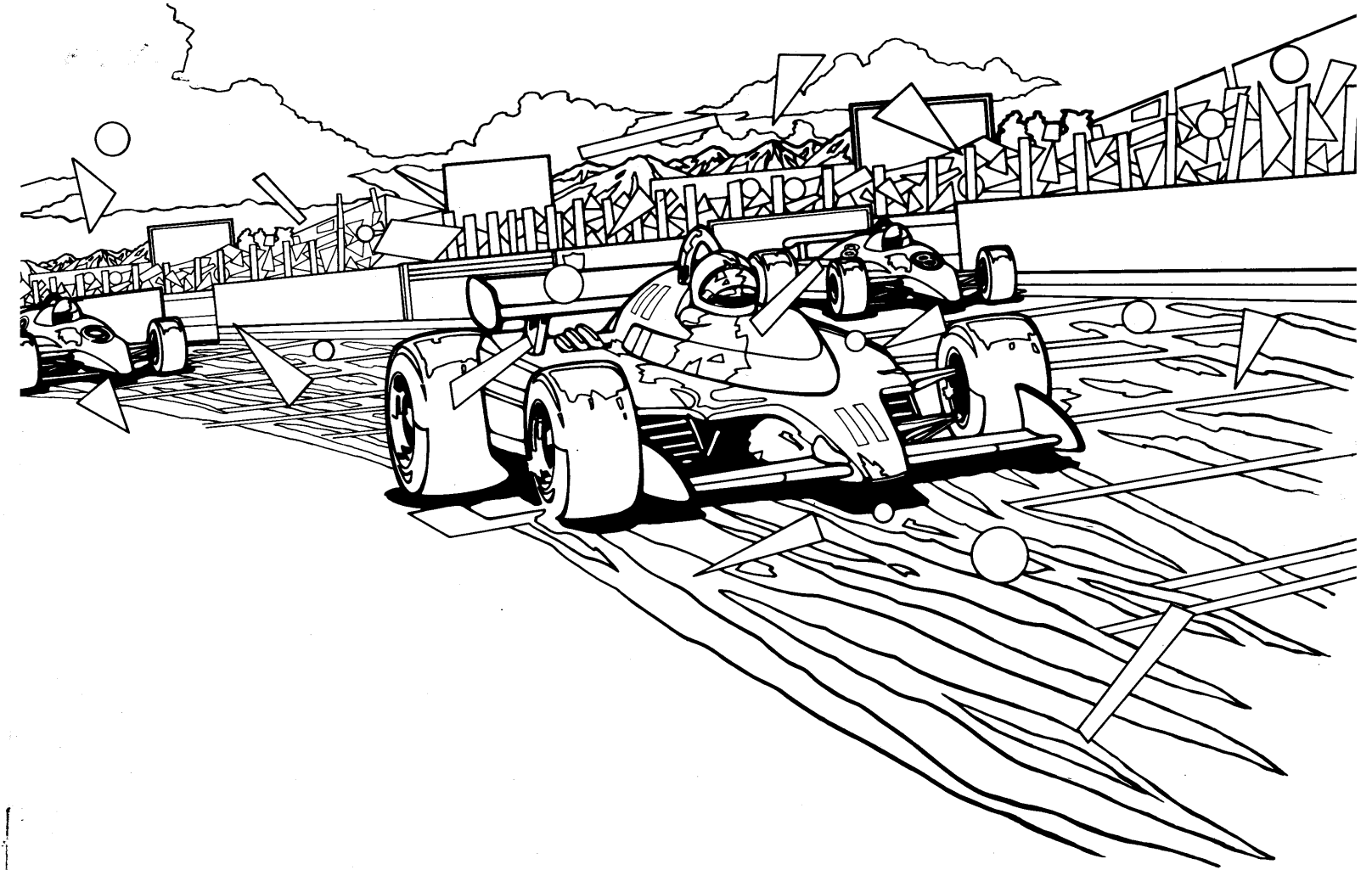


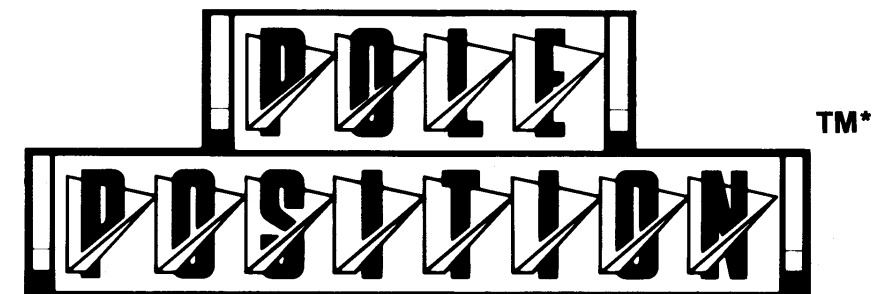
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NOTE
This staple temporarily holds the schematic package together. Remove the staple before using these schematics.

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Schematic Package Supplement to

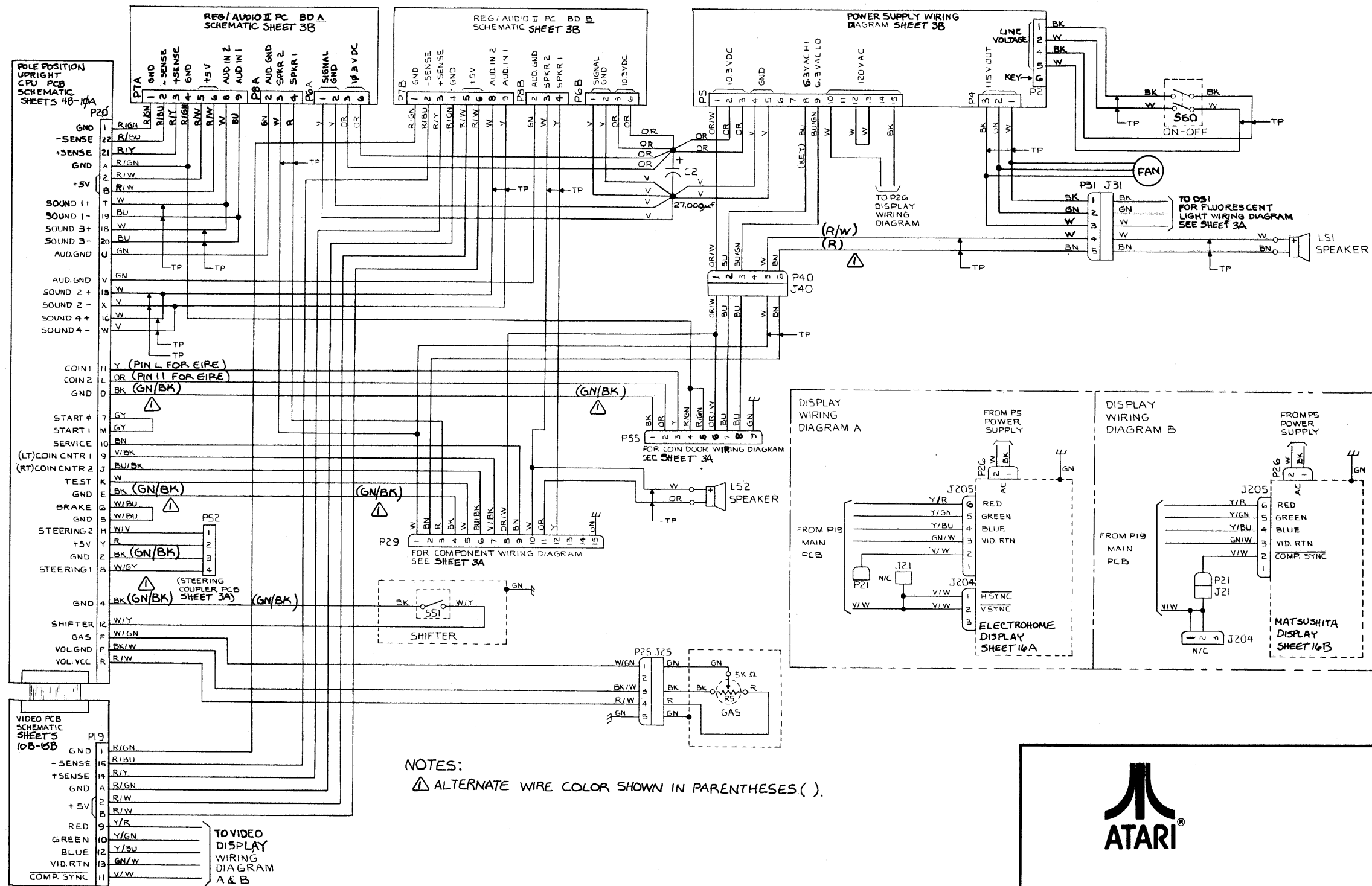


Operation, Maintenance, and Service Manual


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

2M

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NOTES:
 ⚠ ALTERNATE WIRE COLOR SHOWN IN PARENTHESES ().

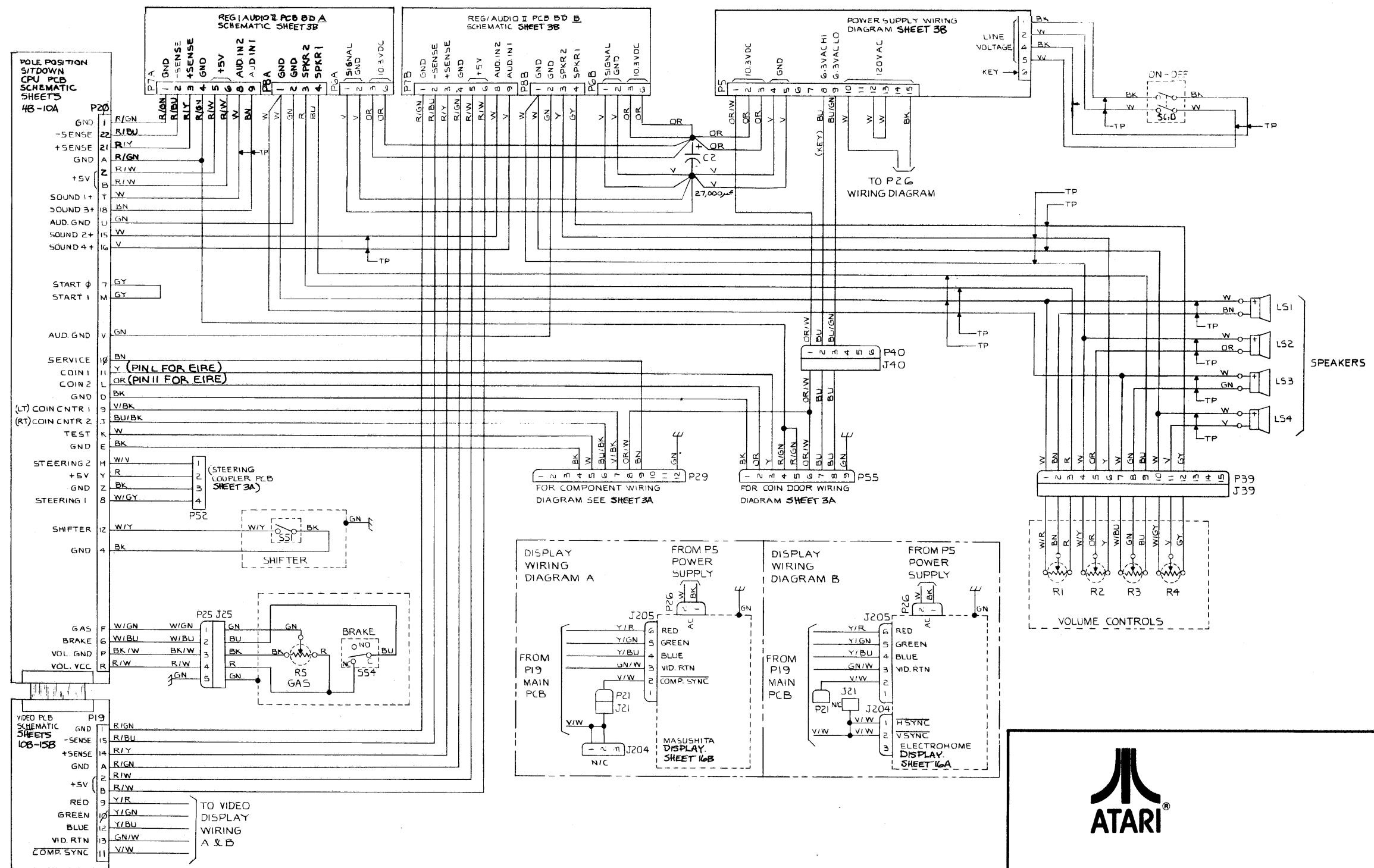



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Pole Position Upright Main Wiring Diagram

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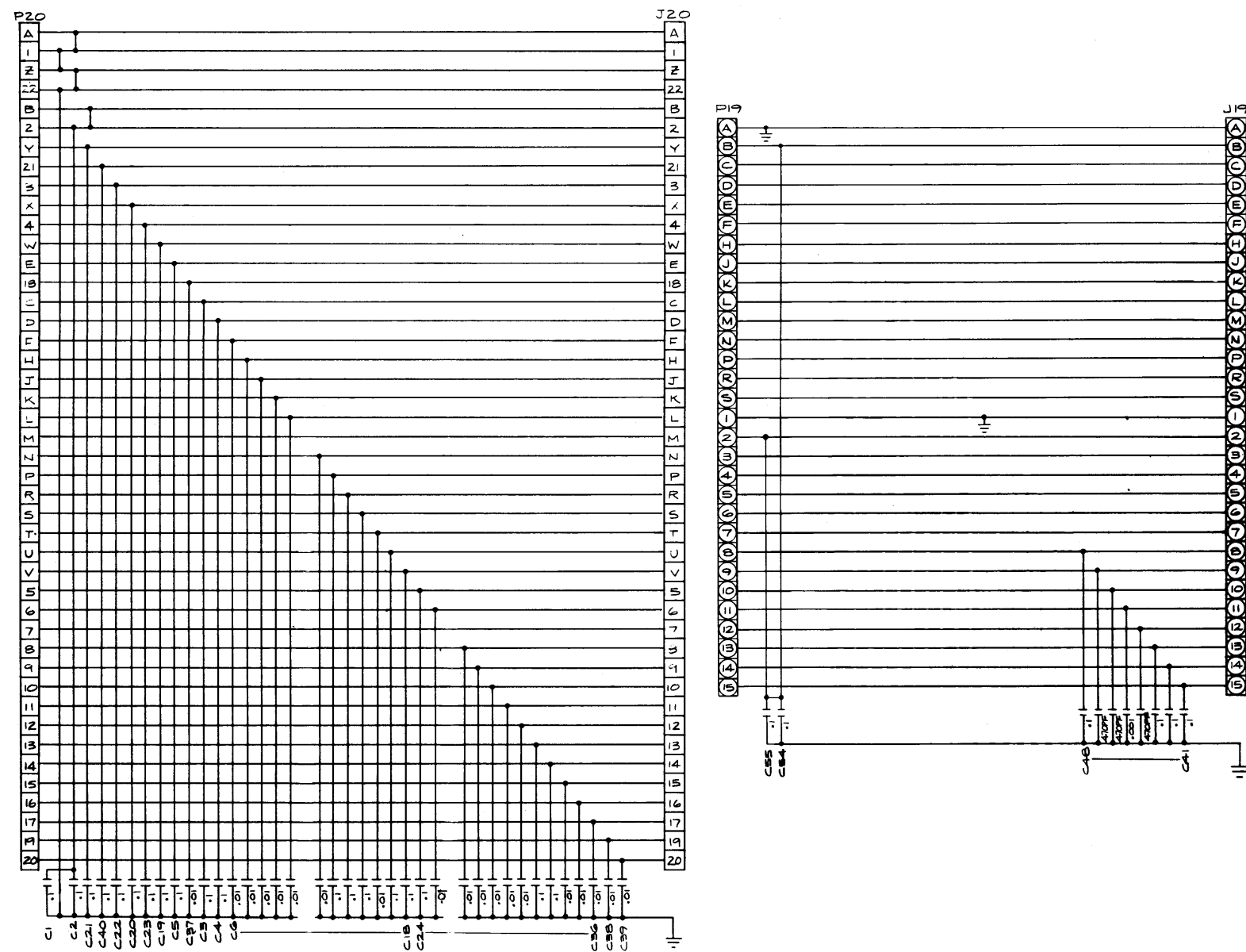

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Pole Position Sit-Down Main Wiring Diagram

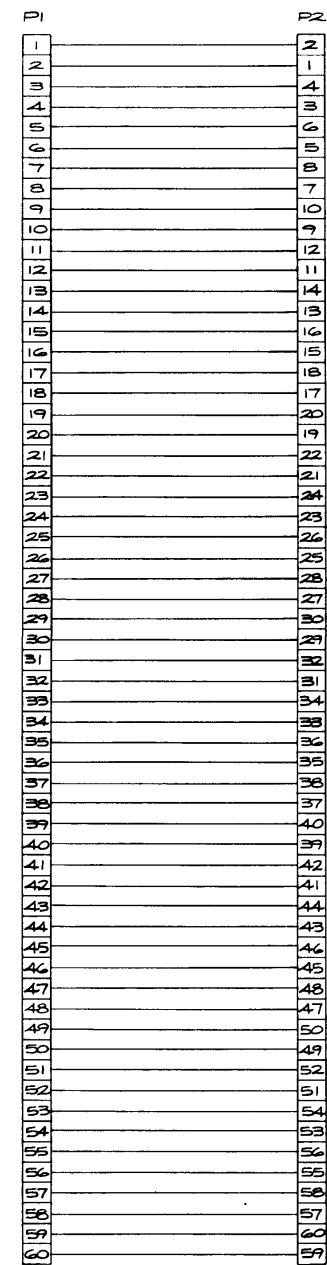
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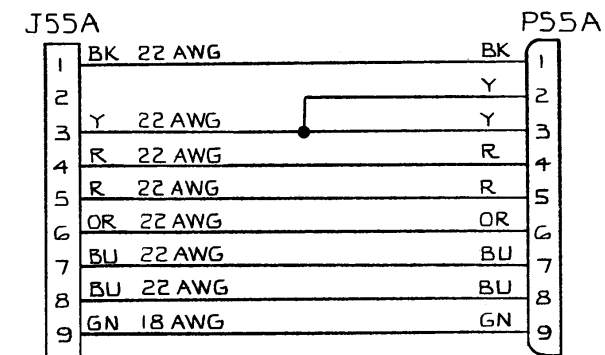
EMI Shield PCB Wiring Diagram



