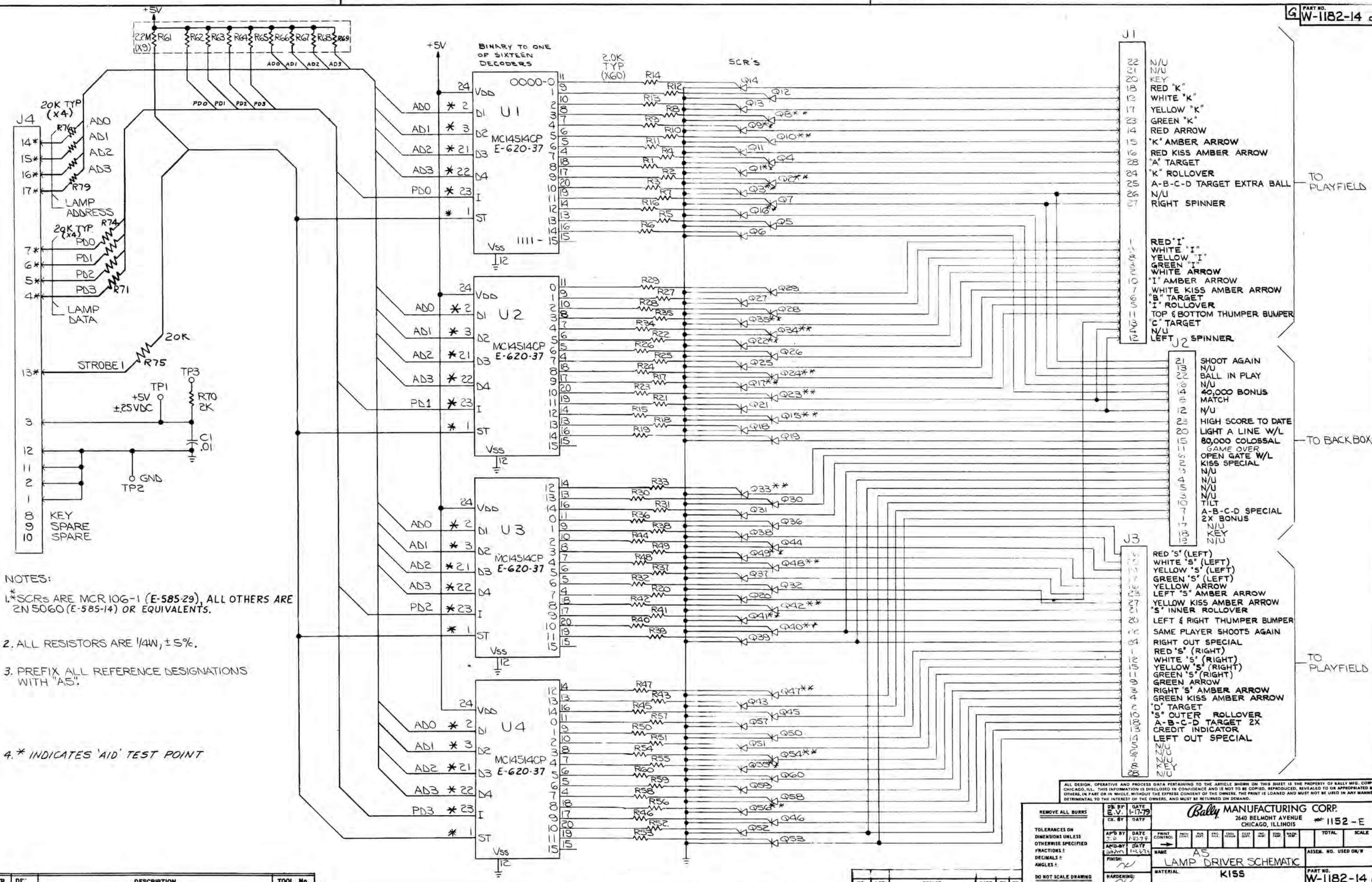
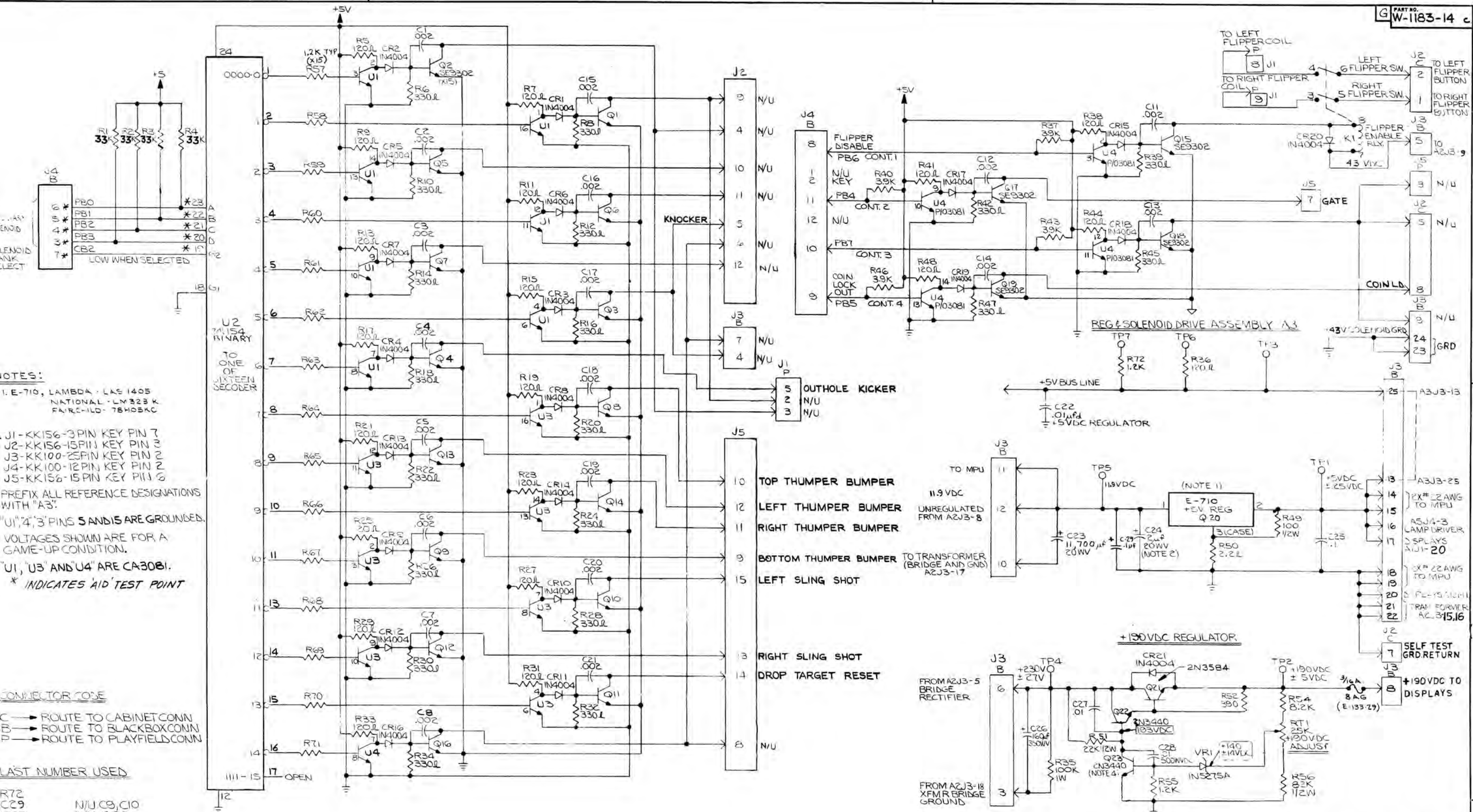






