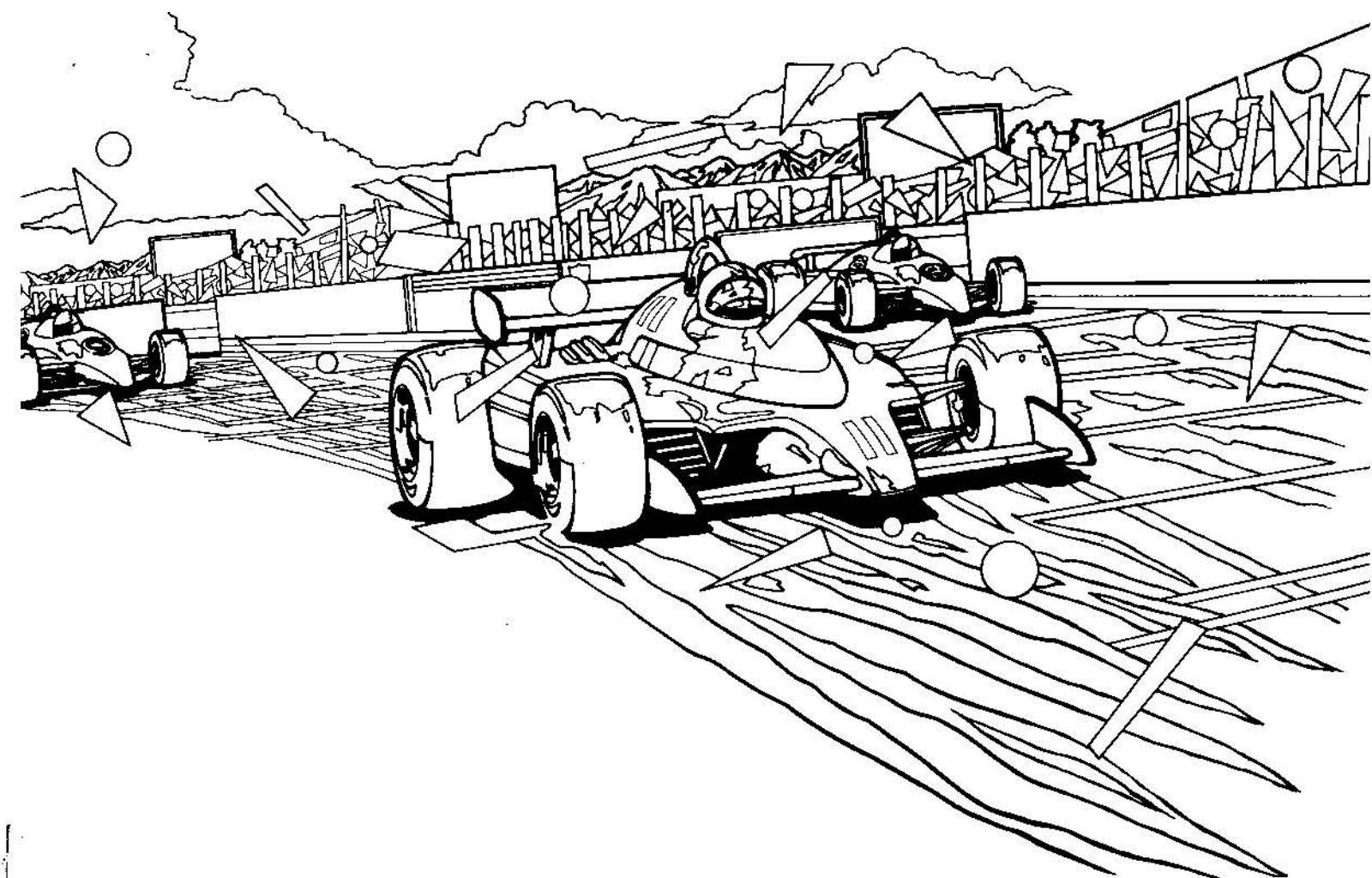


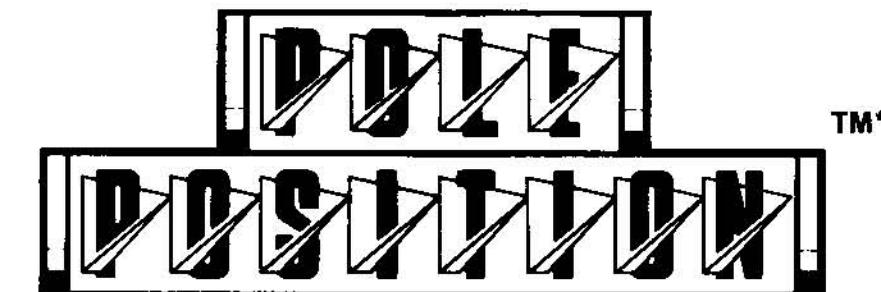
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NOTE  
 This staple temporarily holds the  
 schematic package together. Re-  
 move the staple before using these  
 schematics.



## Schematic Package Supplement to



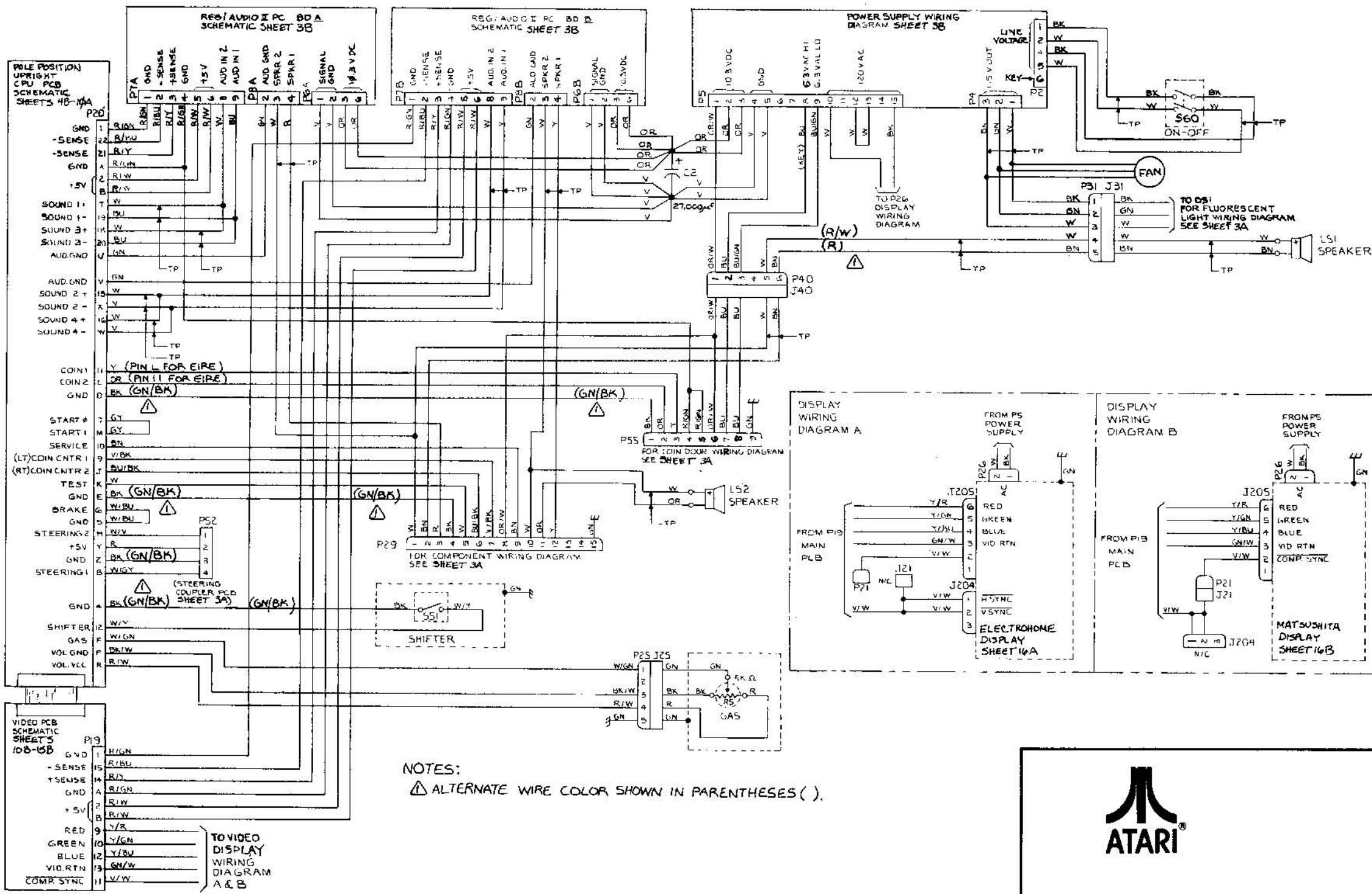
TM\*

## Operation, Maintenance, and Service Manual

\*Pole Position is engineered and designed by Namco Ltd. Manufactured under license by Atari, Inc.

2M

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## Pole Position Upright Main Wiring Diagram

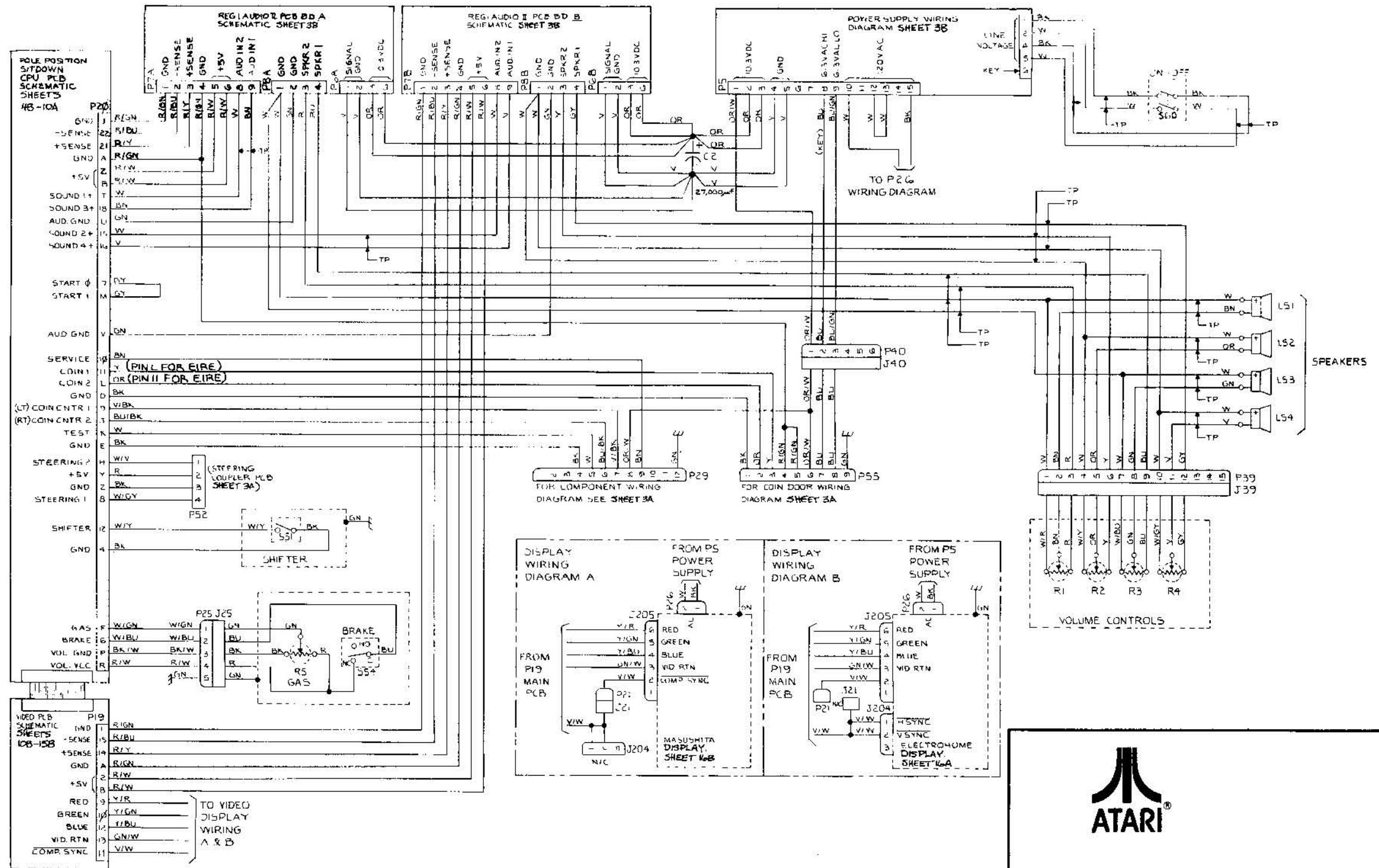
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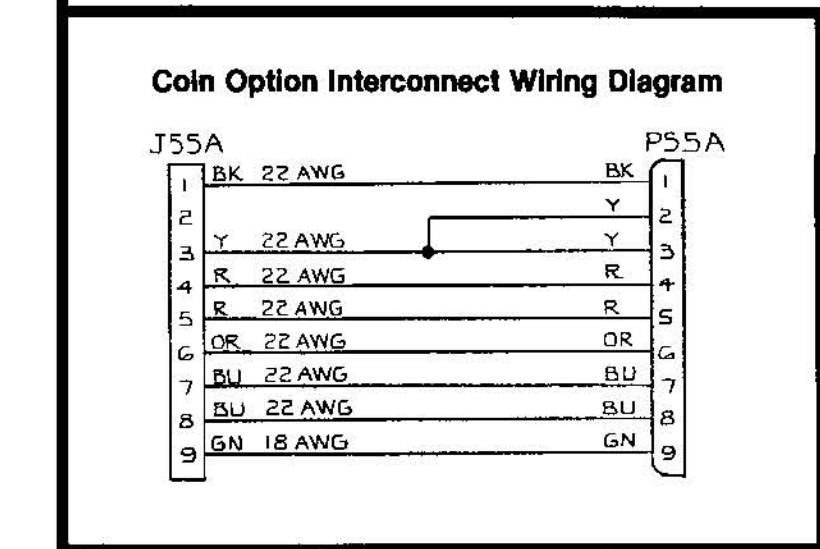
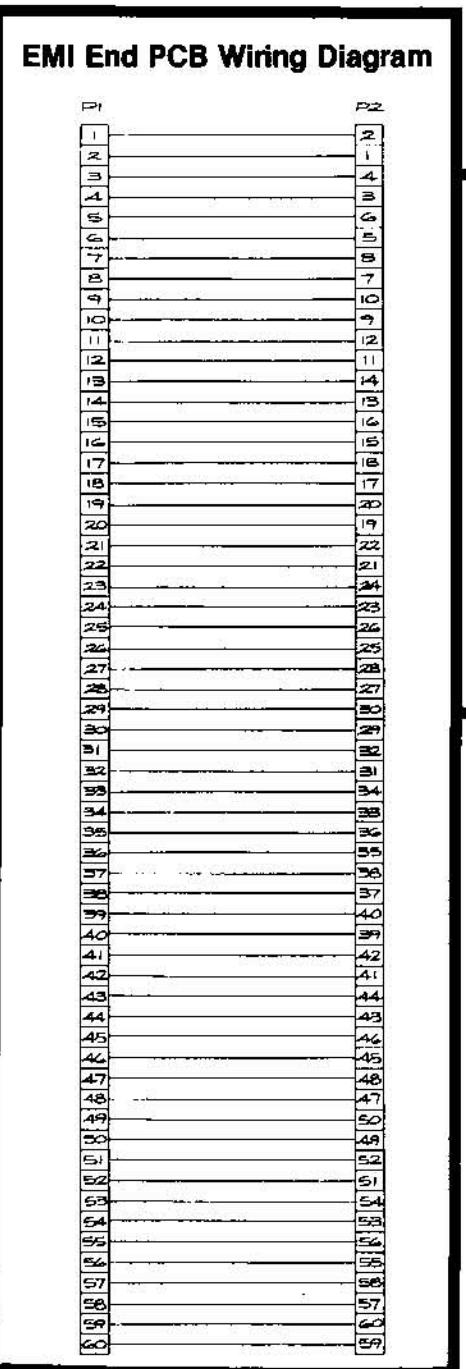
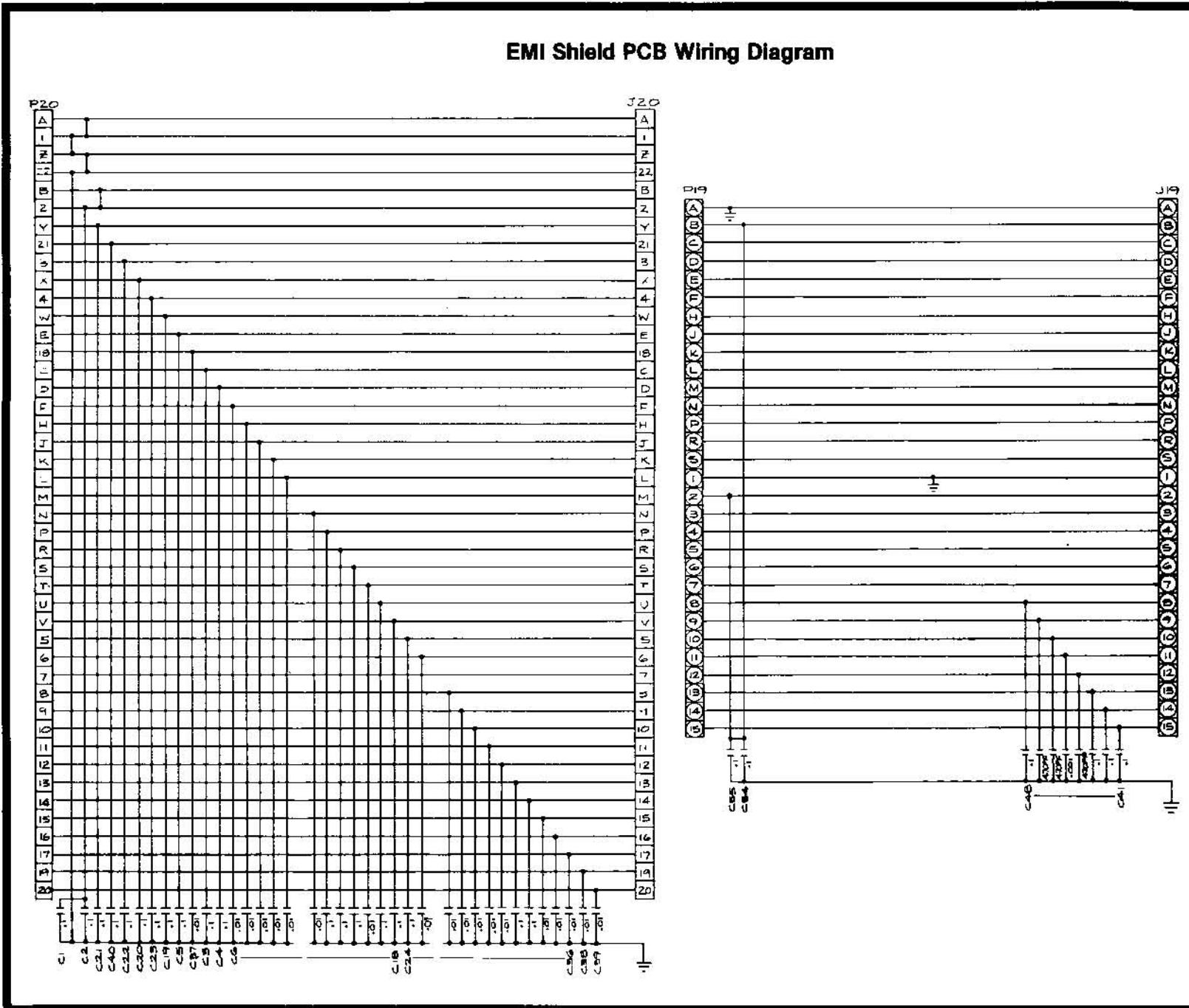




