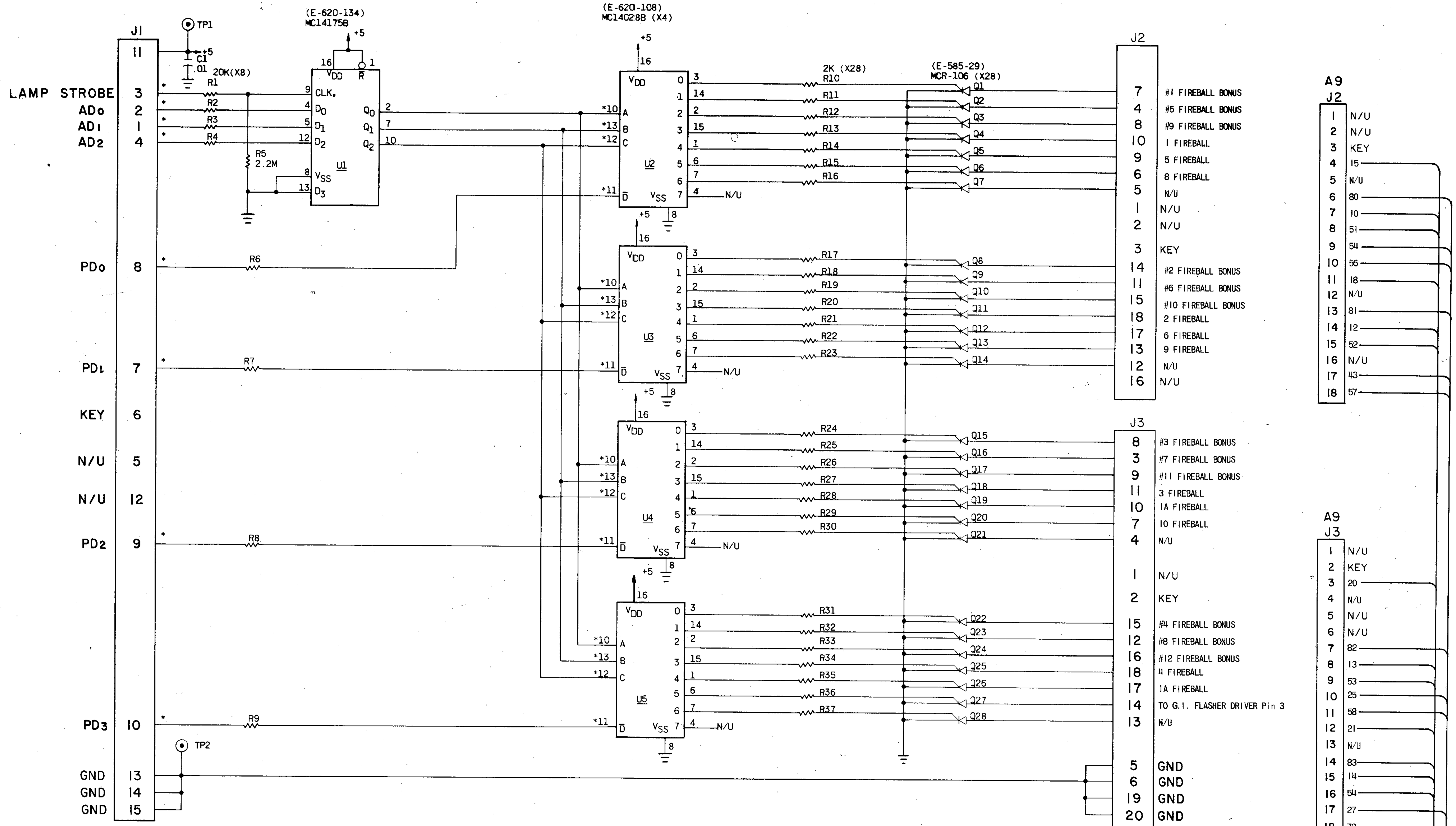
DR BY	DATE	DR BY	DATE
CK BY	DATE	CK BY	DATE
AP'D BY	DATE	AP'D BY	DATE
FINISH:		FINISH:	

REMOVE ALL BURRS  
TOLERANCES ON DIMENSIONS UNLESS OTHERWISE SPECIFIED  
FRACTIONS ± .008  
DECIMALS ± .003  
EXCEPT HOLE DIA.'S  
ANGLES ± 1/2°  
DO NOT SCALE DRAWING

**Bally MANUFACTURING CORP.**  
2640 BELMONT AVENUE  
CHICAGO, ILLINOIS # 1219

NAME	ASSEMBLY NO. USED	SCALE
A5 LAMP DRIVER SCHEMATIC		
MATERIAL	ASSEMBLY NO.	SCALE
FIREBALL II		

PART NO. W-1182-31 c



- NOTES:
1. ALL RESISTORS ARE 1/4 W. ±5%.
  2. VOLTAGES SHOWN ARE FOR GAME UP CONDITIONS.
  3. \*INDICATES "AID" TEST POINT
  4. SCR'S ARE MCR-106-1, (E-585 29).
  5. PREFIX ALL REFERENCE DESIGNATIONS WITH "A9".

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DR. BY	DATE	2-19-71
M.T.	DATE	2-19-71
APP'D BY	DATE	3-27-71
DATE	DATE	3-9-71

**Bally MANUFACTURING CORP.**  
2640 BELMONT AVENUE  
CHICAGO, ILLINOIS # 1219

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

NAME: **AUXILIARY LAMP DRIVER A9** ASSEM NO USED SCALE

MATERIAL: **FIREBALL II** PART NO: **W-1207-7** c

NO	LET	CHANGE	DATE	BY

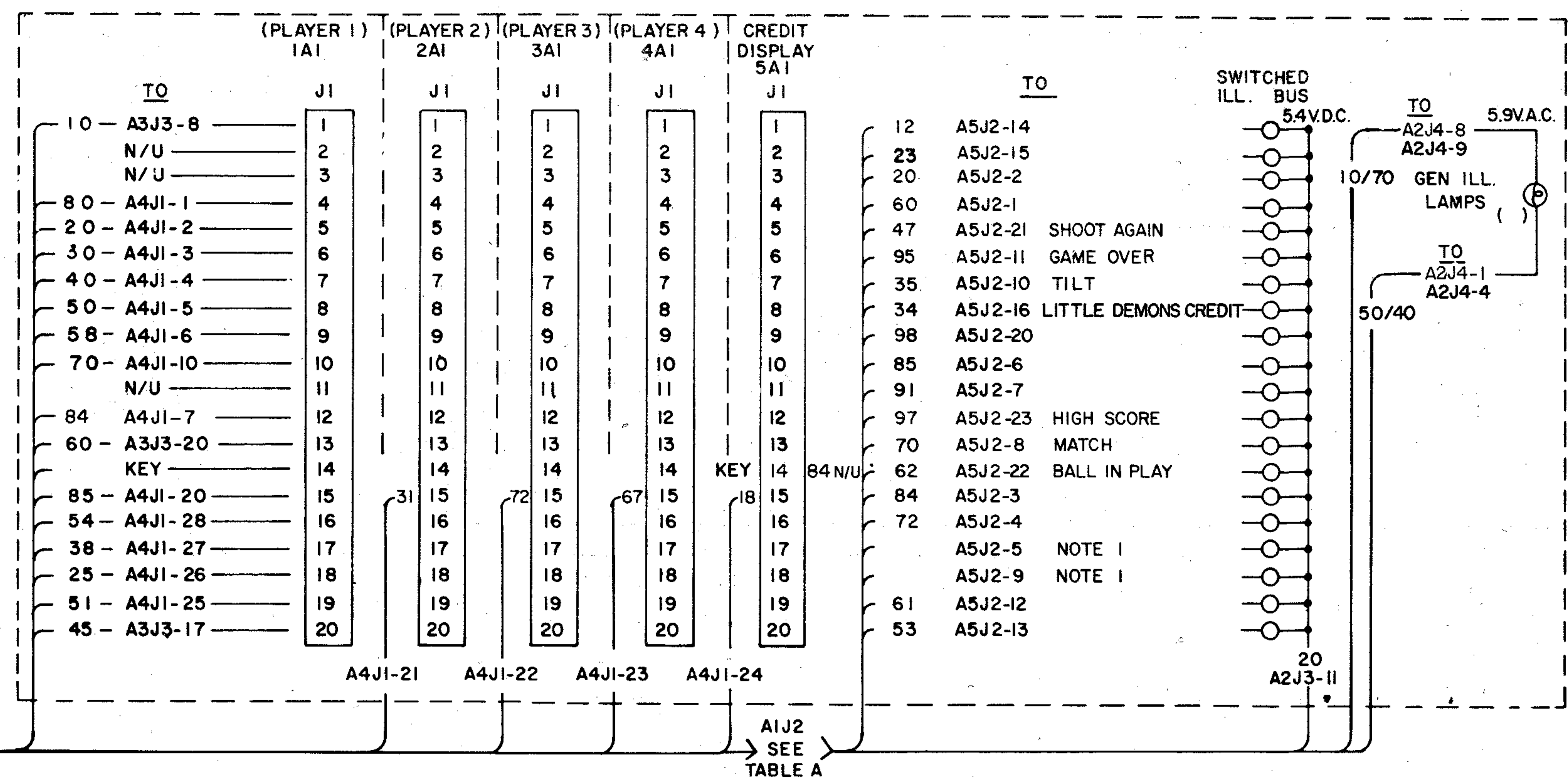
TO PANEL W-1192-27c  
TO INSERT

TO W-1187-27c

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	53
A5J2-12	21	61
A5J2-4	22	72
A5J2-3	23	84
A8J1-7	24	70

