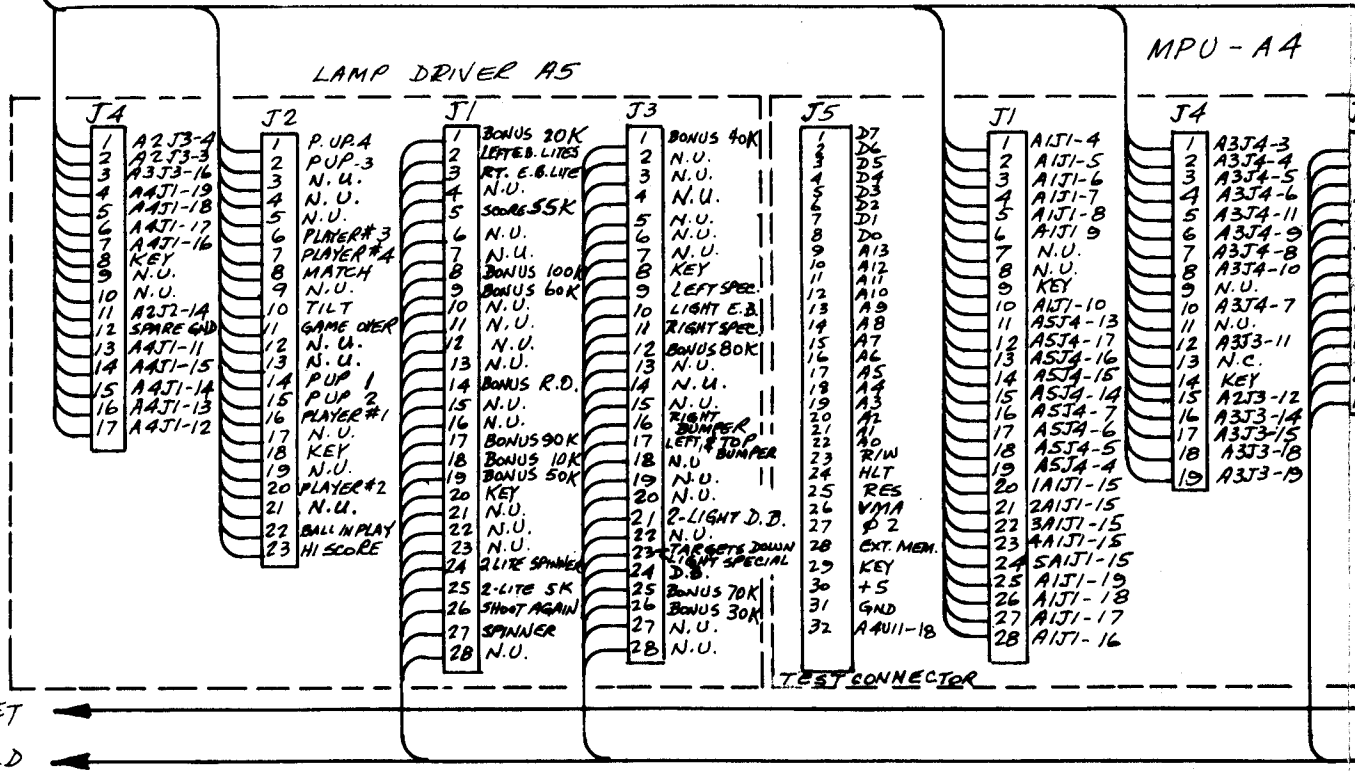
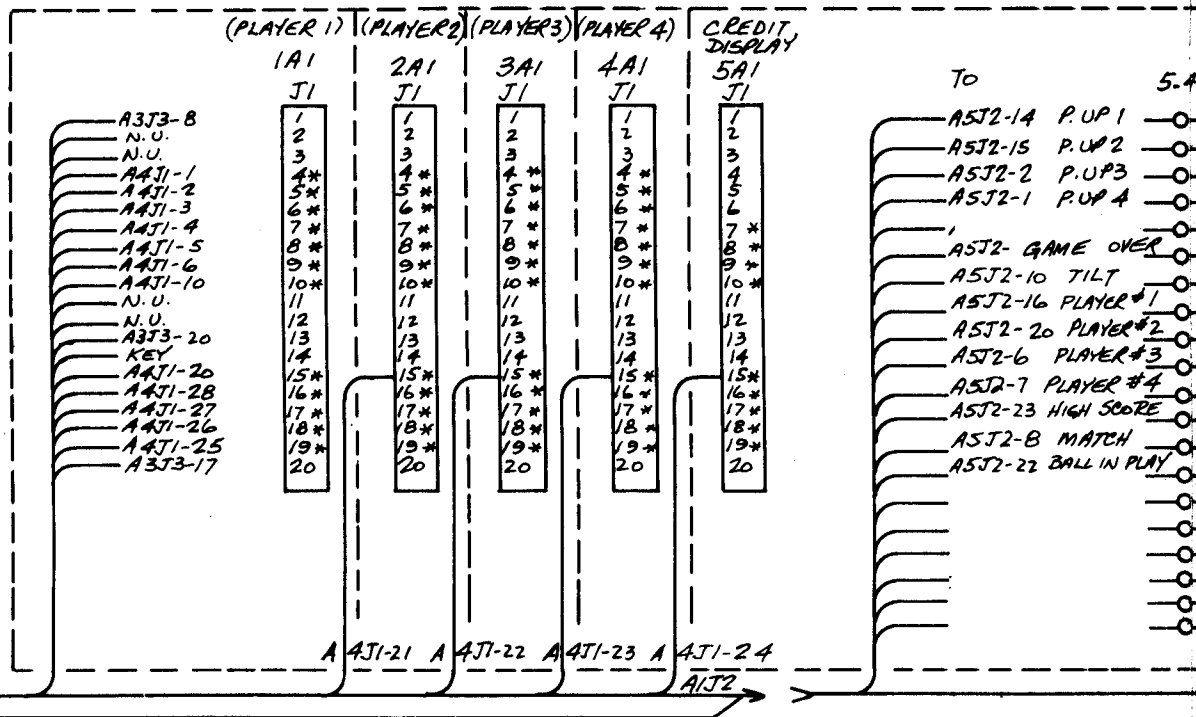


