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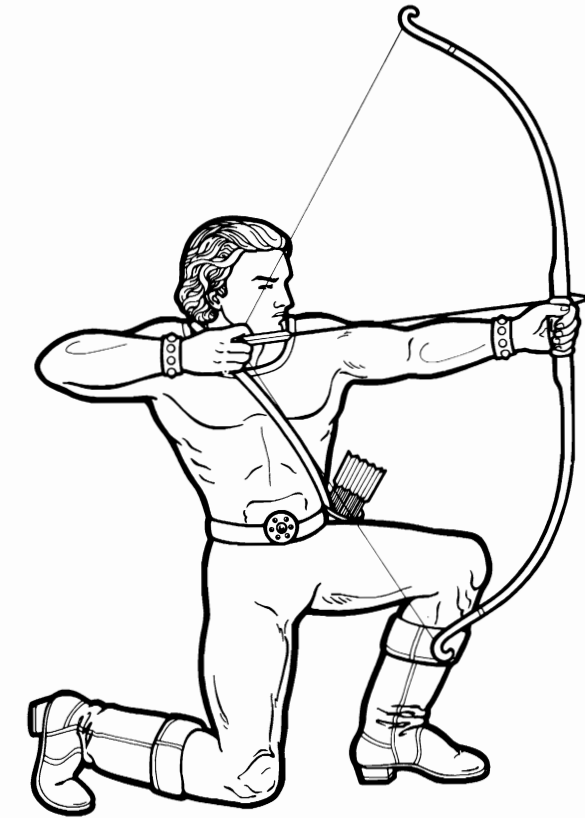
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NOTE  
This staple temporarily holds the schematic package together. Remove the staple before using these schematics.



## Schematic Package Supplement to

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MILLIPEDE™

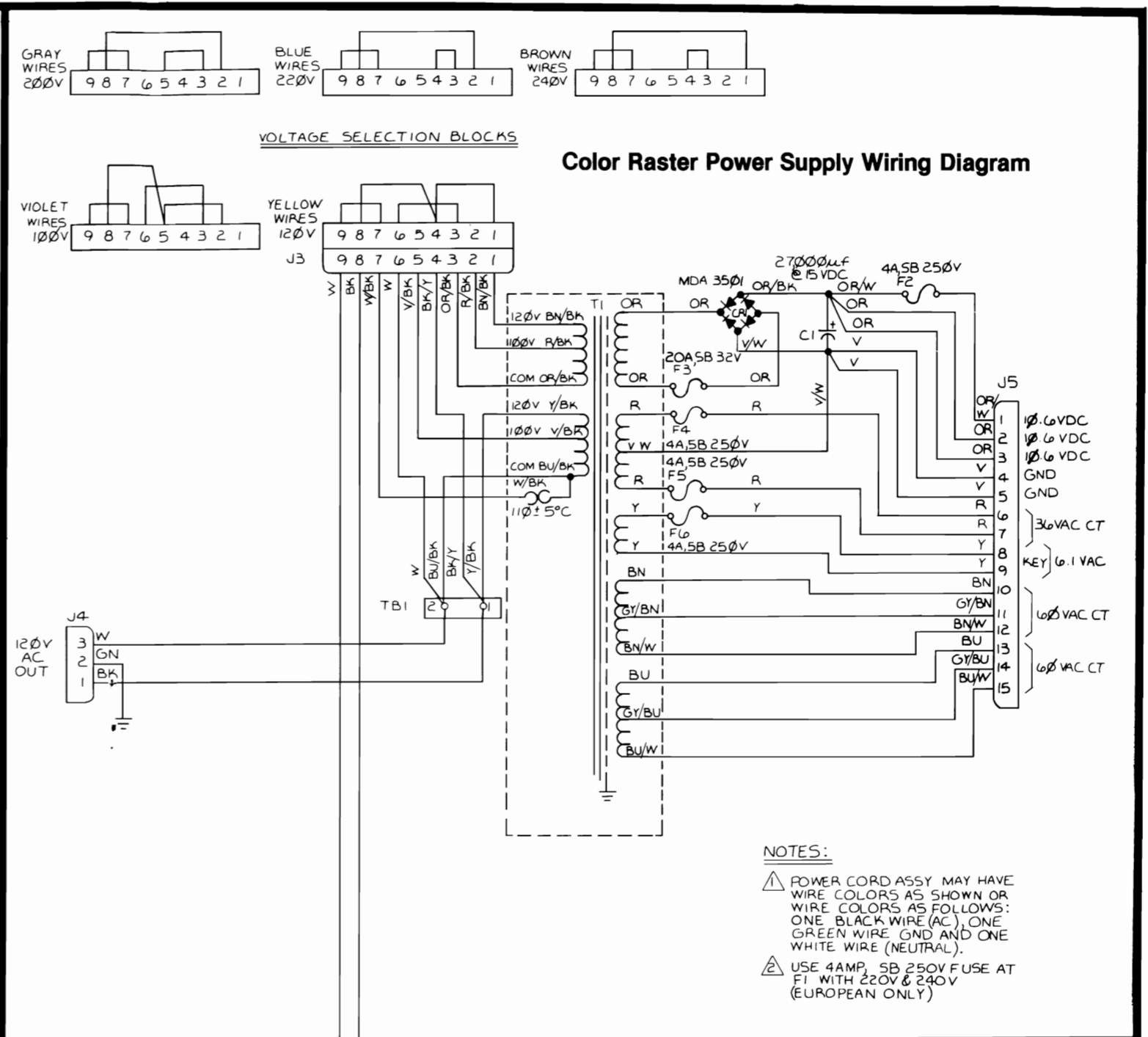
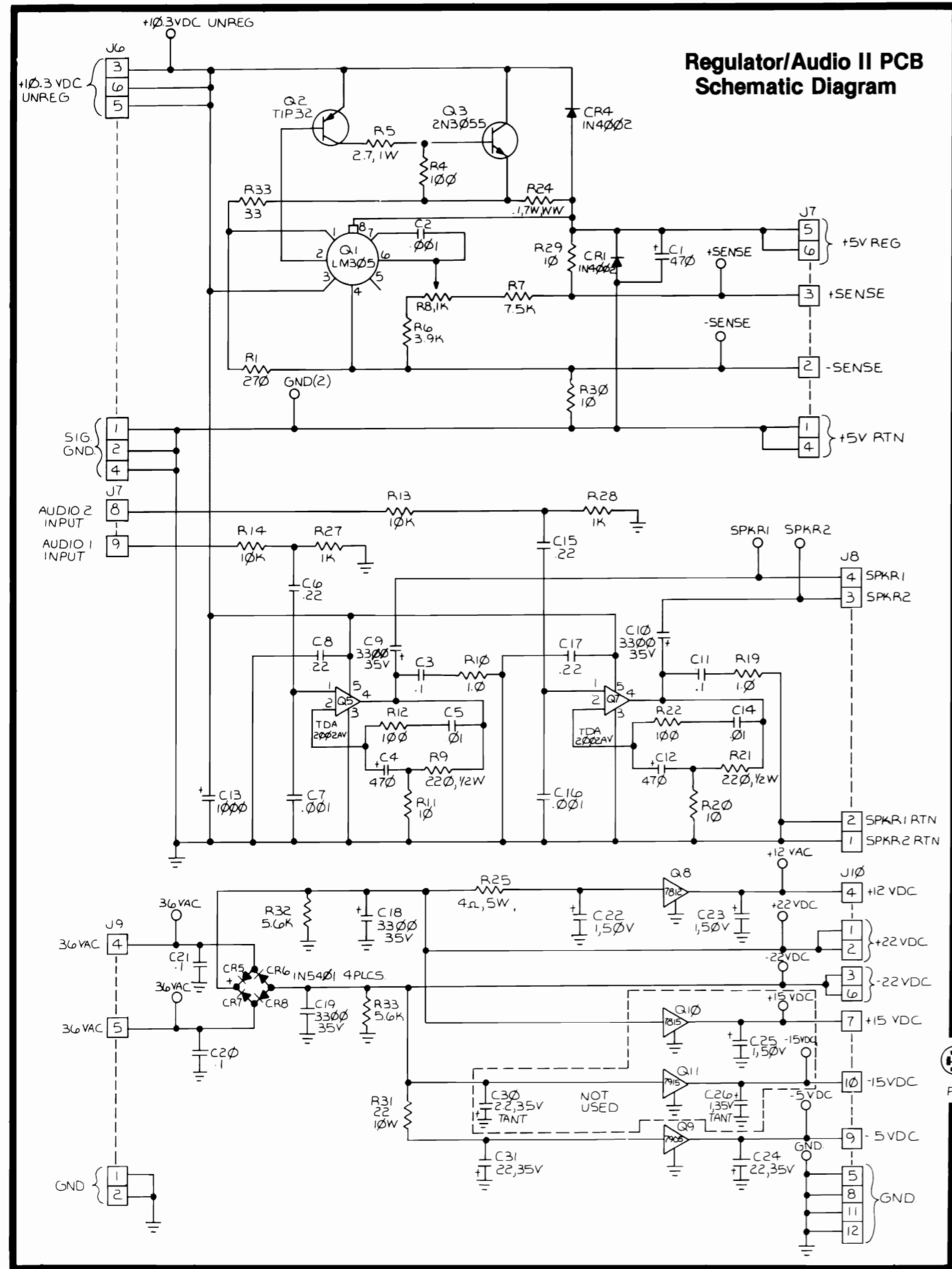
## Operation, Maintenance, and Service Manual

10 L

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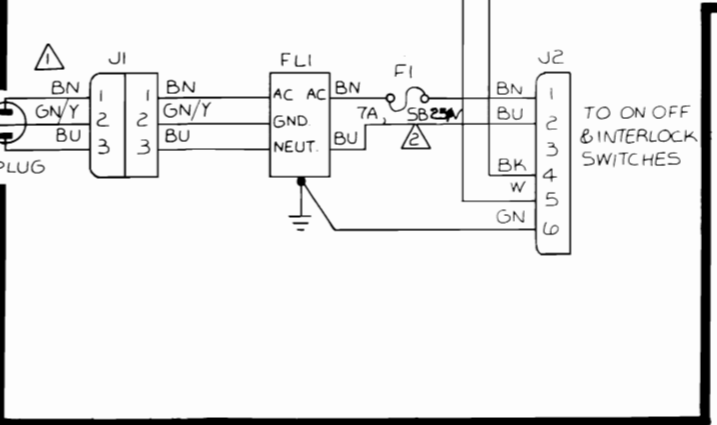
SP-217 Sheet 1A  
1st printing






**NOTES:**

- ⚠ POWER CORD ASSY MAY HAVE WIRE COLORS AS SHOWN OR WIRE COLORS AS FOLLOWS: ONE BLACK WIRE (AC), ONE GREEN WIRE GND AND ONE WHITE WIRE (NEUTRAL).
- ⚠ USE 4AMP, 5B 250V FUSE AT F1 WITH 220V & 240V (EUROPEAN ONLY)





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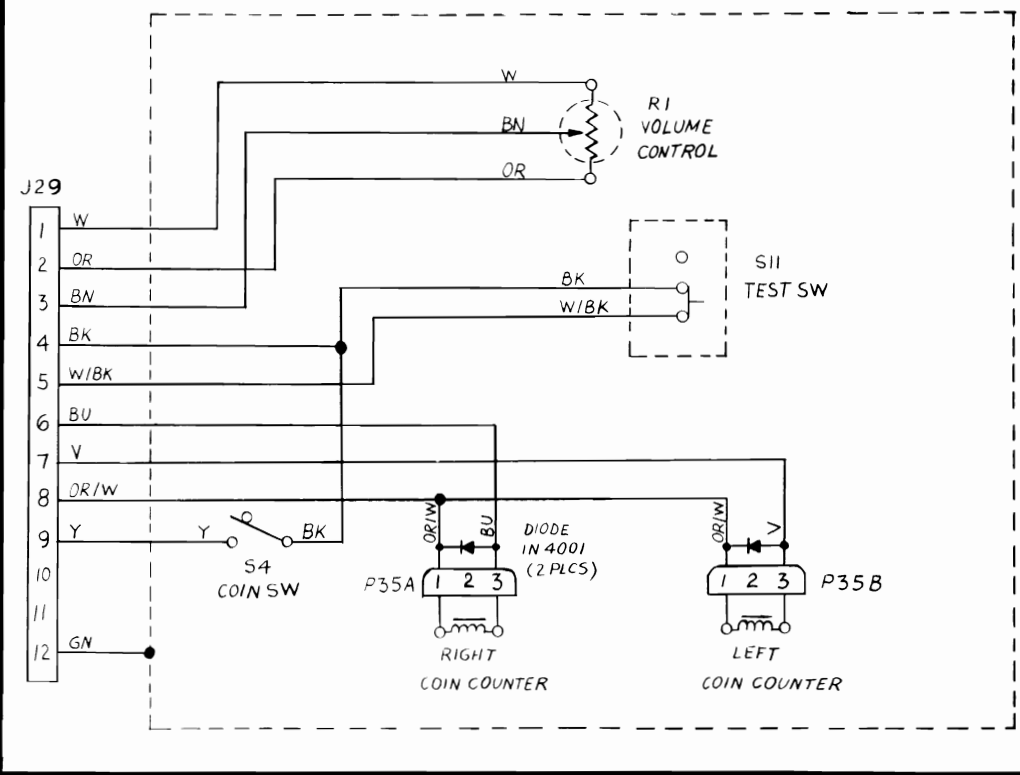
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### Millipede™ Reg./Audio II PCB and Power Supply Diagrams

