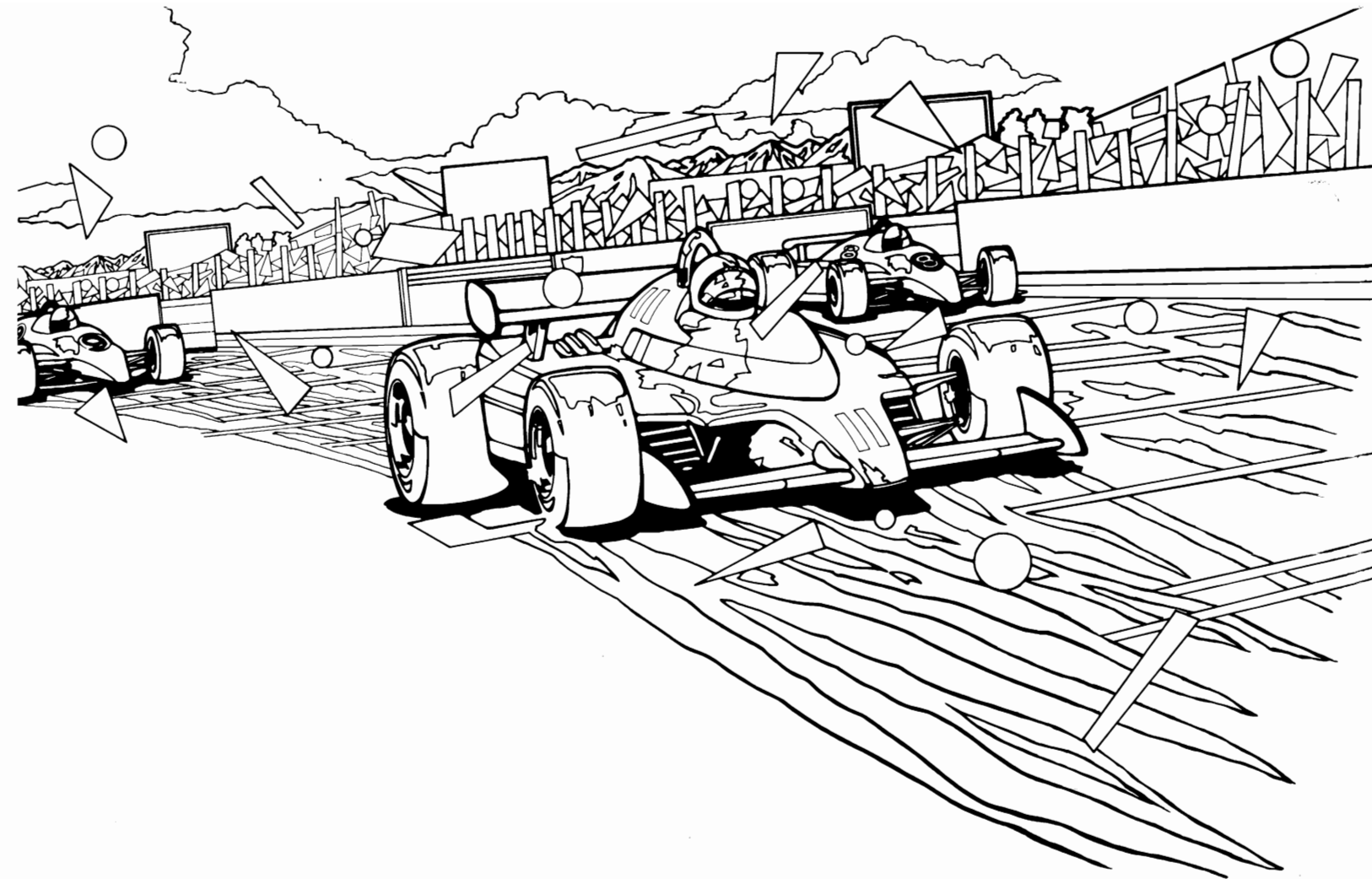


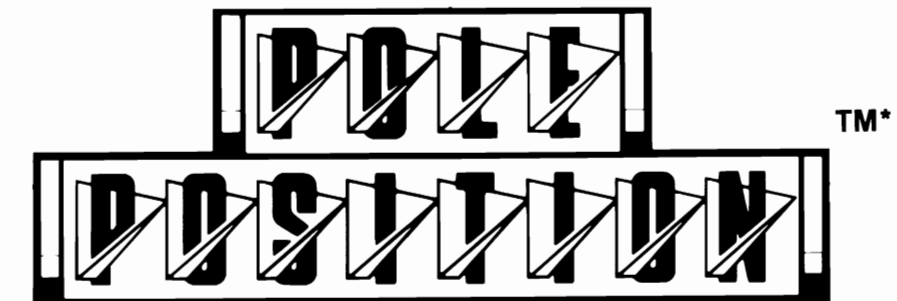
## Table of Contents

Sheet 1A	Table of Contents
Sheet 1B	Pole Position Upright Main Wiring Diagram (039458-01 C)
Sheet 2A	Pole Position Sit-Down Main Wiring Diagram (039464-01 B)
Sheet 2B	EMI Shield PCB Wiring Diagram (037667-01 A), EMI End PCB Wiring Diagram (A039431-01 A), Coin Option Interconnect Wiring Diagram (A039576-01 A)
Sheet 3A	Coin-Door Wiring Diagram (A037542-01 D), Upright Utility-Panel Wiring Diagram (A039254-01 A), Sit-Down Utility-Panel Wiring Diagram (A038004-01 E), Upright-Only Fluorescent Light Wiring Diagram (035833-01 A), Steering Coupler PCB Schematic (A035220-01 C)
Sheet 3B	Regulator/Audio II PCB Schematic Diagram (035435-01 G), Color Raster Power Supply Wiring Diagram (037669-01 C)
Sheet 4A	Memory Map and Schematic Notes  <i>Game CPU PCB Schematics (039185-01 A), Sheets 4B—10A</i>
Sheet 4B	CPU PCB Edge Connector, CPU PCB Power Input, RAM Battery Back-Up Power
Sheet 5A	Microprocessor A
Sheet 5B	Microprocessor B
Sheet 6A	Sound Microprocessor
Sheet 6B	Sound Memory, Sound and I/O Address Decoders
Sheet 7A	CPU PCB Sync Chain
Sheet 7B	Sound Buffers and Multiplexer
Sheet 8A	Brake and Gas Pedal Input, System Bus Interface
Sheet 8B	Option Switch Input and I/O Interface
Sheet 9A	Speech Processor and Memory, Miscellaneous Sound Generators
Sheet 9B	Engine Sound Generator
Sheet 10A	Sound Output  <i>Game Video PCB Schematics (039187-01 A), Sheets 10B—15B</i>
Sheet 10B	Video PCB Edge Connector, Video PCB Power Input, Clock
Sheet 11A	Video PCB Sync Chain, Control Signal Inverter
Sheet 11B	Vertical Position Modifiers, Vertical Position Buffers and Adders, Address Bus Interface
Sheet 12A	Video RAM Address Decoders, Playfield Video Memory
Sheet 12B	Picture Data Memory Address Modifiers, Roadway Memory and Adders
Sheet 13A	Alphanumeric and Background PROM
Sheet 13B	Motion Object Video Memory
Sheet 14A	Match Circuit, Size Clock-Rate Generator
Sheet 14B	Picture Memory (Signs and Cars)
Sheet 15A	Horizontal Address Counters, Motion Object Line Buffers
Sheet 15B	Color Memory and Output  <i>Display Schematics, Sheets 16A—16B</i>
Sheet 16A	Electrohome Display Schematic Diagram (92-049)
Sheet 16B	Matsushita Display Schematic Diagram (139003-1004)