EMI End PCB Wiring Diagram



Coin Option Interconnect Wiring Diagram

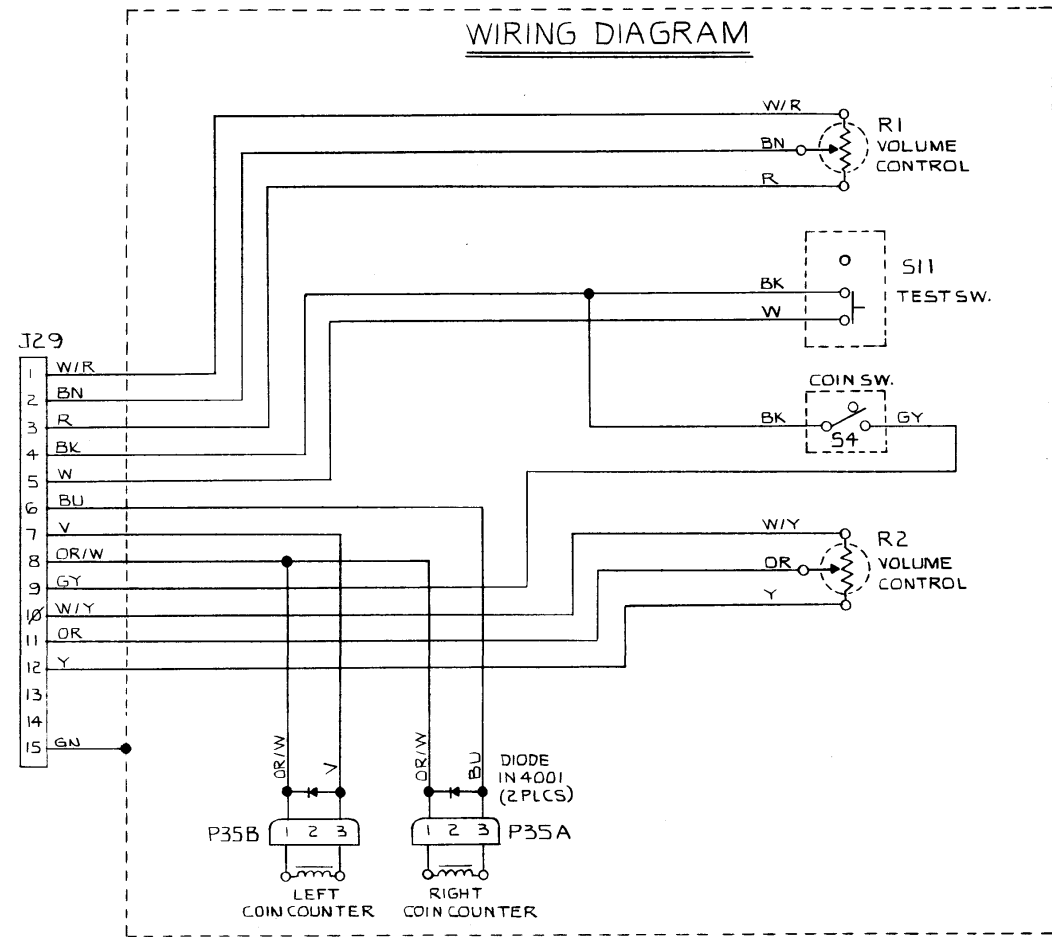


Pole Position Game Wiring Interfaces

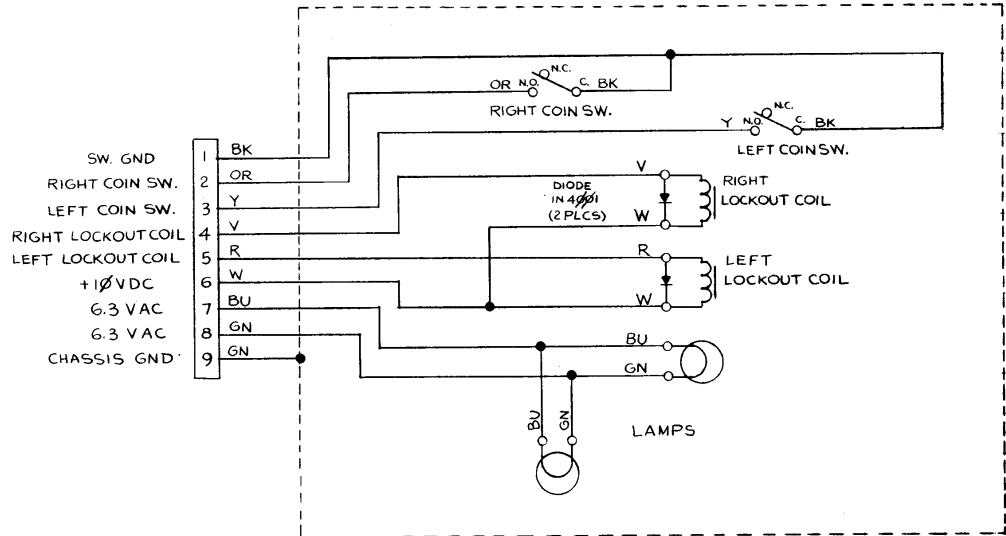
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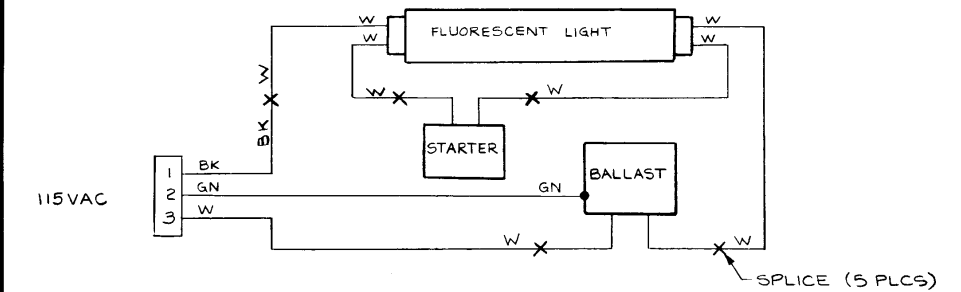
Upright Utility-Panel Wiring Diagram



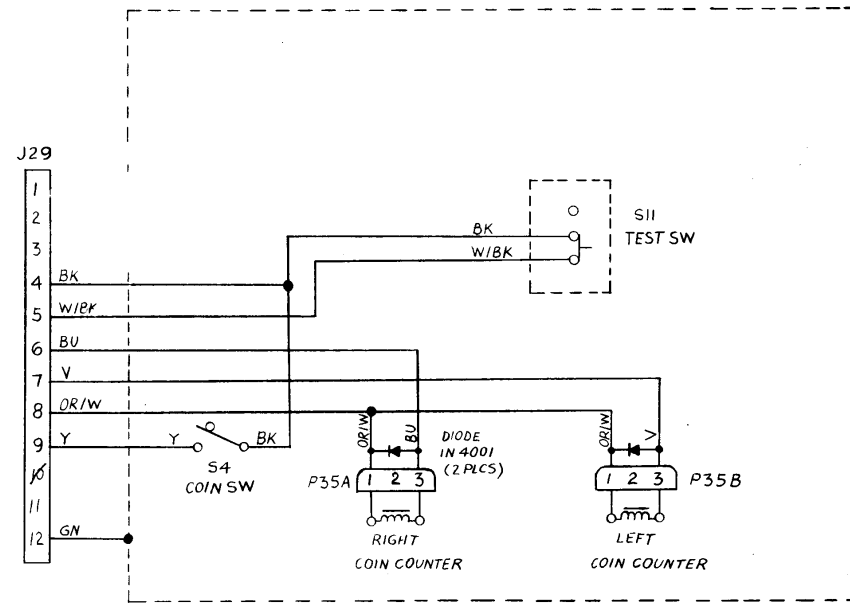
Coin-Door Wiring Diagram



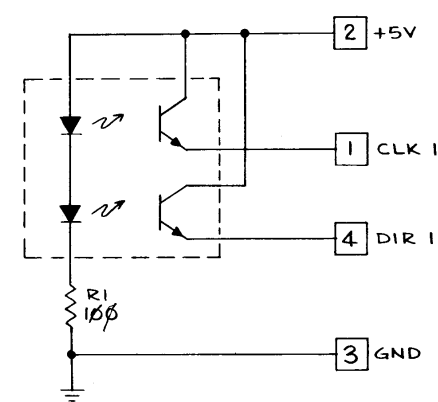
Upright-Only Fluorescent Light Wiring Diagram



Sit-Down Utility-Panel Wiring Diagram



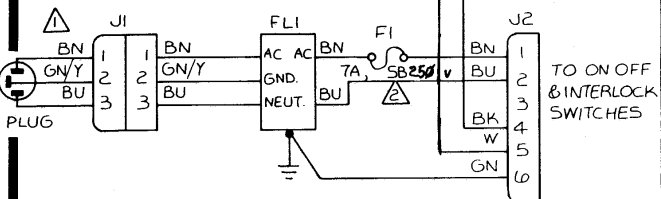
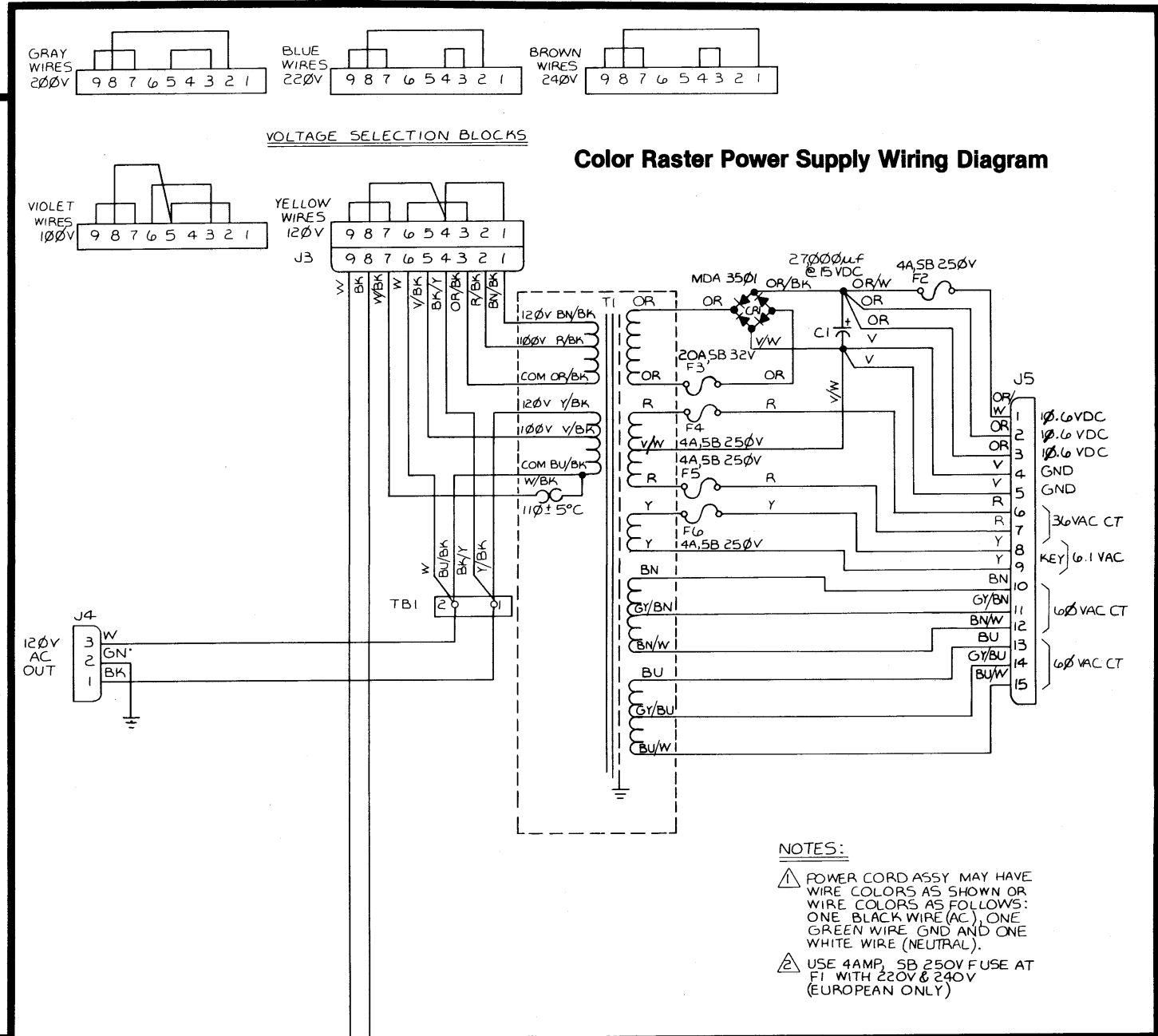
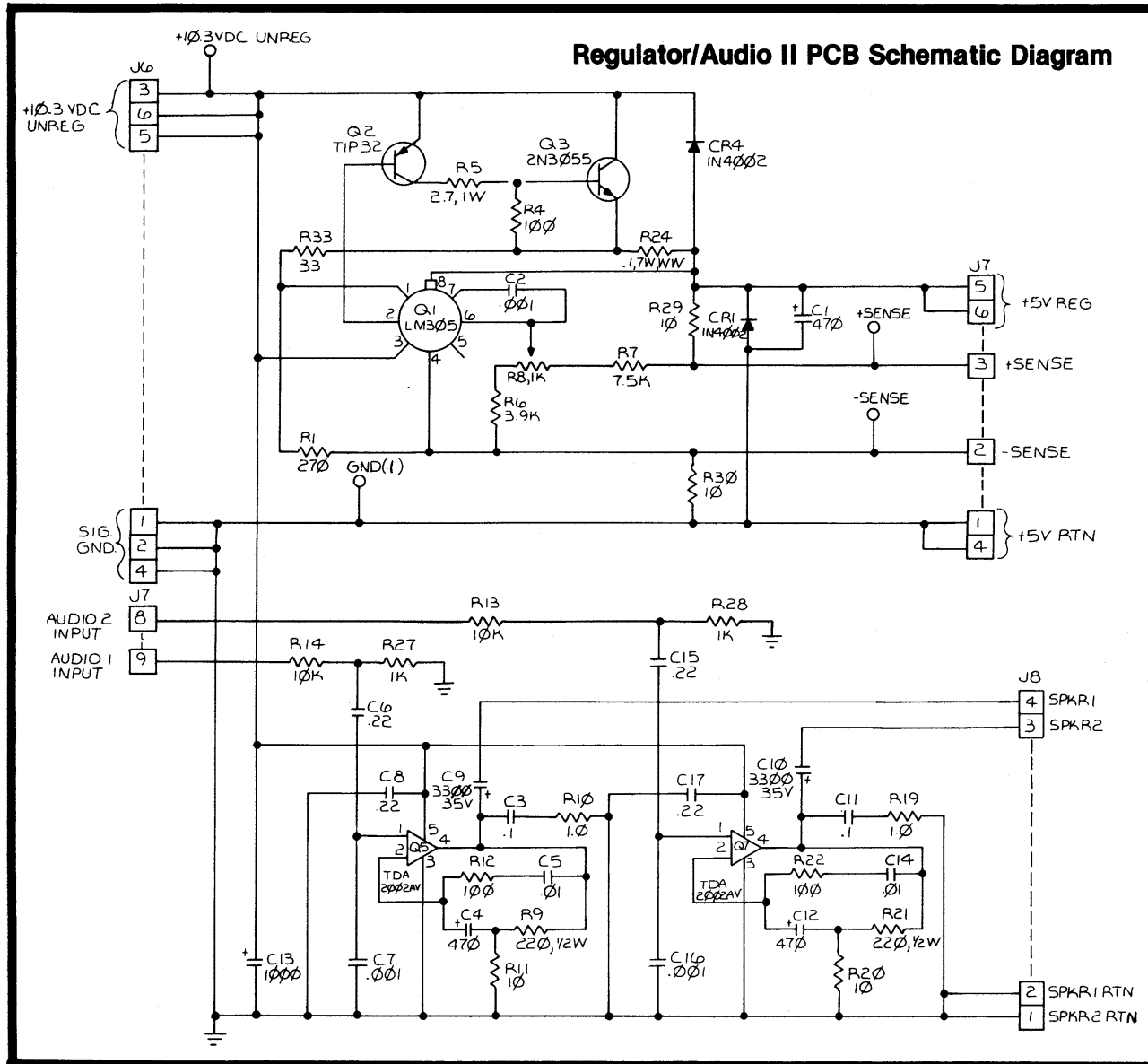
Steering Coupler PCB Schematic




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 R/W	Alphanumeric Memory 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 Nybble)
A300	W	Car Sound (Upper Nybble)