NOTES:
1. E-710, LAMBDA LAS 1405
NATIONAL LM323 K
FAIRCHILD 78H05KC
J1-KK156-3 PIN KEY PIN 7
J2-KK156-15 PIN KEY PIN 3
J3-KK100-25 PIN KEY PIN 2
J4-KK100-12 PIN KEY PIN 2
J5-KK156-15 PIN KEY PIN 3
PREFIX ALL REFERENCE DESIGNATIONS
WITH "A3".
"U1", "U4", "U3" PINS 5 AND 15 ARE GROUND.
VOLTAGES SHOWN ARE FOR A
GAME-UP CONDITION.
"U1", "U3" AND "U4" ARE CA3081.
* INDICATES AID TEST POINT

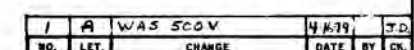
CONNECTOR CODE
C → ROUTE TO CABINET CONN
B → ROUTE TO BLACKBOX CONN
P → ROUTE TO PLAYFIELD CONN

LAST NUMBER USED
R72 N/U C9, C10
C29 N/U Q20
Q23
CR21
VRI

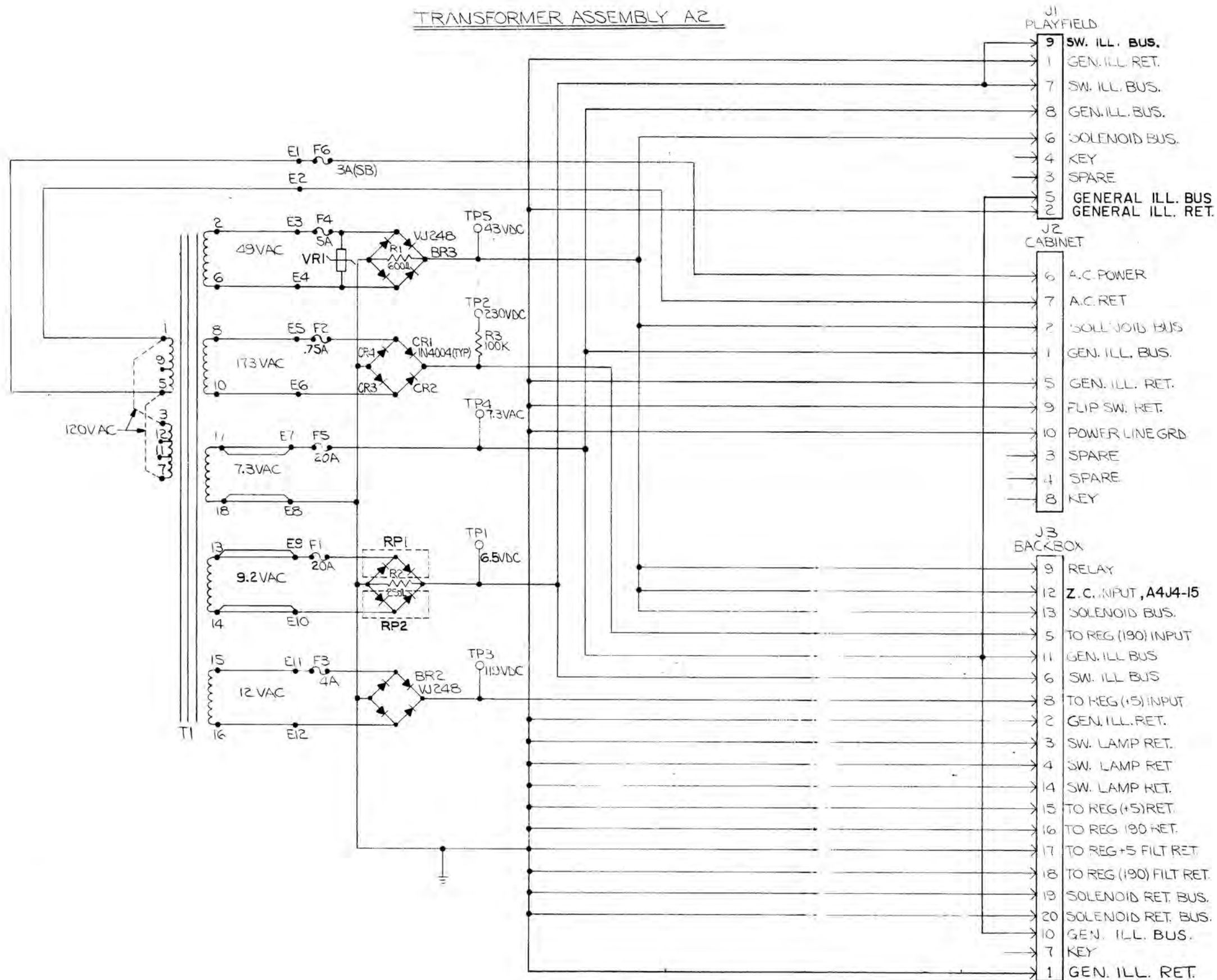
ER.	DEPT.	DESCRIPTION	TOOL No.

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 INTEREST OF THE OWNERS, AND MUST BE RETURNED ON DEMAND.

REMOVE ALL BURNS		DR BY E.V. DATE 1-18-79		Bally MANUFACTURING CORP.		2640 BELMONT AVENUE		CHICAGO, ILLINOIS		1152-E	
TOLERANCES ON DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE: FRACTIONS ± .005 INCHES ± .005		APD BY J.D. DATE 1/23/79		PRINT CONTROL		NAME		ASSEMBLY NO. USED ON W		PART NO.	
DO NOT SCALE DRAWING		FINISH		HARDENING		MATERIAL		KISS		W-1183-14 c	



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.	TERMINALS	APPLY POWER TO TERMINALS
115	1 TO 3 AND 5 TO 11	1 AND 9
120	1 TO 3 AND 5 TO 7	1 AND 5
220	3 TO 5	1 AND 11
240	3 TO 5	1 AND 7