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



## Schematic Package Supplement to

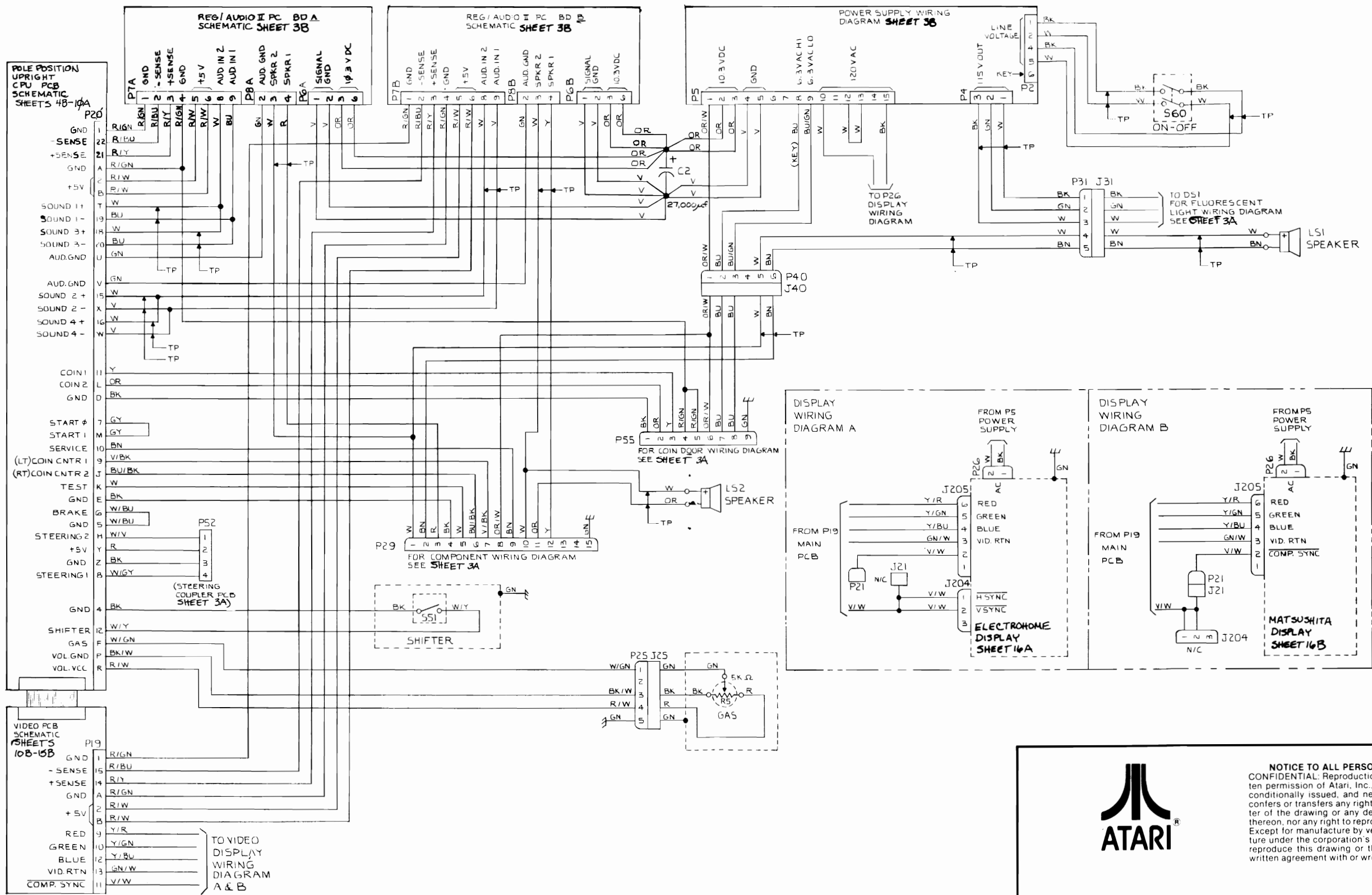



## Operation, Maintenance, and Service Manual

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

1M

© ATARI INC., 1982





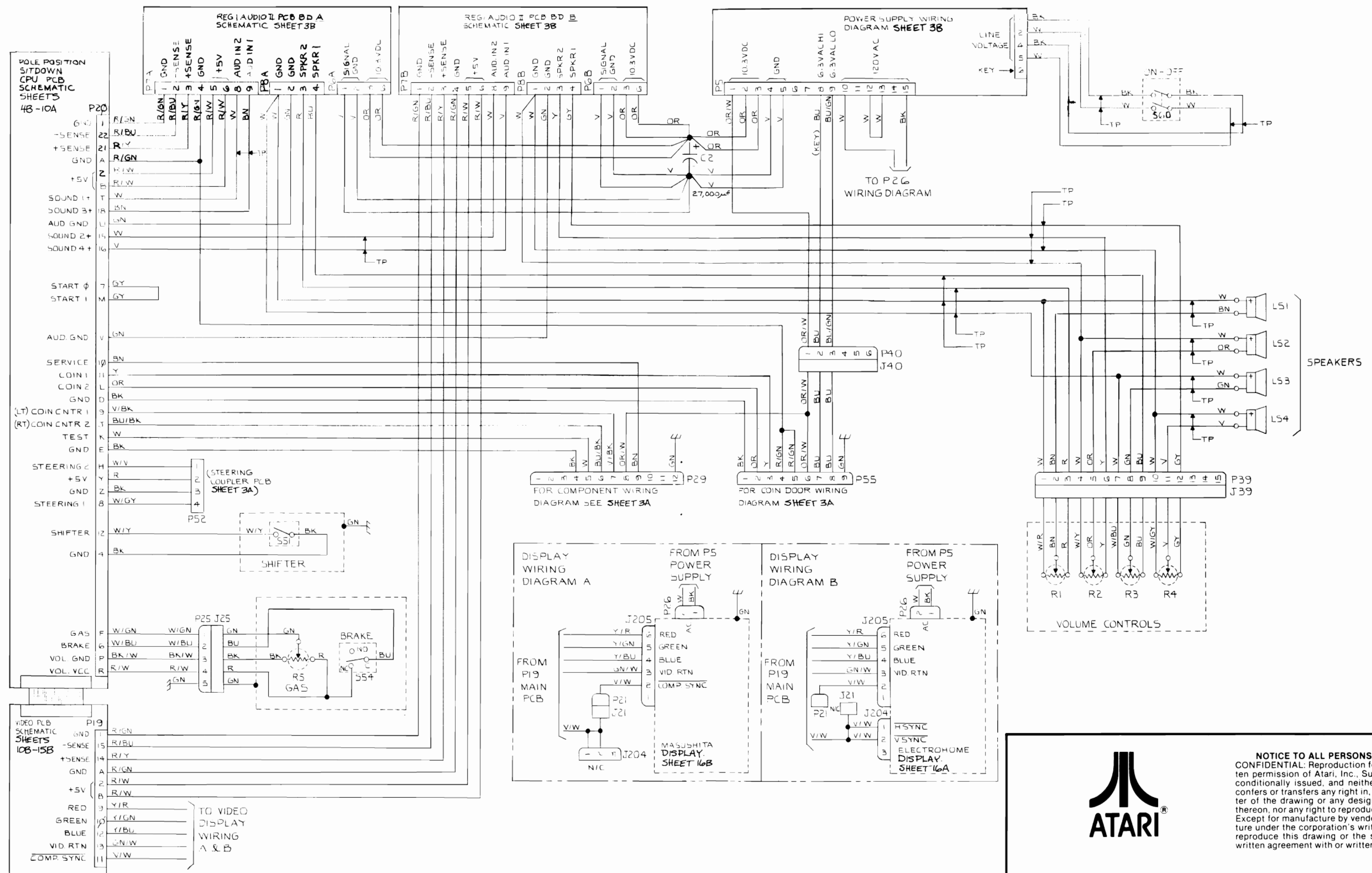
**ATARI**


**Pole Position Upright Main Wiring Diagram**

© ATARI INC., 1982  
A Warner Communications Company

**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

SP-218 Sheet 1B  
3rd printing





**ATARI**

**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

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

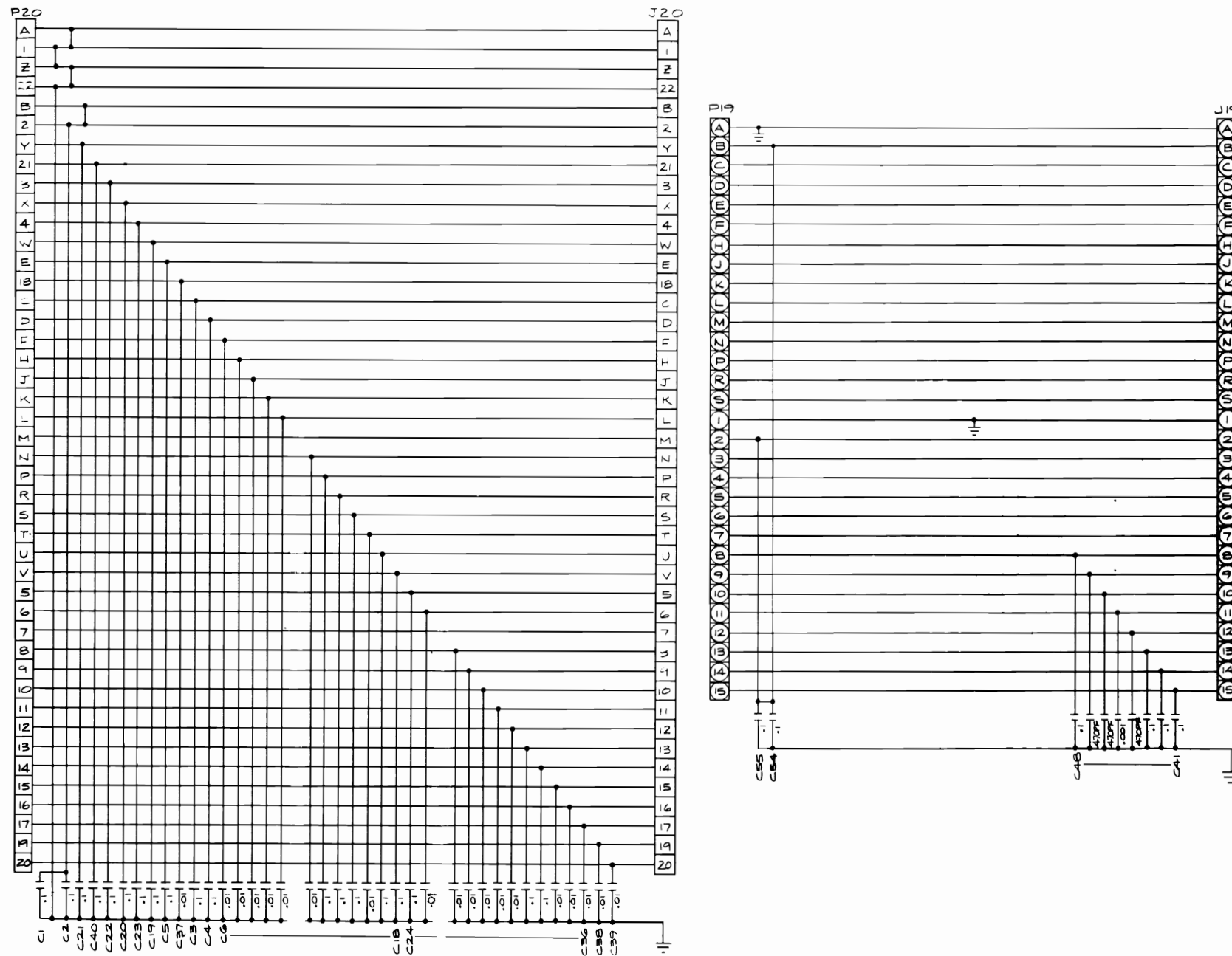
© ATARI INC., 1982

A Warner Communications Company

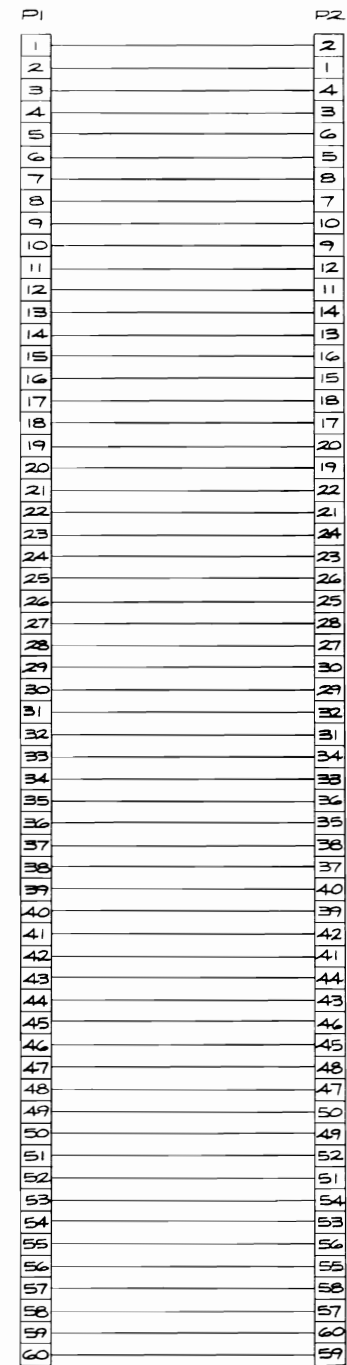
SP-218 Sheet 2A  
3rd printing

Pole Position

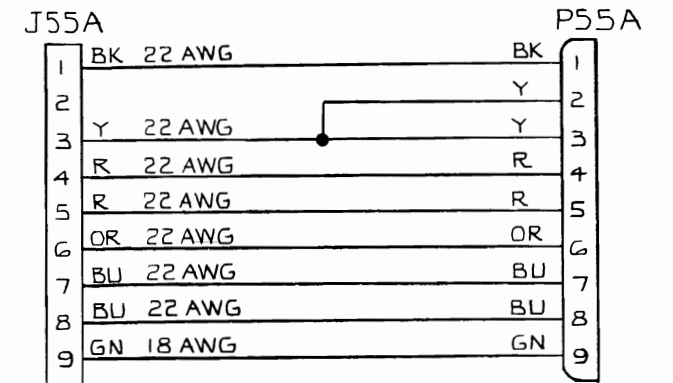
EMI Shield PCB Wiring Diagram



EMI End PCB Wiring Diagram



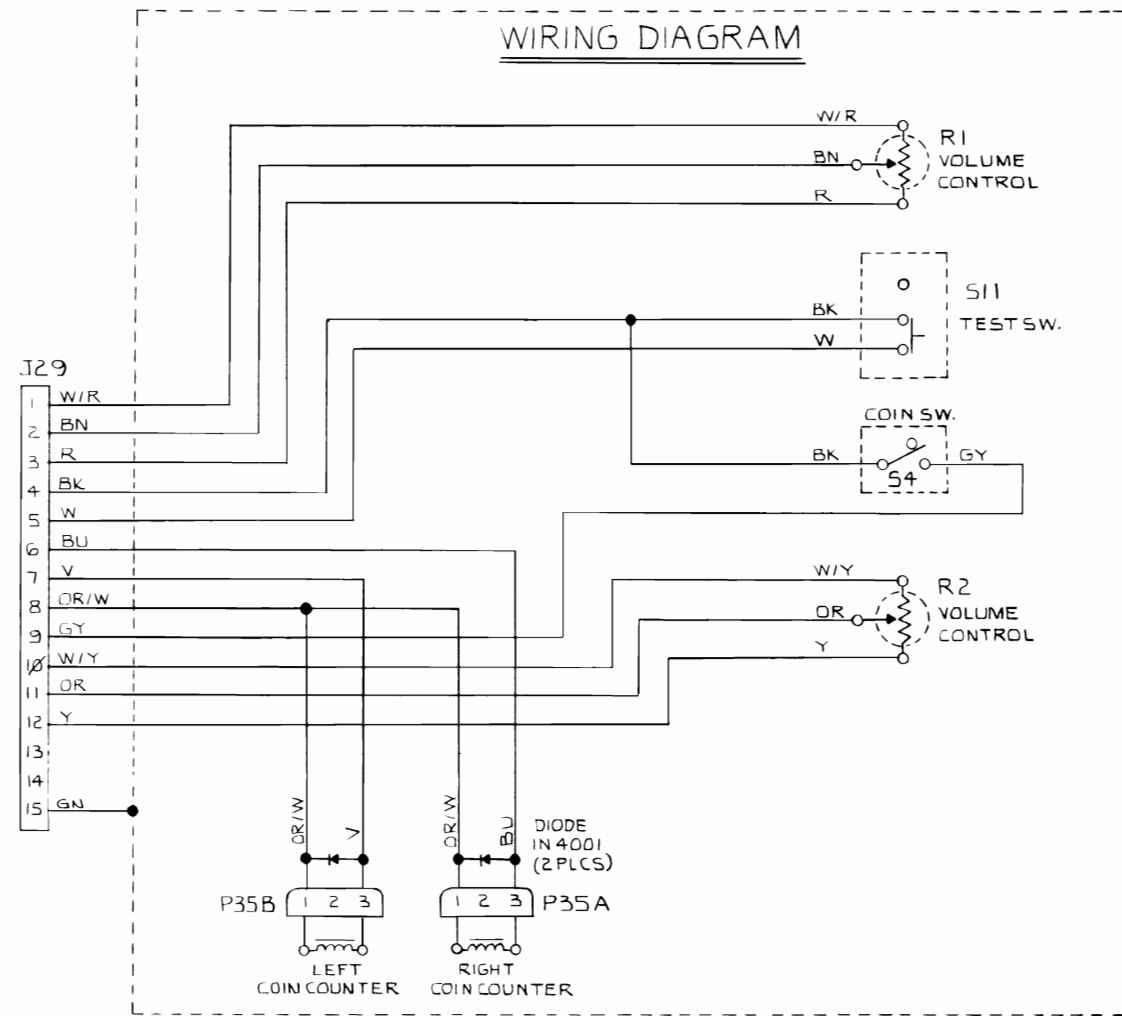
Coin Option Interconnect Wiring Diagram



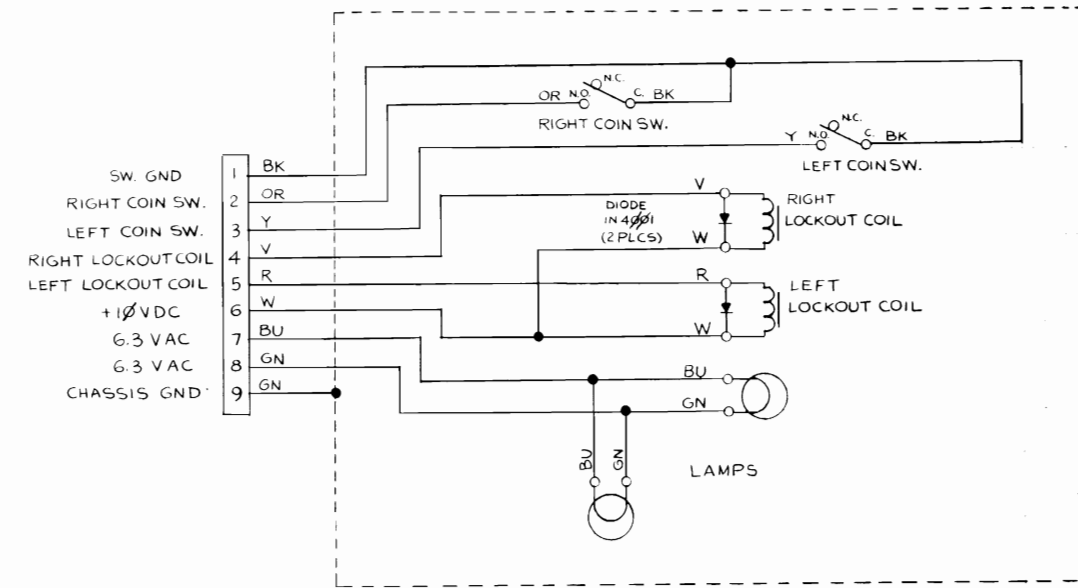
**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

**Pole Position Game Wiring Interfaces**

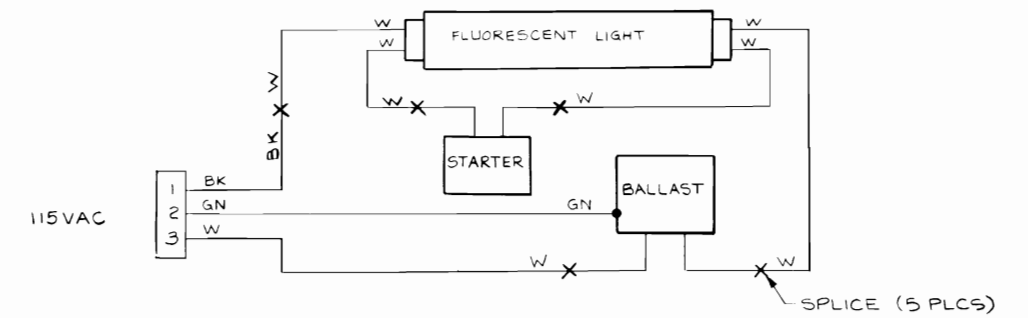
**Upright Utility-Panel Wiring Diagram**



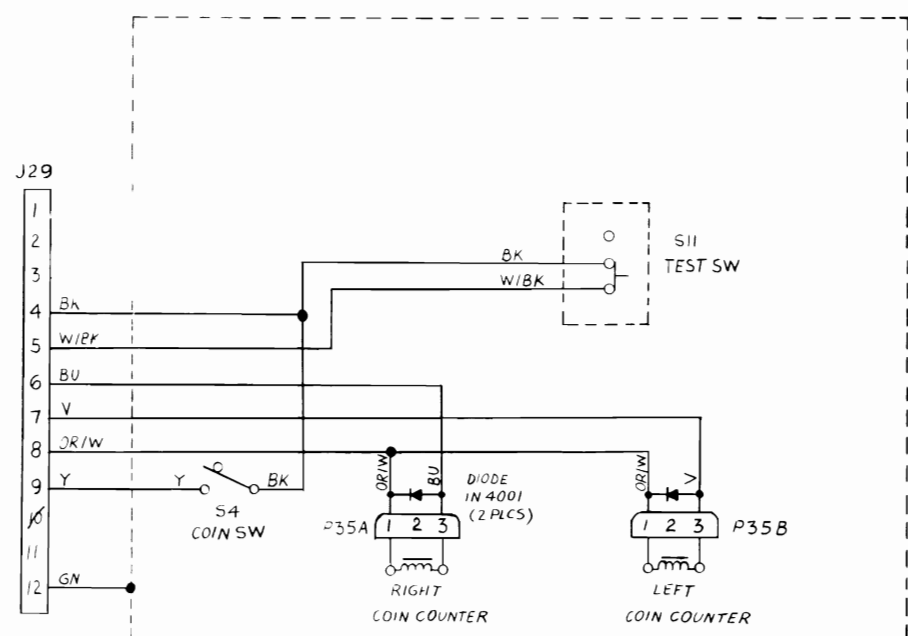
**Coin-Door Wiring Diagram**



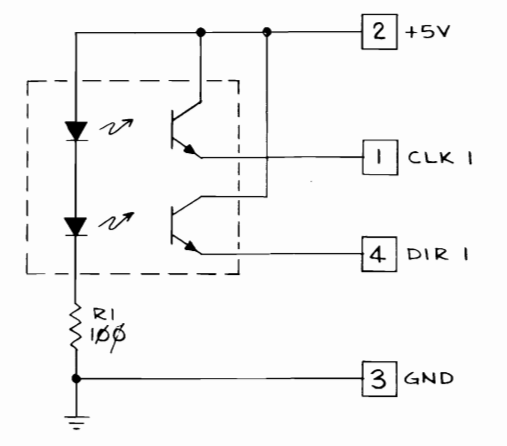
**Upright-Only Fluorescent Light Wiring Diagram**



**Sit-Down Utility-Panel Wiring Diagram**



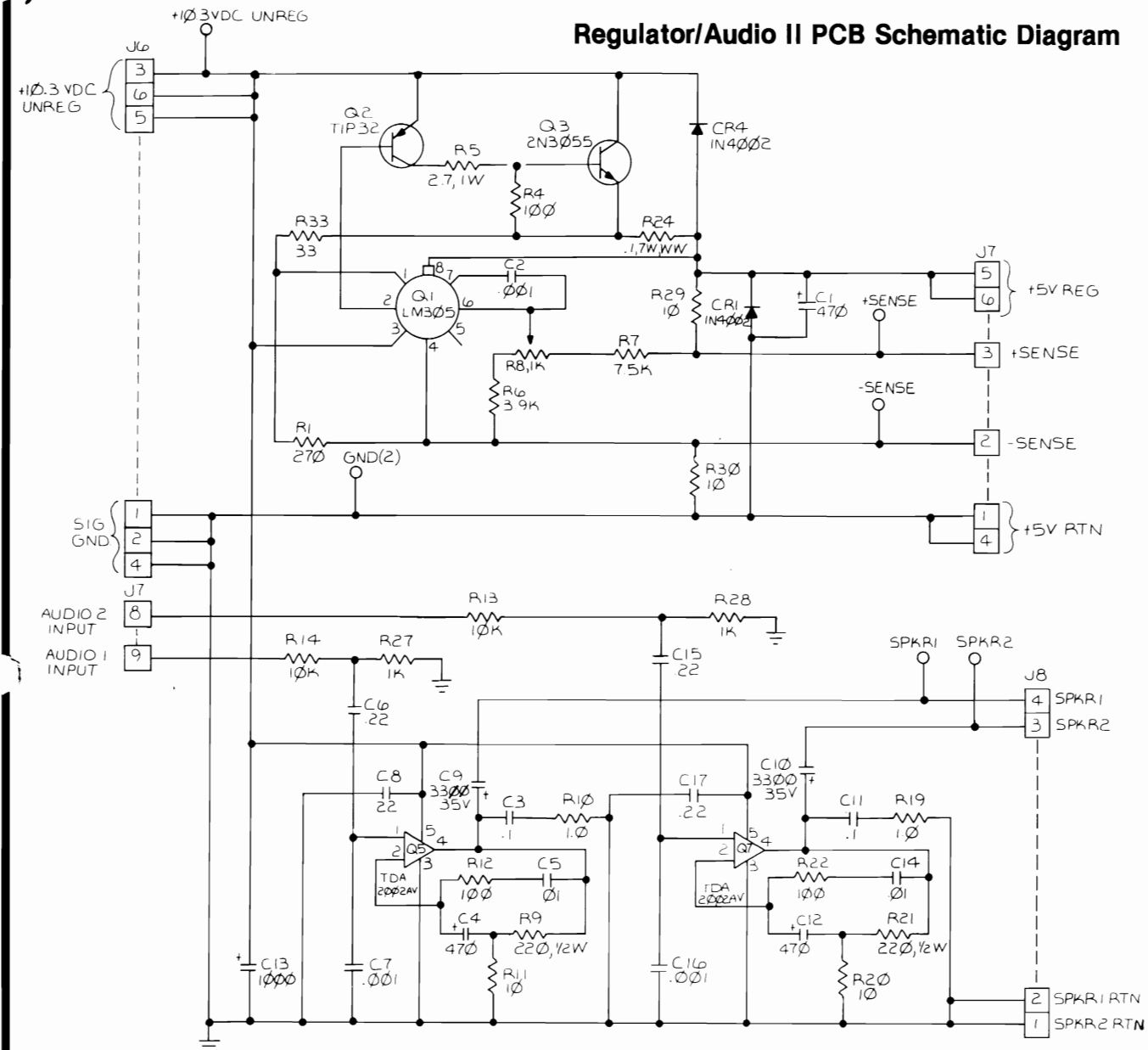
**Steering Coupler PCB Schematic**



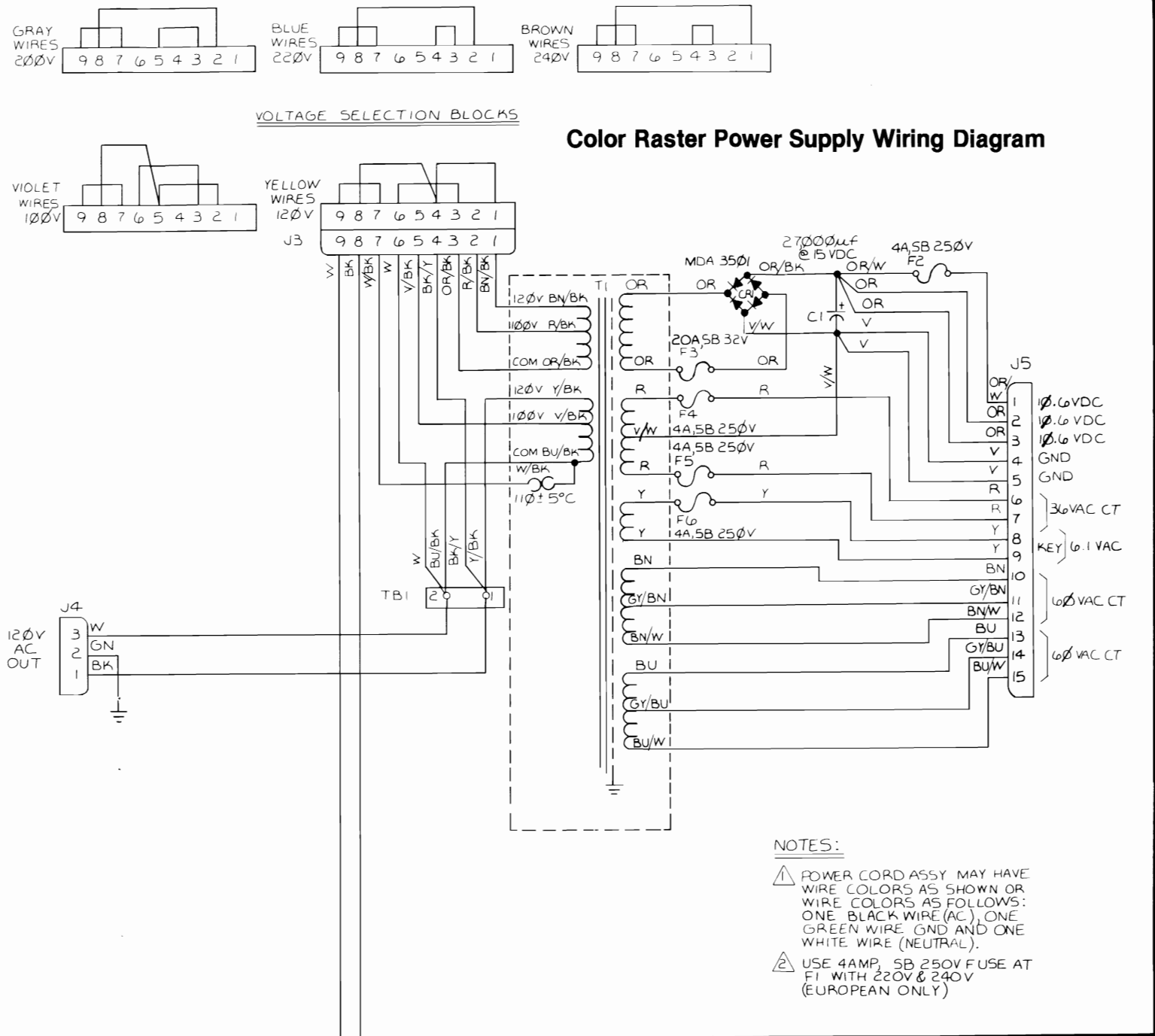
**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

