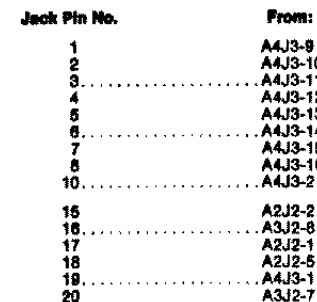




ISSUE	CHANGE	DATE

NOTES:

1. PIN IS WIRE COLOR

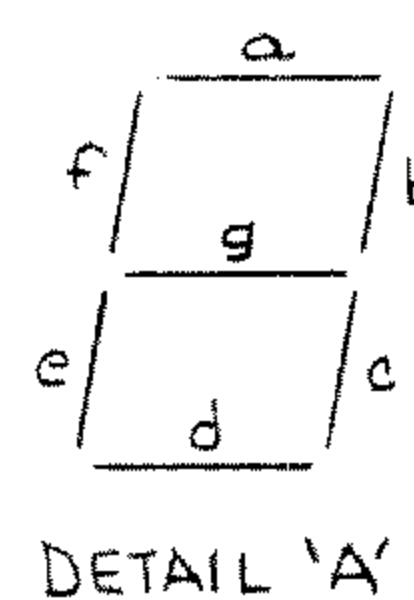
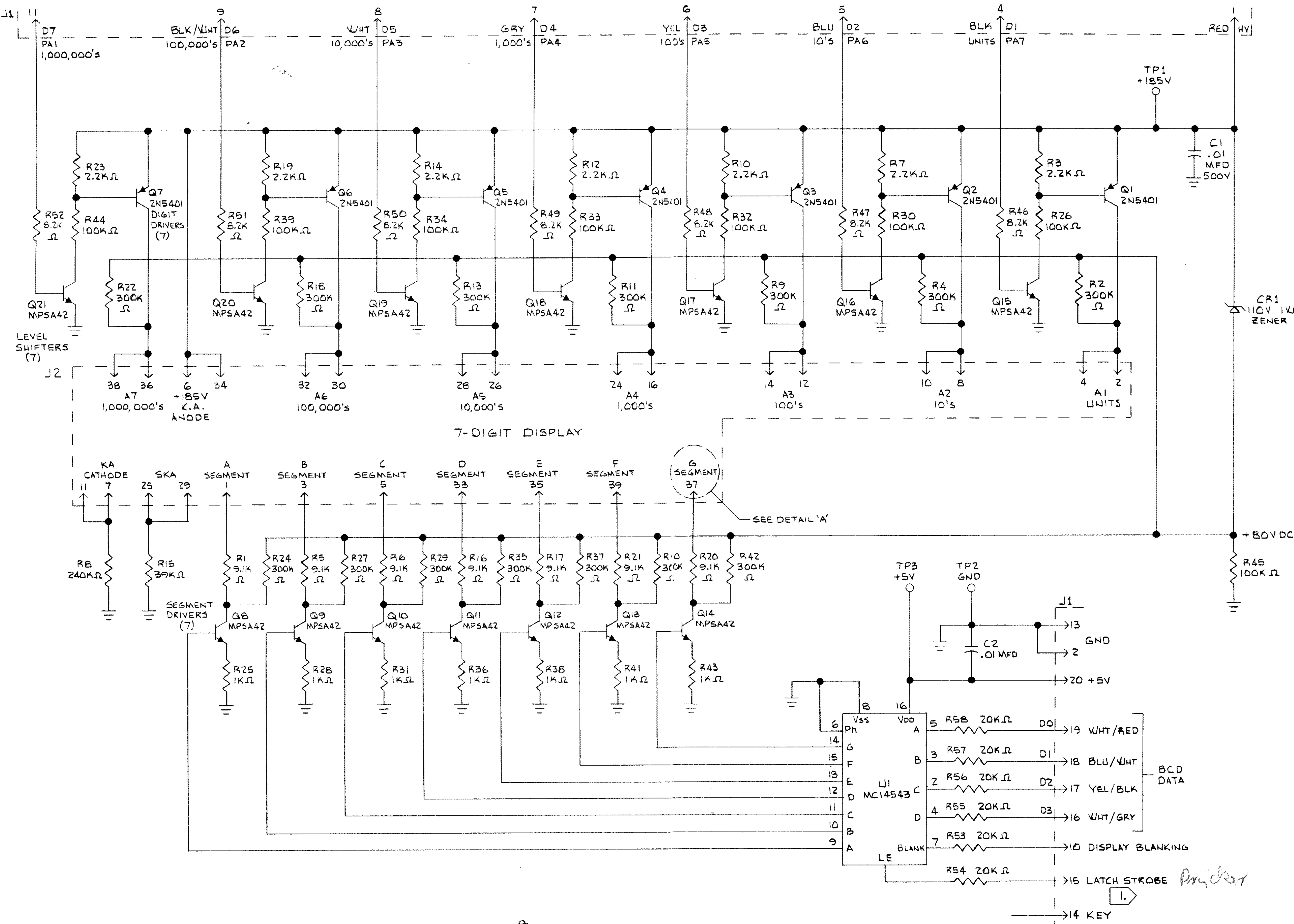
PLAYER #1 BLK/WHT
 PLAYER #2 ORG/BLU
 PLAYER #3 RED/YEL
 PLAYER #4 BRN/ORG
 MATCH/BALL RED/BLACK

2. LAST 'C' NUMBER USED C2
 LAST 'CR' NUMBER USED CR1
 LAST 'J' NUMBER USED J2
 LAST 'Q' NUMBER USED Q21
 LAST 'R' NUMBER USED R58
 LAST 'TP' NUMBER USED TP3
 LAST 'U' NUMBER USED U1