AI INSERT



9 PIN PLUG		
FROM	TO	WIRE
A5J2-14	1	12
A5J2-2	2	20
A5J2-15	3	23
A5J2-1	4	60
A5J2-6	5	85
A5J2-7	6	91
A5J2-20	7	98

PANEL TO BACK BOX

24 PIN PLUG		
FROM	PIN	WIRE
A2J4-4	1	40
A2J4-1	2	50
A2J3-2	3	18
A2J3-3	4	51
A2J4-6	5	92
A2J3-11	6	20
A2J3-10	7	70
A2J3-8	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

15 PIN PLUG		
FROM	PIN	WIRE
A9J2-1	1	10
A9J2-14	2	12
A9J3-8	3	13
A9J3-15	4	14
A9J2-4	5	15
A9J2-11	6	18
A9J3-3	7	20
A9J3-12	8	21
A9J2-9	9	51
A9J2-15	10	52
A9J3-9	11	53
A9J3-16	12	54
	13	83
	14	
	15	

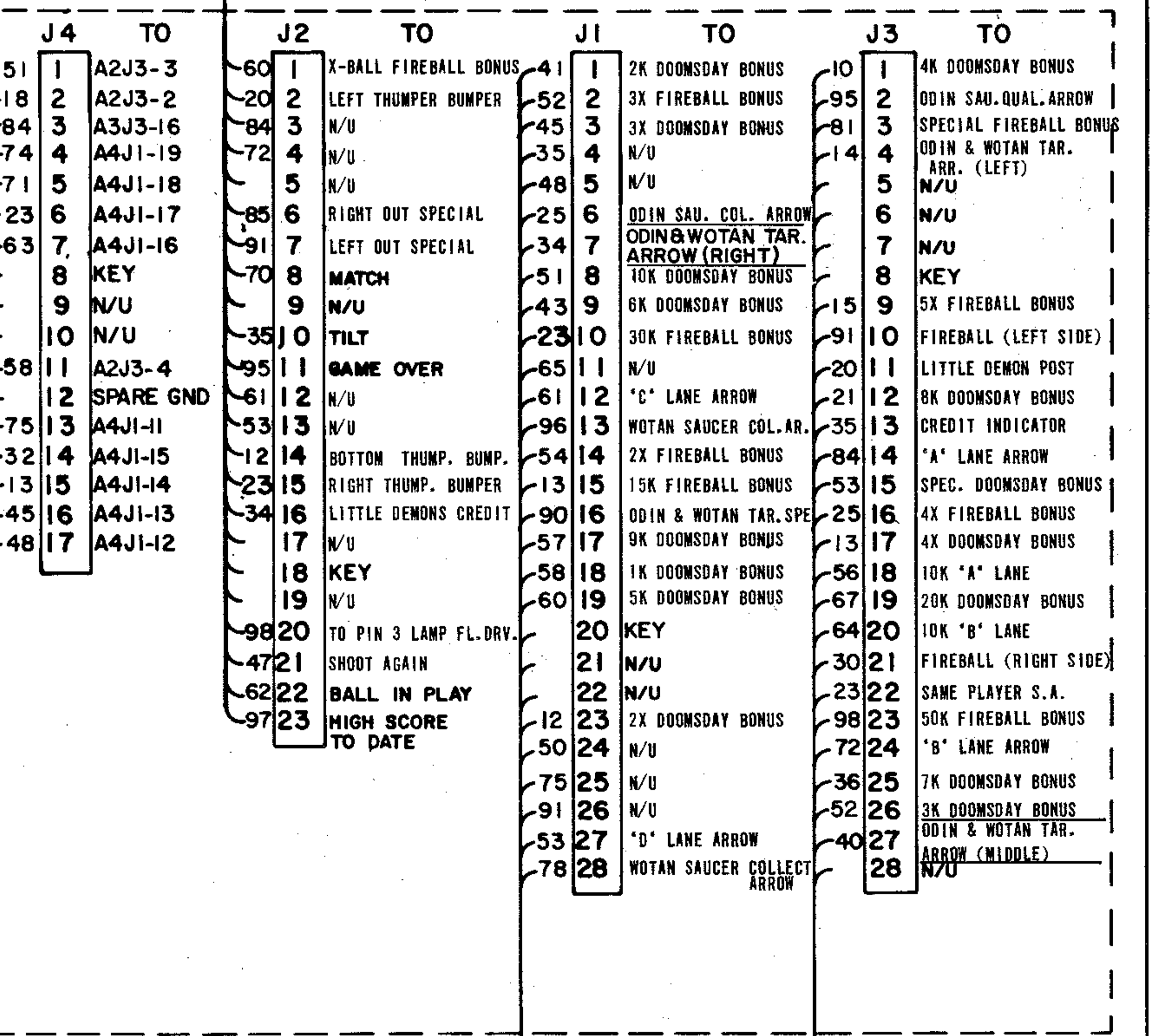
PANEL TO BACK BOX

5 PIN PLUG		
FROM	PIN	WIRE
A4J2-3	1	93
	2	
	3	
	4	
A4J2-8	5	54

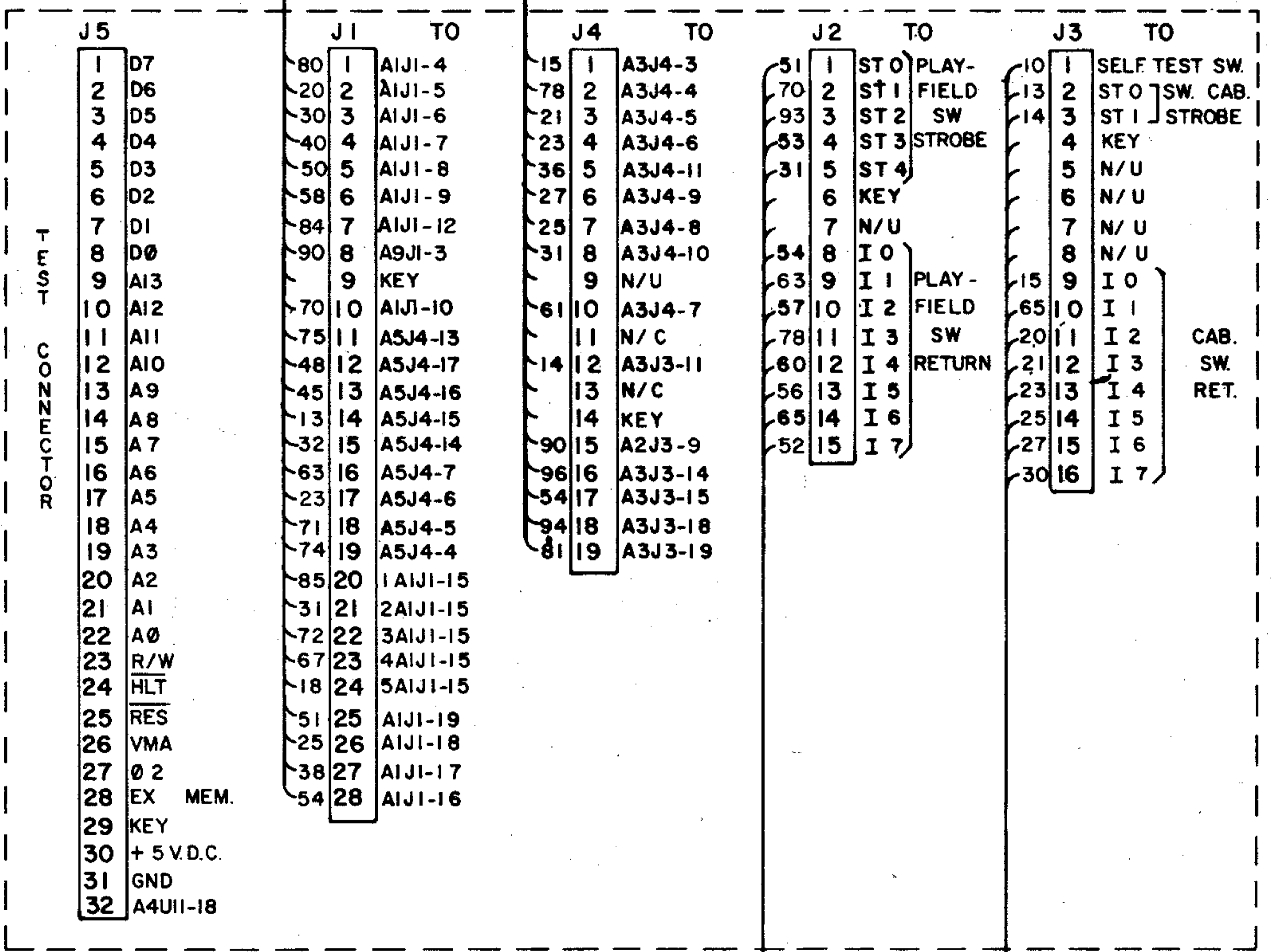
CABINET TO BACK BOX

INSERT TO BACK CAB. PLUG

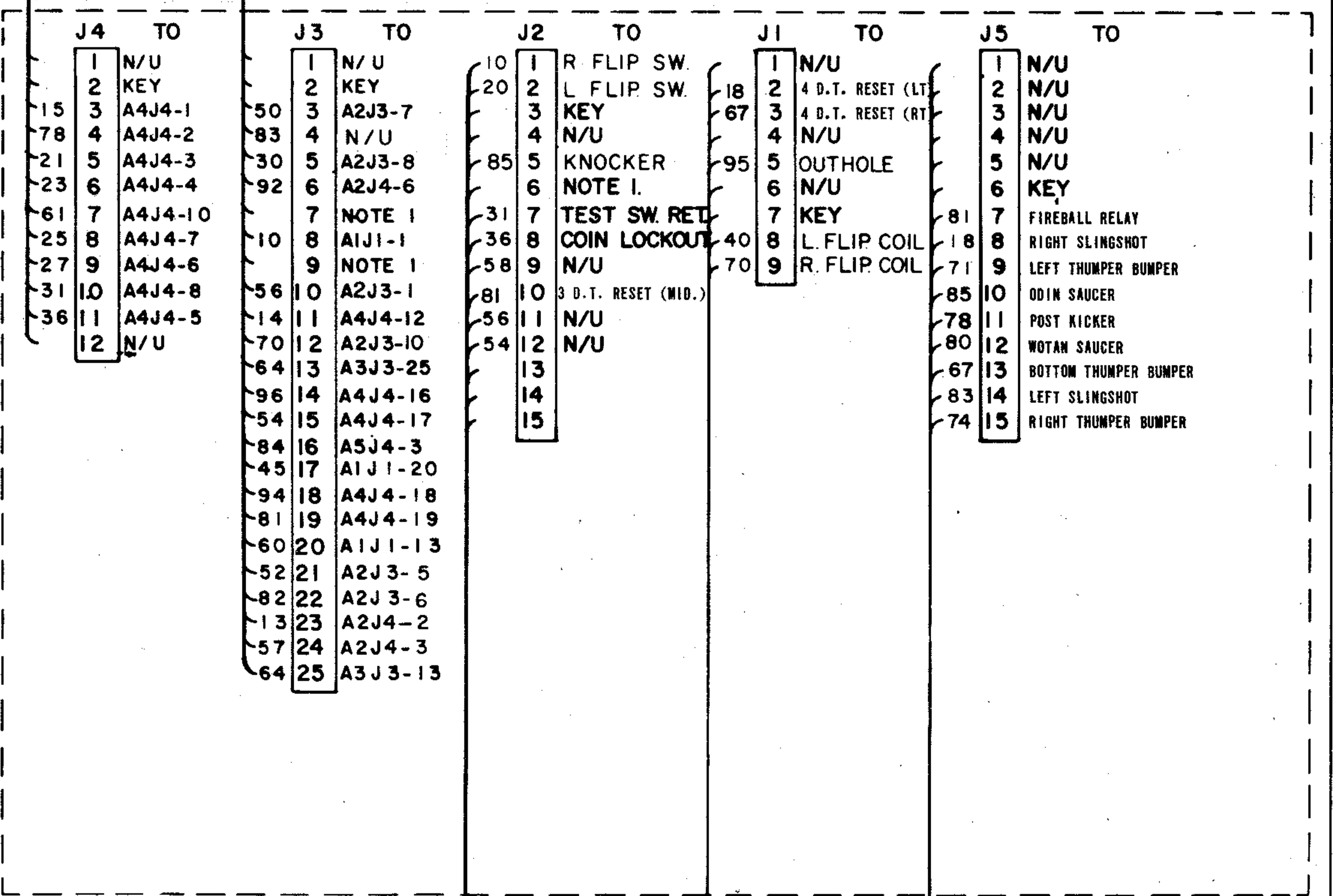
LAMP DRIVER A5



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		

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**Bally MANUFACTURING CORP.**  
2640 BELMONT AVENUE  
CHICAGO, ILLINOIS 1219