**Pole Position Game Wiring Interfaces**

Regulator/Audio II PCB Schematic Diagram

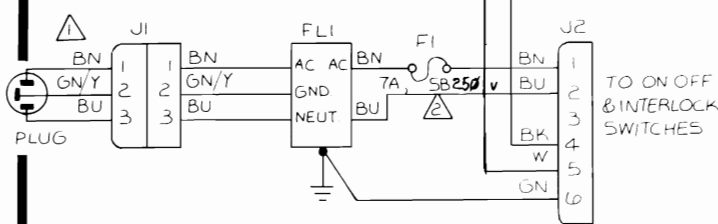


Color Raster Power Supply Wiring Diagram



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)



**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

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

# 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 R	IRQ Enable (1 = enable, 0 = disable) 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:

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

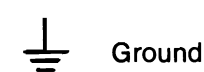
### WIRE COLORS:

<b>R</b>	Red
<b>GN</b>	Green
<b>Y</b>	Yellow
<b>W</b>	White
<b>BU</b>	Blue
<b>BN</b>	Brown
<b>BK</b>	Black
<b>OR</b>	Orange
<b>V</b>	Violet
<b>GY</b>	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



Test Point



PCB edge connector pad



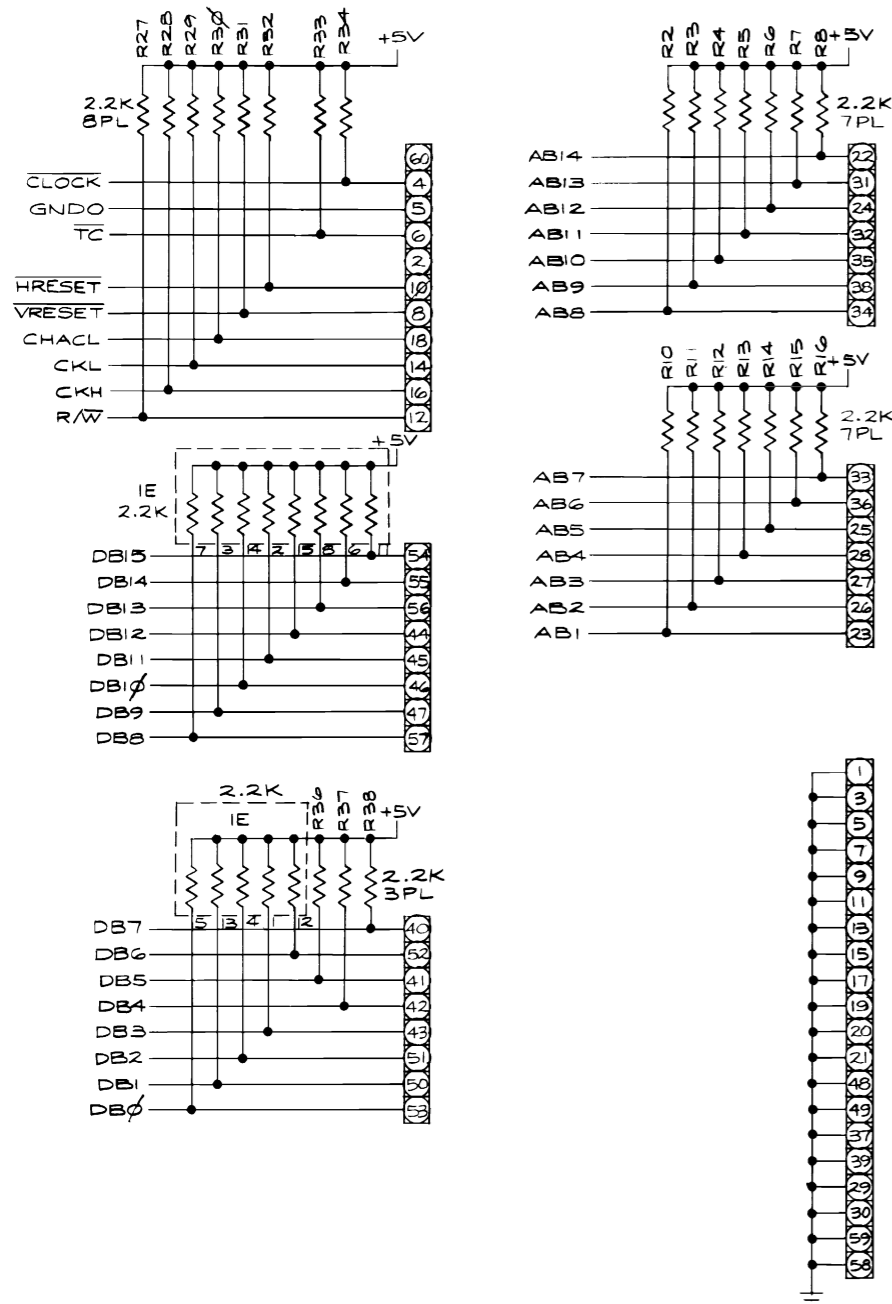
**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

## Pole Position Memory Map and Schematic Notes

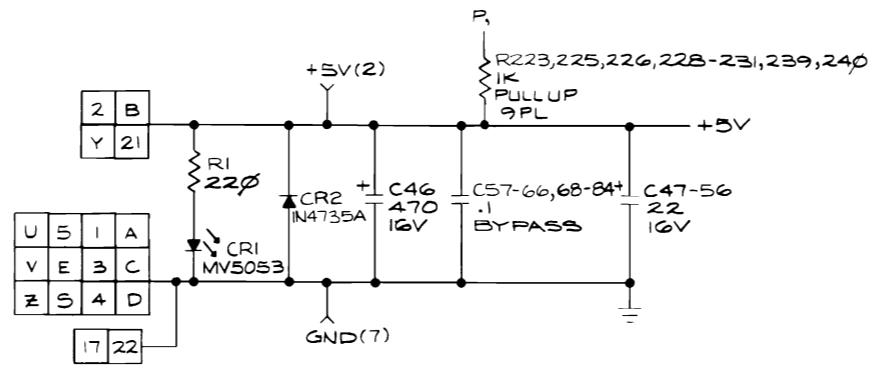
© ATARI INC., 1982  
A Warner Communications Company

SP-218 Sheet 4A  
3rd printing

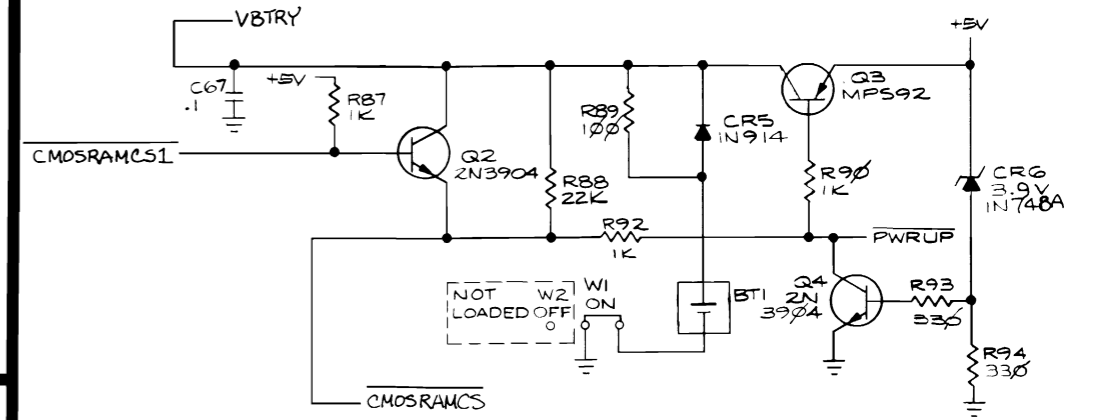
CPU PCB Edge Connector



CPU PCB Power Input



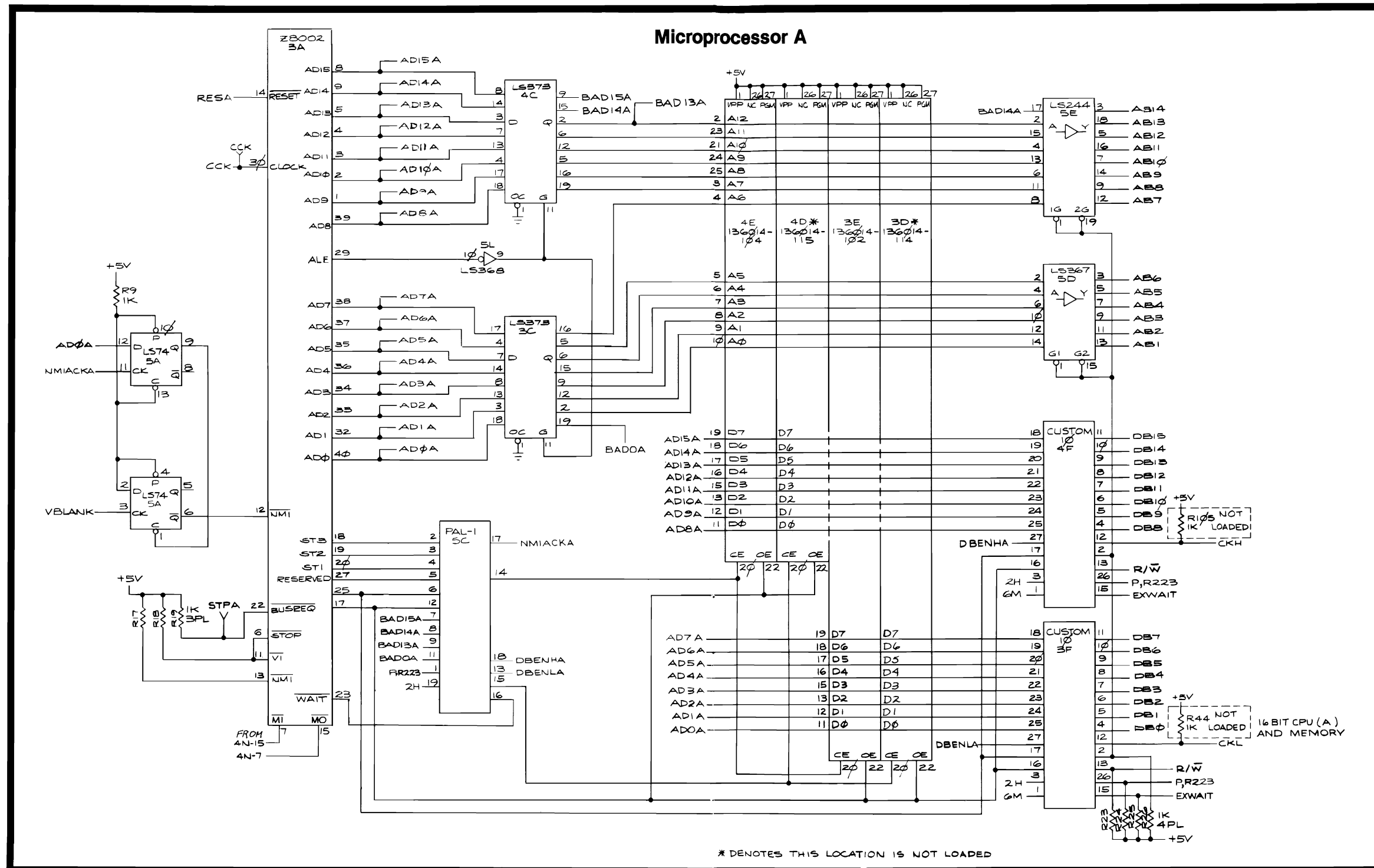
RAM Battery Back-Up Power




**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

Pole Position CPU PCB Schematic Diagram





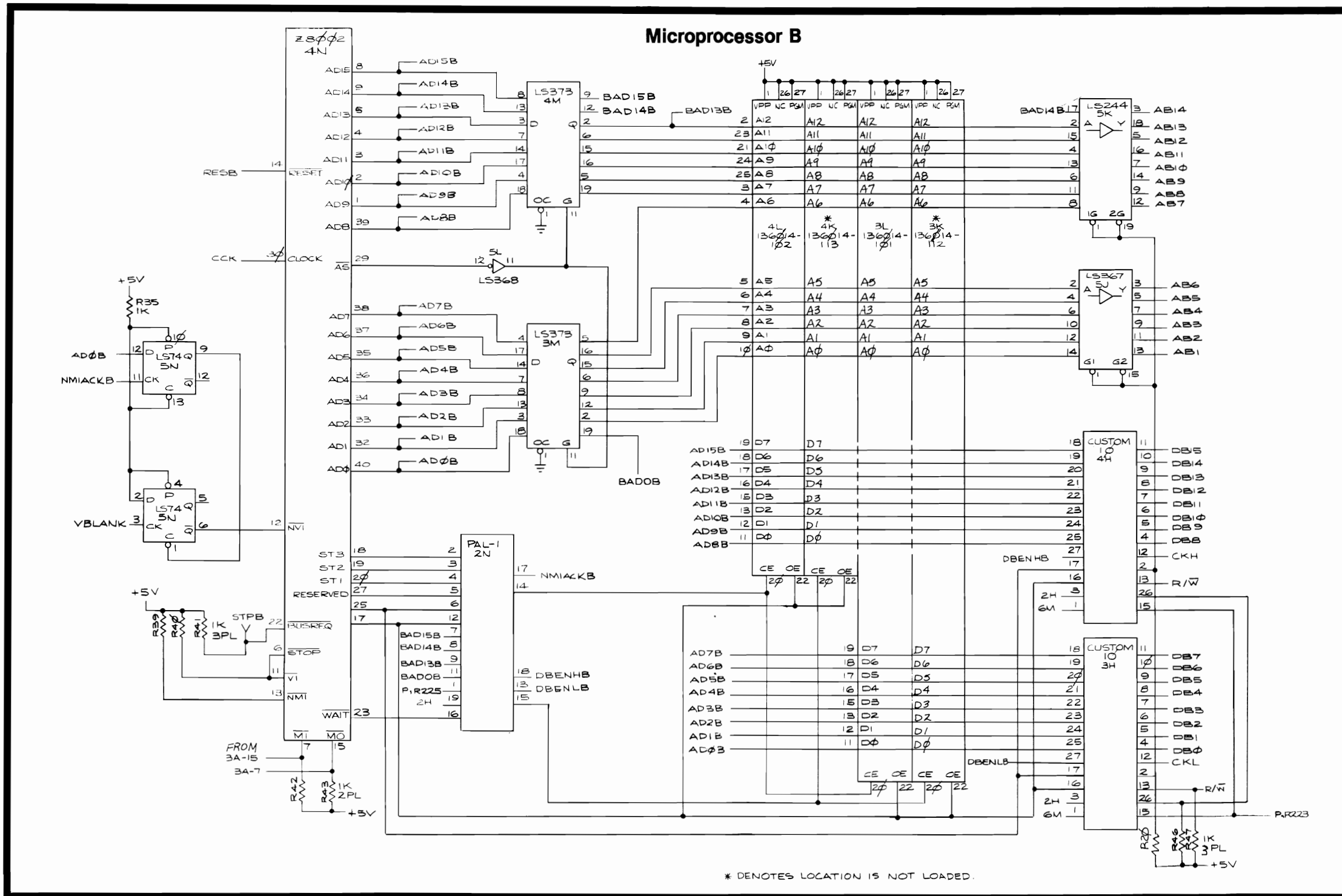



NOTICE TO ALL PERSONS RECEIVING THIS DRAWING  
CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

## Pole Position CPU PCB Schematic Diagram

© ATARI INC., 1982  
A Warner Communications Company

SP-218 Sheet 5A  
3rd printing





**ATARI**

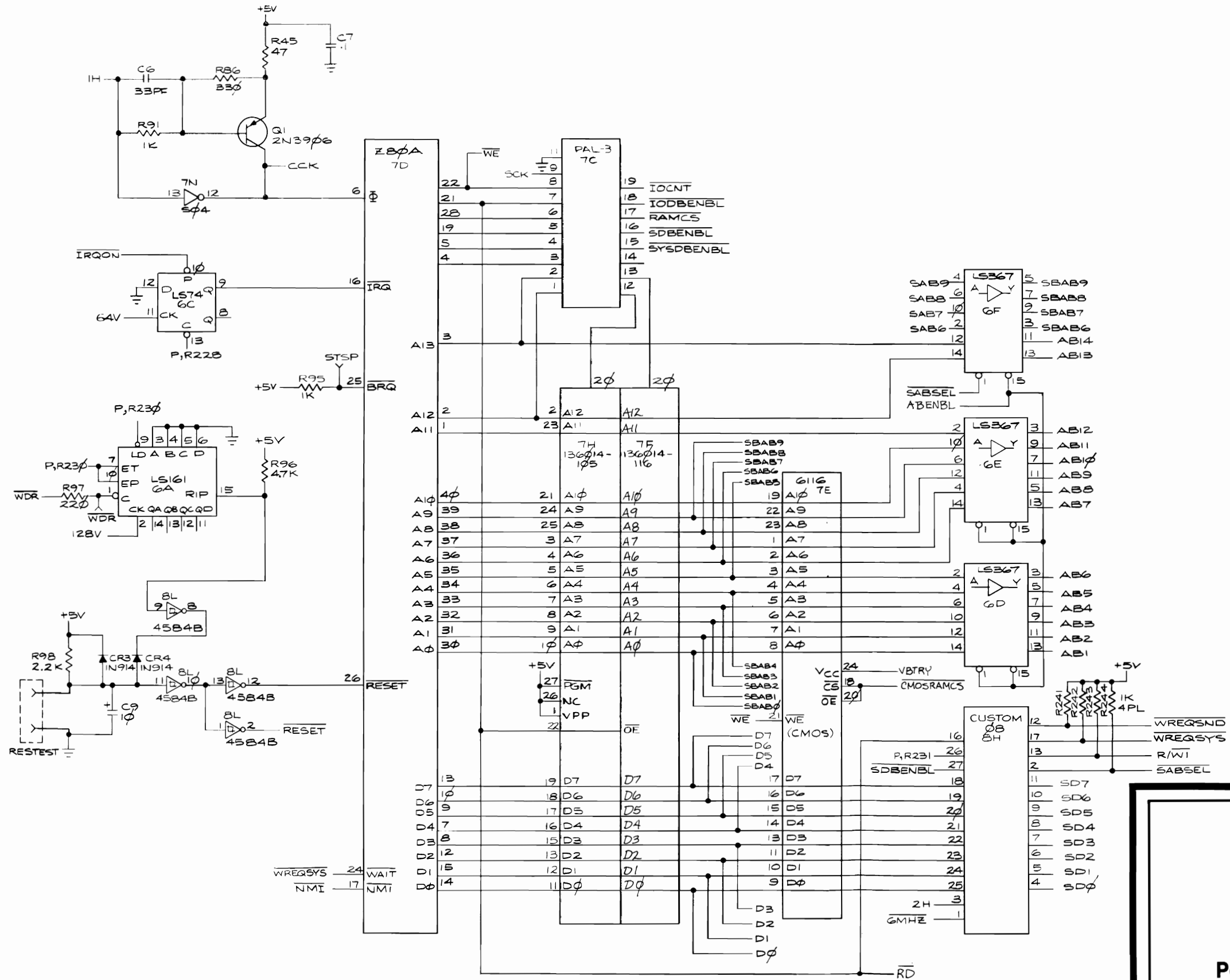
NOTICE TO ALL PERSONS RECEIVING THIS DRAWING  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