3. ON P.C. BOARD LEGEND;

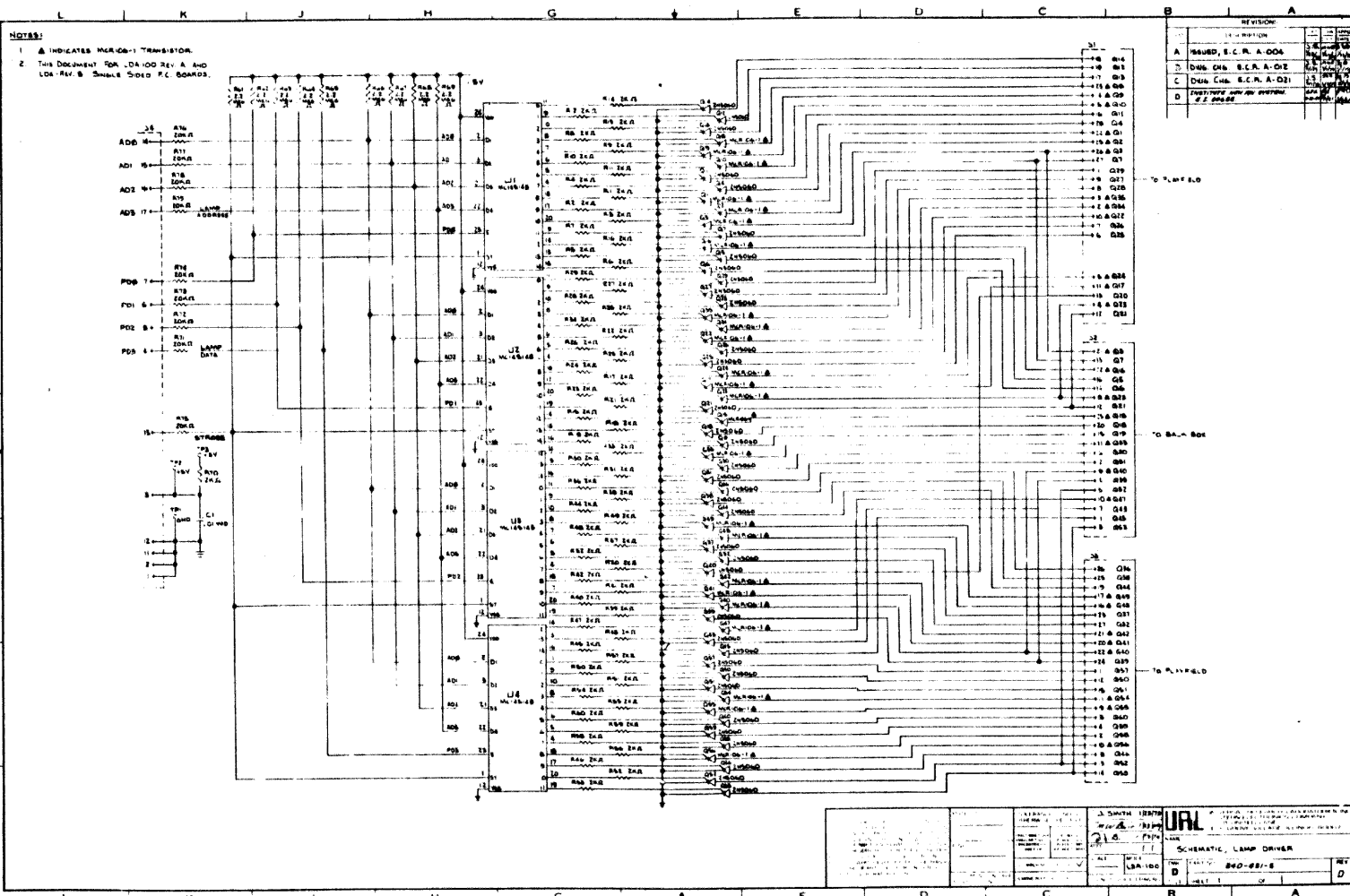
NOMENCLATURE DD IS THE ABBREVIATION FOR DIGIT DRIVER.

NOMENCLATURE LS IS THE ABBREVIATION FOR LEVEL SHIFTER.