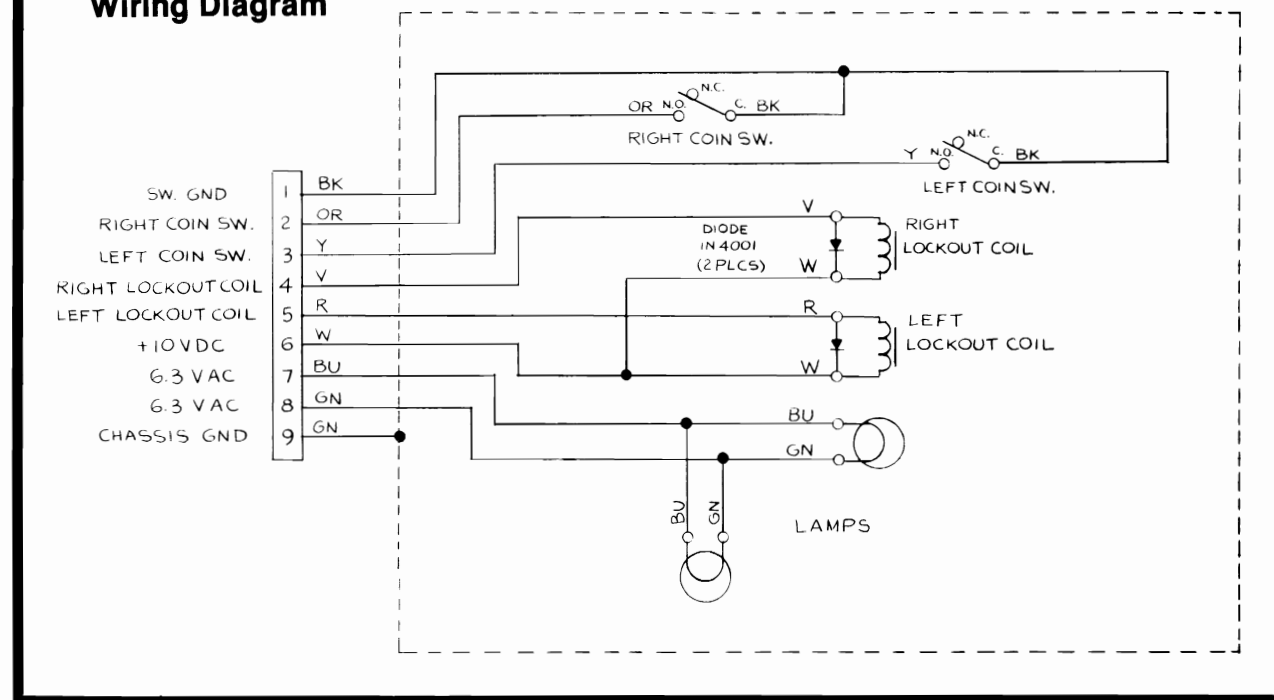
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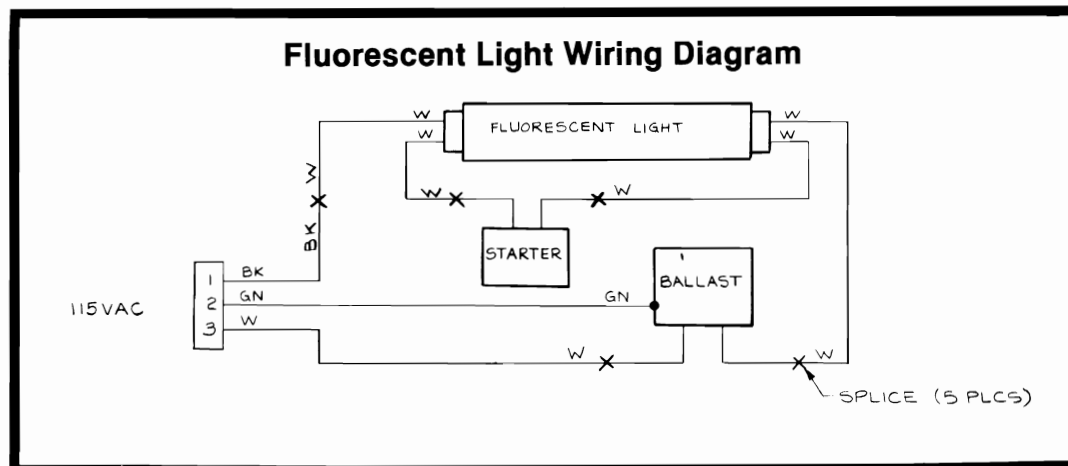
### Utility Panel Wiring Diagram



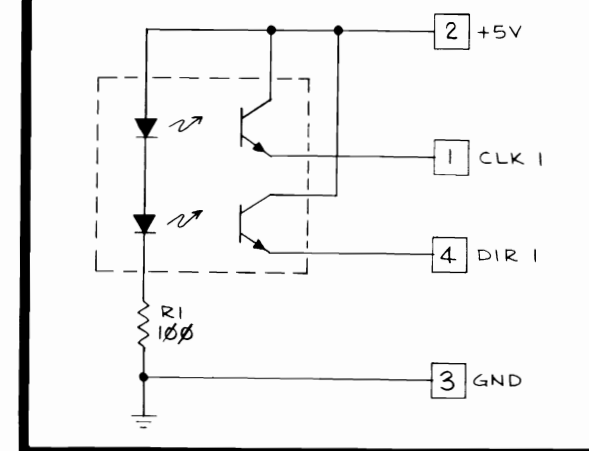
### Coin Door Wiring Diagram



### Fluorescent Light Wiring Diagram



### Coupler PCB Schematic



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### Millipede™ Game Wiring Interfaces

## MEMORY MAP

HEXA-DECIMAL ADDRESS	ADDRESS BUS SIGNAL LINES										R/W	DATA BUS SIGNAL LINES								FUNCTION				
	A14	A13	A12	A11	A10	A9	A8	A7	A6	A5		A4	A3	A2	A1	A0	D7	D6	D5		D4	D3	D2	D1
0000-03FF	0	0	0	0	0	A	A	A	A	A	A	A	A	A	A	D	D	D	D	D	D	D	D	RAM
0400-0410 0408	0	0	0	0	1						A	A	A	A		D	D	D	D	D	D	D	D	i/O S0 OPTION SWITCH 0
0800-0810 0808	0	0	0	1	0						A	A	A	A		D	D	D	D	D	D	D	D	i/O S1 OPTION SWITCH 1
1000-13BF 13C0-13CF 13D0-13DF 13E0-13EF 13F0-13FF	0	0	1			A	A	A	A	A	A	A	A	A	A	D	D	D	D	D	D	D	D	PLAYFIELD RAM MOTION OBJECT PICTURE MOTION OBJECT VERTICAL MOTION OBJECT HORIZONTAL MOTION OBJECT COLOR
2000	0	1	0	0	0				0	0				0		D								TRACKBALL HORIZ DIR VBLANK START 1 SWITCH FIRE 1 SWITCH TRACKBALL HORIZ COUNT OPTION SWITCH 2
2001	0	1	0	0	0				0	0				1		D								TRACKBALL VERT DIR START 2 SWITCH FIRE 2 SWITCH TRACKBALL VERT COUNT OPTION SWITCH 2
2010	0	1	0	0	0				0	1				0		D	D	D						COIN SWITCHES SLAM SWITCH JOYSTICK POSITIONS
2011	0	1	0	0	0				0	1				1		D								SELF-TEST SWITCH CABINET SELECT
2030	0	1	0	0	0				1	1						D	D	D	D	D	D	D	D	EAROMRD.
2480-248F 2490-249F	0	1	0	0	1	0	0	1			0	A	A	A	A	W	D	D	D	D	D	D	D	STAMP COLOR RAM MOTION OBJECT COLOR RAM
2501	0	1	0	0	1	0	1	0			0	0	1			W	D							COIN CNTR L
2502	0	1	0	0	1	0	1	0			0	1	0			W	D							COIN CNTR R
2503	0	1	0	0	1	0	1	0			0	1	1			W	D							START LED 1
2504	0	1	0	0	1	0	1	0			1	0	0			W	D							START LED 2
2505	0	1	0	0	1	0	1	0			1	0	1			W	D							TRACKBALL ENABLE (TBEN)
2506	0	1	0	0	1	0	1	0			1	1	0			W	D							VIDEO ROTATE (VIDROT)
2507	0	1	0	0	1	0	1	0			1	1	1			W	D							CONTROL SELECT (CNTRLSEL)
2600	0	1	0	0	1	1	0	0								W								IRQRES
2680	0	1	0	0	1	1	0	1								W								WATCHDOG
2700	0	1	0	0	1	1	1	0								W				D	D	D	D	EAROMCON
2780	0	1	0	0	1	1	1	1								W	D	D	D	D	D	D	D	EAROMWR
300-3FFF 400-7FFF	0	1	1	A	A	A	A	A	A	A	A	A	A	A	A	R	D	D	D	D	D	D	D	ROM (NOT USED)
	1	A	A	A	A	A	A	A	A	A	A	A	A	A	A	R	D	D	D	D	D	D	D	ROM

## 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 ( $\mu f$ )
- Resistors = ohms ( $\Omega$ )
- Inductors = microhenrys ( $\mu h$ )