DR BY DATE: M.T. 2-11-81  
DATE: 2-19-81  
AP'D BY DATE: S.B. 3-4-81  
AP'D BY DATE: E.J.M. 3-4-81

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

DO NOT SCALE DRAWING

REMOVE ALL BURS

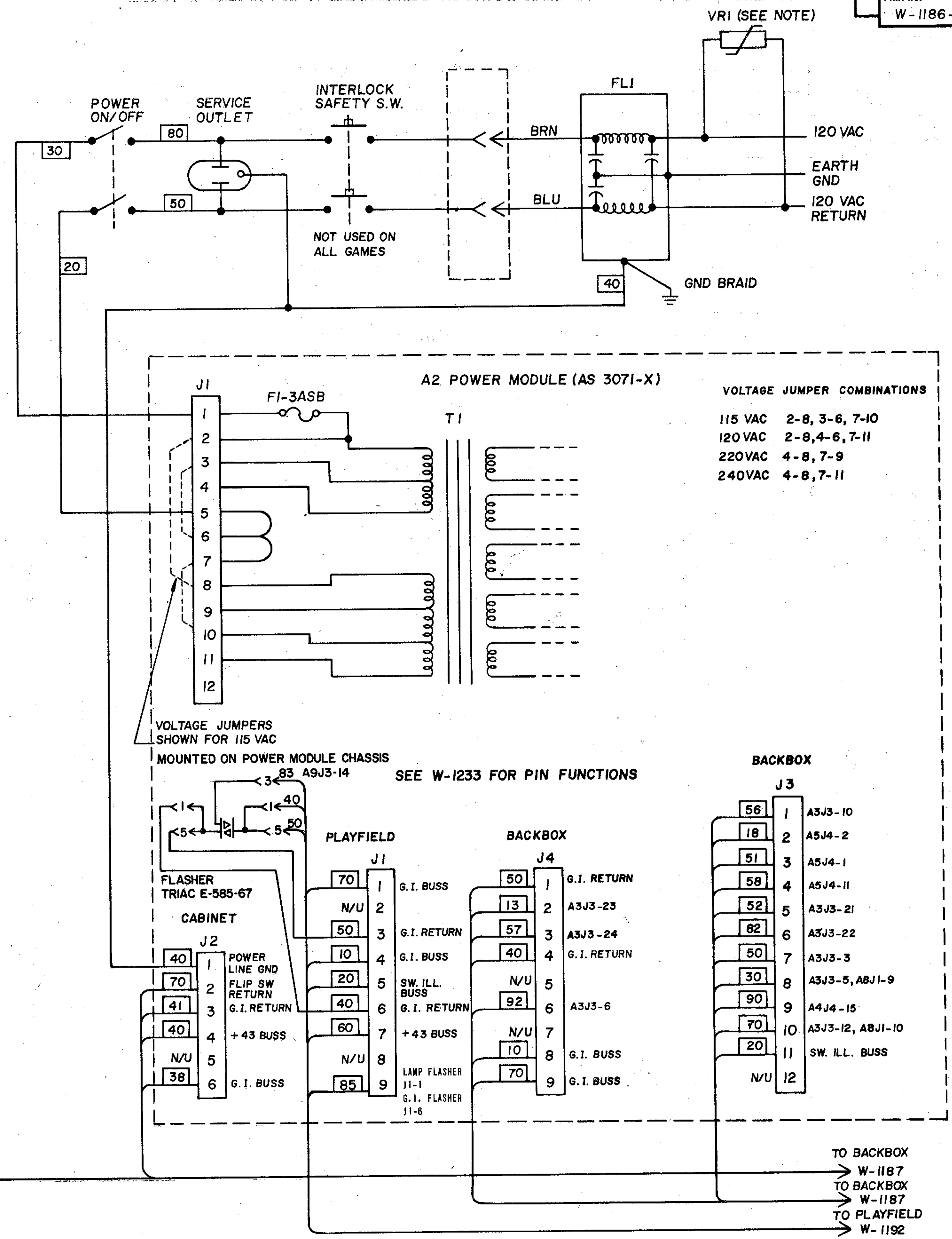
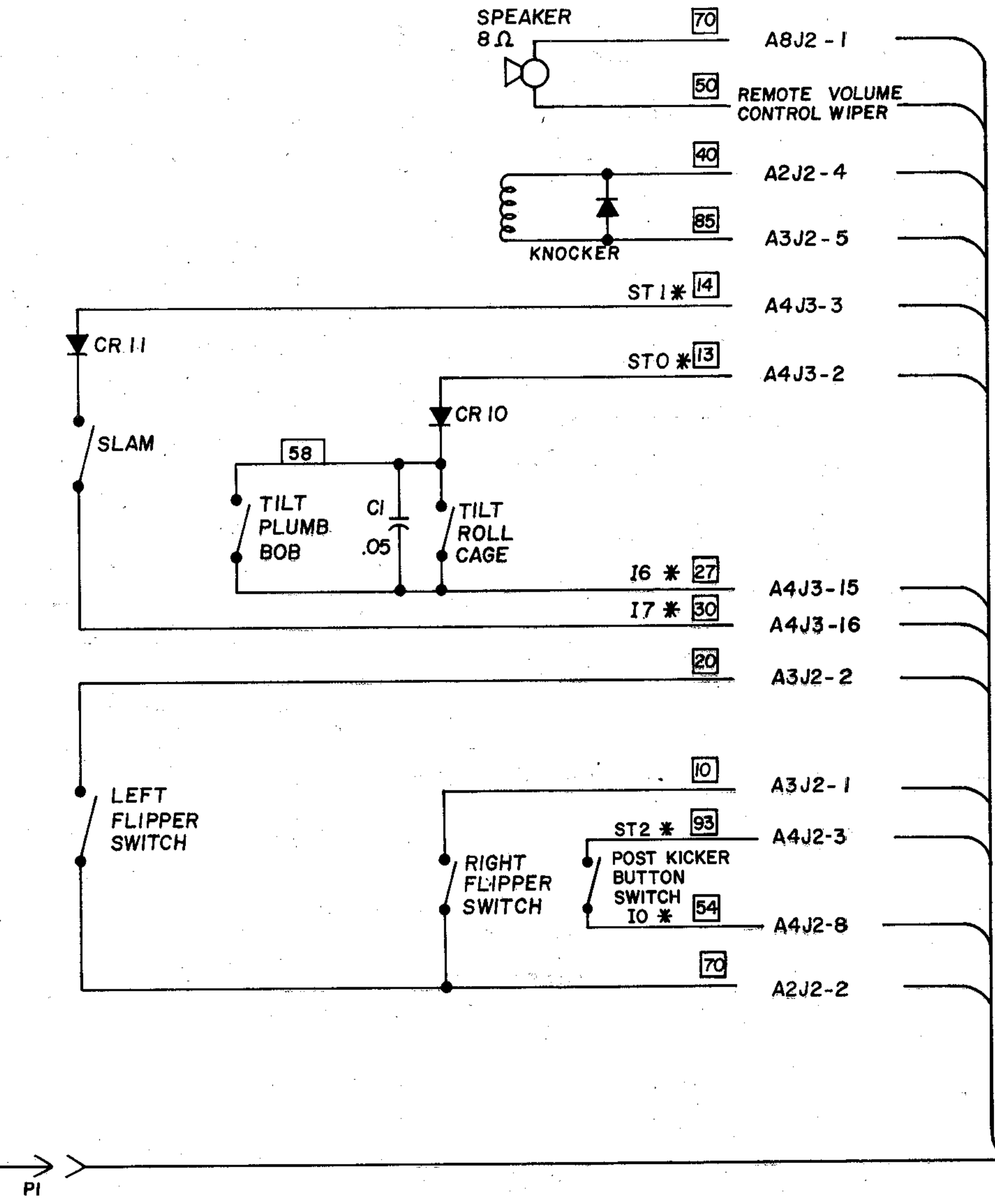
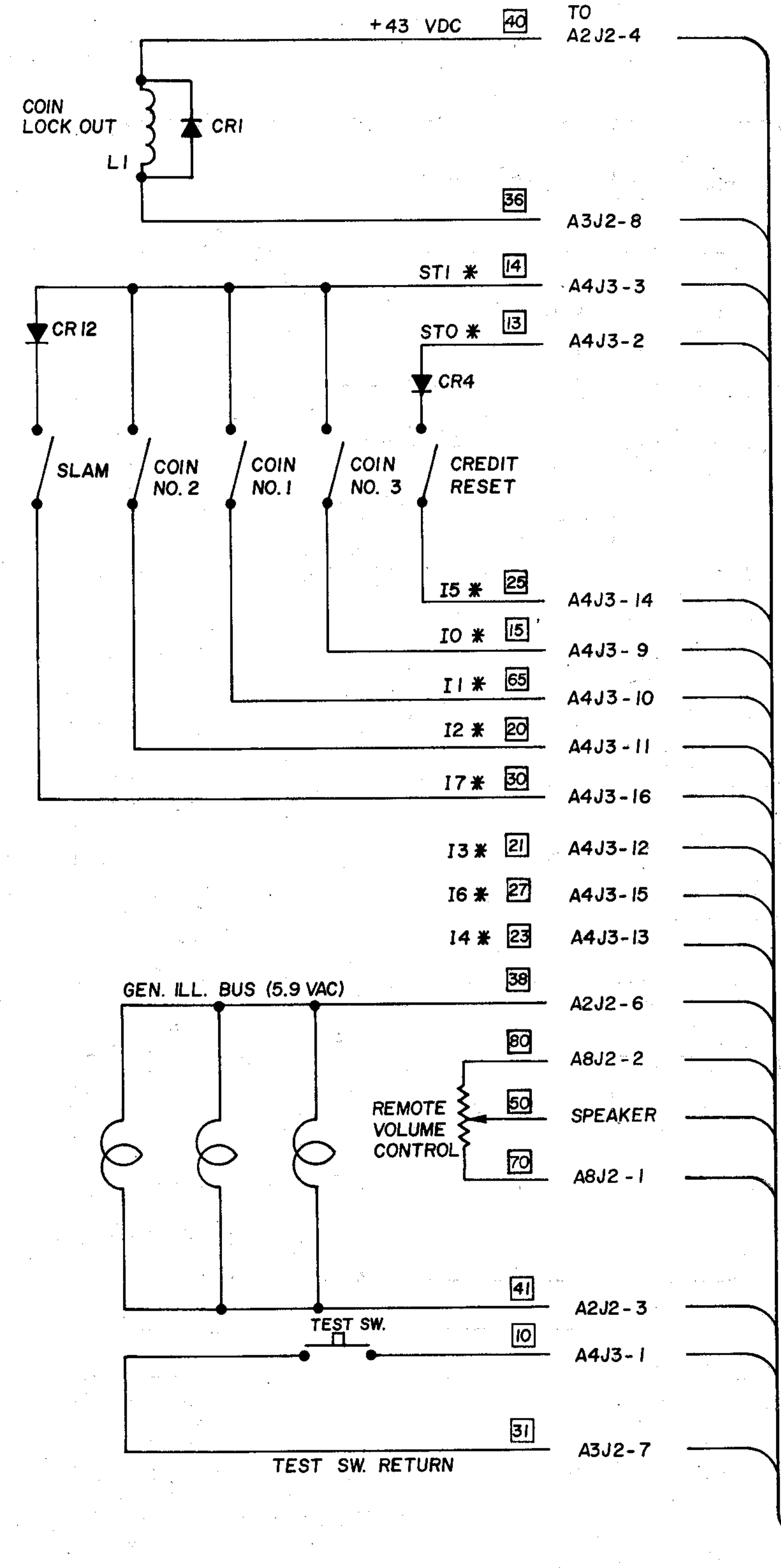
PRINT CONTROL