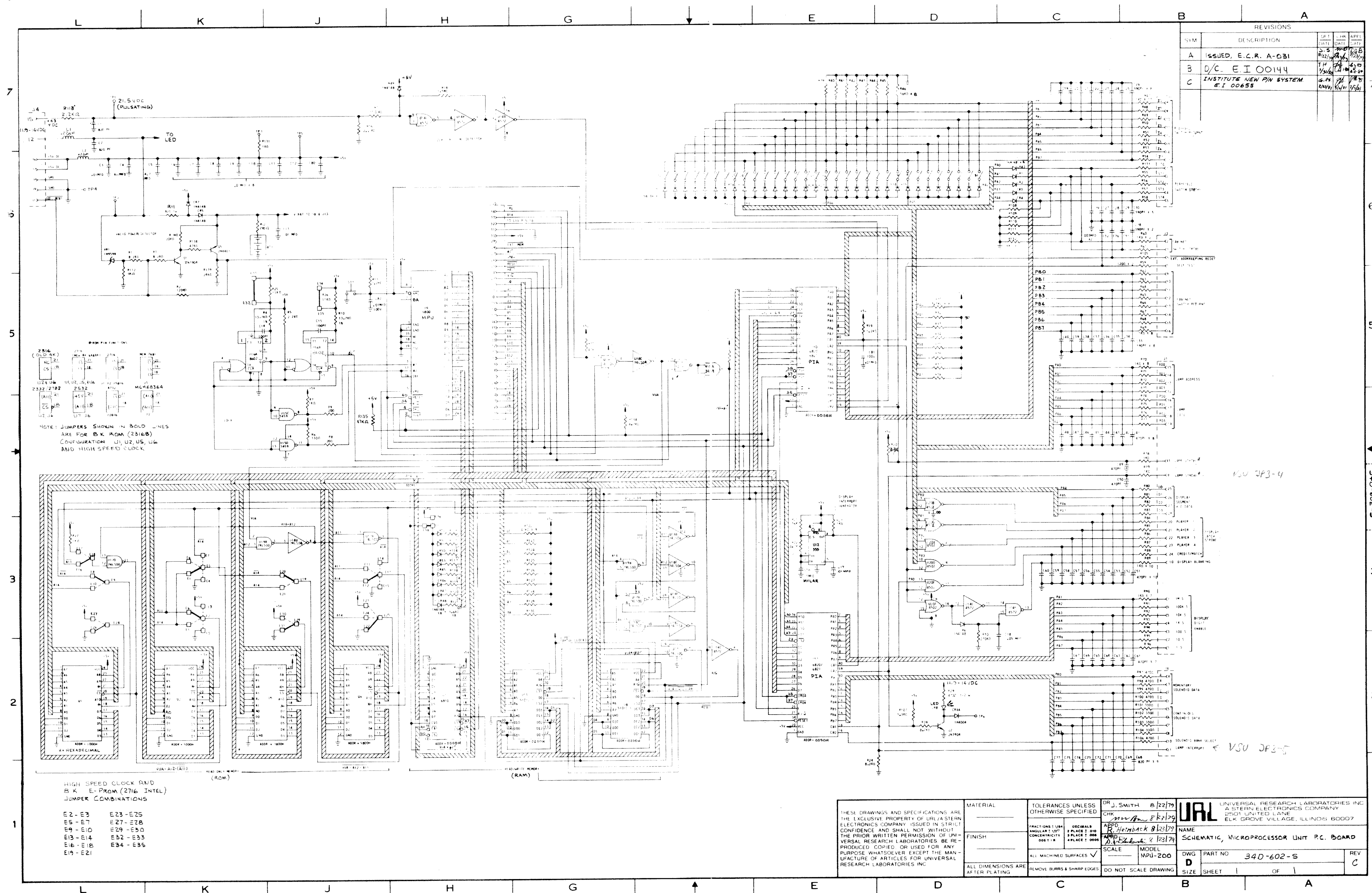


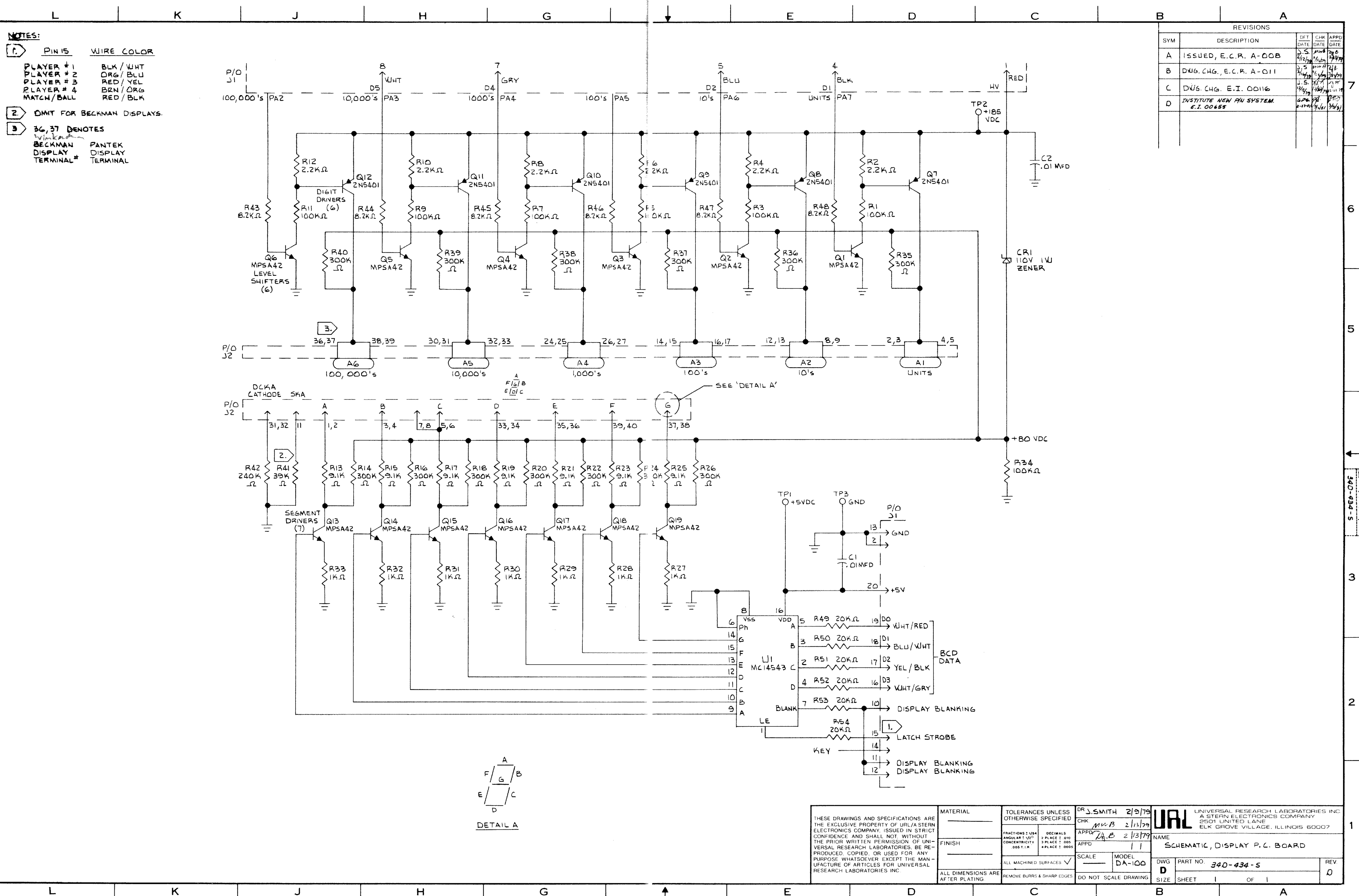
REVISIONS				
SYM	DESCRIPTION	DATE	CHK	APPD
A	ISSUED E.I. 00111	1/5/79	J.S.	J.S.
B	DWG. CHANGE E.I. 00123	1/10/79	J.S.	J.S.
C	INSTITUTE NEW PIN SYSTEM. E.I. 00655	4/26/80	J.S.	J.S.