**Pole Position Sit-Down Main Wiring Diagram**

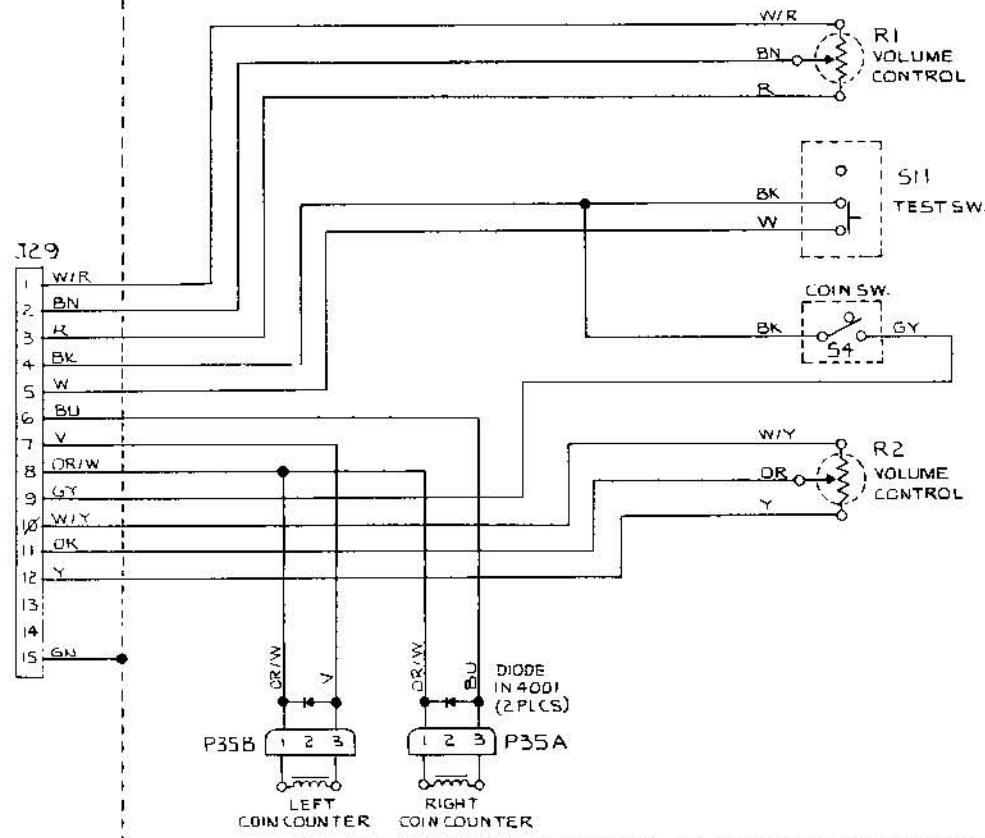
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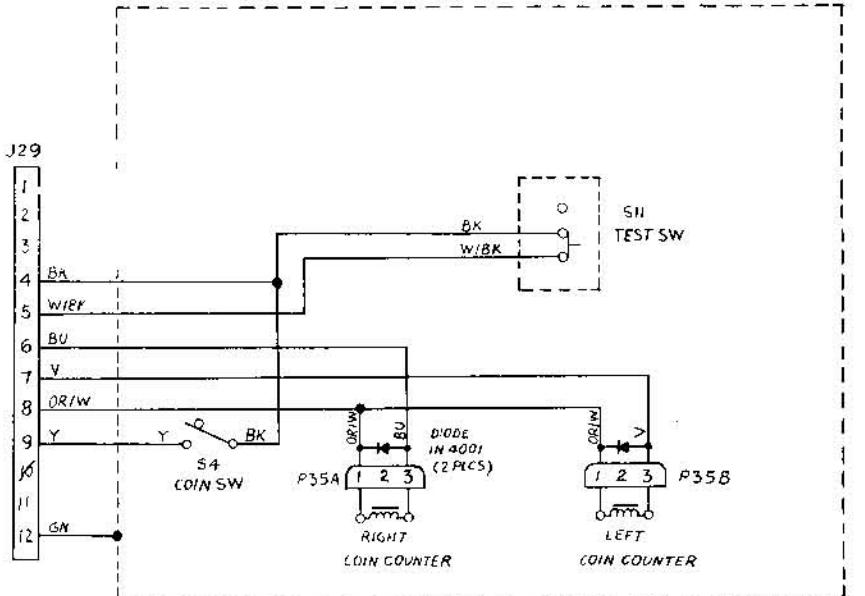


### Upright Utility-Panel Wiring Diagram

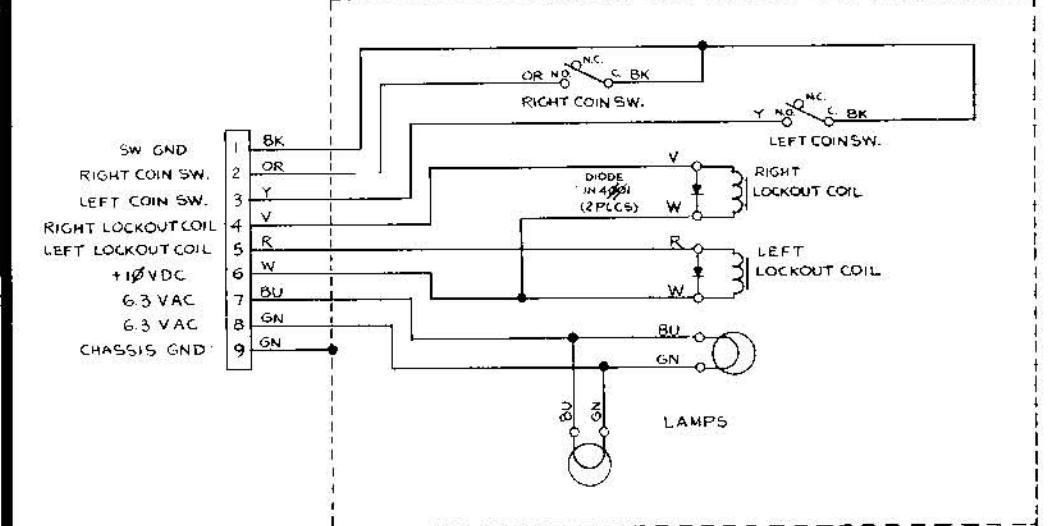
#### WIRING DIAGRAM



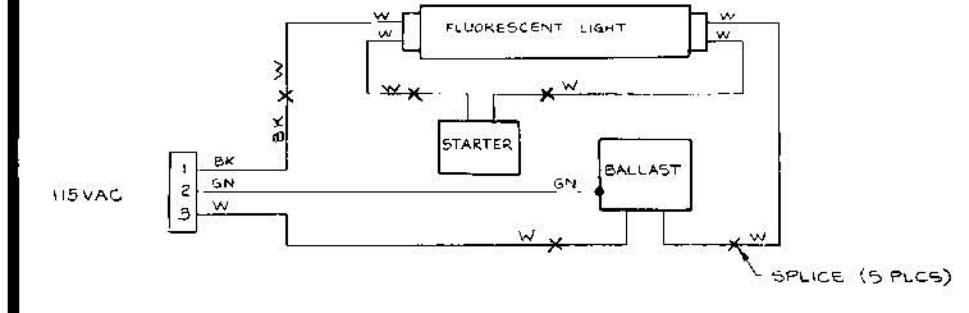
### Sit-Down Utility-Panel Wiring Diagram



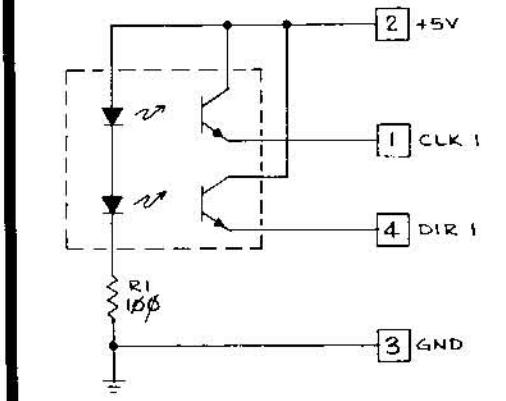
### Coin-Door Wiring Diagram



### Upright-Only Fluorescent Light Wiring Diagram



### Steering Coupler PCB Schematic

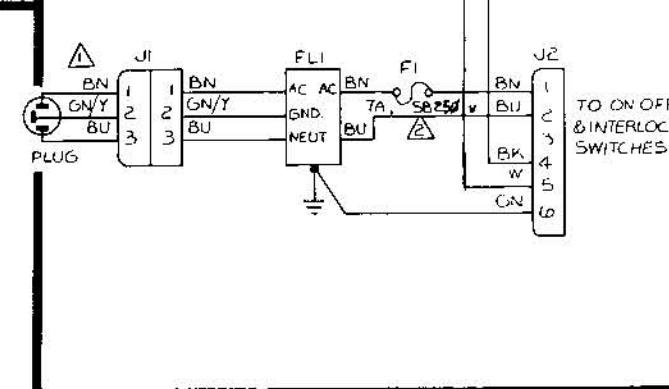
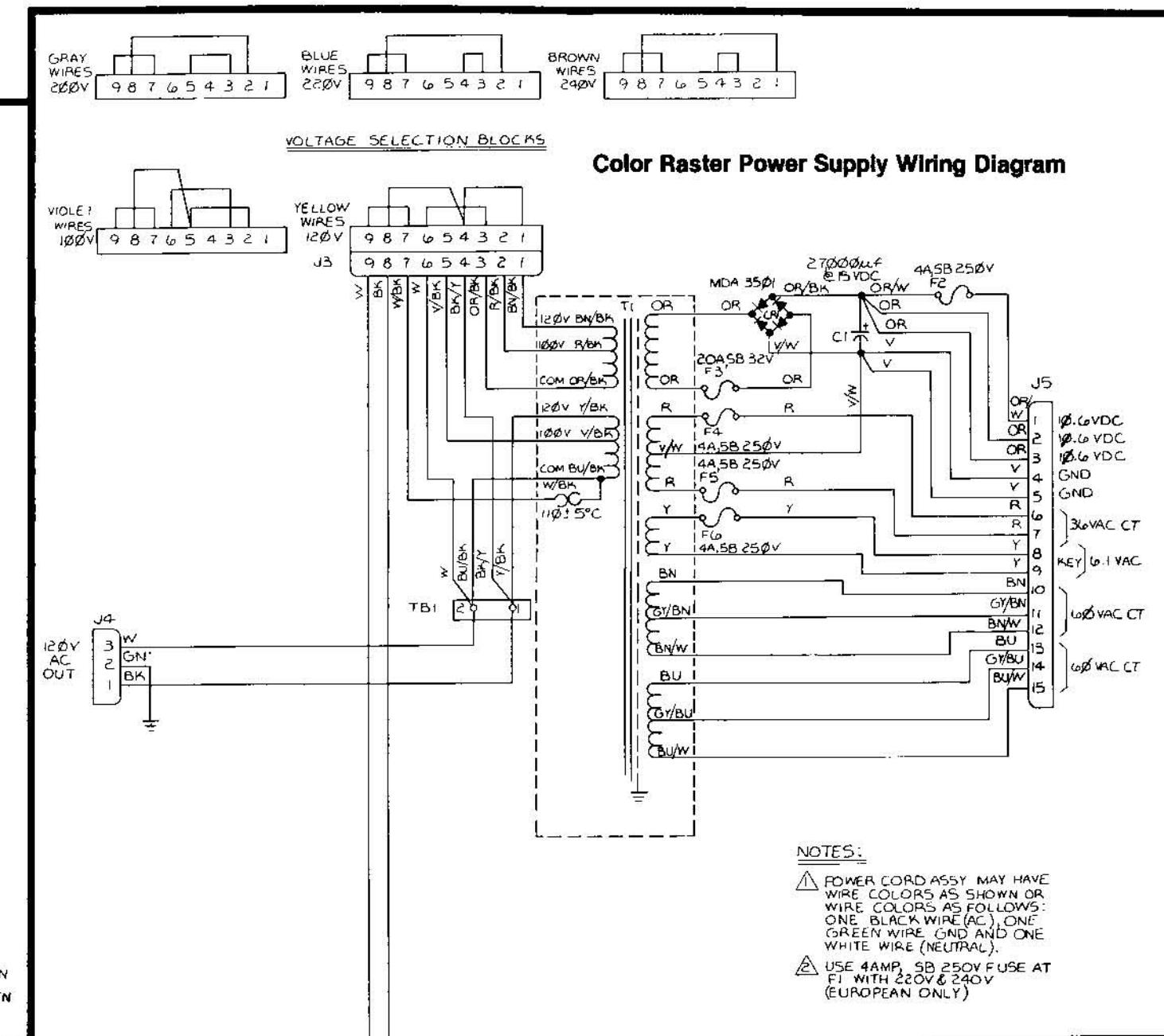
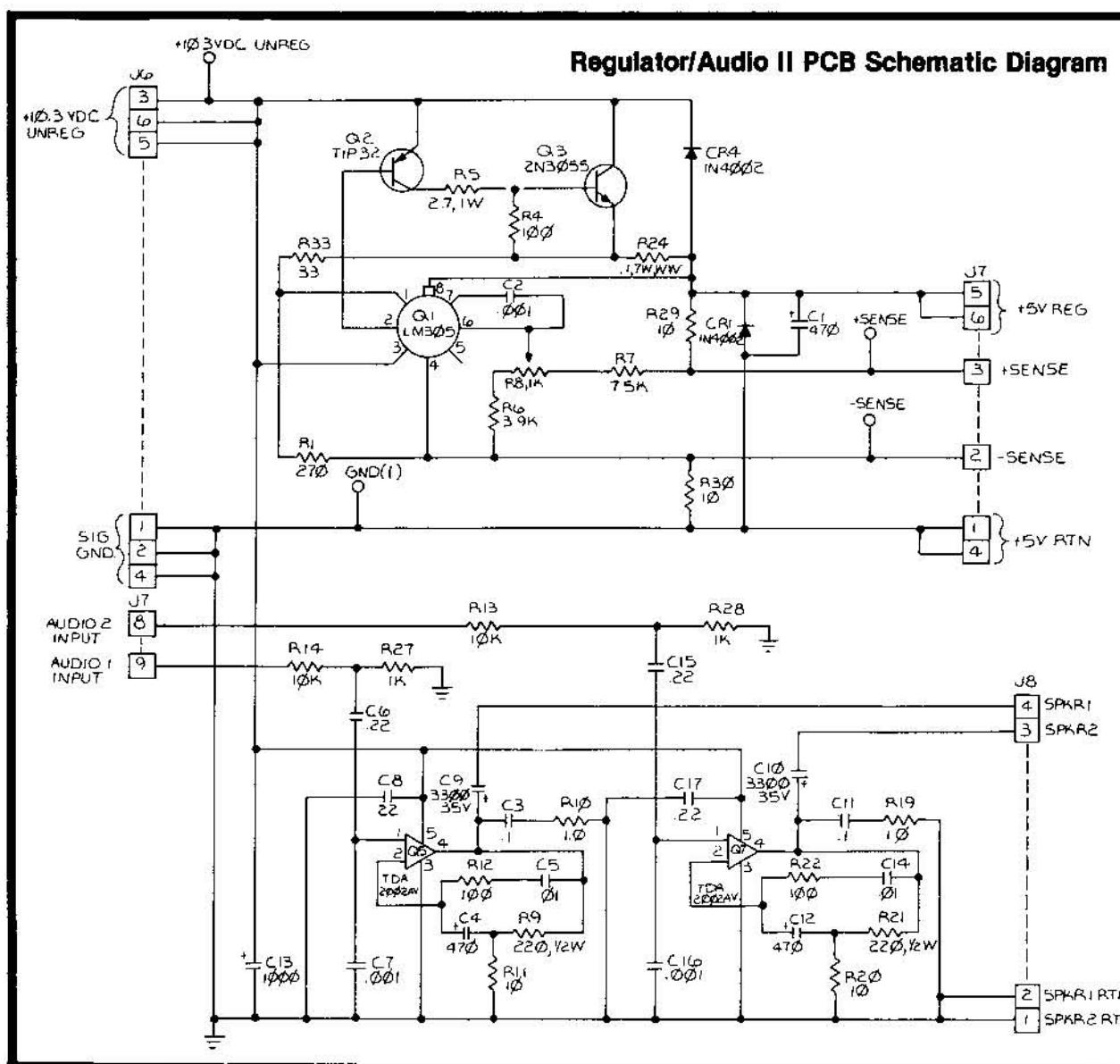


### Pole Position Game Wiring Interfaces

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**Pole Position Reg./Audio II PCB  
and Power Supply Diagrams**

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## MEMORY MAP

### CPU 1 AND 2

HEXADECIMAL ADDRESS	READ/ WRITE	FUNCTION
0000-37FFF	R	Program Memory
4000-7FFF	R	Program Memory
8000-8FFF (8700-87FF) (8F00-8FFF)	R/W	Motion Object Memory Vertical and Horizontal Position Character, Color, Vertical Size, Horizontal Size
9000-97FF (9000-93FF) (9700-97FF)	R/W	Road Memory Character Horizontal Scroll
9800-9FFF A000-AFFF)	R/W	Alphanumeric Memory
A000	R/W	View Character Memory
C000	W	View Horizontal Position
C100	W	Road Vertical Position

### CPU 3

HEXADECIMAL ADDRESS	READ/ WRITE	FUNCTION
0000-1FFF	R	Program Memory
2000-2FFF	R	Program Memory
3000-37FF	R/W	Battery Back-Up RAM
4000-43FF (4380-43FF)	R/W	Motion Object Memory Vertical and Horizontal Position
4400-47FF (4780-47FF)	R/W	Motion Object Memory Character, Color, Vertical Size, Horizontal Size
4800-48FF (4800-49FF) (4B80-4BFF)	R/W	Road Memory Character Horizontal Scroll
4C00-57FF (4C00-4FFF) (5000-53FF)	R/W	Alphanumeric Memory Alphanumeric View Character
8000-83FF (83C0-83FF)	R/W	Sound Memory Sound
9000	R/W	4-Bit CPU Controller
A000	R/W	Input/Output
A000	W	IRQ Enable (1 = enable, 0 = disable)
	R	Bit 0: Not Used
		Bit 1: 128 V
		Bit 2: Power-Line Sense
		Bit 3: ADC End Flag
A001	W	4-Bit CPU Enable
A002	W	Sound Enable
A003	W	ADC Input Select
A004	W	CPU 1 Enable
A005	W	CPU 2 Enable
A006	W	Start Switch
S007	W	Color Enable
A100	W	Watchdog Reset
A200	W	Car Sound (Lower Nibble)
A300	W	Car Sound (Upper Nibble)

### Schematic Reference Designators and Symbols

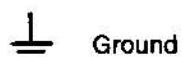
Logic symbols depict the logic function performed by that particular device and may differ from the manufacturer's data.

