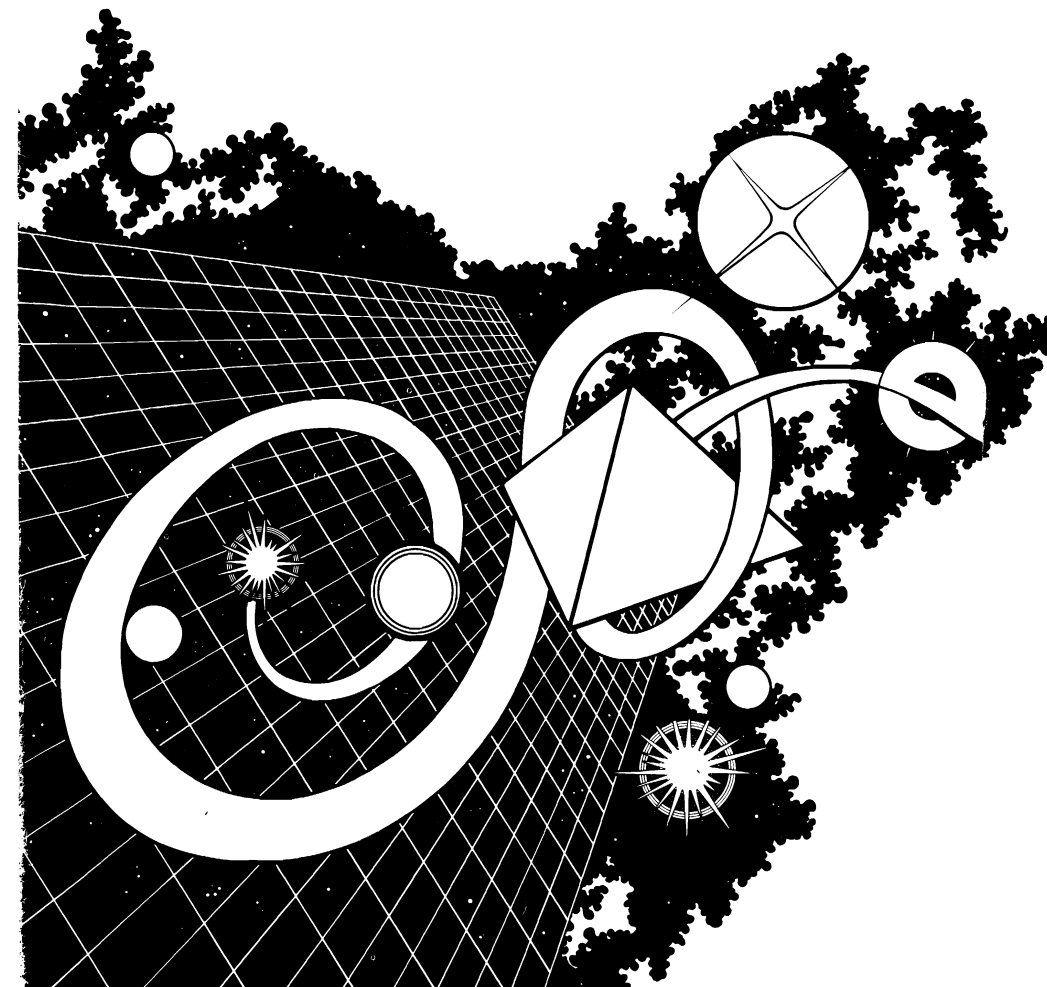


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NOTE
This staple temporarily holds the
schematic package together. Re-
move the staple before using these
schematics.

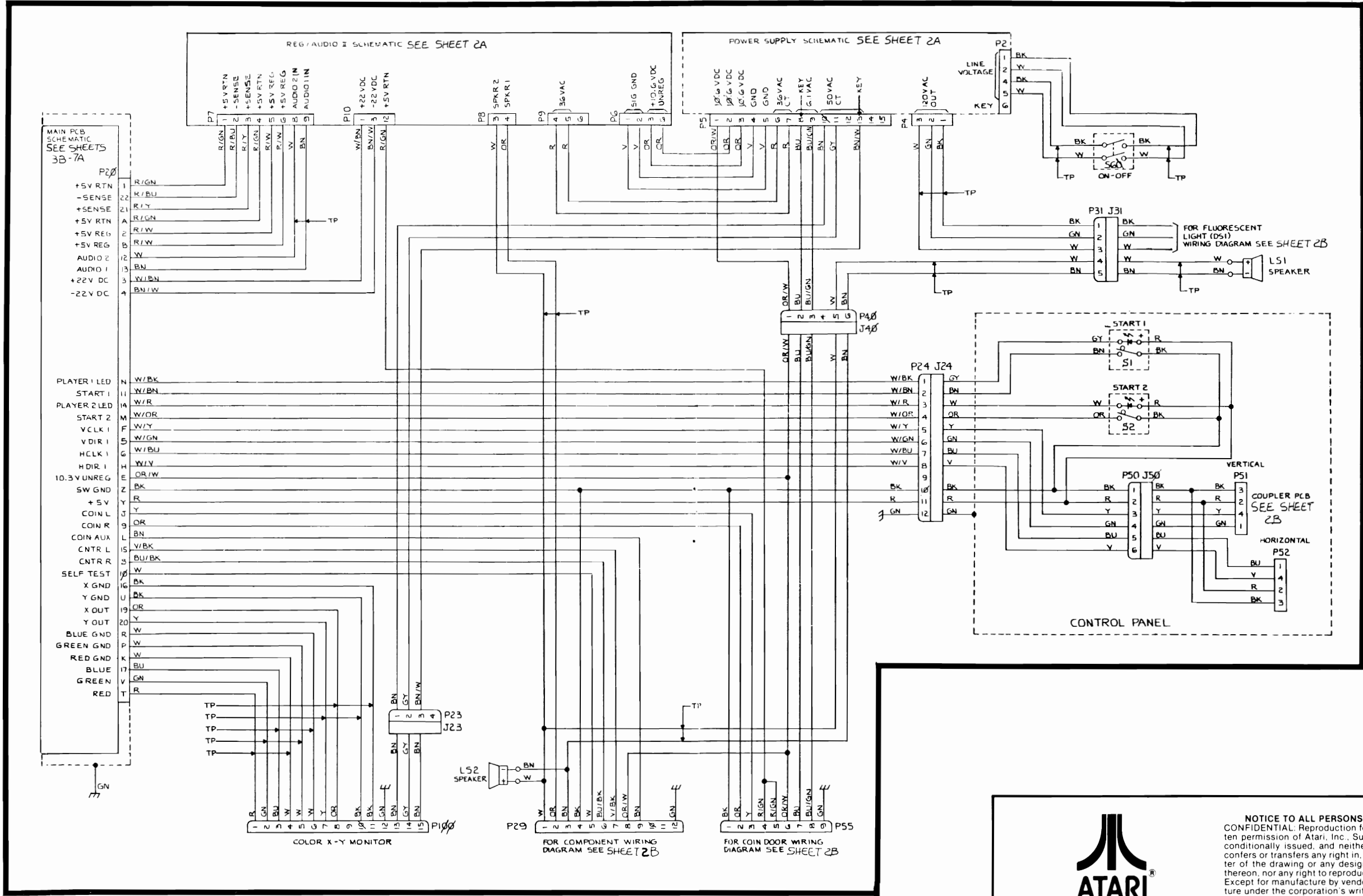
Schematic Package Supplement to



Operation, Maintenance, and Service Manual

12L

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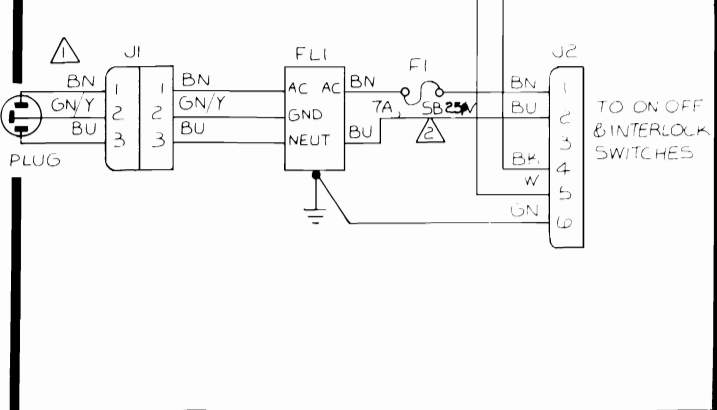
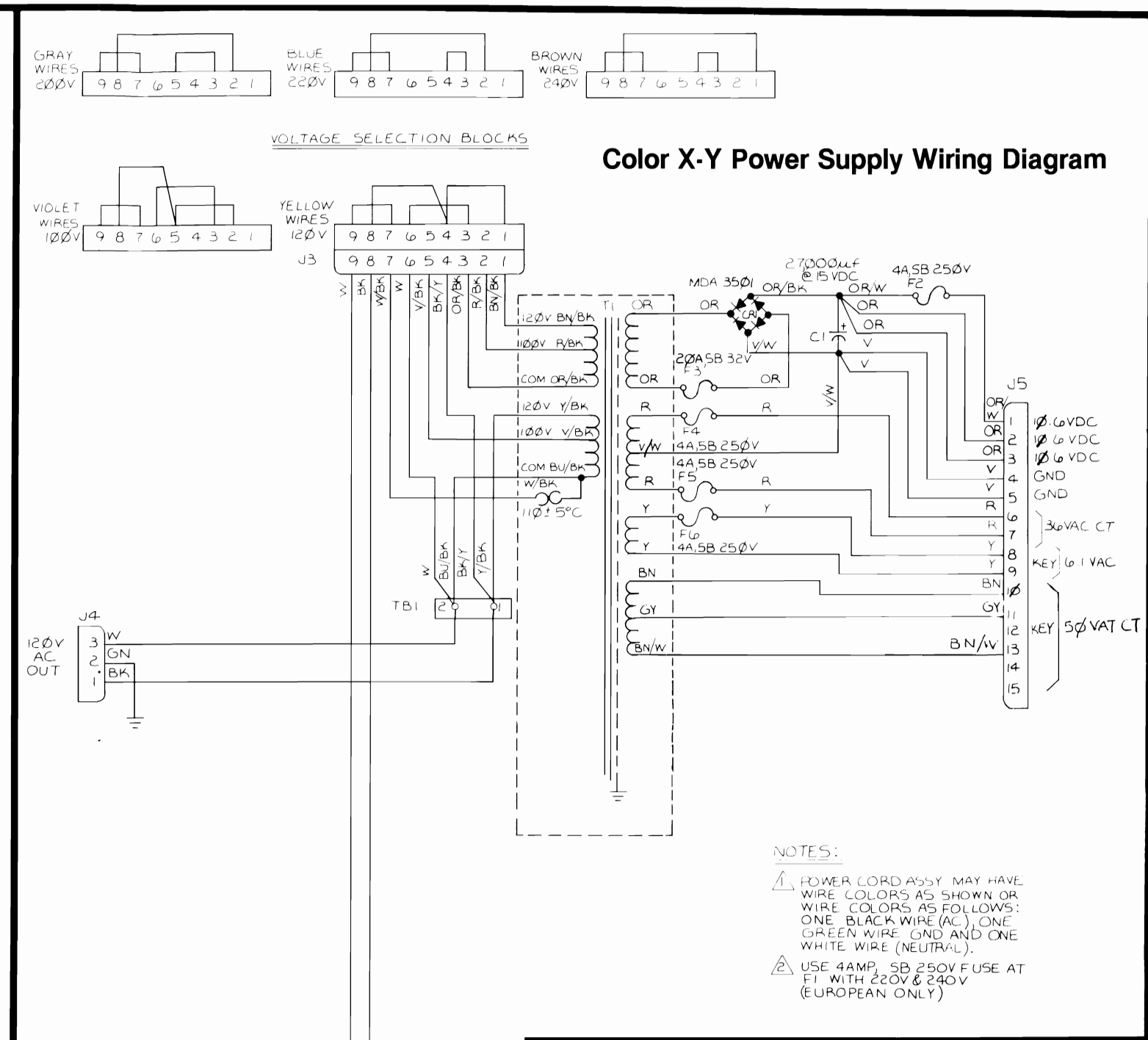
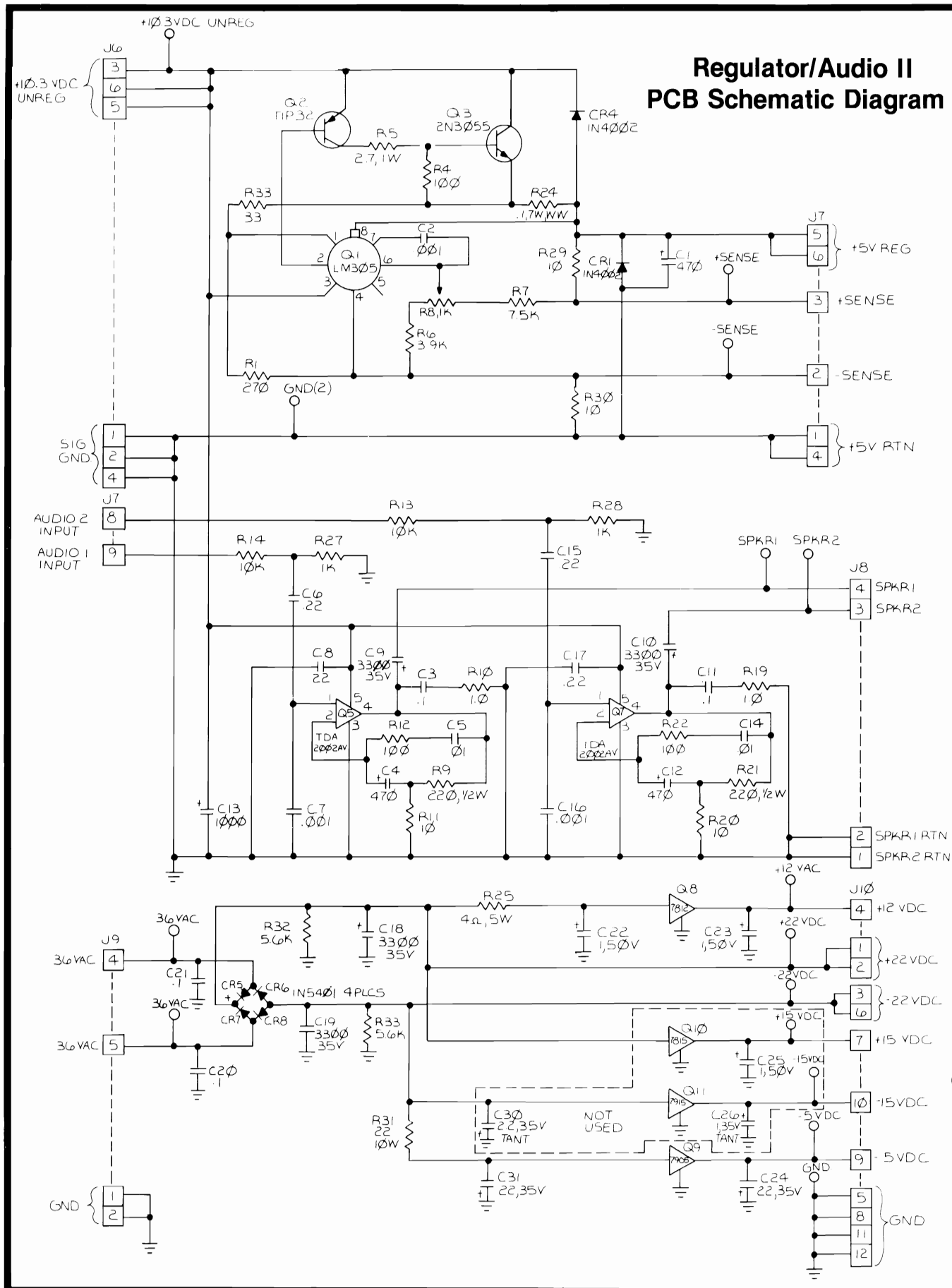
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Quantum™ Main Wiring Diagram