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



Test Point



PCB edge connector pad

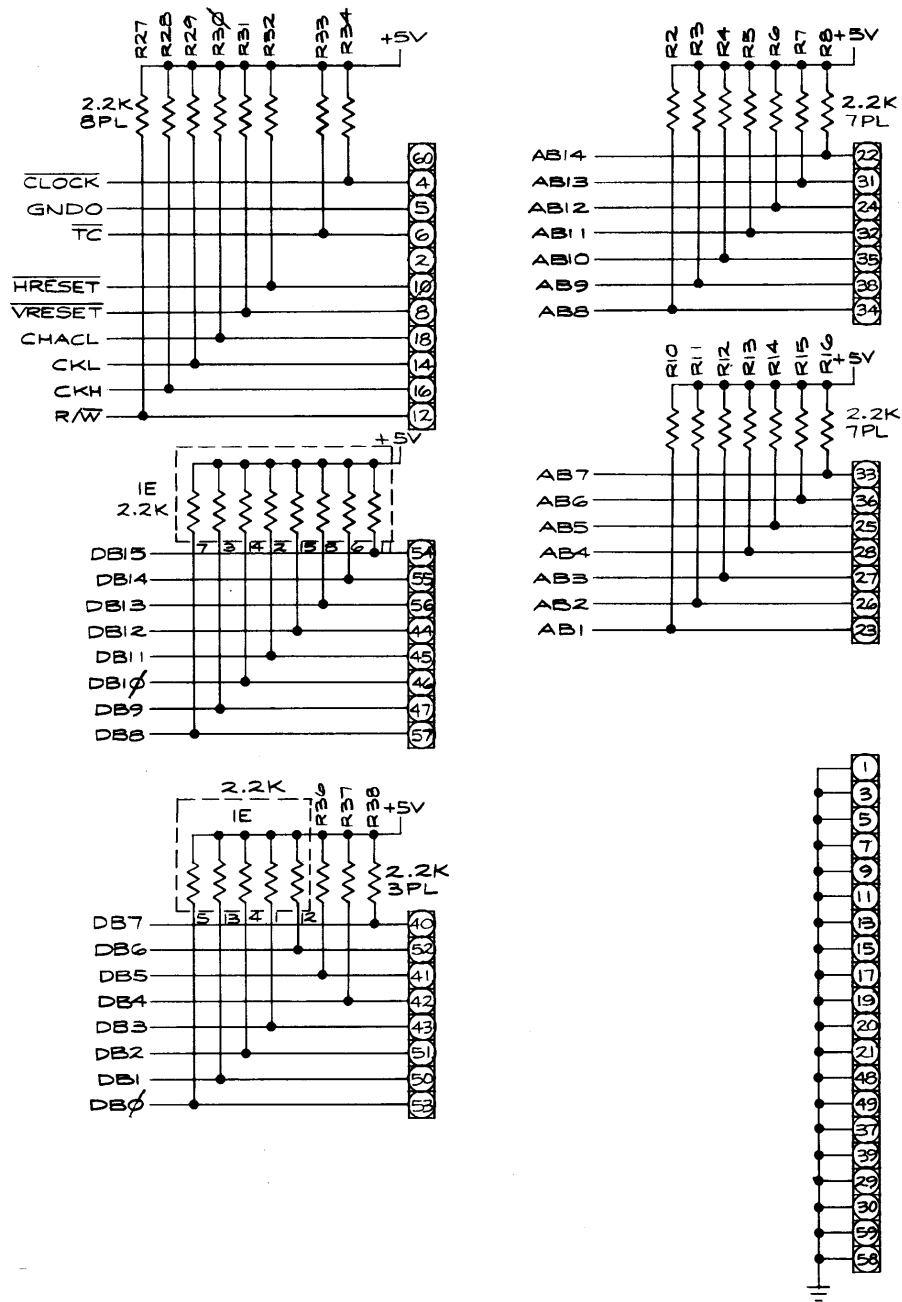


Pole Position Memory Map and Schematic Notes

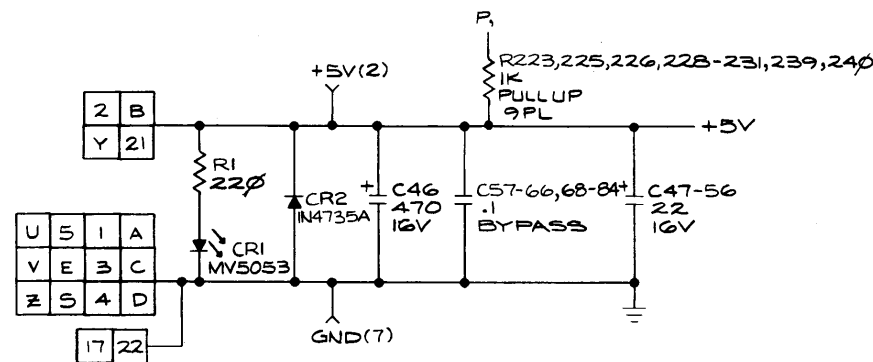
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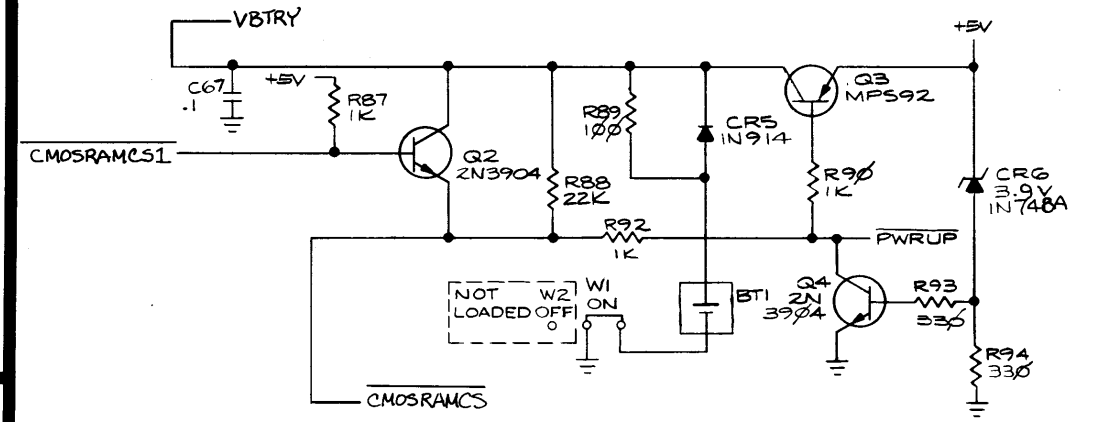
CPU PCB Edge Connector



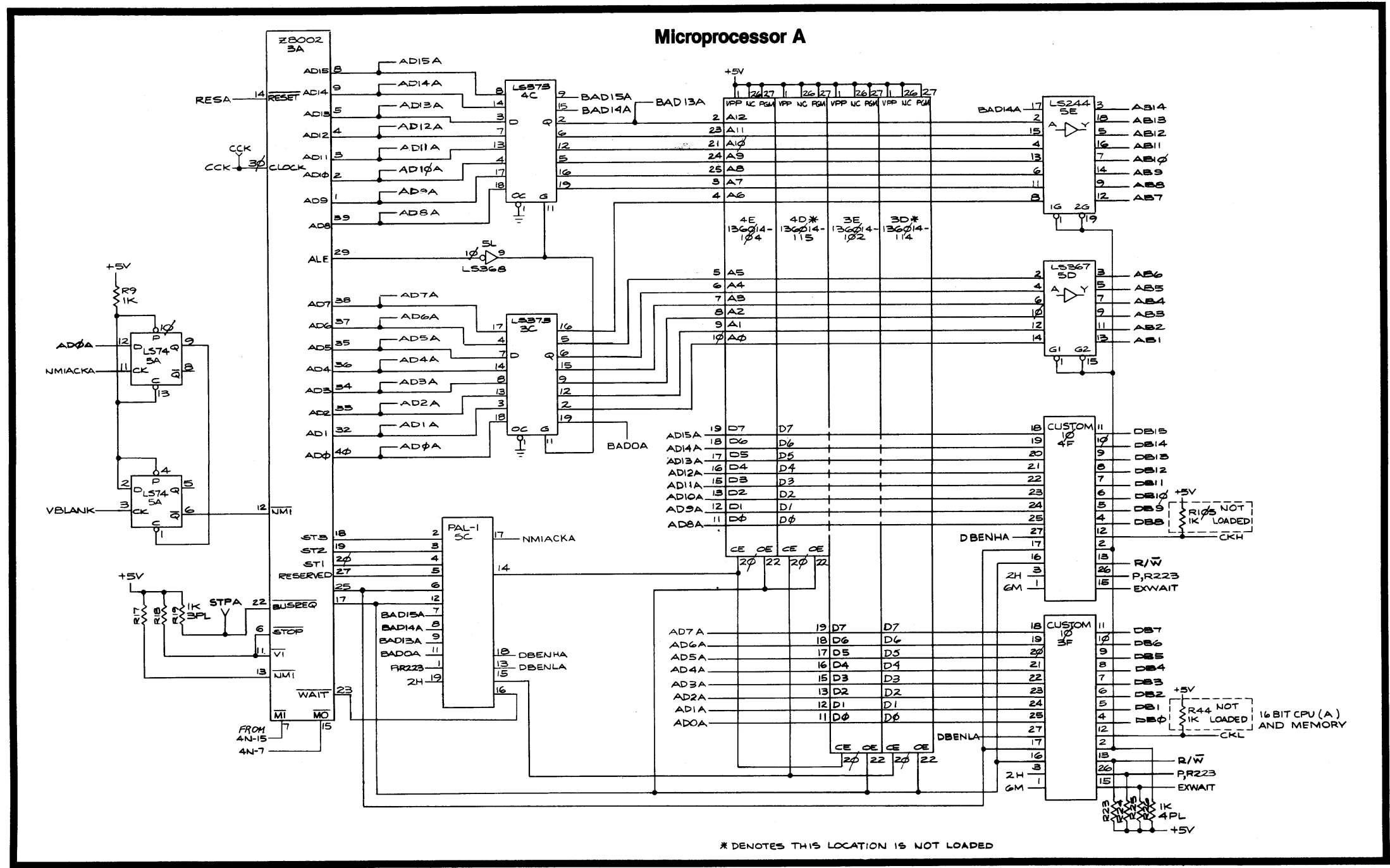
CPU PCB Power Input




RAM Battery Back-Up Power



Pole Position CPU PCB Schematic Diagram

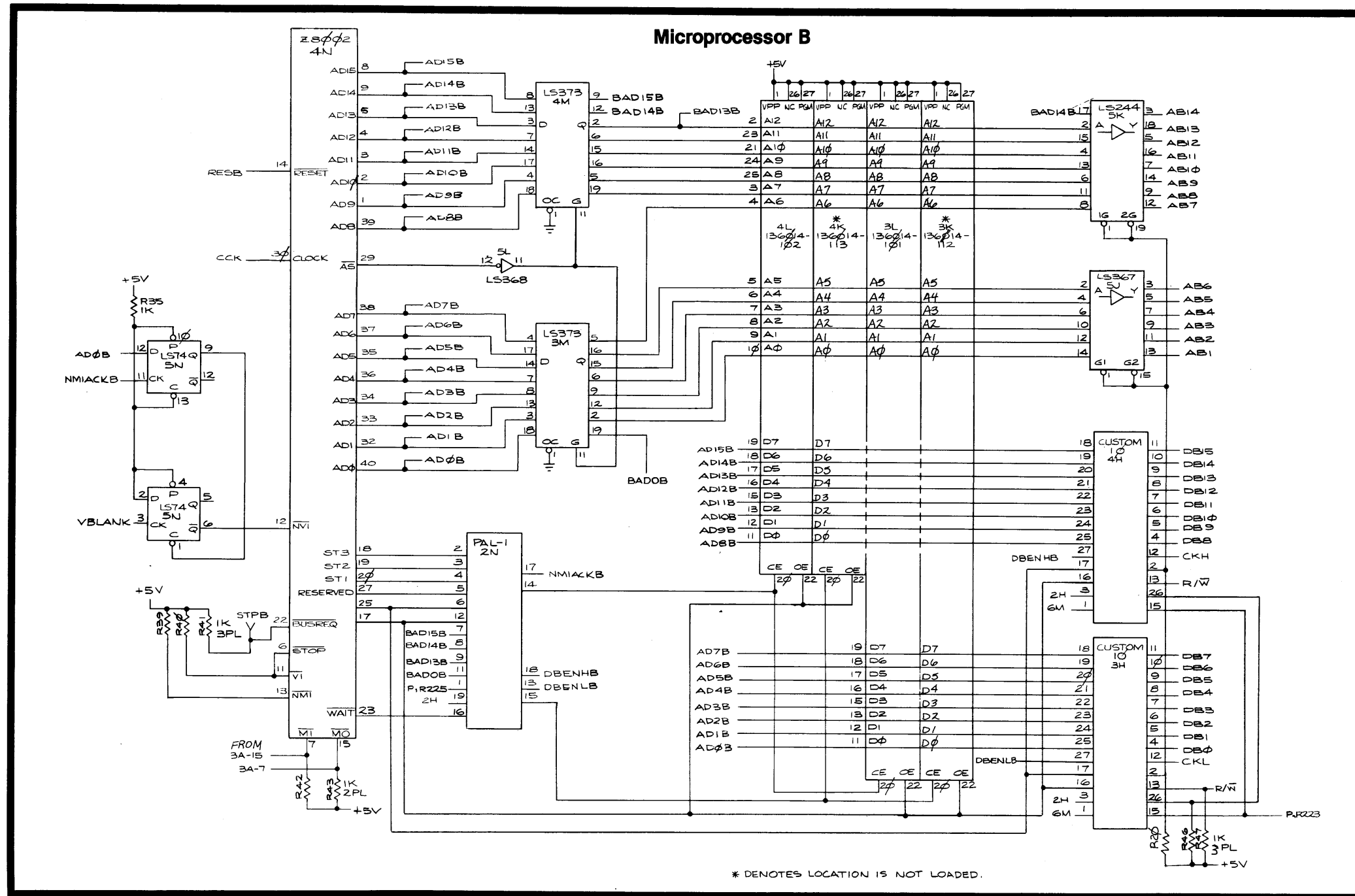




Pole Position CPU PCB Schematic Diagram

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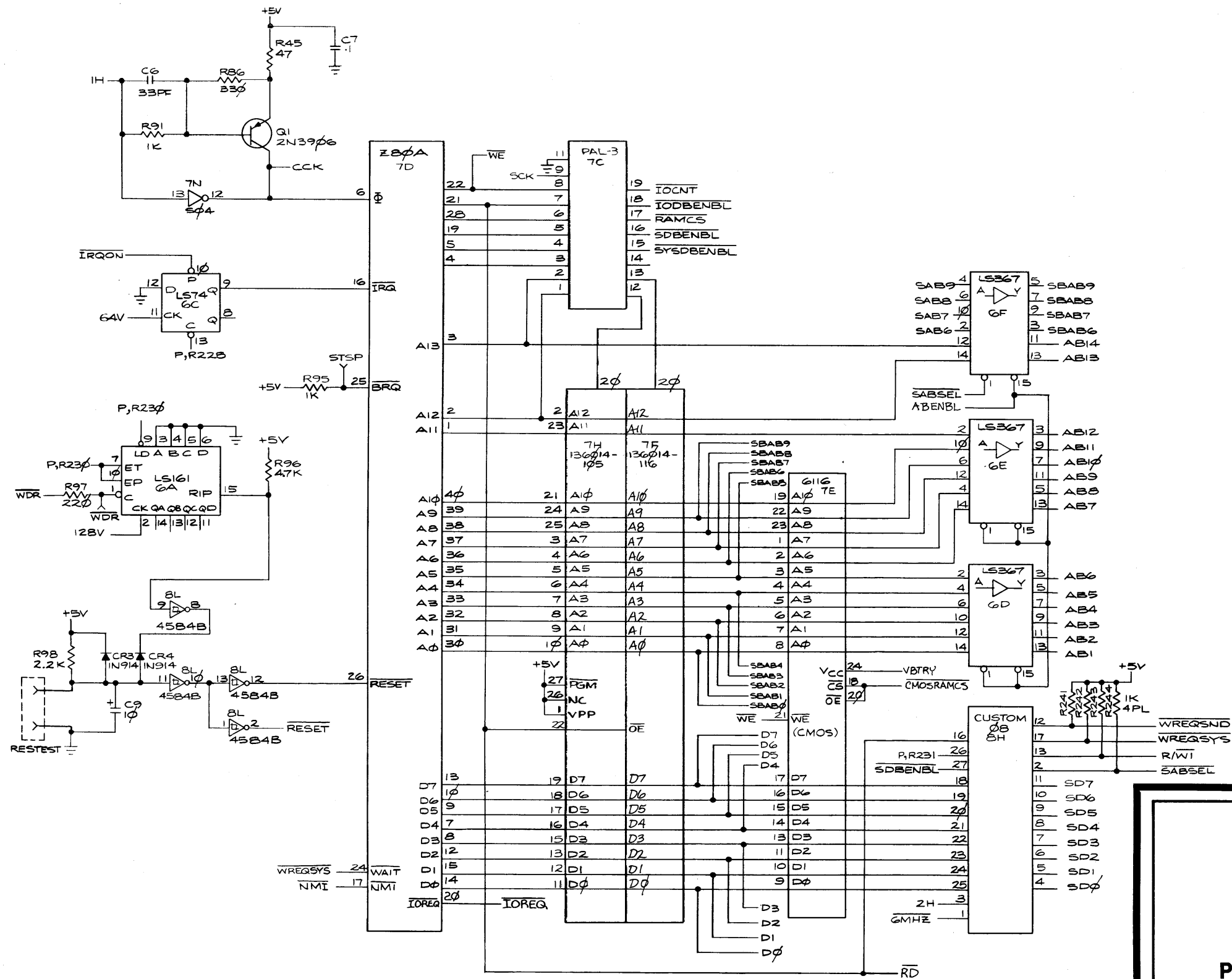