REFERENCE DESIGNATORS:		WIRE COLORS:	
C	Capacitor	R	Red
CR	Diode, signal or rectifier	GN	Green
F	Fuse	Y	Yellow
J	Connector	W	White
L	Inductor, fixed or variable	BU	Blue
LS	Speaker	BN	Brown
P	Connector	BK	Black
Q	Transistor or silicon-controlled rectifier	OR	Orange
R	Resistor, fixed or variable	V	Violet
S	Switch	GY	Gray
T	Transformer		
TP	Twisted wire pair		
VR	Voltage regulator		
Y	Crystal		

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



Test Point



PCB edge connector pad



### Pole Position Memory Map and Schematic Notes

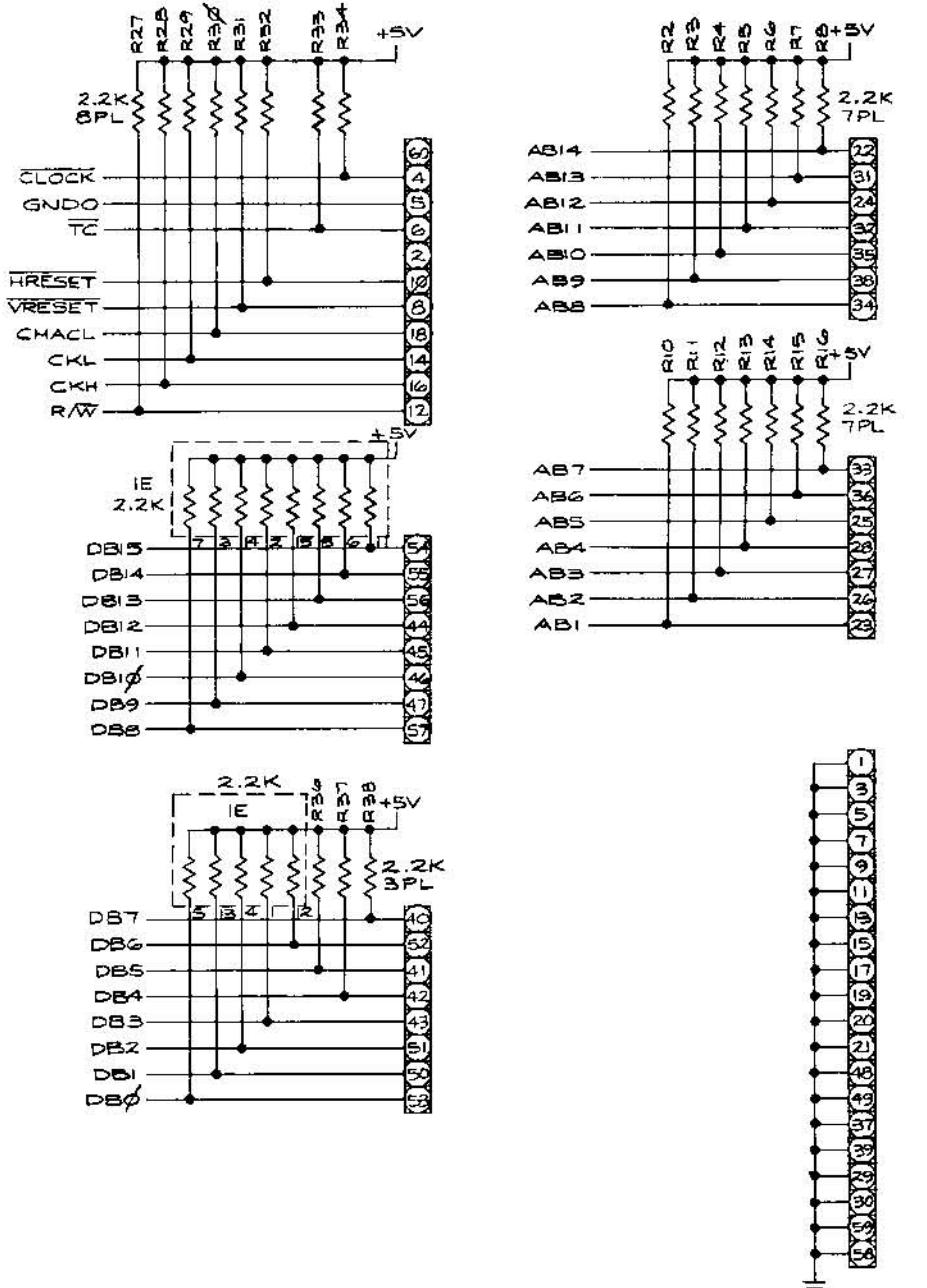
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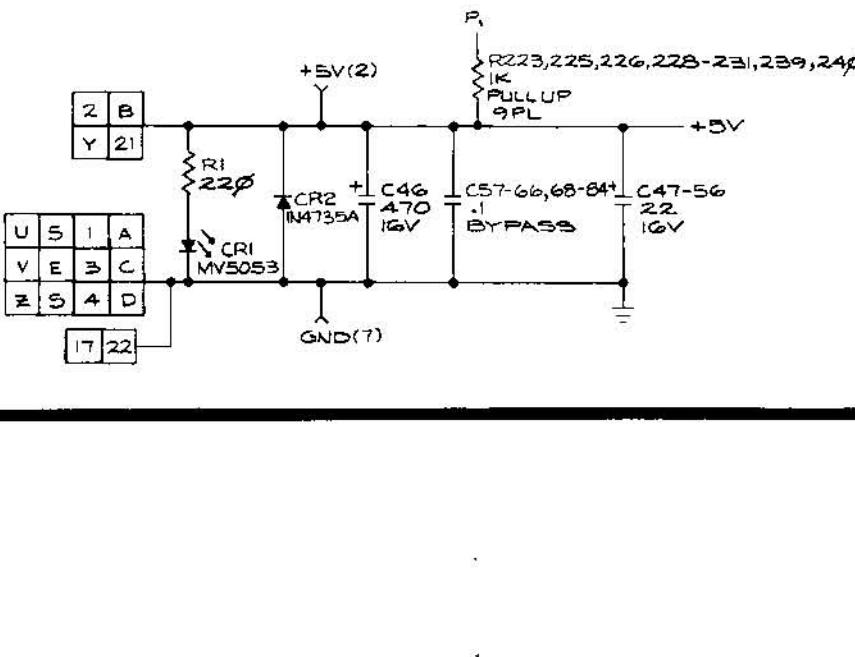
SP-218 Sheet 4A

8th printing

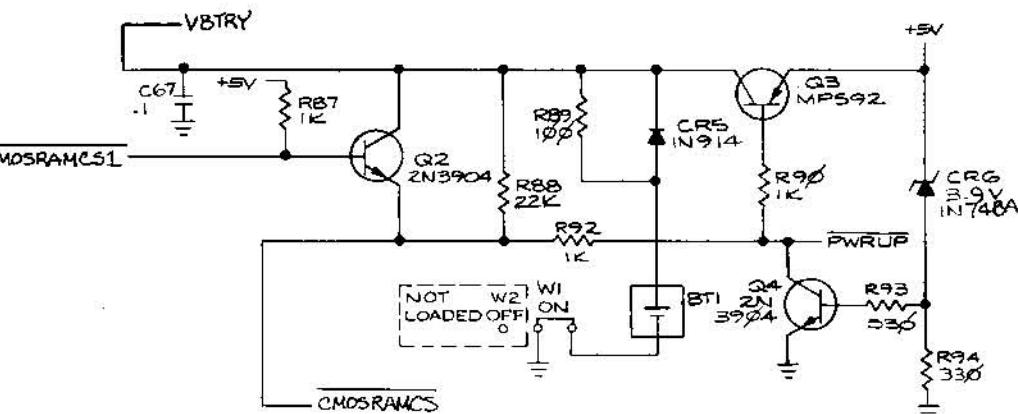
### CPU PCB Edge Connector



### CPU PCB Power Input



### RAM Battery Back-Up Power

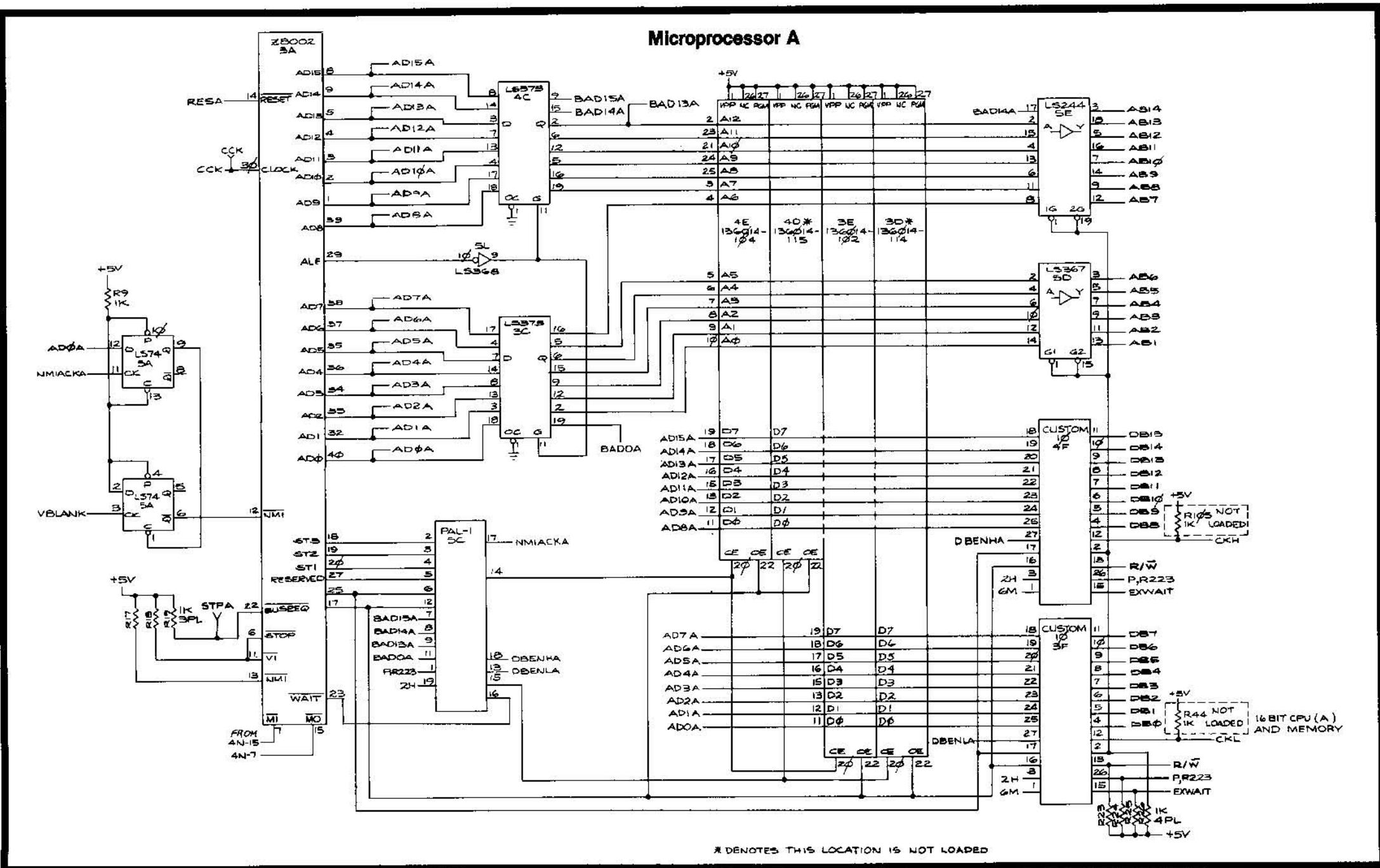


Pole Position CPU PCB Schematic Diagram

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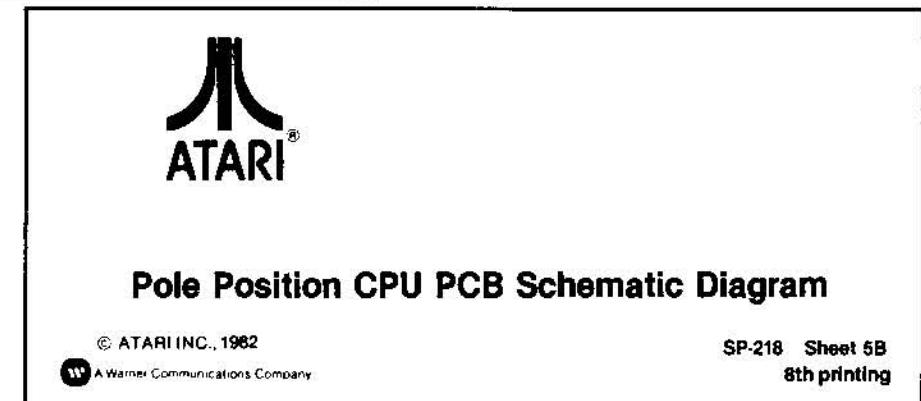
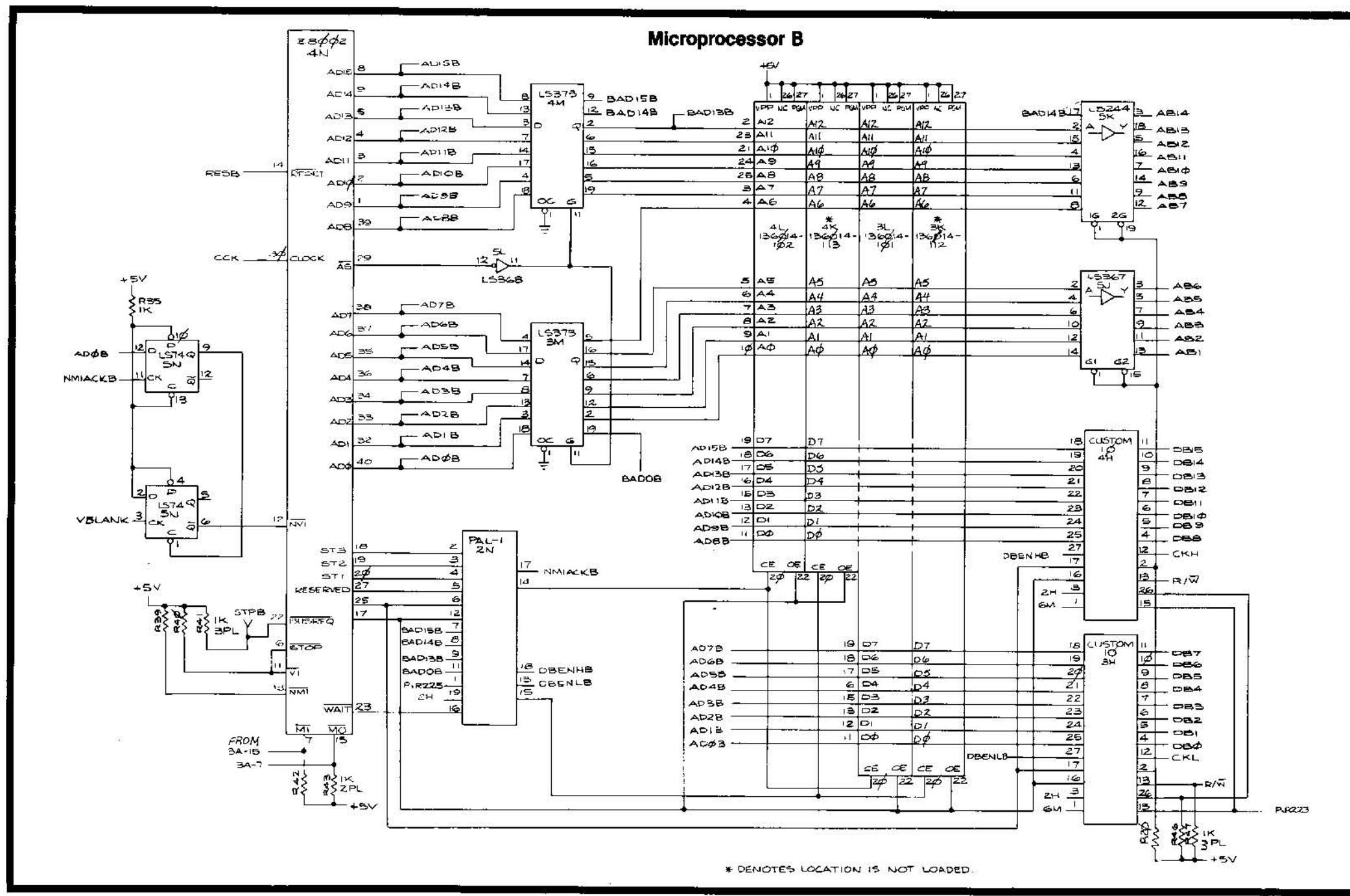
SP-216 Sheet 4B  
8th printing