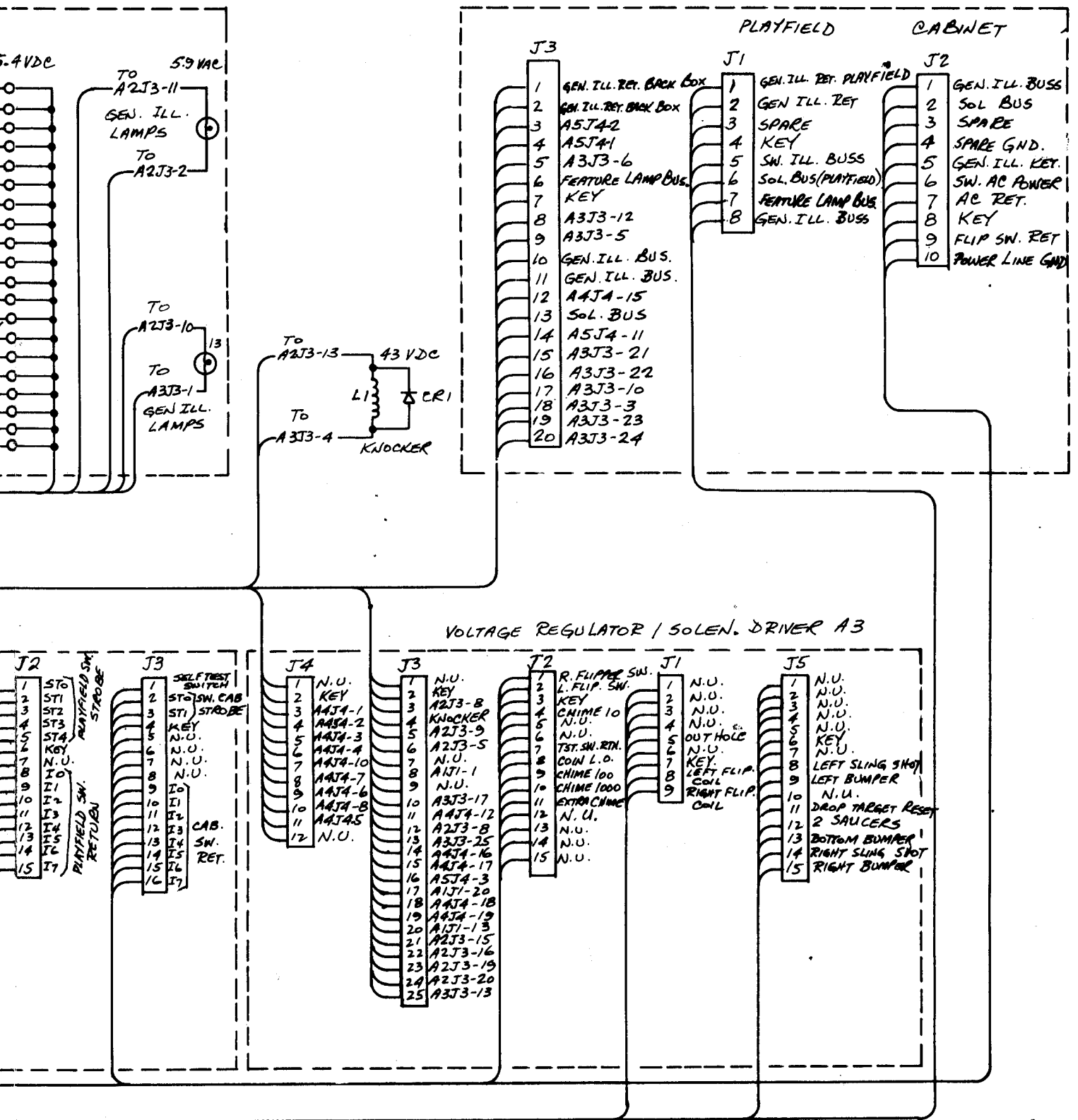
AI INSERT

FROM	AIJ2 PIN
A5J3-6	1
A5J2-14	2
A2J3-2	3
A2J3-11	4
A5J2-23	5
A5J2-15	6
A5J2-22	7
A5J2-8	8
A5J2-1	9
A5J2-2	10
A5J2-11	11
A5J2-21	12
A5J2-10	13
A5J2-7	14
A5J2-6	15
A5J2-20	16
A5J2-16	17
A2J3-10	18
A2J3-1	19
A5J2-13	20
A5J2-12	21
A5J2-4	22
A5J2-3	23



SEE INDIVIDUAL SCHEMATIC DRAW

A2 TRANSFORMER

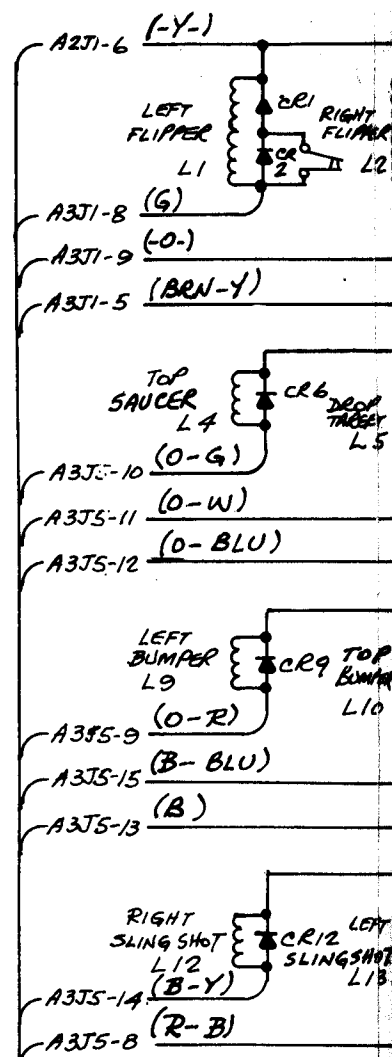


WINGS FOR WIRE COLORS.

SHEET 1 OF 3 SHEET

SCALE: LAD	PART MUST BE FREE OF BURRS
Unless otherwise specified, all fractional dimensions carry tolerances of plus and minus .010: All decimal dimensions plus and minus .005. Exceptions: Drilled holes plus .003 minus .001. Die casting fractional plus and minus .005: Decimal plus and minus .003. Decimal dimensions on tools plus and minus .001. Angles $\pm 30^\circ$ unless otherwise specified.	
DATE	

STERN ELECTRONICS INC.		
1725 DIVERSEY BLVD. CHICAGO 60614		
WIRING DIAGRAM		
FOR STINGRAY SOLID STATE		
DRN. J. J.	DATE 9-21-77	AM'T LAD
MAT LAD	FIN. LAD	APPR.