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

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REMOVE ALL BURRS

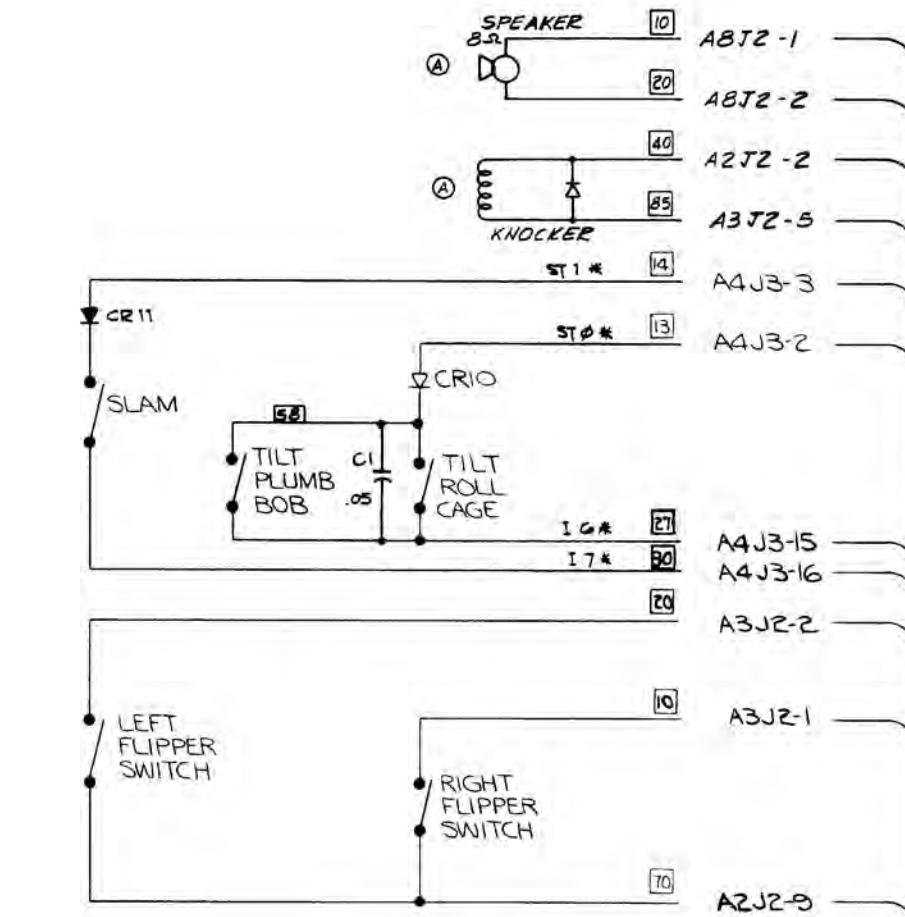
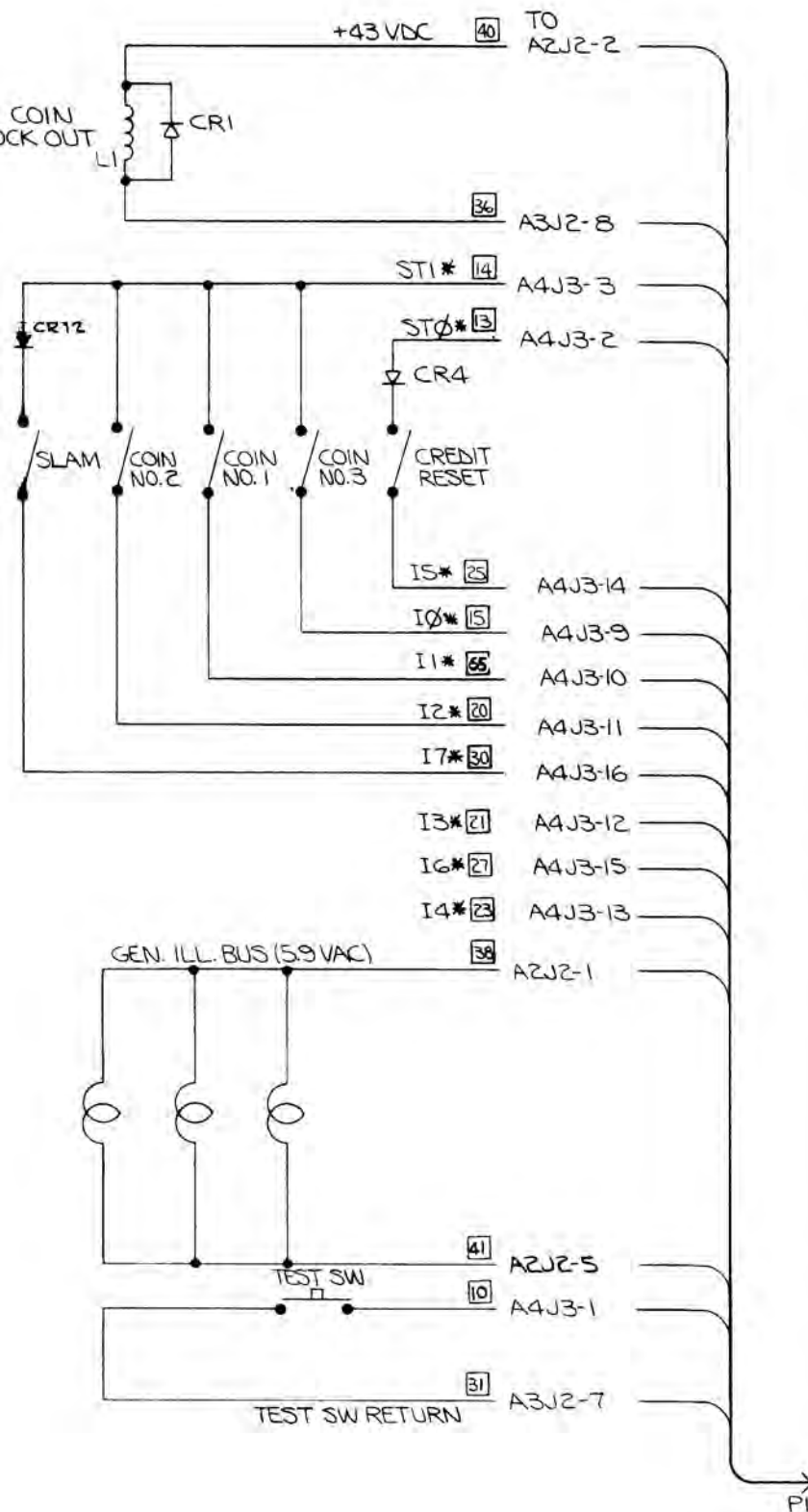
TOLERANCES ON
DIMENSIONS UNLESS
OTHERWISE SPECIFIED
FRACTIONS:
DECIMALS:
ANGLES:

DO NOT SCALE DRAWING

OR BY DATE
E.V. 1-0-79
CR. BY DATE
AP'D BY DATE
FINISH:
HARDENING:

Bally MANUFACTURING CORP.
2640 BELMONT AVENUE
CHICAGO, ILLINOIS 60648
1132-E
NAME: POWER TRANSFORMER
MODULE SCHEMATIC
ASSEM. NO. USED ON: R
MATERIAL: BALLY - KISS
PART NO. W-1185-2c

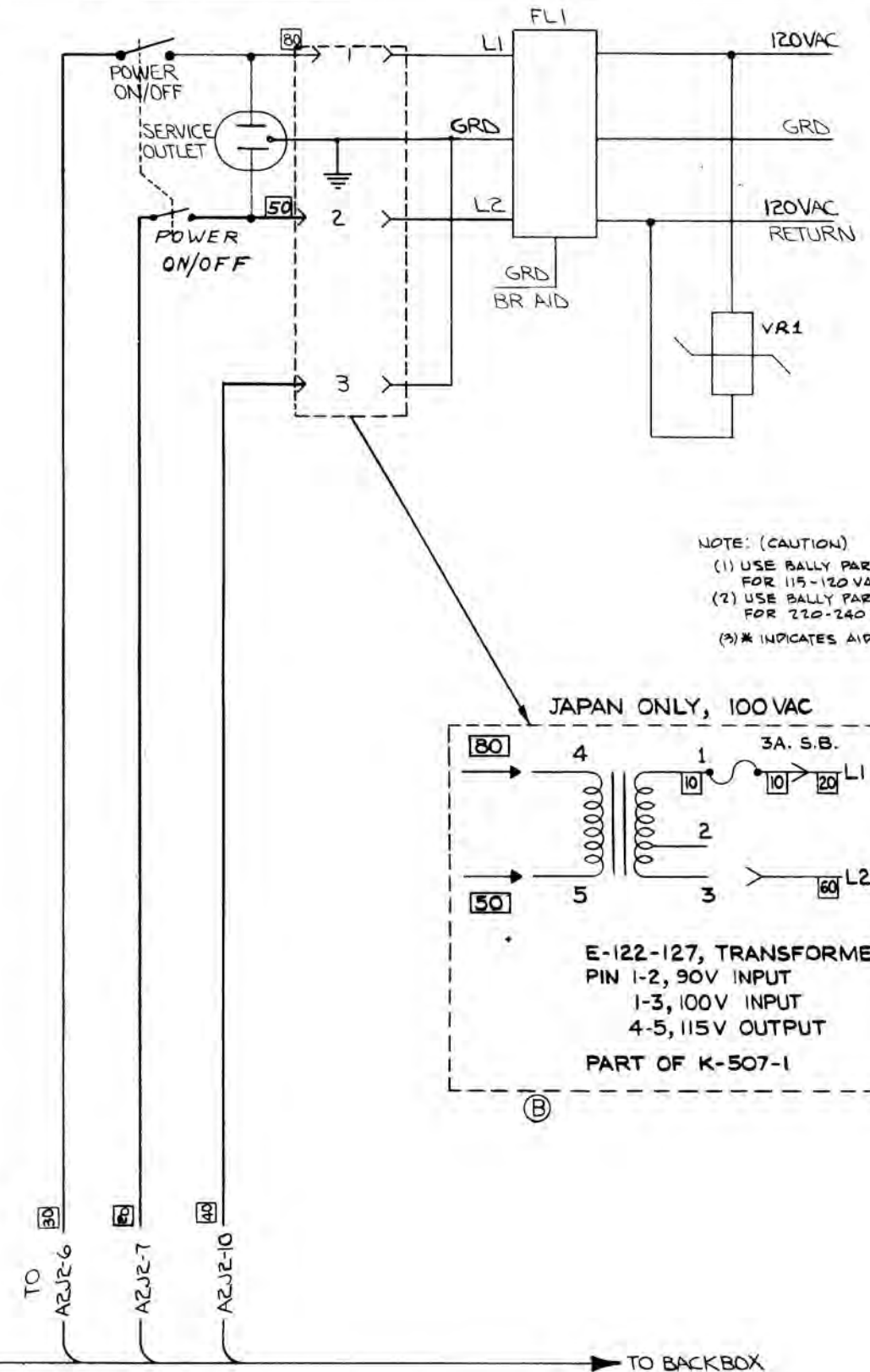
OPER. DEPT. DESCRIPTION TOOL No.