NAME: WIRING DIAGRAM - BACK BOX

MATERIAL: FIREBALL II

ASSEMBLY NO. USED ON W

PART NO: W-1187-27c

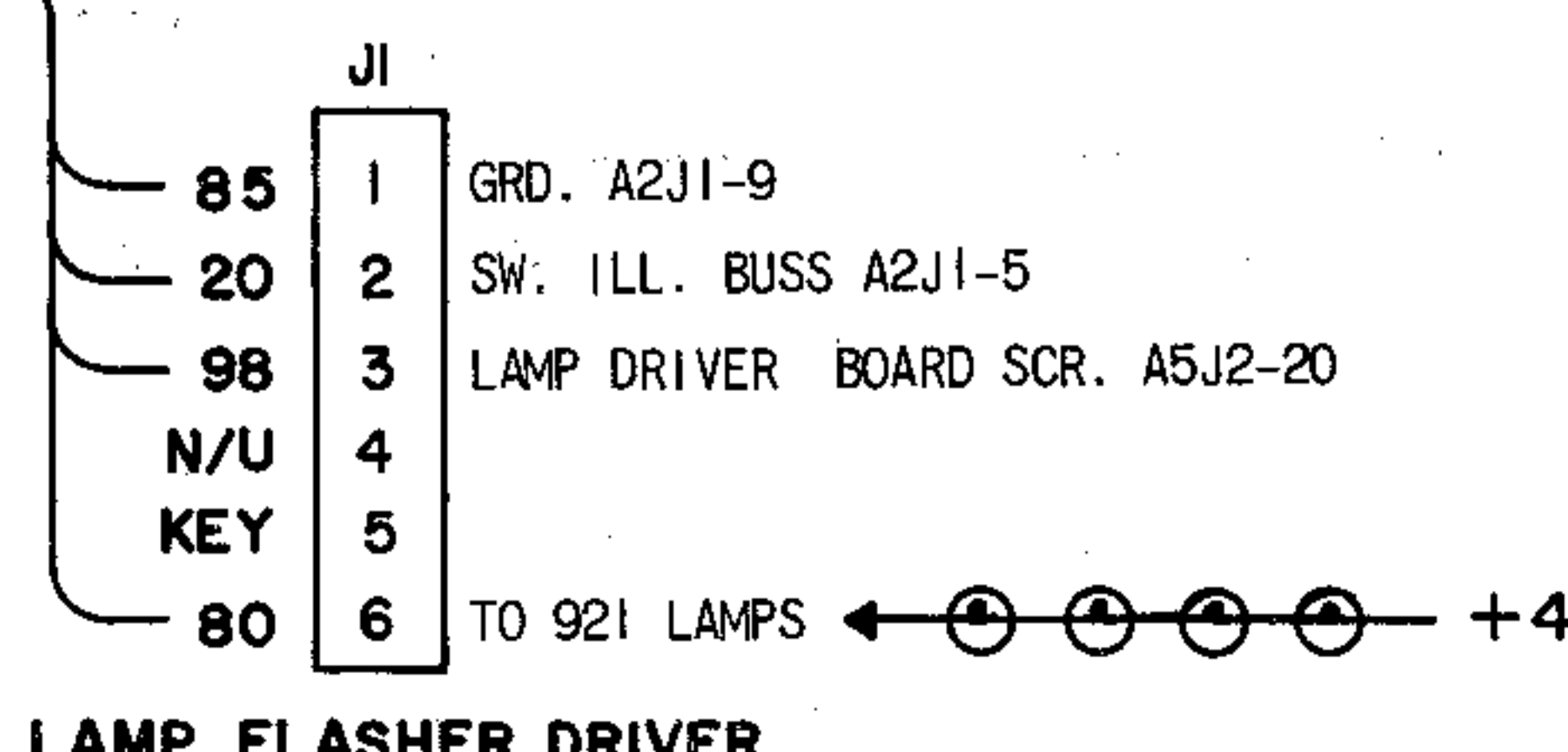