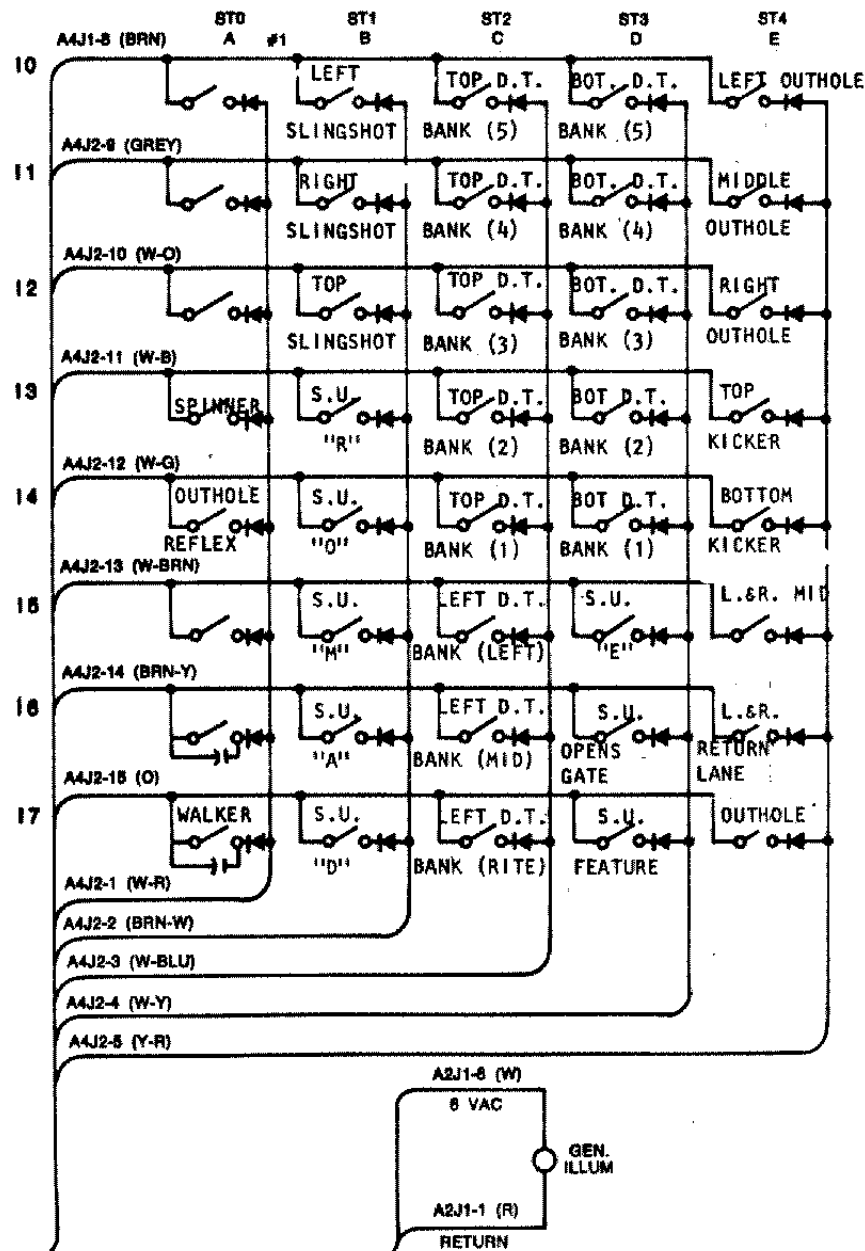
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DESCRIPTION	WIRE COLOR	JACK	PIN NO.	TRANSISTOR	IC	PIN	CODE
5K	B-V	J1	19	Q12	U1	9	0001
1K	B-V	J1	18	Q14	U1	11	0000
2K	B-V	J1	1	Q29	U2	11	0000
3K	GREY-Y	J3	26	Q36	U3	11	0000
4K	GREY-Y	J3	1	Q57	U4	11	0000
5K	BLU-Y	J1	9	Q27	U2	9	0001
6K	BLU-W	J3	25	Q38	U3	9	0001
7K	BLU-W	J3	12	Q50	U4	9	0001
8K	B-G	J1	17	Q13	U1	10	0010
9K	B-G	J1	8	Q28	U2	10	0010
10K	B-G	J3	19	Q44	U3	10	0010
20K	BRN-BLU	J3	15	Q51	U4	10	0010
30K	B-G	J1	23	Q8	U1	8	0011
40K	B-G	J1	5	Q35	U2	8	0011
SPINNER	B-G	J3	17	Q40	U3	8	0011
SPINNER VALUE	Y-BLU	J3	11	Q54	U4	8	0011
GATE	GREY-O	J1	14	Q9	U1	7	0100
N	GREY	J1	2	Q34	U2	7	0100
O	O-BLU	J3	16	Q48	U3	7	0100
I	O-B	J3	9	Q55	U4	7	0100
HAID	GREY-Y	J1	15	Q10	U1	6	0101
IRON	GREY-BLU	J1	10	Q22	U2	6	0101
SPECIAL UPPER	GREY-W	J3	23	Q37	U3	6	0101
EXTRA BALL LOWER	W-BLU	J3	3	Q60	U4	6	0101
BONUS 5	-B-	J1	16	Q11	U1	5	0110
BONUS 10	Y-G	J1	7	Q26	U2	5	0110
BONUS 15	O-W	J3	27	Q32	U3	5	0110
BONUS 20	R-W	J3	4	Q59	U4	5	0110
BONUS MULTIPLIER 2X	B-W	J1	28	Q4	U1	4	0111
BONUS MULTIPLIER 3X	BRN-R	J1	6	Q25	U2	4	0111
BONUS MULTIPLIER 4X	W-BLU	J1	13	Q20	U3	4	0111
BONUS MULTIPLIER 5X	BLU-O	J3	2	Q58	U4	4	0111
BONUS MULTIPLIER 6X	BRN-BLU	J1	24	Q1	U1	18	1000
PUR-W	PUR-W	J1	5	Q24	U2	18	1000
O	O-B	J3	21	Q42	U3	18	1000
I	GREY-B	J3	10	Q56	U4	18	1000
A	O-BLU	J1	25	Q2	U1	17	1001
R	O-O	J1	11	Q17	U2	17	1001
UPPER RIGHT ARROW	W-O	J3	20	Q41	U3	17	1001
LOWER RIGHT ARROW	R-BLU	J3	18	Q46	U4	17	1001
SHOOT	GREY-R	J1	22	Q3	U1	20	1010
AGAIR	GREY-R	J1	22	Q3	U1	20	1010
SPECIAL LOWER	O-R	J2	8	Q23	U2	20	1010
EXTRA BALL LOWER	W-R	J2	9	Q40	U3	20	1010
5 SECONDS	B-Y	J2	5	Q52	U4	20	1010
10 SECONDS	GREY-B	J2	13	Q7	U1	19	1011
15 SECONDS	R-W	J2	12	Q21	U2	19	1011
20 SECONDS	PUR-B	J2	4	Q39	U3	19	1011
25 SECONDS	B-W	J2	3	Q53	U4	19	1011
HIGH SCORE TO DATE	GREY-O	J2	22	Q16	U1	14	1100
GAME OVER	GREY-W	J2	11	Q33	U2	14	1100
TILT	GREY-BLU	J2	10	Q47	U3	14	1100
X-UPPER	-O-	J2	16	Q5	U1	13	1101
SPECIAL UPPER	-O-	J2	20	Q18	U2	13	1101
EXTRA BALL UPPER	-Y-	J2	6	Q30	U3	13	1101
X-LOWER	BLU-W	J2	7	Q3	U1	13	1101
LOWER ARROW	BRN-R	J2	14	Q6	U1	16	1110
UPPER ARROW	O-BLU	J2	15	Q19	U2	16	1110
HATCH	GREY	J2	1	Q45	U4	16	1110