**Pole Position CPU PCB Schematic Diagram**

© ATARI INC., 1982  
 A Warner Communications Company

SP-218 Sheet 5B  
 3rd printing

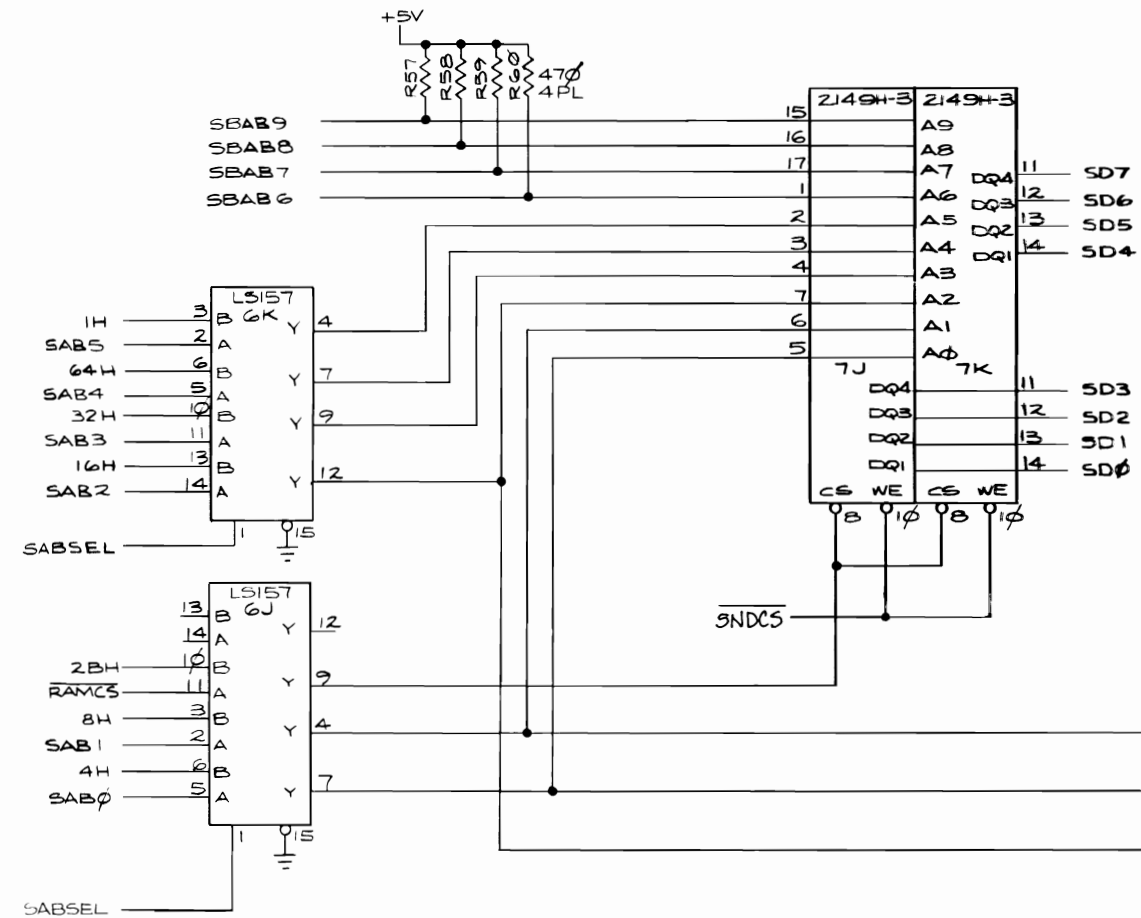
# Sound Microprocessor



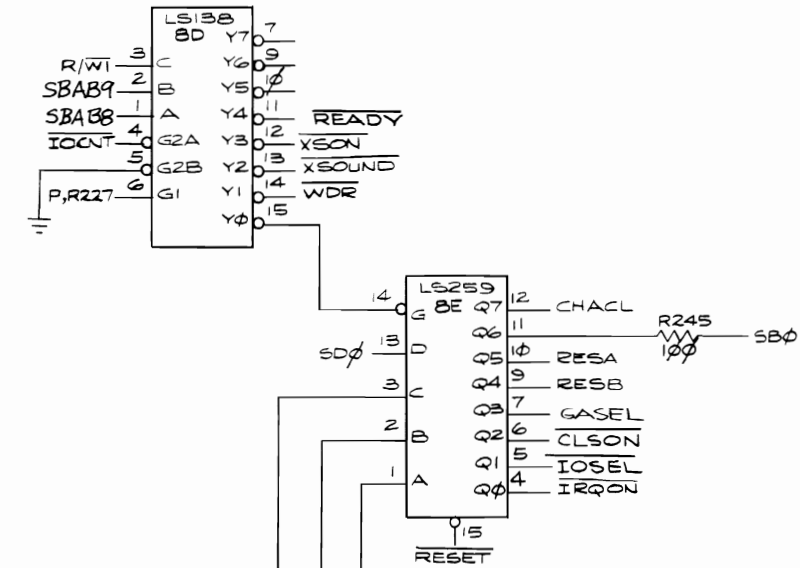
**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

## Pole Position CPU PCB Schematic Diagram

### Sound Memory



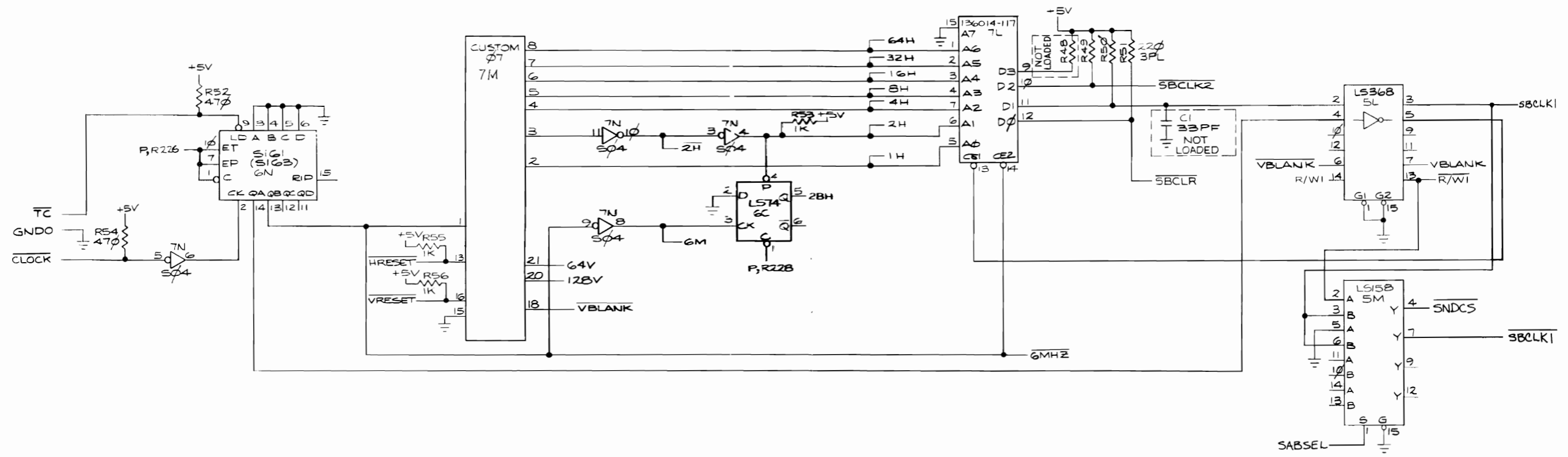
### Sound and I/O Address Decoders



NOTICE TO ALL PERSONS RECEIVING THIS DRAWING  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

### Pole Position CPU PCB Schematic Diagram

### CPU PCB Sync Chain

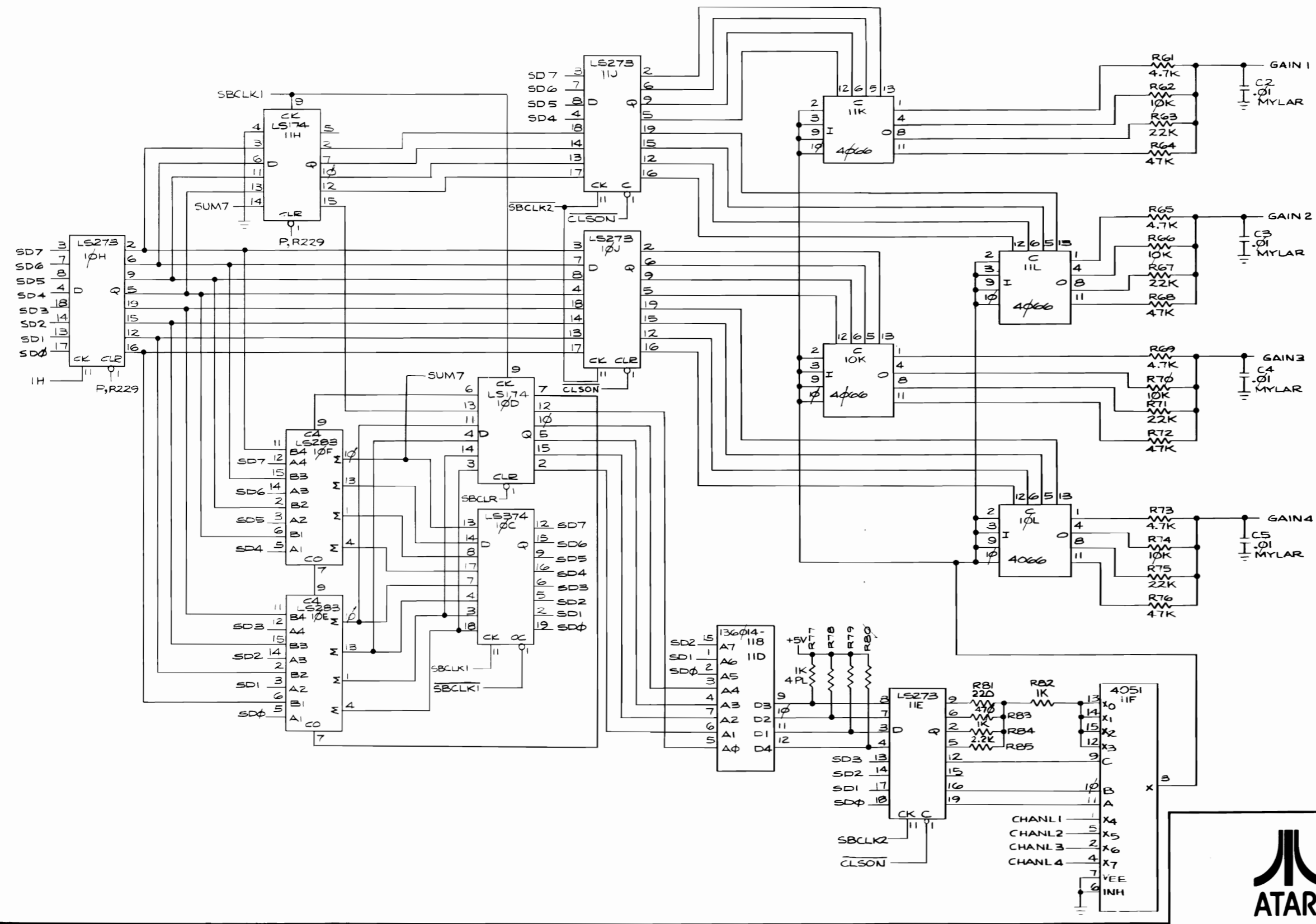



**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

### Pole Position CPU PCB Schematic Diagram

Pole Position

### Sound Buffers and Multiplexer





**ATARI**

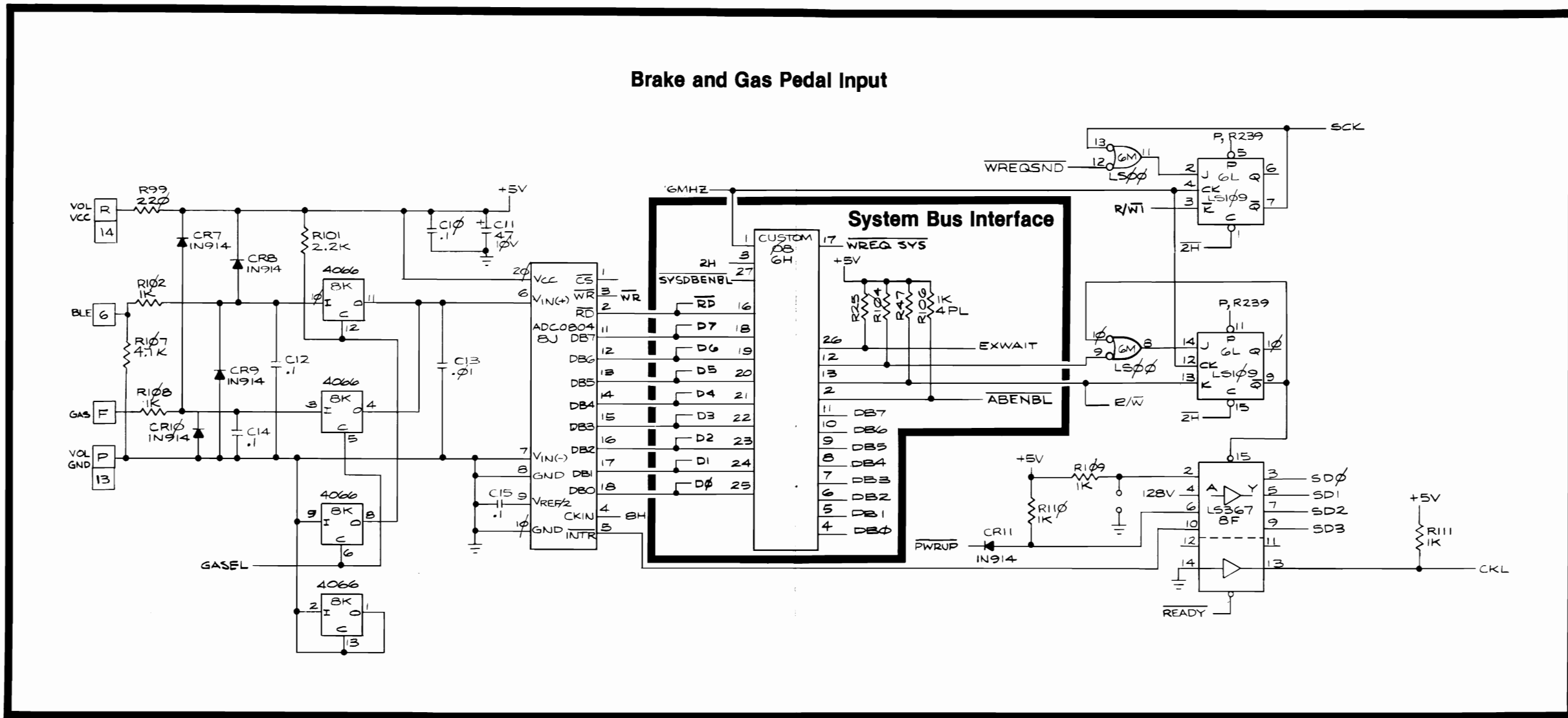
NOTICE TO ALL PERSONS RECEIVING THIS DRAWING  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

**Pole Position CPU PCB Schematic Diagram**

© ATARI INC., 1982  
 A Warner Communications Company

SP-218 Sheet 7B  
 3rd printing

### Brake and Gas Pedal Input



**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

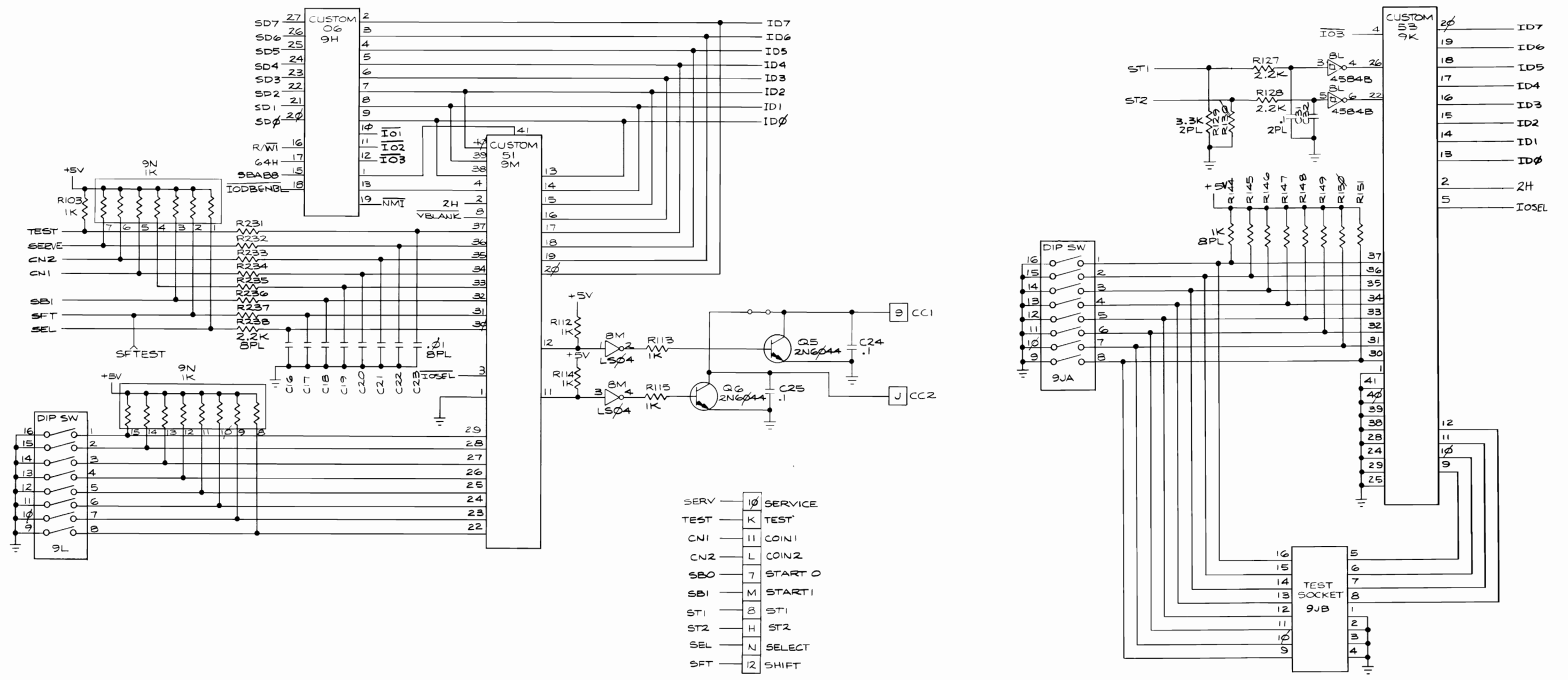
### Pole Position CPU PCB Schematic Diagram