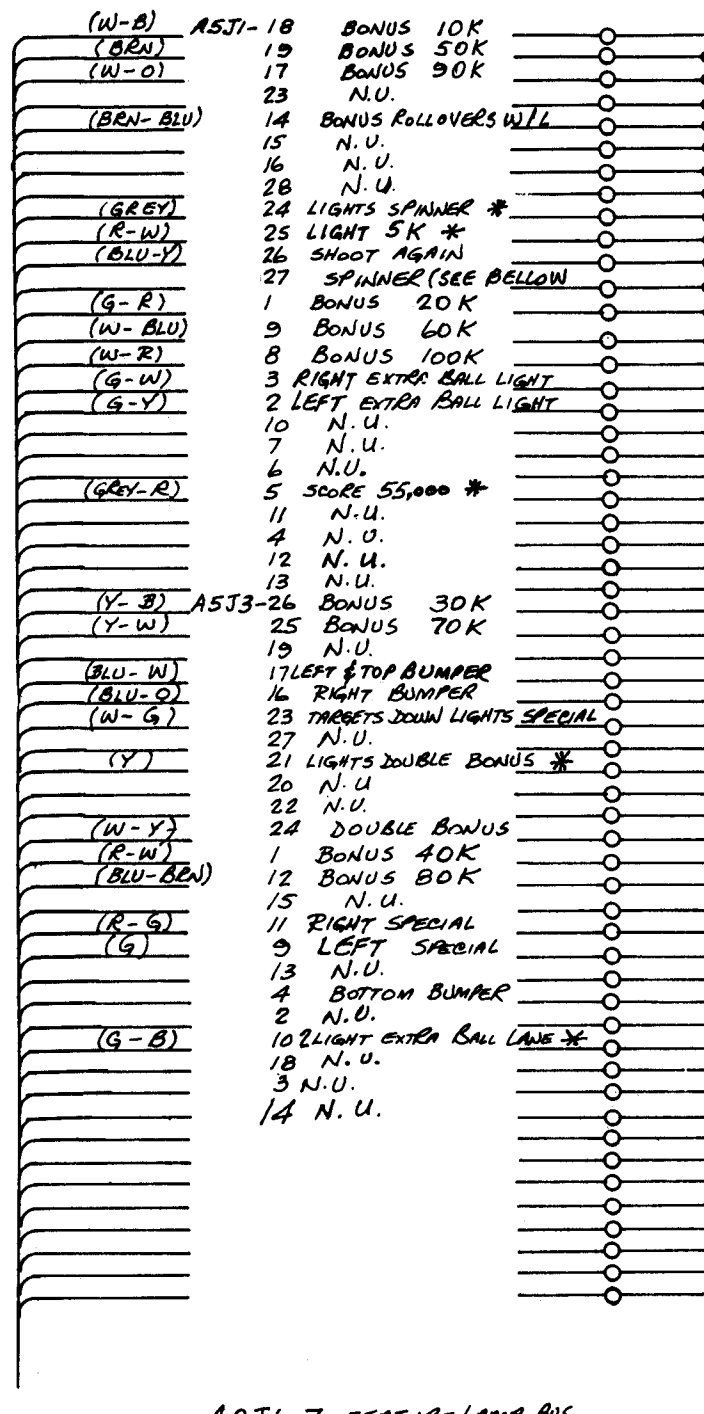
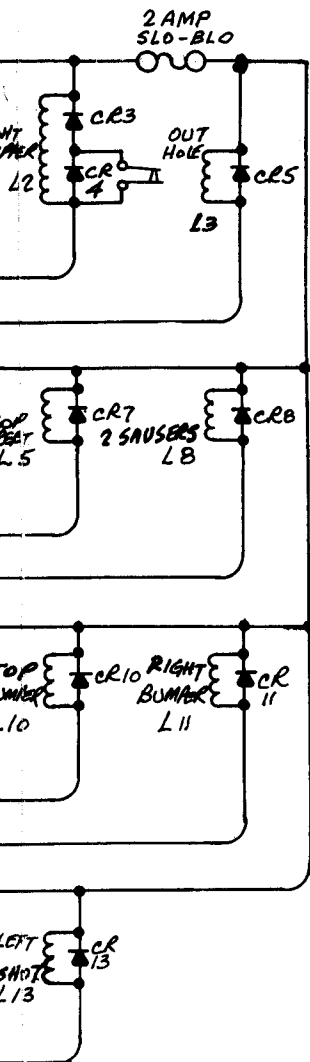


PLAYFIELD

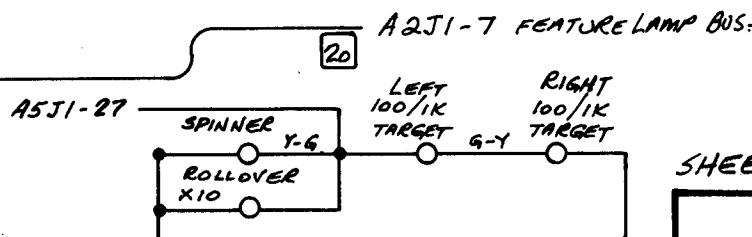
I5D - SPINNER CONTACT

(2) 100/1K TARGETS

(5) 100/1K ROLL OVER BUTTONS



* HOLE FEATURE LITE



SHEET 2 OF 3 SHEETS

STERN ELECTRONICS INC.		
1725 DIVERSEY BLVD. CHICAGO 60614		
WIRING DIAGRAM		
FOR STINGRAY SOLID STATE		
DRN. J.T.	DATE 9-20-77	AM'T LHP
MAT LHP	FIN. LHP	APPR.