Pole Position CPU PCB Schematic Diagram

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Sound Microprocessor

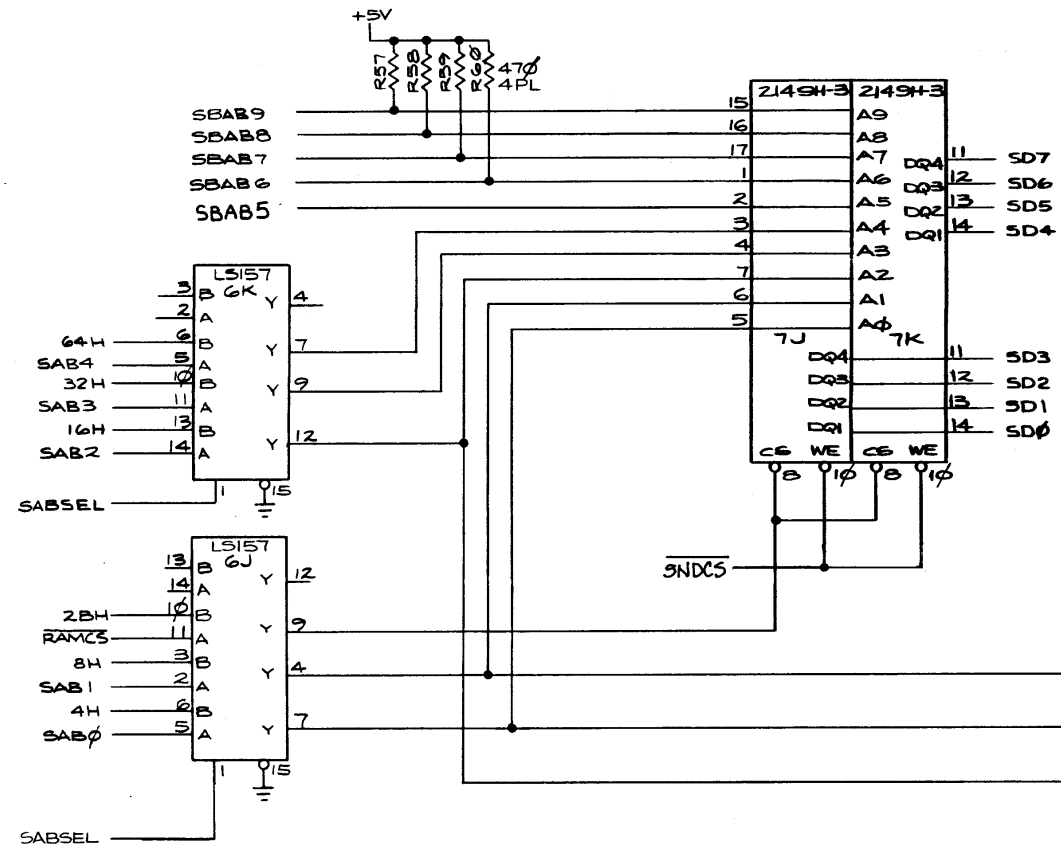


Pole Position CPU PCB Schematic Diagram

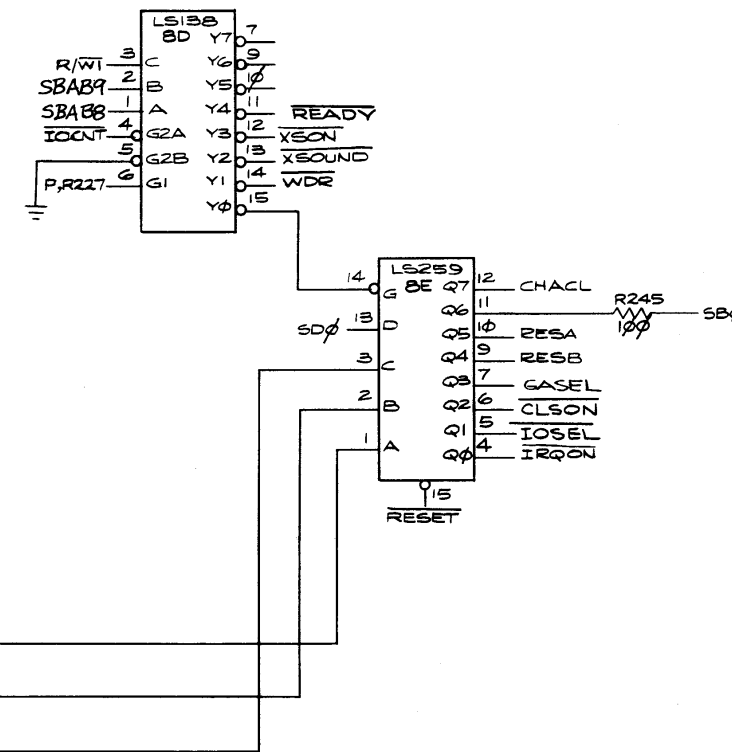
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Sound Memory



Sound and I/O Address Decoders

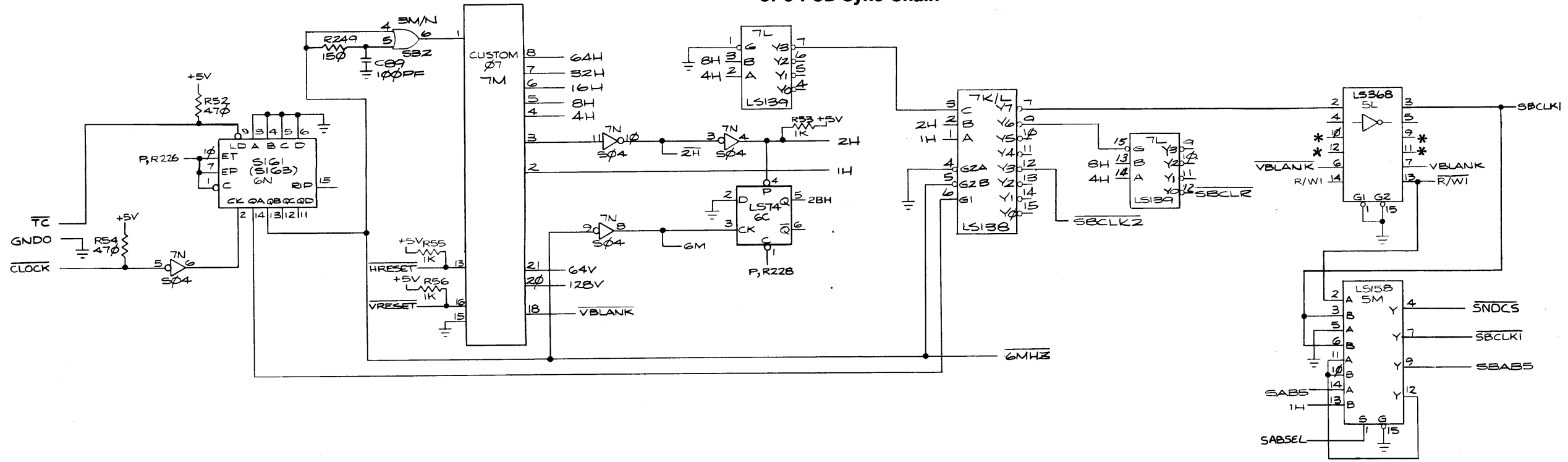


Pole Position CPU PCB Schematic Diagram

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CPU PCB Sync Chain



* USED IN SHEET 5A +5B

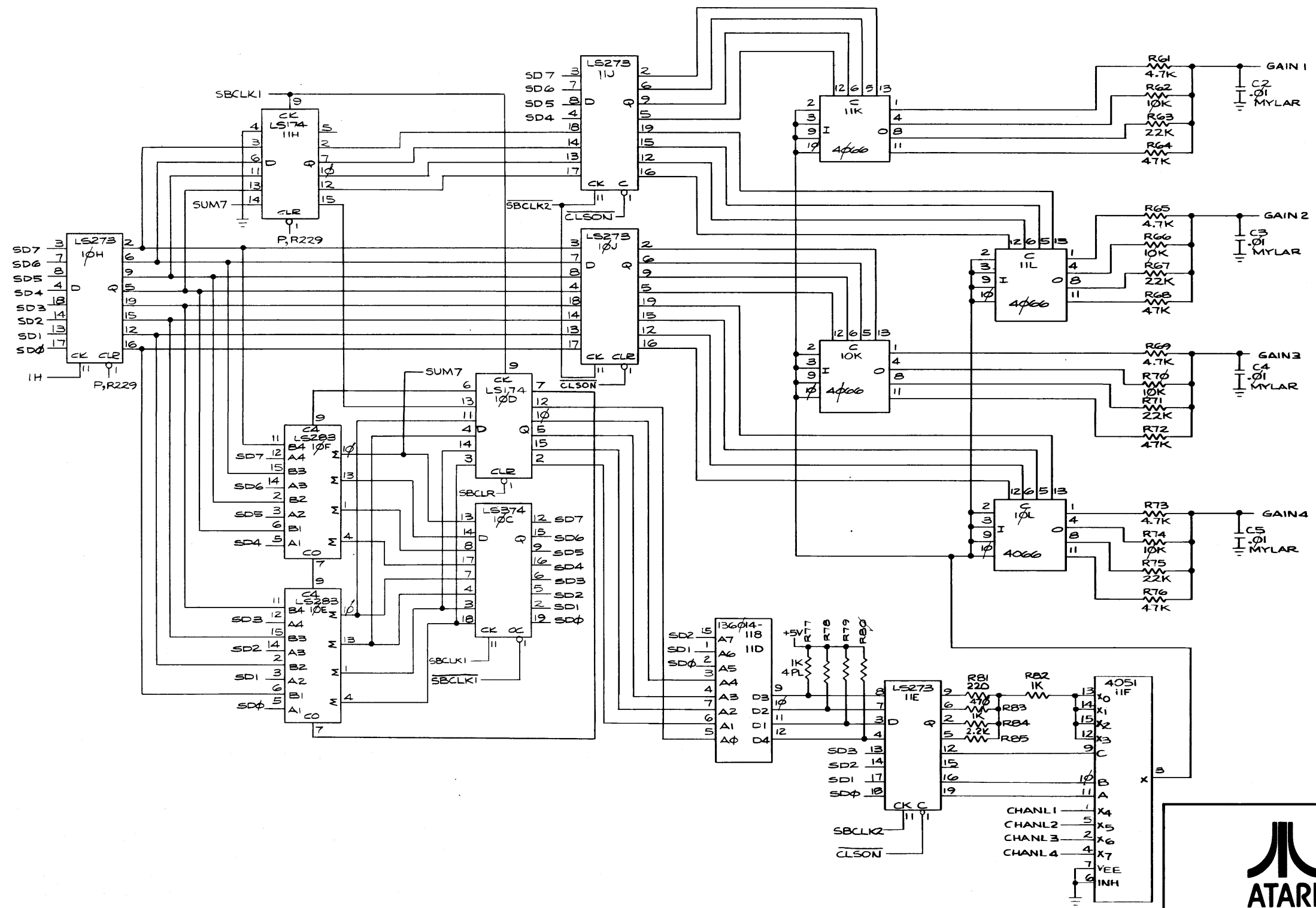


Pole Position CPU PCB Schematic Diagram

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Sound Buffers and Multiplexer