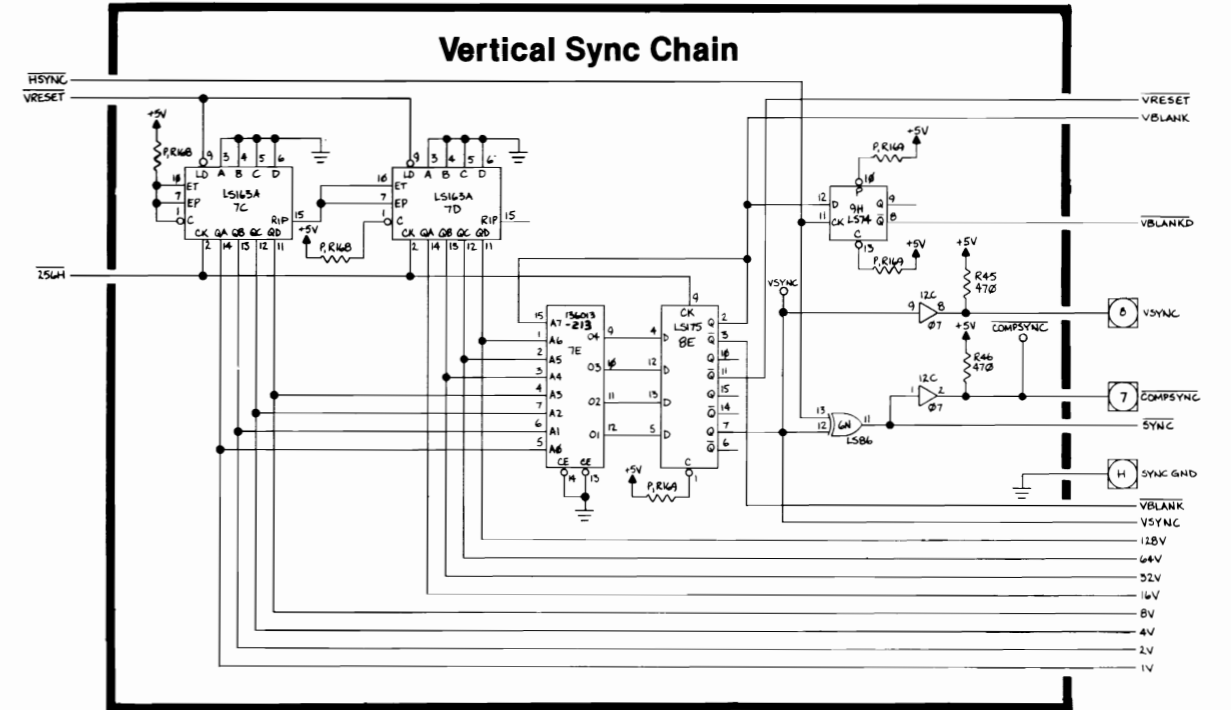
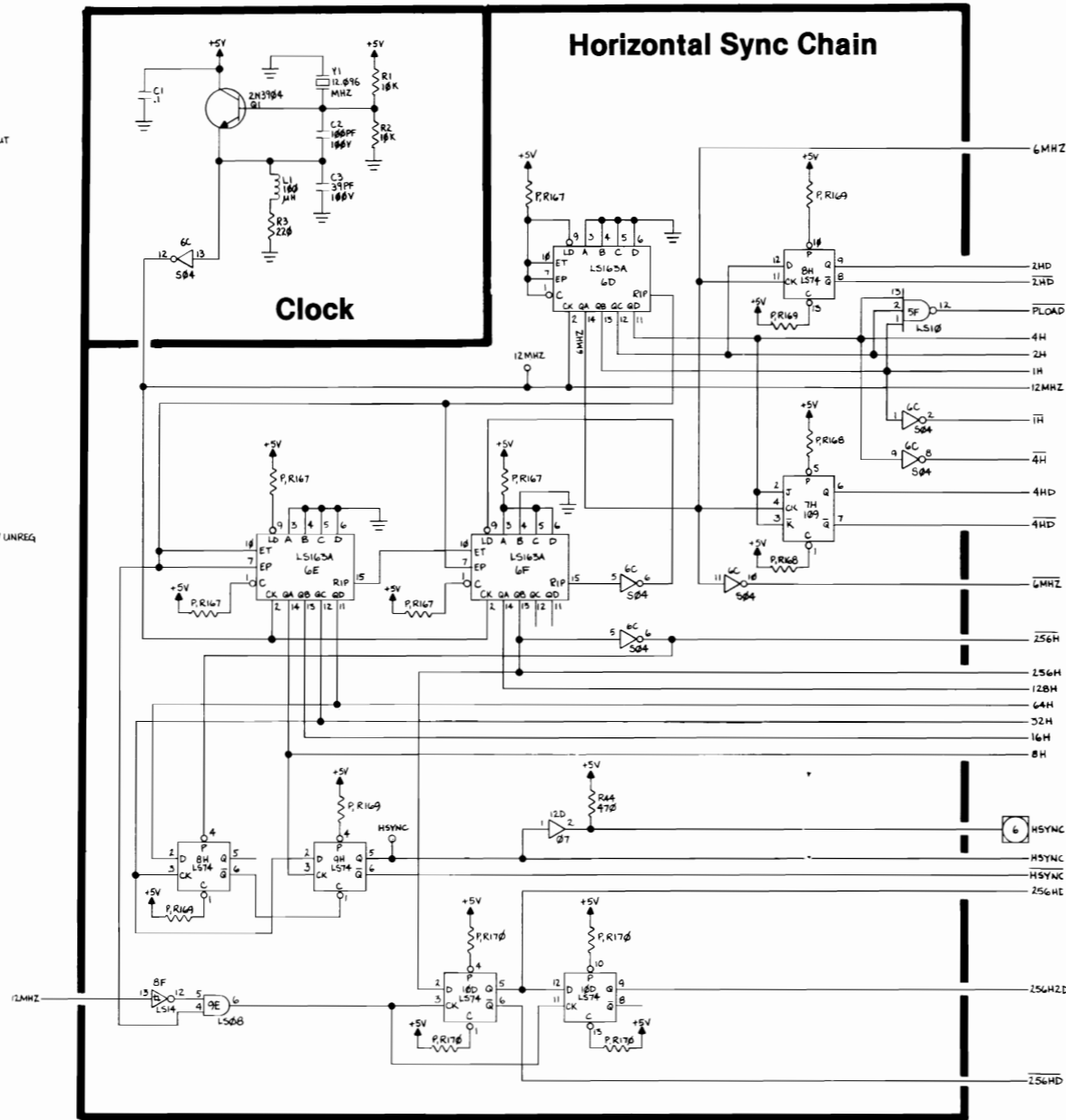
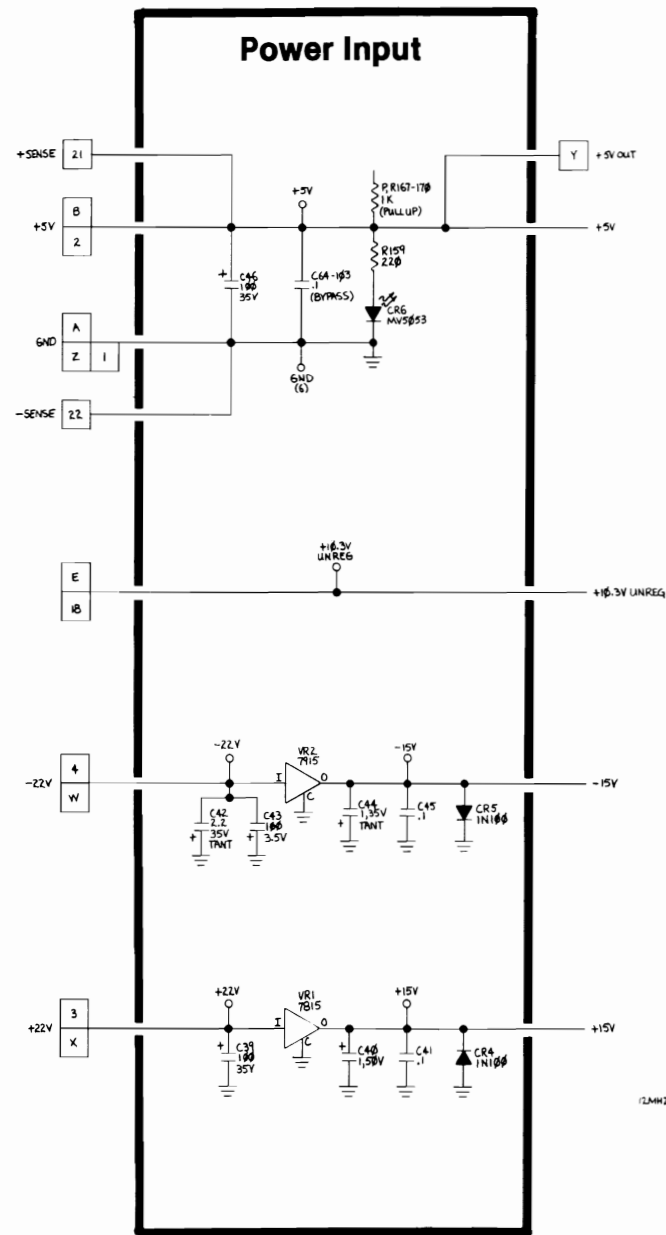
### SYMBOLS:

- Ground
- PCB edge connector pad
- Test Point
- PCB test connector pad



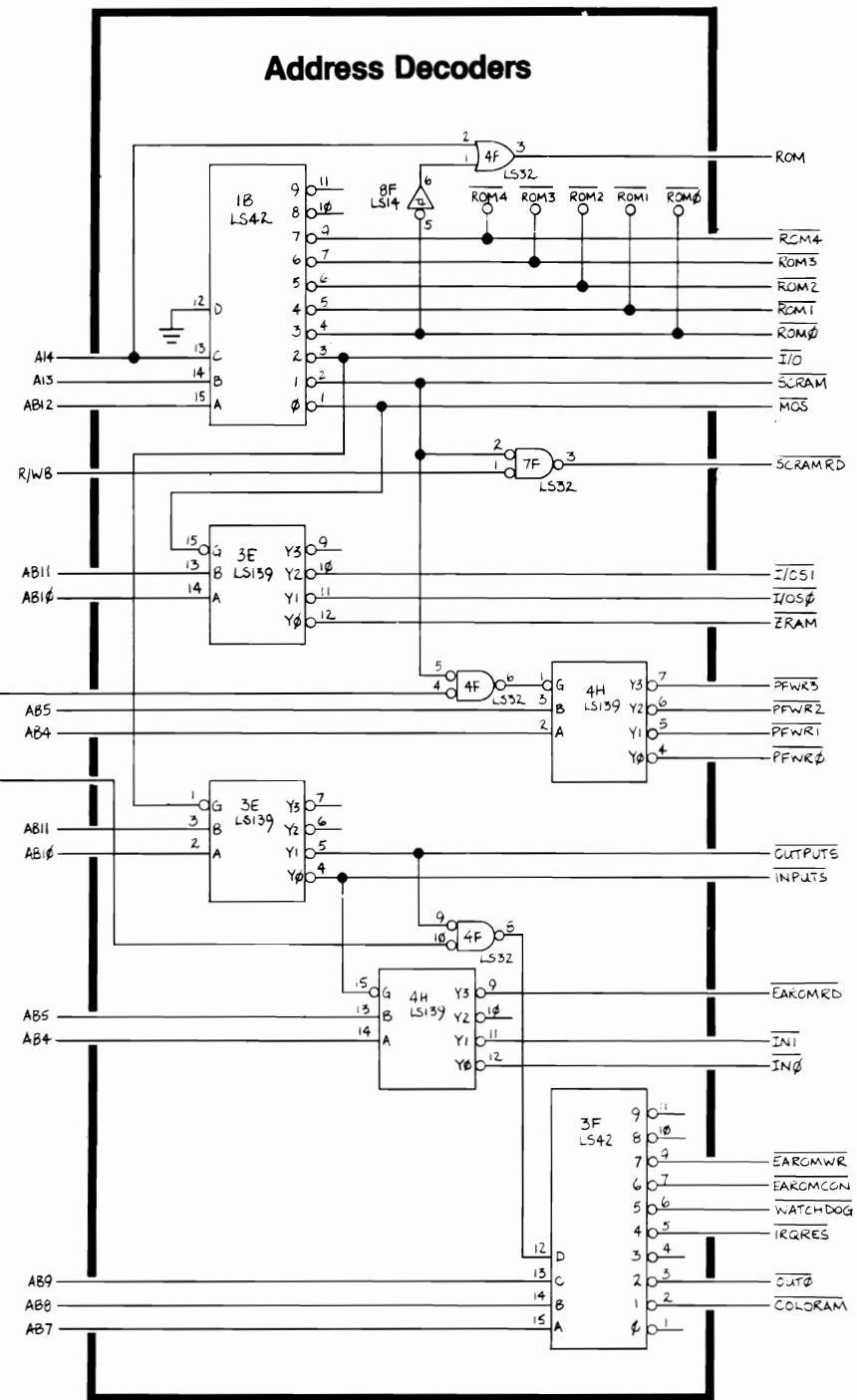
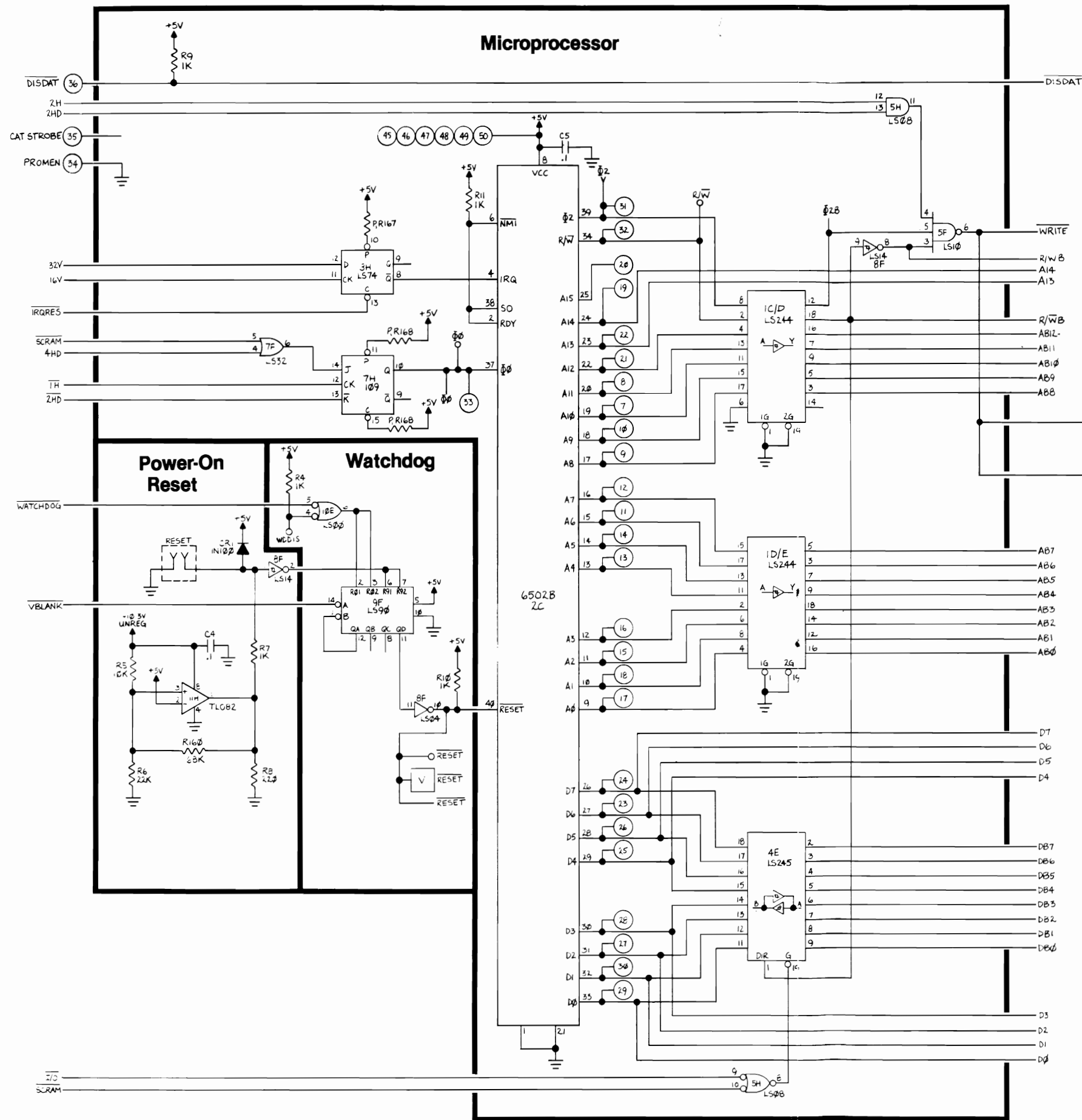
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## Millipede™ Memory Map and Schematic Notes