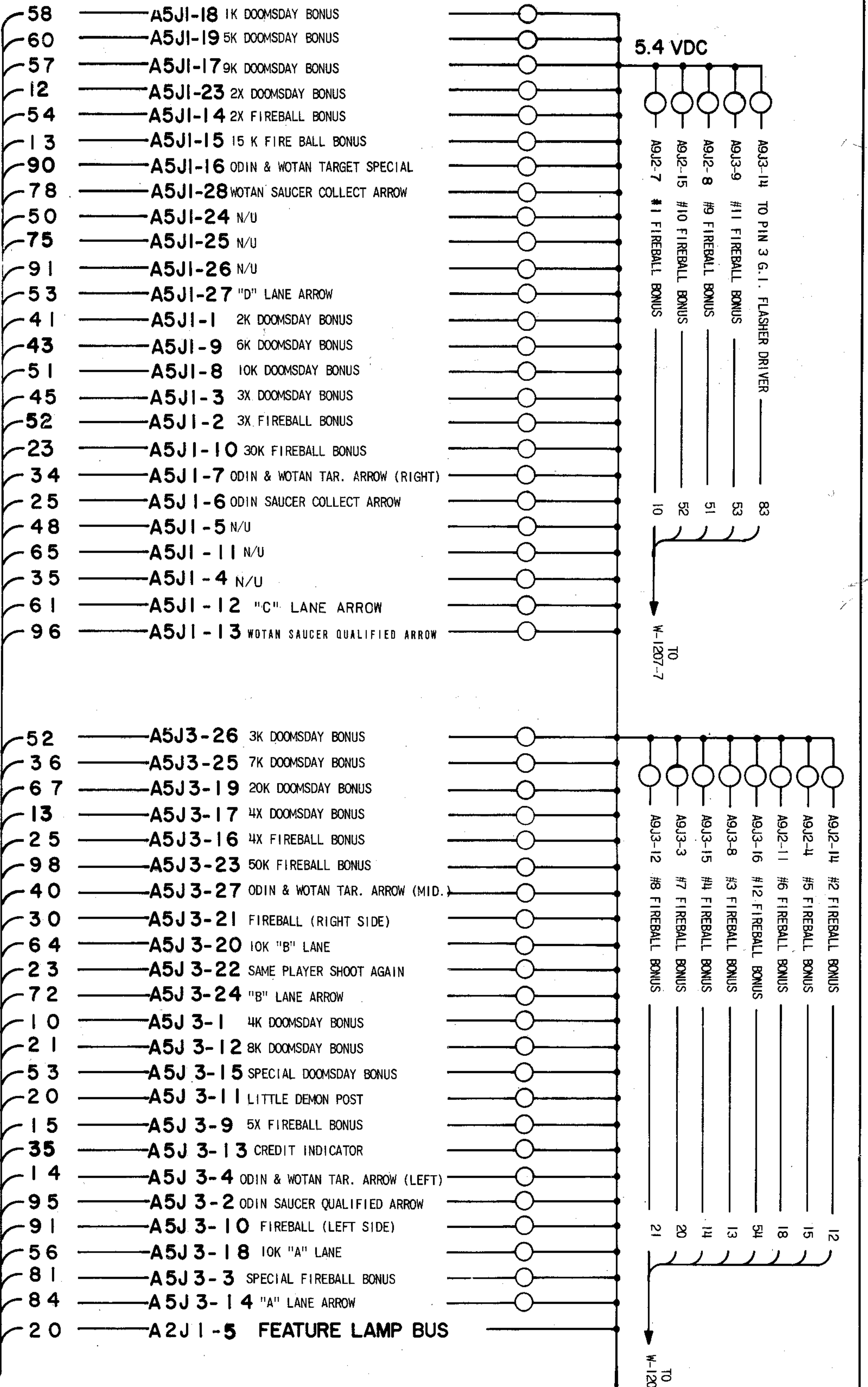
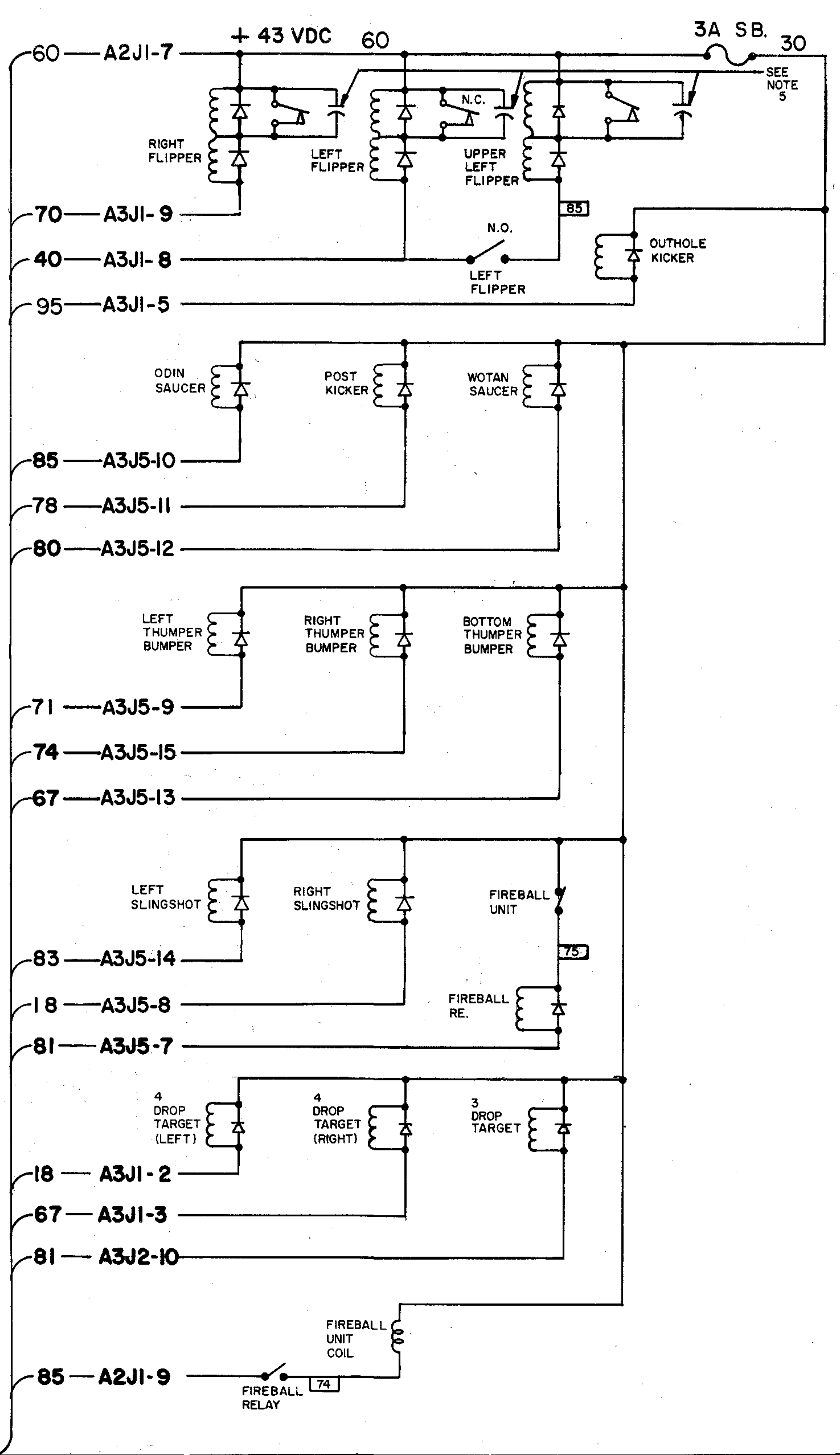
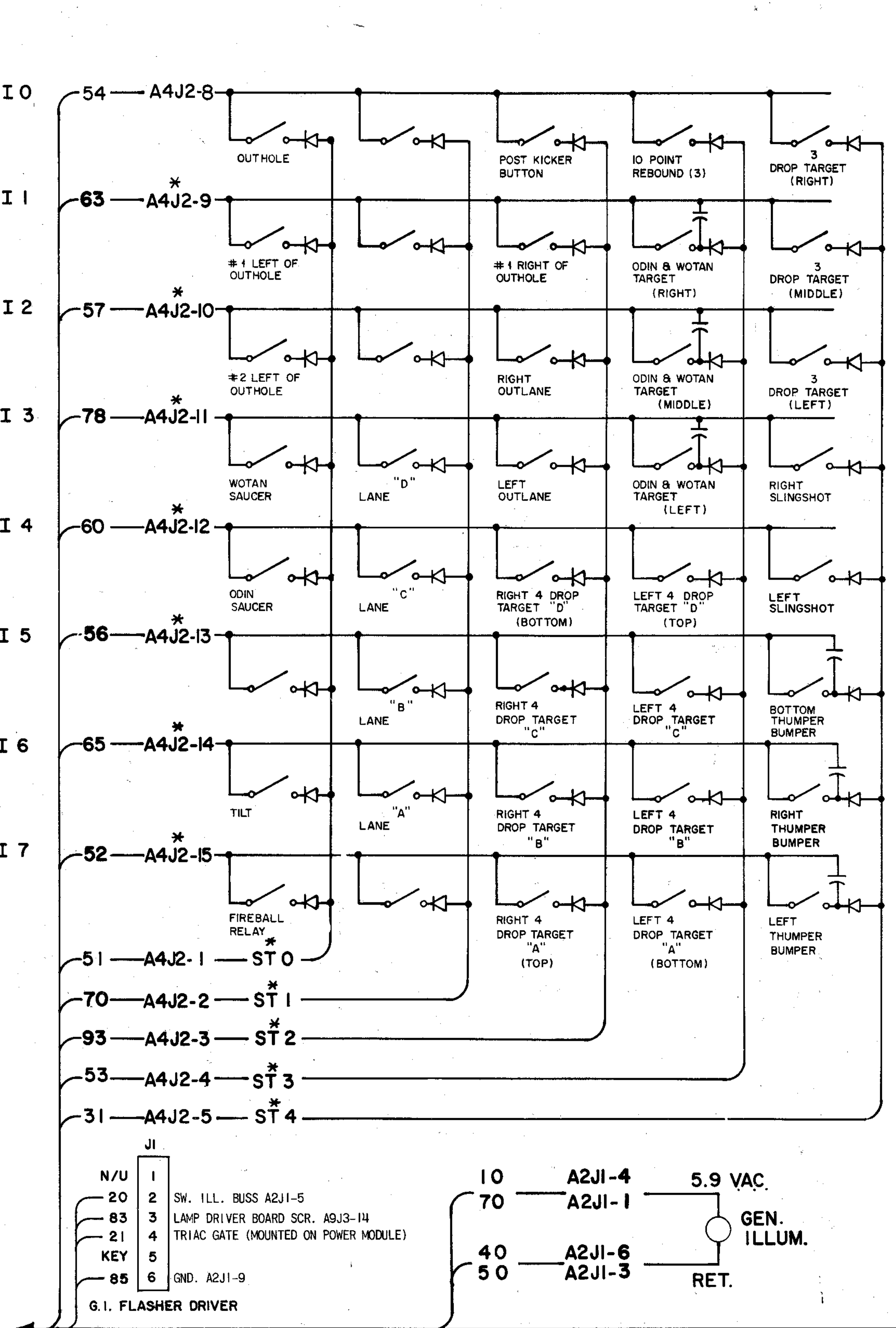