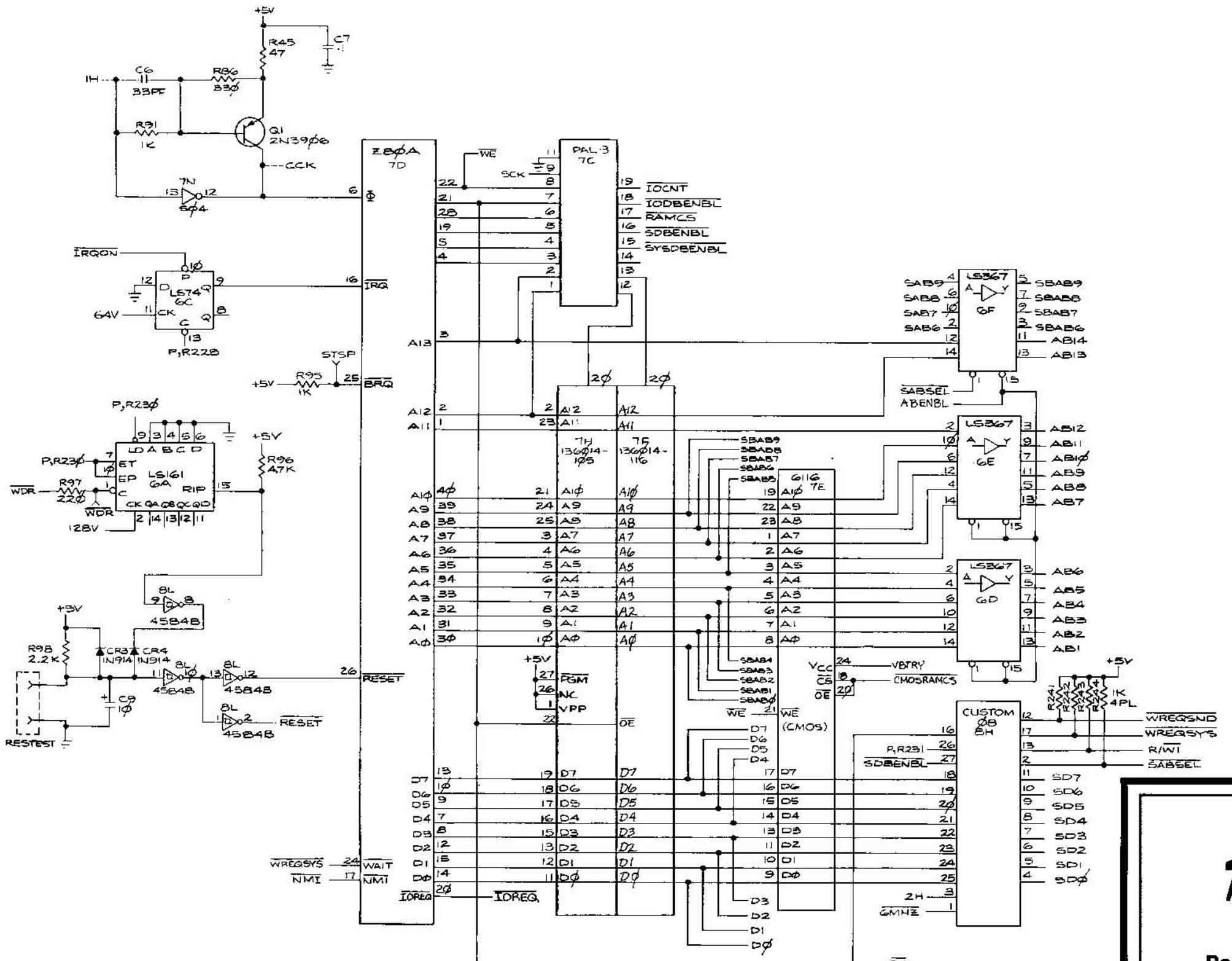
Pole Position CPU PCB Schematic Diagram

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## Sound Microprocessor

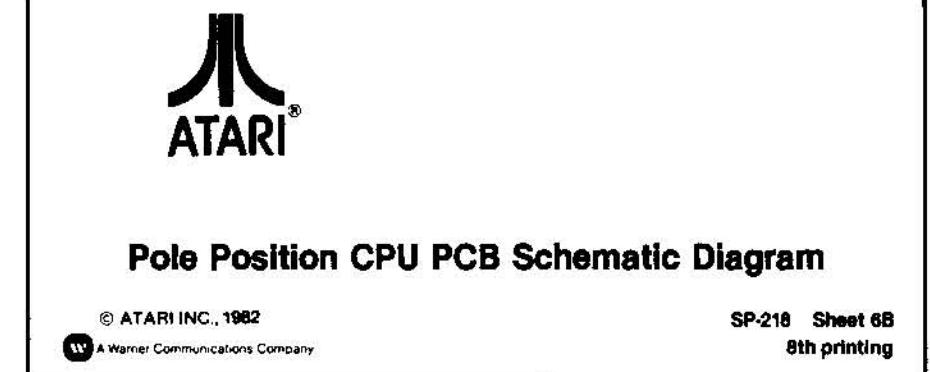
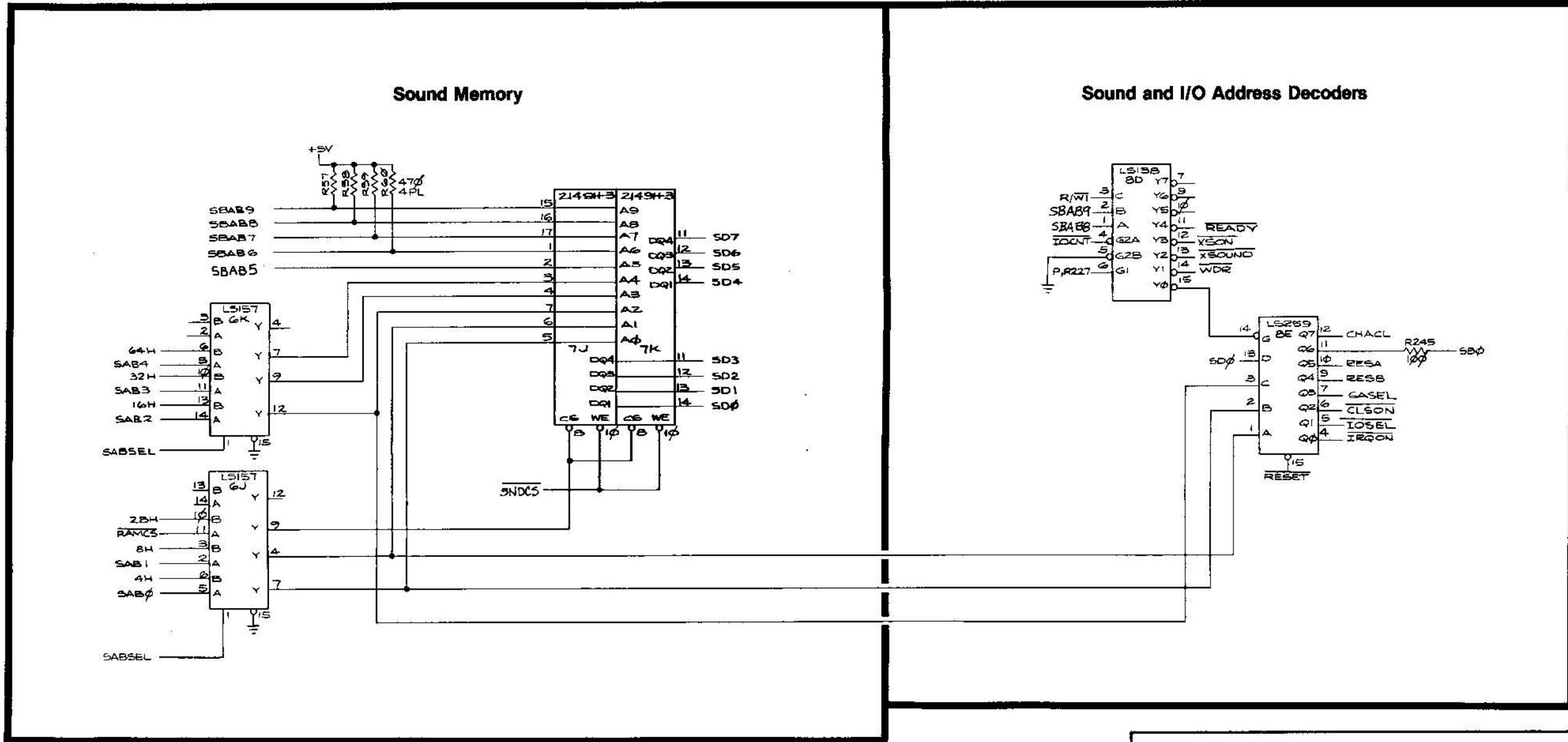


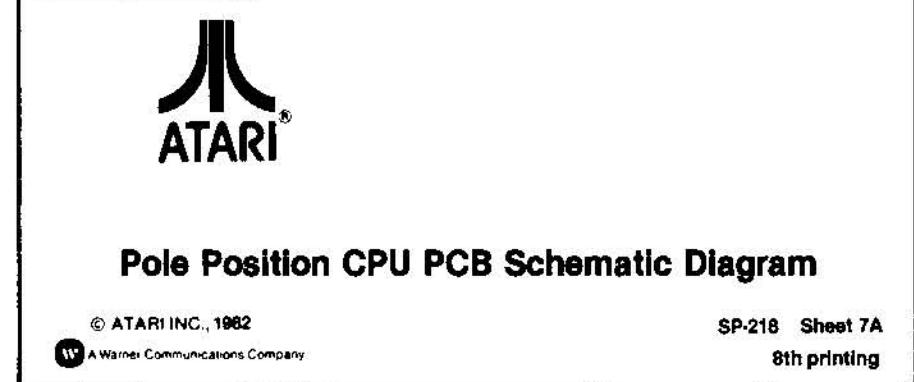
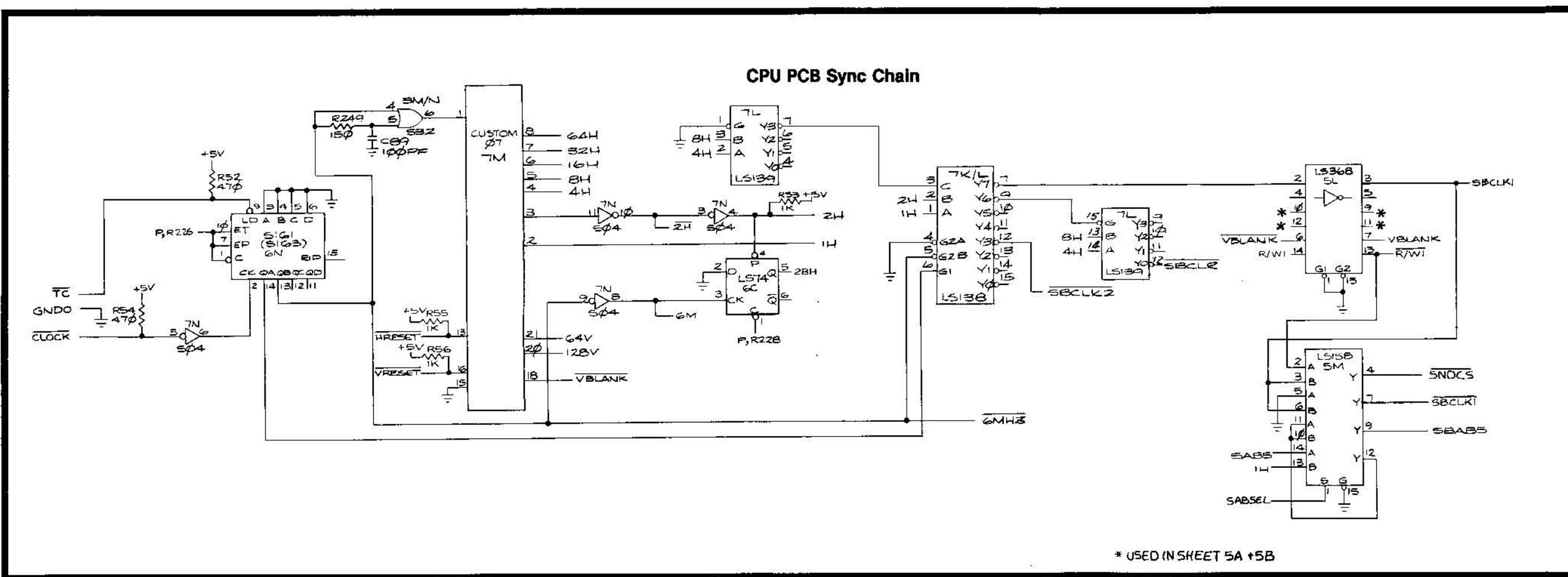
Pole Position CPU PCB Schematic Diagram

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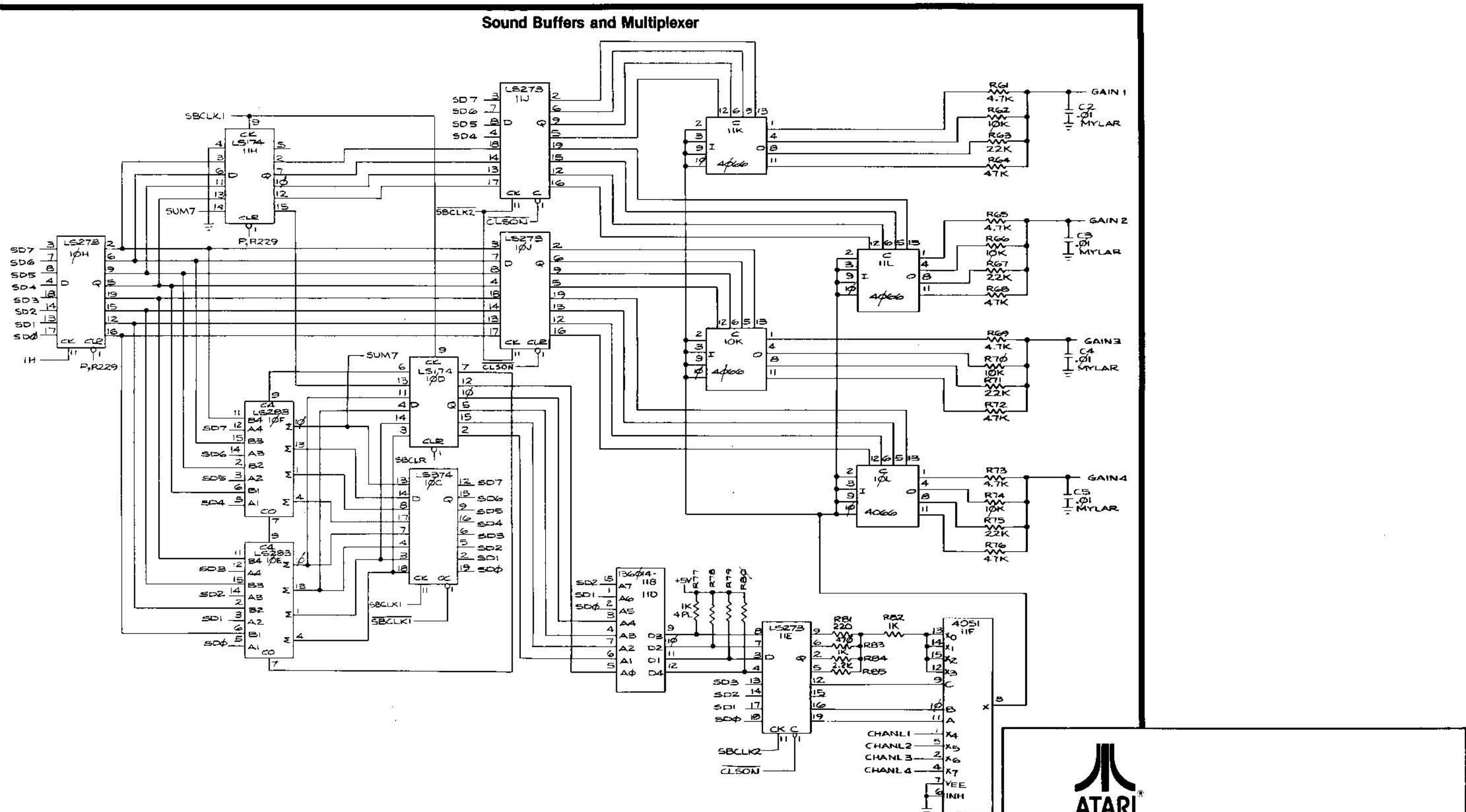
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### Sound Buffers and Multiplexer



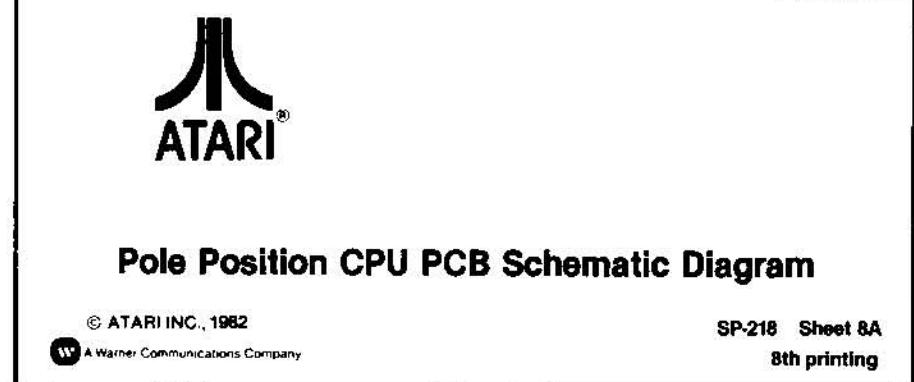
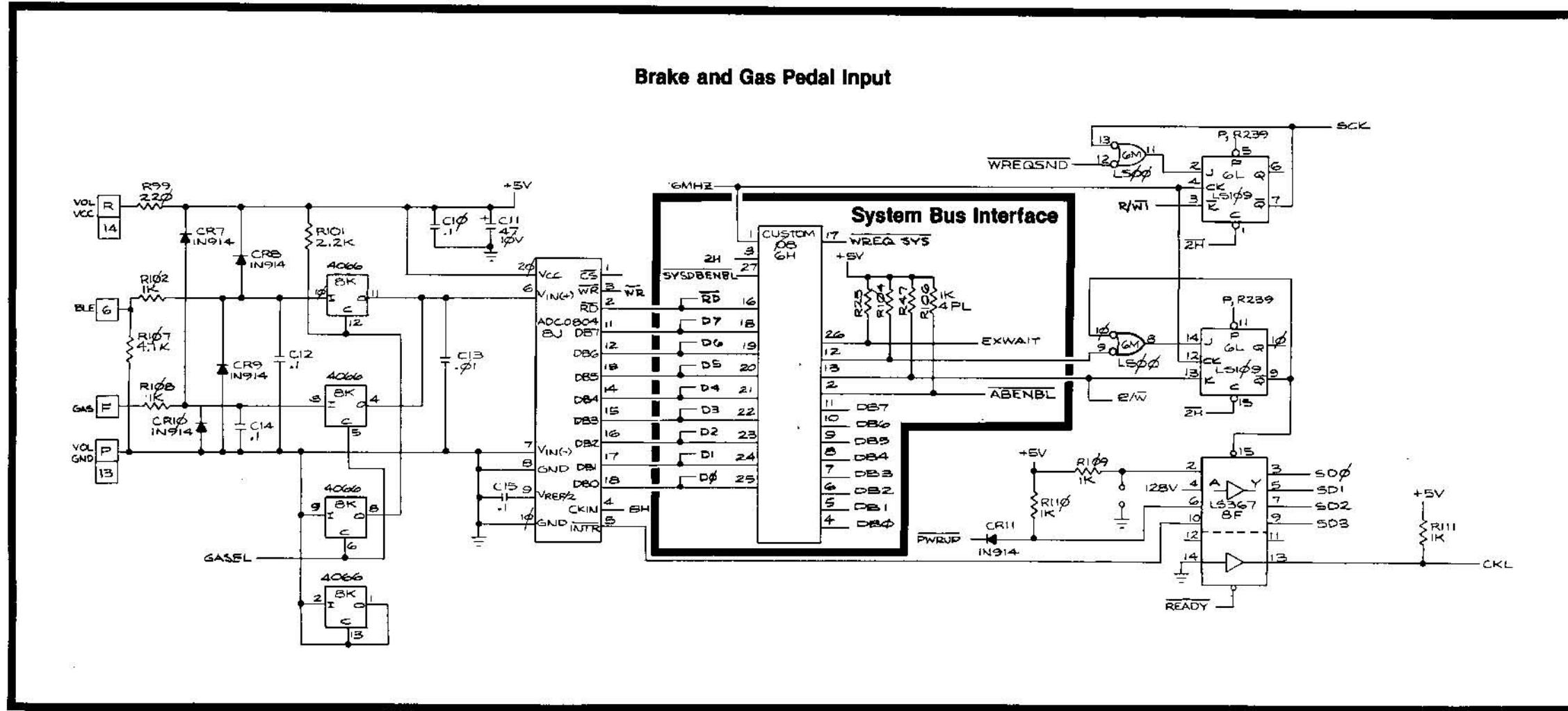
Pole Position CPU PCB Schematic Diagram