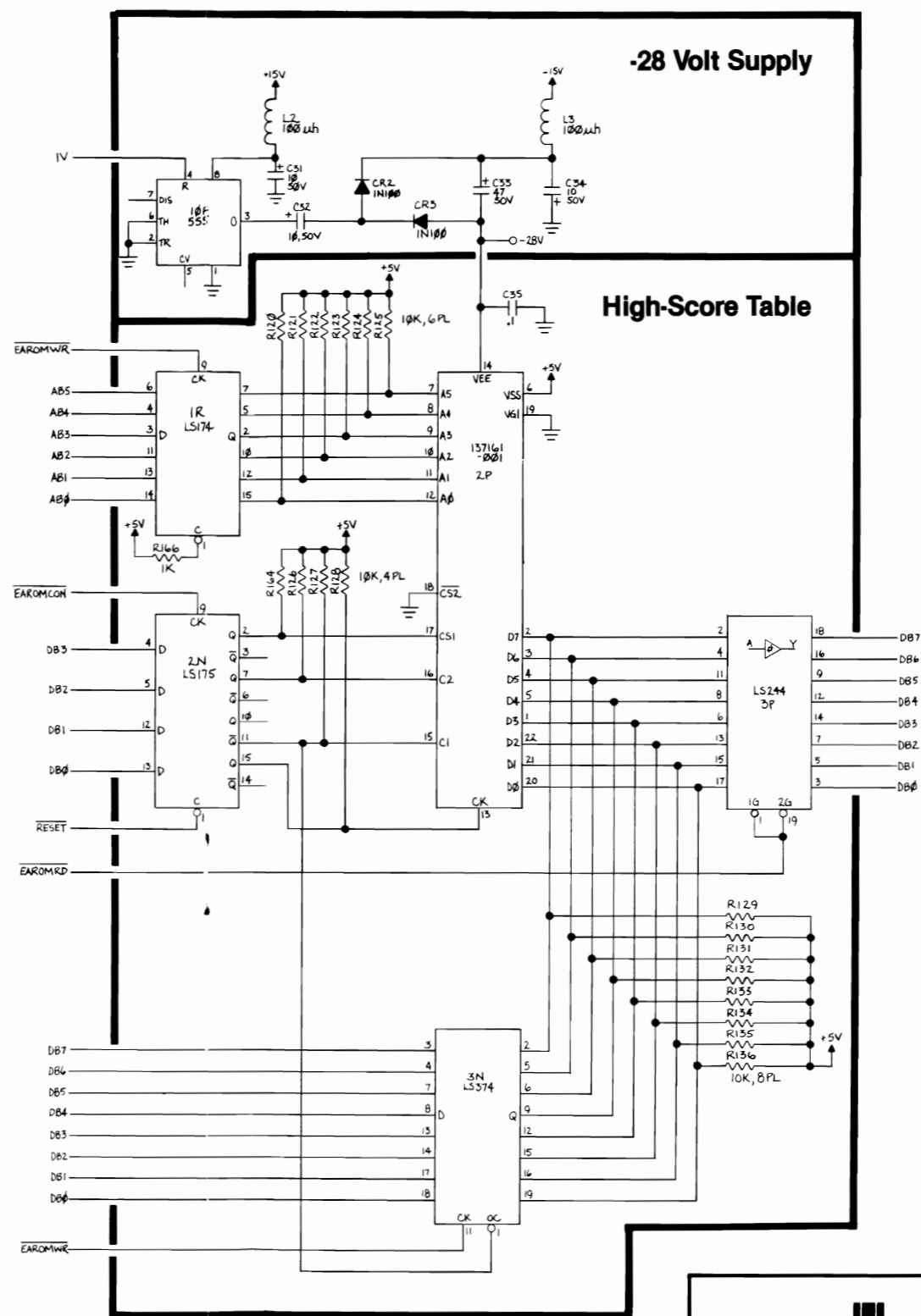
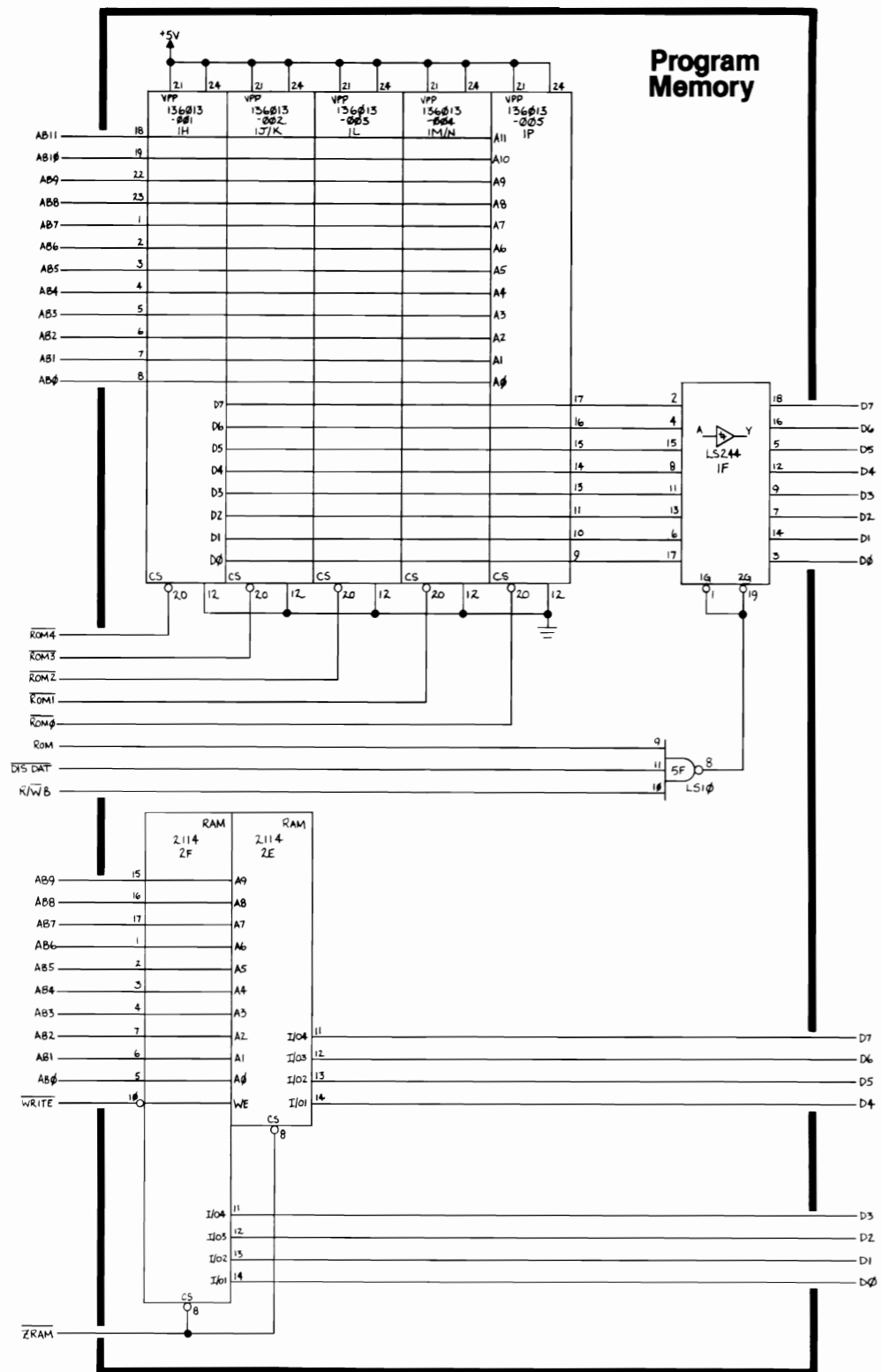
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### Millipede™ PCB Schematic Diagram