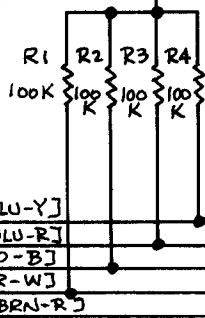
SCALE: LHP

PART MUST BE FREE OF BURRS

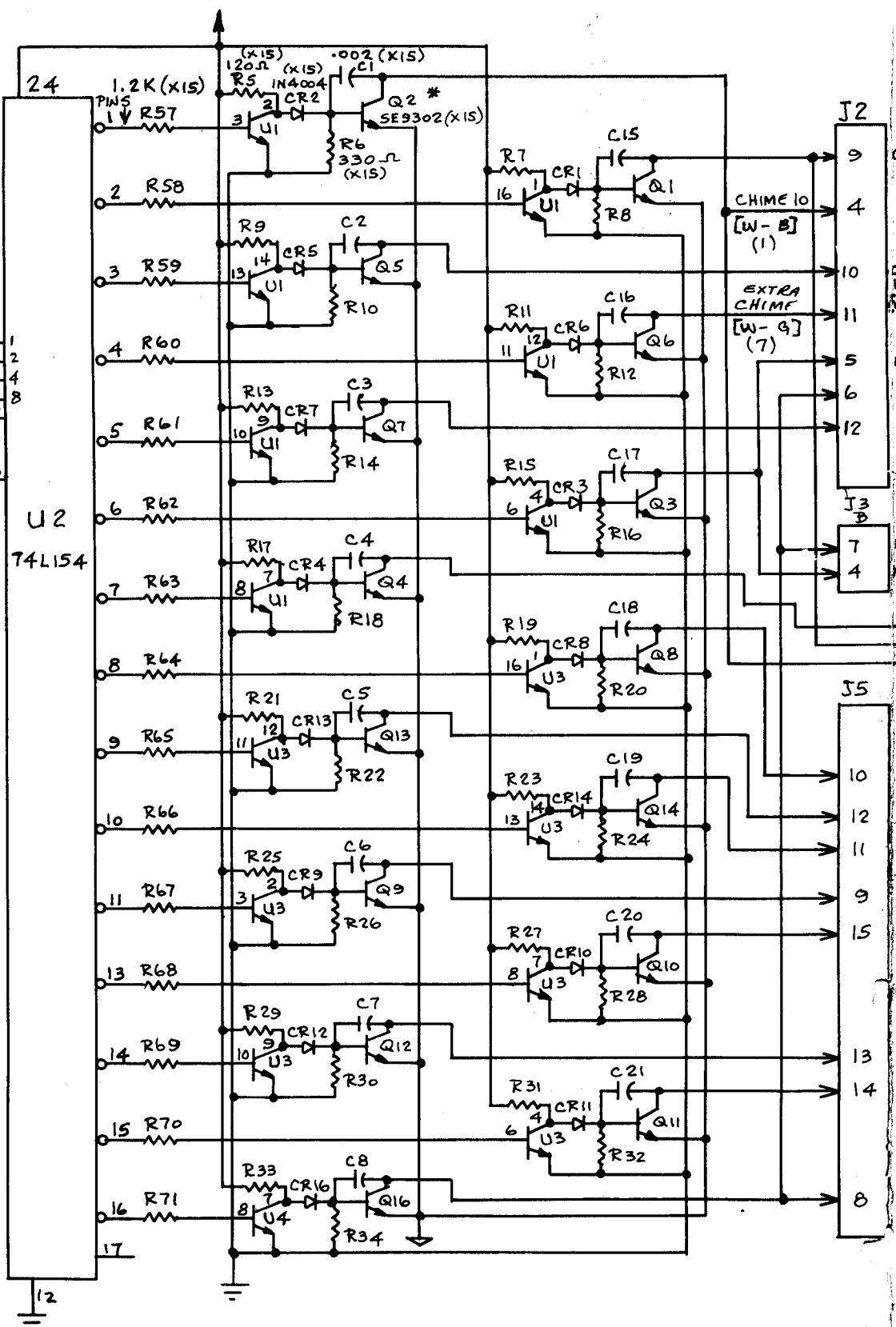
Unless otherwise specified, all fractional dimensions carry tolerances of plus and minus .010. All decimal dimensions plus and minus .005. Exceptions: Drilled holes plus .003 minus .001. Die casting fractional plus and minus .005. Decimal plus and minus .003. Decimal dimensions on tools plus and minus .001. Angles $\pm 30^\circ$ unless otherwise specified.