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

DOOR PLUG

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



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 OWNER. THE PRINT IS LOANED AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THE INTEREST OF THE OWNER, AND MUST BE RETURNED ON DEMAND.

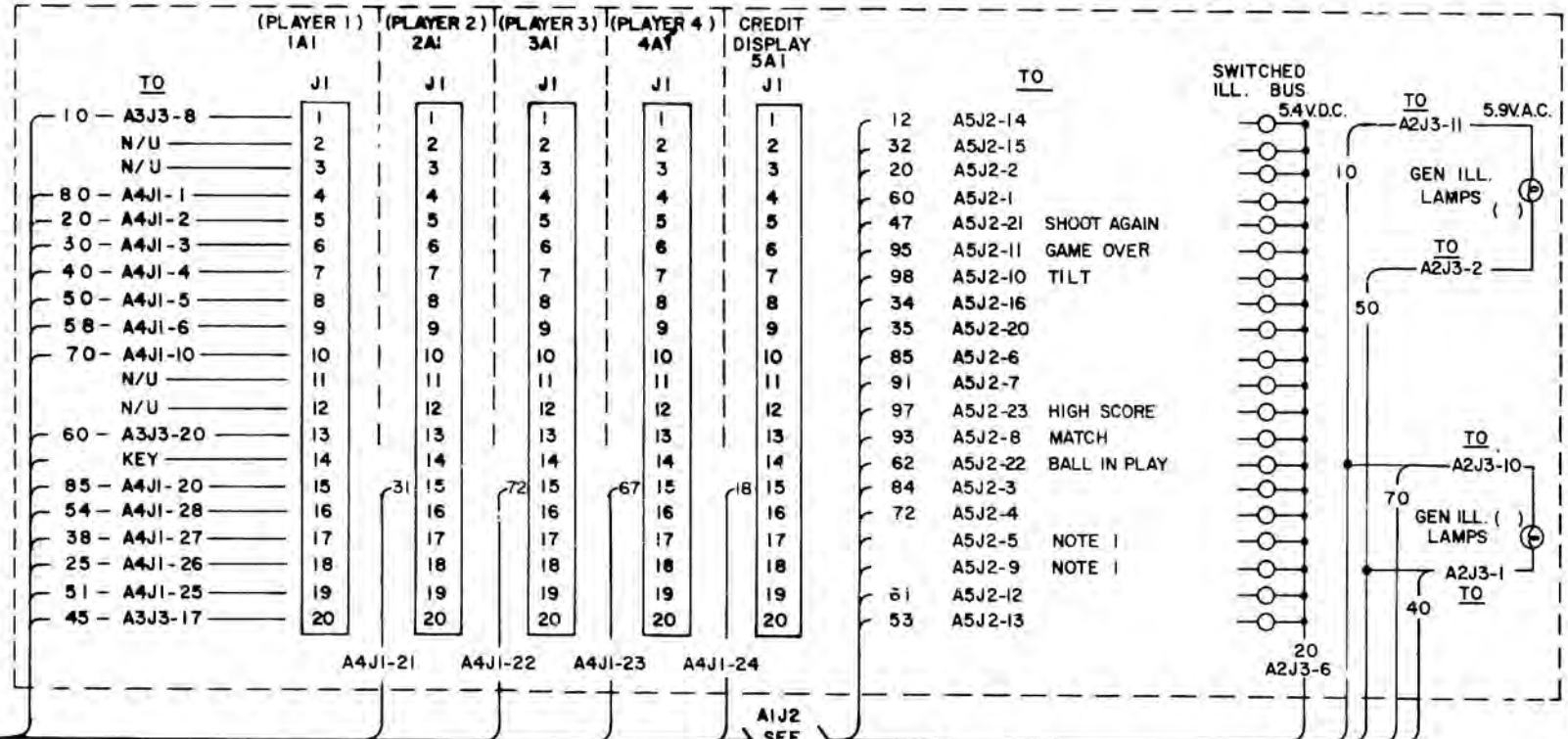
REMOVE ALL BURRS		DATE 1-22-79		BALLY MANUFACTURING CORP.	
TOLERANCES ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		DATE 8-3-78		2640 BELMONT AVENUE	
FRACTIONS: 1/16, 1/8, 1/4, 1/2, 3/4, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 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 8-3-78		CHICAGO, ILLINOIS	
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 8-3-78		CHICAGO, ILLINOIS	
ANGLES: 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 8-3-78		CHICAGO, ILLINOIS	
DO NOT SCALE DRAWING		DATE 8-3-78		CHICAGO, ILLINOIS	
HARDENING: X		DATE 8-3-78		CHICAGO, ILLINOIS	
MATERIAL		DATE 8-3-78		CHICAGO, ILLINOIS	
ASSEMBLY NO. USED ON/W		DATE 8-3-78		CHICAGO, ILLINOIS	
PART NO. W-1186-5c		DATE 8-3-78		CHICAGO, ILLINOIS	

TABLE A AIJ2

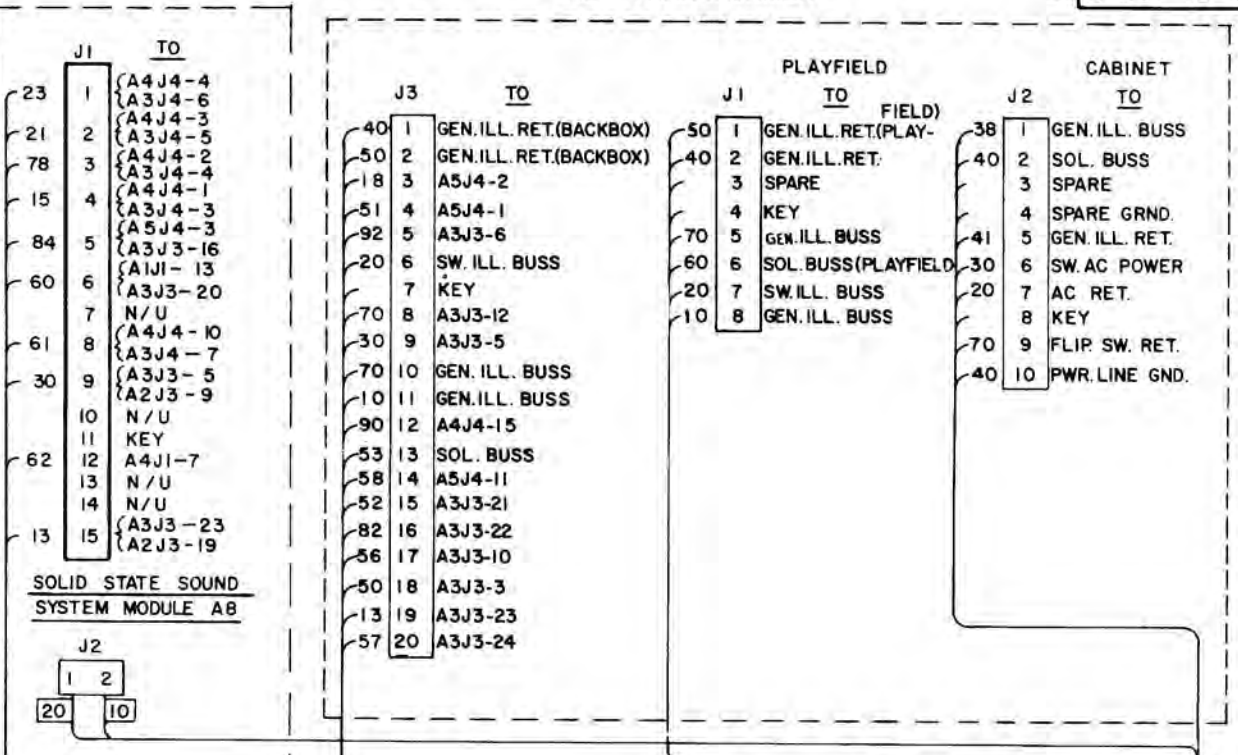
FROM	PIN	WIRE
A2J3-6	1	20
A5J2-14	2	12
A2J3-2	3	50
A2J3-11	4	10
A5J2-23	5	97
A5J2-15	6	32
A5J2-22	7	62
A5J2-8	8	93
A5J2-1	9	60
A5J2-2	10	20
A5J2-11	11	95
A5J2-21	12	47
A5J2-10	13	98
A5J2-7	14	91
A5J2-6	15	85
A5J2-20	16	35
A5J2-16	17	34
A2J3-1	18	40
A2J3-10	19	70
A5J2-13	20	53
A5J2-12	21	61
A5J2-4	22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