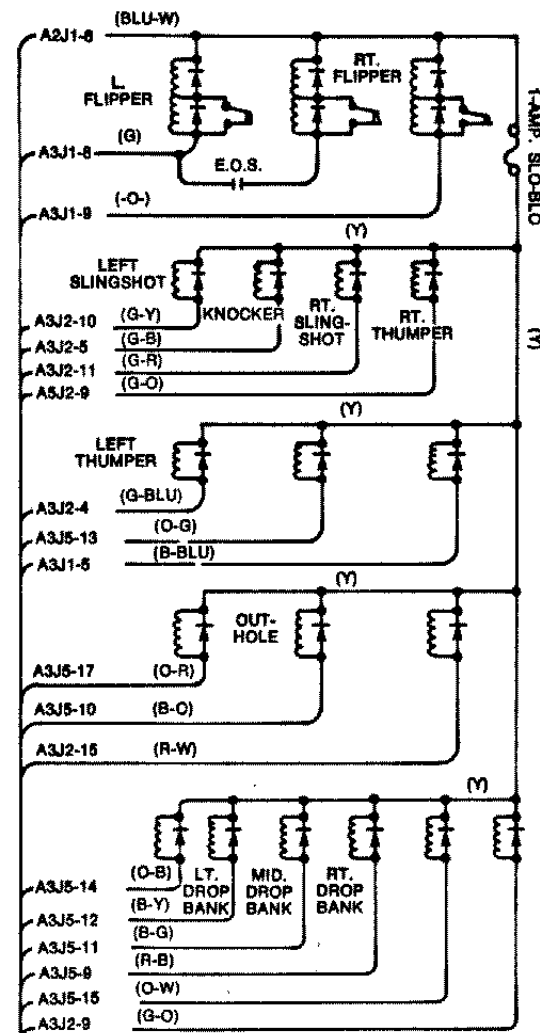




R.O.W.=ROLL OVER WIRE
S.U.=STAND-UP TARGET
D.T.=DROP TARGET

PLAYFIELD

IRON MAIDEN

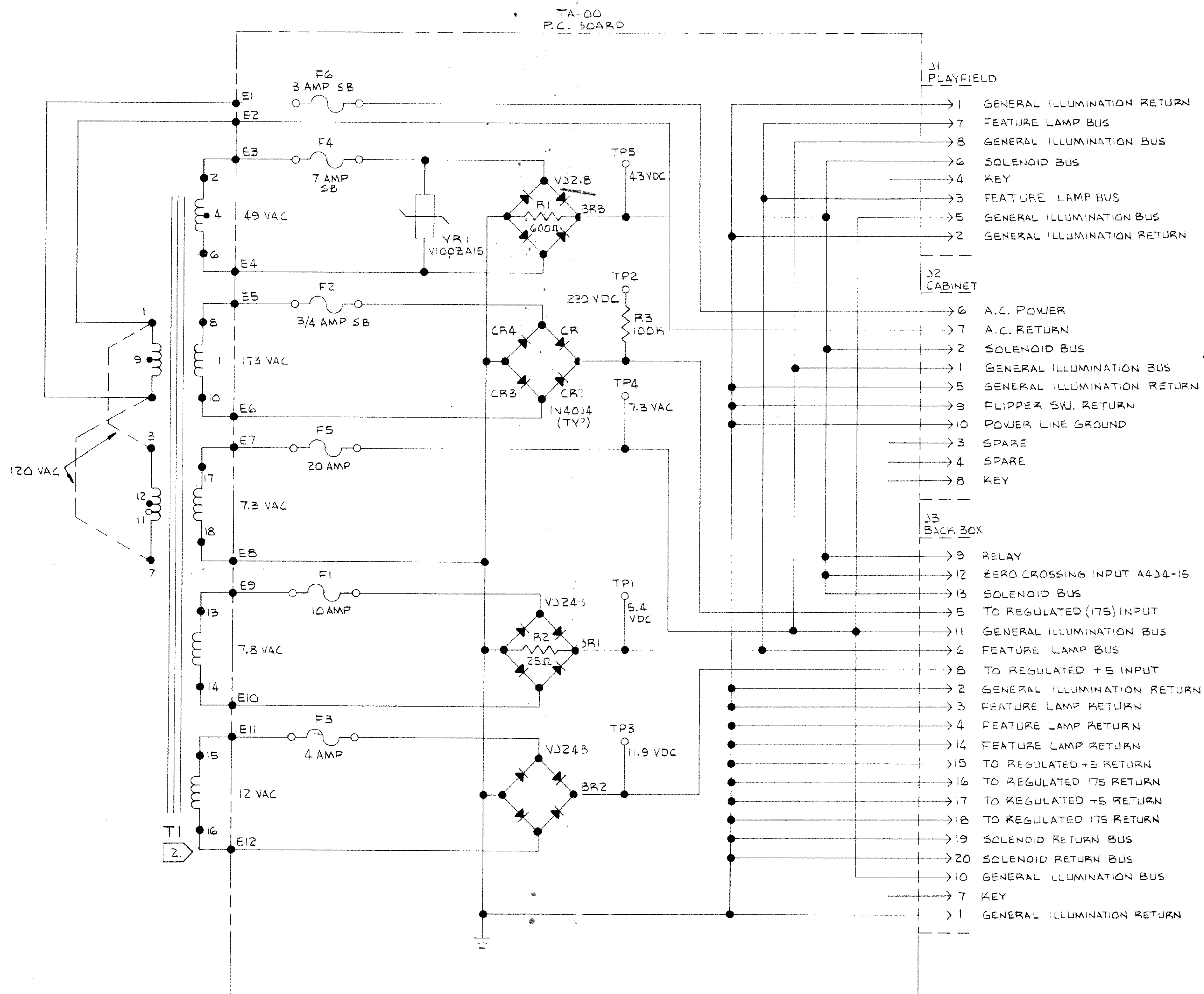


NOTES:

1. 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

2. T1 IS NOT LOCATED ON PRINTED CIRCUIT BOARD.



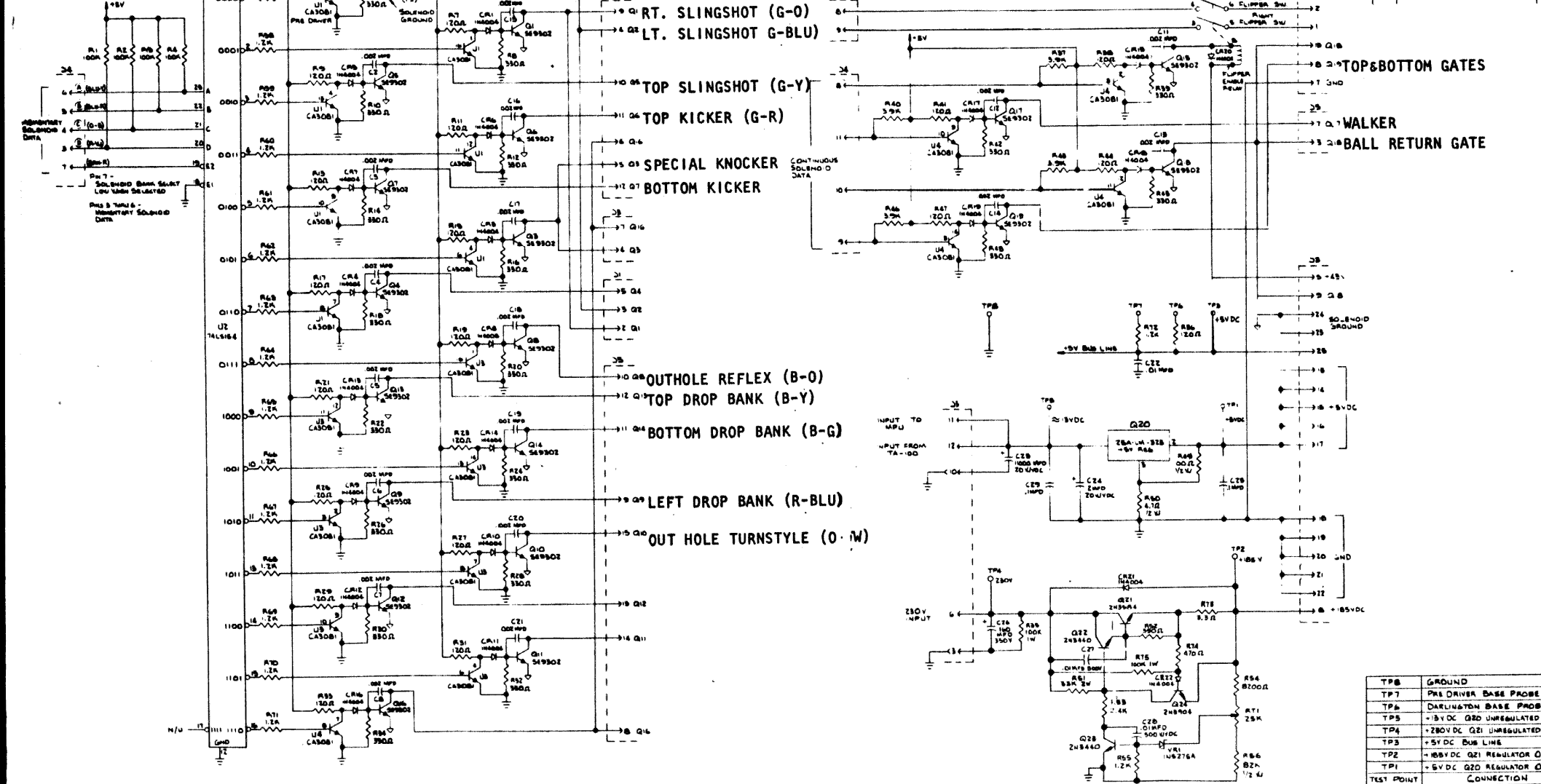
REVISIONS

SYM	DESCRIPTION	DFT DATE	CHK DATE	APPD DATE
B	ISSUED, E.C.R. A-015	J.S.	3/10/79	3/10/79
C	ADDED JUMPER BETWEEN J1 PIN 3 & 7 E.I. 00164	T.H.	3/10/79	3/10/79
D	F4 WAS 5 AMP, CHANGED TO 7 AMP PER E.I. 00168	J.S.	3/10/79	3/10/79
E	INSTITUTE NEW PW SYSTEM E.I. 00655	J.S.	3/10/79	3/10/79

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ALL MACHINED SURFACES REMOVE BURRS & SHARP EDGES						DO NOT SCALE DRAWING		NAME SCHEMATIC, POWER TRANSFORMER	
ALL DIMENSIONS ARE AFTER PLATING						DWG PART NO 340-464-S SIZE SHEET 1 OF 1		REV E	

- NOTES:
1. RASERS IS AN APPROVED ALTERNATE PART FOR THROUGH-HOLE Q1-Q14.
2. PWR IS OF J1 US 1A IS SHUTTER CONNECTED TO GROUND.
3. THE TAB ON 549302 IS CONNECTED TO THE COLLECTOR OF THE TRANSISTOR.
4. LAST 'R' NUMBER USED RT5
LAST 'C' NUMBER USED C29
LAST 'CR' NUMBER USED CR22
LAST 'U' NUMBER USED U4
LAST 'Q' NUMBER USED Q24