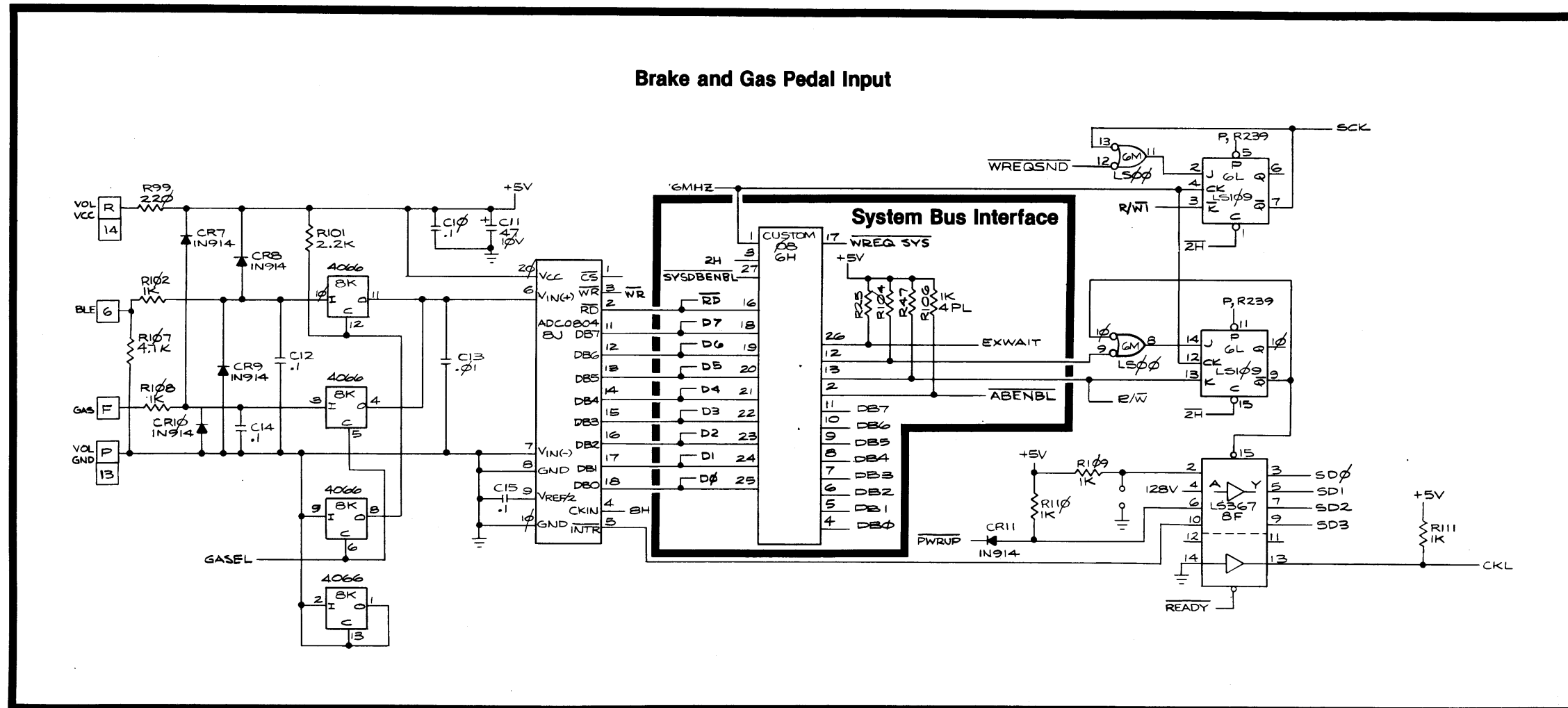


Pole Position CPU PCB Schematic Diagram

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Brake and Gas Pedal Input

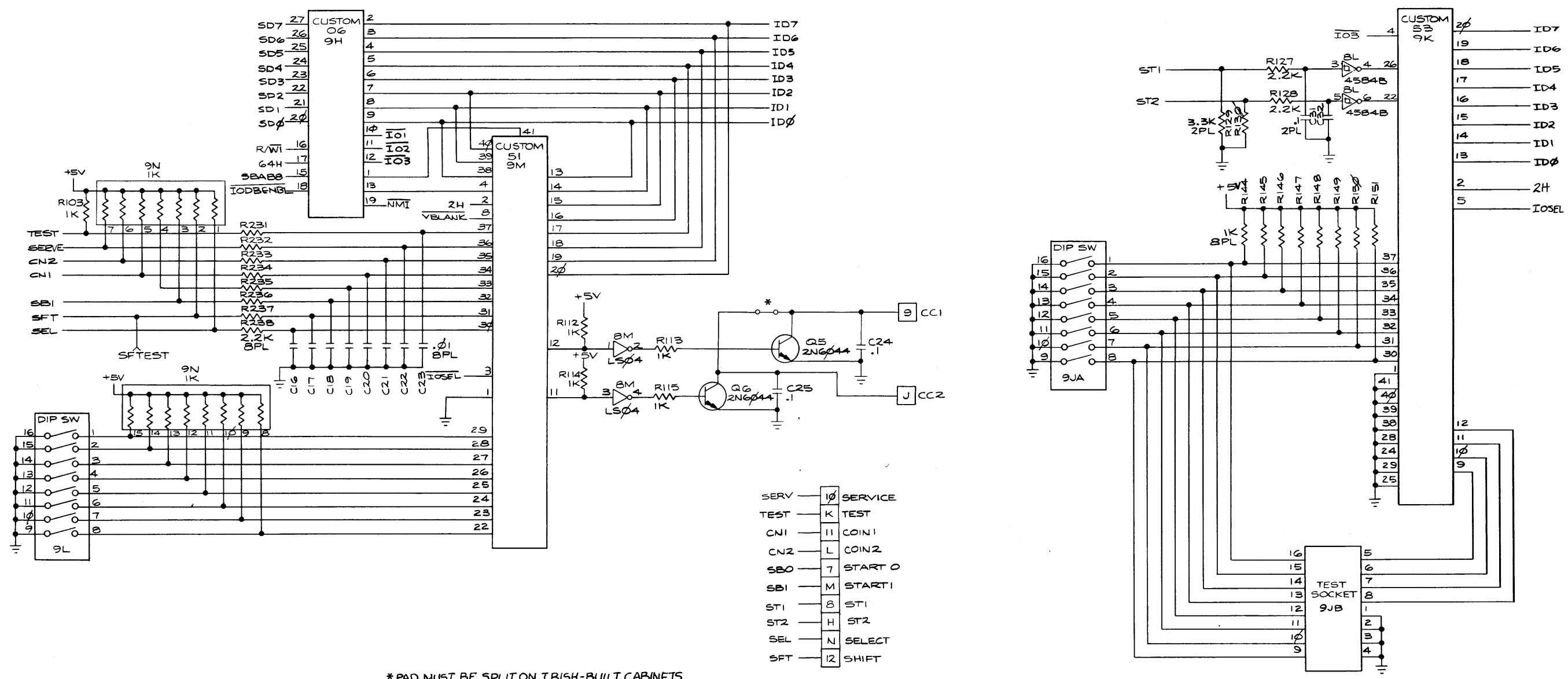


Pole Position CPU PCB Schematic Diagram

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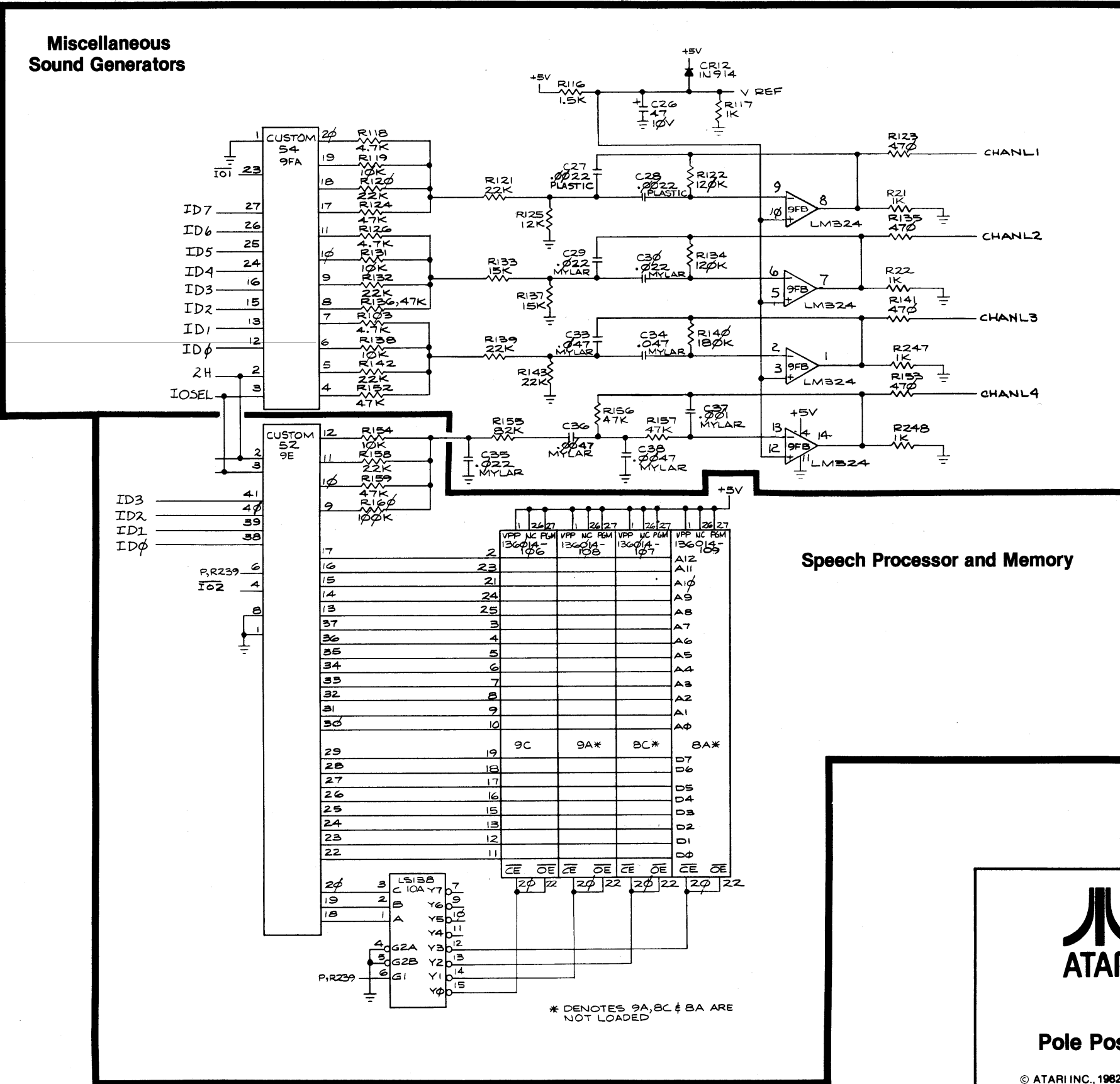
Option Switch Input and I/O Interface



Pole Position CPU PCB Schematic Diagram

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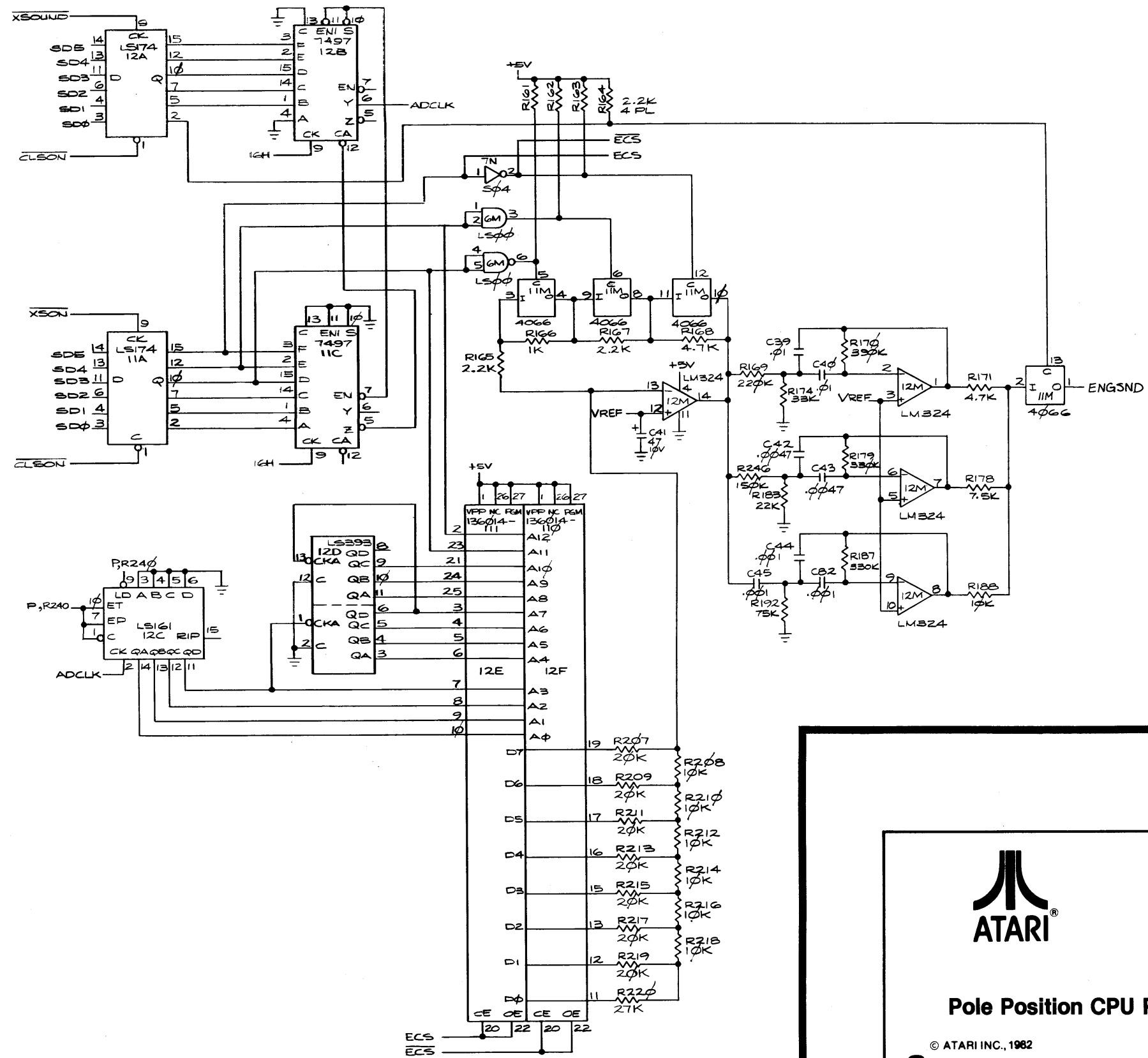


Pole Position CPU PCB Schematic Diagram

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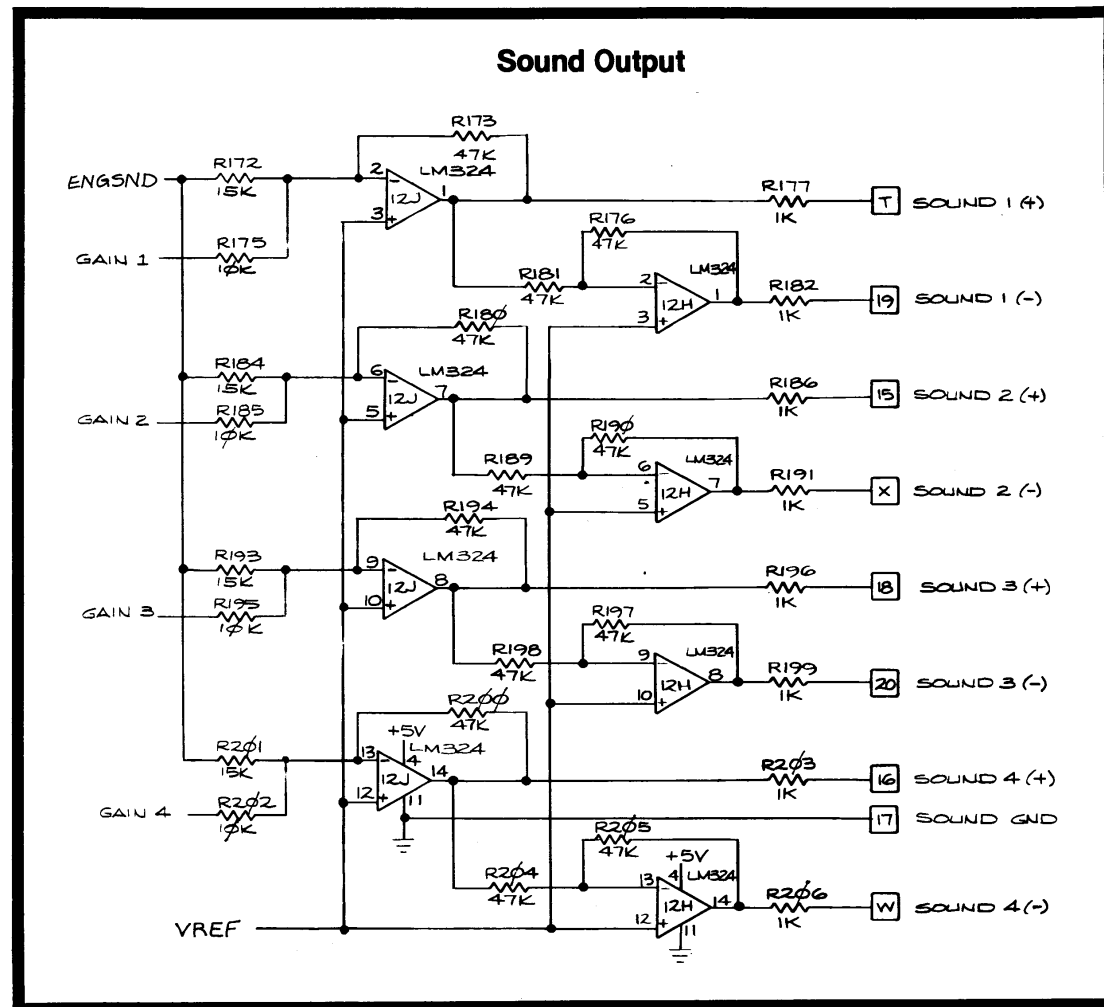
Engine Sound Generator



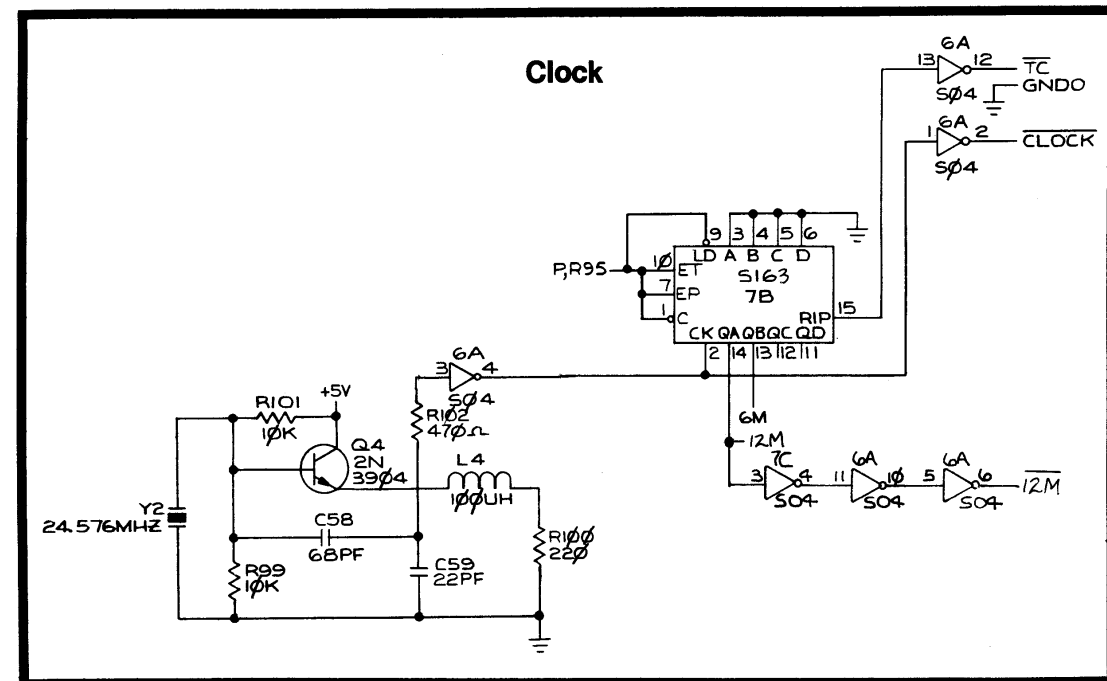
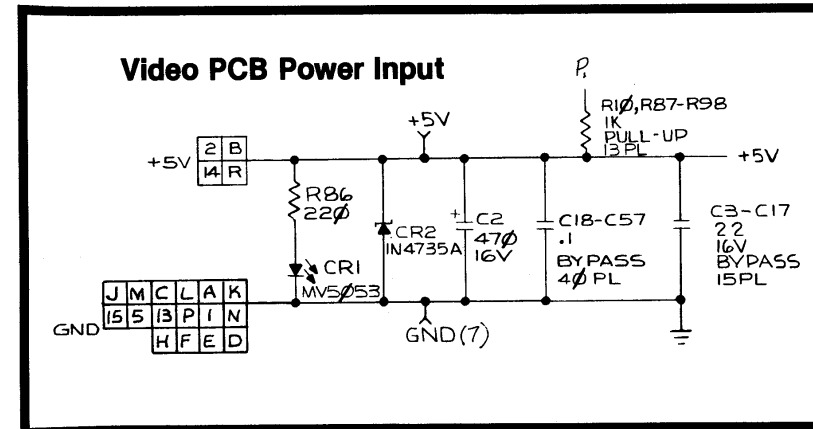
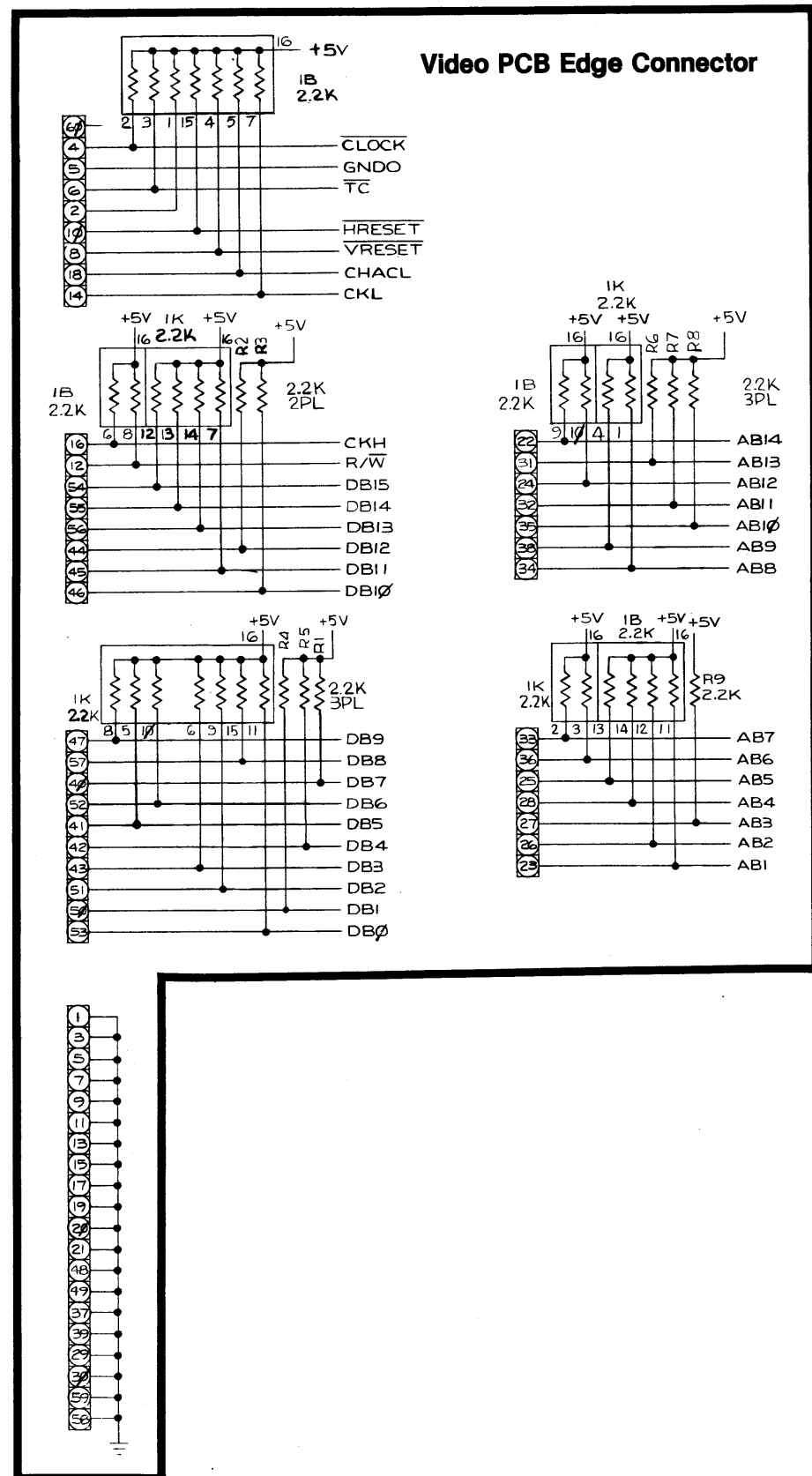
Pole Position CPU PCB Schematic Diagram


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Pole Position CPU PCB Schematic Diagram