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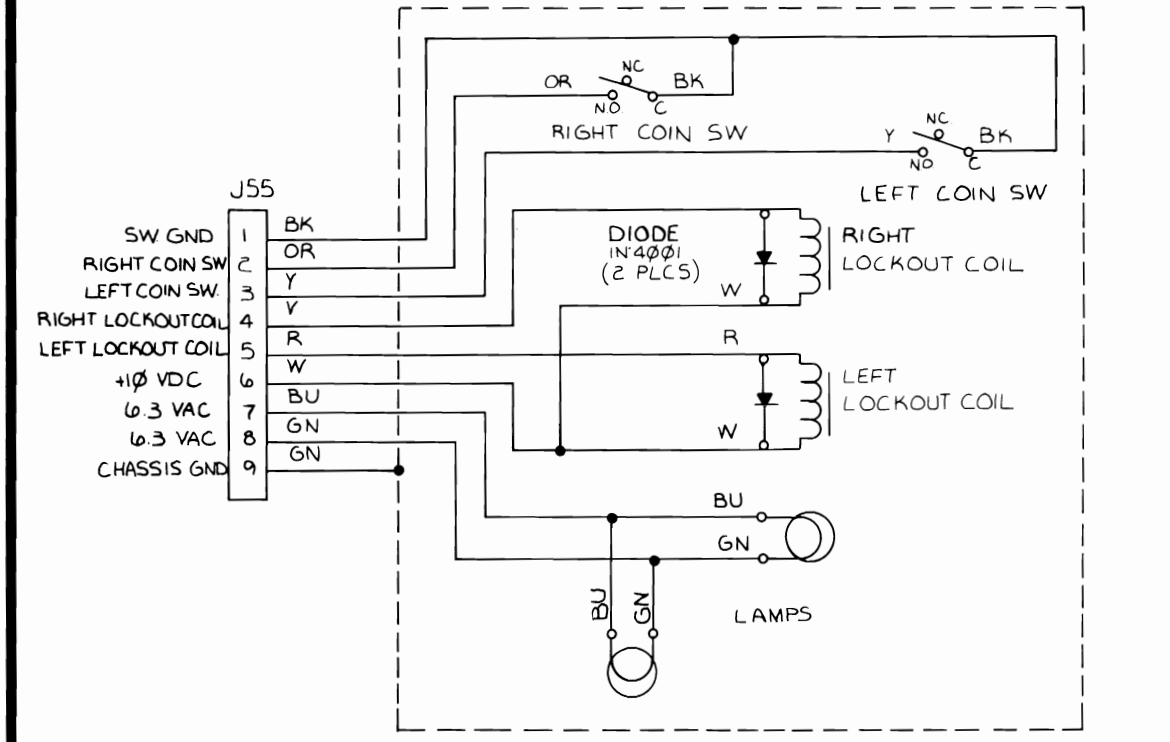
Quantum™ Reg./Audio II PCB and Power Supply Diagrams

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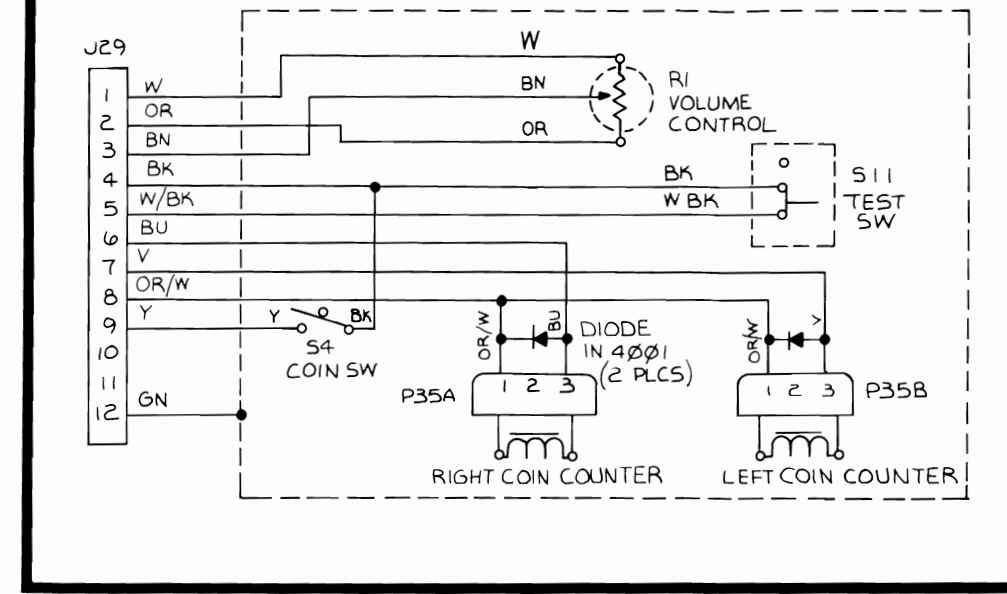
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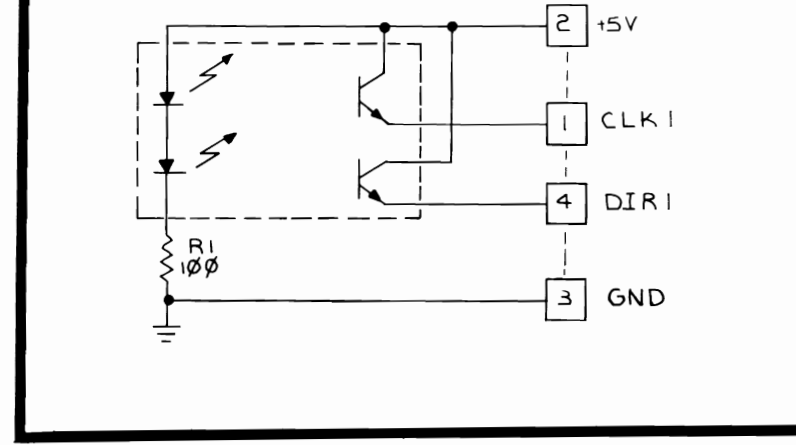
Coin-Door Wiring Diagram



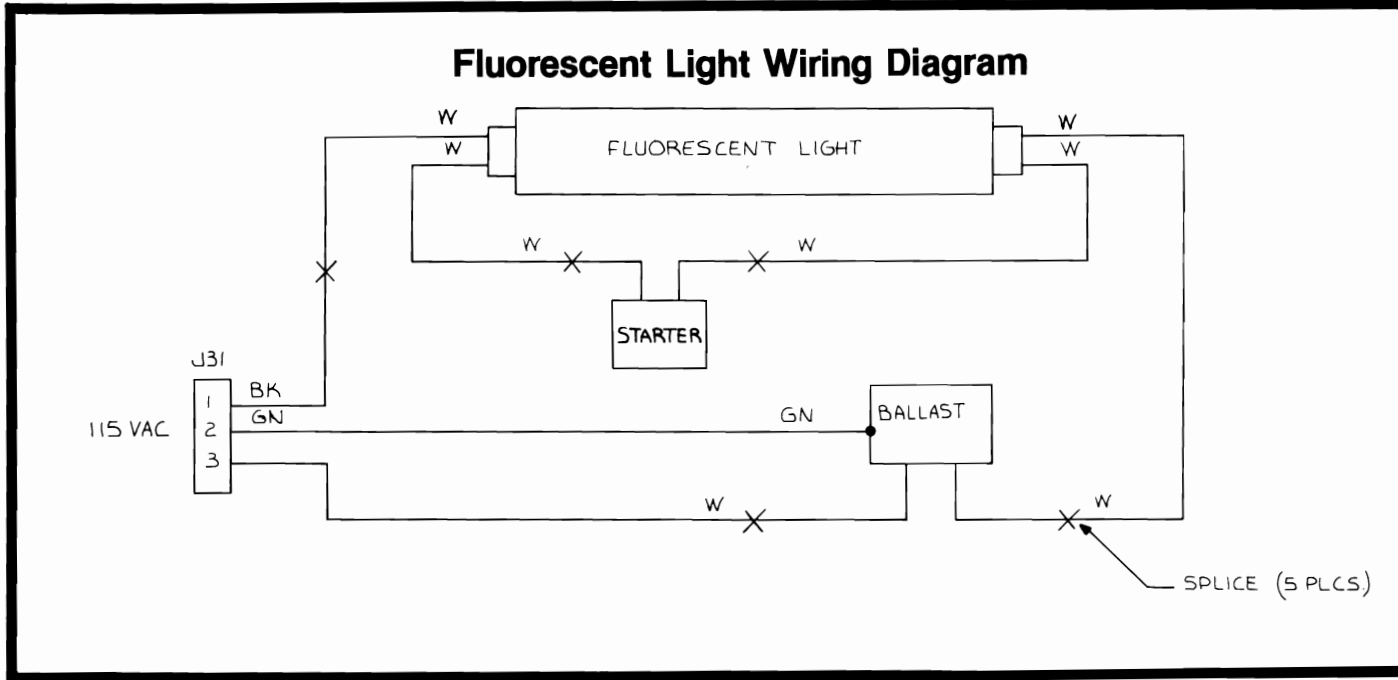
Utility Panel Wiring Diagram



Coupler PCB Schematic



Fluorescent Light Wiring Diagram



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Quantum™ Game Wiring Interfaces

MEMORY MAP

HEXIDECIMAL ADDRESS	FUNCTION
000000 - 003FFF	ROM0
004000 - 004FFF	ROM1
008000 - 00BFFF	ROM2
00C000 - 00FFFF	ROM3
010000 - 013FFF	ROM4
018000 - 01BFFF	RAM0
01C000 - 01CFFF	RAM1
940000	TRACKBALL
948000	SWITCHES
950000	COLORAM
958000	CONTROL
960000 - 970000	RECALL
968000	VGRST
970000	VGGO
978000	WDCLR
900000	NVRAM
840000	I/O
800000 - 801FFF	VMEM
940000	I/O
900000	DTACK1

Schematic Reference Designators and Symbols

Logic symbols depict the logic function performed by that particular device and may differ from the manufacturer's data.

REFERENCE DESIGNATORS:

C	Capacitor
CR	Diode, signal or rectifier
F	Fuse
J	Connector
L	Inductor, fixed or variable
LS	Speaker
P	Connector
Q	Transistor or silicon-controlled rectifier
R	Resistor, fixed or variable
S	Switch
T	Transformer
TP	Twisted wire pair
VR	Voltage regulator
Y	Crystal





WIRE COLORS:

R	Red
GN	Green
Y	Yellow
W	White
BU	Blue
BN	Brown
BK	Black
OR	Orange
V	Violet
GY	Gray

Electrical components shown on the schematic diagrams are in the following units unless otherwise noted:

Capacitors = microfarads (μf)
 Resistors = ohms (Ω)
 Inductors = microhenrys (μh)

SYMBOLS:

	Ground		PCB edge connector pad
	Test Point		PCB test connector pad

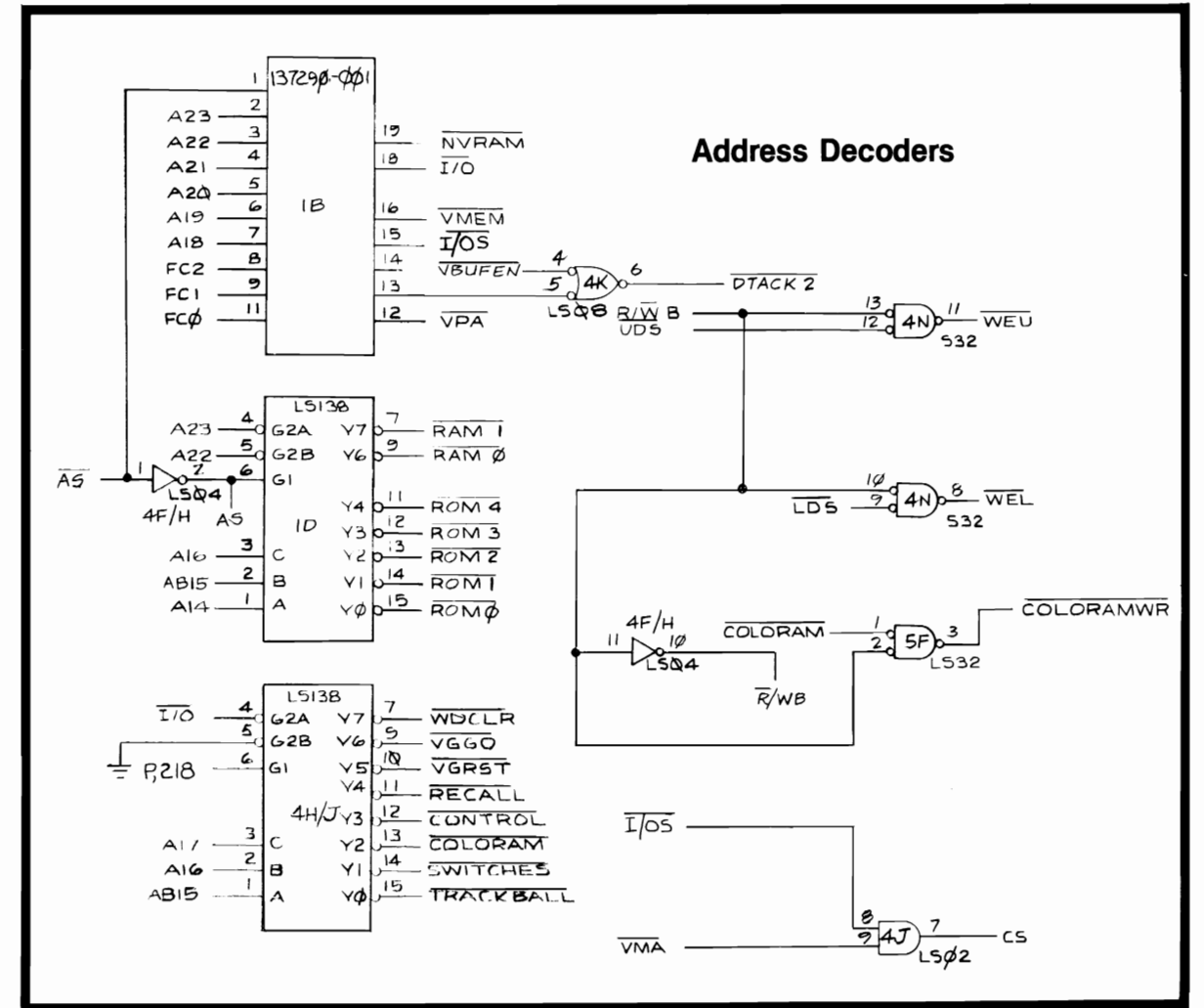
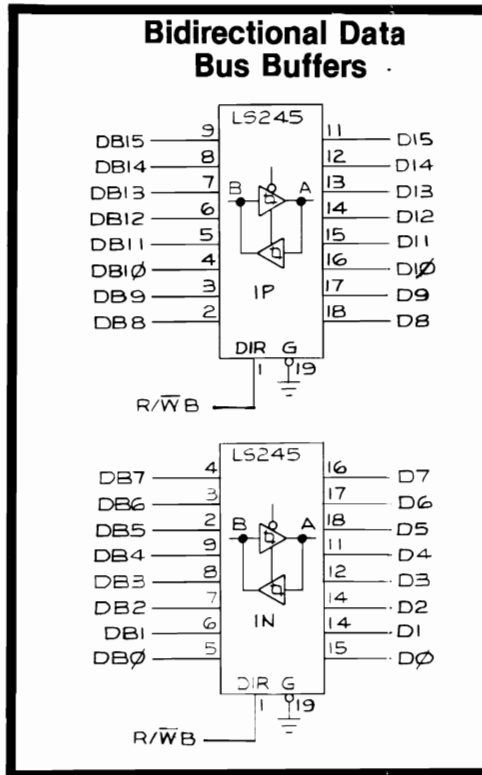
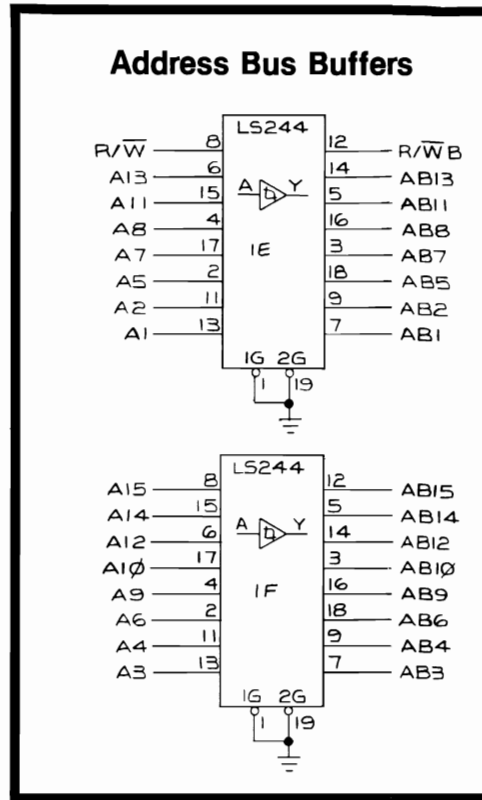
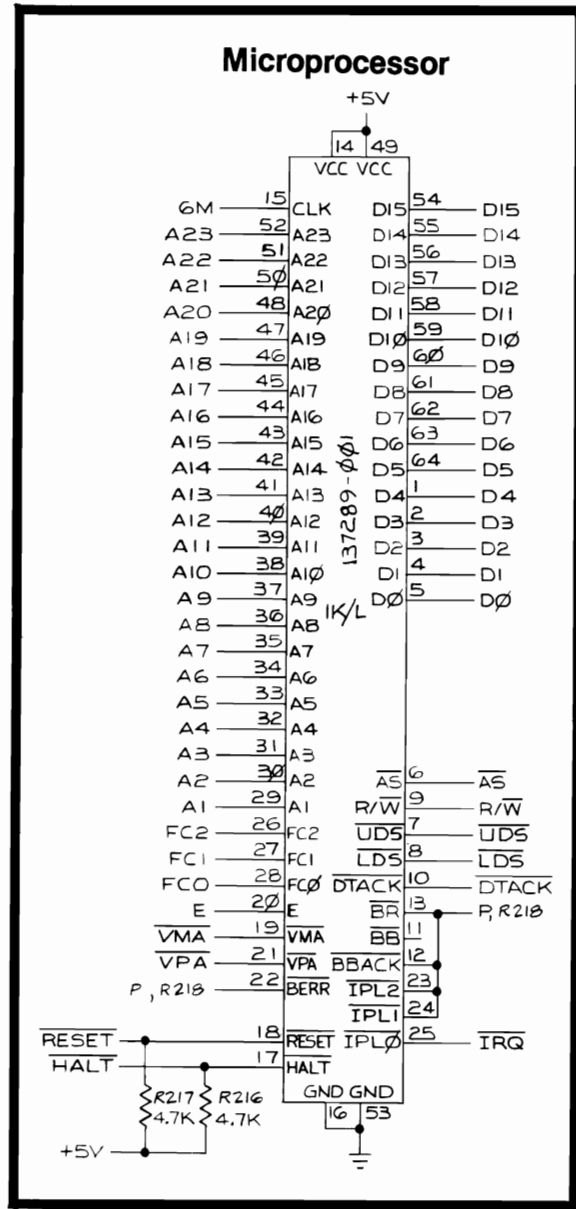