DATE

PINS 3, 4, 5 & 6
MOMENTARY
SOLENOID DATA



PIN 7
SOLENOID BANK SELECT
LOW WHEN SELECTED

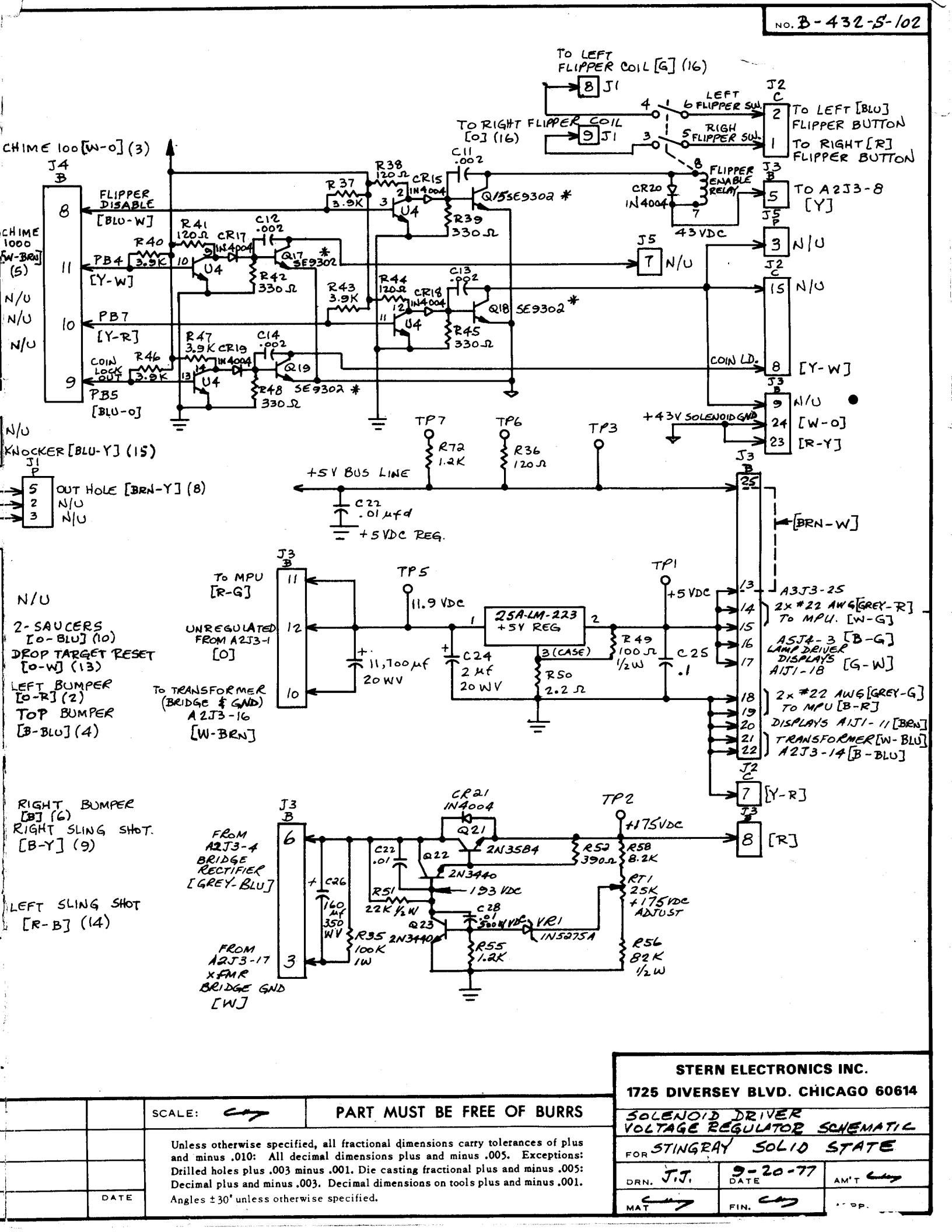


* SE9302 SUBSTITUTE 2N6045

[BRN-Y] = WIRE COLOR

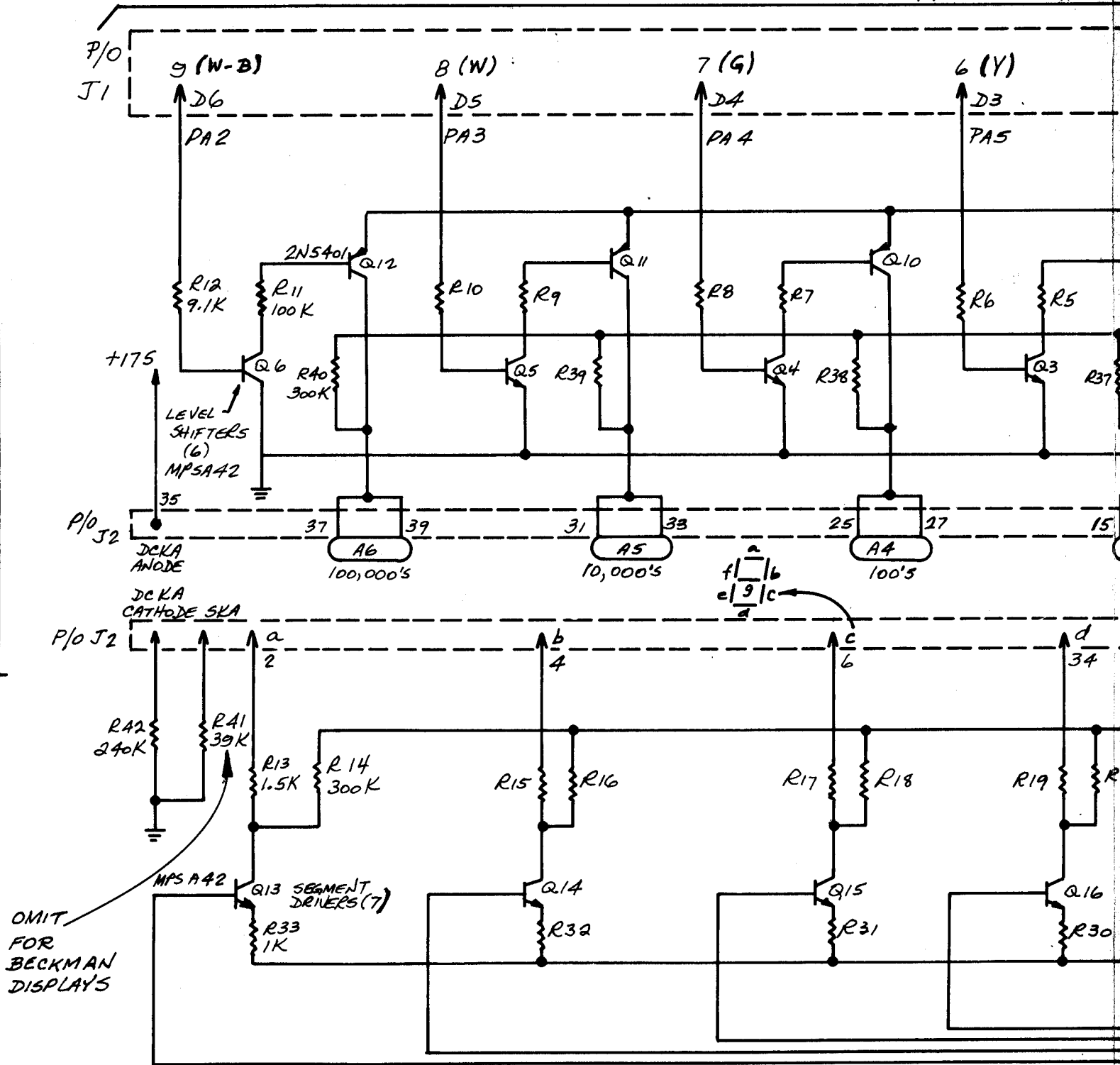
(8) = SOLENOID TEST DISPLAY NO.