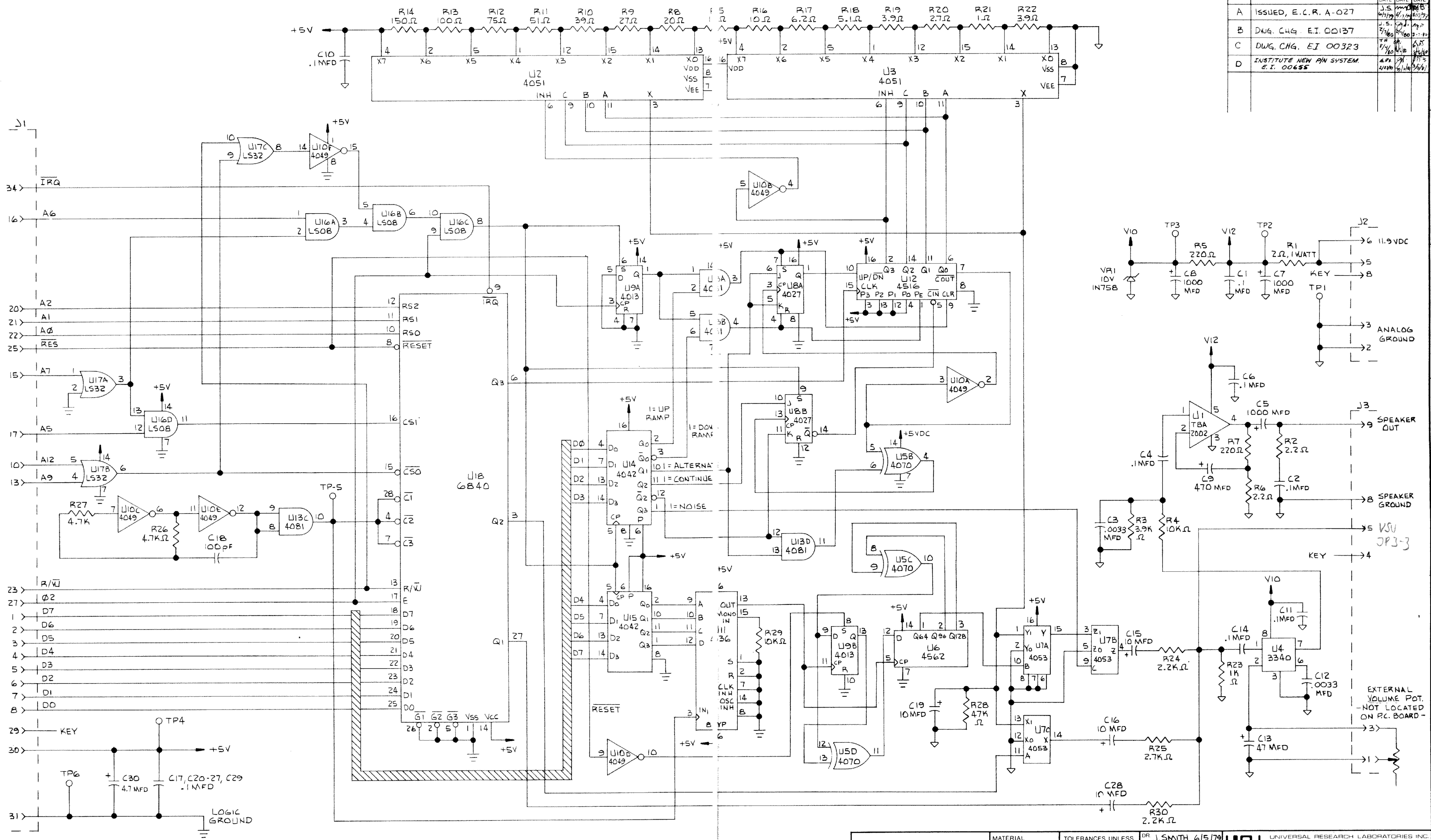
REVISIONS	
REV	DESCRIPTION
A	ISSUED, E.C.R. A-009
B	PLG CHG E.T. 00110
C	EXHIBIT NEW PW SYSTEM E.T. 00166



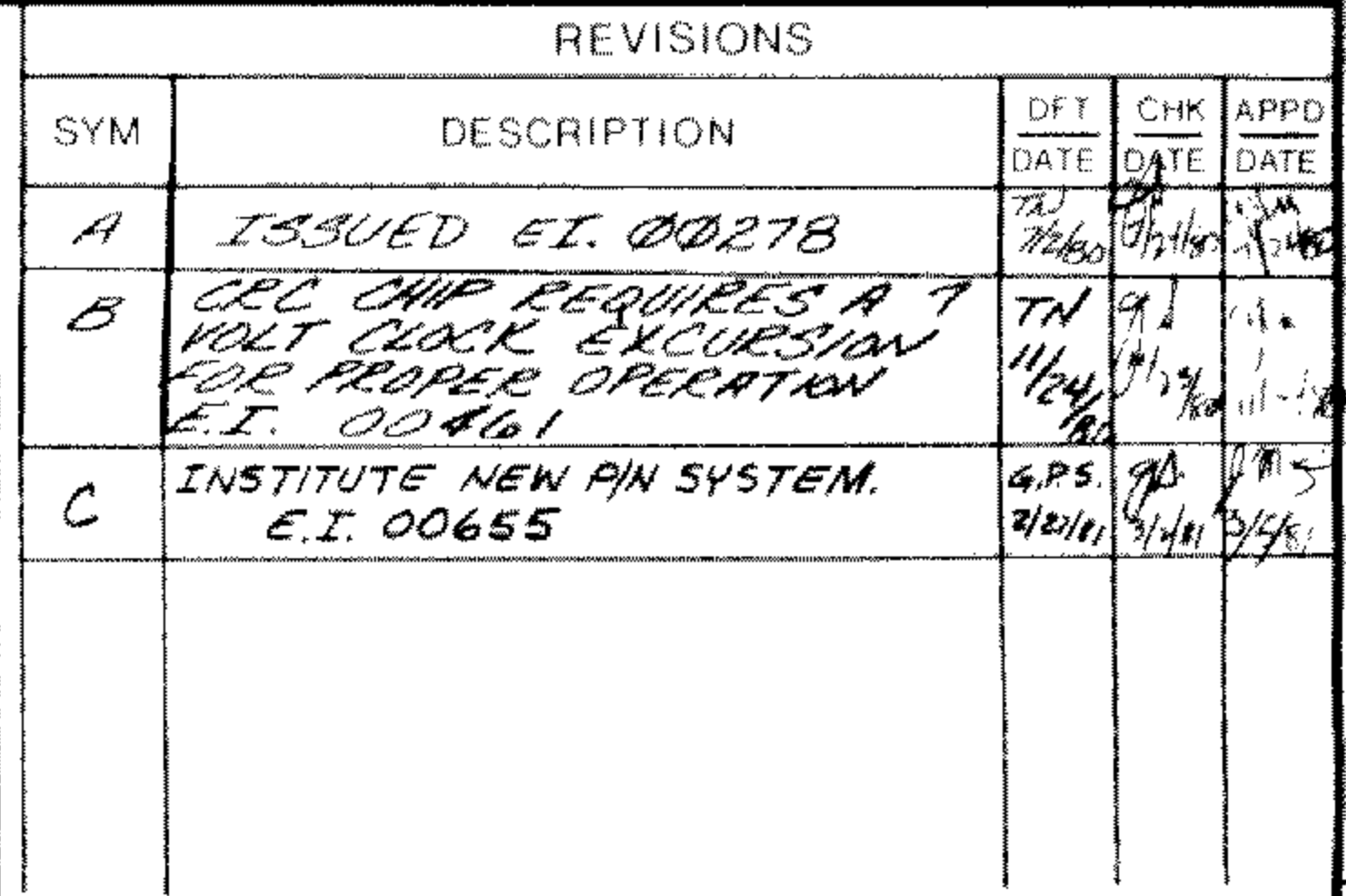
TEST POINT	DESCRIPTION
TP8	GROUND
TP7	PWR DRIVER BASE PROBE
TP6	DARLINGTON BASE PROBE
TP5	-5VDC Q20 UNREGULATED
TP4	+28VDC Q21 UNREGULATED
TP3	+5VDC BUS LINE
TP2	+18VDC Q21 REGULATOR OUT
TP1	+5VDC Q20 REGULATOR OUT
TEST POINT	CONNECTION