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Quantum™ Memory Map and Schematic Notes

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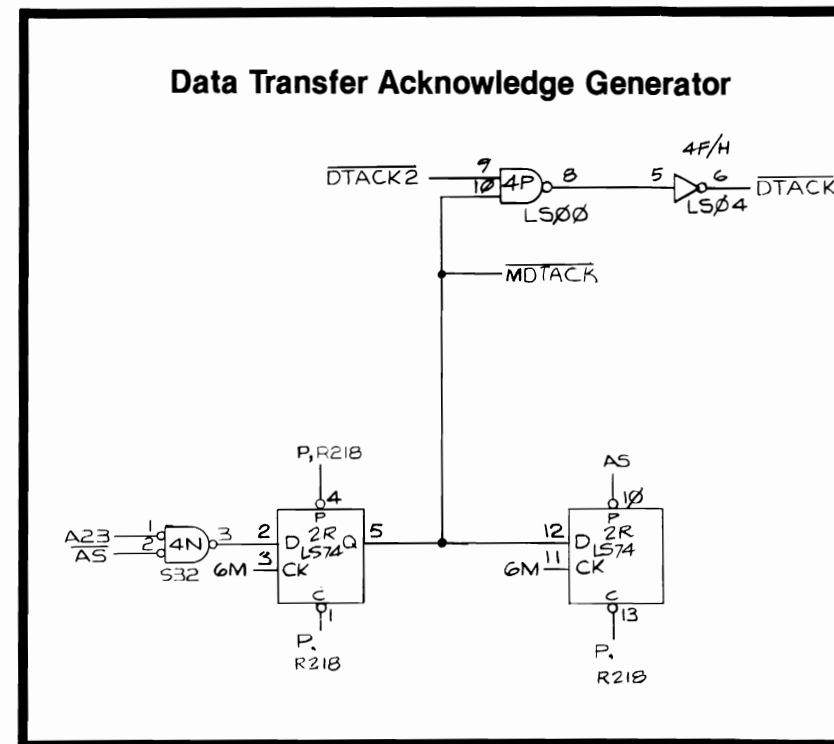
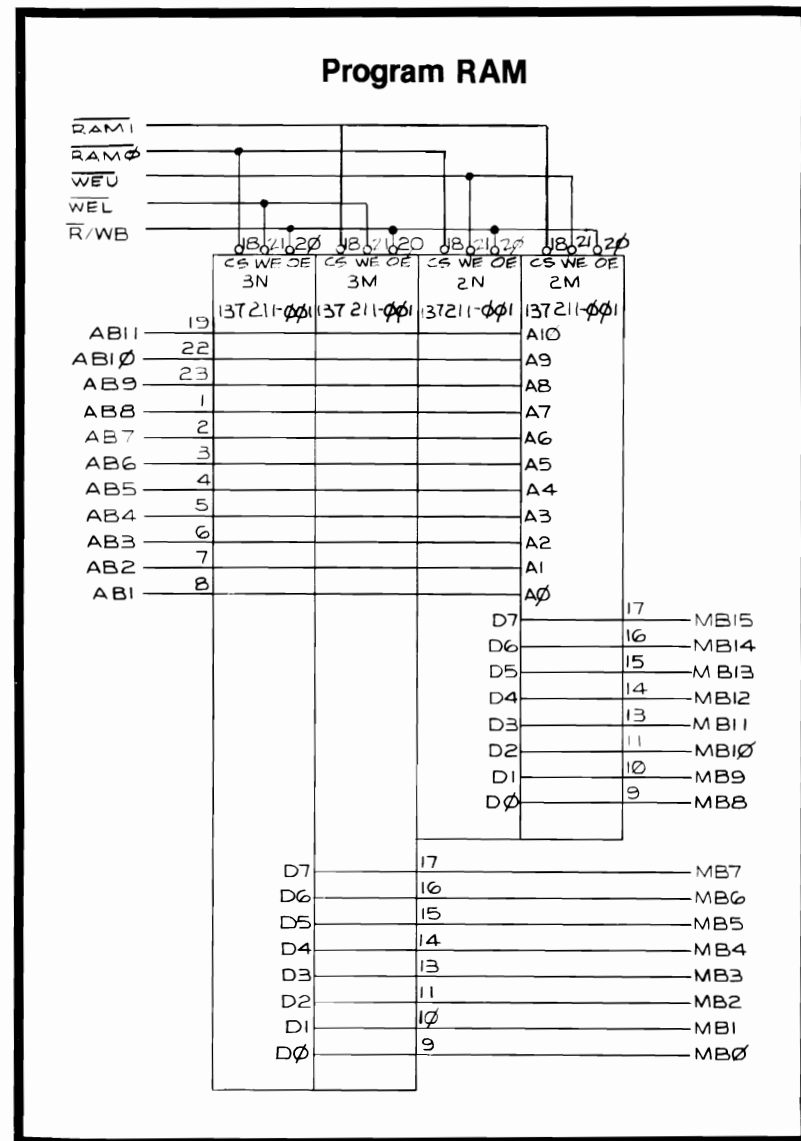
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Quantum™ PCB Schematic Diagram