INSERT TO BACK CAB. PLUG

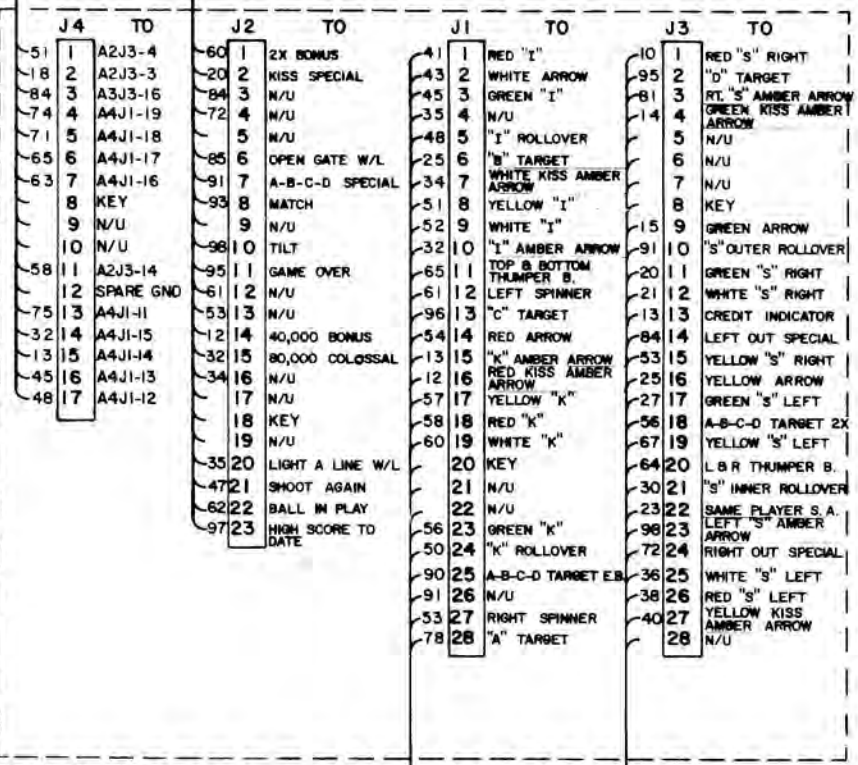
A1 INSERT



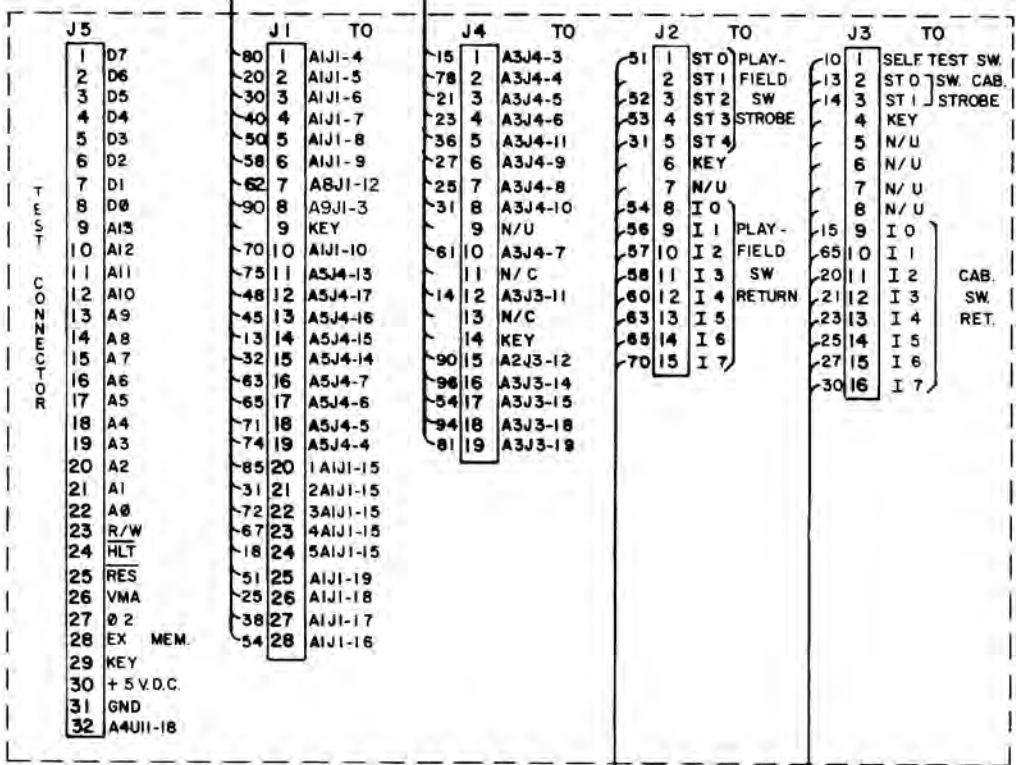
A2 TRANSFORMER



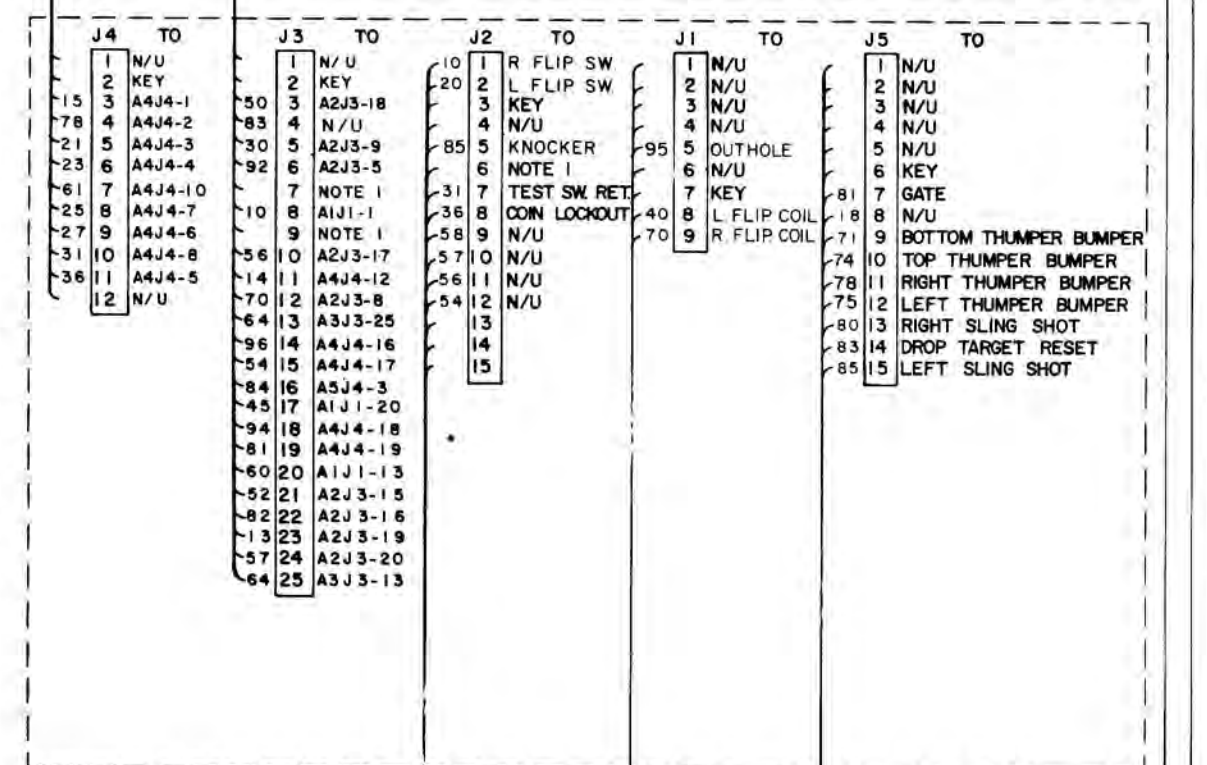
LAMP DRIVER A5



MPU A4



VOLTAGE REGULATOR / SOLENOID DRIVER A3



NOTES

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

FROM	TO	WIRE
A5J2-14	1	12
A5J2-2	2	20
A5J2-15	3	32
A5J2-20	4	35
A5J2-1	5	60
A5J2-6	6	85
A5J2-7	7	91
A2J1-7	8	20

PANEL TO BACK CAB. PLUG

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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DR. BY: E. V. 1-19-79