NOTES: (CAUTION)  
 1. USE BALLY PART NO. E-713 FOR 115-120 VAC.  
 2. USE BALLY PART NO. E-713-1 FOR 220-240 VAC.  
 3. \* INDICATES AID TEST POINT.

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	A8J2-1	12
DOOR PLUG		A8J2-2	13

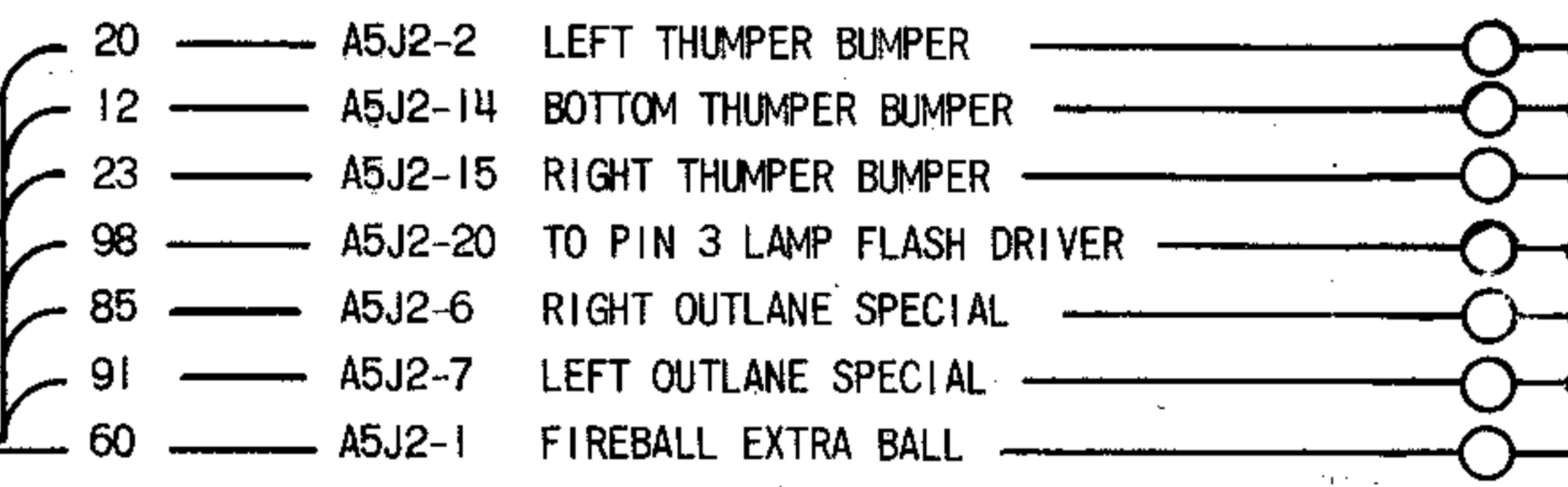
A7 CABINET ASS'Y. WIRING  
 NOTE: DIODES ARE IN4004, (E-587-6)