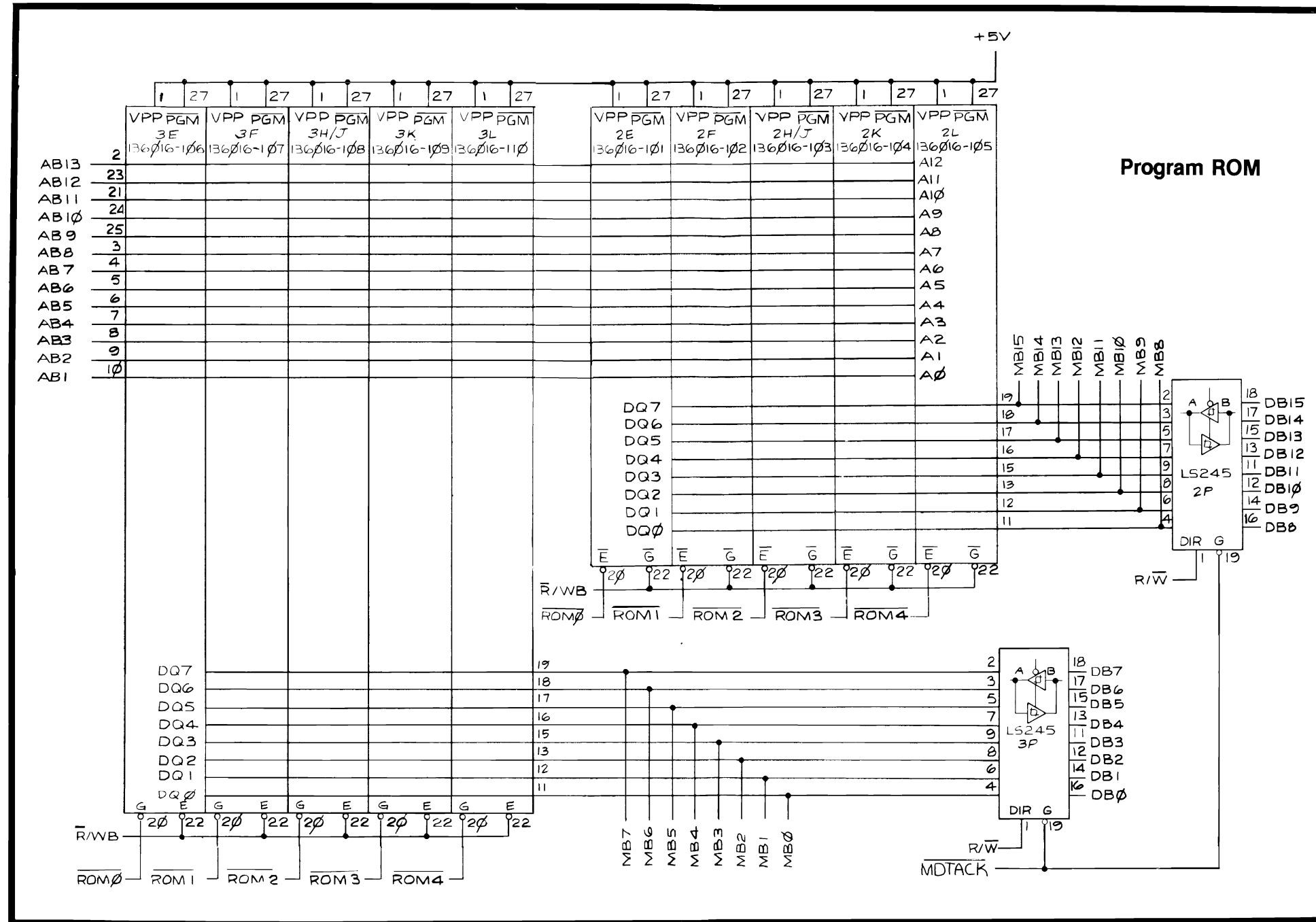
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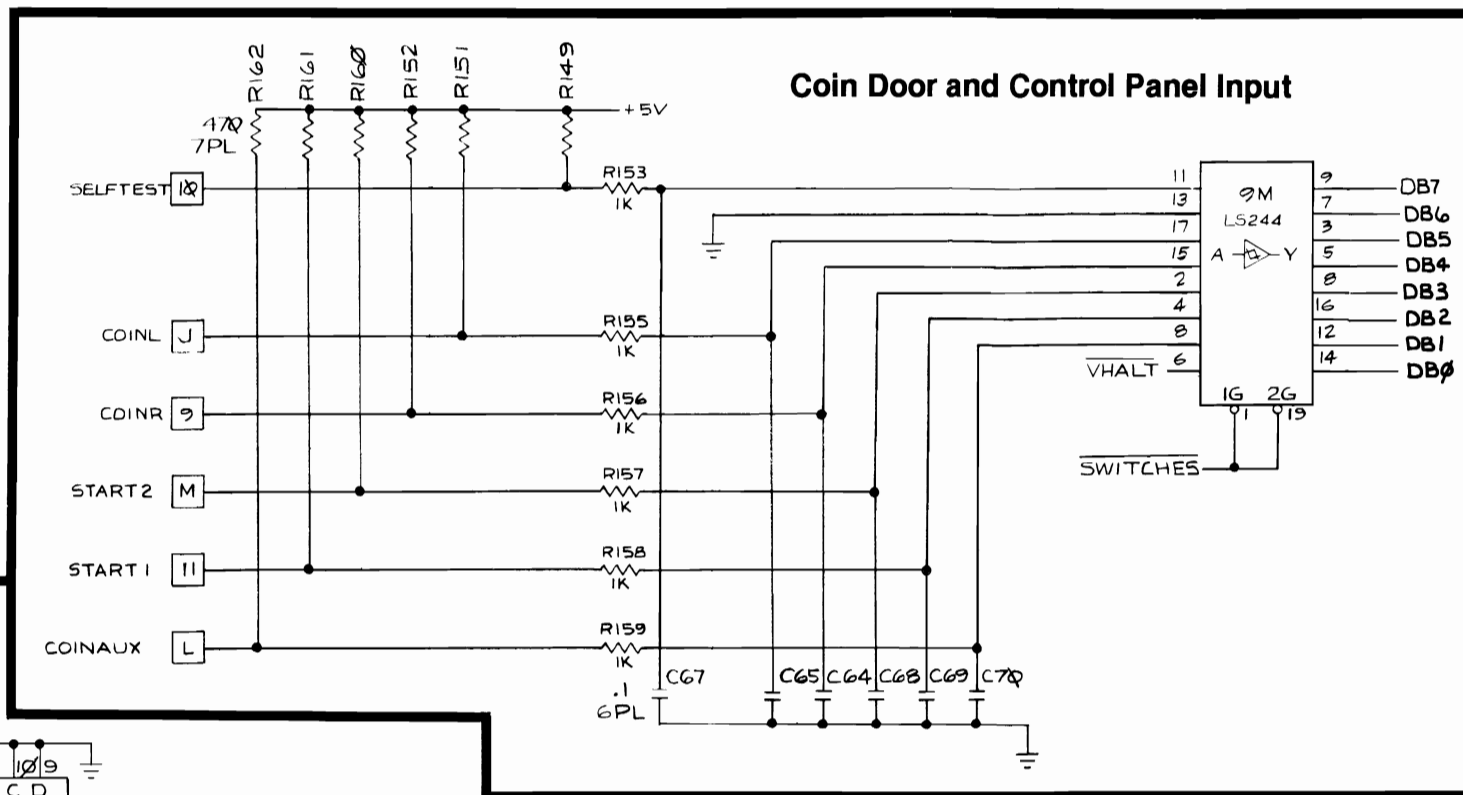
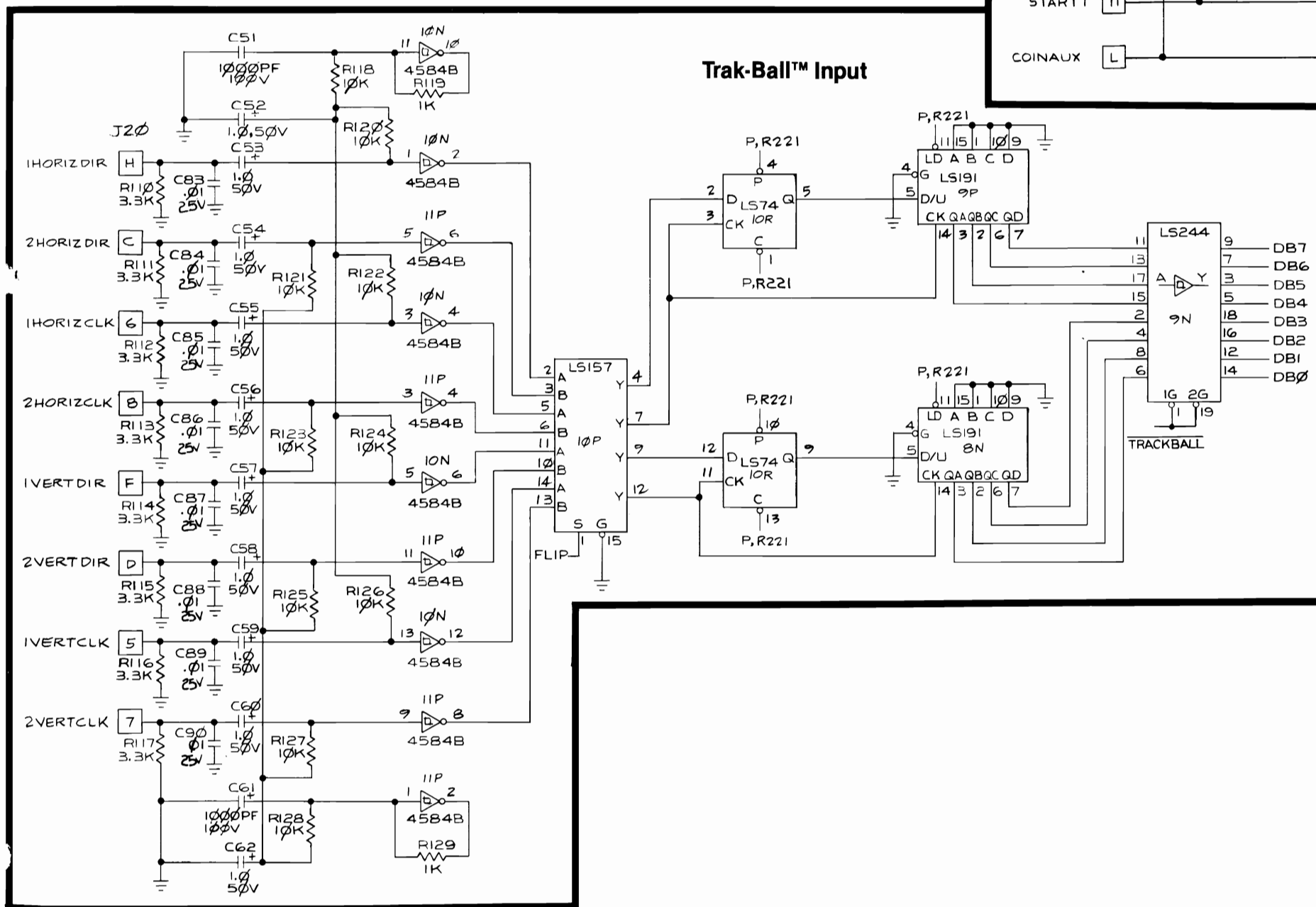
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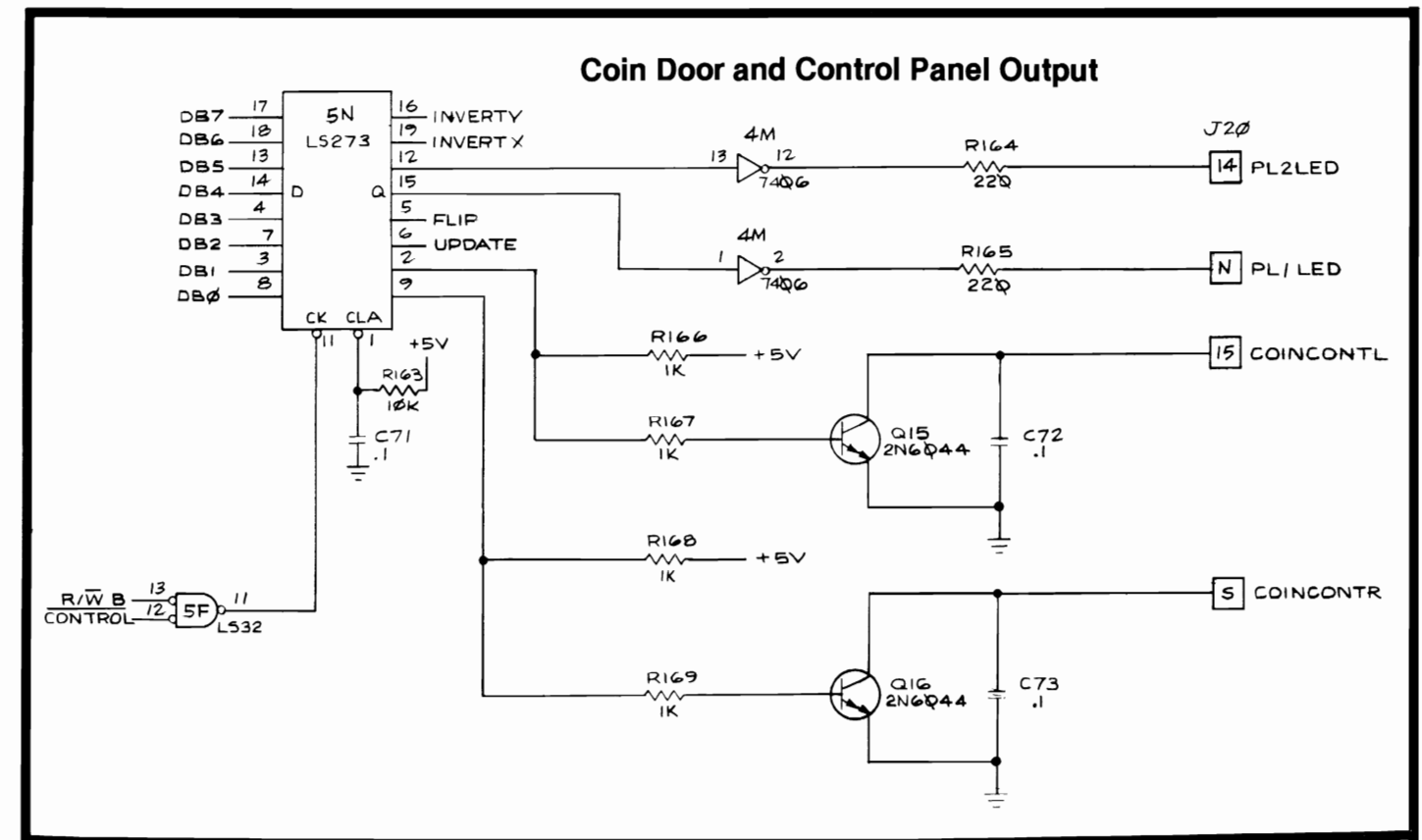
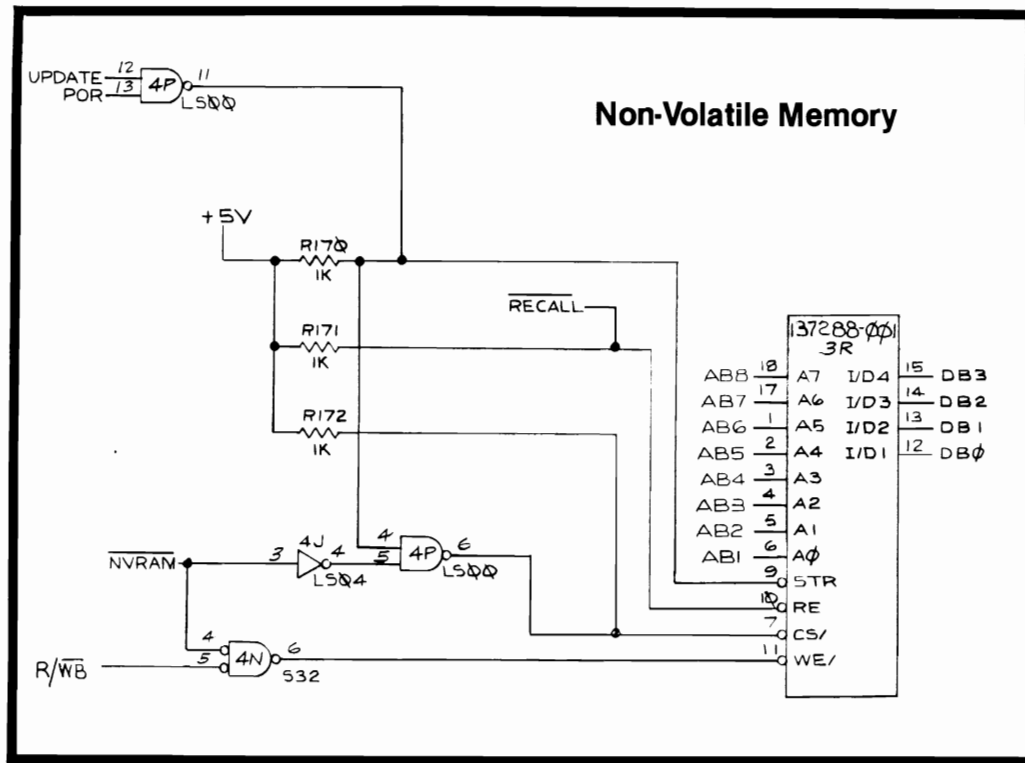



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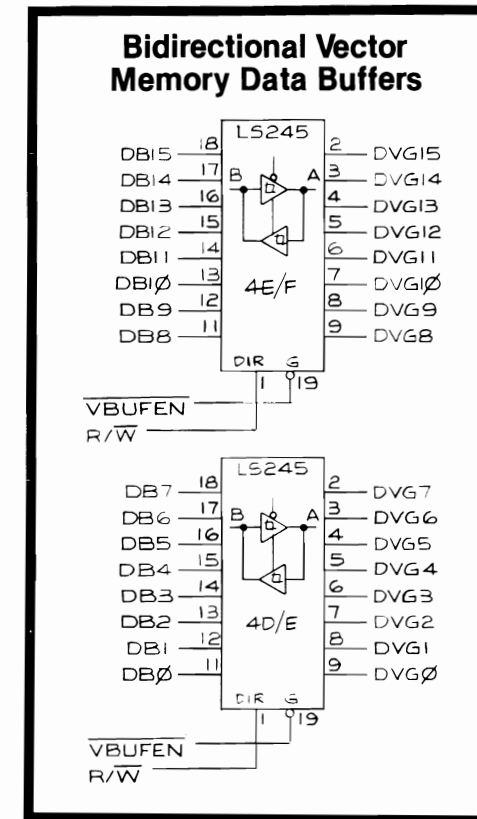
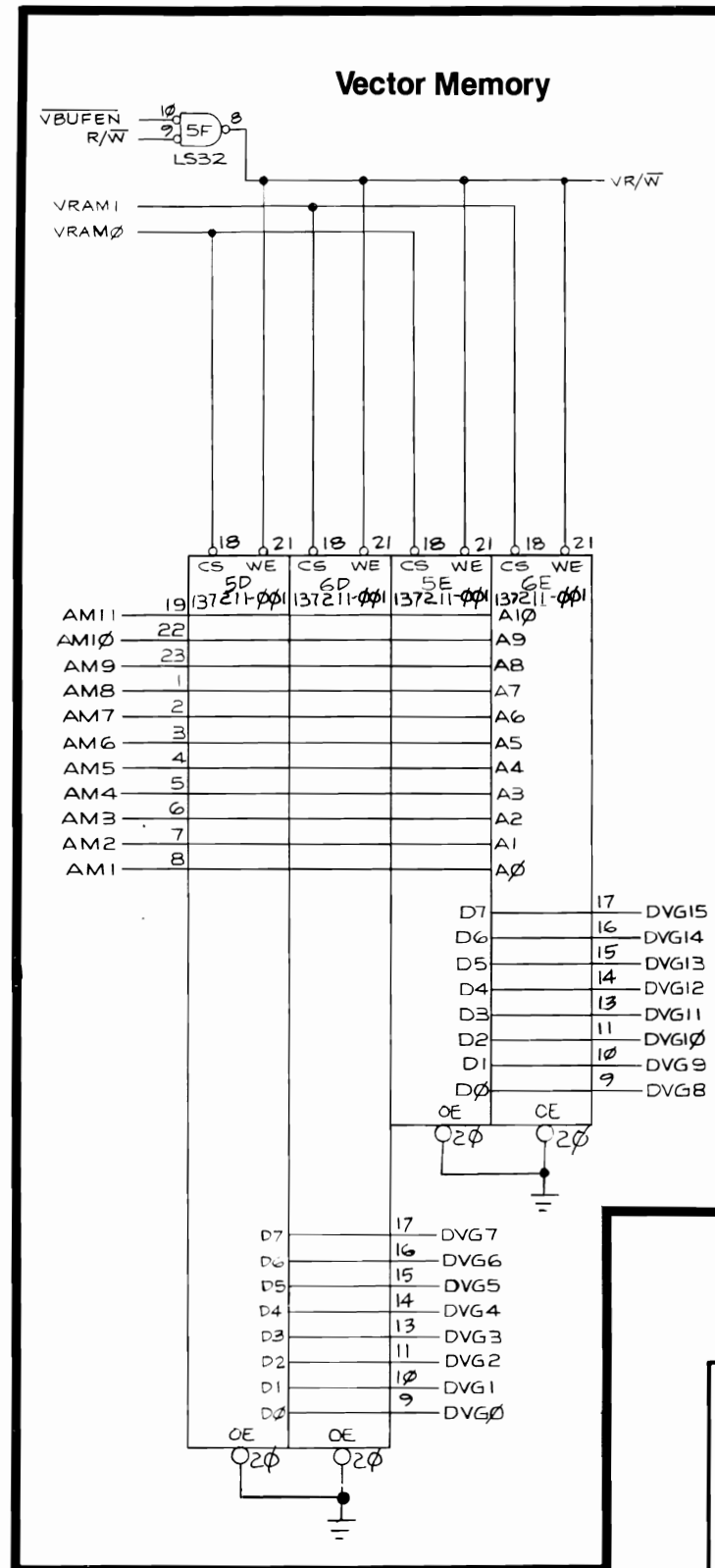
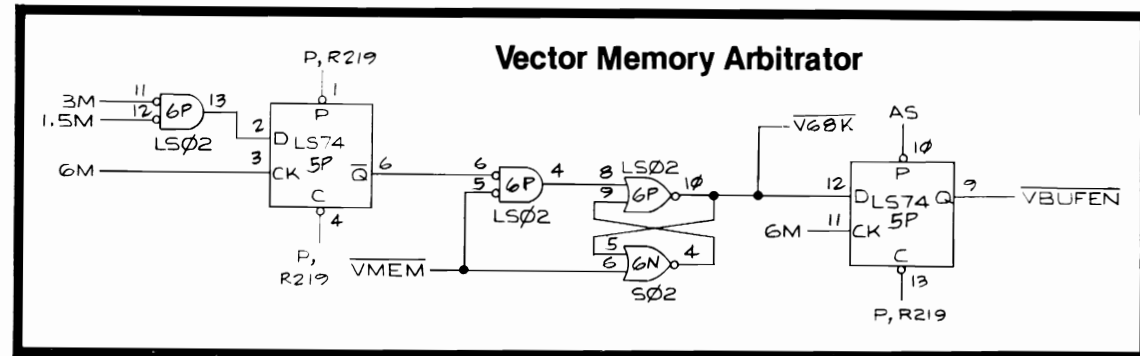
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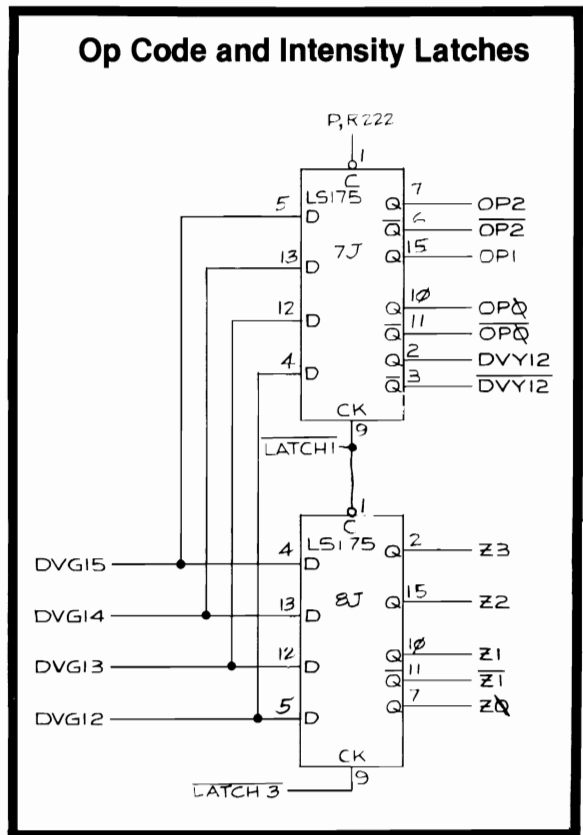
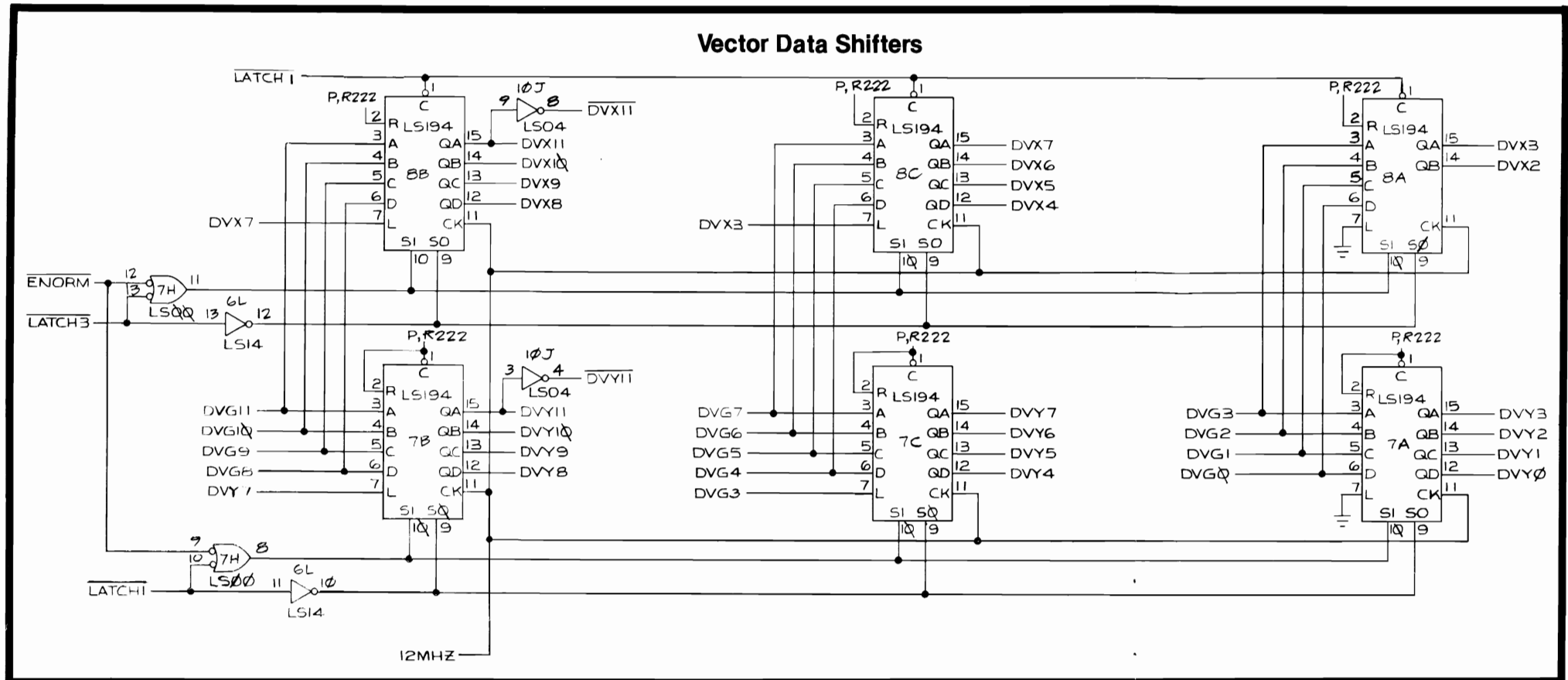