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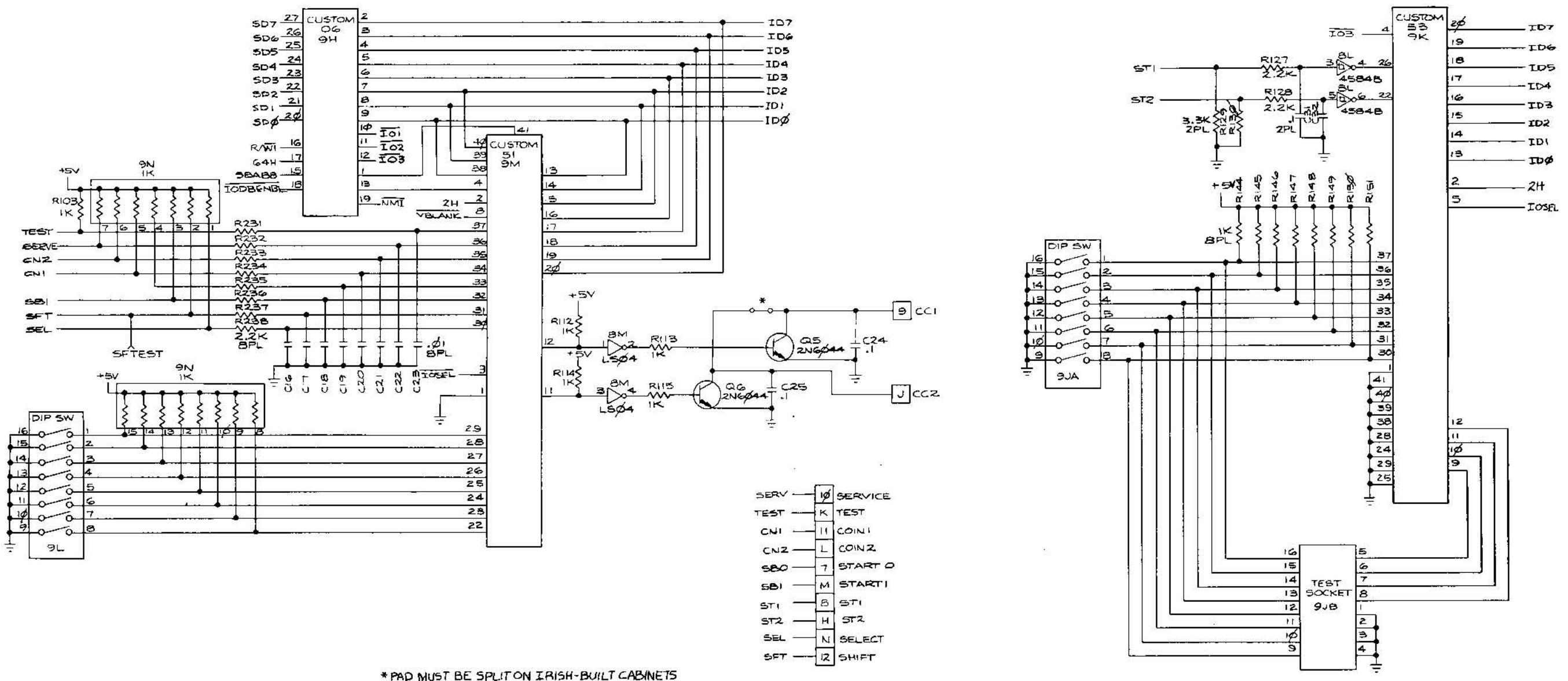
SP-218 Sheet 7B

8th printing



Pole Position CPU PCB Schematic Diagram

### Option Switch Input and I/O Interface

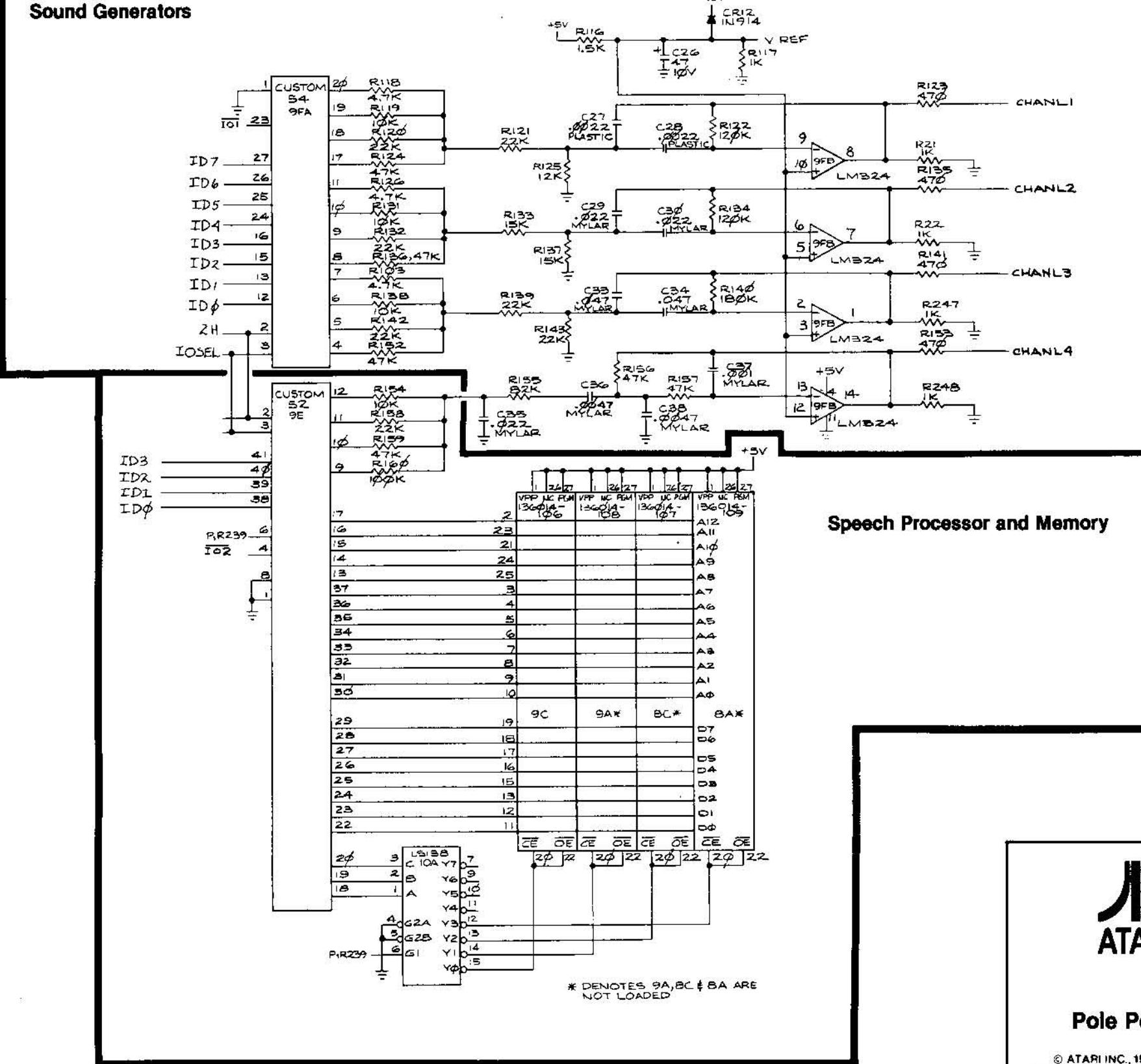


Pole Position CPU PCB Schematic Diagram

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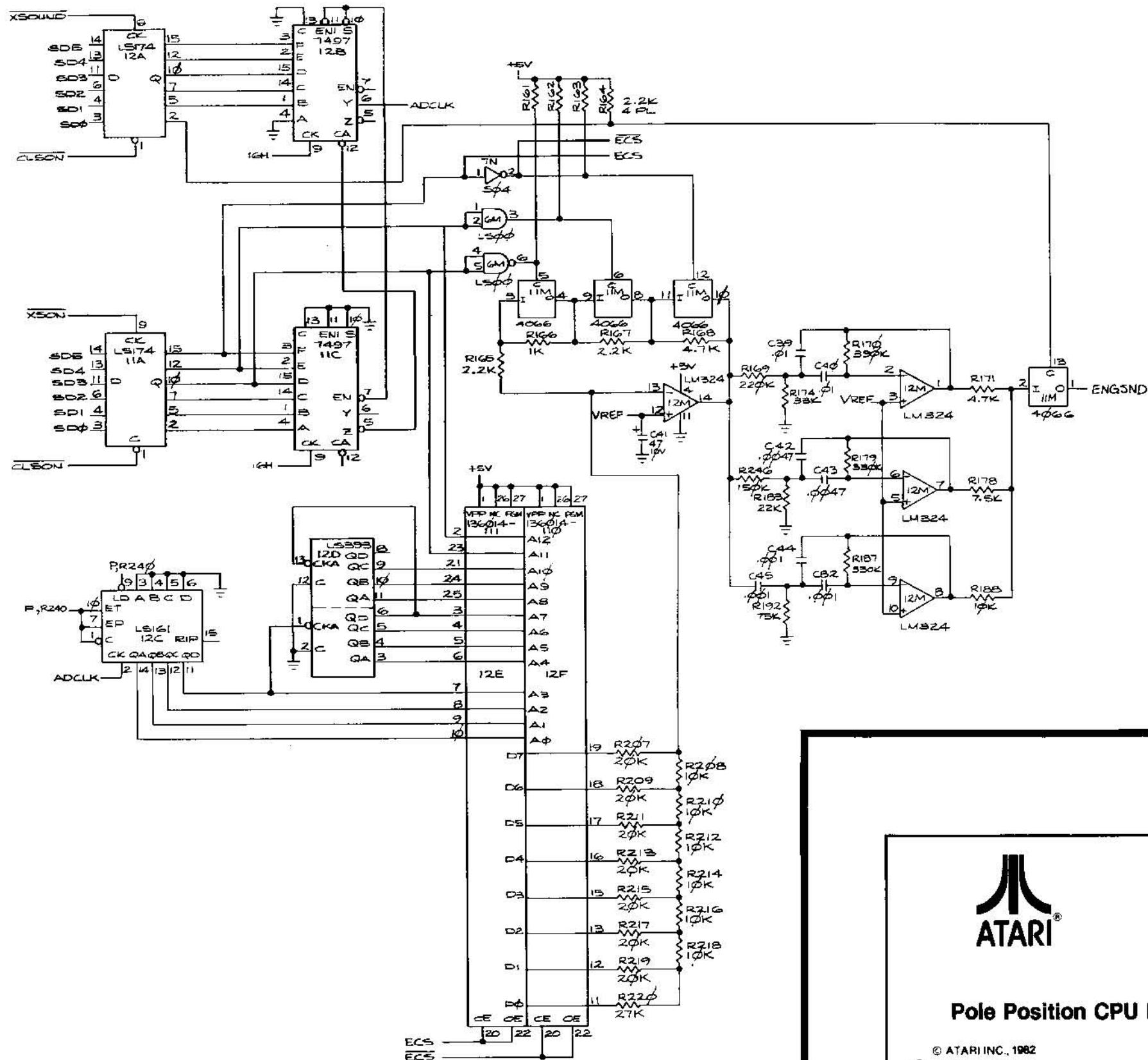
**Miscellaneous  
Sound Generators**



**Speech Processor and Memory**



### Engine Sound Generator

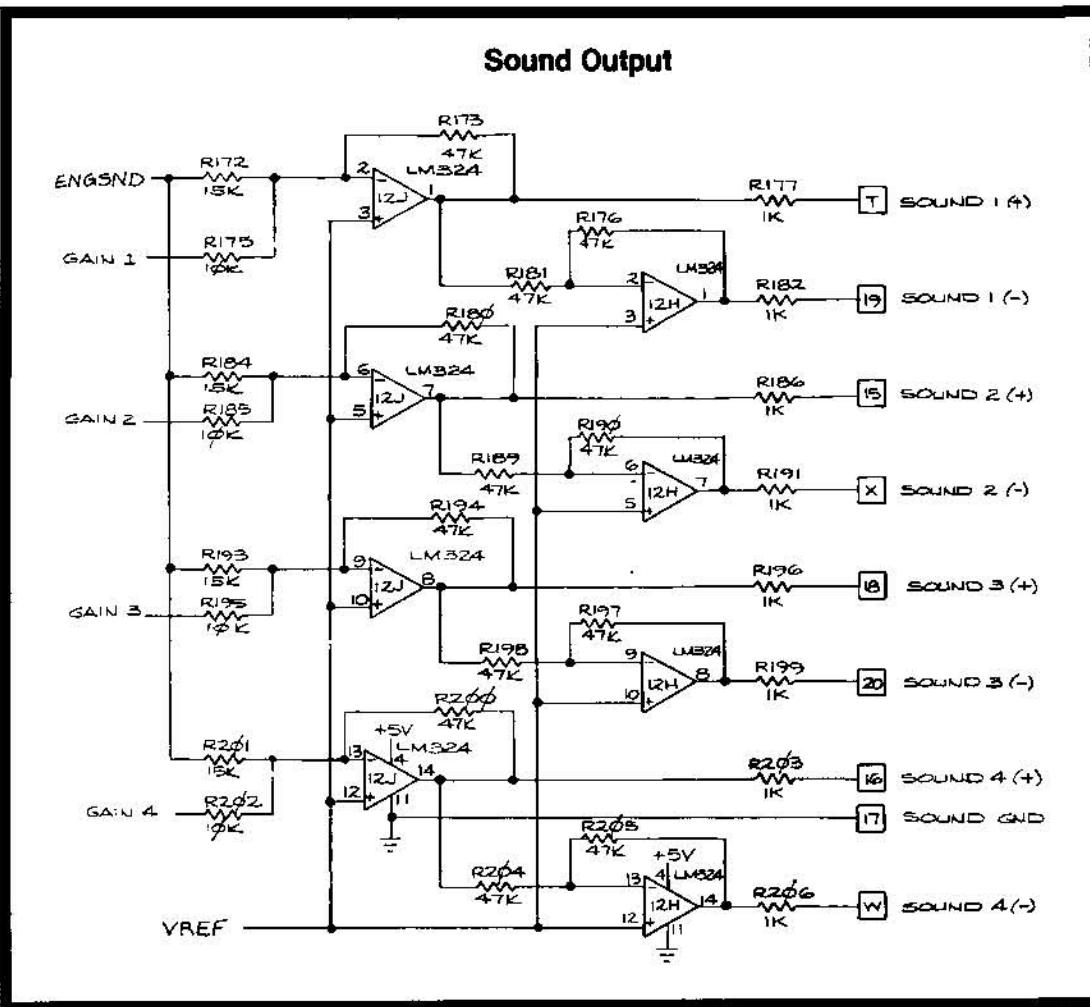


Pole Position CPU PCB Schematic Diagram

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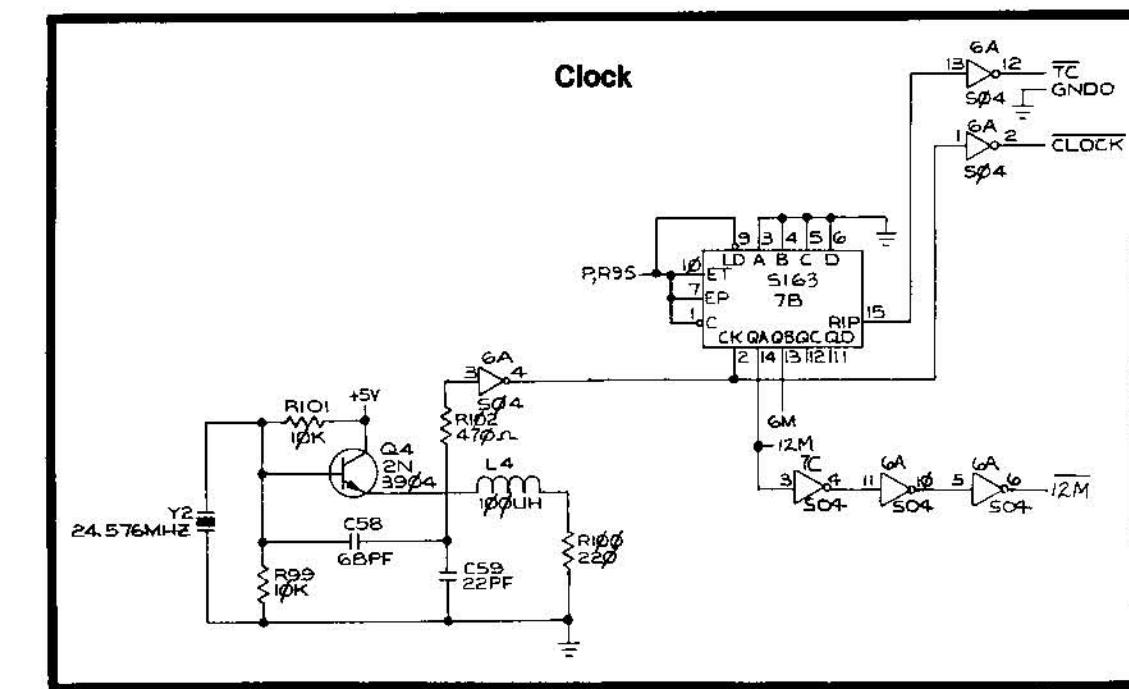
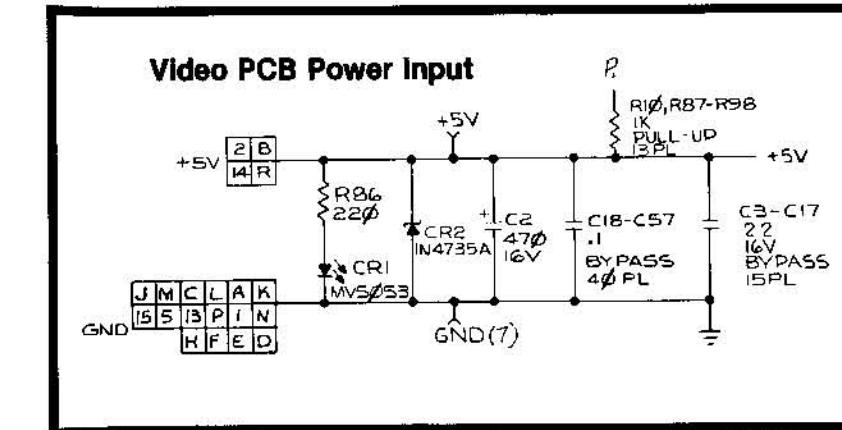
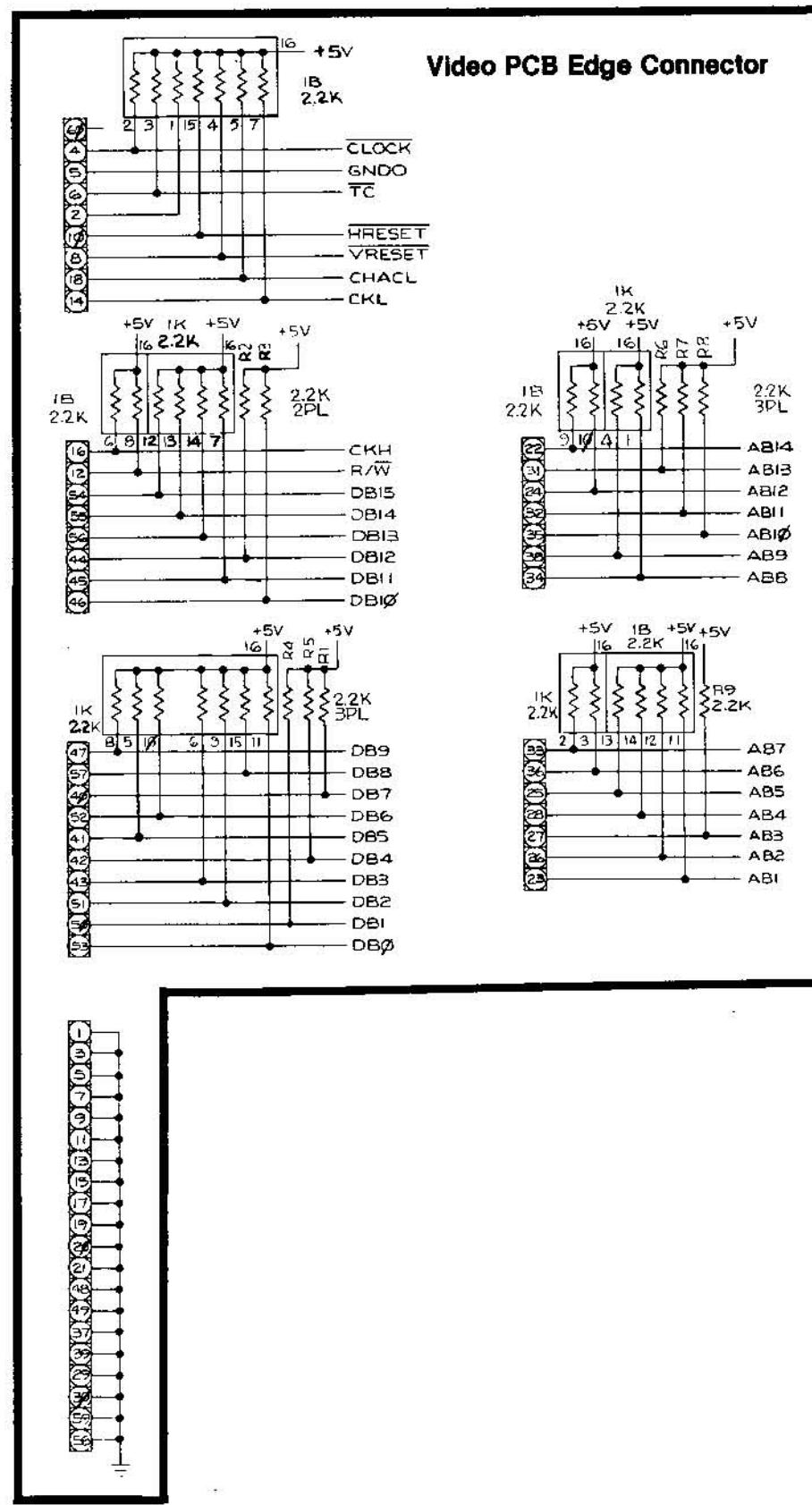
SP-218 Sheet 9B  
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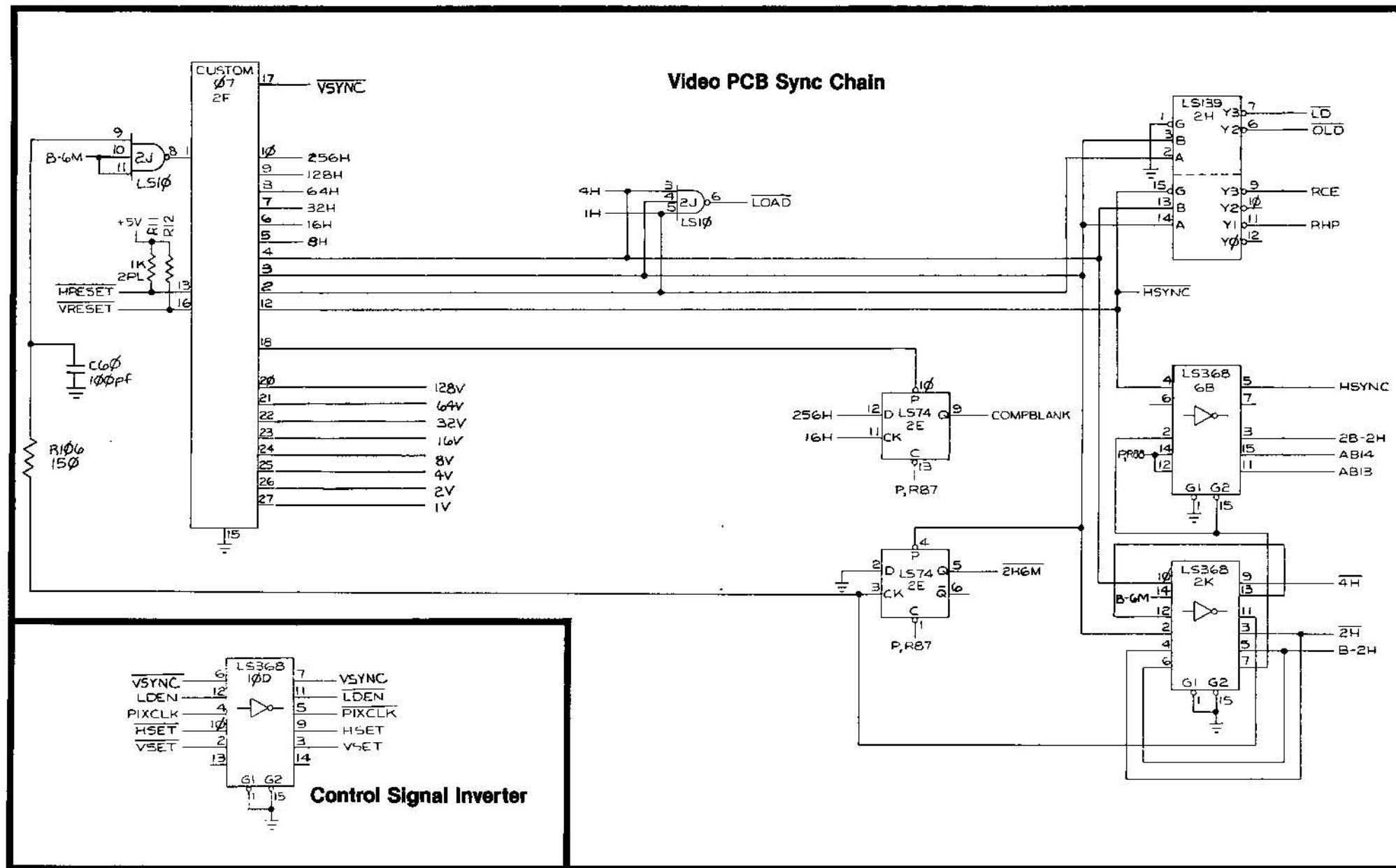