© ATARI INC., 1982  
 A Warner Communications Company

SP-218 Sheet 8A  
 3rd printing

Pole Position

Option Switch Input and I/O Interface

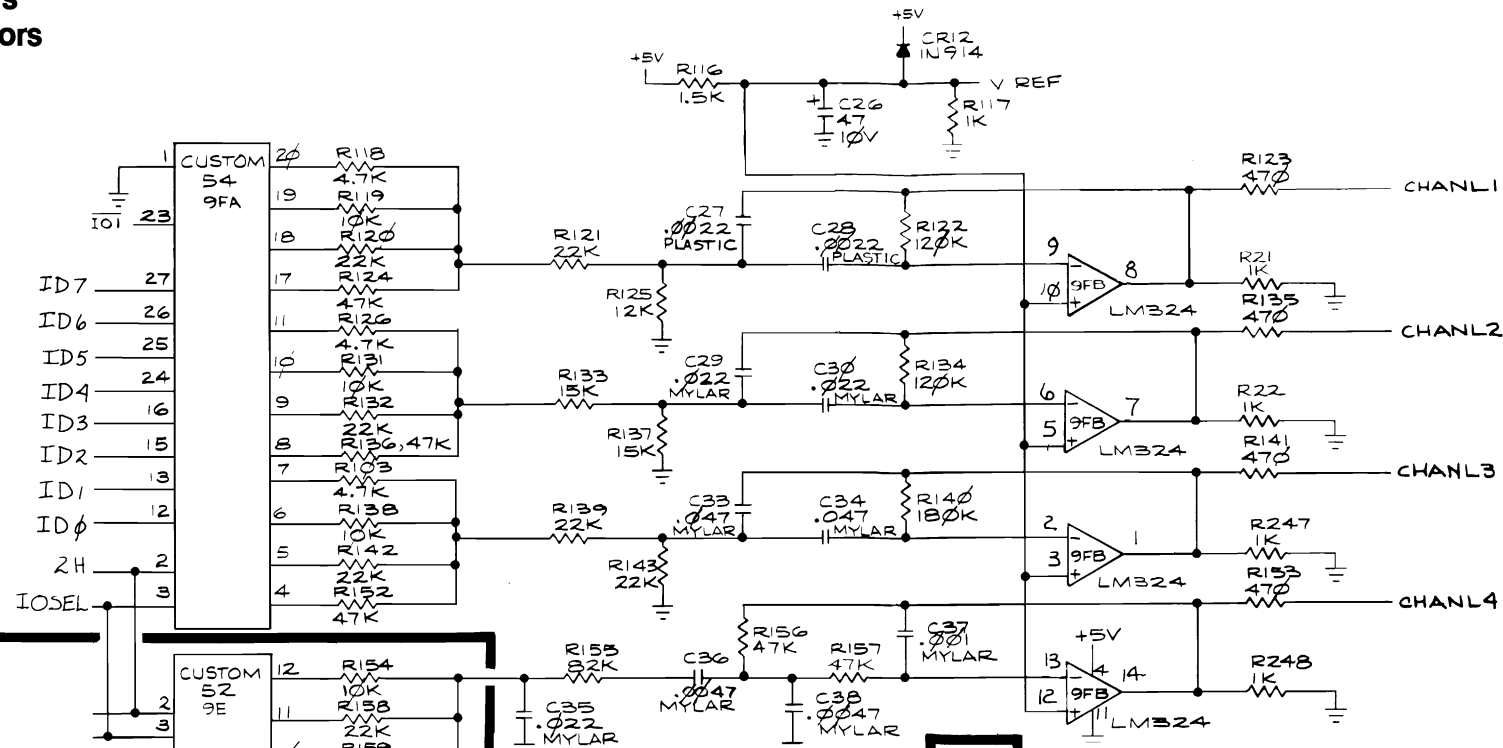


**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

Pole Position CPU PCB Schematic Diagram



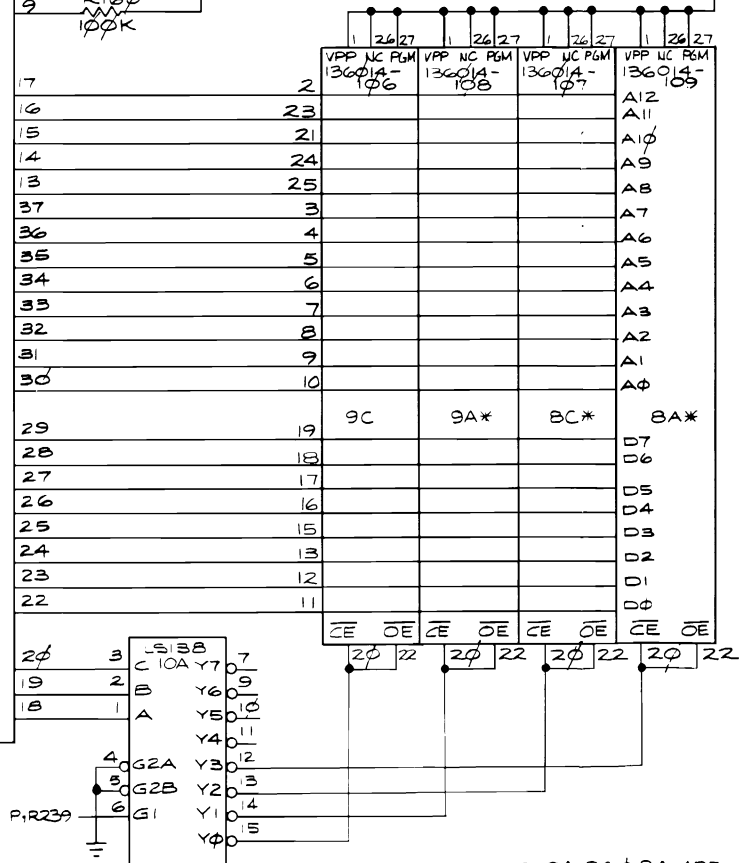
**Miscellaneous  
Sound Generators**



ID3  
ID2  
ID1  
ID0

P,R239  
IO2

CUSTOM  
52  
9E



\* DENOTES 9A,BC & BA ARE NOT LOADED

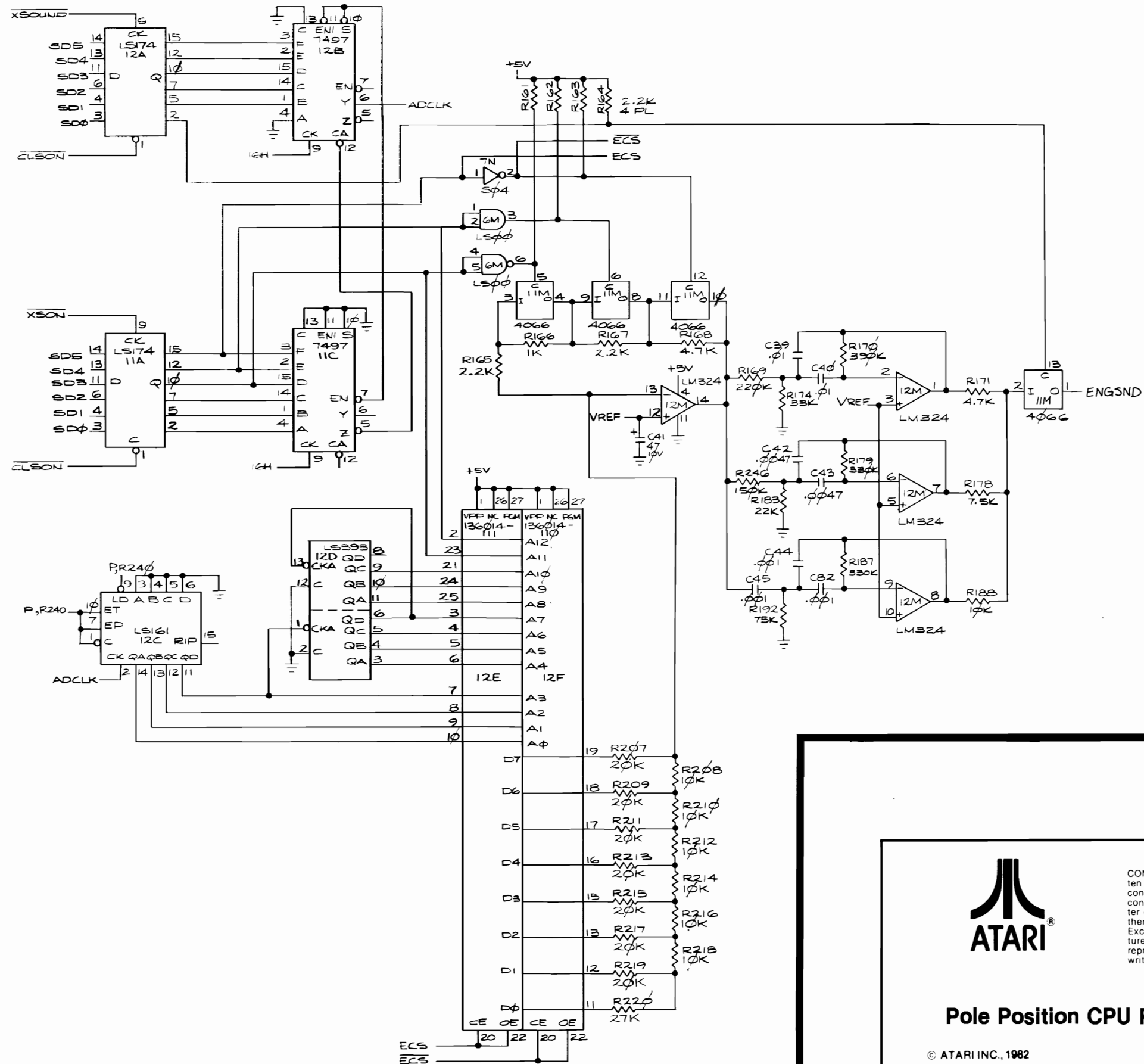
**Speech Processor and Memory**




**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

**Pole Position CPU PCB Schematic Diagram**

Engine Sound Generator





**ATARI**

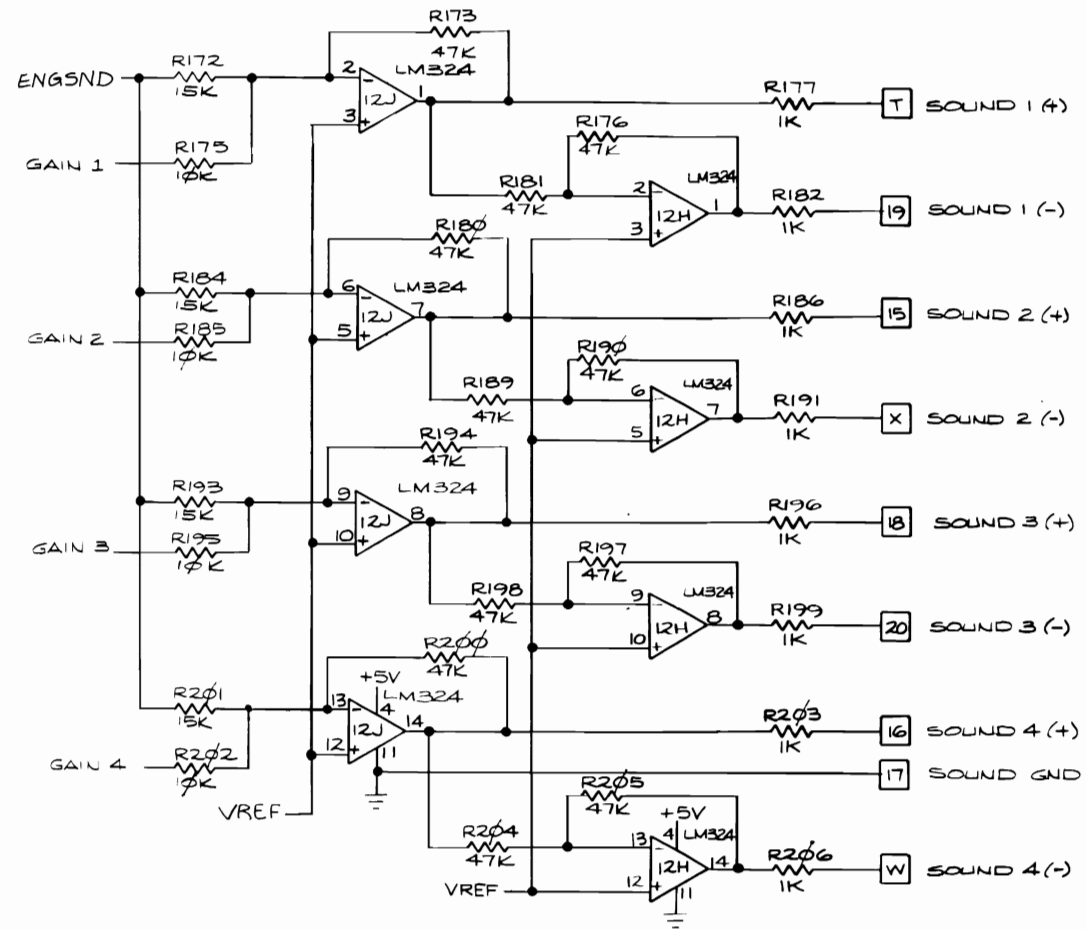
NOTICE TO ALL PERSONS RECEIVING THIS DRAWING  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

**Pole Position CPU PCB Schematic Diagram**

© ATARI INC., 1982  
 A Warner Communications Company

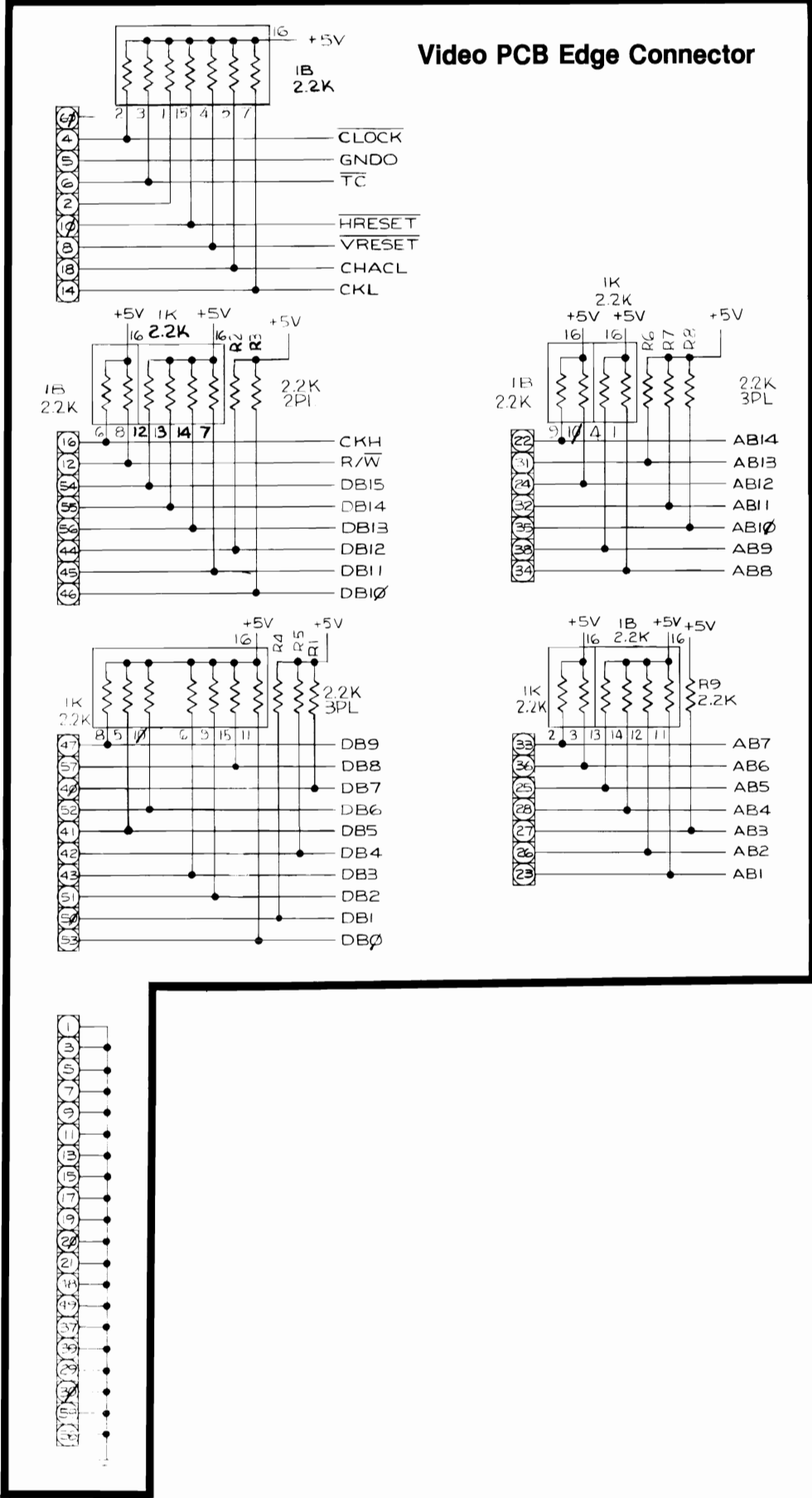
SP-218 Sheet 9B  
 3rd printing

### Sound Output

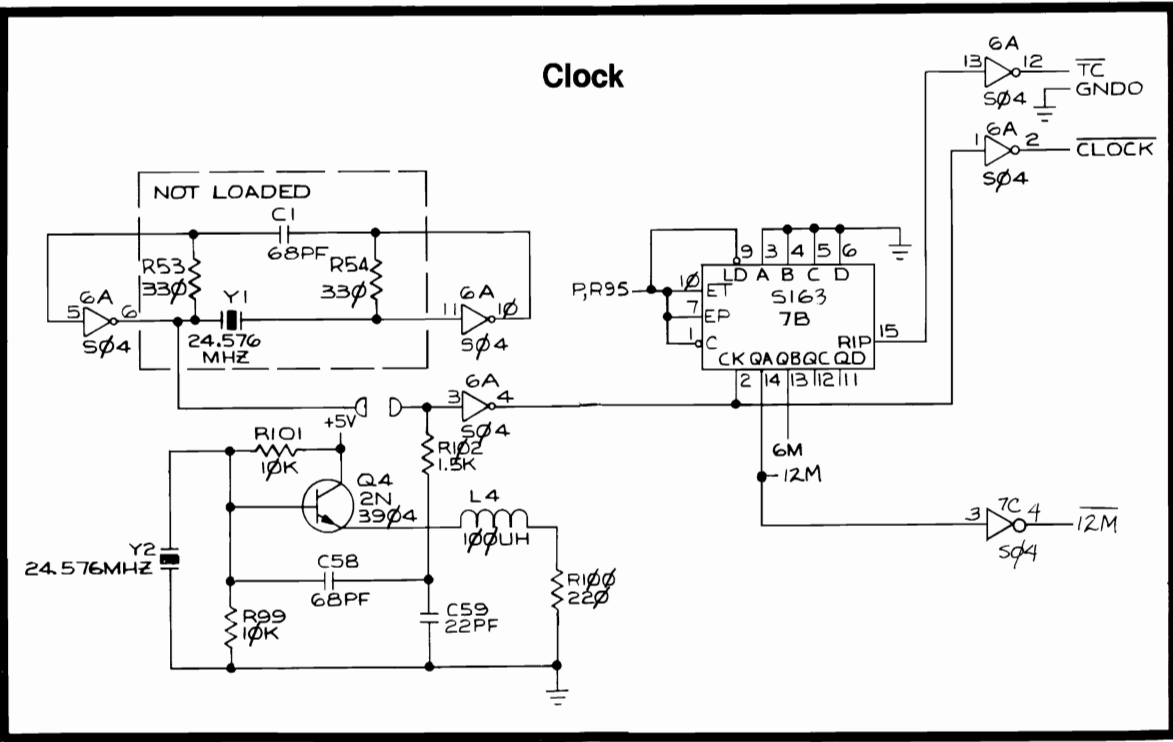
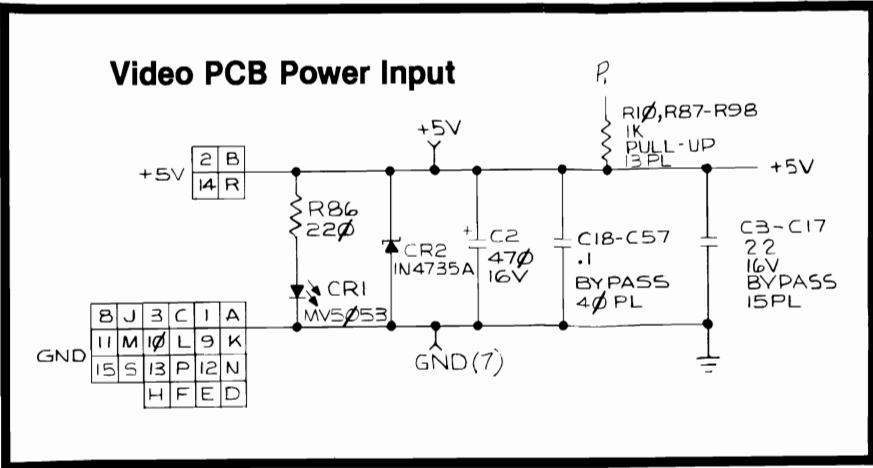