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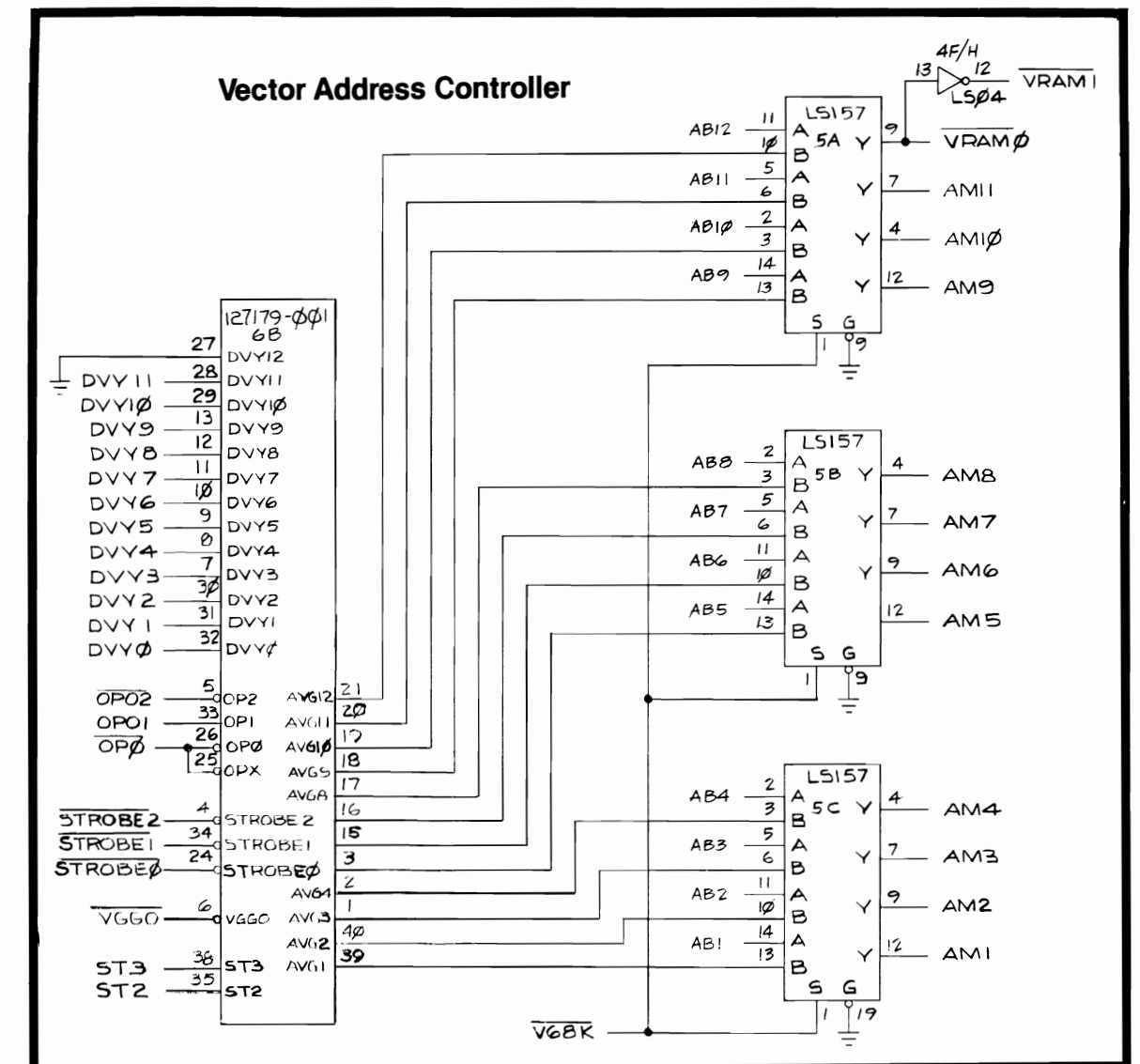
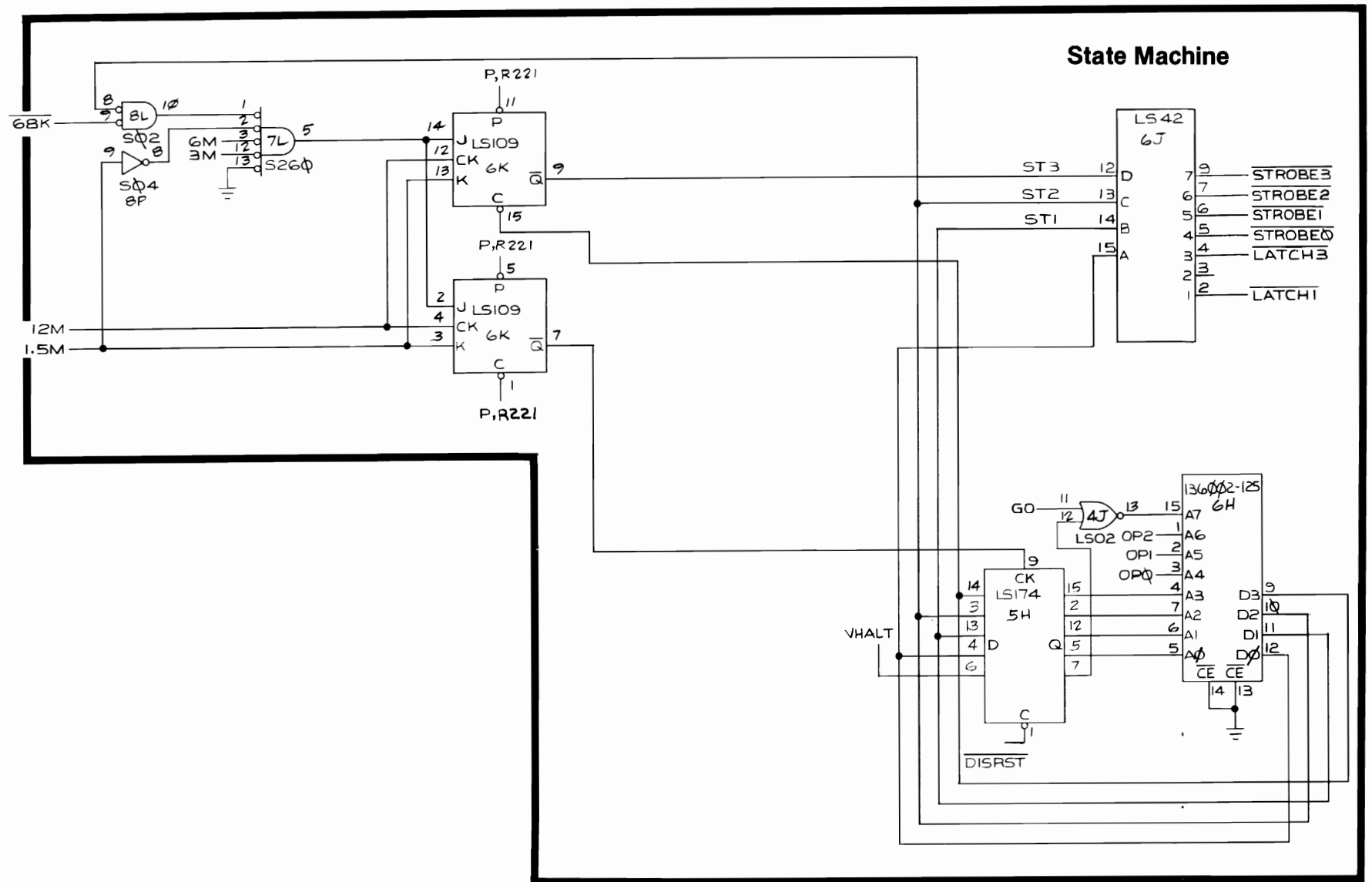
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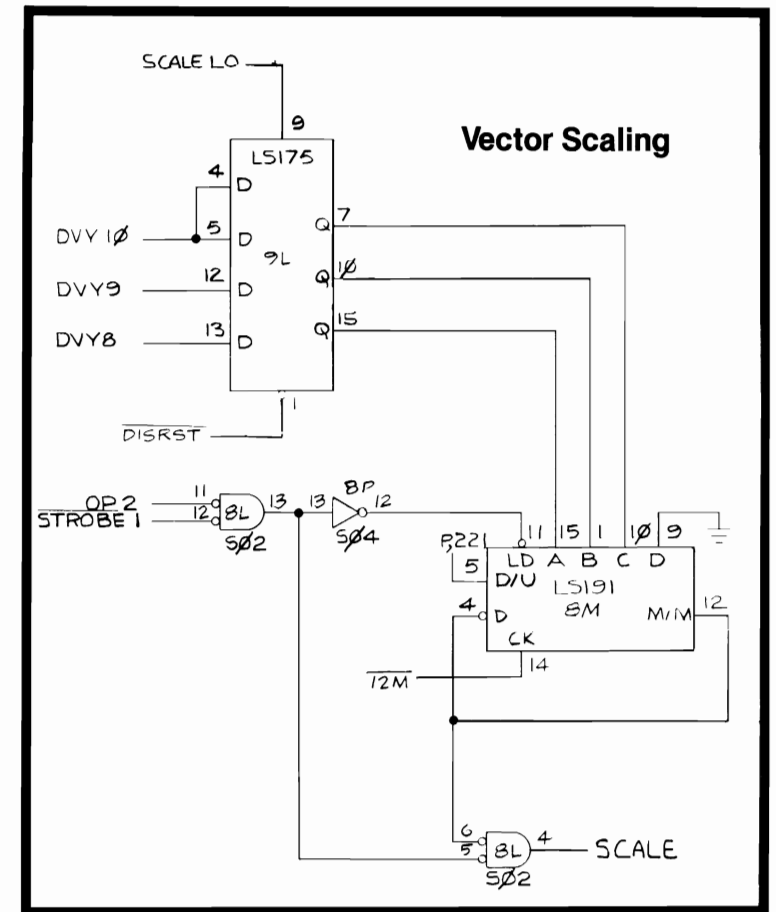
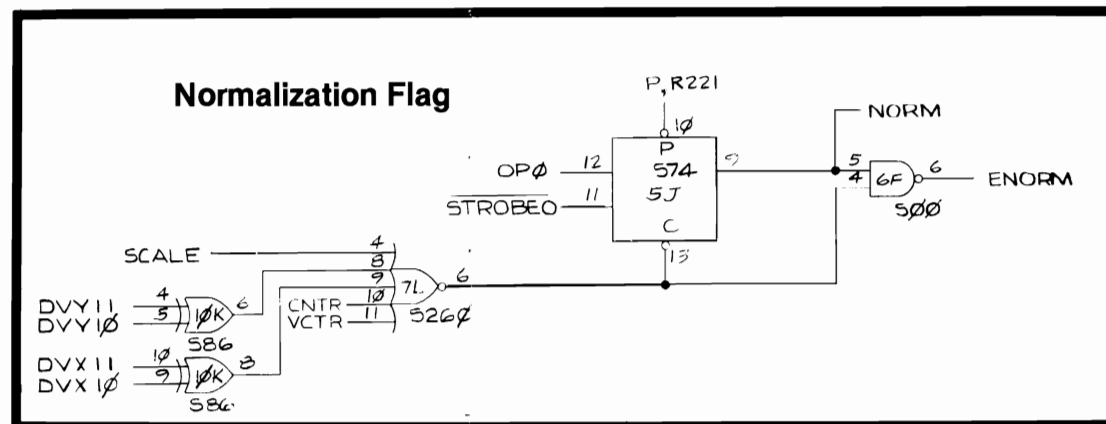
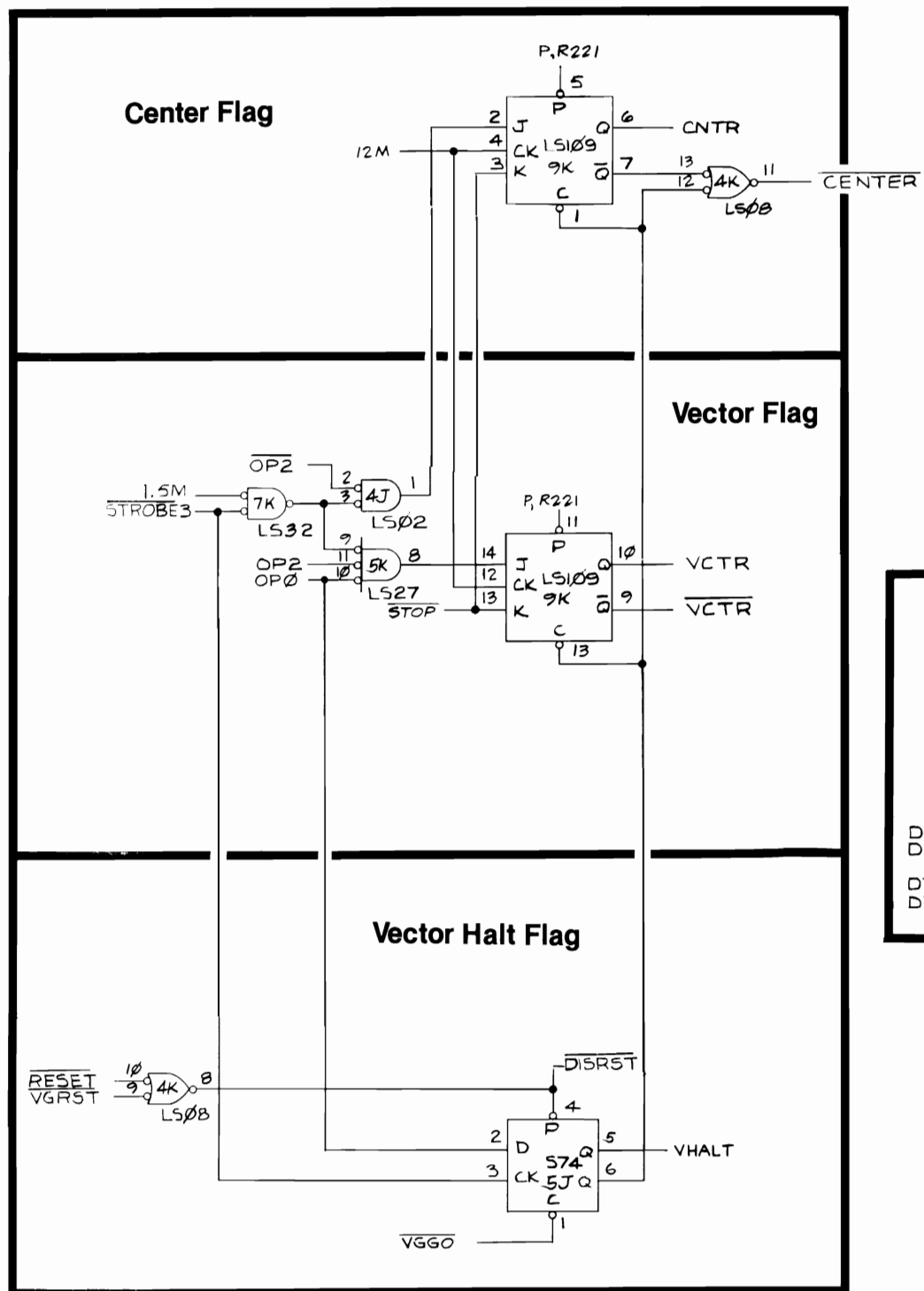
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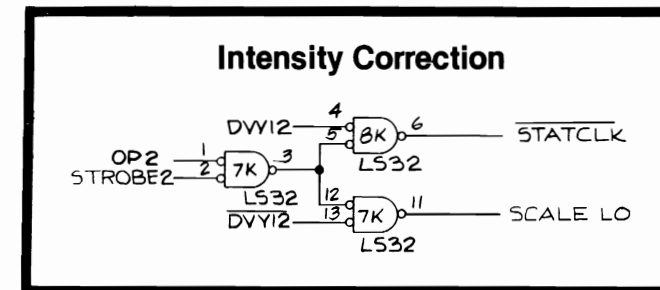
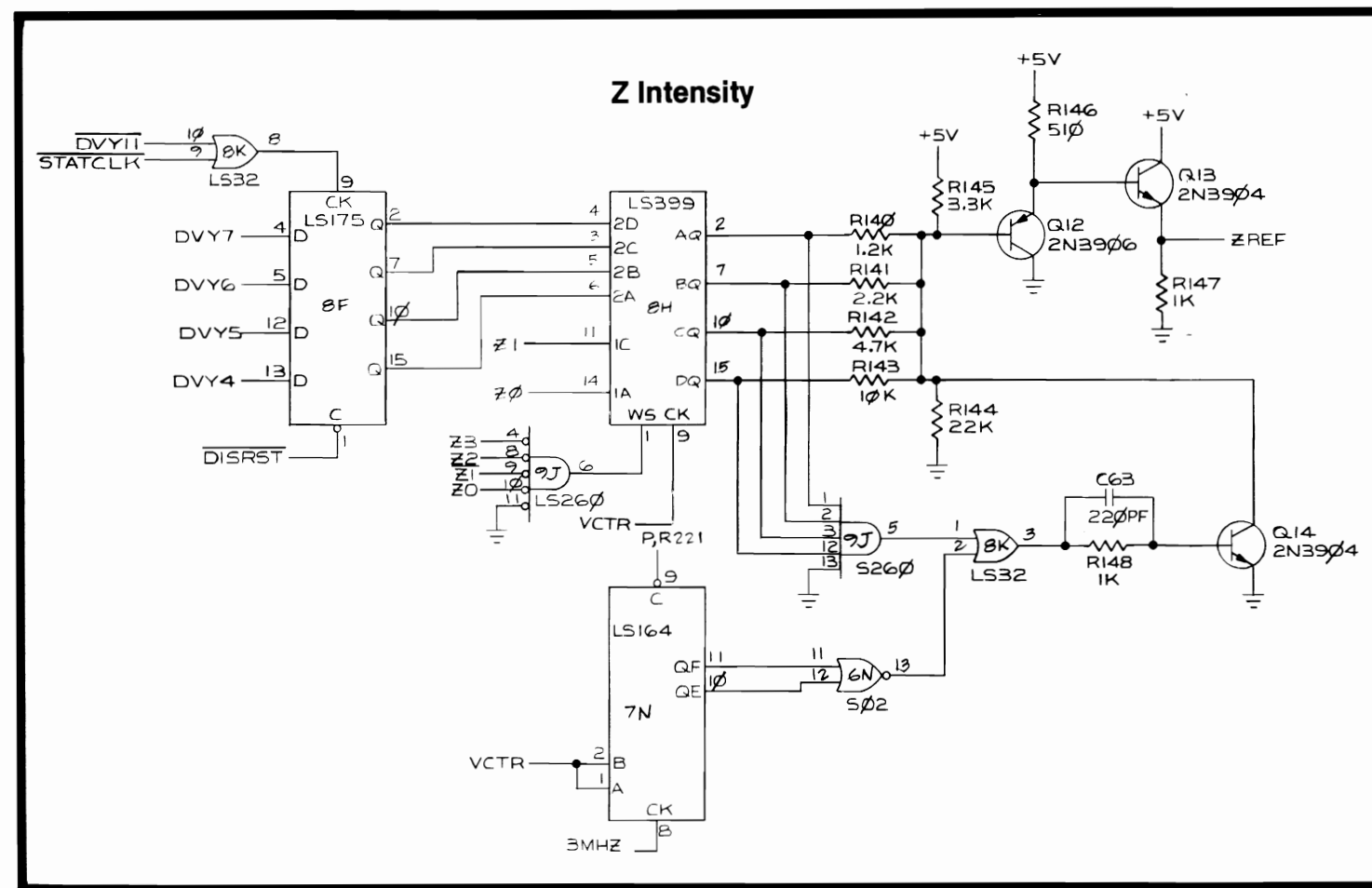
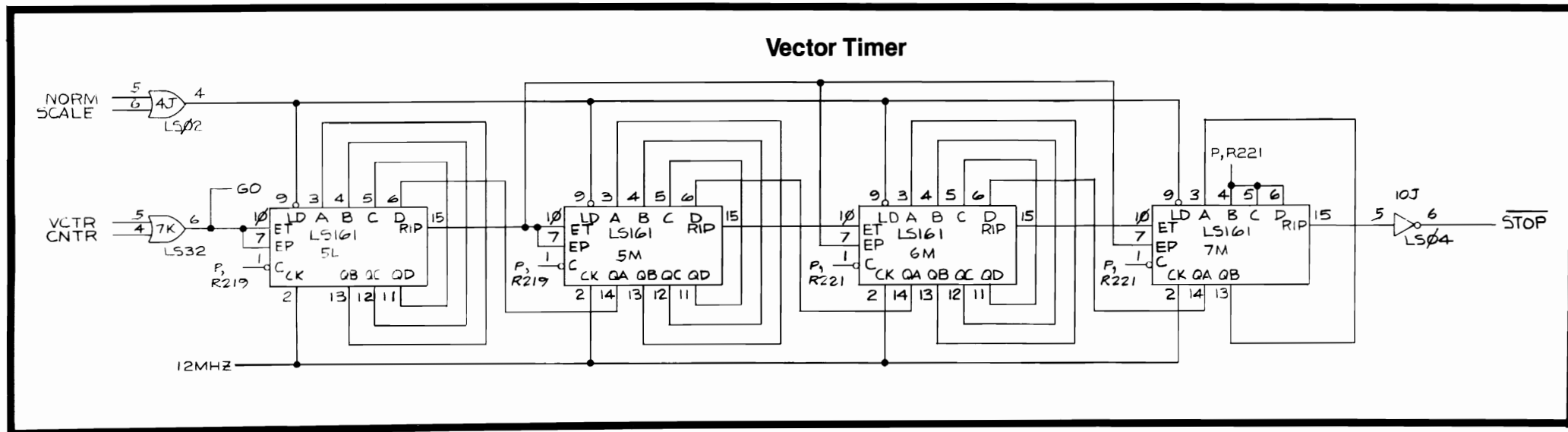