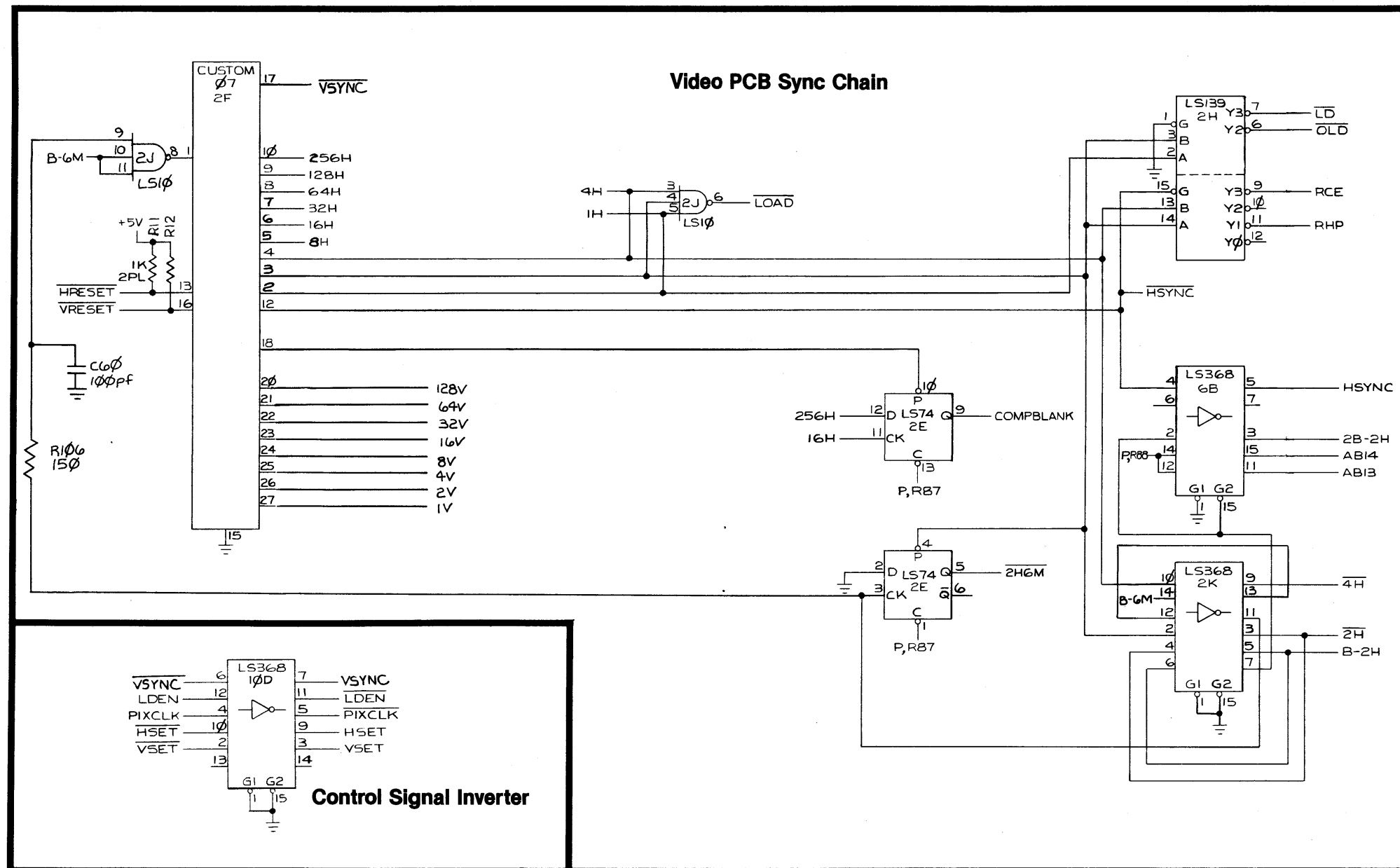


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Pole Position Video PCB Schematic Diagram

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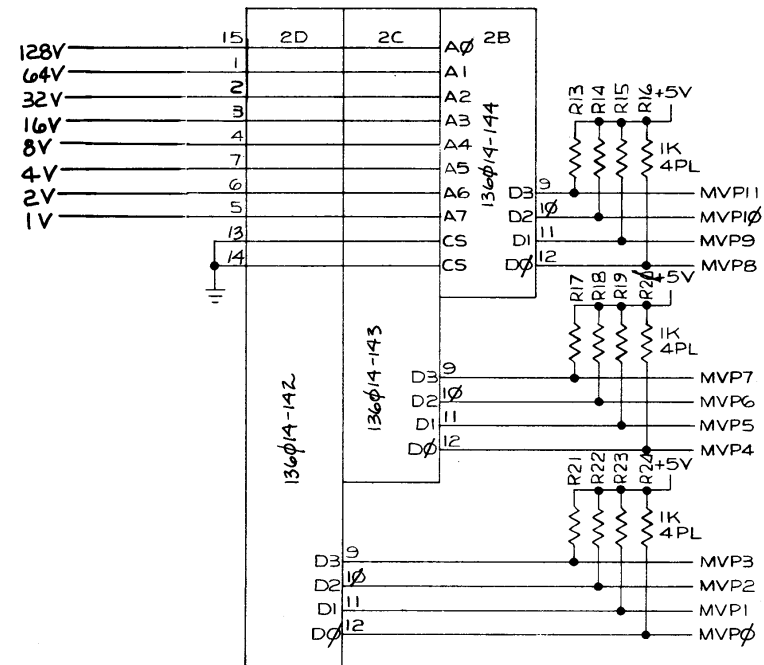


Pole Position Video PCB Schematic Diagram

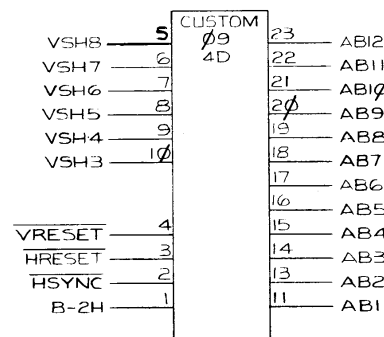
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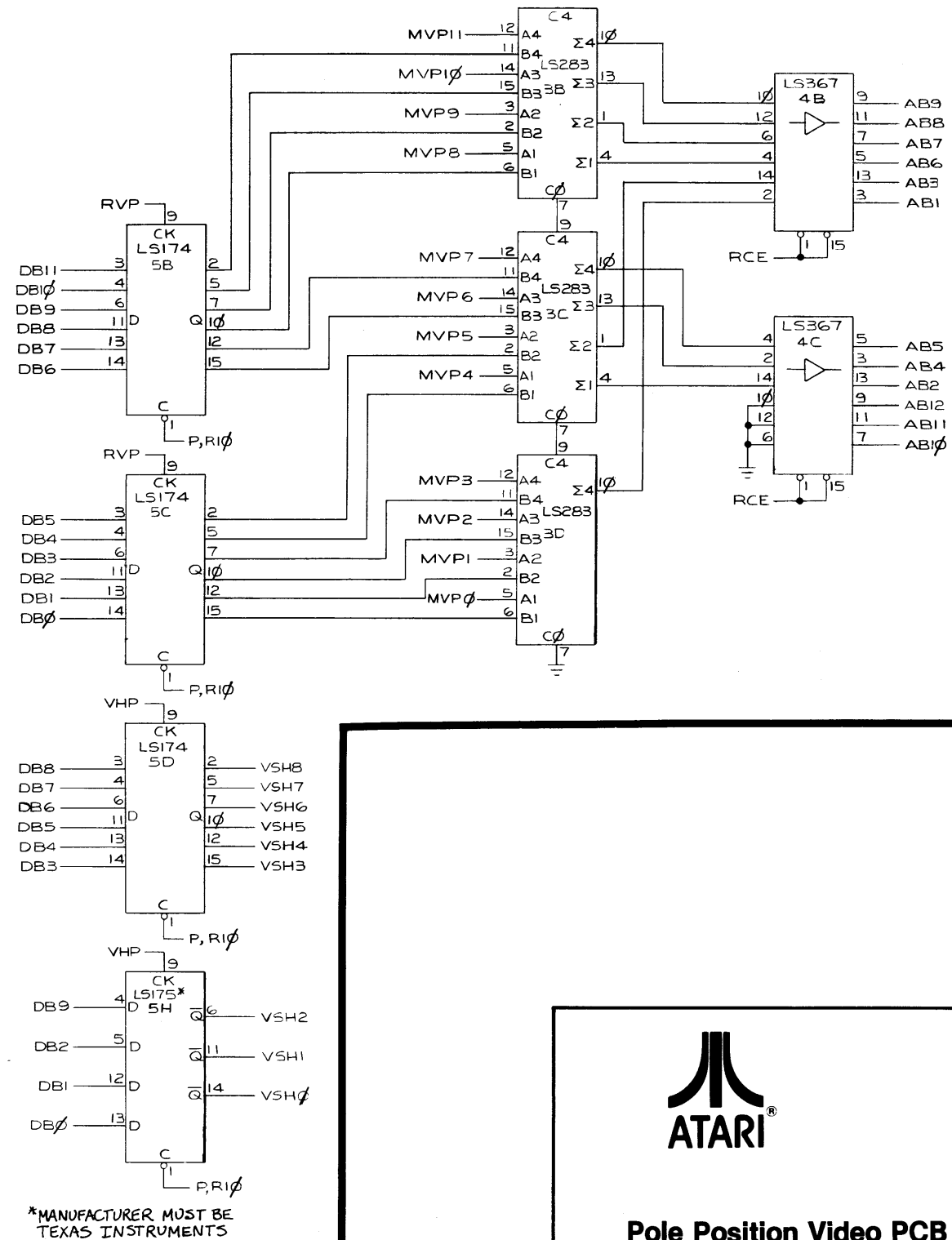
Vertical Position Modifiers



Address Bus Interface



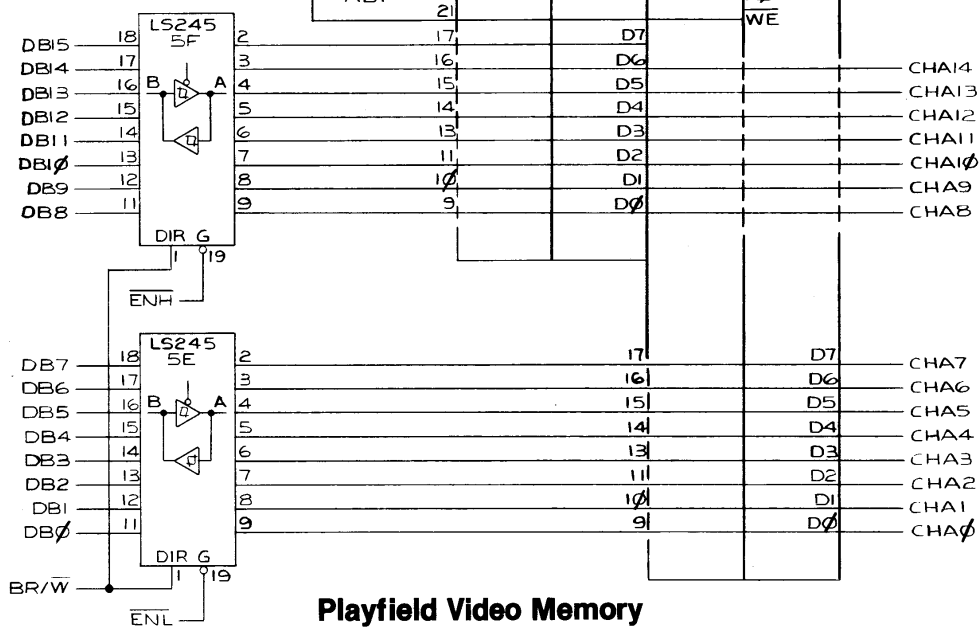
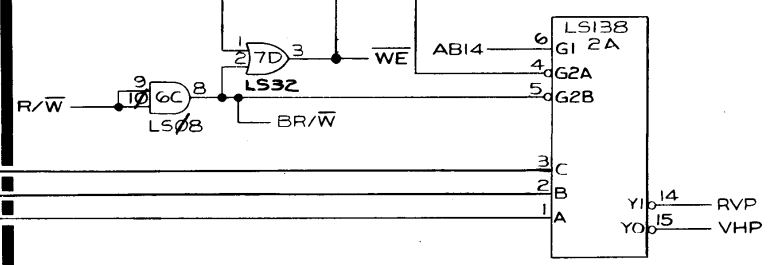
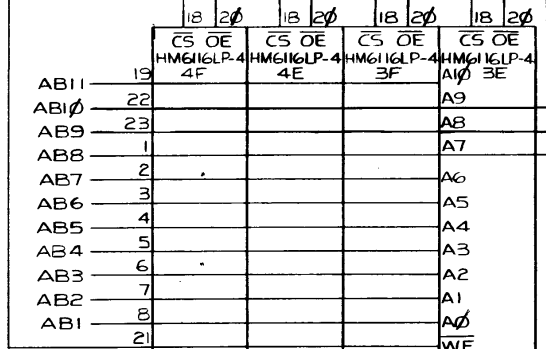
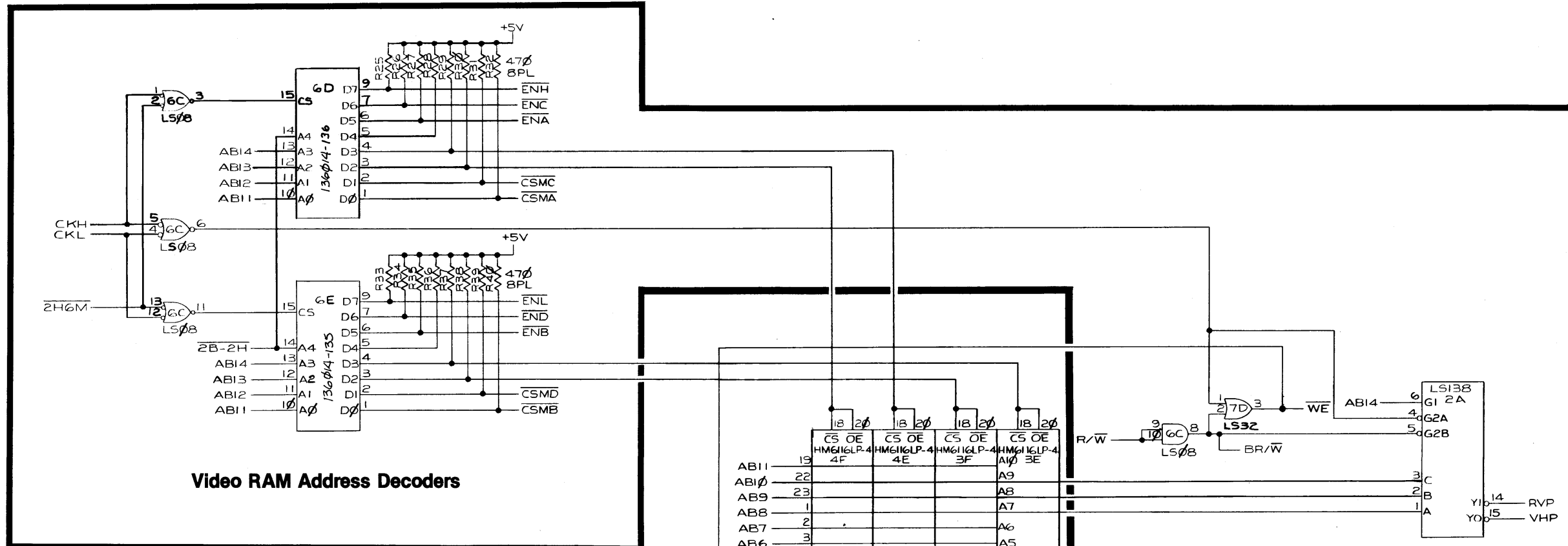
Vertical Position Buffers and Adders




Pole Position Video PCB Schematic Diagram

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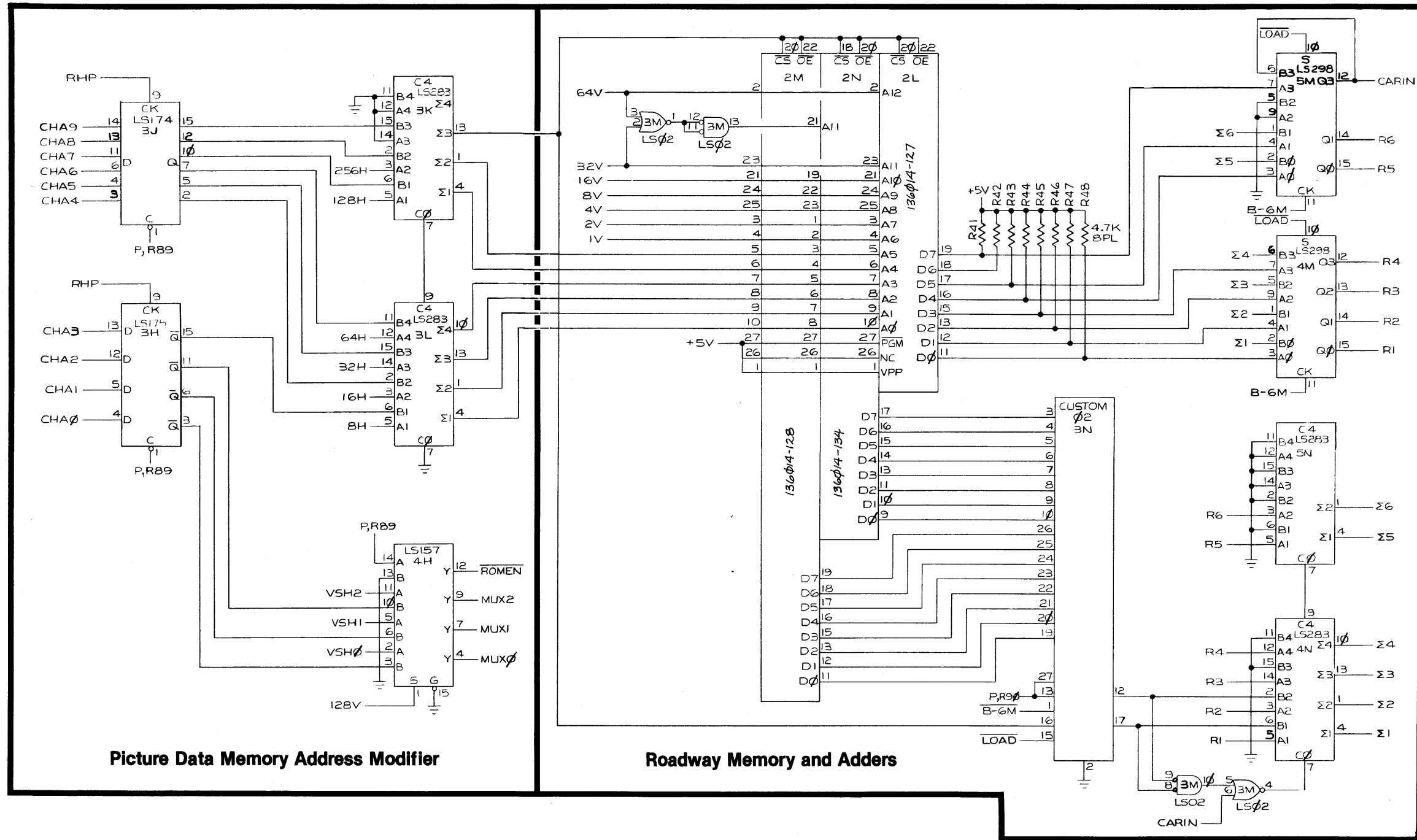