**Pole Position CPU PCB Schematic Diagram**

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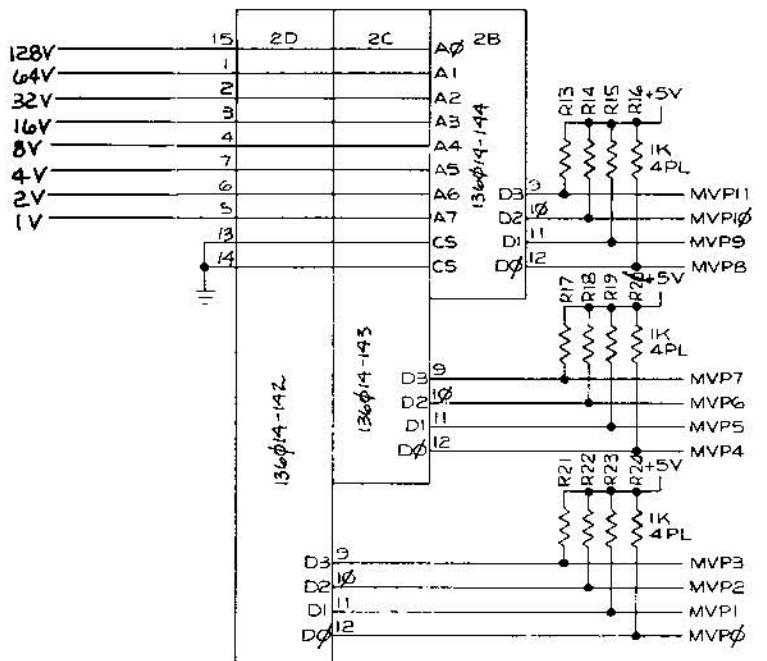
## Pole Position Video PCB Schematic Diagram

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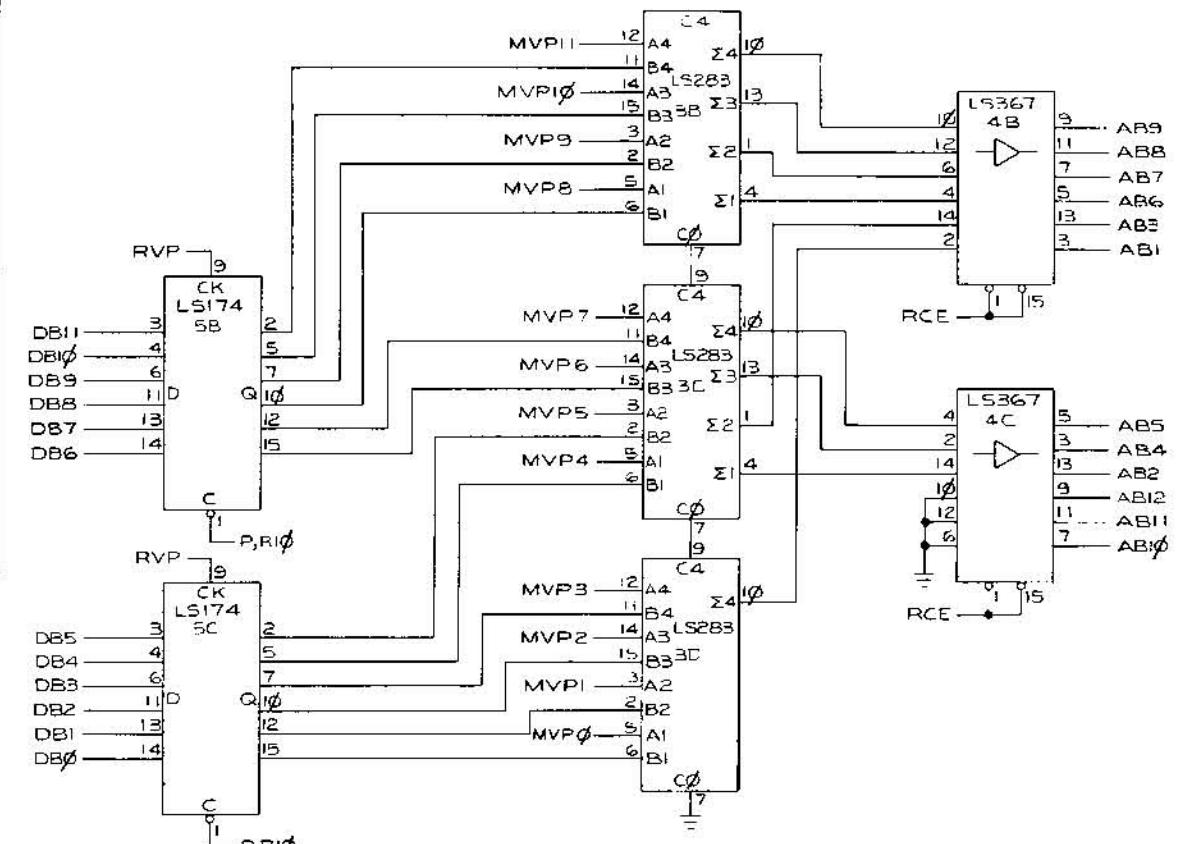
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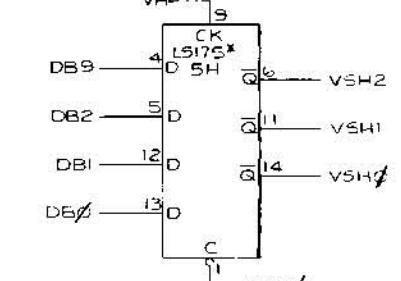
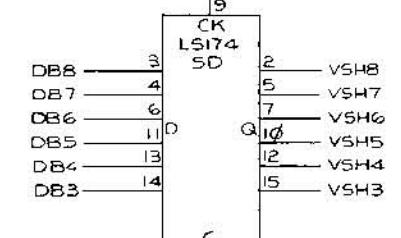
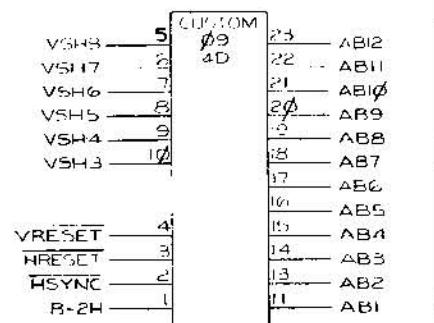
### Vertical Position Modifiers



### Vertical Position Buffers and Adders



### Address Bus Interface



\*MANUFACTURER MUST BE  
TEXAS INSTRUMENTS

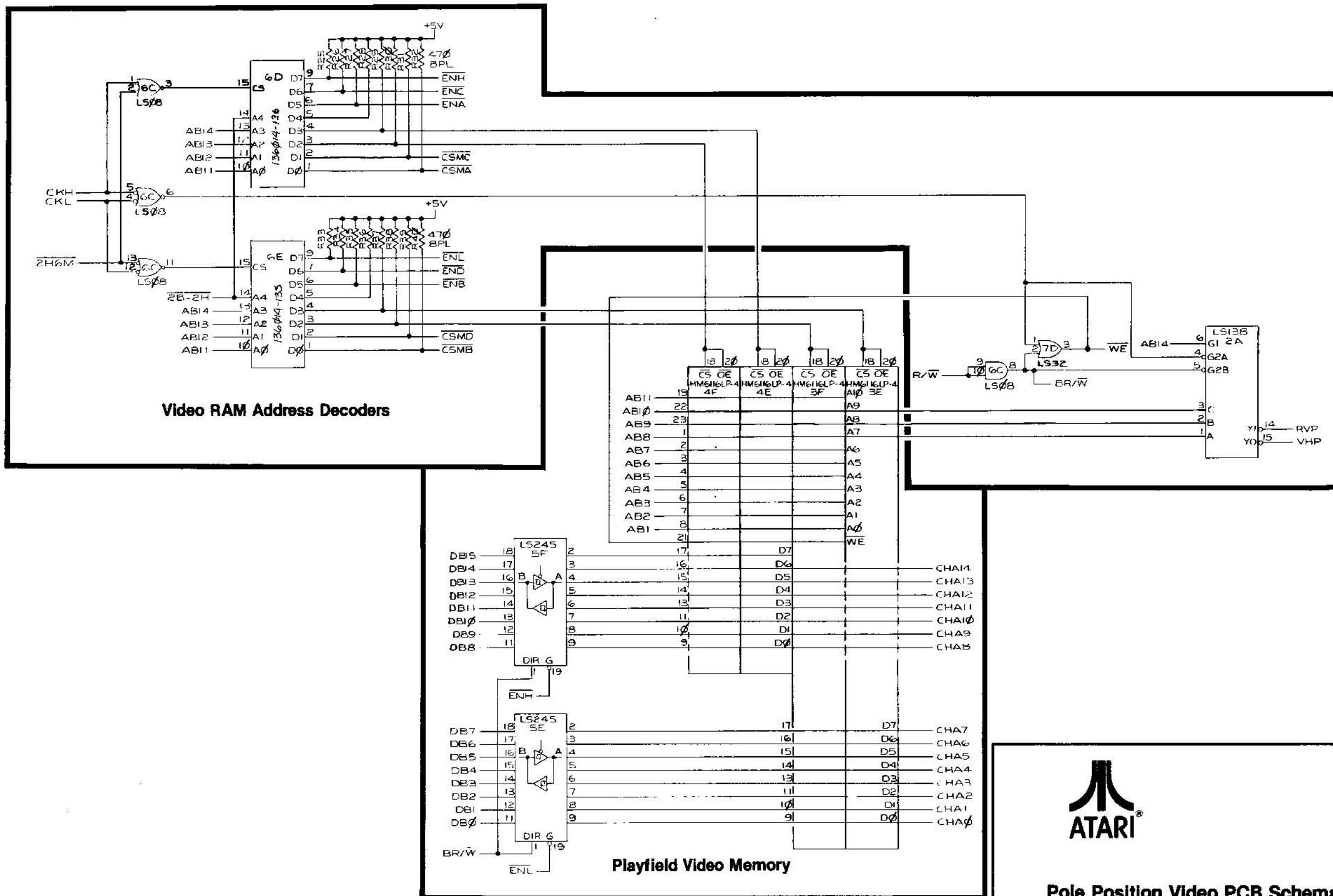


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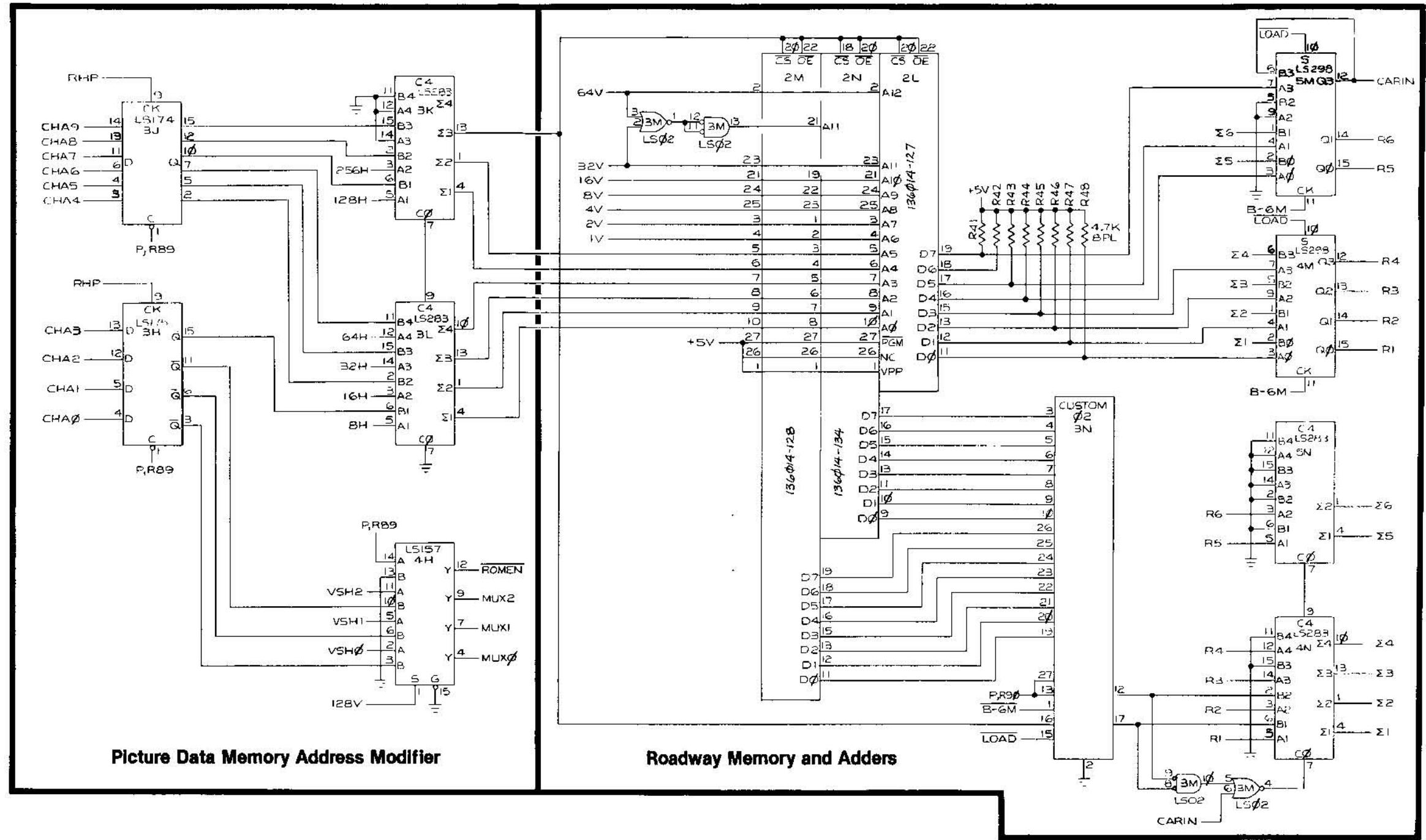
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Pole Position Video PCB Schematic Diagram