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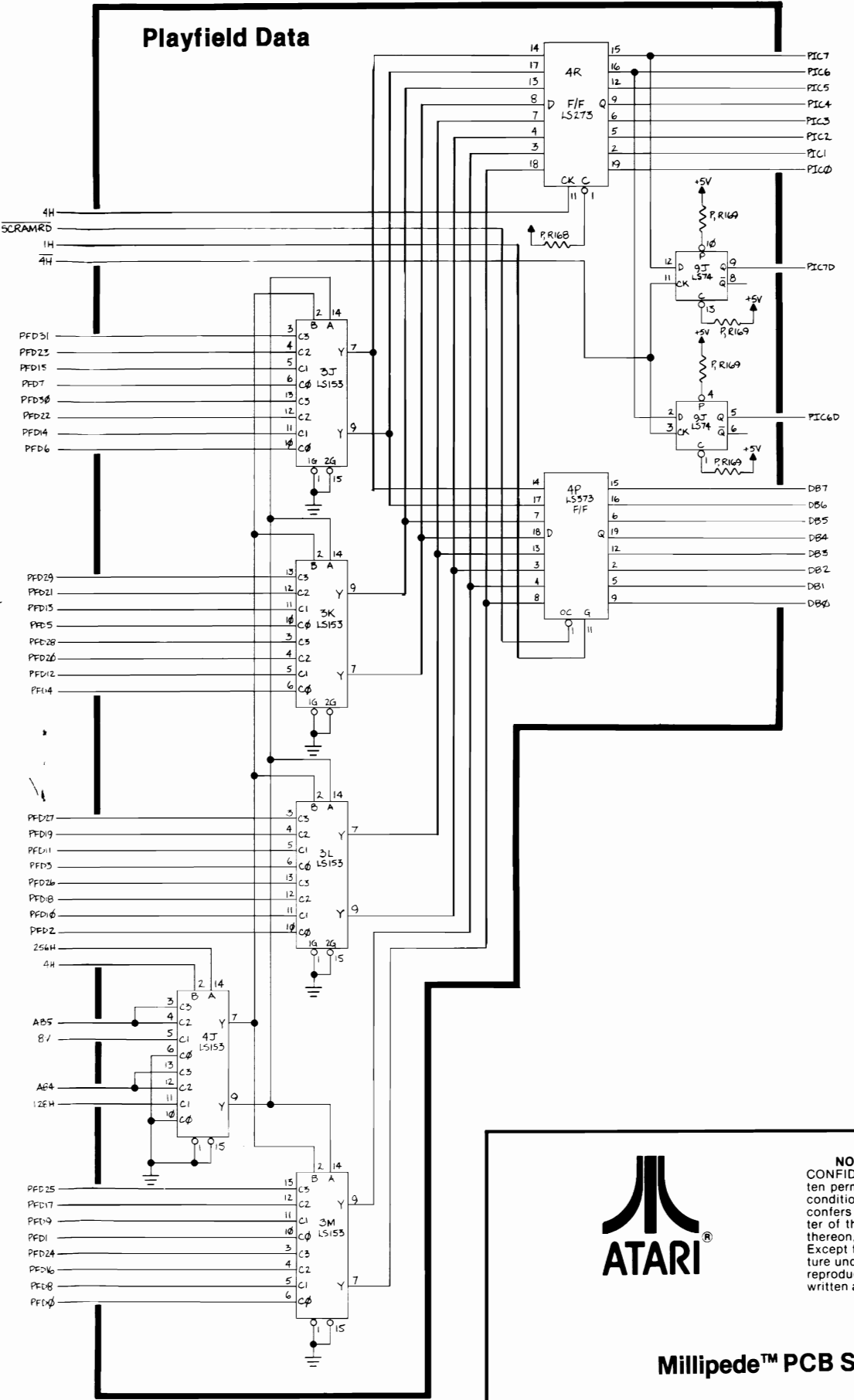
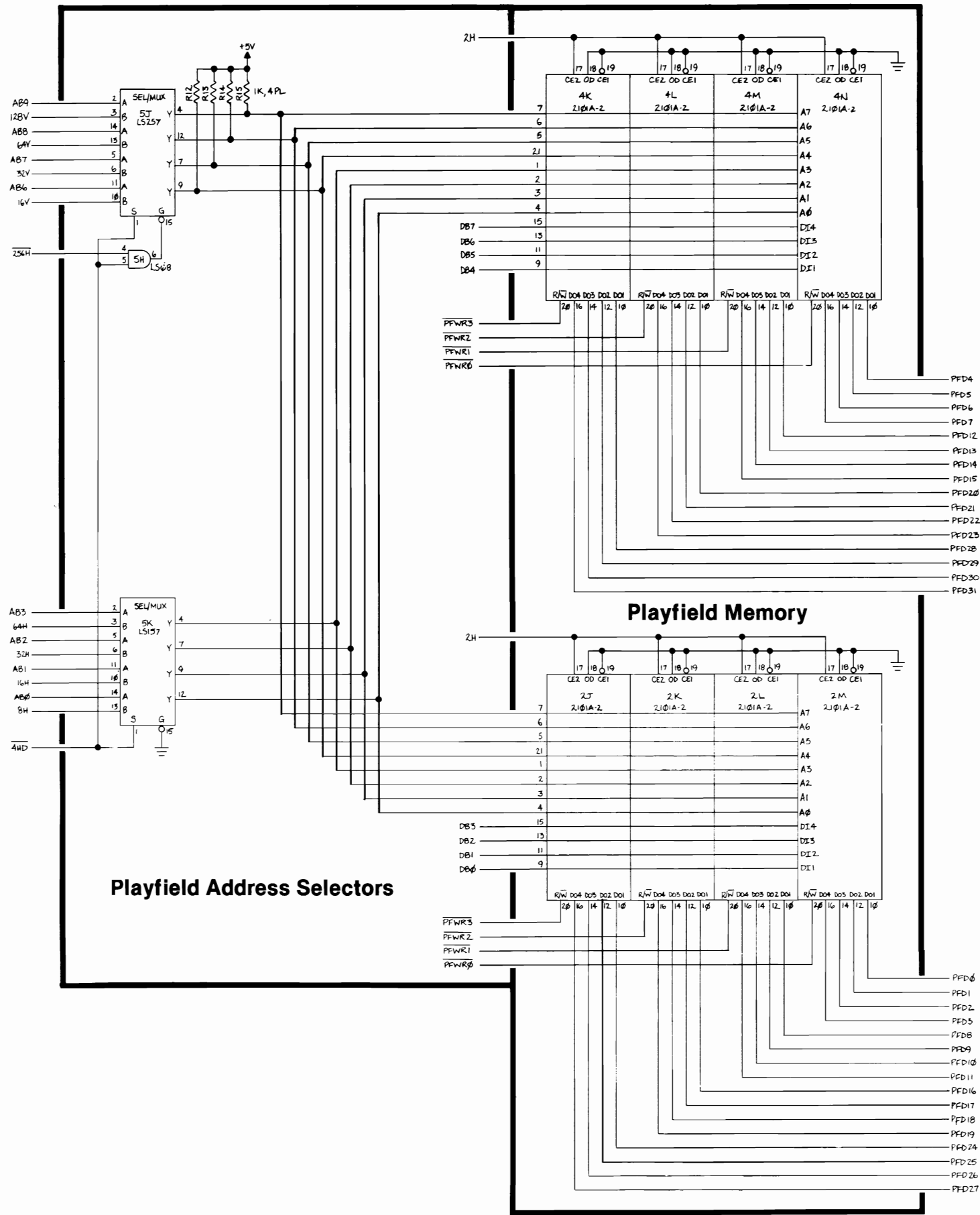
### Millipede™ PCB Schematic Diagram



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**Millipede™ PCB Schematic Diagram**





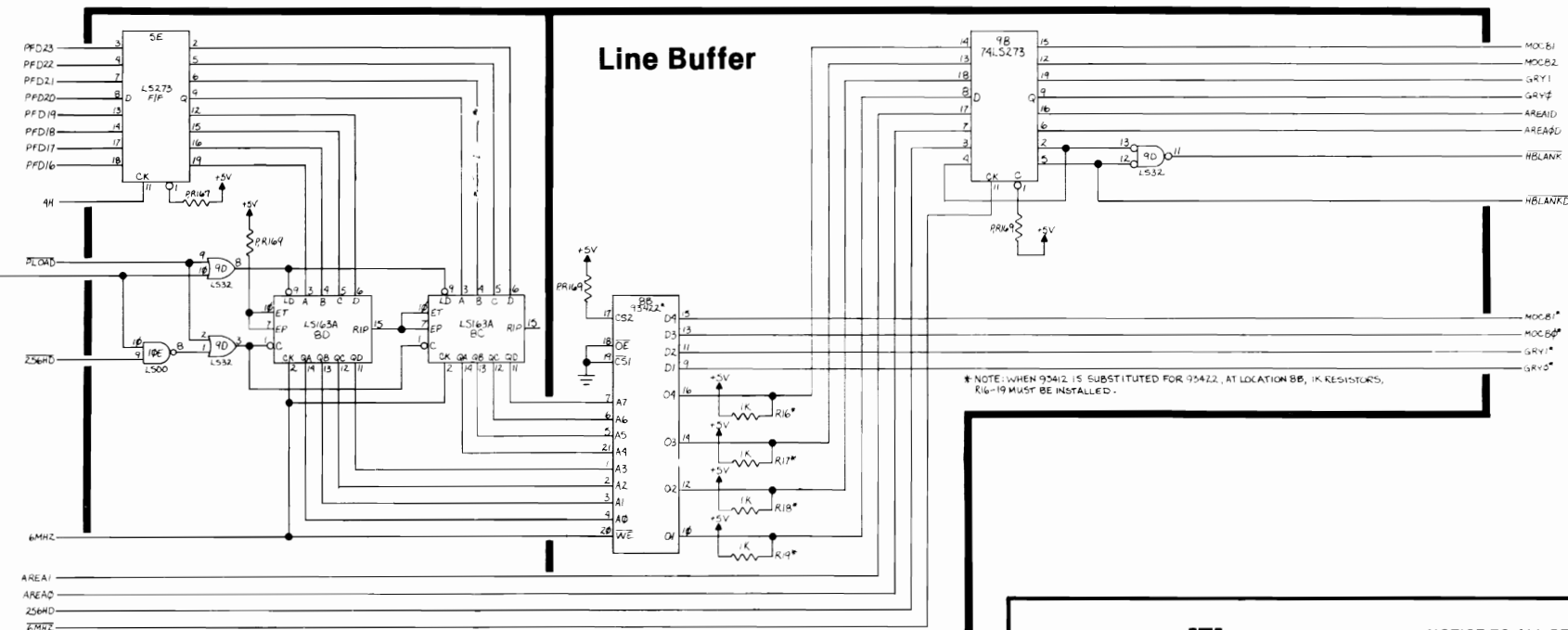
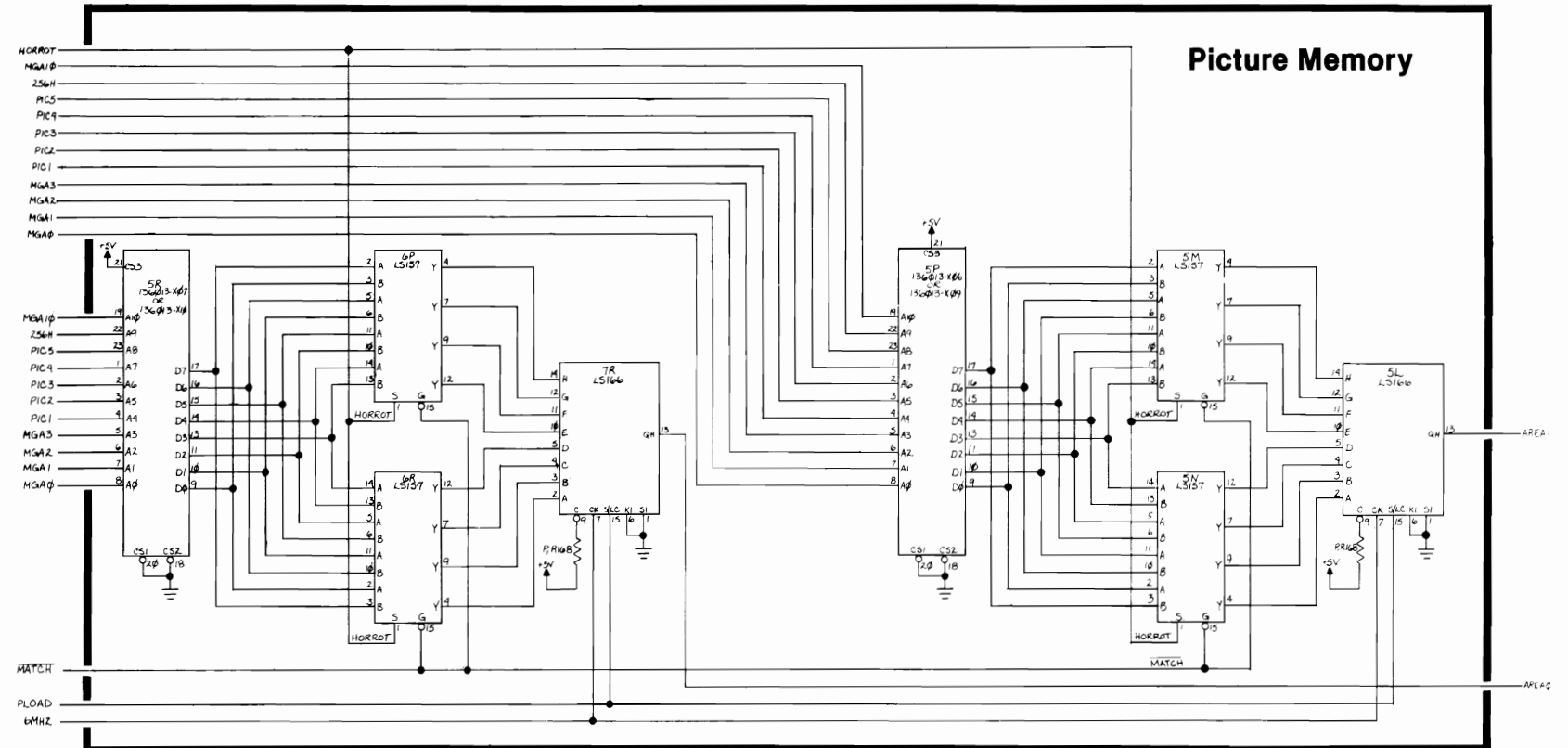
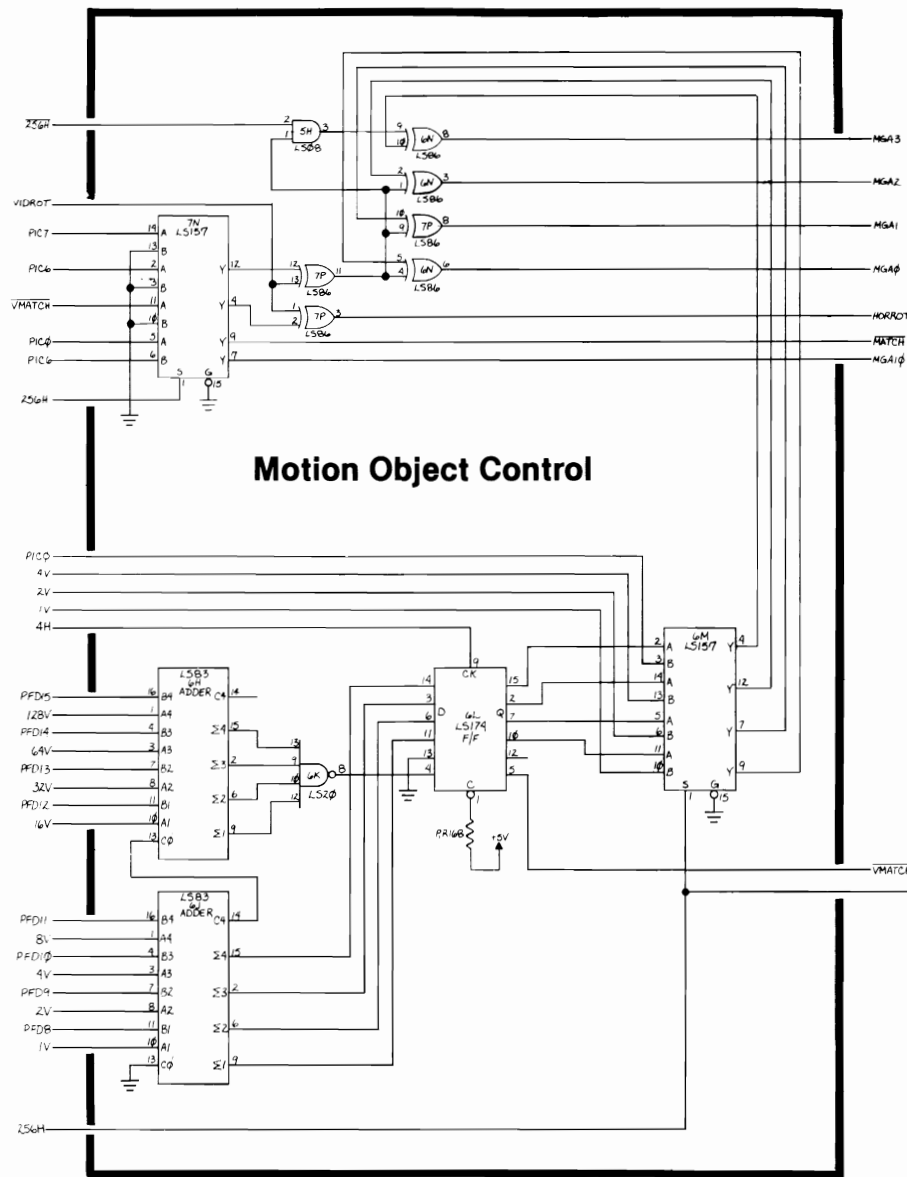
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**Millipede™ PCB Schematic Diagram**