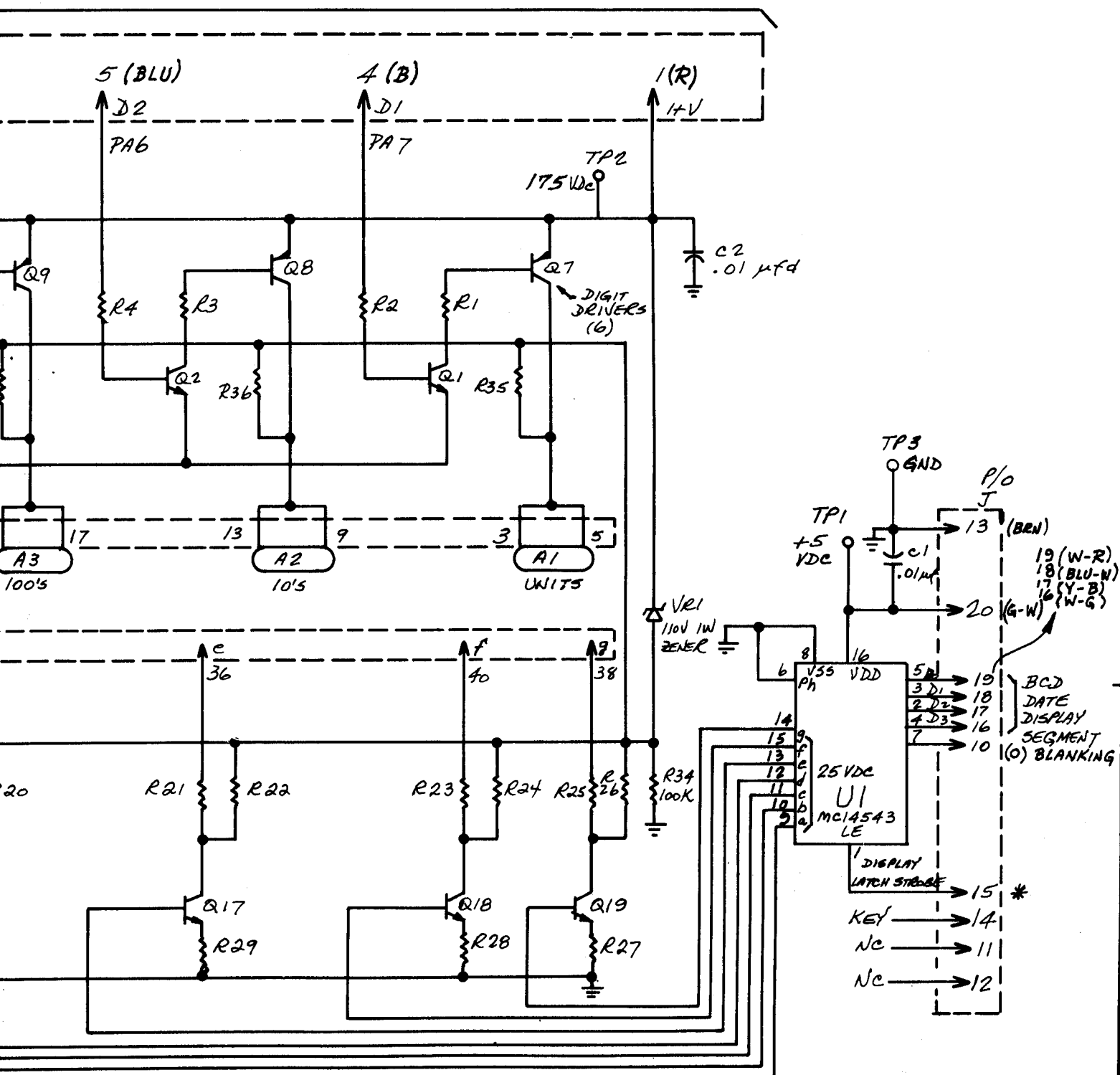
ISSUE	CHANGE



MAT	FIN.	APP.
-----	------	------

Unless otherwise specified, all fractional dimensions carry tolerances of plus and minus .010: All decimal dimensions plus and minus .005. Exceptions: Drilled holes plus .003 minus .001. Die casting fractional plus and minus .005: Decimal plus and minus .003. Decimal dimensions on tools plus and minus .001. Angles $\pm 30'$ unless otherwise specified.





*
PIN 15 WIRE COLOR
1ST PLAYER B-W
2ND PLAYER Y-R
3RD PLAYER O-BLU
4TH PLAYER BRN-O
MATCH/BALL R-B

SCALE: L47

PART MUST BE FREE OF BURRS

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DATE

STERN ELECTRONICS INC.

1725 DIVERSEY BLVD. CHICAGO 60614

DISPLAY BOARD SCHEMATIC

FOR STINGRAY SOLID STATE

DRN. J.J.