REMOVE ALL BURRS		DR BY	DATE	Bally MANUFACTURING CORP. 2640 BELMONT AVENUE CHICAGO, ILLINOIS #1219	
TOLERANCES ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	FRACTIONS ± .008	DATE	2-17-61	PRINT CONTROL	DIE SIZE - C.C.
DECIMALS ± .003	EXCEPT HOLE DIA'S	DATE	2-19-61	NAME	ASSEM. NO. USED
ANGLES ± 1/2°	DO NOT SCALE DRAWING	DATE	3-10-61	FINISH	SCALE
		DATE	3-9-61	HARDENING	PART NO.
					W-1186-11 c



**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. (Q) 500 V. (E-586-65)



**Bally MANUFACTURING CORP.**  
2640 BELMONT AVENUE  
CHICAGO, ILLINOIS 1219

REMOVE ALL BURRS

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

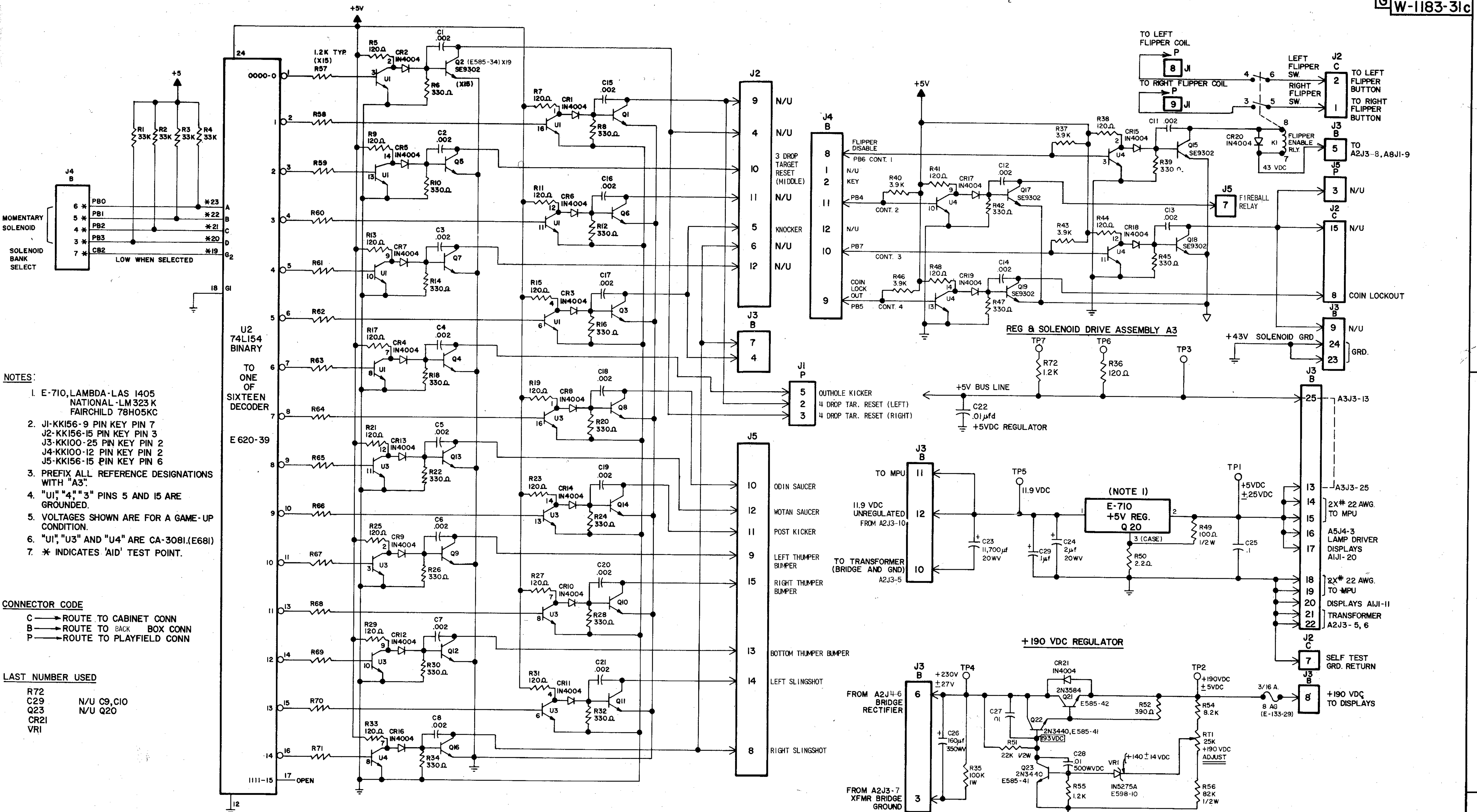
DO NOT SCALE DRAWING

DR. BY	DATE	CHK. BY	DATE
AP'D BY	DATE	PRINT CONTROL	DATE
AP'D BY	DATE	FINISH	DATE
NAME		ASSEM. NO. USED ON #	
MATERIAL		PART NO.	

WIRING DIAGRAM - PLAYFIELD

MATERIAL: FIREBALL II

PART NO: W-1192-27c



- NOTES:**
- E-710, LAMBDA-LAS 1405 NATIONAL -LM 323 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", "4", "3" 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  
 Q23 N/U Q20  
 CR21  
 VRI

OPER.	DEPT.	DESCRIPTION	TOOL NO.

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REMOVE ALL BURRS		DR. BY DATE		Bally MANUFACTURING CORP.	
DIMENSIONS UNLESS OTHERWISE SPECIFIED		M. T. 2-19-81		2640 BELMONT AVENUE	
FRACTIONS = 008		CK. BY DATE		CHICAGO, ILLINOIS # 1219	
DECIMALS = 003		3-D 3-4-81		DIE SIZE: C.C. FT. PER M. LBS. PER M.	
EXCEPT HOLE DIA. S ANGLES = 1/2"		AP'D BY DATE		NAME SOLENOID DRIVER VOLTAGE	
DO NOT SCALE DRAWING		3-D 3-4-81		REGULATOR SCHEMATIC	
		AP'D BY DATE		ASSEM. NO. USED SCALE	
		3-D 3-4-81		MATERIAL	
		FINISH:		CODE FIREBALL II	
		HARDENING:		PART NO. W-1183-31c	