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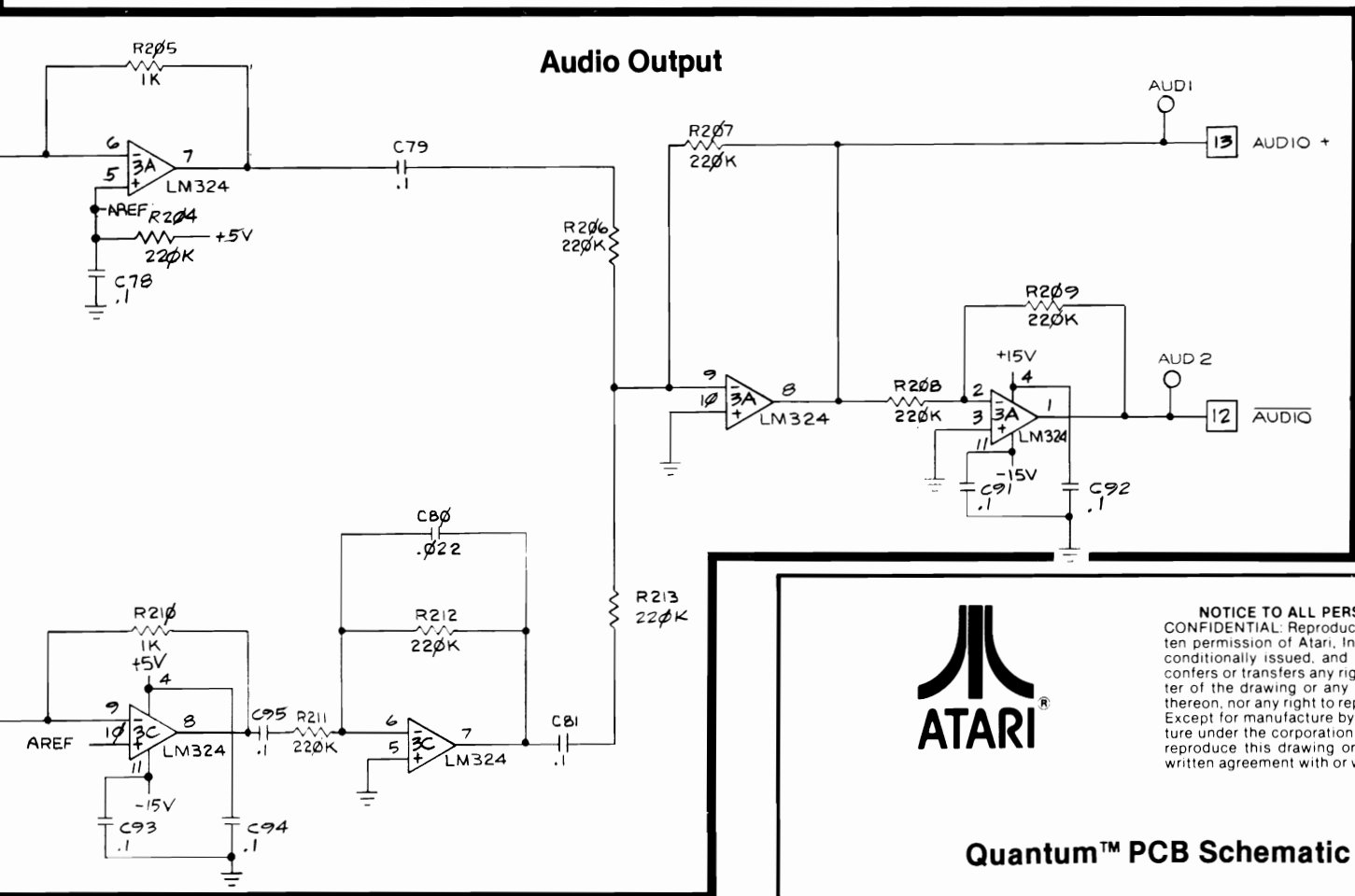
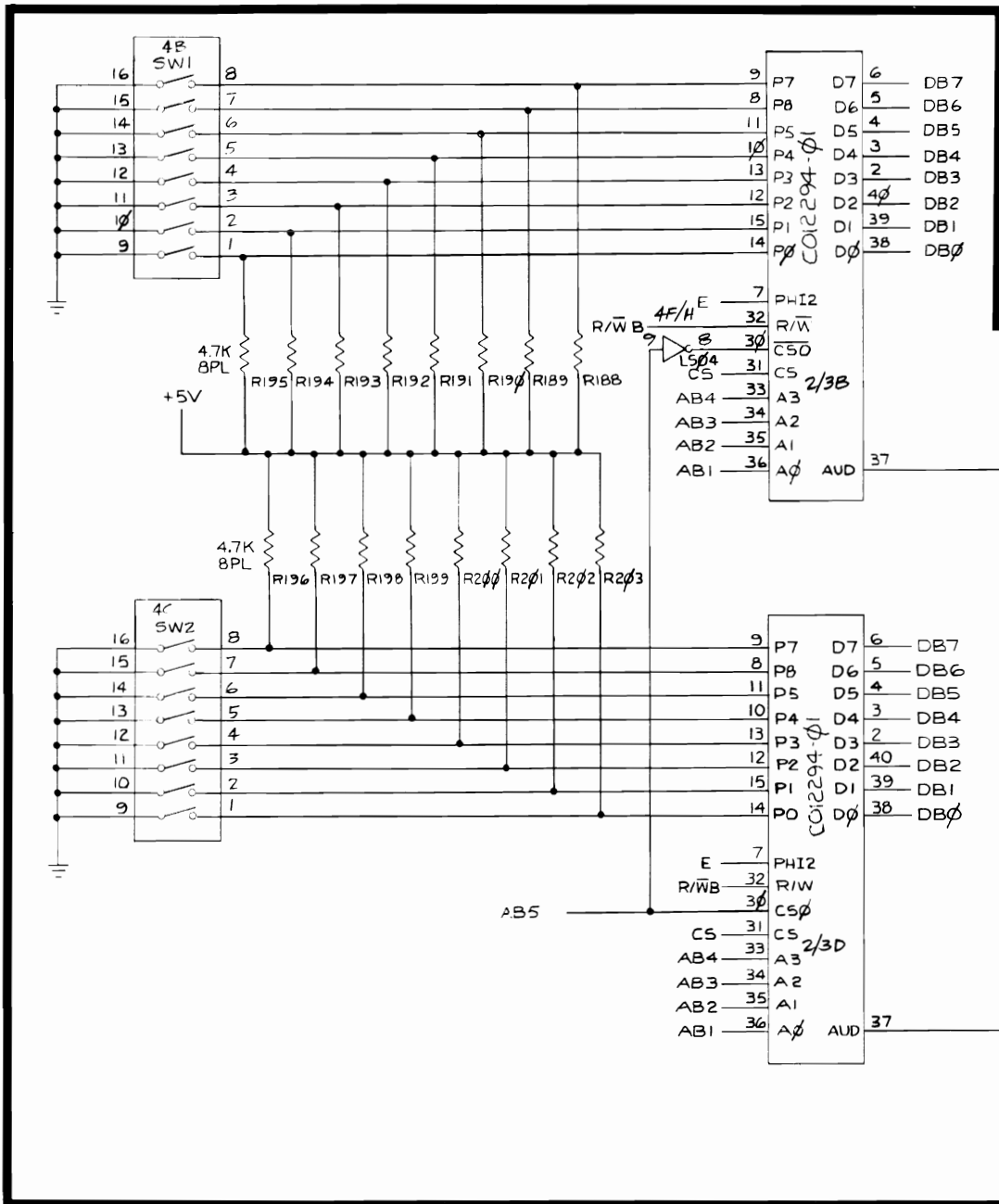
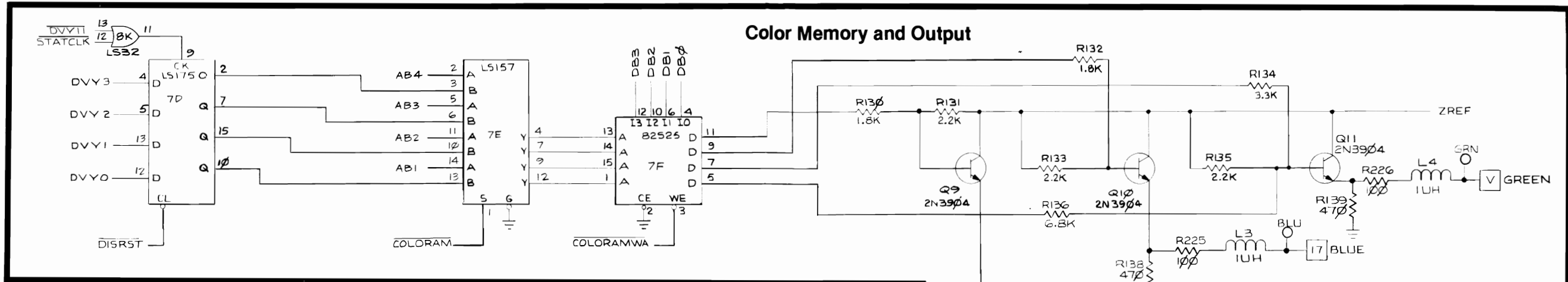
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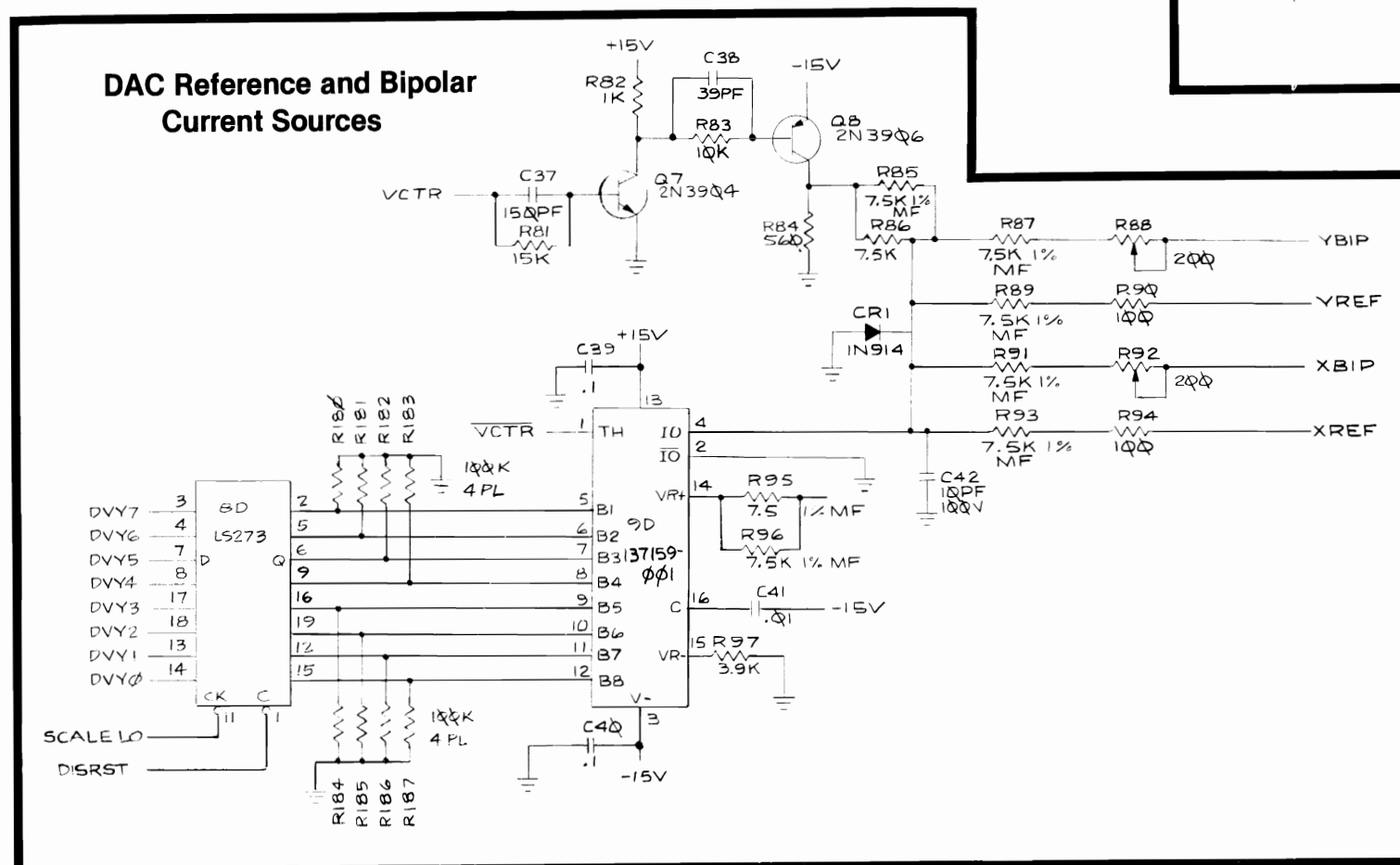
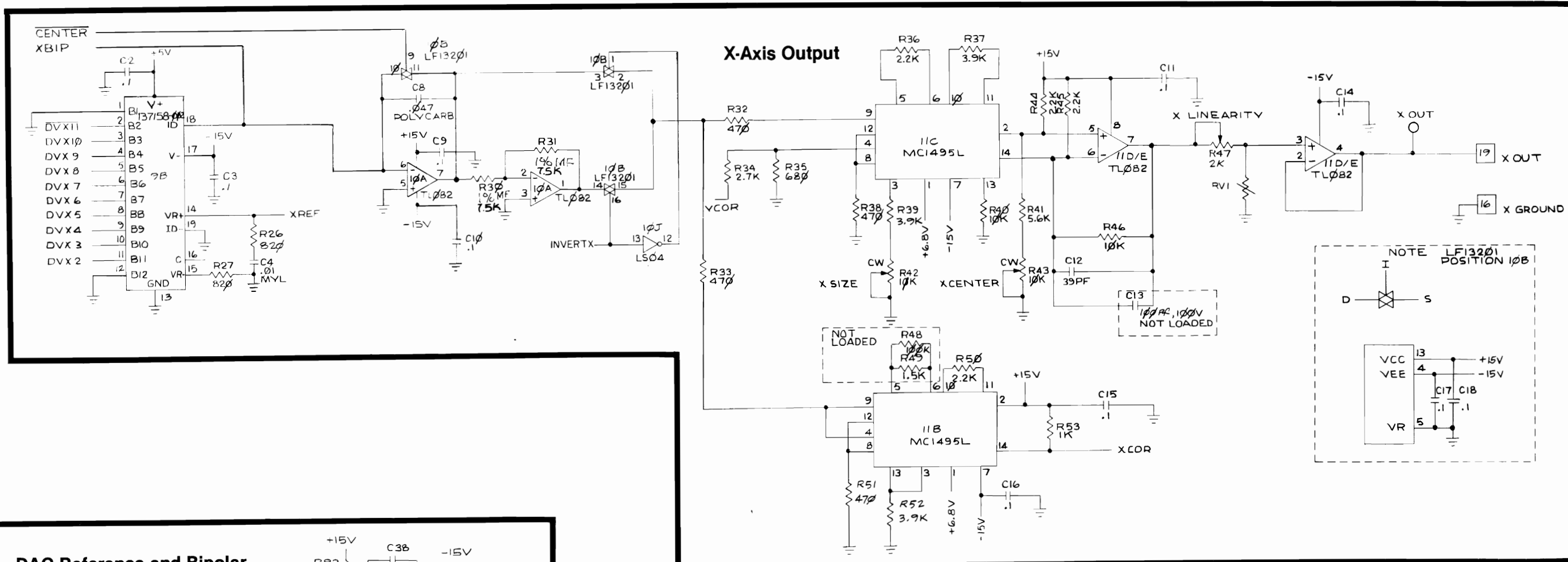