CK. BY: DATE: 1-19-79

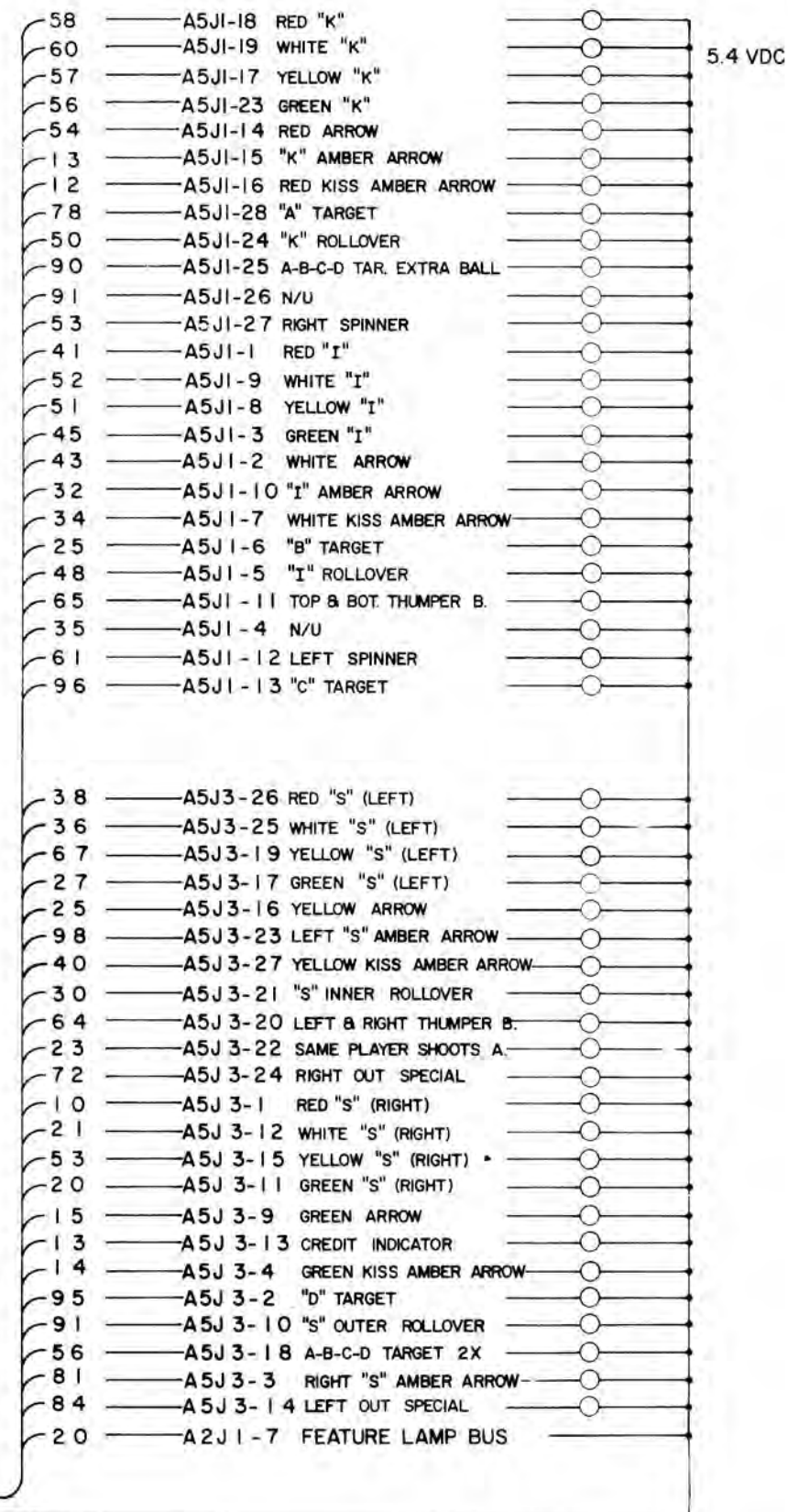
APPROVED BY: DATE: 1-19-79
APPROVED BY: DATE: 1-19-79

FINISH: HARDENING: MATERIAL: KISS

REMOVE ALL BURRS
TOLERANCES ON DIMENSIONS UNLESS OTHERWISE SPECIFIED
FRACTIONS - 1/64
DECIMALS - .005
ANGLES - 1/2

DO NOT SCALE DRAWING

ASSEMBLY NO. USED ON: W-1187-10 c



NOTES

1. INDICATES NOT USED
2. N/U = NOT USED ON PLAYFIELD
3. *INDICATES AID TEST POINT
4. ALL DIODES ARE IN4004,(E-587-6)
ALL CAPACITORS ARE .05 MFD. (E-586-80)

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DR BY	DATE
E. V.	1-22-79
CK BY	DATE