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\* NOTE: WHEN 92412 IS SUBSTITUTED FOR 92422, AT LOCATION BB, 1K RESISTORS, R16-19 MUST BE INSTALLED.

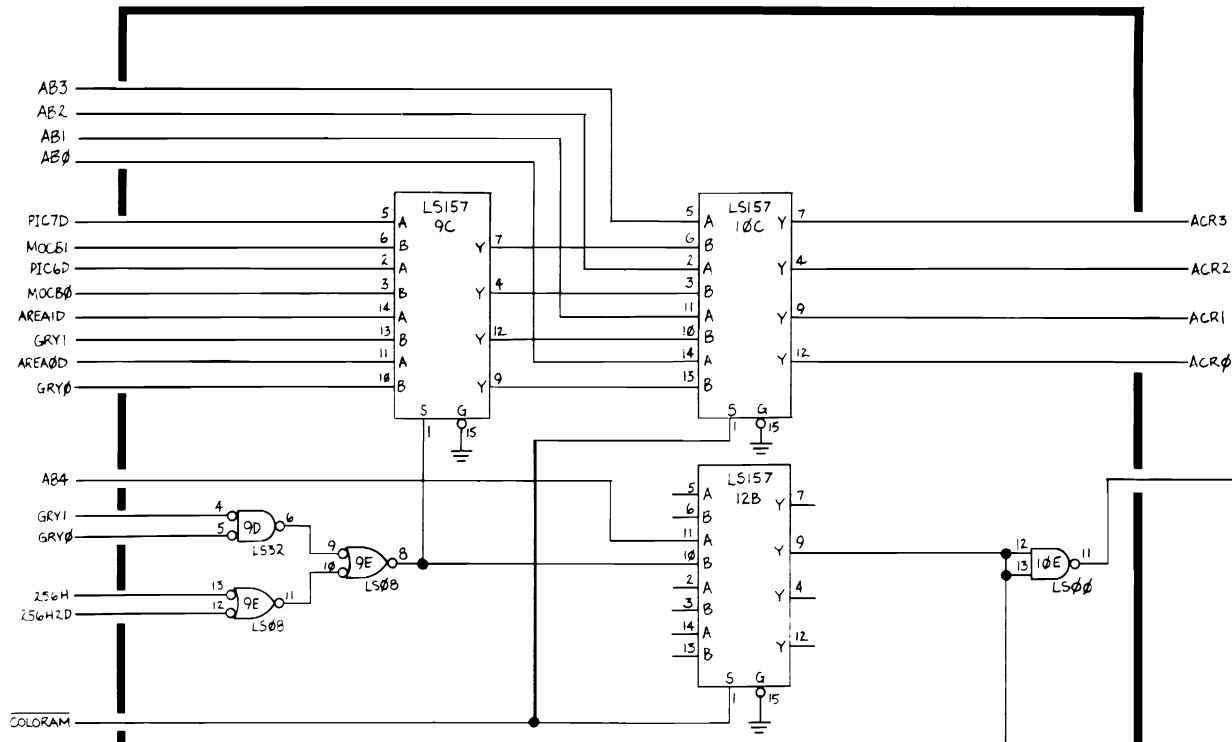
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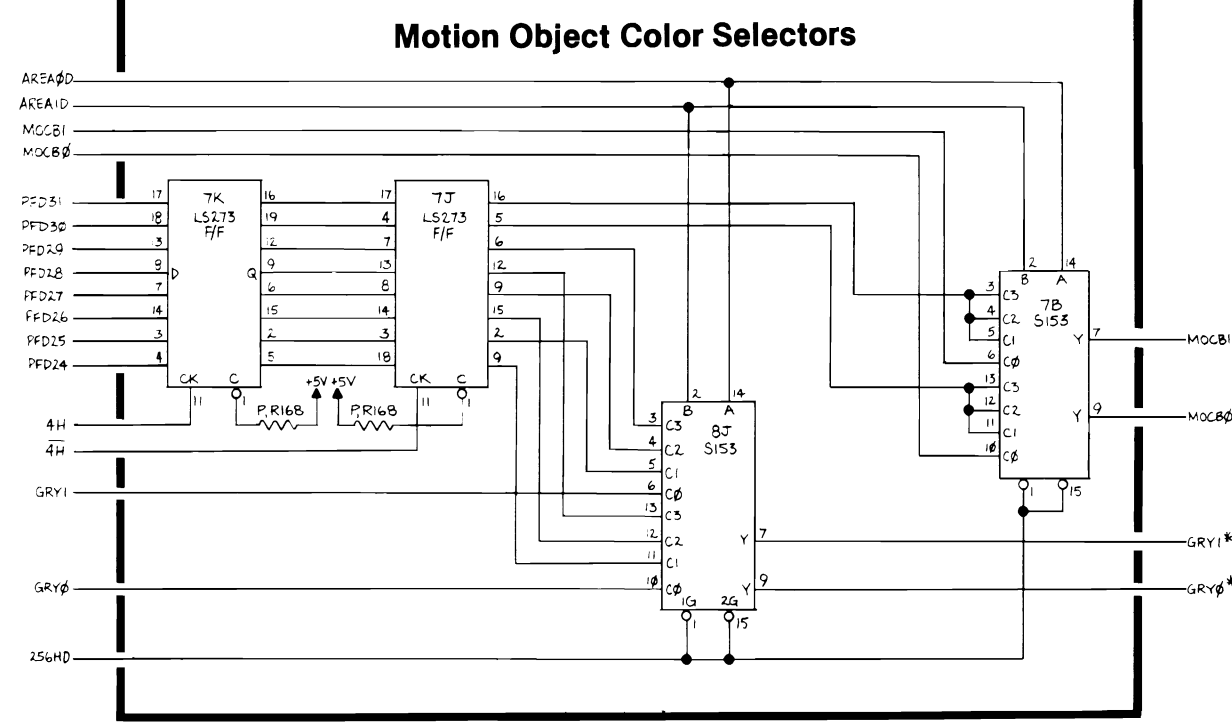
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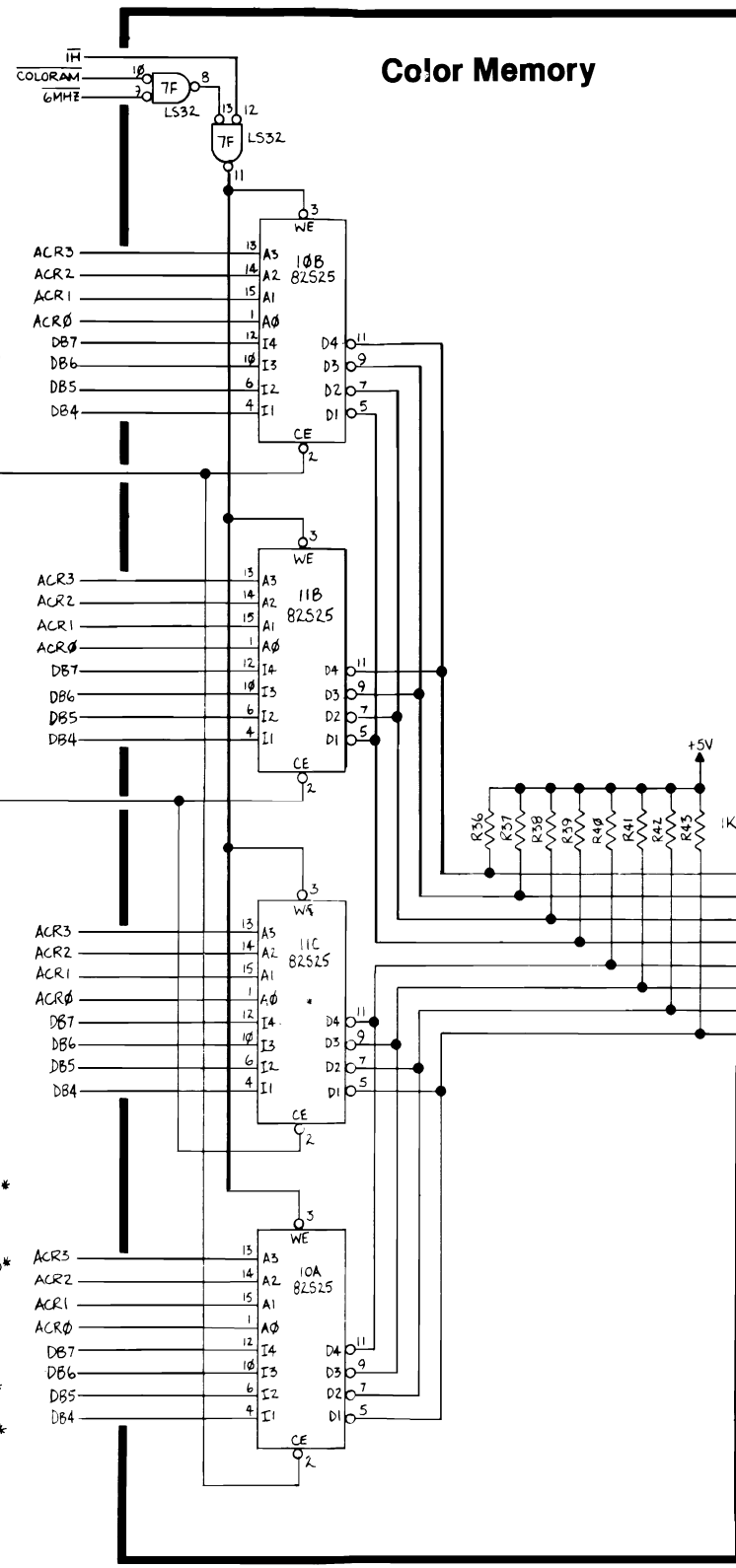
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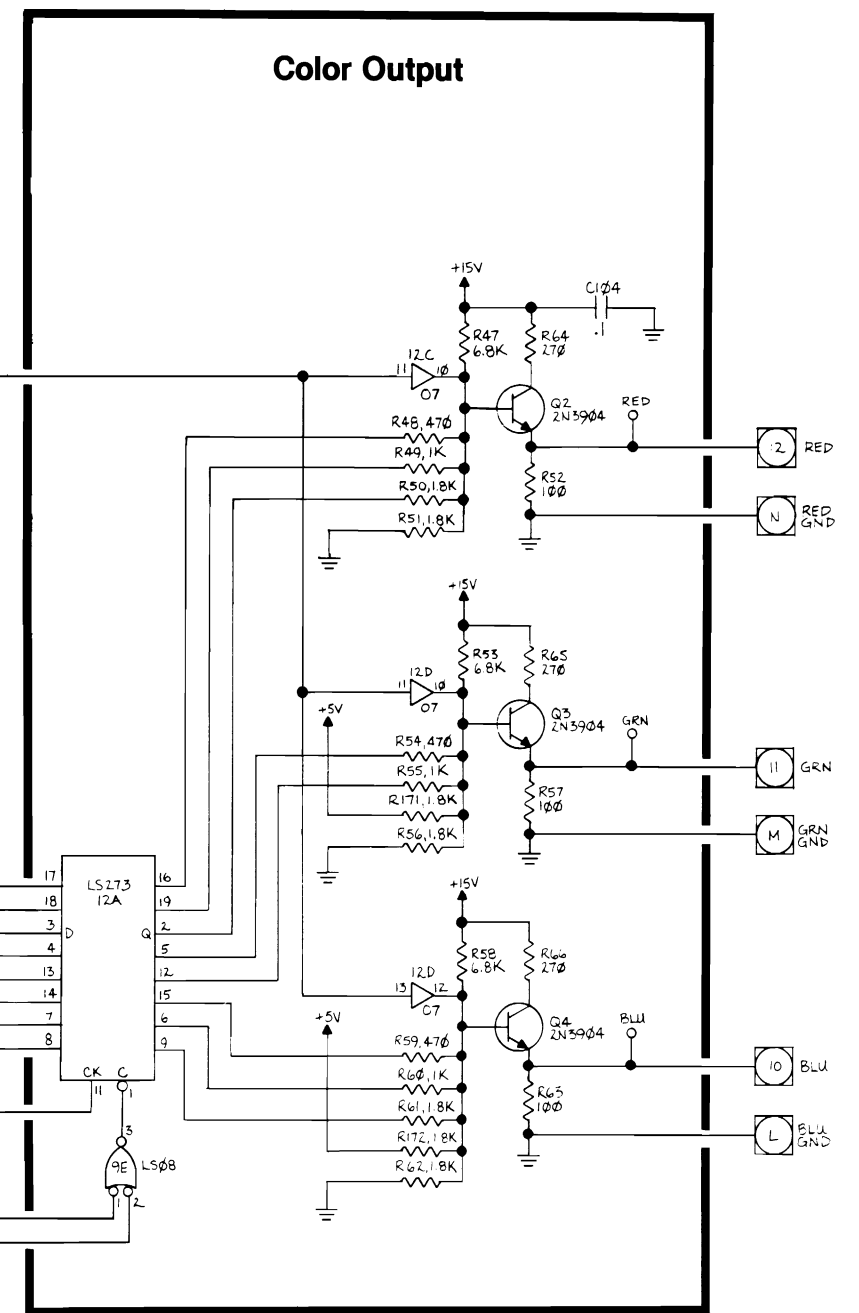
**Color Memory Address Selectors**