DESIGNED BY J. SMITH 8/7/78	CHECKED BY J. SMITH 8/15/78	DATE 8/15/78
SHEET NO. 1 OF 1		
TITLE SOL-100		
PROJECT 340-432-S		

REVISIONS				
SYM	DESCRIPTION	DFT DATE	CHK DATE	APPD DATE
A	ISSUED, E.C.R. A-027	J.S. 6/15/79		
B	DWG. CHG. E.I. 00137	J.S. 6/15/79		
C	DWG. CHG. E.I. 00323	J.S. 6/15/79		
D	INSTITUTE NEW PIN SYSTEM, E.I. 00655	J.S. 6/15/79		



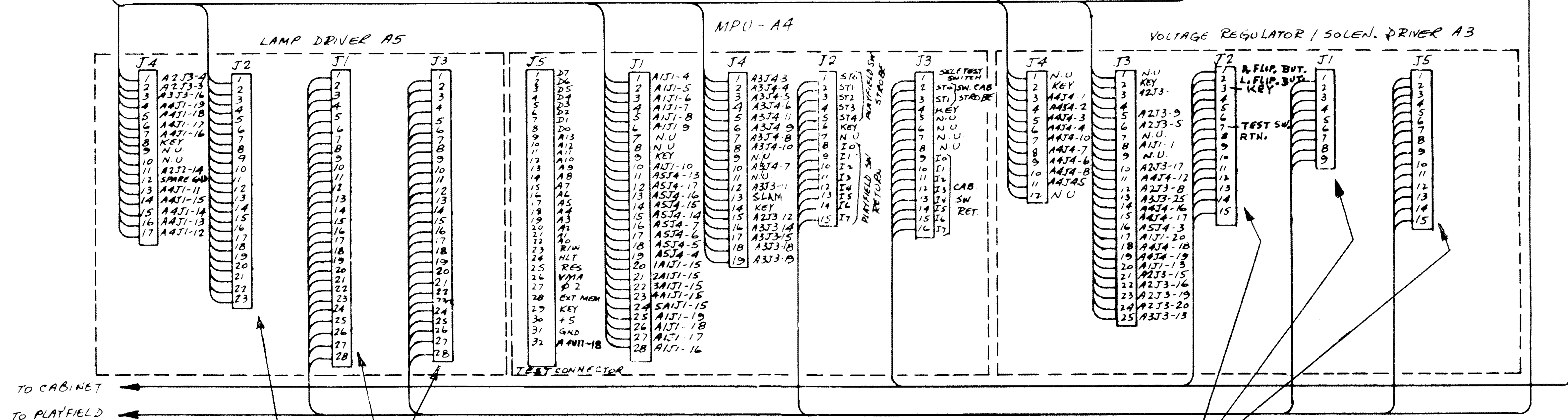
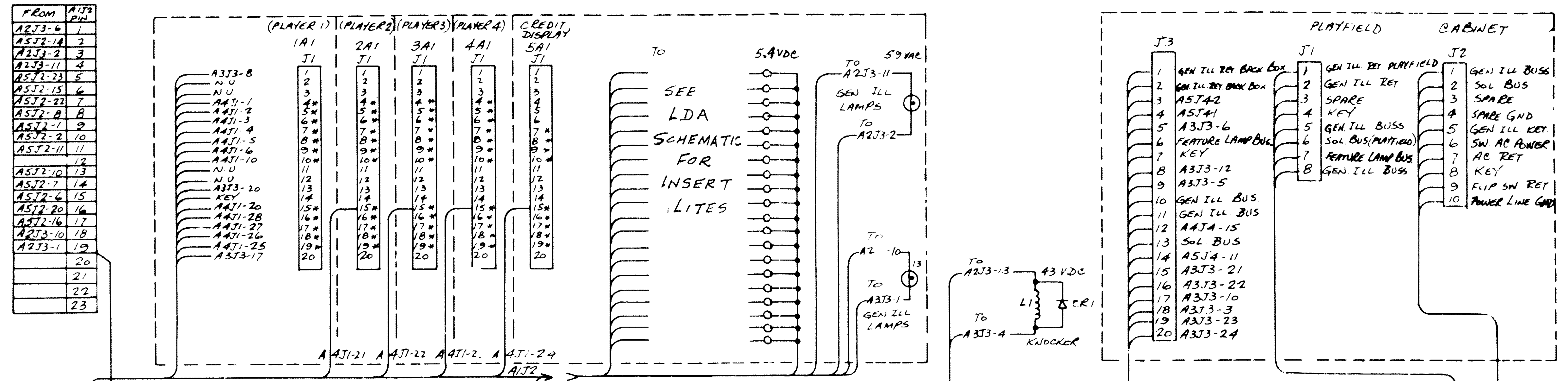
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NAME SCHEMATIC, ELECTRONIC SOUNDS		DWG D		PART NO. 34D-605-S		REV D			
SHEET 1		OF 1							



	UNIVERSAL RESEARCH LABORATORIES INC. A STERN ELECTRONICS COMPANY 2501 UNITED LANE ELK GROVE VILLAGE, ILLINOIS 60007		
	NAME		
SCHEMATIC VOICE SYNTHESIZER			
DWG D	PART NO 34D-720-S		REV
S17F	SHEET 1	OF 1	C

A1 INSERT

A2 TRANSFORMER



SEE INDIVIDUAL SCHEMATIC DRAWINGS FOR WIRE COLORS.

SEE LDA SCHEMATIC FOR
FEATURE LAMP PIN OUTSSEE SDU SCHEMATIC
FOR SOLENOID PIN OUTS.