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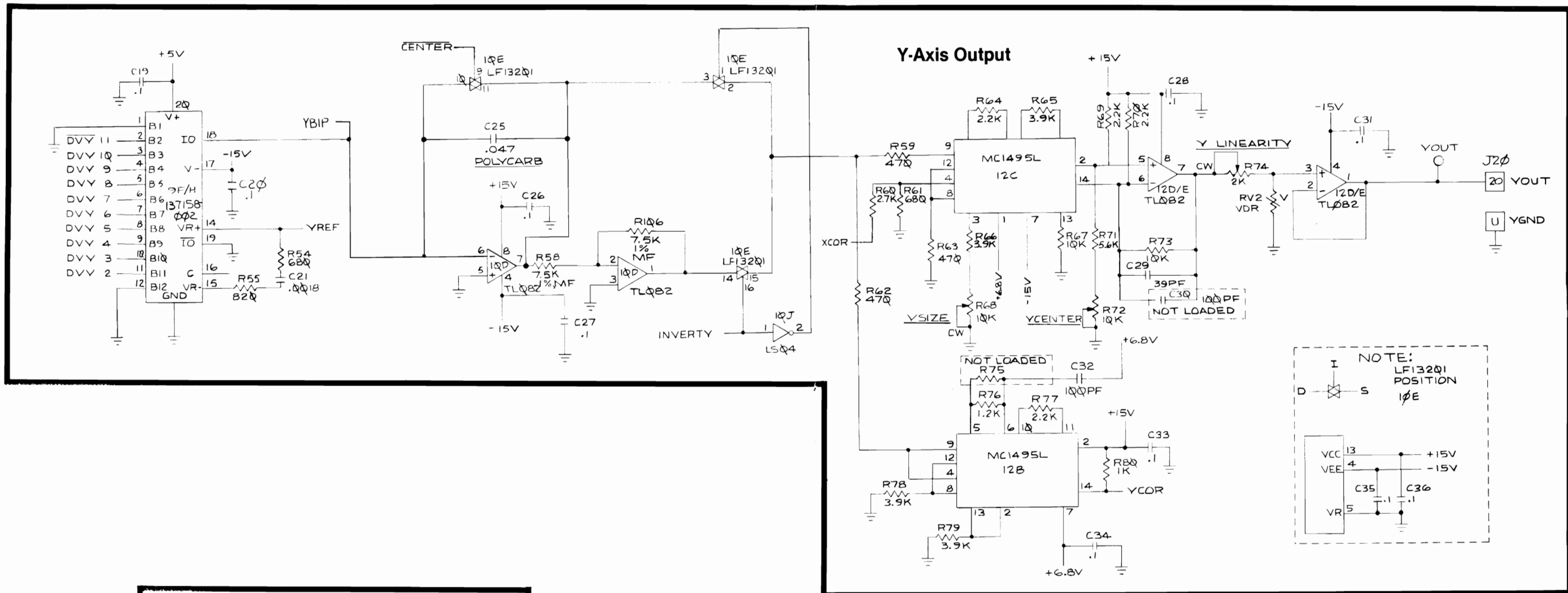


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Quantum™ PCB Schematic Diagram

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Adjusting the X- and Y-Axis Video Potentiometers

The X- and Y-Axis potentiometers; which are X SIZE, X CENTER, X LINEARITY, Y SIZE, Y CENTER, and Y LINEARITY; are set at the factory and then sealed. These do not need to be adjusted by the game operator.