**Motion Object Color Selectors**



**Color Memory**

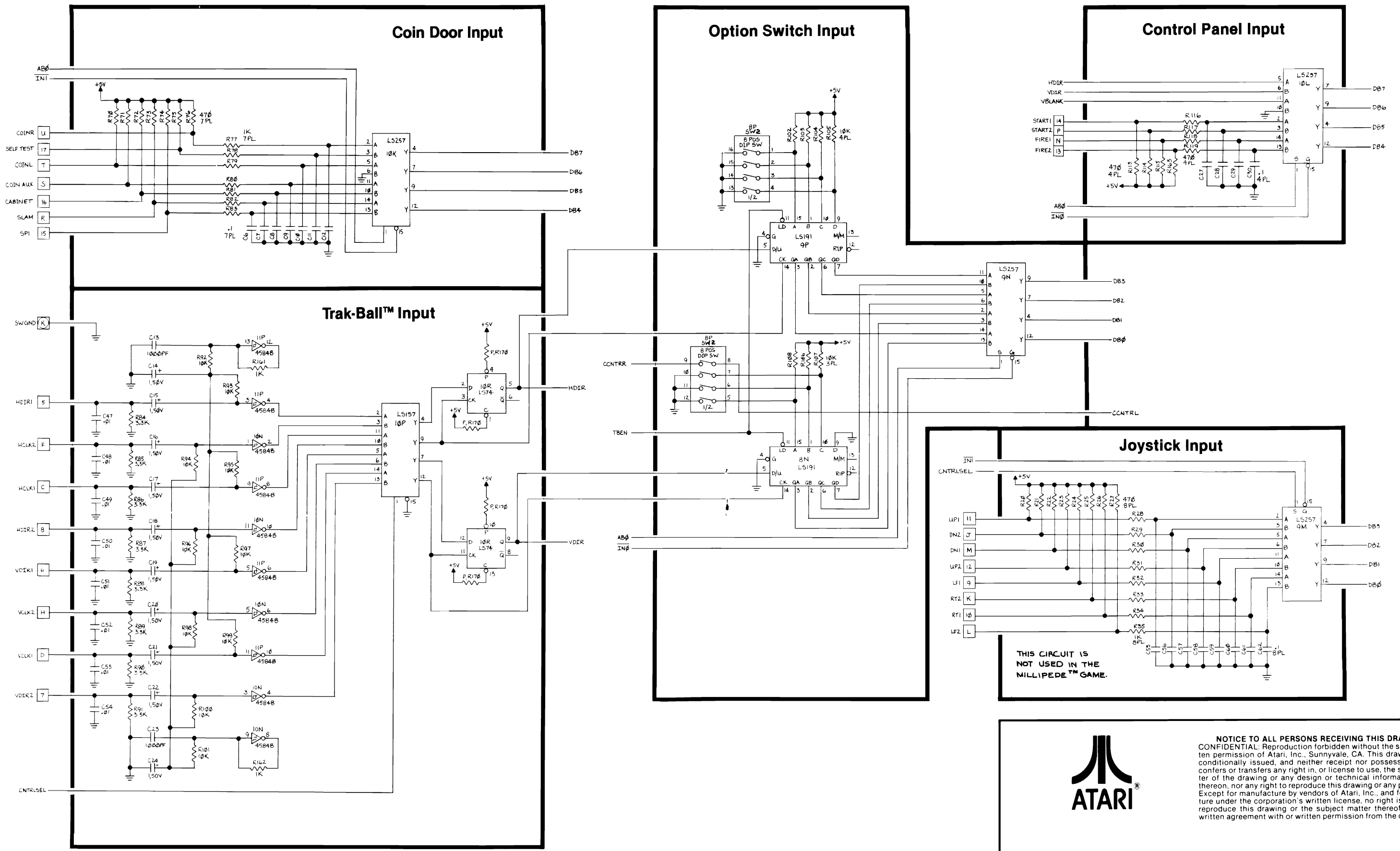



**Color Output**



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**Millipede™ PCB Schematic Diagram**