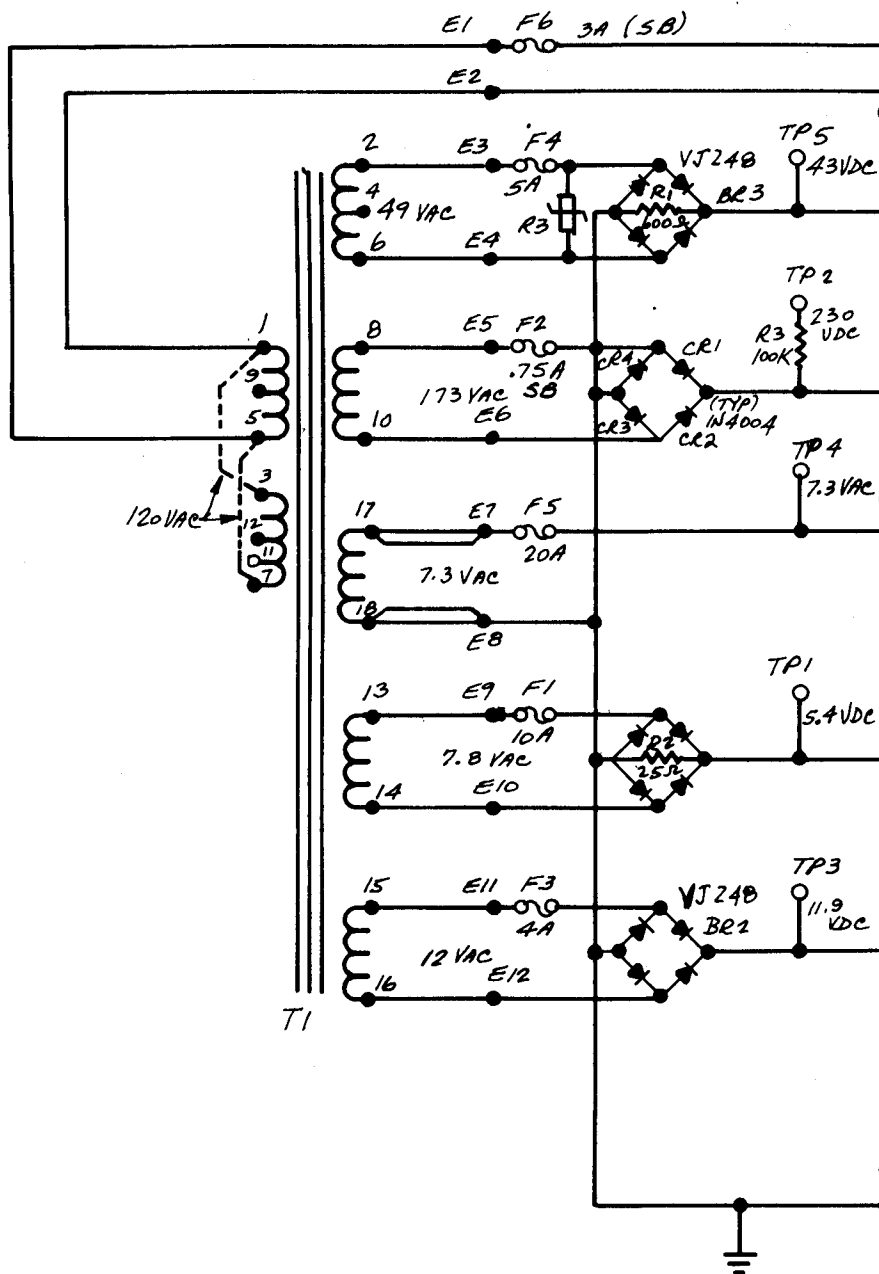
DATE 9-20-77

AMT L47

MAT L47

FIN. L47

APPR.



J1
PLAYFIELD

1 GEN ILL. RET. (R)
7 FEATURE LAMP BUS. (BLU)
8 GEN ILL. BUS. (W)
6 SOLENOID BUS (Y)
4 KEY
3 SPARE
5 GEN. ILL. BUS
2 GEN. ILL. RET.

J2
CABINET

6 AC POWER (Y)
7 AC RET. (W)
2 SOLENOID BUS. (G)
1 GEN. ILL. BUS. (Y-B)
5 GEN. ILL. RET. (G-R)
9 FLIPPER SW. RET. (O)
10 POWER LINE GND. (G)
3 SPARE
4 SPARE
8 KEY

J3
BACK BOX

9 RELAY (Y)
12 Z.C. INPUT AAJ4-15 (GREY)
13 SOLENOID BUS (W-Y)
5 TO REG. (175) INPUT (GREY-BLU)
11 GEN. ILL. BUS. (R)
6 FEATURE LAMP BUS (BLU)
8 TO REG. +5 INPUT. (O)
2 GEN. ILL. RET. (W)
3 FEATURE LAMP RET. (R-B)
4 FEATURE LAMP RET. (W-R)
14 FEATURE LAMP RET. (W-B)
15 TO REG. +5 RET. (W-BLU)
16 TO REG. 175 RET. (B-BLU)
17 TO REG +5 FILT. RET. (W-BRN)
18 TO REG. 175 FILT. RET. (W)
19 SOLENOID RET. BUS. (R-Y)
20 SOLENOID RET. BUS. (W-O)
10 GEN. ILL. BUS. (O)
7 KEY
1 GEN. ILL. RET. (G)

ABBREVIATIONS USED.

GEN ILL. = GENERAL ILLUMINATION
RET. = RETURN
GND = GROUND
REG = REGULATED
Z.C. = ZERO CROSSING

POWER LINE CONNECTIONS

AC LINE VOLTAGE	STRAP TERMINALS	APPLY POWER TO TERMINALS
115	1 TO 3 AND 9 TO 11	1 AND 9
120	1 TO 3 AND 5 TO 7	1 AND 5
220	3 TO 5	1 AND 12
240	3 TO 5	1 AND 7

STERN ELECTRONICS INC.

1725 DIVERSEY BLVD. CHICAGO 60614

POWER TRANSFORMER MODULE SCHEMATIC

FOR STINGRAY SOLID STATE

DRN. J. J. DATE 9-20-77 AM'T

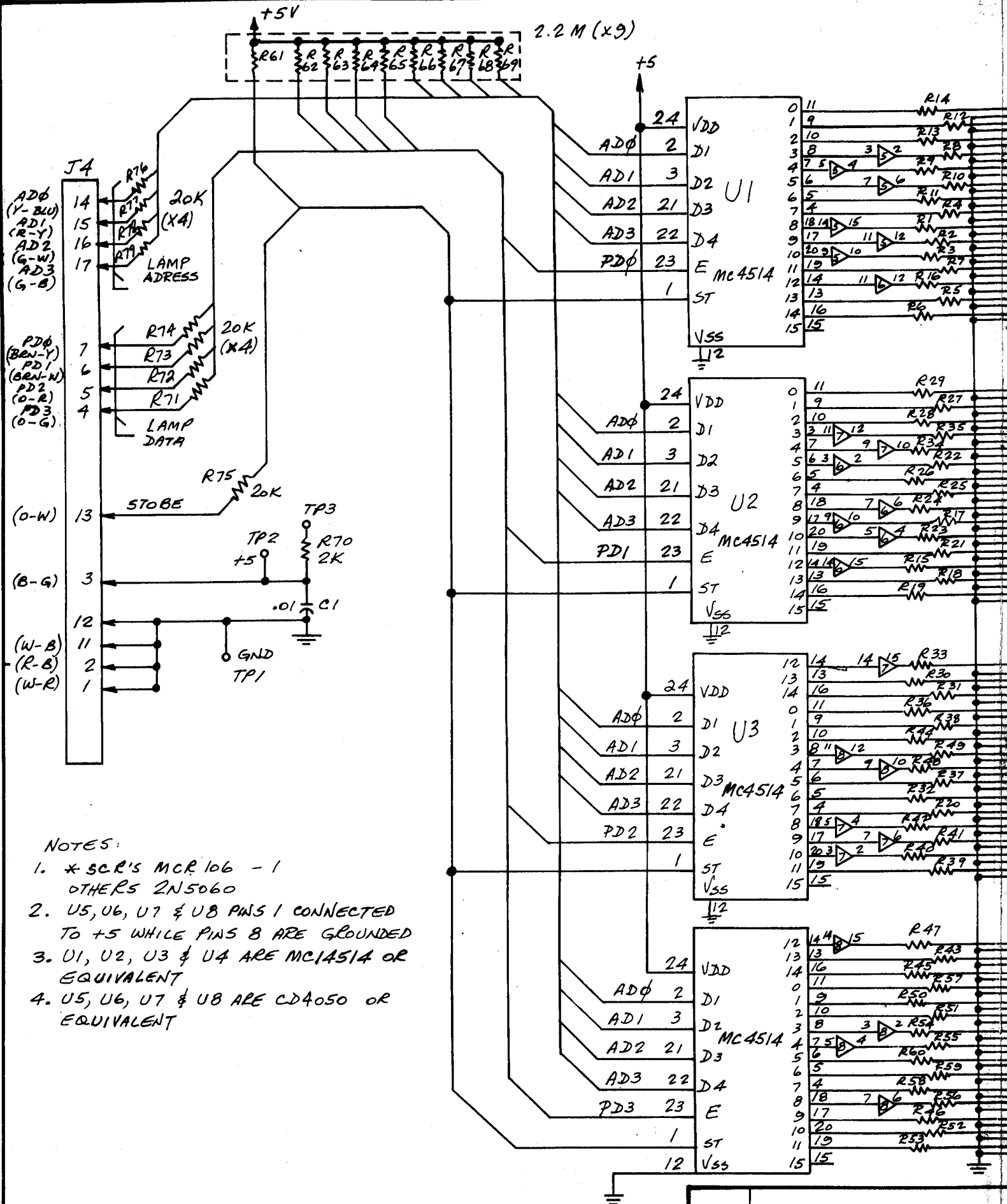
MAT FIN. APPR.