AP'D BY	DATE
- 0	23 79
AP'D BY	DATE

FINISH	
--------	--

HARDENING:	
------------	--

Bally MANUFACTURING CORP.
2640 BELMONT AVENUE
CHICAGO, ILLINOIS

1152-E

CHICAGO, ILLINOIS

POST 12 34 56 78 90

DATE	7/	197		100	100	100	100	100
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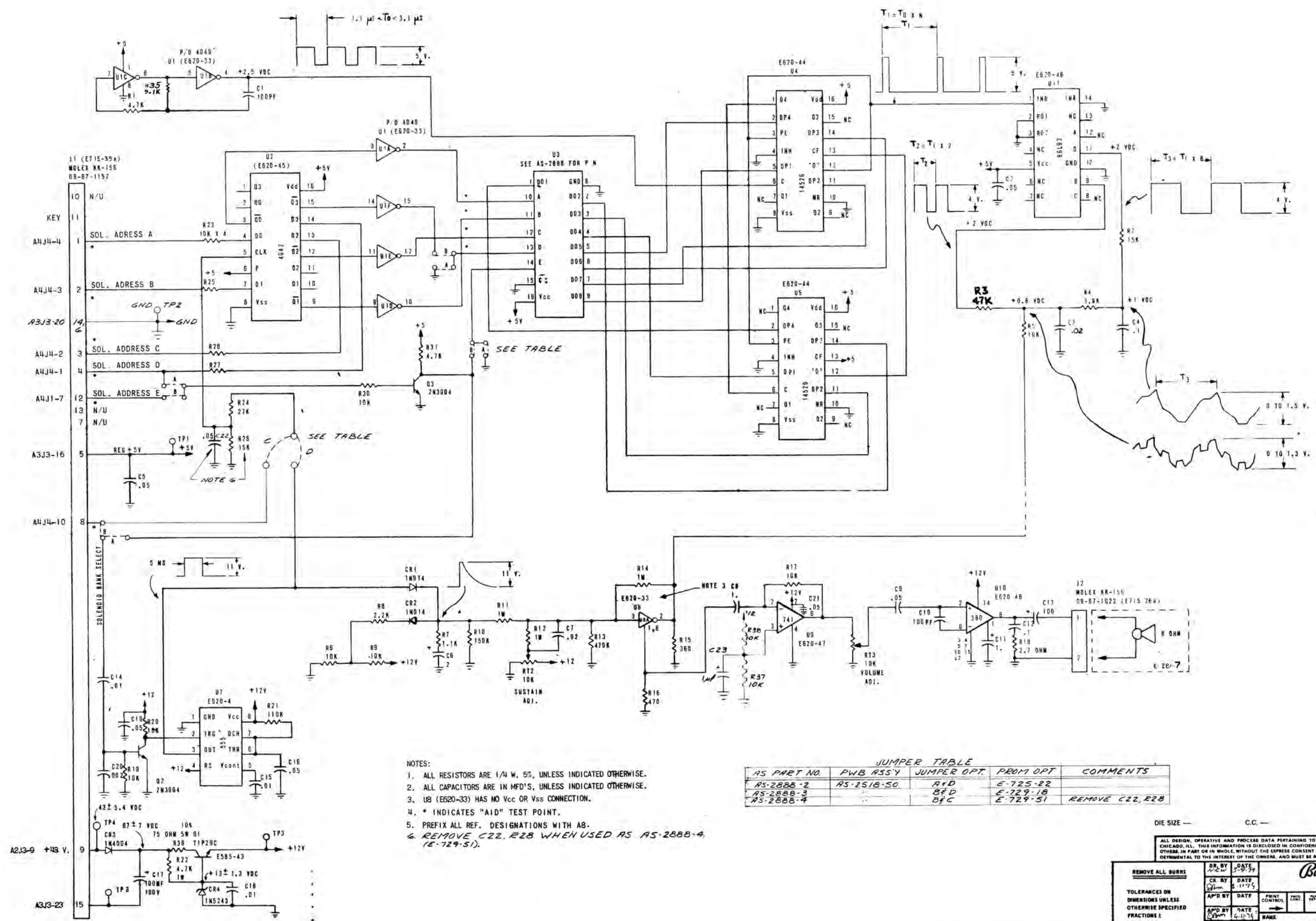
NAME _____

SWITCH MATRIX

SWITCH MATRIX

MATERIAL

KISS



- NOTES:
1. ALL RESISTORS ARE 1/4 W. 5%, UNLESS INDICATED OTHERWISE.
 2. ALL CAPACITORS ARE IN MFD'S, UNLESS INDICATED OTHERWISE.
 3. U8 (E620-33) HAS NO Vcc OR Vss CONNECTION.
 4. * INDICATES "AID" TEST POINT.
 5. PREFIX ALL REF. DESIGNATIONS WITH A8.
 6. REMOVE C22, R28 WHEN USED AS AS-2888-4, (E-729-51).

JUMPER TABLE

AS PART NO.	PWB ASSY	JUMPER OPT.	PRGM OPT.	COMMENTS
AS-2888-2	AS-2518-50	R1D	E-725-22	
AS-2888-3		B1D	E-729-18	
AS-2888-4		B1C	E-729-51	REMOVE C22, R28

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

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Bally MANUFACTURING CORP.
2640 BELMONT AVENUE
CHICAGO, ILLINOIS 60618

1167-E

ASSEMBLY NO. USED ON/W
AS-2518-50

PART NO.
W-1193-1

REMOVE ALL BURNS

TOLERANCES ON DIMENSIONS UNLESS OTHERWISE SPECIFIED
FRACTIONS ±
DECIMALS ±
ANGLES ±

DO NOT SCALE DRAWING

DR. BY DATE
CK. BY DATE
APD BY DATE
FINISH DATE
HARDENING

PRINT CONTROL

NAME
SOLID STATE SOUND MODULE AS

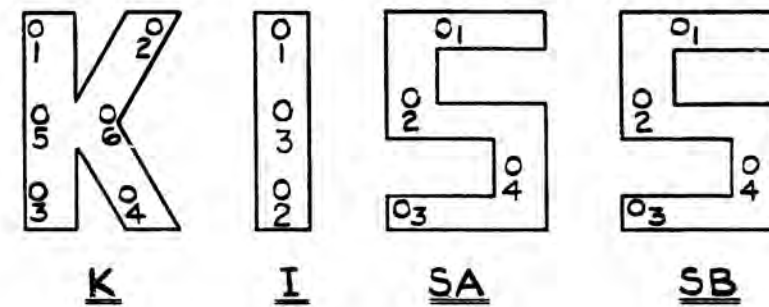
MATERIAL

TOTAL

SCALE

NO. LET. CHANGE DATE BY CK.

BULB CHART (INSERT)