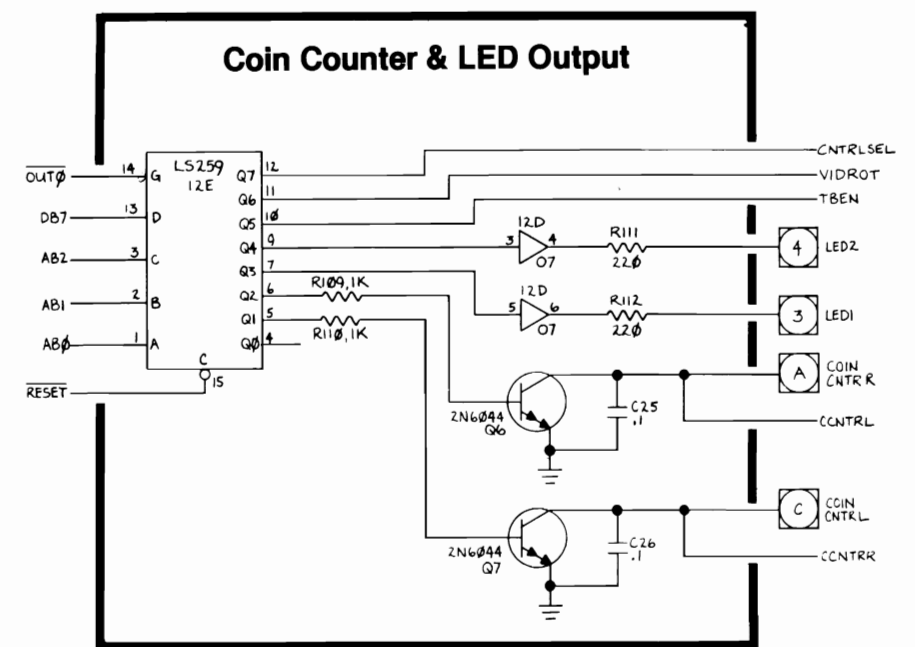
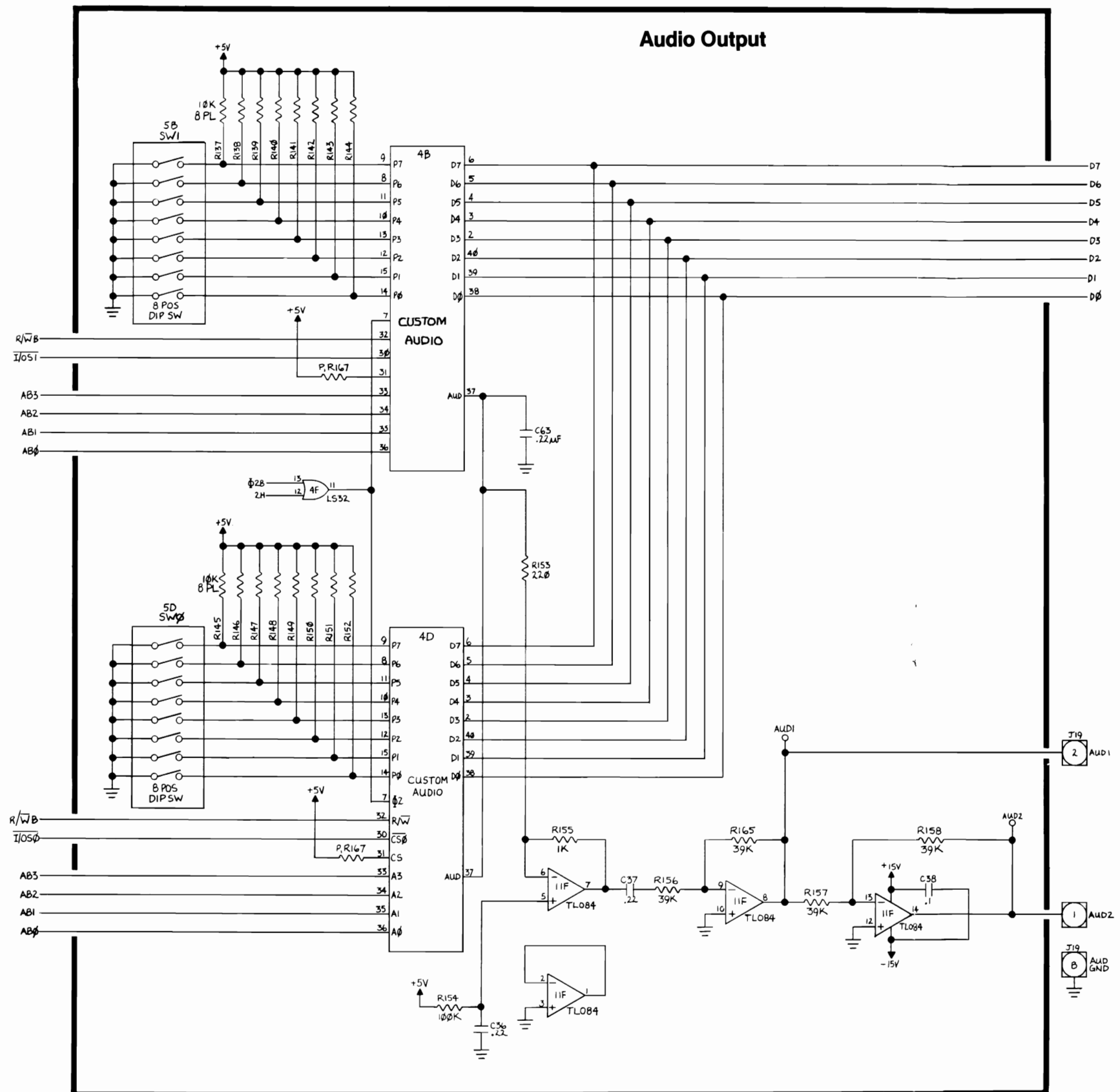
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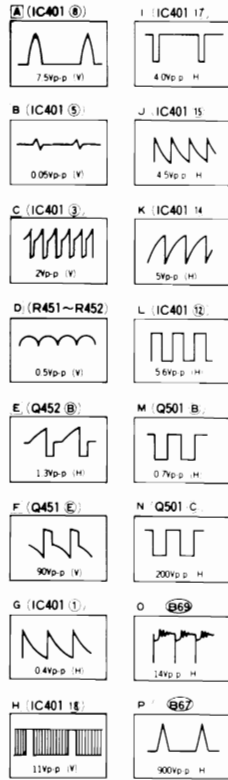
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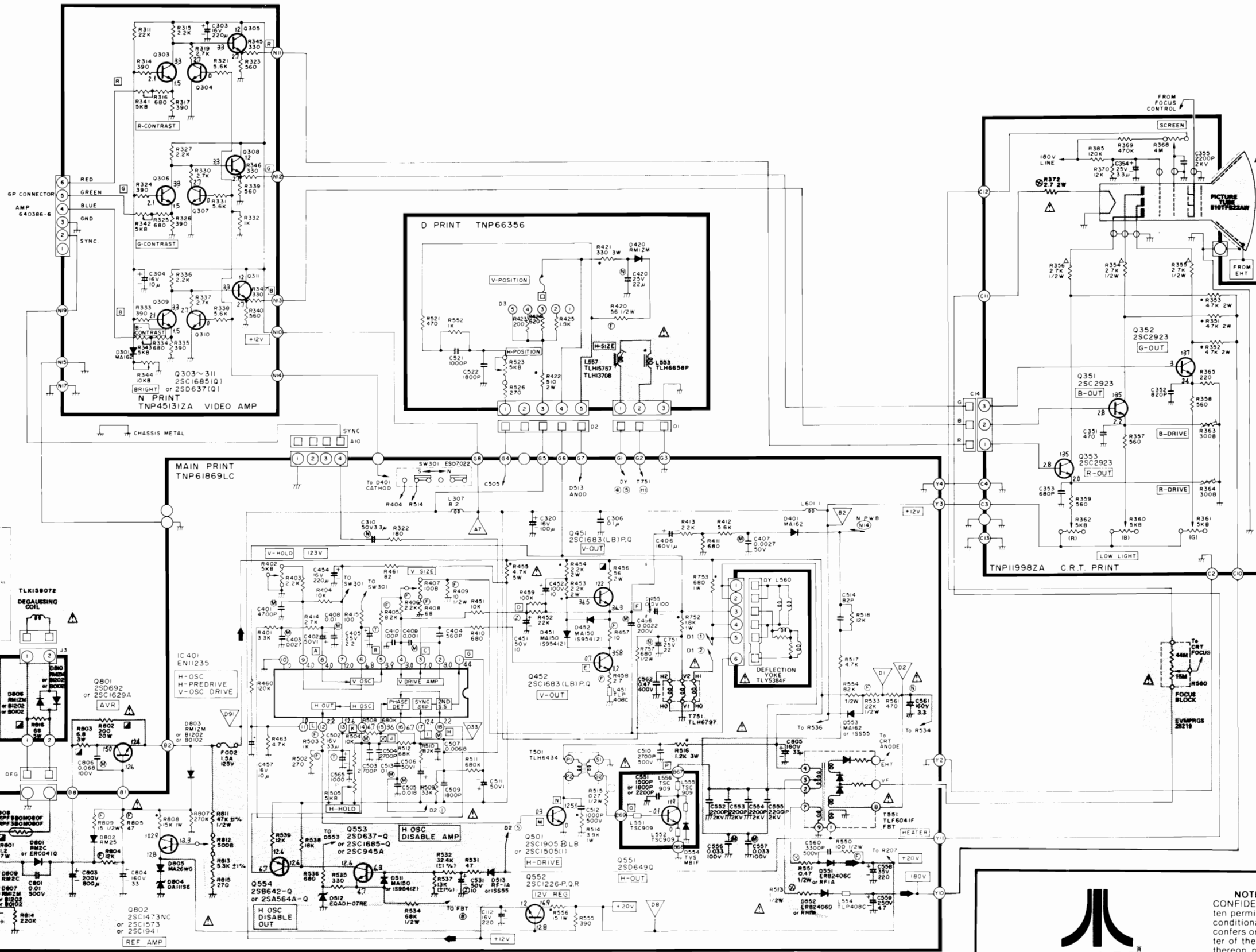
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**Waveform**



**NOTE**  
**1. RESISTOR**  
 All resistors are carbon 1/4W resistor, unless otherwise noted the following marks:  
 Unit of resistance is Ohm (Ω), K (1,000), M (1,000,000)  
 □ Spiral    □ Metal Glaze  
 □ Wire Wound    □ Thermistor  
 □ Non-Flammable    □ Fuse  
 □ Cement  
**2. CAPACITOR**  
 All capacitors are ceramic 50V capacitor, unless otherwise noted the following marks:  
 Unit of capacitance is µF, unless otherwise noted  
 ● Electrolytic    V Safety Vent    △ Polyethylene  
 ○ Paper    □ Bipolar    □ Titanium Chloride    □ Polystyrene  
 □ Z-Yr    □ Dupont Tantalum    □ Polyester  
**3. COIL**  
 Unit of inductance is µH  
**4. TEST POINT**  
 □ Test point position



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



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**Matsushita Display Schematic Diagram**

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# Electrohome 19-Inch Color Raster-Scan Video Display Schematic Diagram

## Schematic Notes

Unless otherwise specified

Resistance: ( $\Omega$ ) (K $\rightarrow$ K $\Omega$ , M $\rightarrow$ M $\Omega$ ), 1/4 (W) carbon resistor

Capacitance: 1 or higher  $\rightarrow$  (pF), less than 1  $\rightarrow$  ( $\mu$ F)

working voltage  $\rightarrow$  50 (V)

ceramic capacitor

Inductance: ( $\mu$ H)

Electrolytic Cap: Capacitance Value ( $\mu$ F)/working voltage (V),

NP  $\rightarrow$  non-polar (or bipolar) electrolytic cap.

Refer to the parts list for additional component information.

$\odot$  indicates test point connection

$\perp$  indicates chassis ground unless otherwise specified

Hz indicates cycles per second

For safety purposes (and continuing reliability)

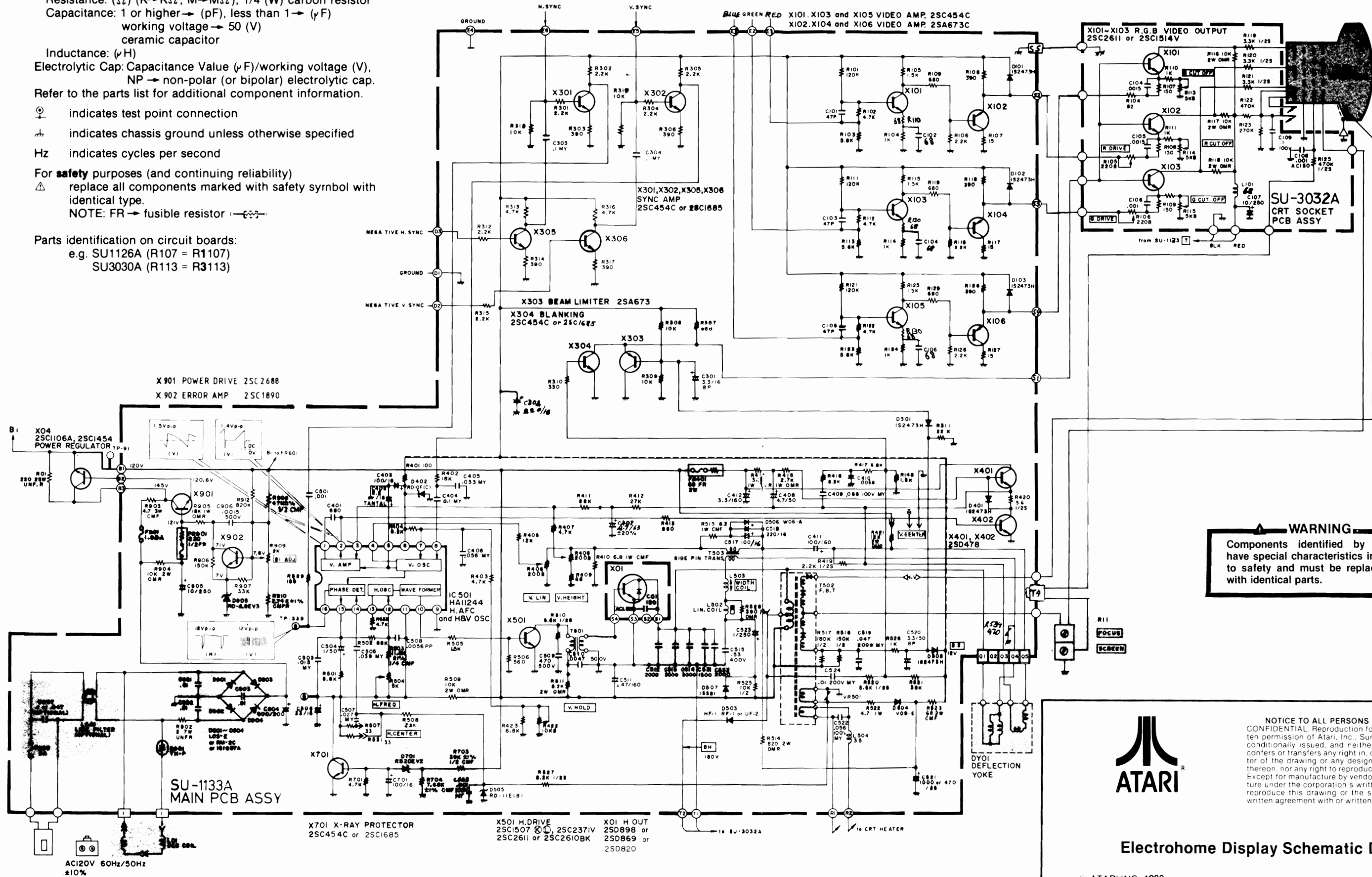
$\triangle$  replace all components marked with safety symbol with identical type.

NOTE: FR  $\rightarrow$  fusible resistor


Parts identification on circuit boards:

e.g. SU1126A (R107 = R1107)

SU3030A (R113 = R3113)



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



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**Electrohome Display Schematic Diagram**

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