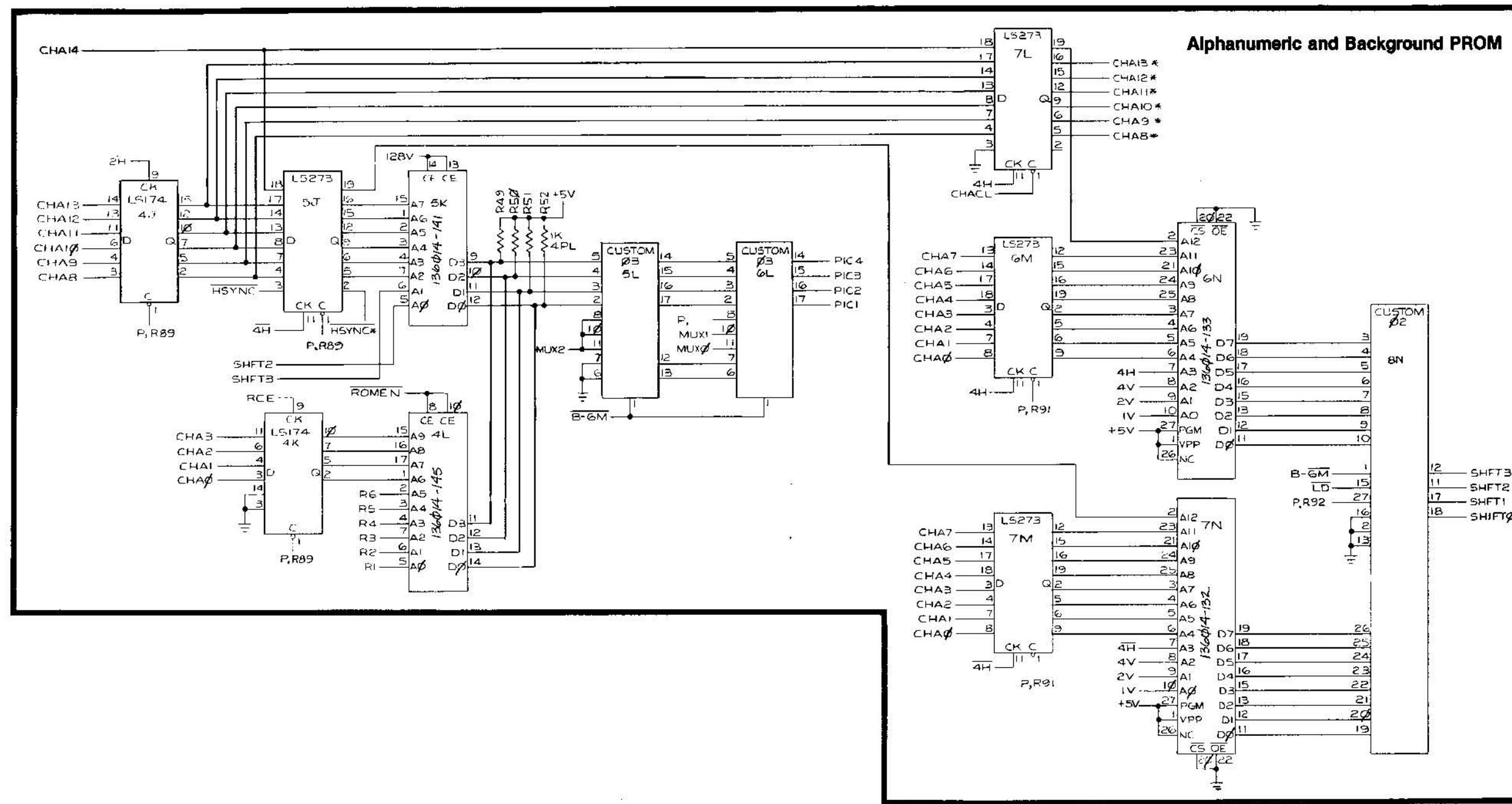


### Pole Position Video PCB Schematic Diagram

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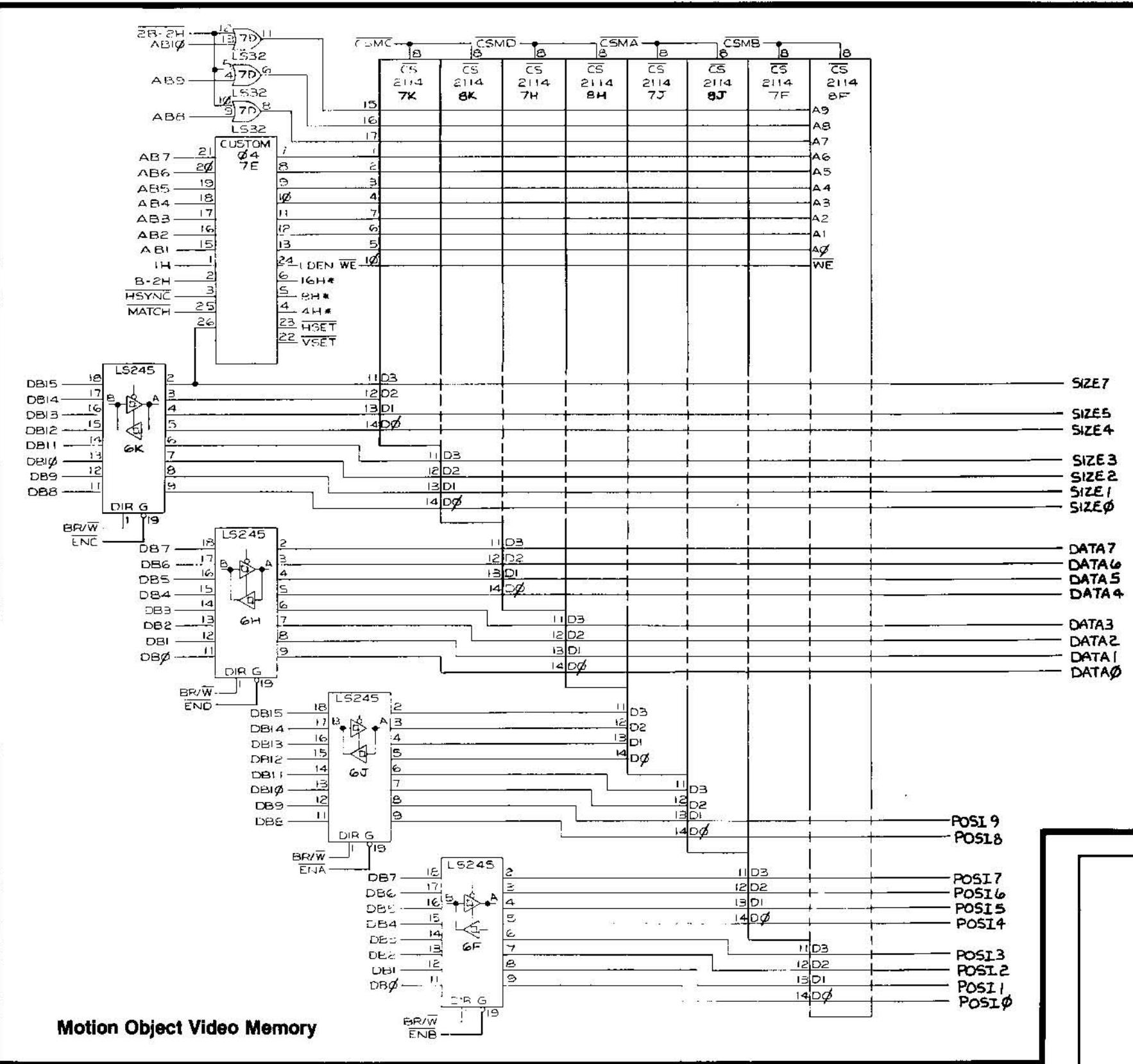
Pole Position Video PCB Schematic Diagram

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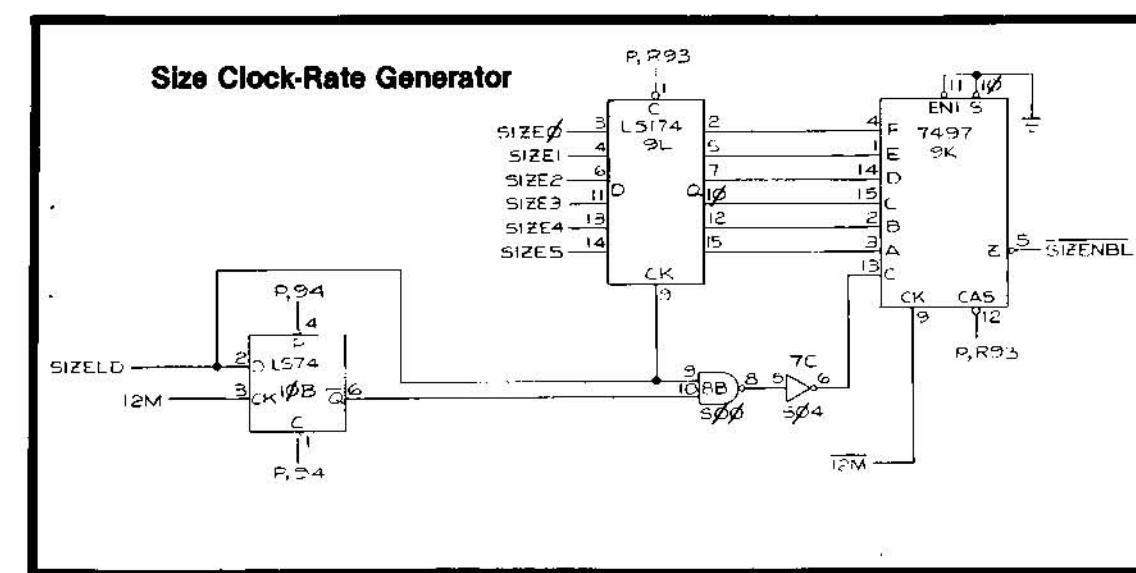
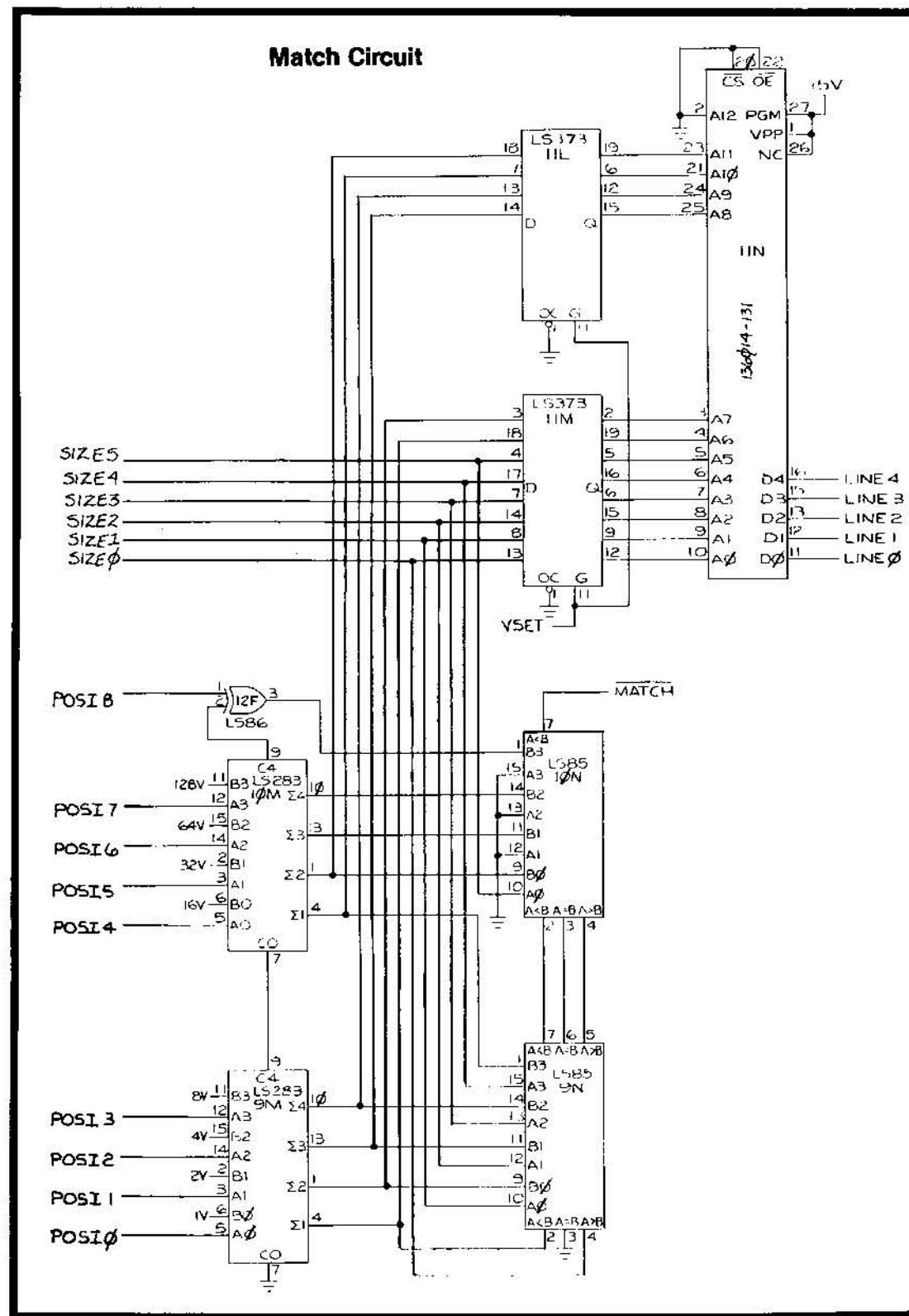