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Pole Position Video PCB Schematic Diagram

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Picture Data Memory Address Modifier

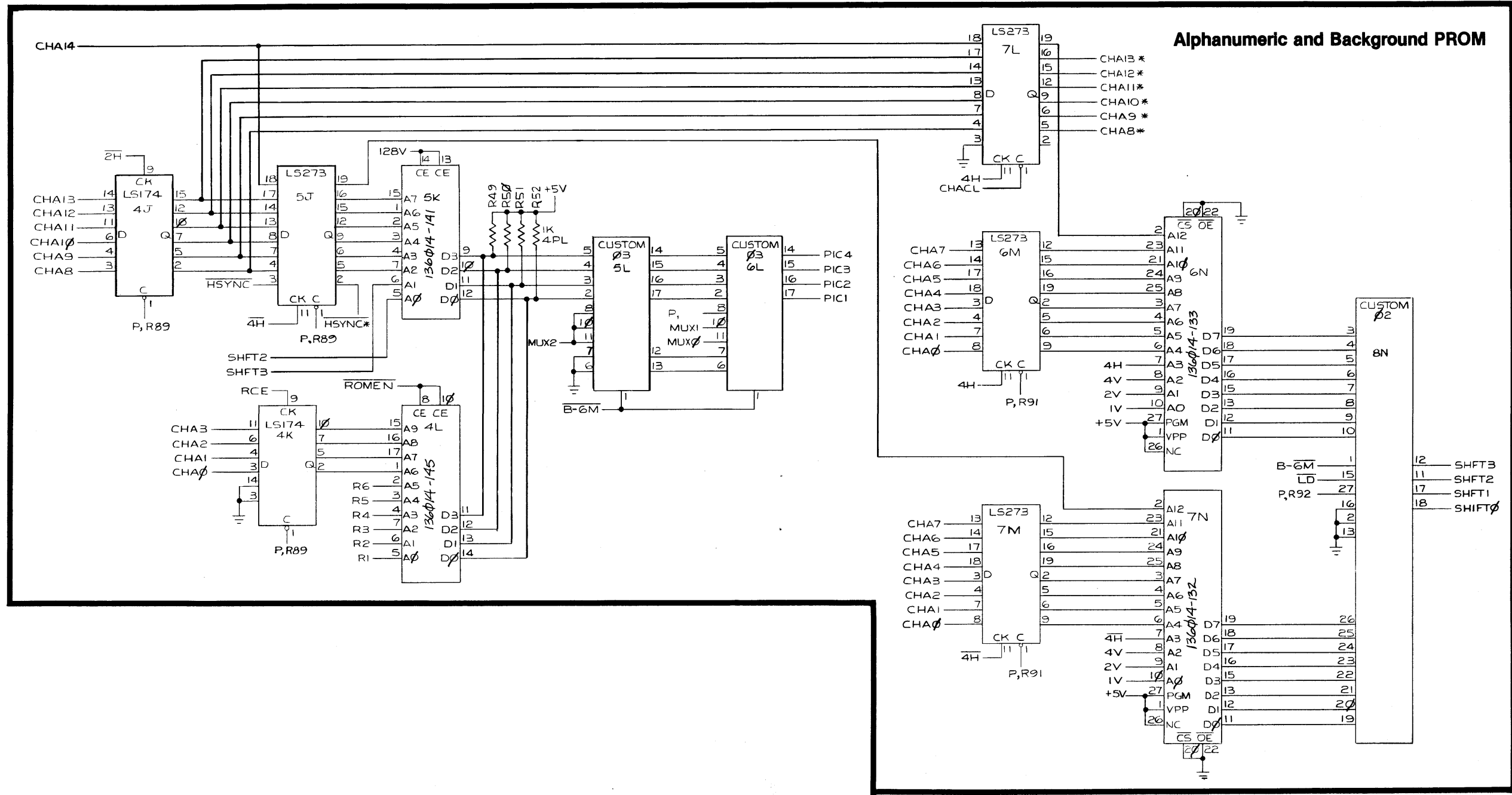
Roadway Memory and Adders



Pole Position Video PCB Schematic Diagram

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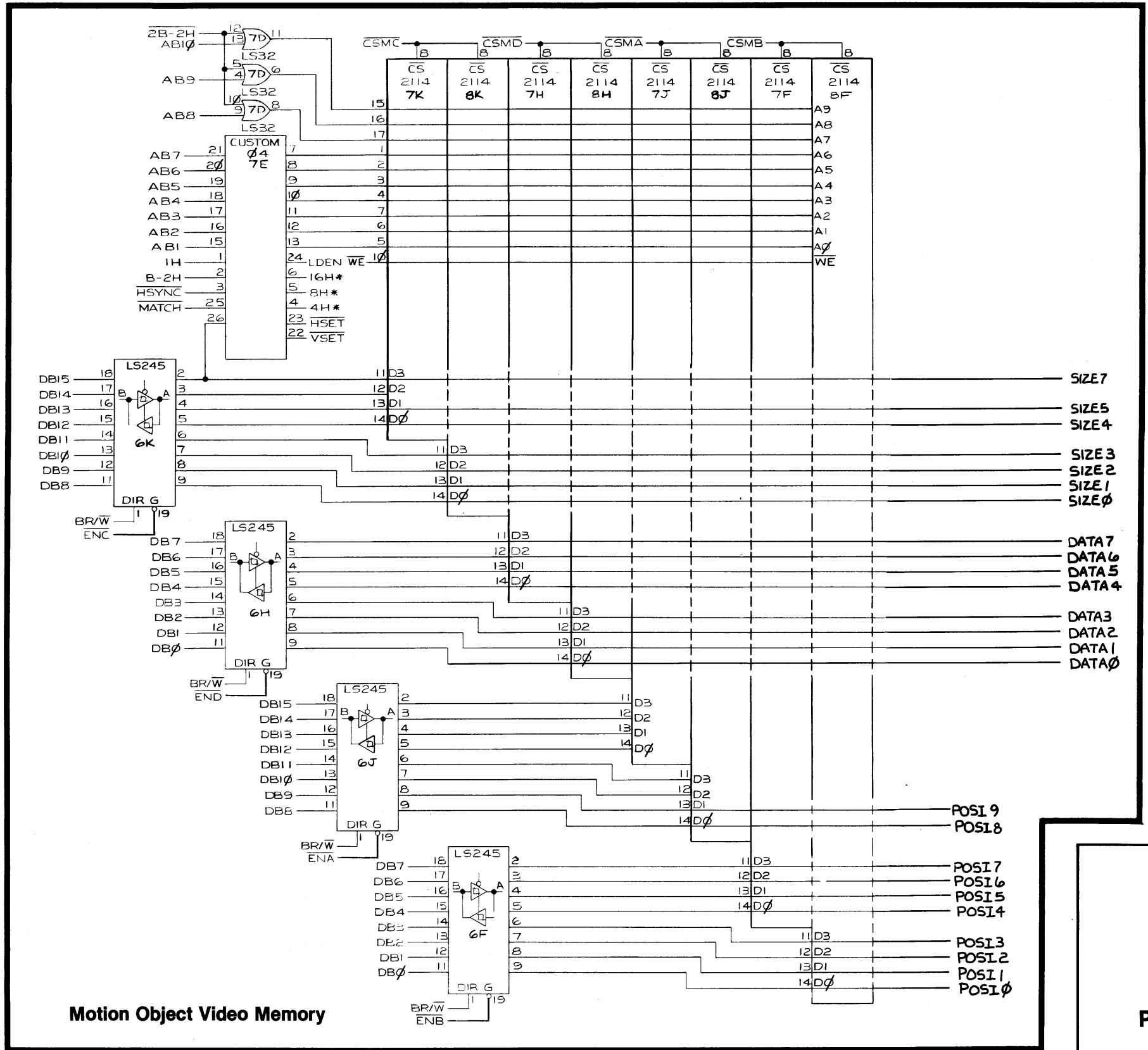
Alphanumeric and Background PROM



Pole Position Video PCB Schematic Diagram

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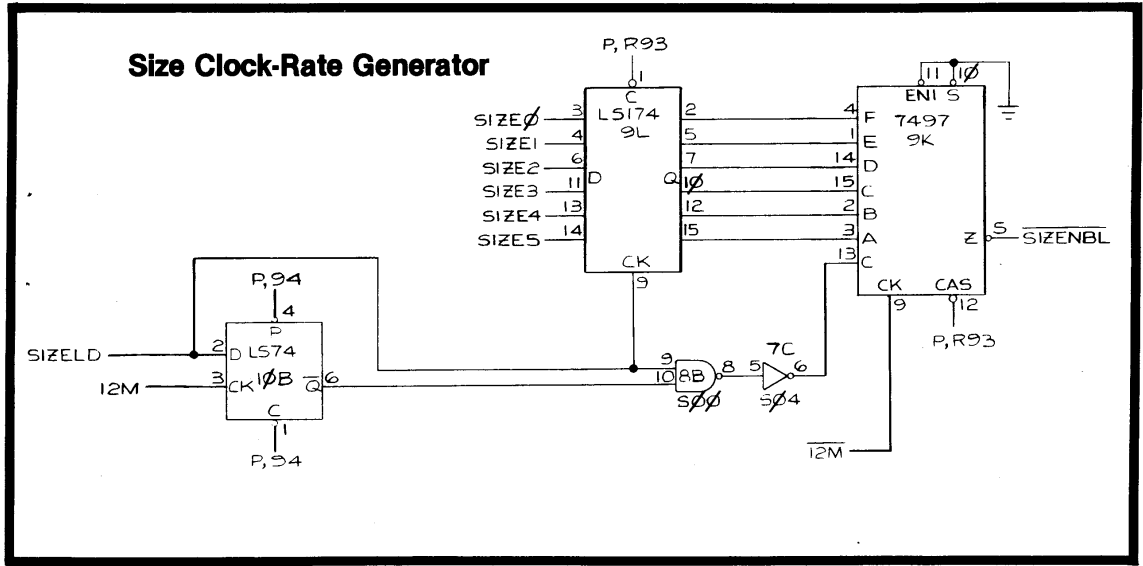
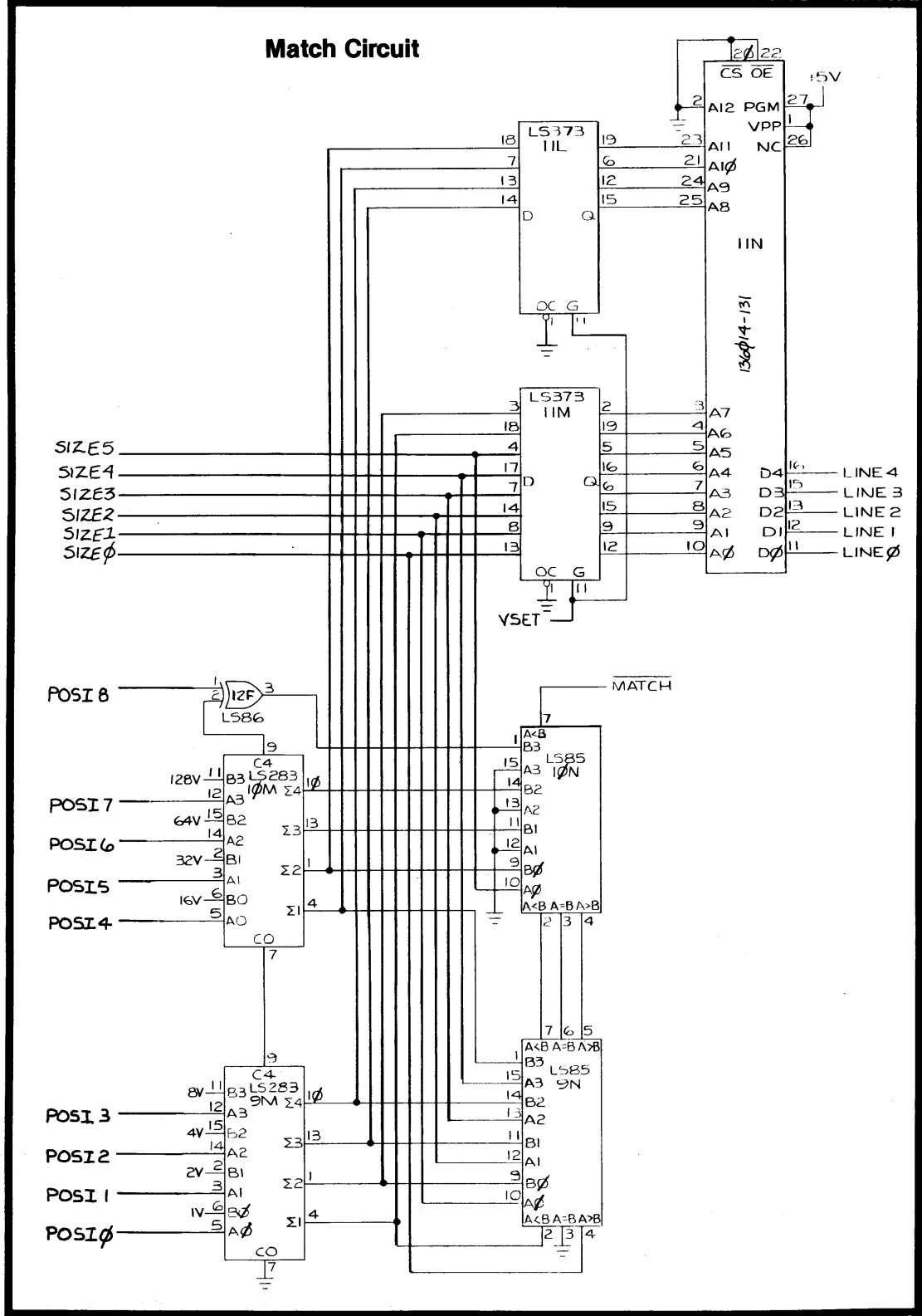
Motion Object Video Memory




Pole Position Video PCB Schematic Diagram

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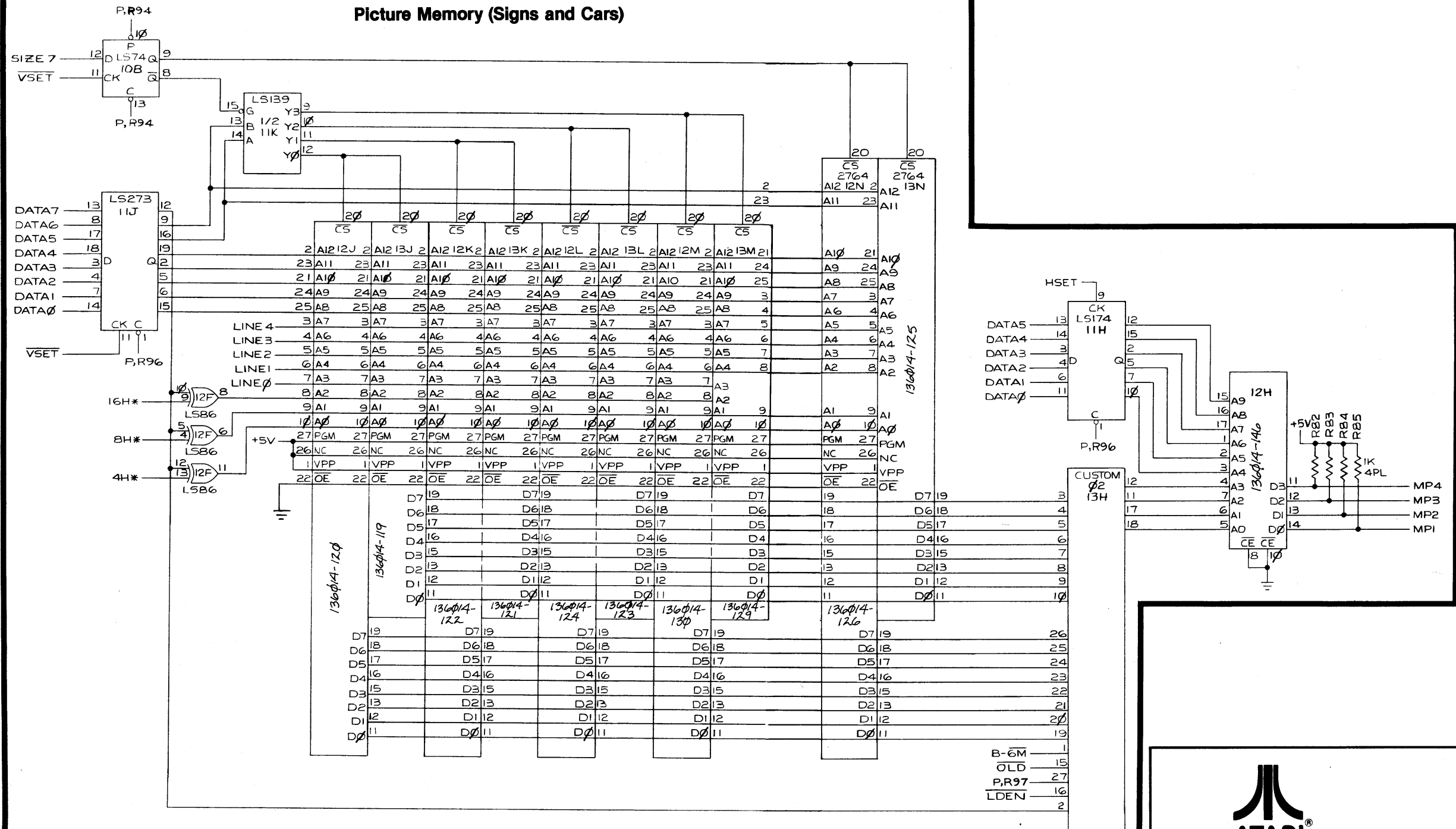
Pole Position Video PCB Schematic Diagram