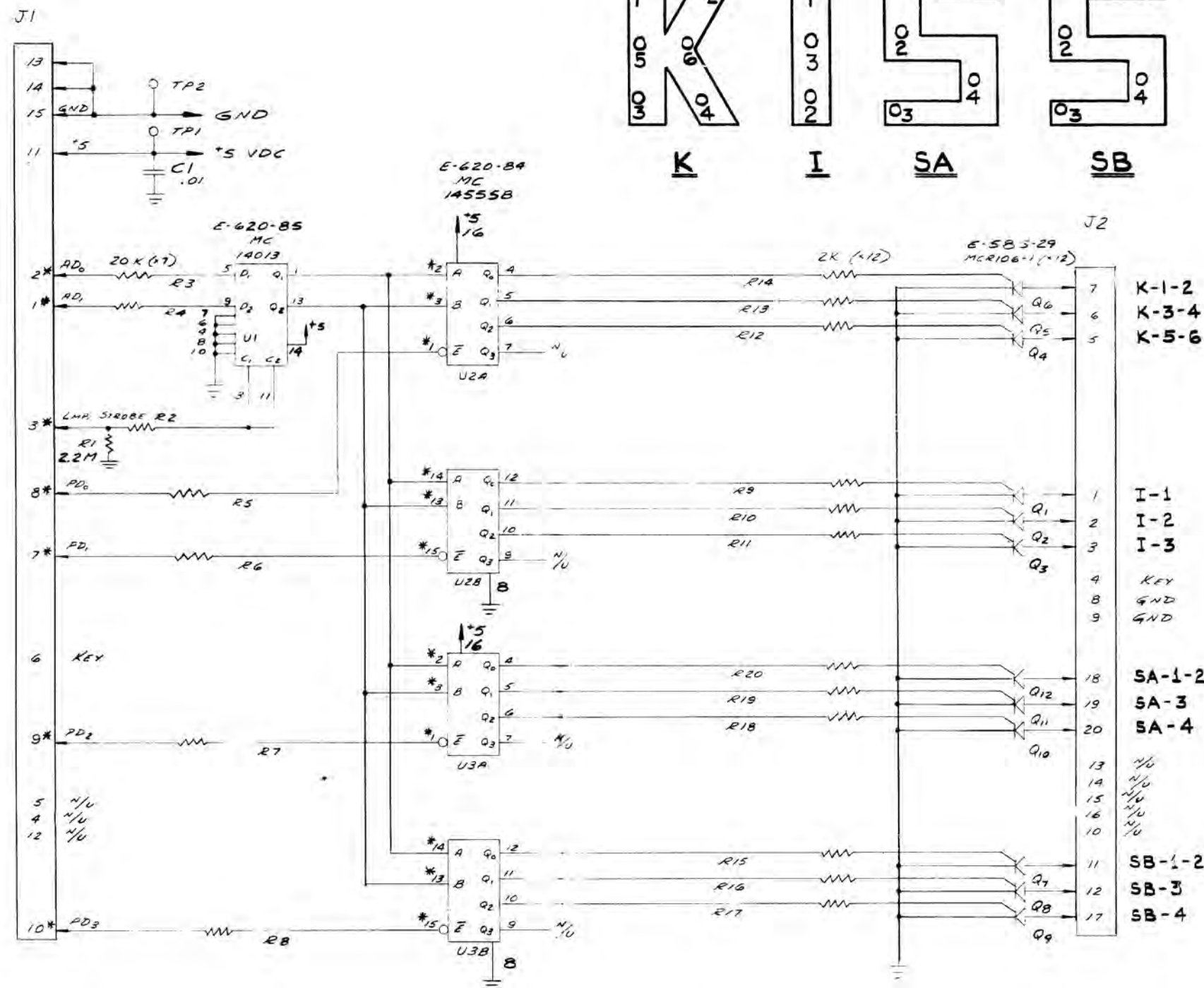


J2 TO

43	1	I-1
45	2	I-2
47	3	I-3
	4	KEY
56	5	K-5-6
54	6	K-3-4
58	7	K-1-2
	8	
	9	
	10	
15	11	SB-1-2
13	12	SB-3
	13	
	14	
	15	
	16	
12	17	SB-4
25	18	SA-1-2
27	19	SA-3
21	20	SA-4

J1 TO

13	1	A5J4-15
32	2	A5J4-14
90	3	A4J1-8
	4	
	5	
	6	KEY
65	7	A5J4-6
63	8	A5J4-7
71	9	A5J4-5
74	10	A5J4-4
84	11	A5J4-3
	12	
	13	
	14	
58	15	A5J4-11



TO W-1187-10C

NOTES:

1. * INDICATES "AID" TEST POINT.
2. ALL RESISTORS ARE 1/4W, 75%.
3. VOLTAGES SHOWN ARE FOR A GAME UP CONDITION.
4. SCRs ARE MCR-106-1, (E-585-29)
5. PREFIX ALL REFERENCE DESIGNATION WITH "A9"

DIE SIZE -

C.C. -

FT. PER M -

LBS. PER M -

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REMOVE ALL BURRS

TOLERANCES ON DIMENSIONS UNLESS OTHERWISE SPECIFIED
FRACTIONS ±
DECIMALS ±
ANGLES ±

DO NOT SCALE DRAWING

DR. BY	DATE
N.E.W.	8-1-78
CK. BY	DATE
C.E.W.	12-13-78
AP'D BY	DATE
	12-13-78
FINISH:	
HARDENING:	

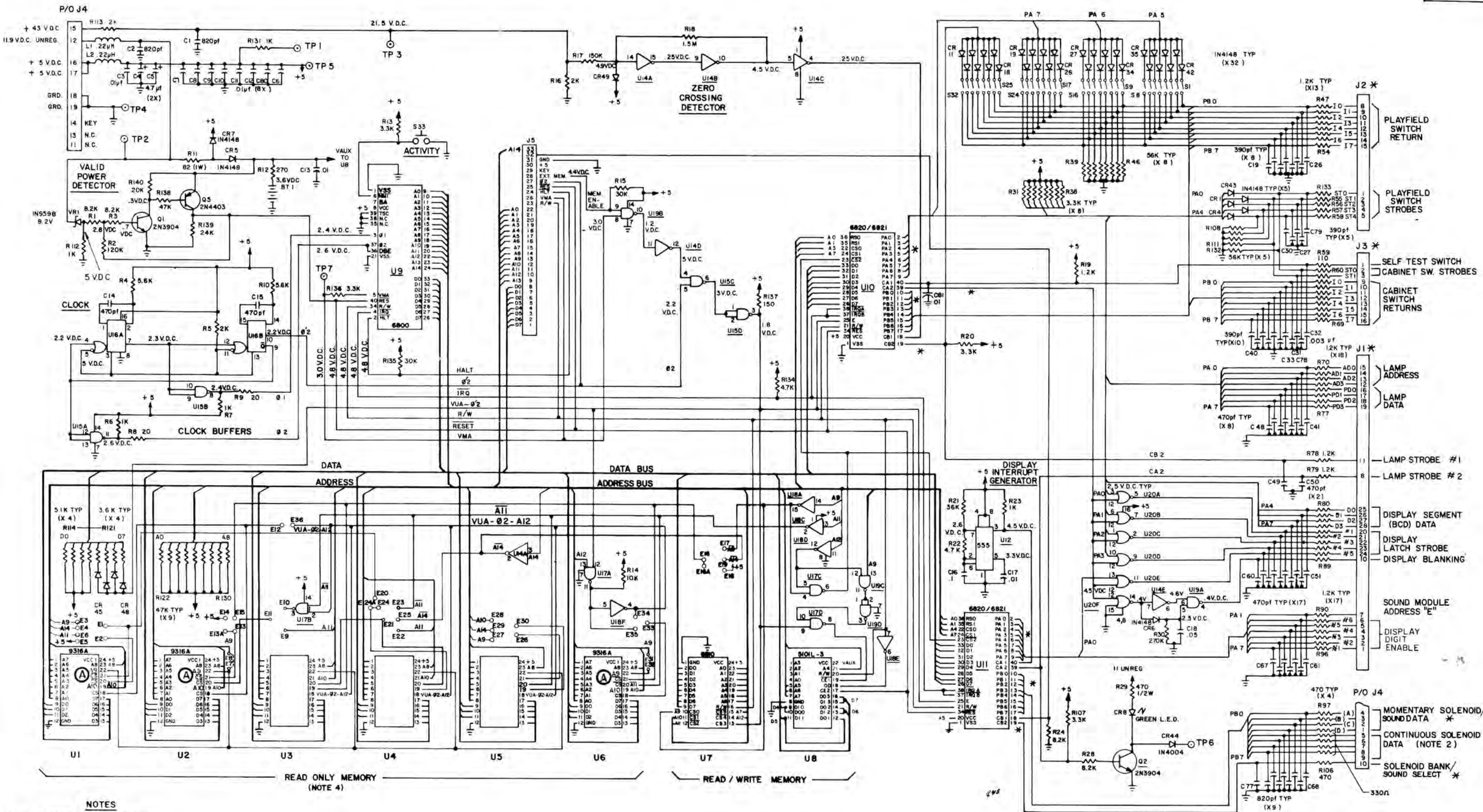
Bally MANUFACTURING CORP.

2640 BELMONT AVENUE
CHICAGO, ILLINOIS

1152-E

PRINT CONTROL	PROD. CONT.	PUR. DEPT.	ENG. FILE.	TOOL DESIGN	COST DEPT.	INC. INSP.	TOOL INSP.	MACH. INSP.	TOTAL	SCALE
										X
NAME (49) AUXILIARY LAMP DRIVER BOARD									ASSEM. NO. USED ON/W	
MATERIAL									PART NO. W-1207-b	

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



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Bally MANUFACTURING CORP.				1119-E	
2640 BELMONT AVENUE CHICAGO, ILLINOIS					
DR. BY	DATE	REV.	DATE	REV.	DATE
EV	5-11-78				
CR. BY	DATE	REV.	DATE	REV.	DATE
EV	5-15-78				
APPROVED BY	DATE	REV.	DATE	REV.	DATE
EV	5-15-78				
APPROVED BY	DATE	REV.	DATE	REV.	DATE
EV	5-15-78				
FINISH	NAME	M.P.U. CONTROL BOARD SCHEMATIC		ASSEMB. NO. USED ON #	
		MATERIAL		PART NO.	
KISS				W-1181-3c	