**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

### Pole Position CPU PCB Schematic Diagram



*POLE POSITION*



**ATARI**

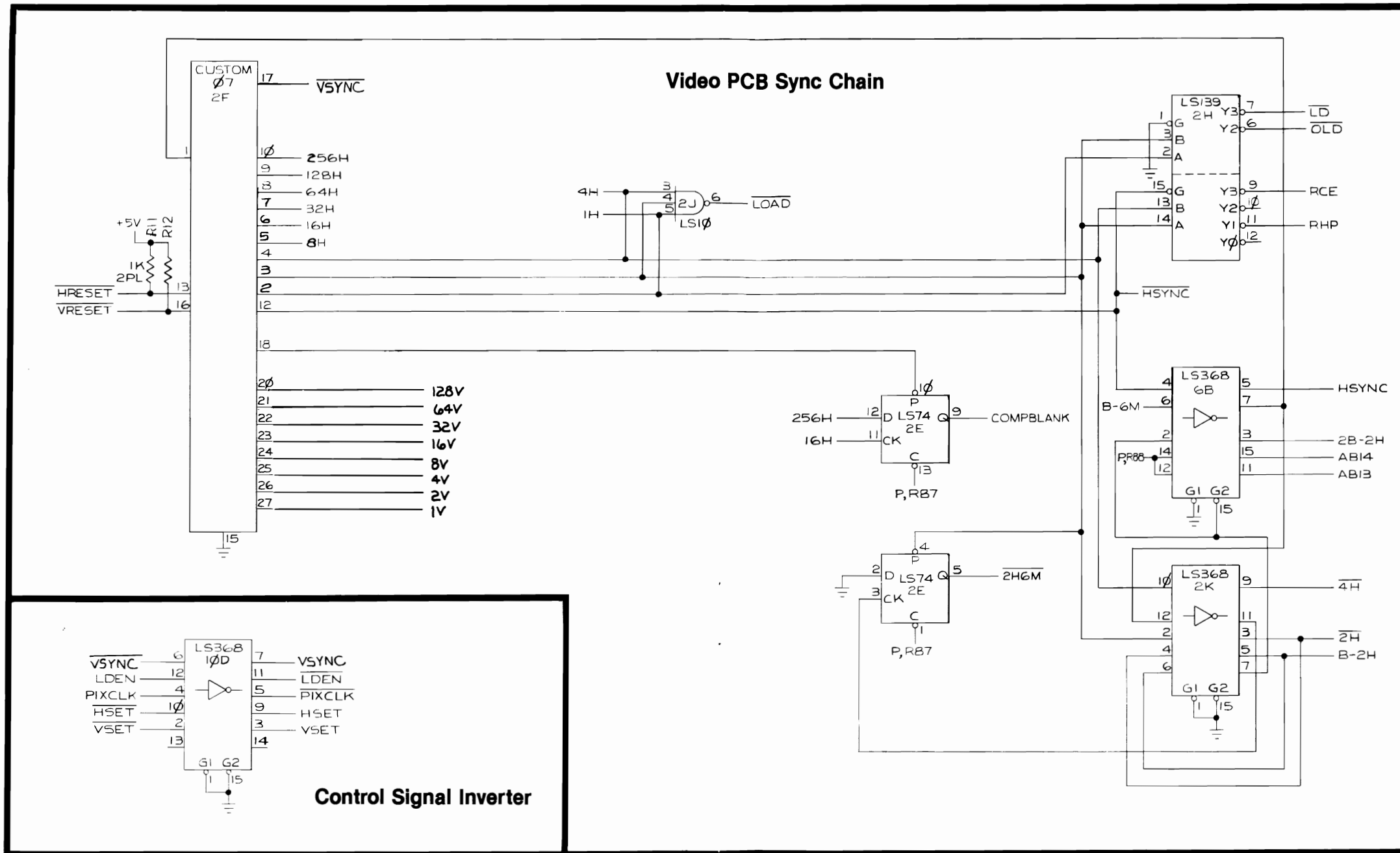
**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.


### Pole Position Video PCB Schematic Diagram

© ATARI INC., 1982

A Warner Communications Company

SP-218 Sheet 10B  
3rd printing





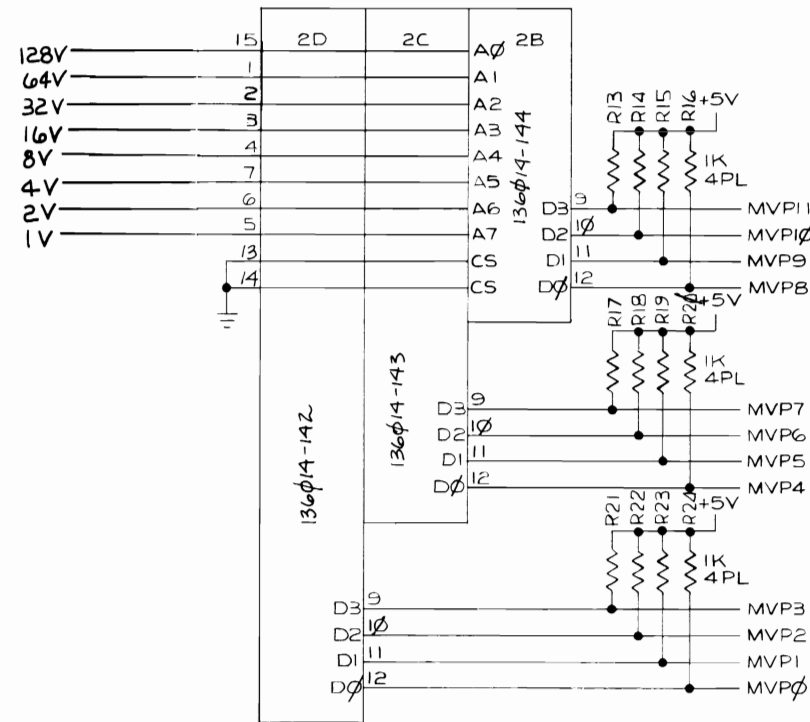
**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

## Pole Position Video PCB Schematic Diagram

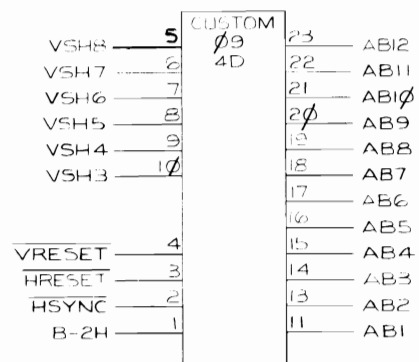
© ATARI INC., 1982  
A Warner Communications Company

SP-218 Sheet 11A  
3rd printing

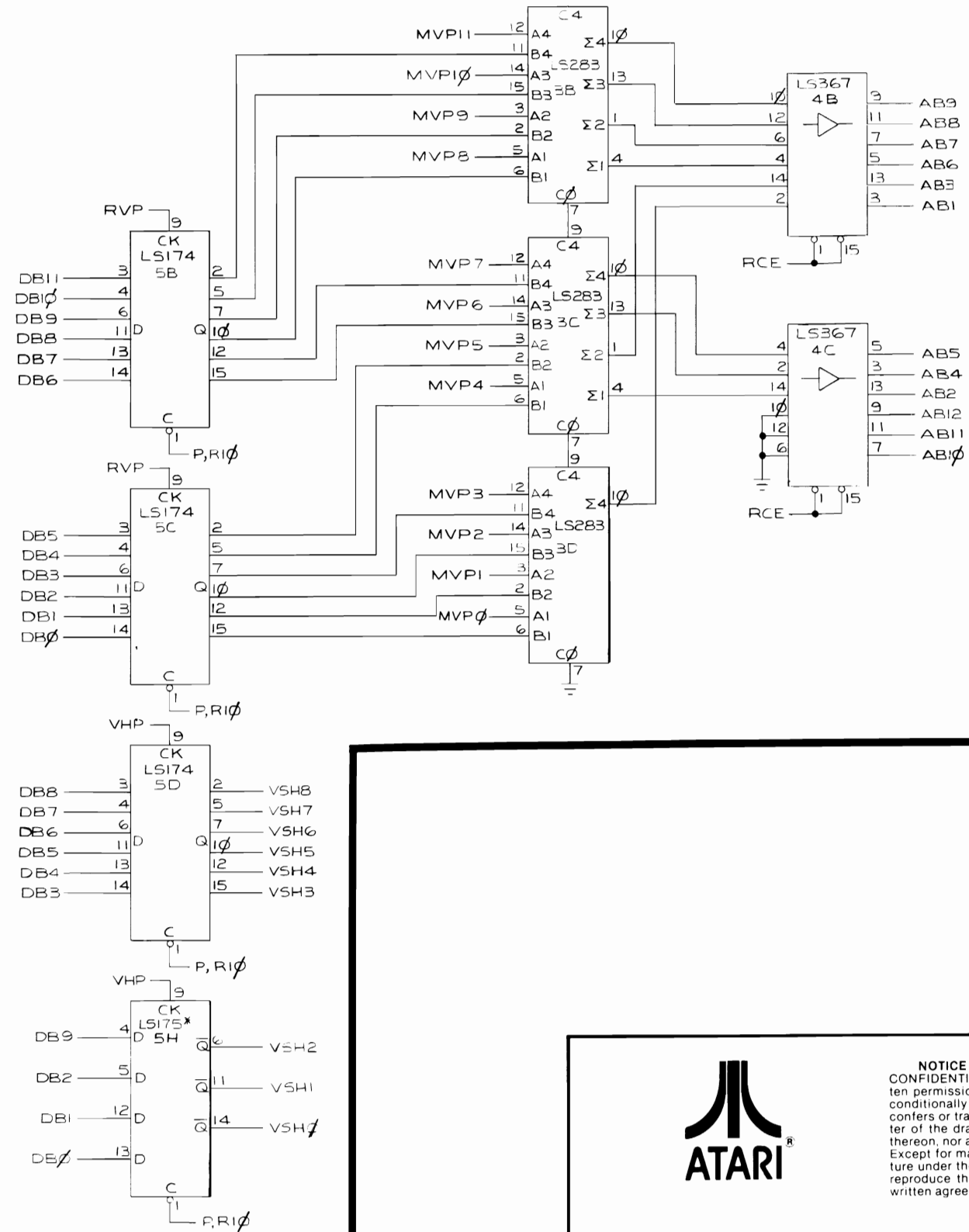
### Vertical Position Modifiers



### Address Bus Interface



### Vertical Position Buffers and Adders



\*MANUFACTURER MUST BE TEXAS INSTRUMENTS



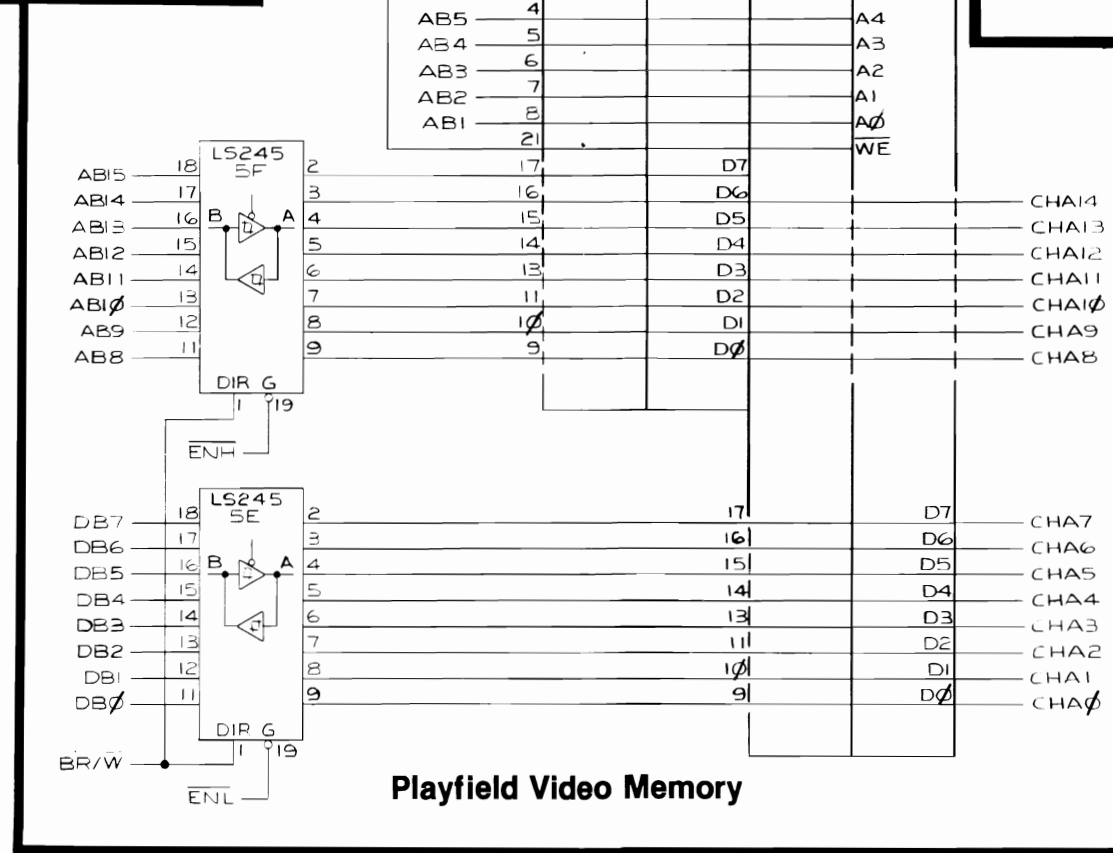
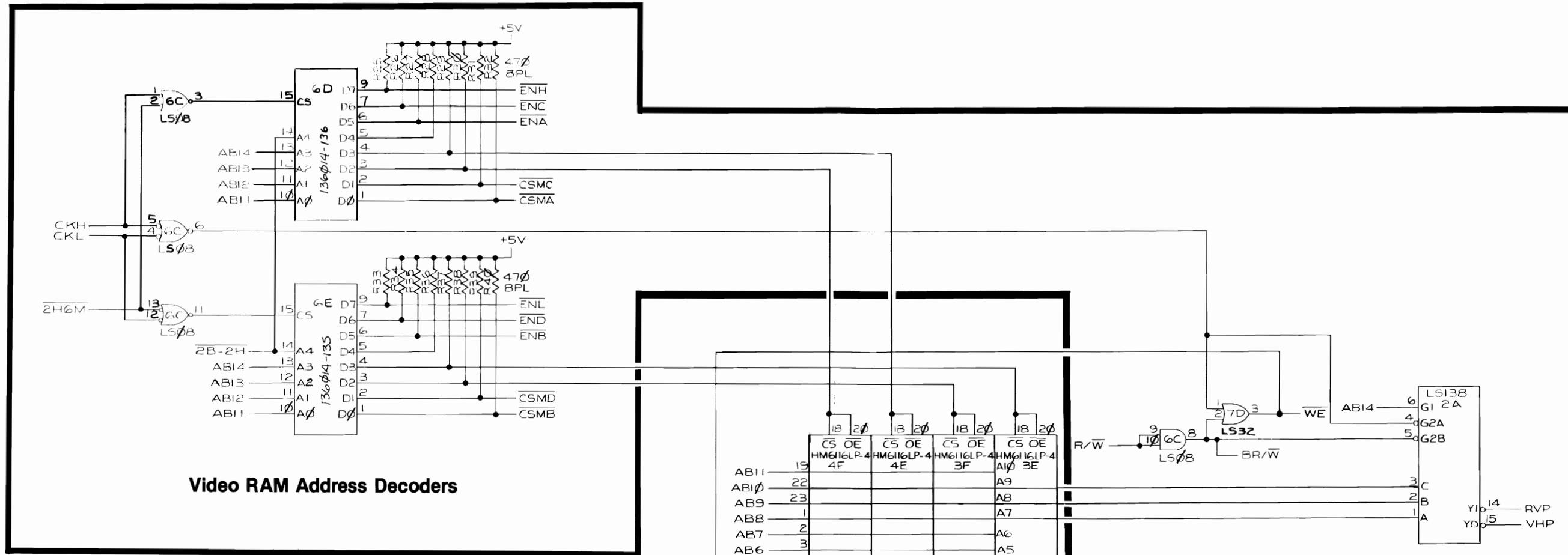
**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.