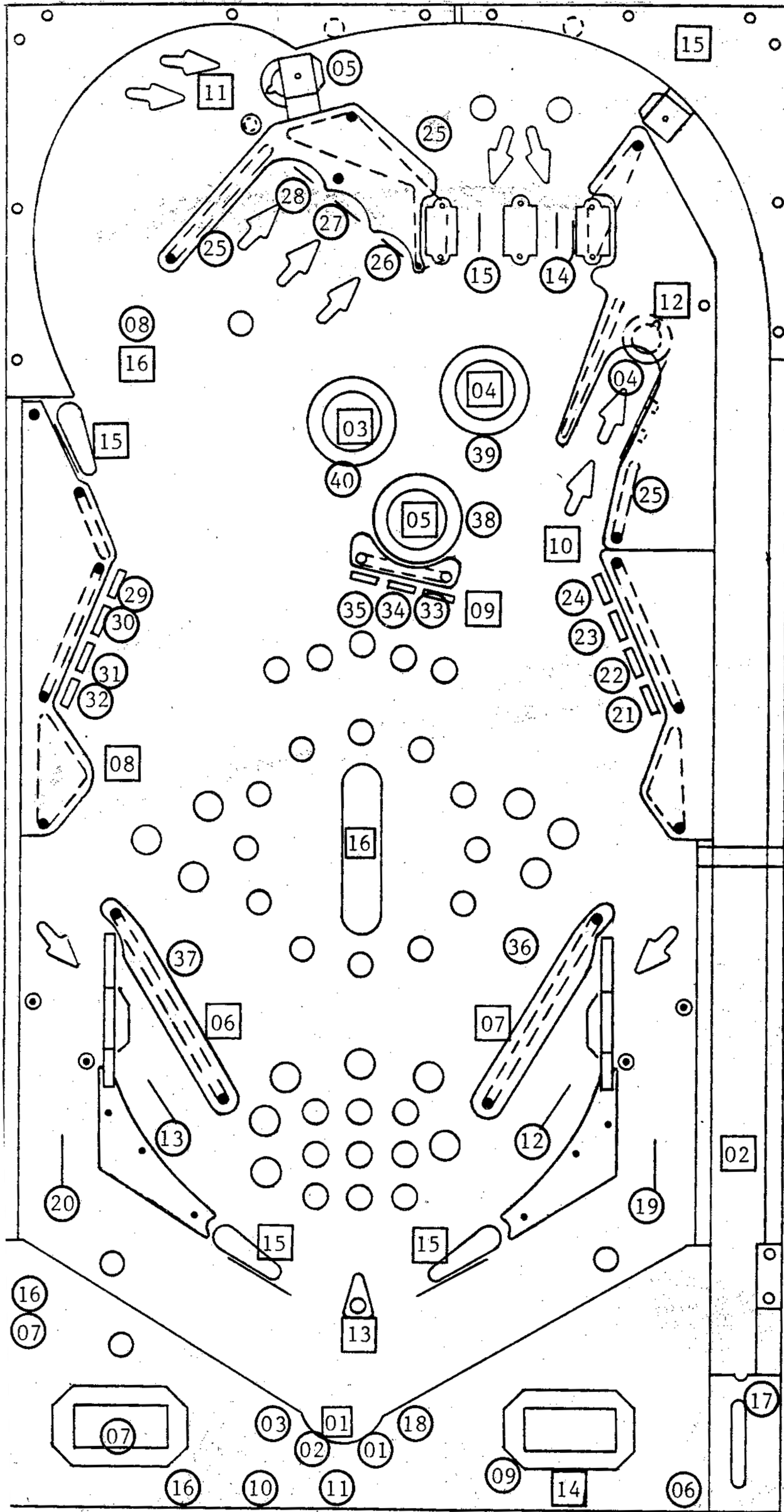
**#1219 FIREBALL II  
RUBBER PARTS**

A.	R-521-2	1½" DIA	(2)
B.	R-521-5	3" DIA	(1)
C.	R-521-3	2" DIA	(3)
D.	R-521-4	2½" DIA	(4)
E.	R-521-1	1" DIA	(2)
F.	R-533-3	FLIPPER	(3)
G.	R-243	5/16" DIA	(7)

**PANEL TOP PARTS**

1.	Arch Rail	M-1774-7	
2.	Rail Post	C-907	(2)
3.	Rail Post Cap	C-980	(2)
4.	Bottom Arch	P-5871-83	
5.	Shooter Gauge	P-6359-48	
6.	Ball Gate	A-1475-13	
7.	Ball Gate	A-1475-13	
8.	Screened Plastics (Set)	A-2890-150	
9.	Guide Rail	C-936-1	(2)
10.	Guide Rail	C-935-1	
11.	Eject Hole	ASE-428-41	(2)
12.	Target Assy. (Red)	ASE-2911-3	(3)
13.	R.O. Wire & Bracket	ASE-2806	
14.	R.O. Wire & Bracket	ASE-2806-1	
15.	R.O. Wire & Bracket	ASE-2806-9	(3)
16.	R.O. Wire & Bracket	ASE-2806-10	
17.	Thumper Bumper Collar	C-1018-1	(3)
18.	Thumper Bumper Cap	A-4009-2	(3)
19.	Flipper & Shaft Assy.	A-3994	(3)
20.	Drop Target Assy.	ASE-2795-83	
21.	Drop Target Assy.	ASE-2795-84	
22.	Drop Target Assy.	ASE-2795-85	
23.	Fireball Unit Assy.	ASE-3101	
24.	Slingshot Assy.	ASE-2593-6	(2)
25.	Ball Gate & Wire Assy.	ASE-2250-77	
26.	Ball Gate & Wire Assy.	ASE-2250-87	
27.	Kicker Post Assy.	ASE-2593-7	
28.	Mini-Post & Bumper Assy.	ASE-2836-2	(4)
29.	Buffer Wire	M-121-53	(2)
30.	Ball Guide Wire	M-121-23	
31.	Ball Guide Wire	M-121-56	
32.	Ball Guide Wire	M-121-81	
33.	Ball Guide Assy.	A-3032-67	
34.	Ball Guide Assy.	A-3023-78	
35.	Screened Plastic	M-1330-182	
36.	Ball Stop Assy.	A-2898-31	





**#1219 FIREBALL II**

**INDICATES SWITCH ASSEMBLY IDENTIFICATION NUMBERS**

**NOTE:** CABINET: 07, 16, 17  
DOOR: 06, 09  
10, 11, 16

**INDICATES SOLENOID IDENTIFICATION NUMBERS**

**NOTE:** DOOR: 14  
BACKBOX: 15  
CABINET: 02

**FIGURE V**

**GAME #1219 FIREBALL II (FIGURE V)**

**SOLENOID IDENTIFICATION TABLE**

<b>Self Test #</b>	<b>SOLENOID IDENTIFICATION</b>	<b>Self Test #</b>	<b>SOLENOID IDENTIFICATION</b>
01	OUTHOLE KICKER	09	3 DROP TARGET RESET
02	KNOCKER	10	4 DROP TARGET RESET (RIGHT)
03	LEFT THUMPER BUMPER	11	ODIN SAUCER
04	RIGHT THUMPER BUMPER	12	WOTAN SAUCER
05	BOTTOM THUMPER BUMPER	13	POST KICKER
06	LEFT SLINGSHOT	14	COIN LOCKOUT DOOR
07	RIGHT SLINGSHOT	15	KI RELAY (FLIPPER ENABLE)
08	4 DROP TARGET RESET (LEFT)	16	FIREBALL RELAY (FIREBALL UNIT ENABLE)

**SWITCH ASSEMBLY SELF-TEST DISPLAY NUMBERS**

<b>Switch Self Test #</b>	<b>DESCRIPTION</b>	<b>Switch Self Test #</b>	<b>DESCRIPTION</b>
01	OUTHOLE	21	RIGHT 4 DROP TARGET "D" (BOTTOM)
02	#1 LEFT OF OUTHOLE	22	RIGHT 4 DROP TARGET "C"
03	#2 LEFT OF OUTHOLE	23	RIGHT 4 DROP TARGET "B"
04	WOTAN SAUCER	24	RIGHT 4 DROP TARGET "A" (TOP)
05	ODIN SAUCER	25	10 POINT REBOUND (3)
06	CREDIT BUTTON	26	ODIN & WOTAN TARGET (RIGHT)
07	TILT (3)	27	ODIN & WOTAN TARGET (MIDDLE)
08	FIREBALL RELAY SWITCH *	28	ODIN & WOTAN TARGET (LEFT)
09	COIN III (RIGHT)	29	LEFT 4 DROP TARGET "D" (TOP)
10	COIN I (LEFT)	30	LEFT 4 DROP TARGET "C"
11	COIN II (MIDDLE)	31	LEFT 4 DROP TARGET "B"
12	"D" LANE	32	LEFT 4 DROP TARGET "A" (BOTTOM)
13	"C" LANE	33	3 DROP TARGET (RIGHT)
14	"B" LANE	34	3 DROP TARGET (MIDDLE)
15	"A" LANE	35	3 DROP TARGET (LEFT)
16	SLAM (2)	36	RIGHT SLINGSHOT
17	POST KICKER BUTTON (CAB.)	37	LEFT SLINGSHOT
18	#1 RIGHT OF OUTHOLE	38	BOTTOM THUMPER BUMPER
19	RIGHT OUTLANE	39	RIGHT THUMPER BUMPER
20	LEFT OUTLANE	40	LEFT THUMPER BUMPER

SH RELAY IN BY HAND

**NOTE:** SLINGSHOT & THUMPER BUMPER COILS WILL BE ENERGIZED WHEN SWITCH IS MADE.