SCALE: 1/4"

PART MUST BE FREE OF BURRS

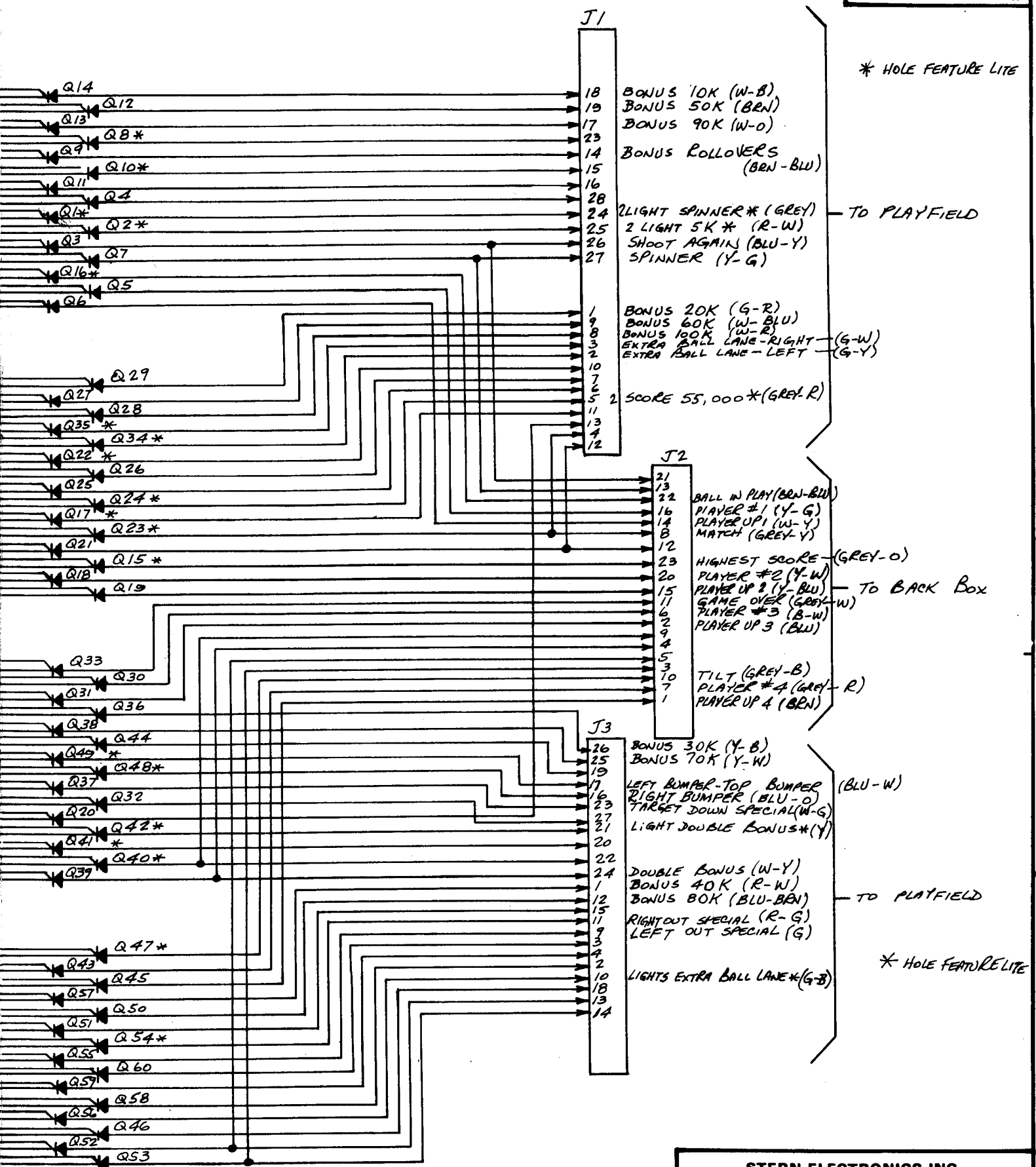
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DATE



NOTES:

1. * SCR'S MCR 106 - 1
OTHERS 2N5060
2. U5, U6, U7 & U8 PINS 1 CONNECTED
TO +5 WHILE PINS 8 ARE GROUNDED
3. U1, U2, U3 & U4 ARE MC14514 OR
EQUIVALENT
4. U5, U6, U7 & U8 ARE CD4050 OR
EQUIVALENT



STERN ELECTRONICS INC.

1725 DIVERSEY BLVD. CHICAGO 60614

LAMP DRIVER SCHEMATIC

FOR STINGRAY SOLID STATE

DRN. C.W. DATE 9-21-77 AM'T C.W.

MAT C.W. FIN. C.W. APPR.

SCALE: C.W.

PART MUST BE FREE OF BURRS

Unless otherwise specified, all fractional dimensions carry tolerances of plus and minus .010: All decimal dimensions plus and minus .005. Exceptions: Drilled holes plus .003 minus .001. Die casting fractional plus and minus .005: Decimal plus and minus .003. Decimal dimensions on tools plus and minus .001. Angles $\pm 30^\circ$ unless otherwise specified.

DATE

STINGRAY
By
STERN ELECTRONICS, INC.