### Pole Position Video PCB Schematic Diagram

© ATARI INC., 1982

A Warner Communications Company

SP-218 Sheet 11B  
 3rd printing



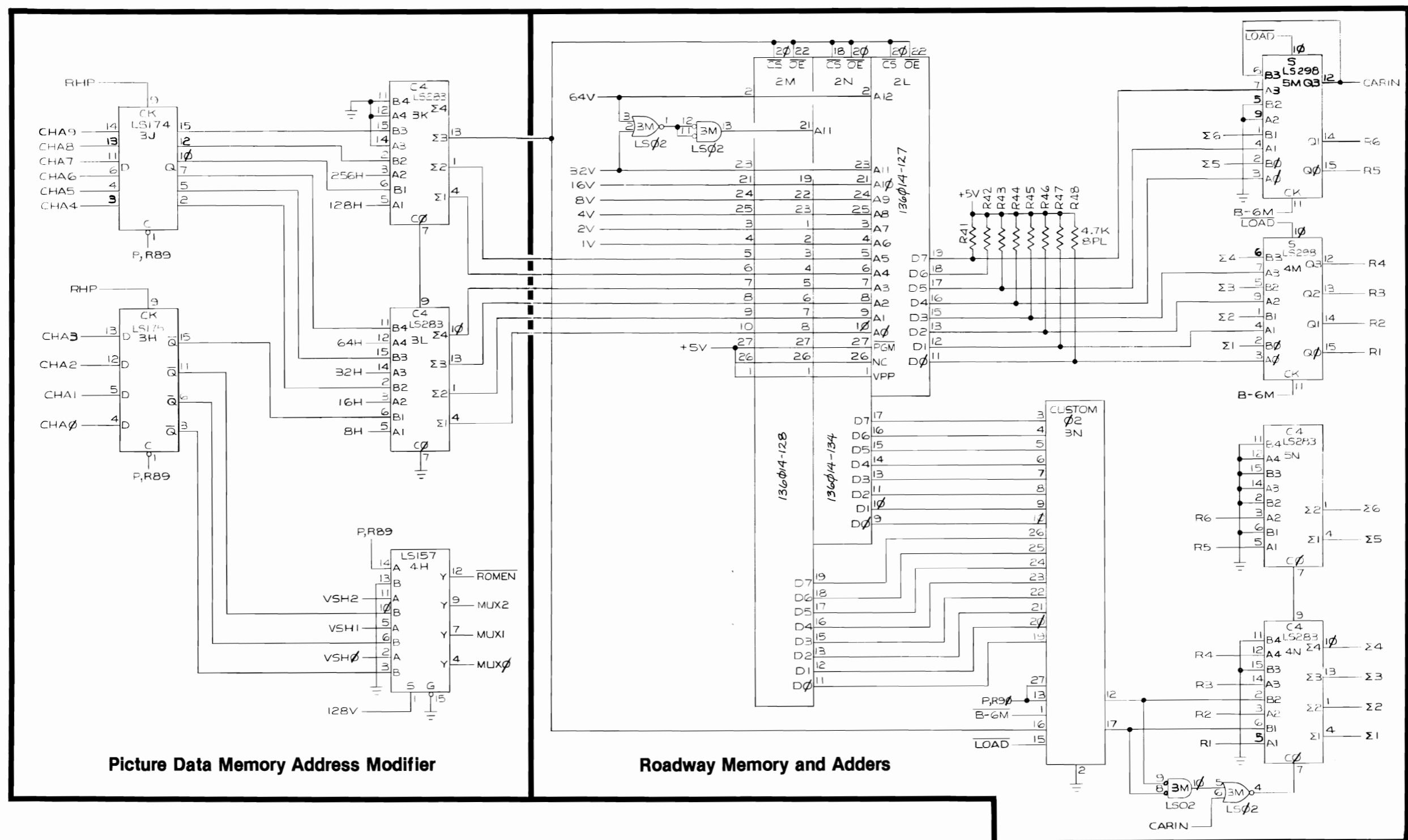


**ATARI**

**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

**Pole Position Video PCB Schematic Diagram**

© ATARI INC., 1982 SP-218 Sheet 12A  
 A Warner Communications Company 3rd printing



Picture Data Memory Address Modifier

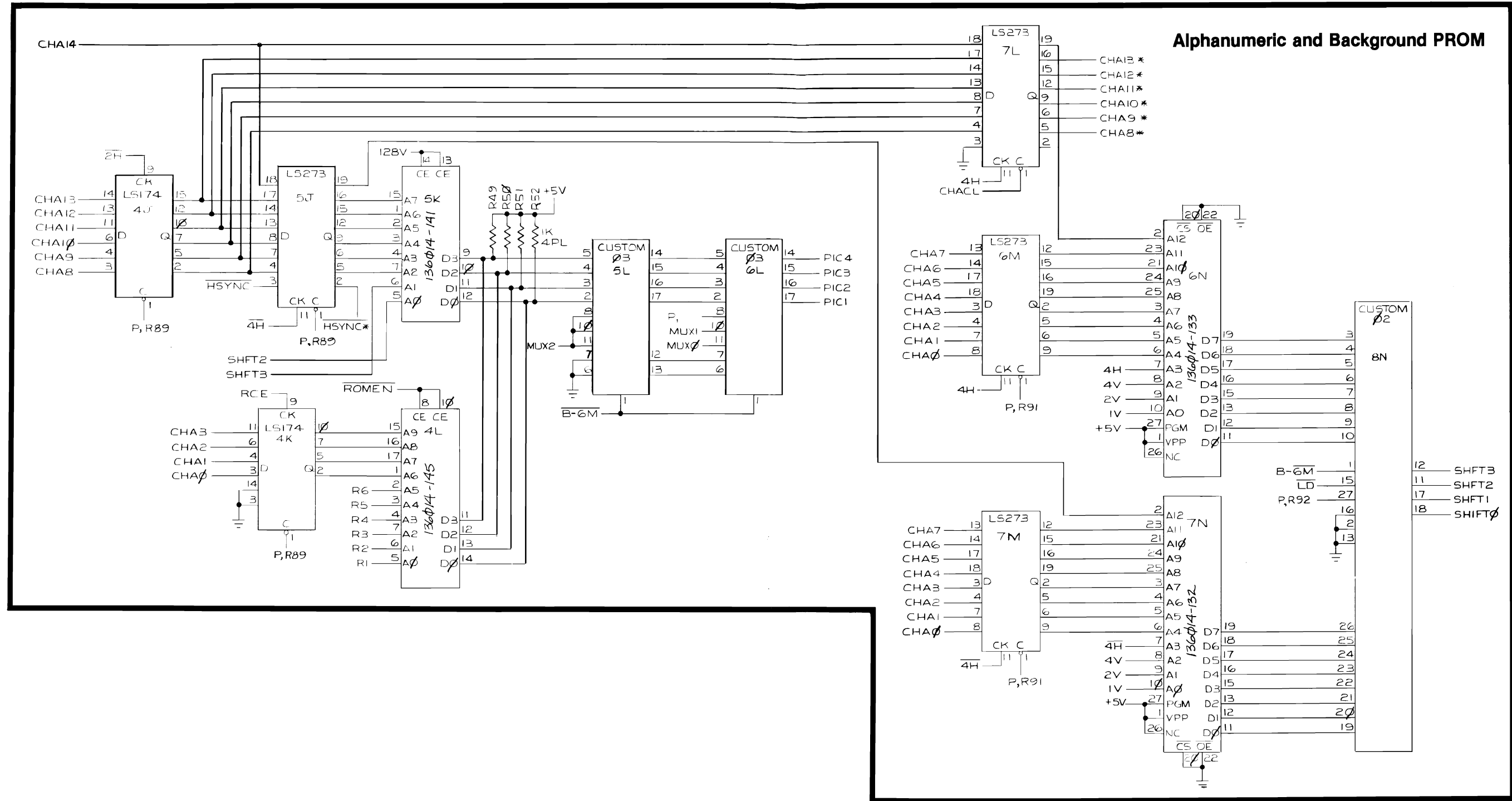
Roadway Memory and Adders



NOTICE TO ALL PERSONS RECEIVING THIS DRAWING  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

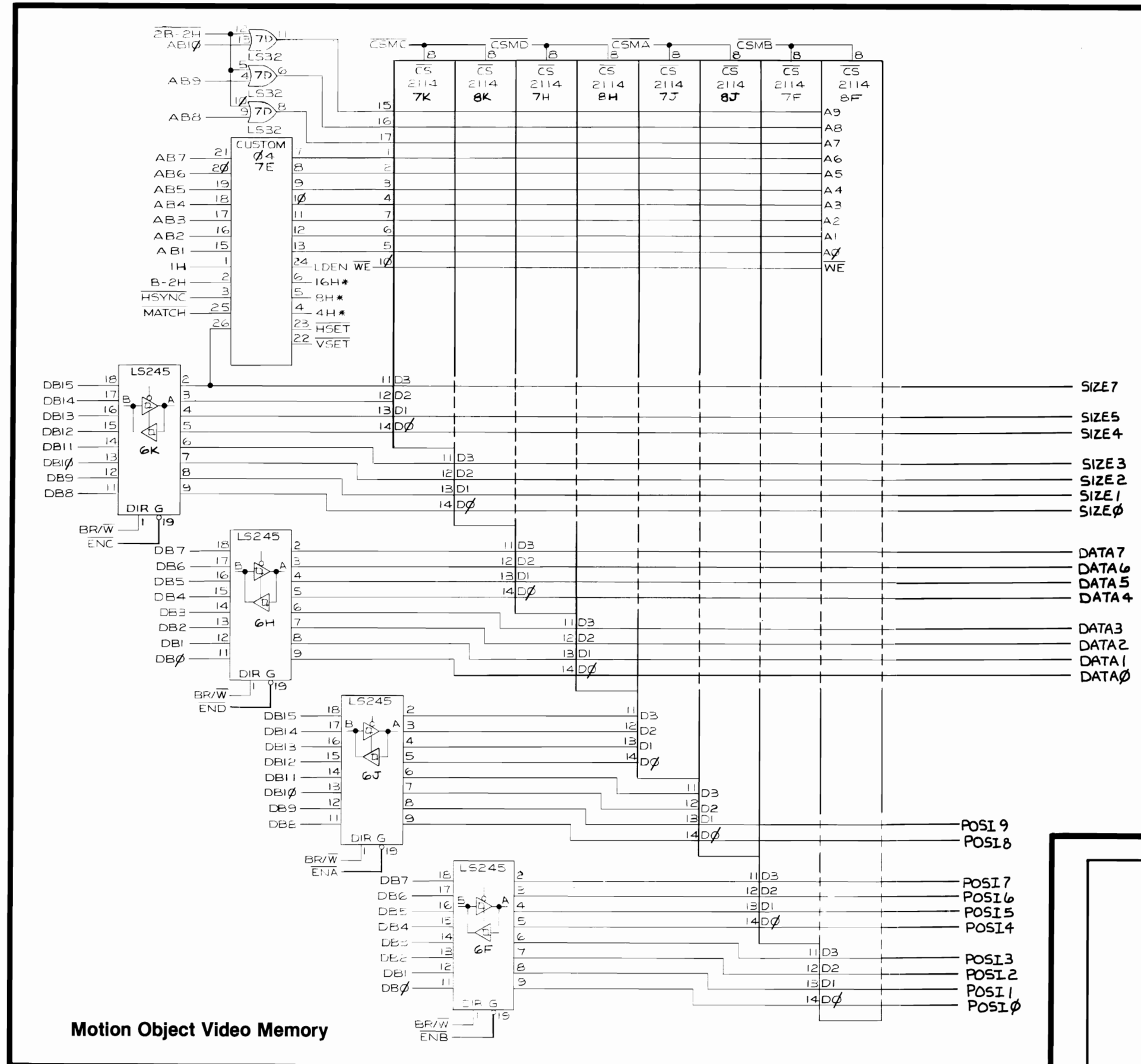
Pole Position Video PCB Schematic Diagram





**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

**Pole Position Video PCB Schematic Diagram**

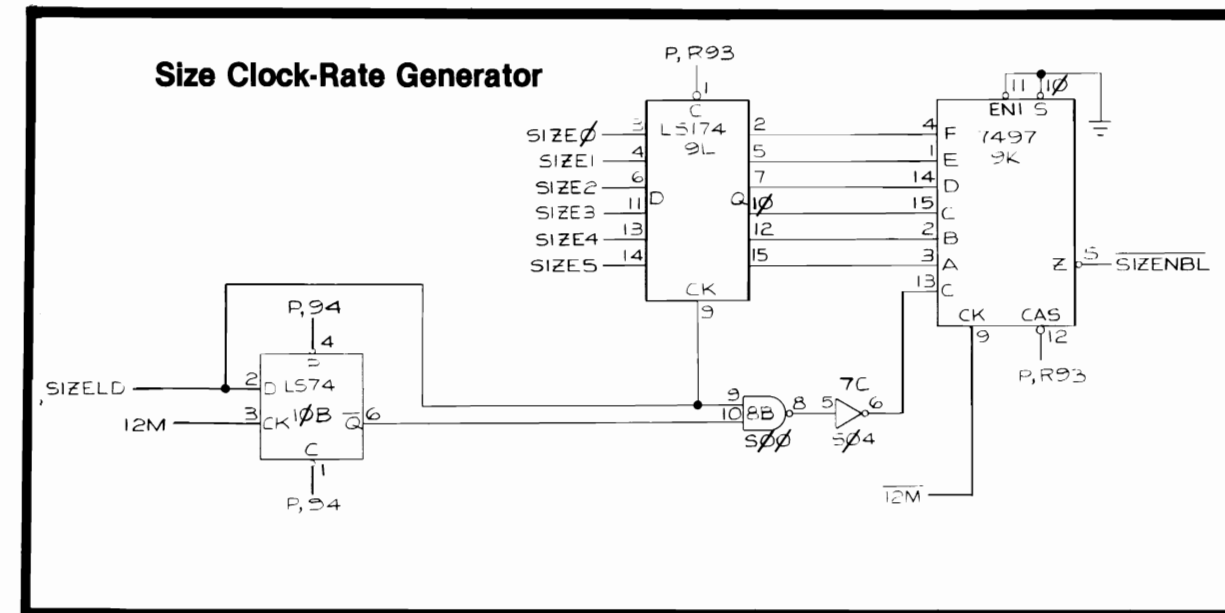
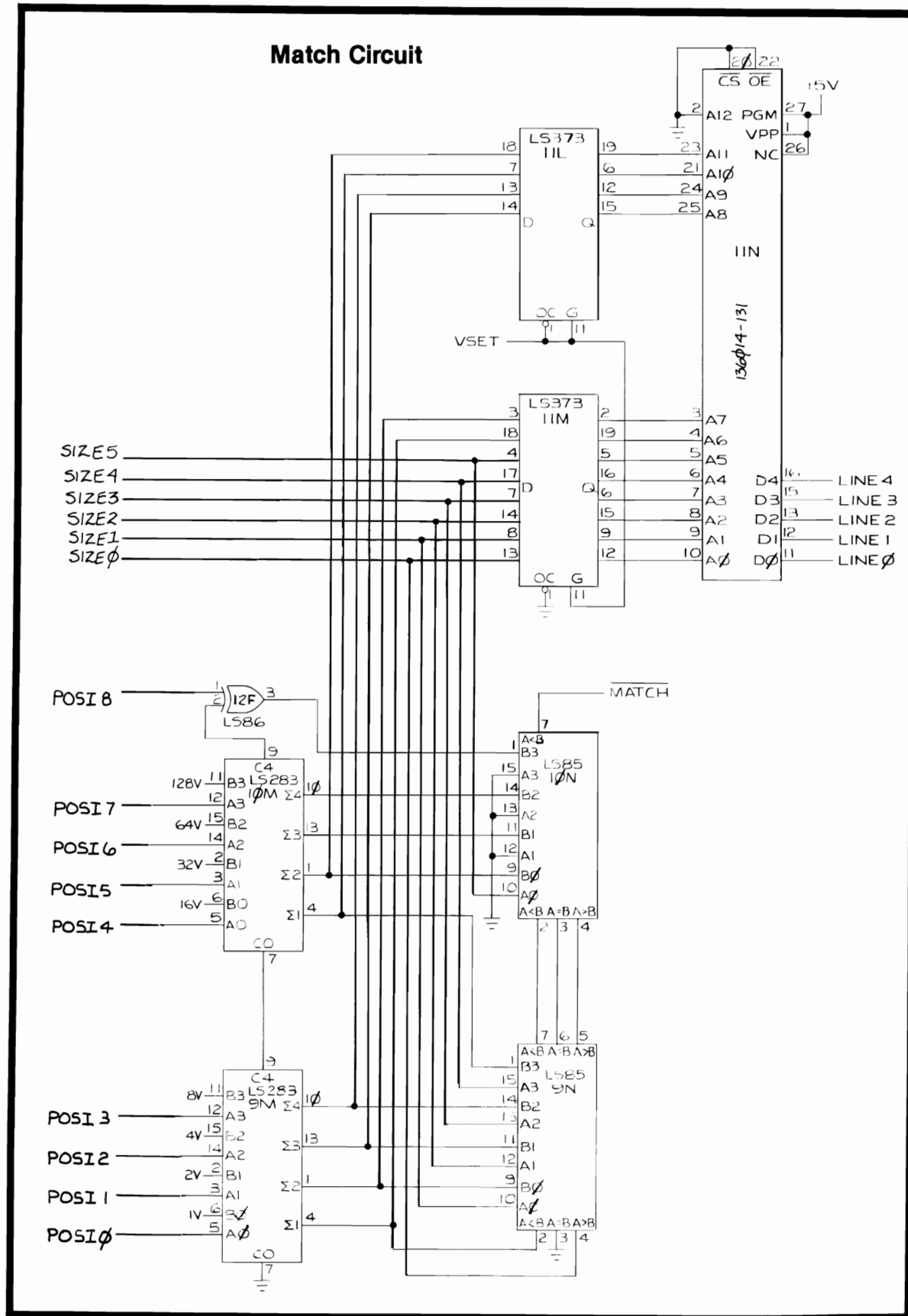


Motion Object Video Memory



**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

**Pole Position Video PCB Schematic Diagram**

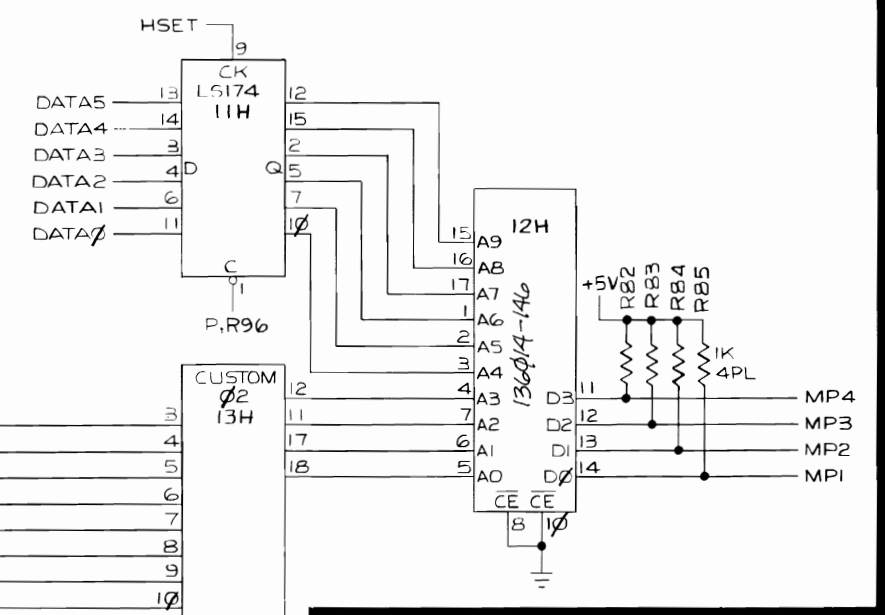
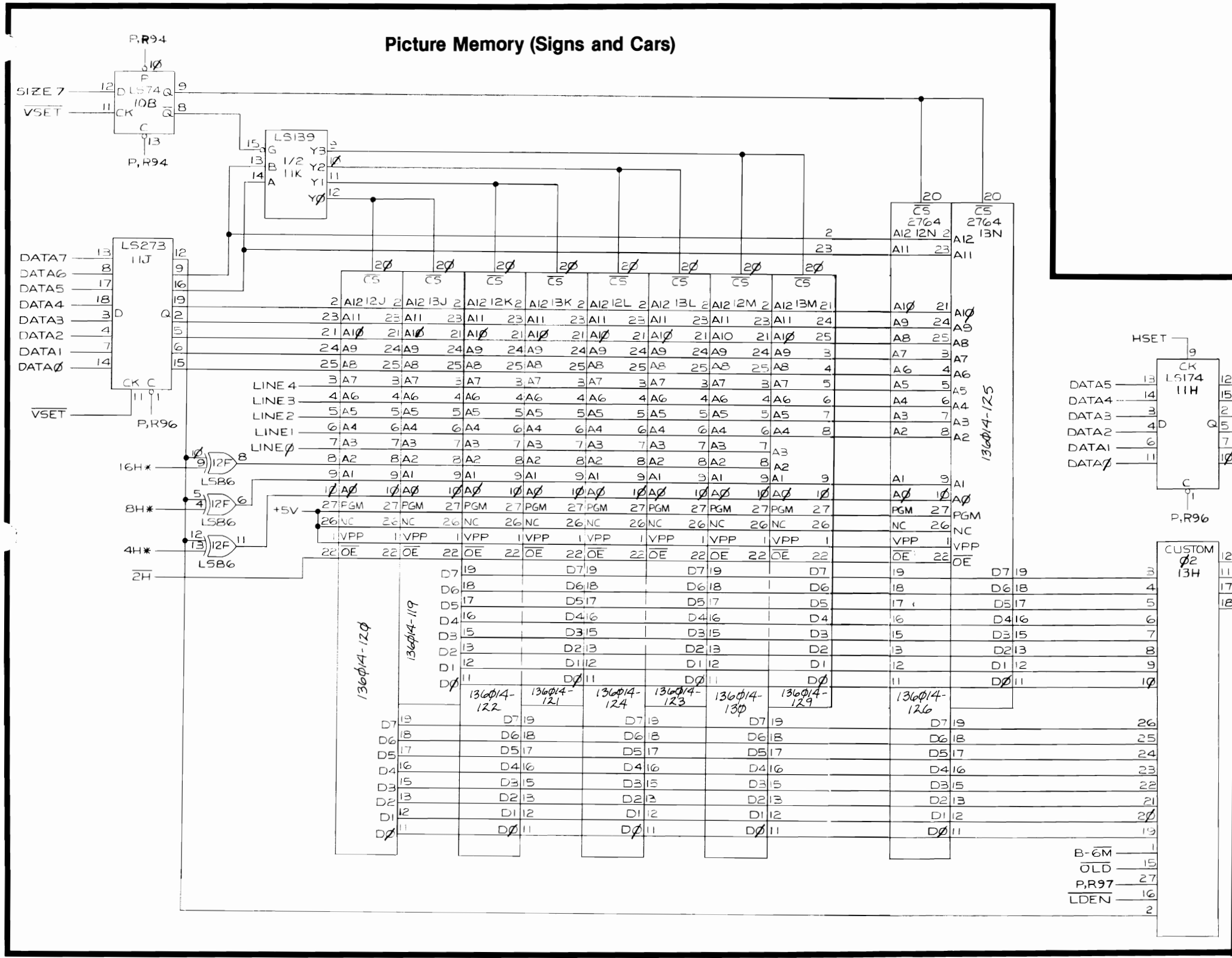