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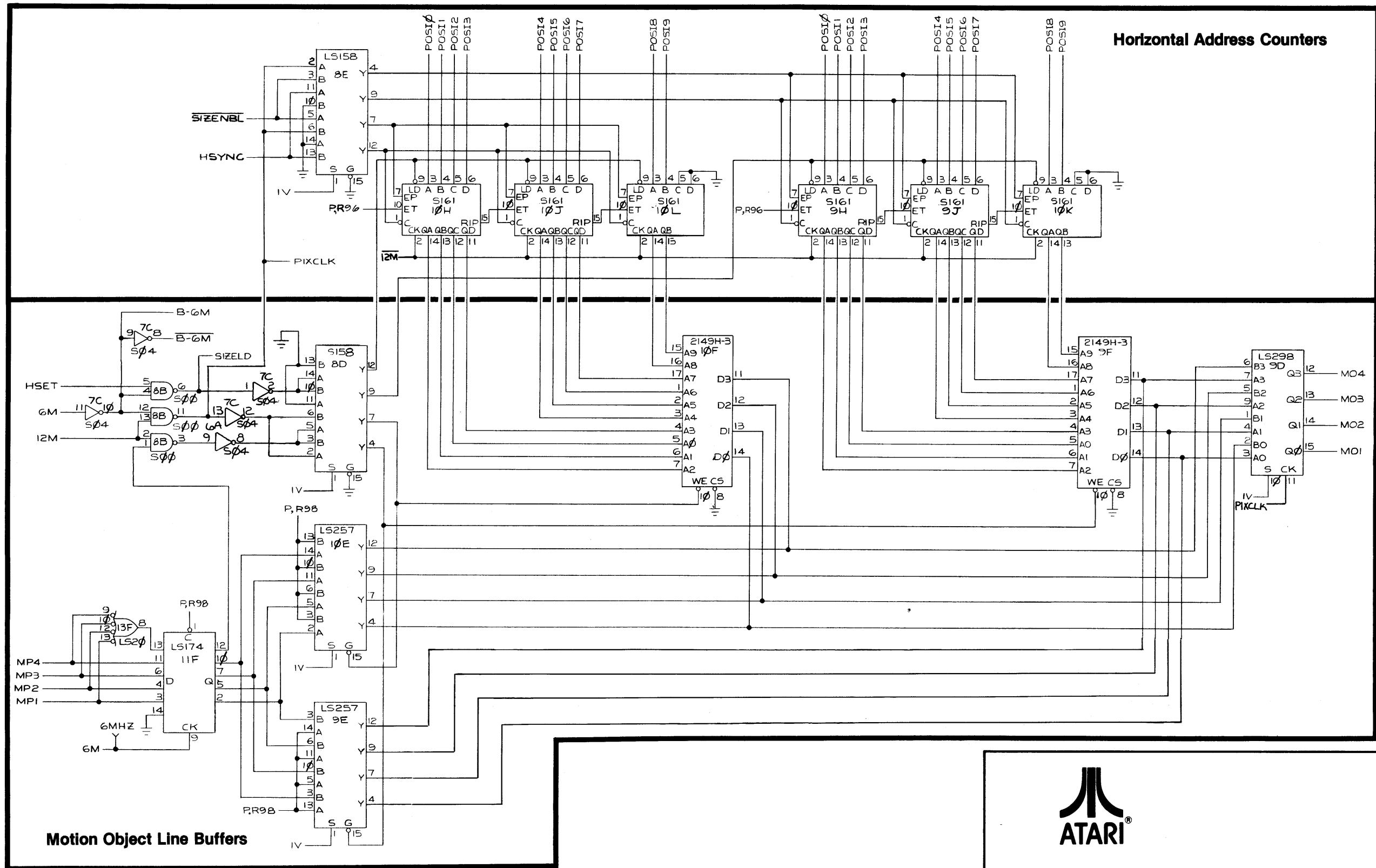
Picture Memory (Signs and Cars)



Pole Position Video PCB Schematic Diagram

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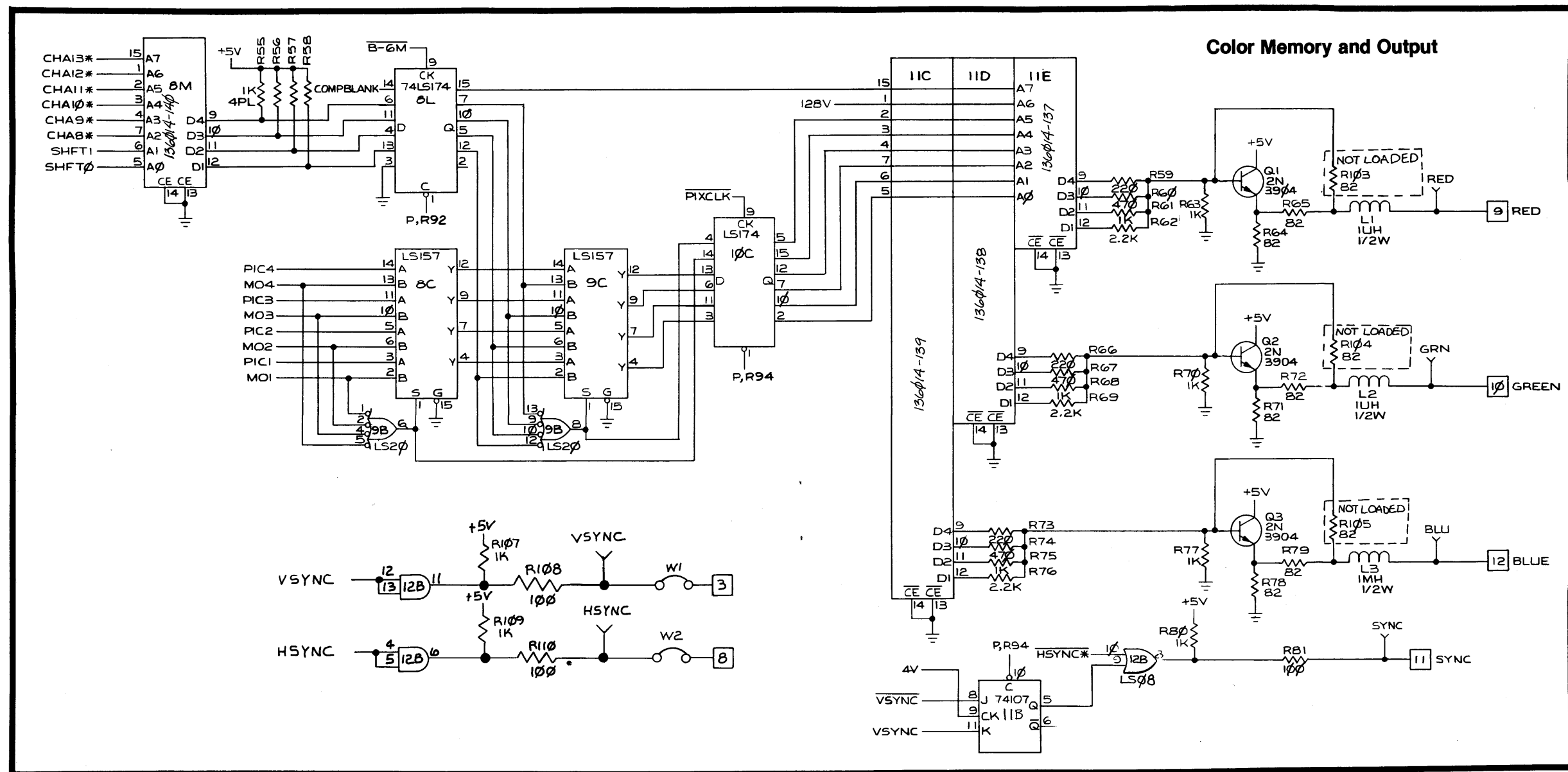
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Pole Position Video PCB Schematic Diagram

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Pole Position Video PCB Schematic Diagram

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Schematic Notes

Unless otherwise specified

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

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

working voltage \rightarrow 50 (V)

ceramic capacitor

Inductance: (μ H)

Electrolytic Cap: Capacitance Value (μ 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.

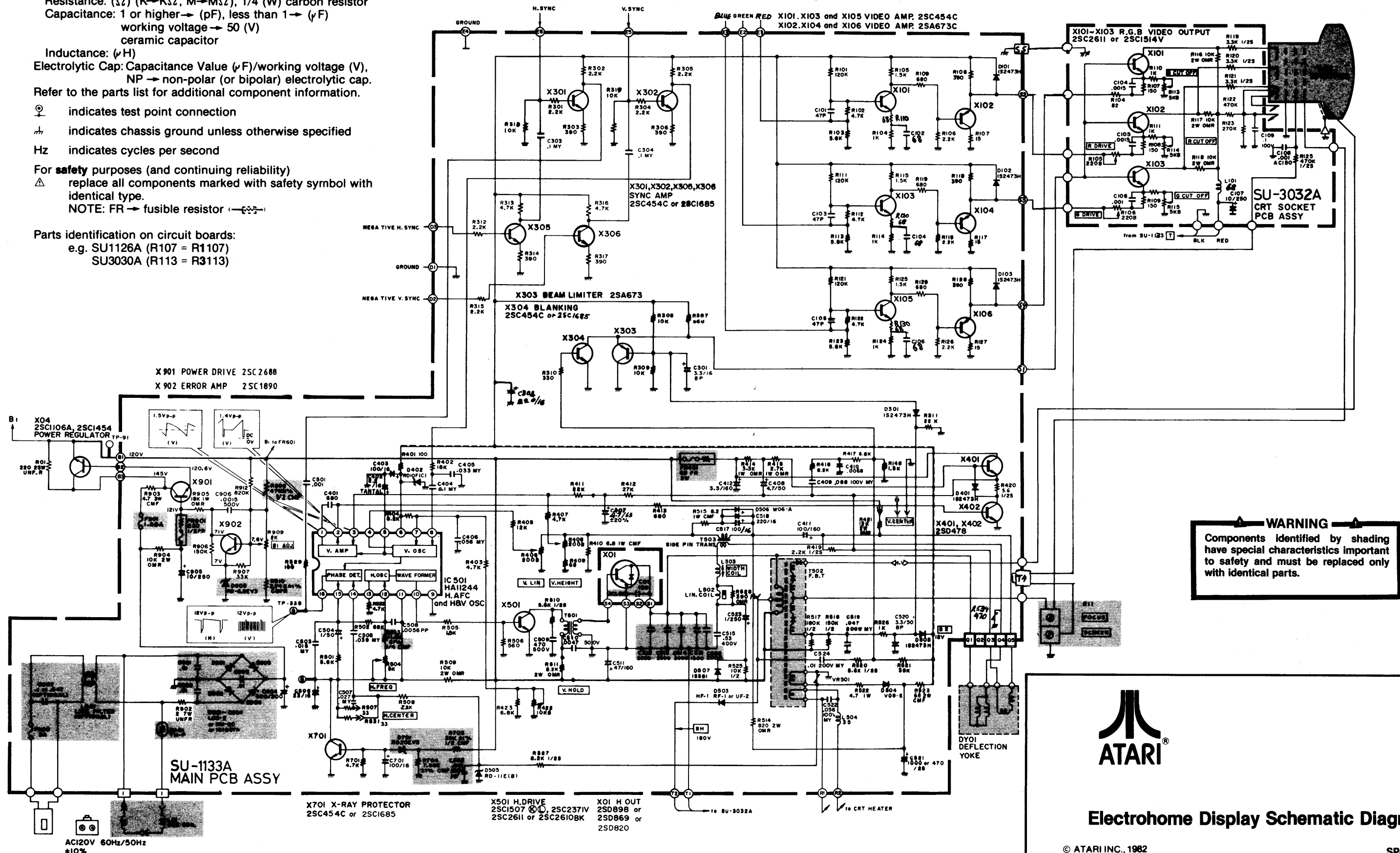
NOTE: FR \rightarrow fusible resistor

Parts identification on circuit boards:

e.g. SU1126A (R107 = R1107)

SU3030A (R113 = R3113)

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.

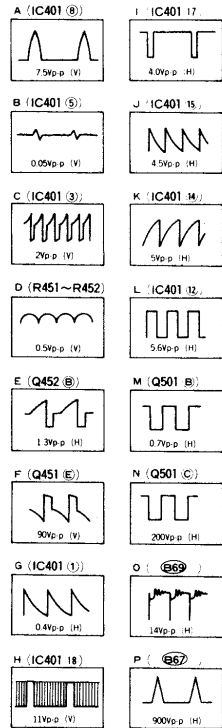
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Electrohome Display Schematic Diagram

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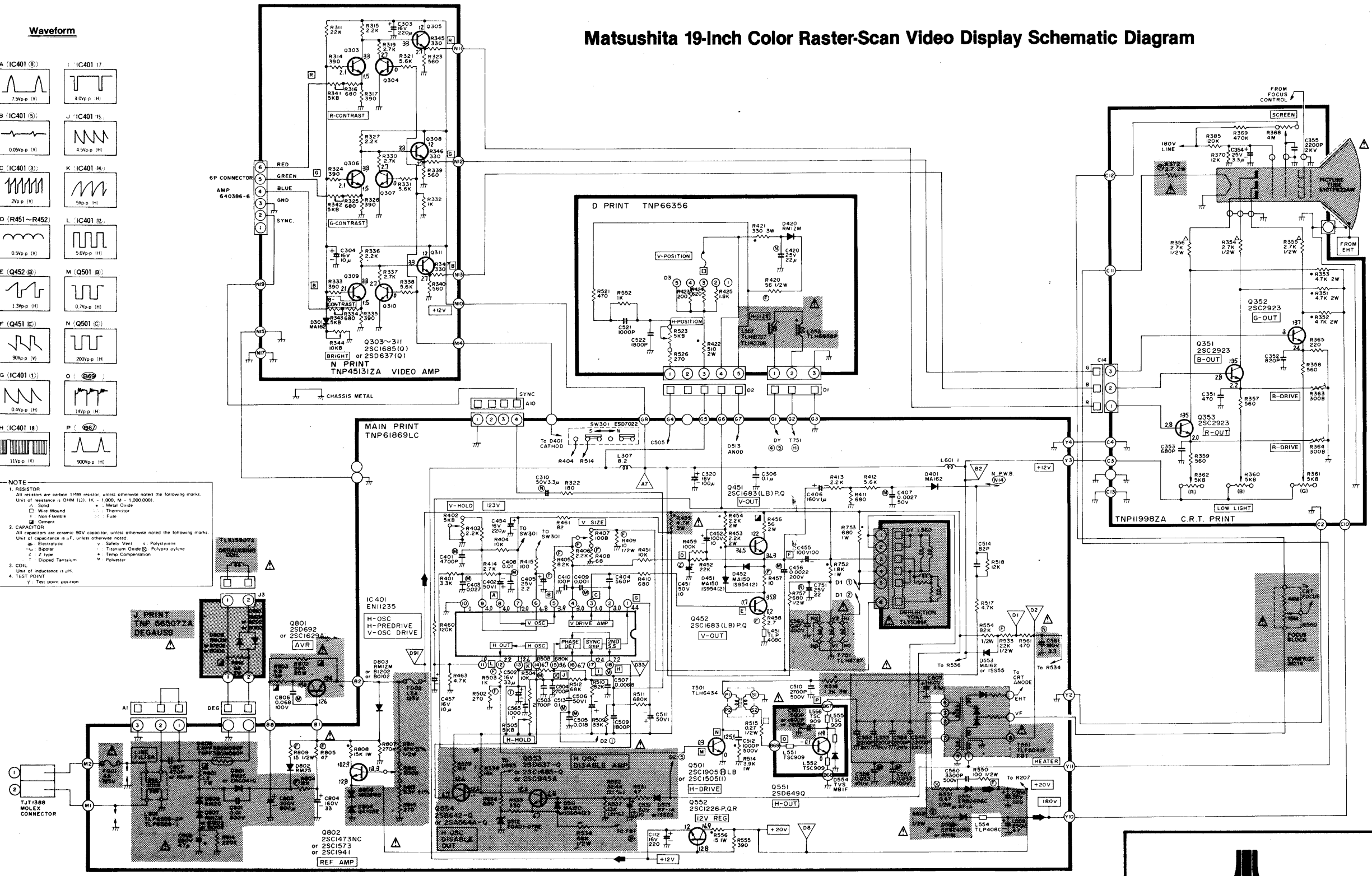
SP-218 Sheet 16A
8th printing

Waveform




NOTE
 1. RESISTOR
 All resistors are carbon 1/4W resistor, unless otherwise noted the following marks:
 Unit of resistance: Ohm (Ω), K - 1,000, M - 1,000,000.
 □ Wire Wound △ Metal Oxide
 □ Non-Flammable □ Thermistor
 □ Cement □ Fuse
 2. CAPACITORS
 All capacitors are ceramic 50V capacitor, unless otherwise noted the following marks:
 Unit of capacitance: pF, unless otherwise noted.
 □ Electrolytic □ Safety Vent □ Polystyrene
 □ Paper □ Titanium Oxide □ Polypropylene
 □ Z type □ Temp. Compensation □ Polyester
 □ Doped Tantalum □ Polyester
 3. COIL
 Unit of inductance: μH.
 4. TEST POINT
 □ Test point position

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

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