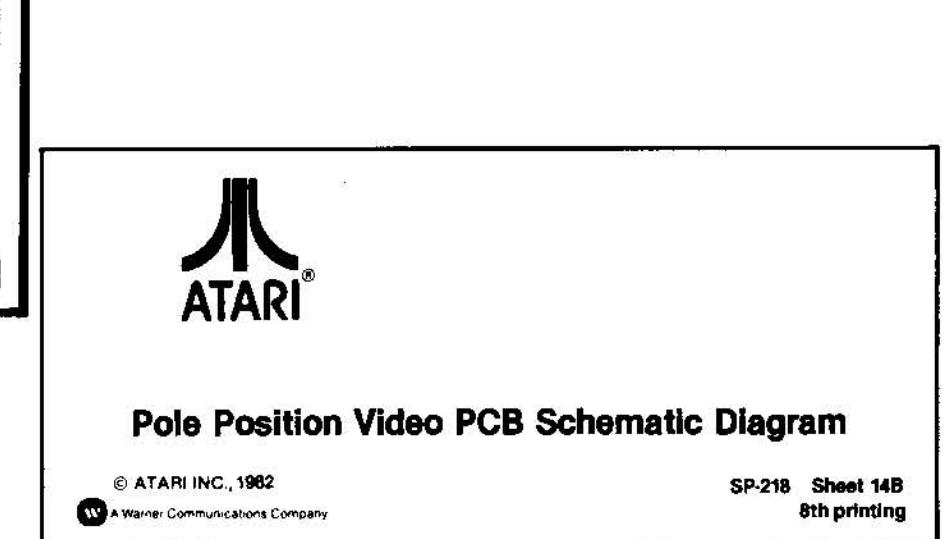
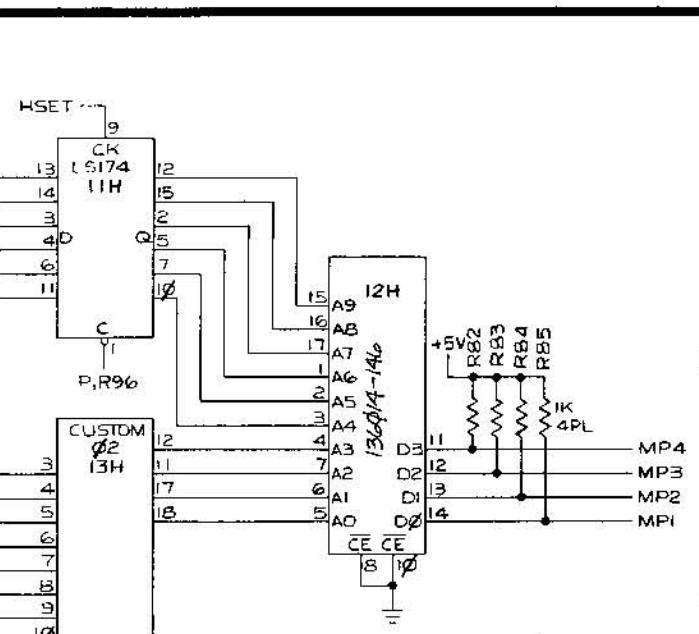
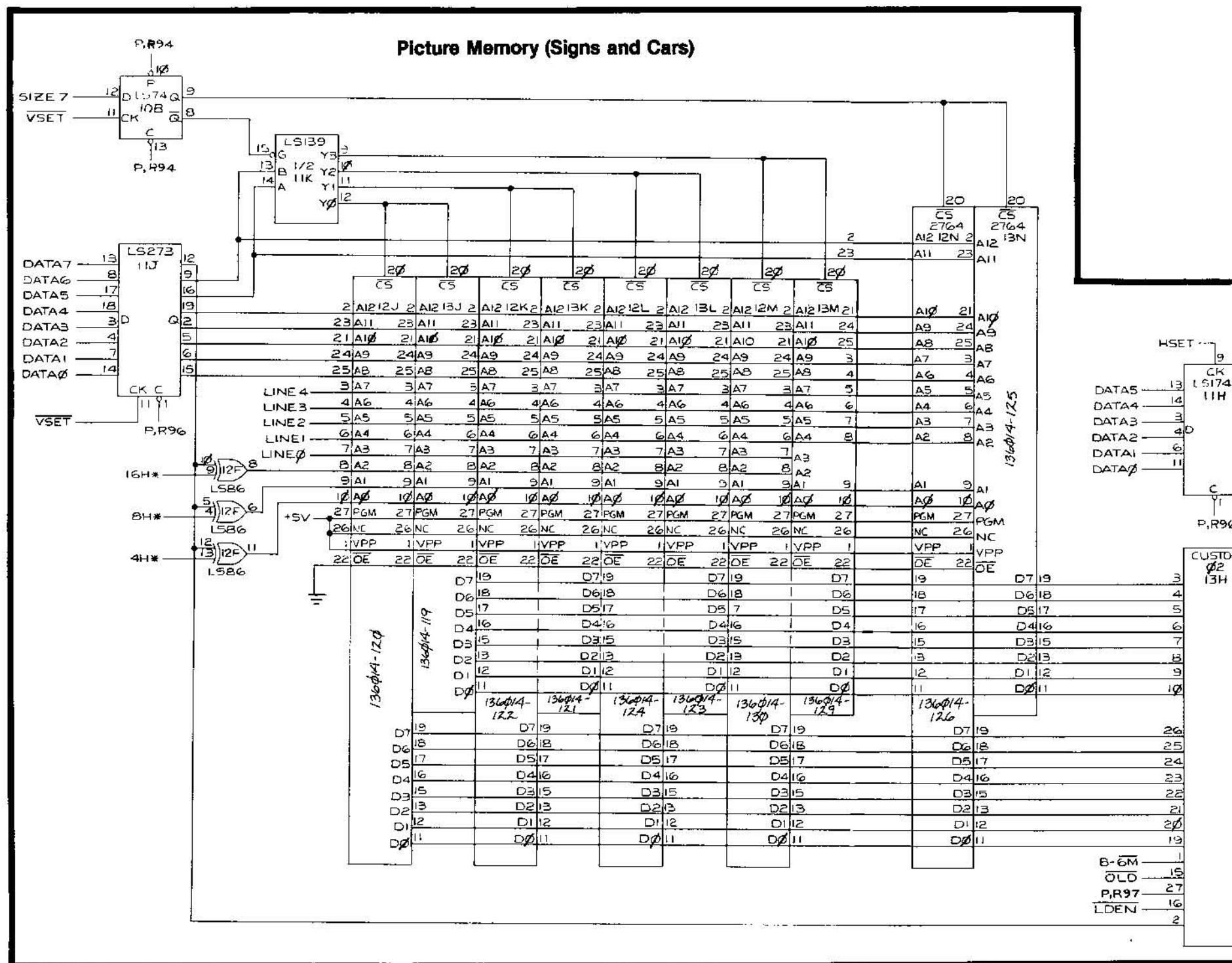
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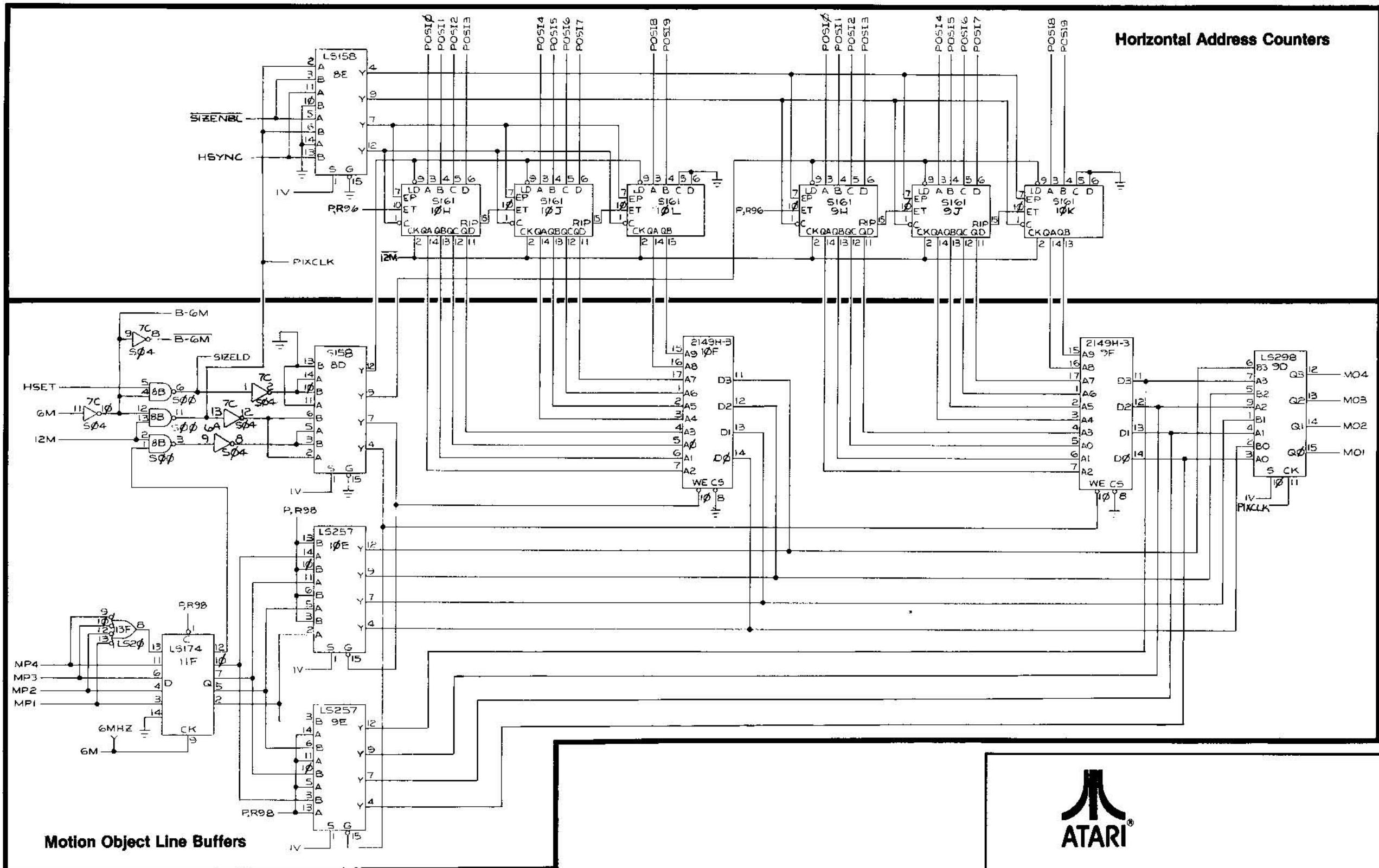
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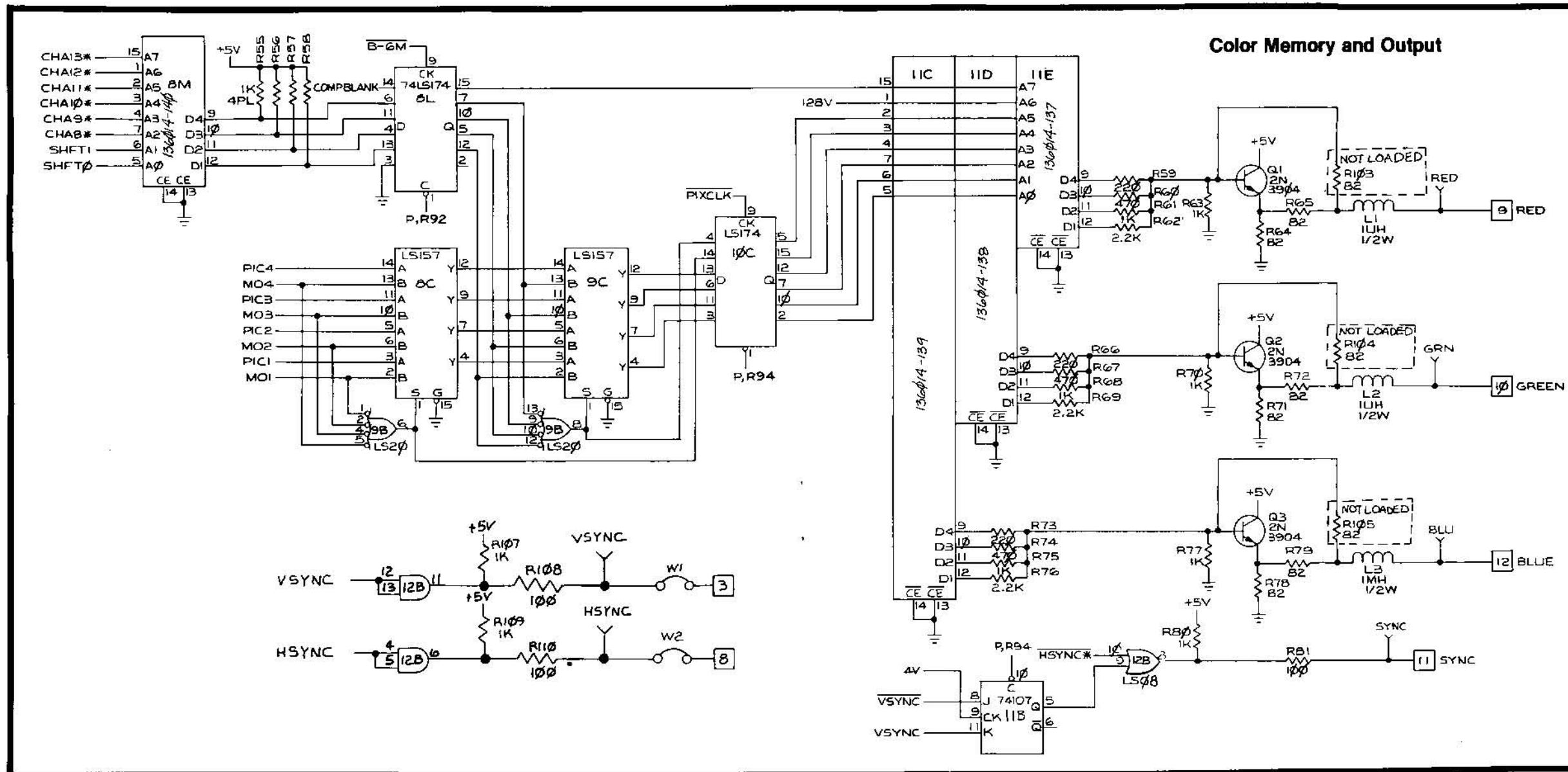
Pole Position Video PCB Schematic Diagram

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Pole Position Video PCB Schematic Diagram

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**Schematic Notes**  
Unless otherwise specified

Resistance: ( $\Omega$ ) ( $K \leftrightarrow K\Omega$ ,  $M \leftrightarrow M\Omega$ ), 1/4 (W) carbon resistor  
Capacitance: 1 or higher  $\rightarrow$  (pF), less than 1  $\rightarrow$  (fF)  
working voltage  $\rightarrow$  50 (V)  
ceramic capacitor

Inductance: ( $\mu H$ )

Electrolytic Cap: Capacitance Value (fF)/working voltage (V),  
NP  $\rightarrow$  non-polar (or bipolar) electrolytic cap.  
Refer to the parts list for additional component information.

○ indicates test point connection

— indicates chassis ground unless otherwise specified

Hz indicates cycles per second

For safety purposes (and continuing reliability)

⚠ replace all components marked with safety symbol with identical type.

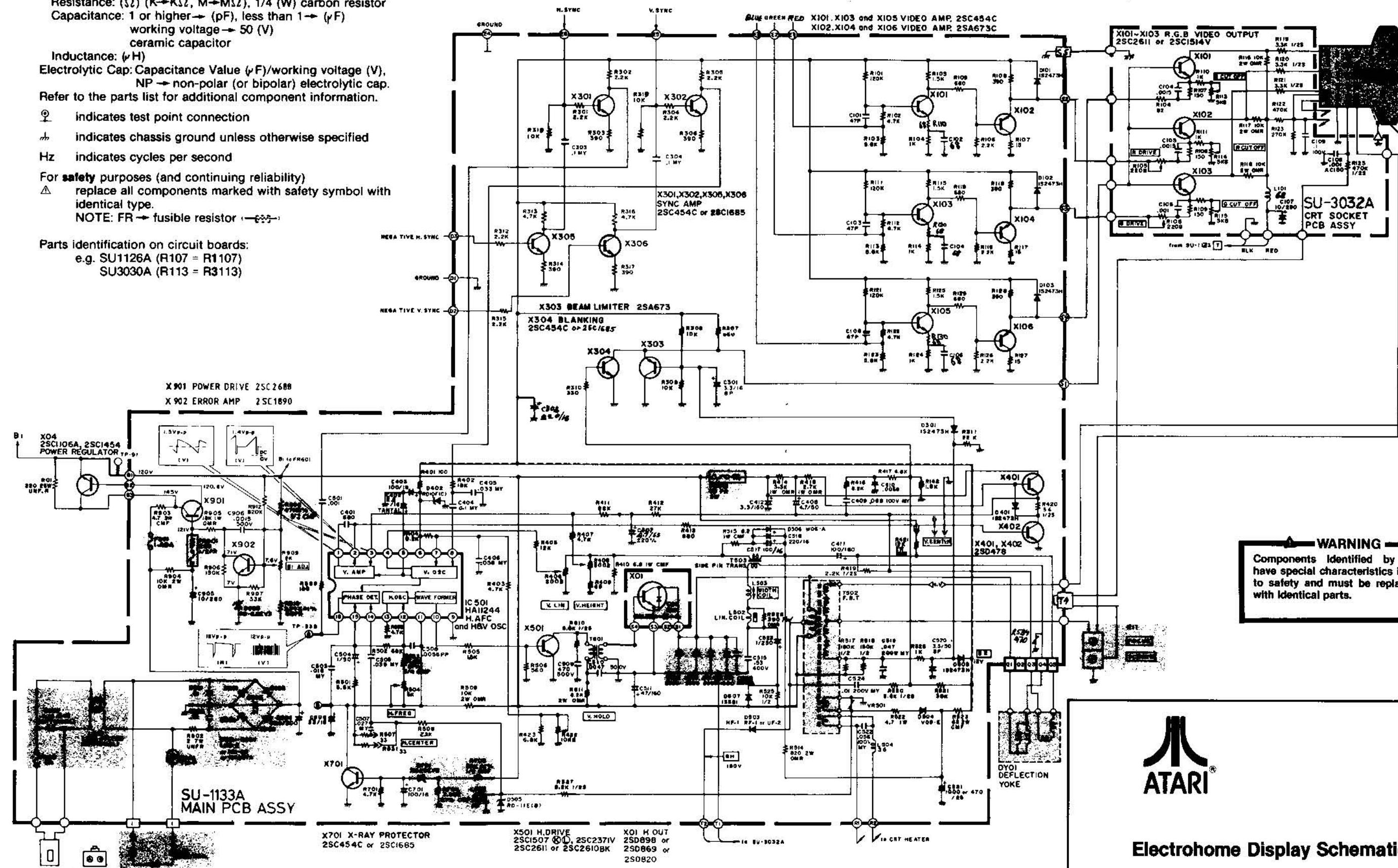
NOTE: FR  $\rightarrow$  fusible resistor  $\rightarrow$  600Ω

Parts identification on circuit boards:

e.g. SU1126A (R107 = R1107)

SU3030A (R113 = R3113)

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



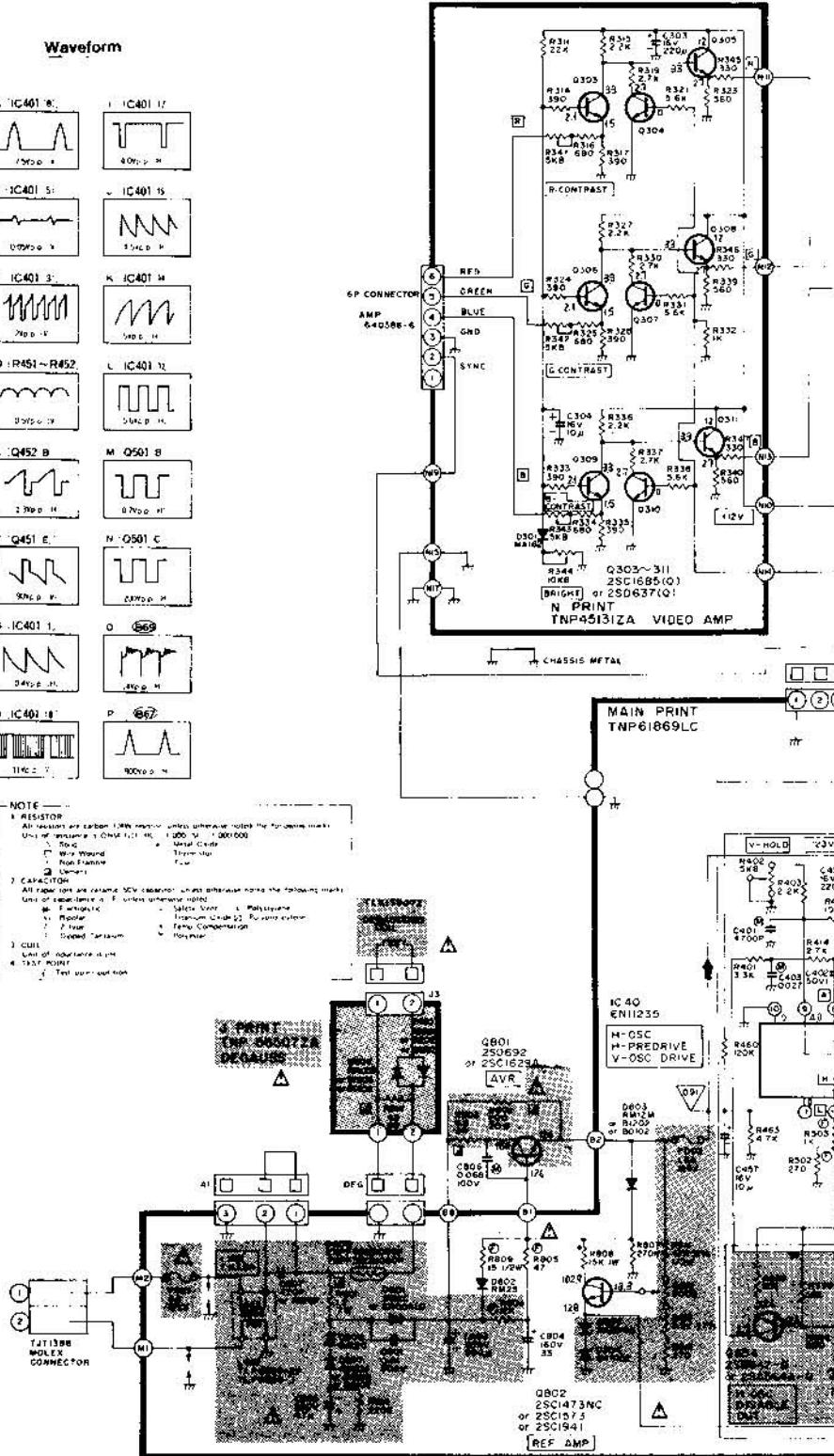
**WARNING**  
Components identified by shading have special characteristics important to safety and must be replaced only with identical parts.



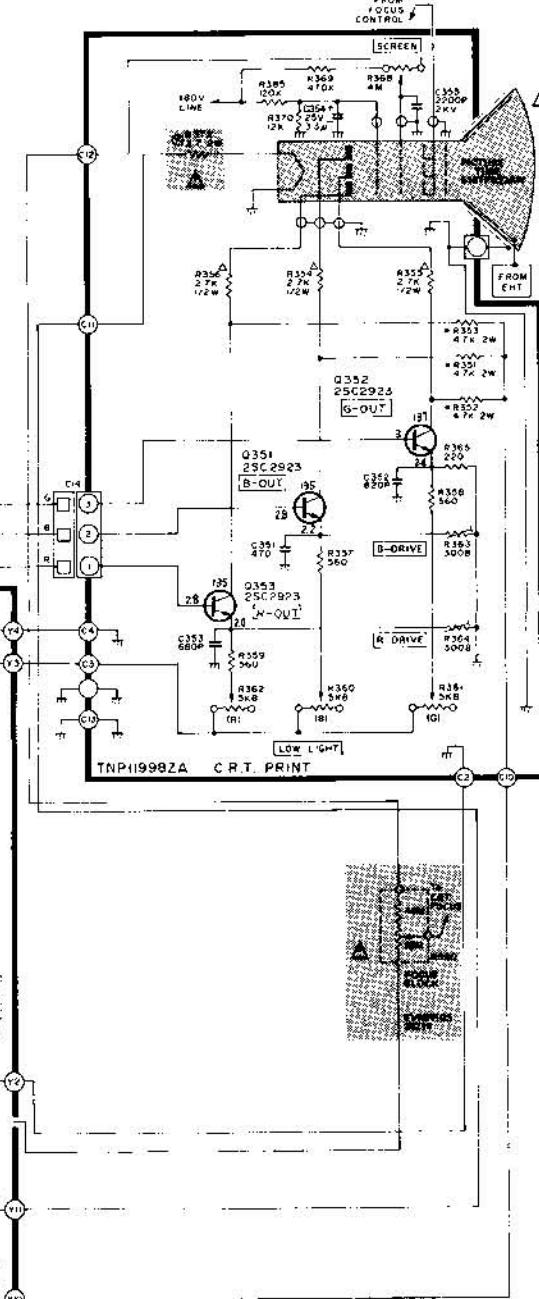
## Electrohome Display Schematic Diagram

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**Matsushita 19-Inch Color Raster-Scan Video Display Schematic Diagram**



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



**Matsushita Display Schematic Diagram**