**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

### Pole Position Video PCB Schematic Diagram

Pole Position

Picture Memory (Signs and Cars)





**ATARI**

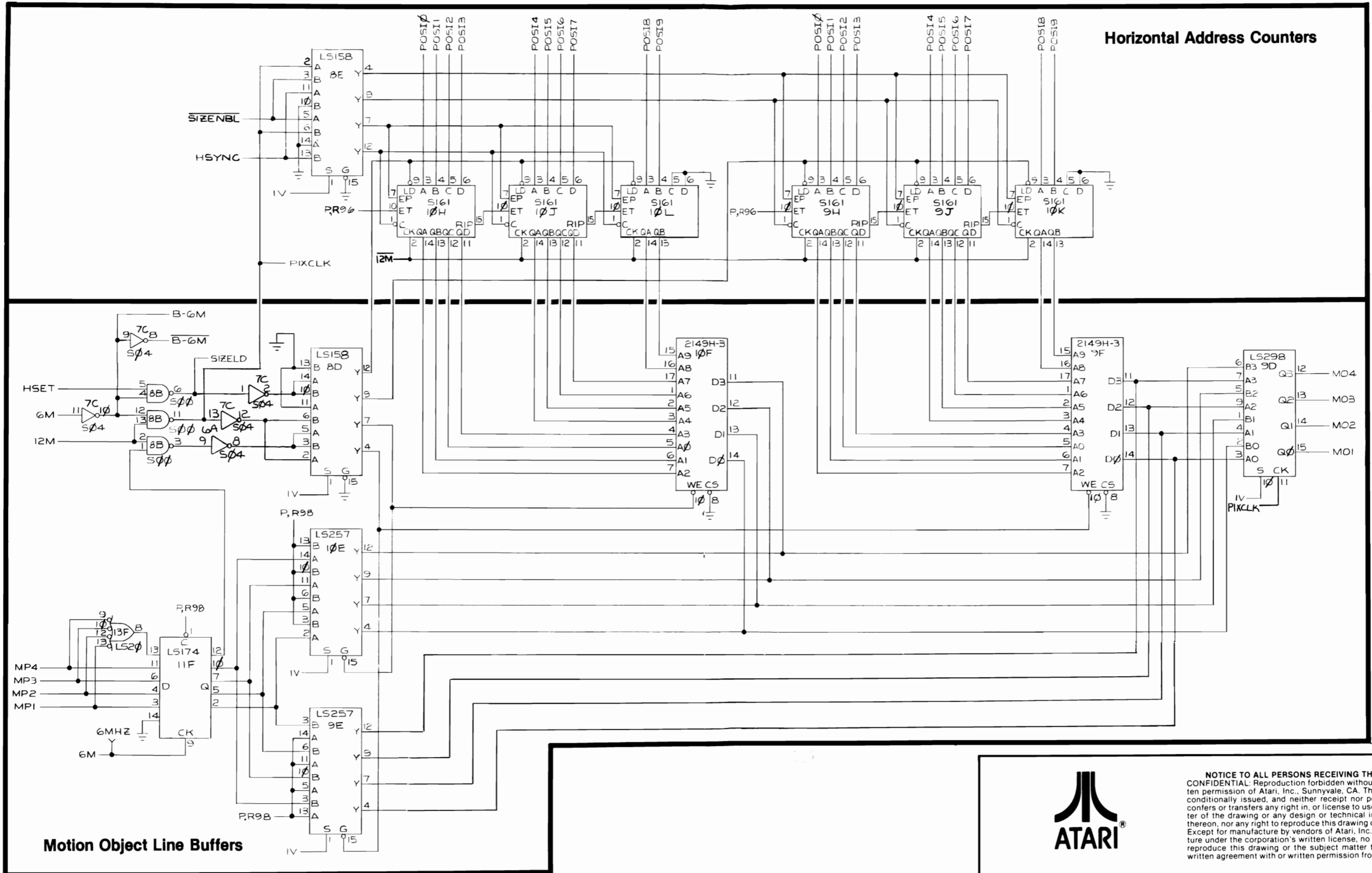
**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

**Pole Position Video PCB Schematic Diagram**

© ATARI INC., 1982  
 A Warner Communications Company

SP-218 Sheet 14B  
 3rd printing

### Horizontal Address Counters

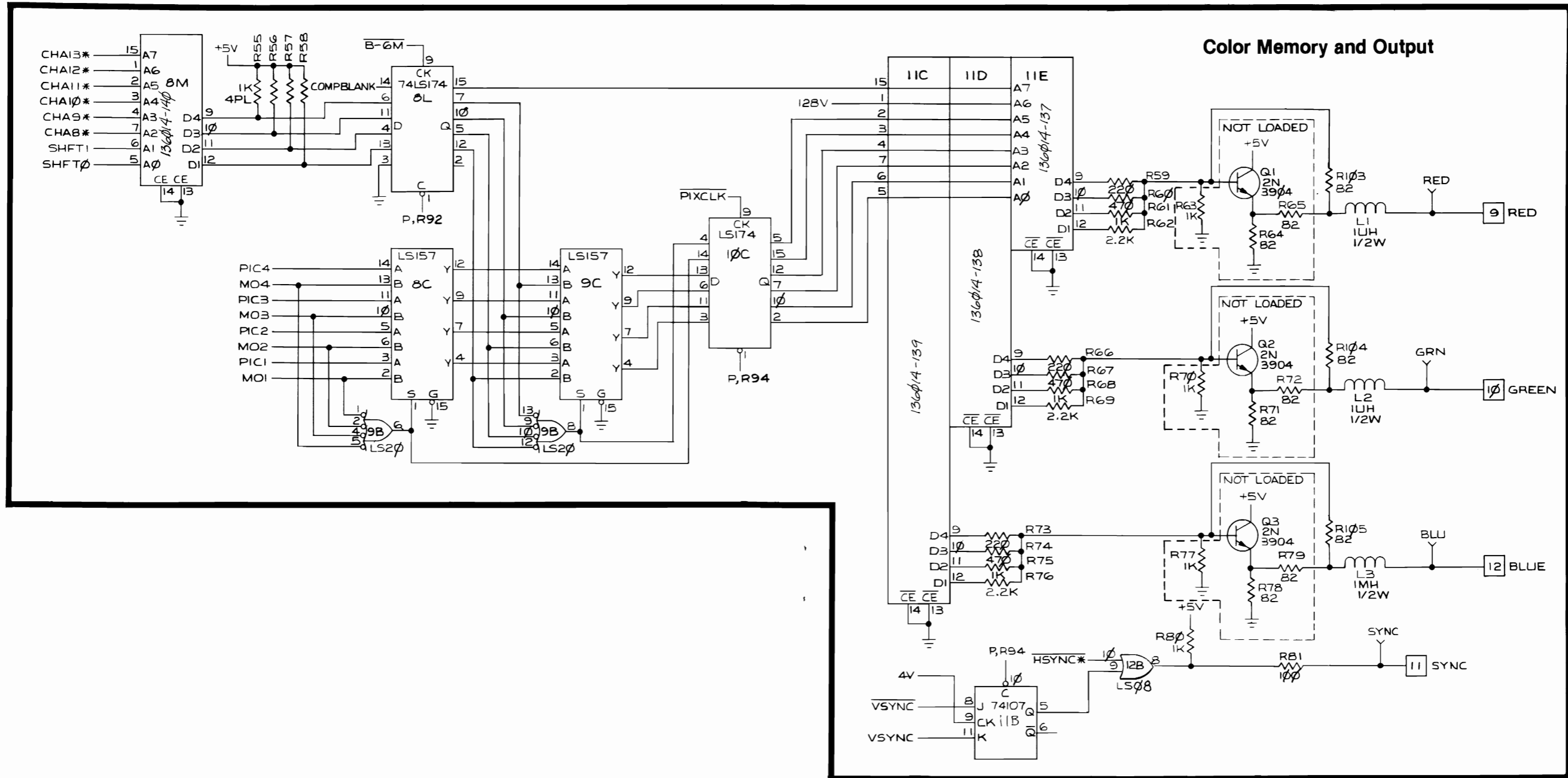


### Motion Object Line Buffers



**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

### Pole Position Video PCB Schematic Diagram



Color Memory and Output



**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

Pole Position Video PCB Schematic Diagram

**Schematic Notes**

Unless otherwise specified

Resistance: (Ω) (K→KΩ, M→MΩ), 1/4 (W) carbon resistor

Capacitance: 1 or higher → (pF), less than 1 → (μF)

working voltage → 50 (V)

ceramic capacitor

Inductance: (μH)

Electrolytic Cap: Capacitance Value (μF)/working voltage (V),

NP → 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.

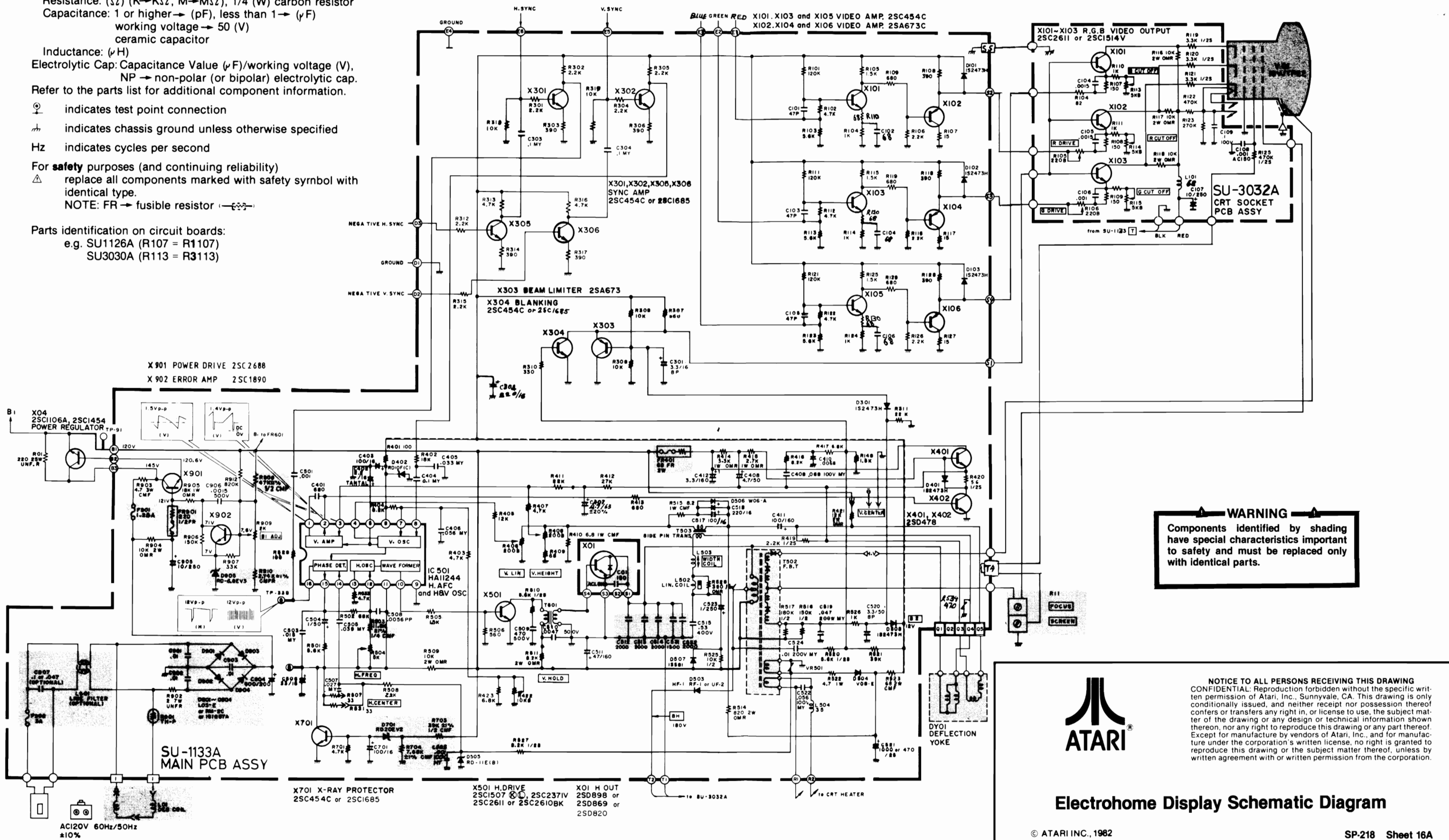
NOTE: FR → fusible resistor

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.

**ATARI**

**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

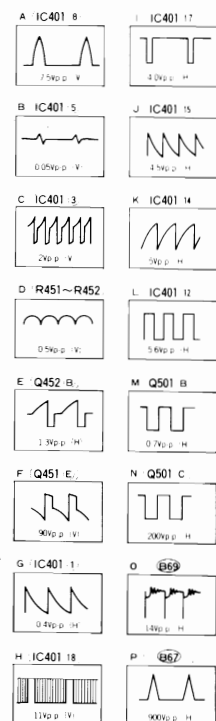
**Electrohome Display Schematic Diagram**

© ATARI INC., 1982  
 A Warner Communications Company

SP-218 Sheet 16A  
 3rd printing

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

#### Waveform

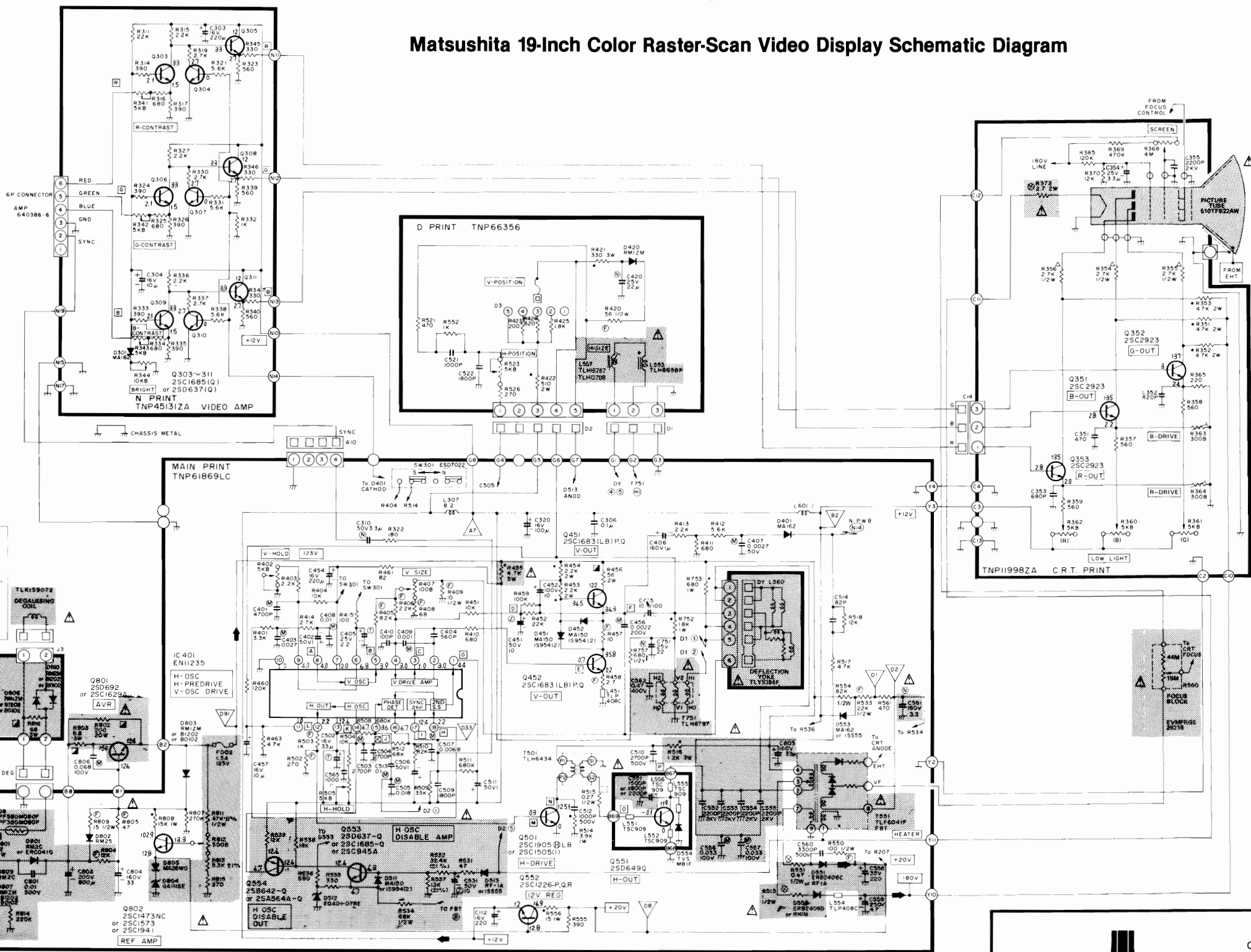


**NOTE**  
 1. RESISTOR  
 All resistors are carbon 1/4W resistor, unless otherwise noted the following marks:  
 Unit of resistance is OHM (Ω), K (1,000), M (1,000,000)  
 □ Solid Metal Overlay  
 □ Wire Wound  
 □ Non-Flammable  
 □ Cement  
 □ Thermal  
 □ Fuse


2. CAPACITOR  
 All capacitors are ceramic 50V capacitor, unless otherwise noted the following marks:  
 Unit of capacitance is pF, unless otherwise noted:  
 □ Electrolytic Safety Valve  
 □ Polystyrene  
 □ Polyester  
 □ Tantalum  
 □ Titanium Oxide  
 □ Polypropylene  
 □ Temp. Compensation  
 □ 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.



**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown thereon, nor any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Atari, Inc., and for manufacture under the corporation's written license, no right is granted to reproduce this drawing or the subject matter thereof, unless by written agreement with or written permission from the corporation.

**Matsushita Display Schematic Diagram**

© ATARI INC., 1982  
 A Warner Communications Company

SP-218 Sheet 16B  
 3rd printing