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Quantum™ PCB Schematic Diagram

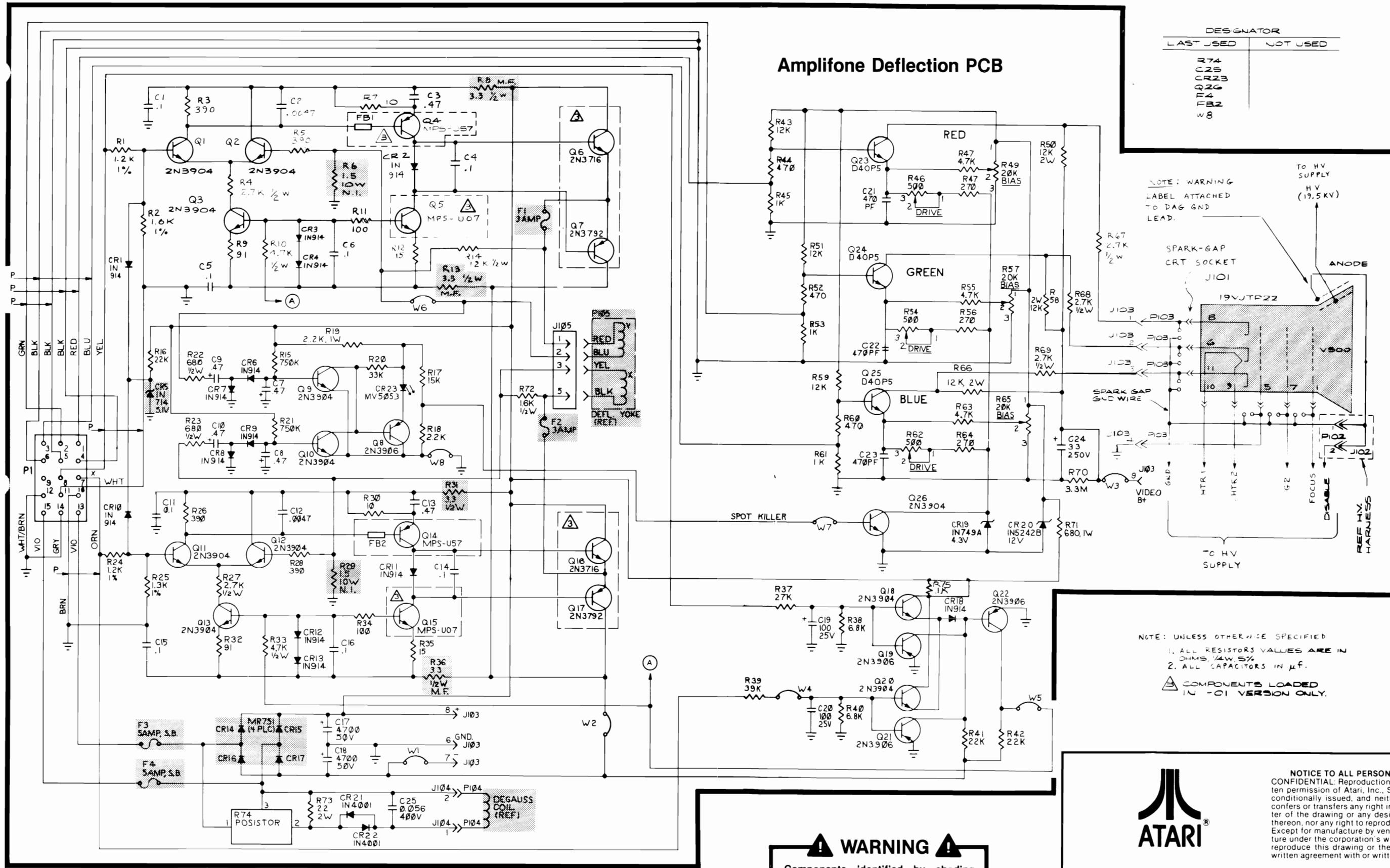
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Amplifone Deflection PCB

DESIGNATOR	
LAST USED	NOT USED
R74	
C25	
CR23	
Q26	
F4	
FB2	
W8	



NOTE: WARNING LABEL ATTACHED TO DAG GND LEAD.

NOTE: UNLESS OTHERWISE SPECIFIED
 1. ALL RESISTOR VALUES ARE IN OHMS, 1/4W 5%
 2. ALL CAPACITORS IN μ F.
 ⚠ COMPONENTS SHOWN IN -01 VERSION ONLY.

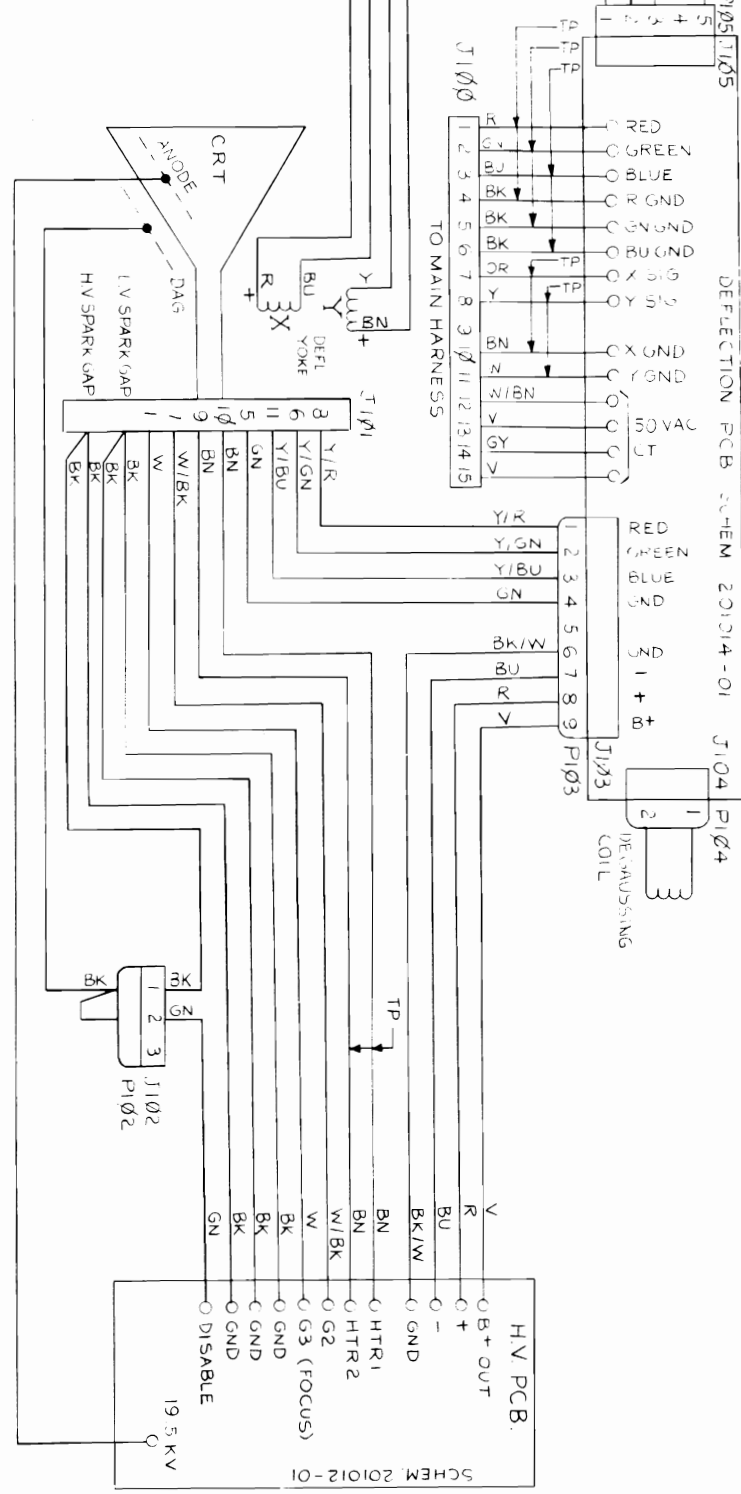
⚠ WARNING ⚠
 Components identified by shading have special characteristics important to safety and should be replaced only with identical types.



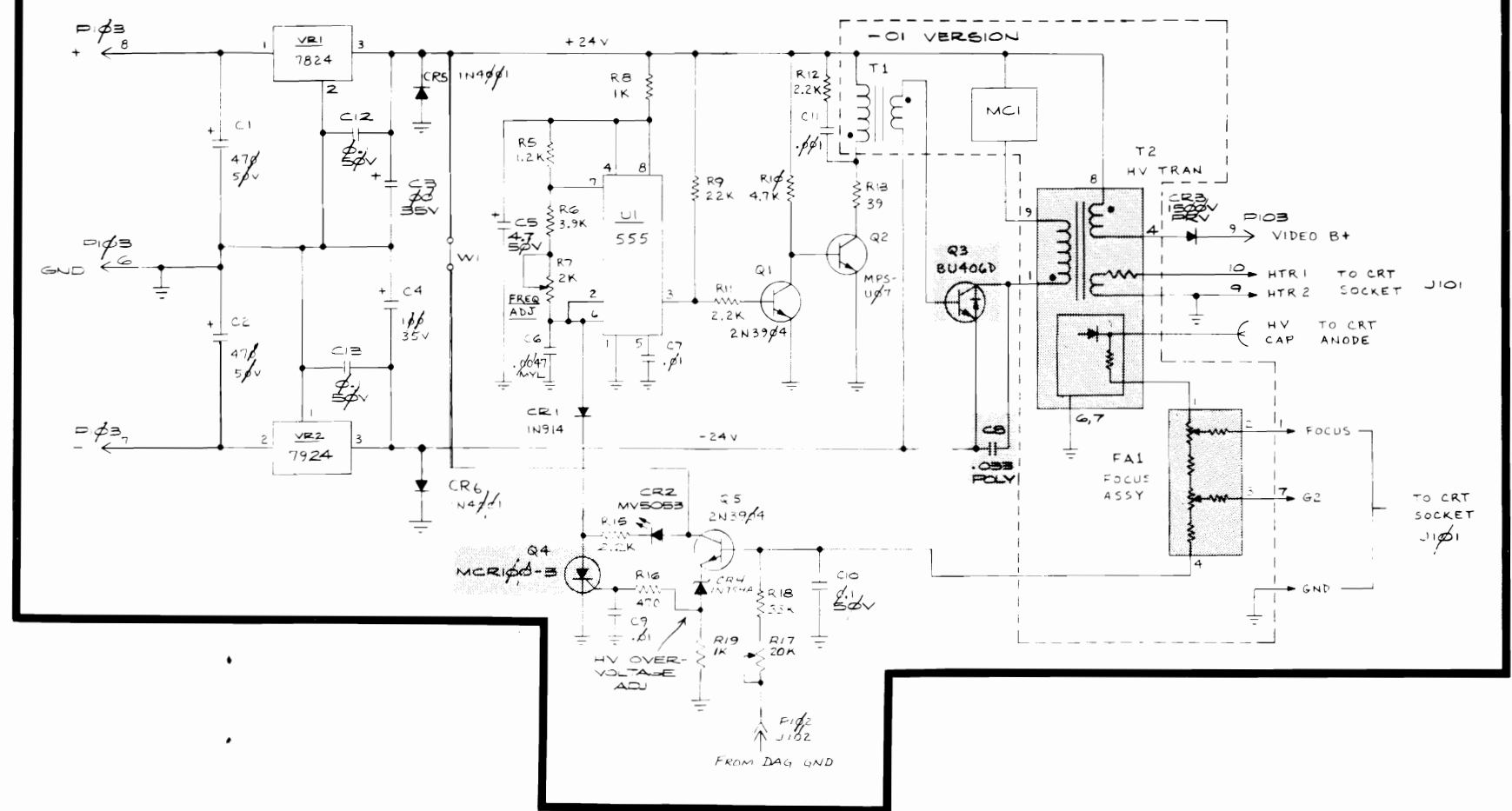
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Amplifone Color X-Y Display Schematic

Amplifone Main Wiring Diagram



Amplifone High-Voltage PCB



Note: Unless otherwise specified.
 1. All resistor values are in ohms, 1/4 W, 5%
 2. All capacitor values are in μF .

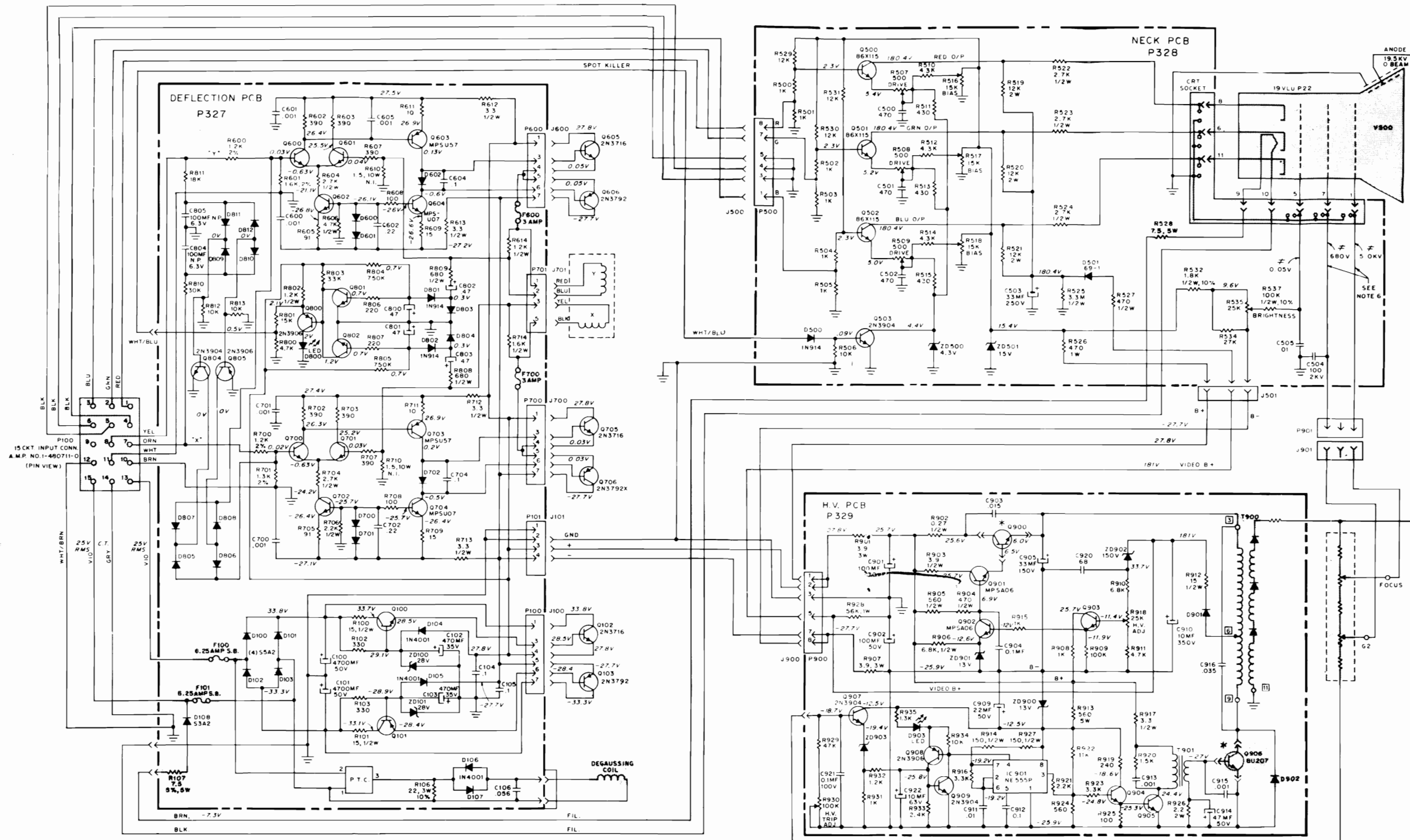
WARNING
 Components identified by shading have special characteristics important to safety and must be replaced only with identical parts.

DESIGNATOR	
LAST USED	NOT USED
VR1	R1-4, 14
VR2	
Q1	
Q2	
Q3	
Q4	
Q5	
Q6	
Q7	
Q8	
Q9	
Q10	
Q11	
Q12	
Q13	
Q14	
Q15	
Q16	



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Amplifone Color X-Y Display Schematic



WARNING
 Components identified by shading have special characteristics important to safety and should be replaced only with identical types.

GENERAL NOTES

1. Resistance values in ohms, 1/4 watt, ±5%, unless otherwise noted. K = 1,000, M = 1,000,000
2. Capacitance value of 1 or less is in microFarads, above 1 in picoFarads, unless otherwise noted.
3. * Q900 and Q906 are not in High-Voltage PCB.
4. All D.C. voltages are ±10% measured from point indicated to ground, using a high-impedance meter. Voltages are measured with no signal input and controls are in a normal operating position.
5. Circled numbers indicate location of waveform reading.
6. ZD100-101 uses (66X0040-007) zener diode in series with (340X2331-934) 330-ohm resistor in early production models.
7. Use a 1,000:1 probe when measuring G2 (screen) or focus voltage.



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**Wells Gardner
 Color X-Y Display Schematic Diagram**

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