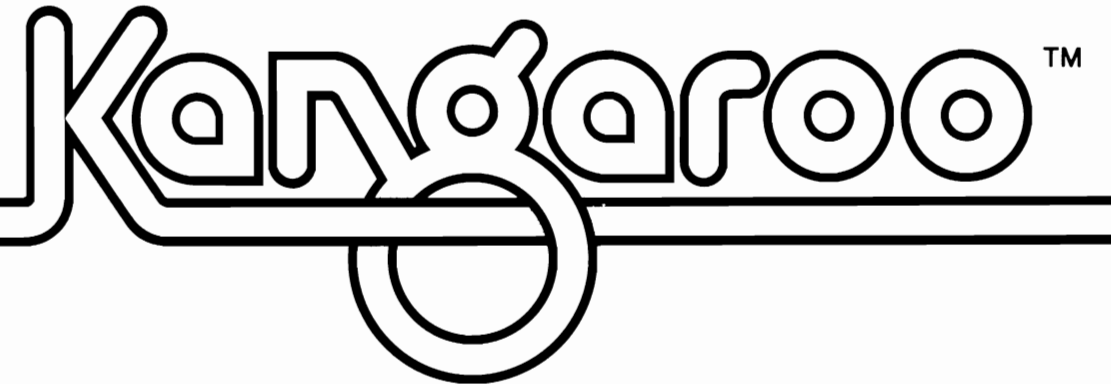


Schematic Package Supplement
to

Table of Contents



- Sheet 1A You Are Here
- Sheet 1B Upright Kangaroo Game Wiring Diagram (038577-01 A)
- Sheet 2A Ireland-Built Kangaroo Game Wiring Diagram (038451-01 A)
- Sheet 2B Color Raster-Scan Power Supply Wiring Diagram (037669-01 C)
- Sheet 3A Regulator/Audio II PCB Schematic Diagram (035435-06 B)
- Sheet 3B Coin Door Wiring Diagram (037542-01 B), Utility Panel Wiring Diagram (038004-01 B),
Fluorescent Light and Speaker Wiring Diagram (035833-01 A)

Central Processing Unit (CPU) PCB Schematics (038469-01 A), Sheets 4A-7A

- Sheet 4A Block Diagram
- Sheet 4B Memory Map, CPU Power Input
- Sheet 5A Game Microprocessor, Address Decoder
- Sheet 5B Program ROM, RAM
- Sheet 6A Inputs, Outputs
- Sheet 6B Sound Microprocessor, Address Decoder
- Sheet 7A Custom Microcomputer

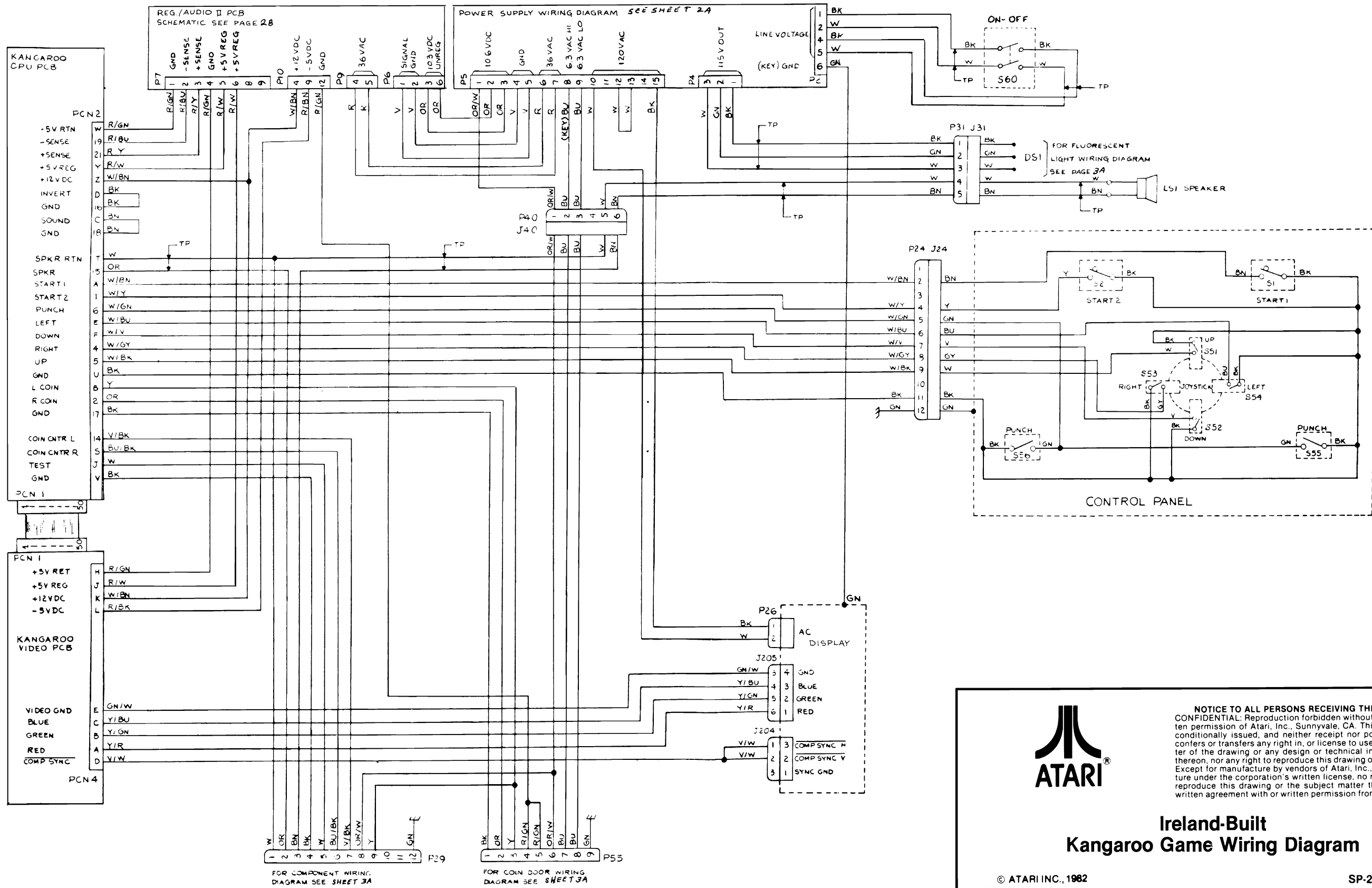
Video PCB Schematics (038468-01 A), Sheets 7B-11B

- Sheet 7B Block Diagram
- Sheet 8A Dynamic RAM Timing Diagram, Video Power Input
- Sheet 8B Clock, Sync Chain and Timing Signals, Dynamic RAM Control, Address Decoding
- Sheet 9A DMA Control, Dynamic RAM Video Address and Flip
- Sheet 9B Picture ROM Address Selector, Picture ROM
- Sheet 10A Dynamic RAM Address from CPU and for DMA
- Sheet 10B Dynamic RAM Data Selector, Address Selector, and Control Latches
- Sheet 11A Playfield (Dynamic RAM A)
- Sheet 11B Motion Object (Dynamic RAM B), Video Output
- Sheet 12A Electrohome 19-Inch Color Raster-Scan Video Display Schematic Diagram

Operation, Maintenance and Service Manual

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



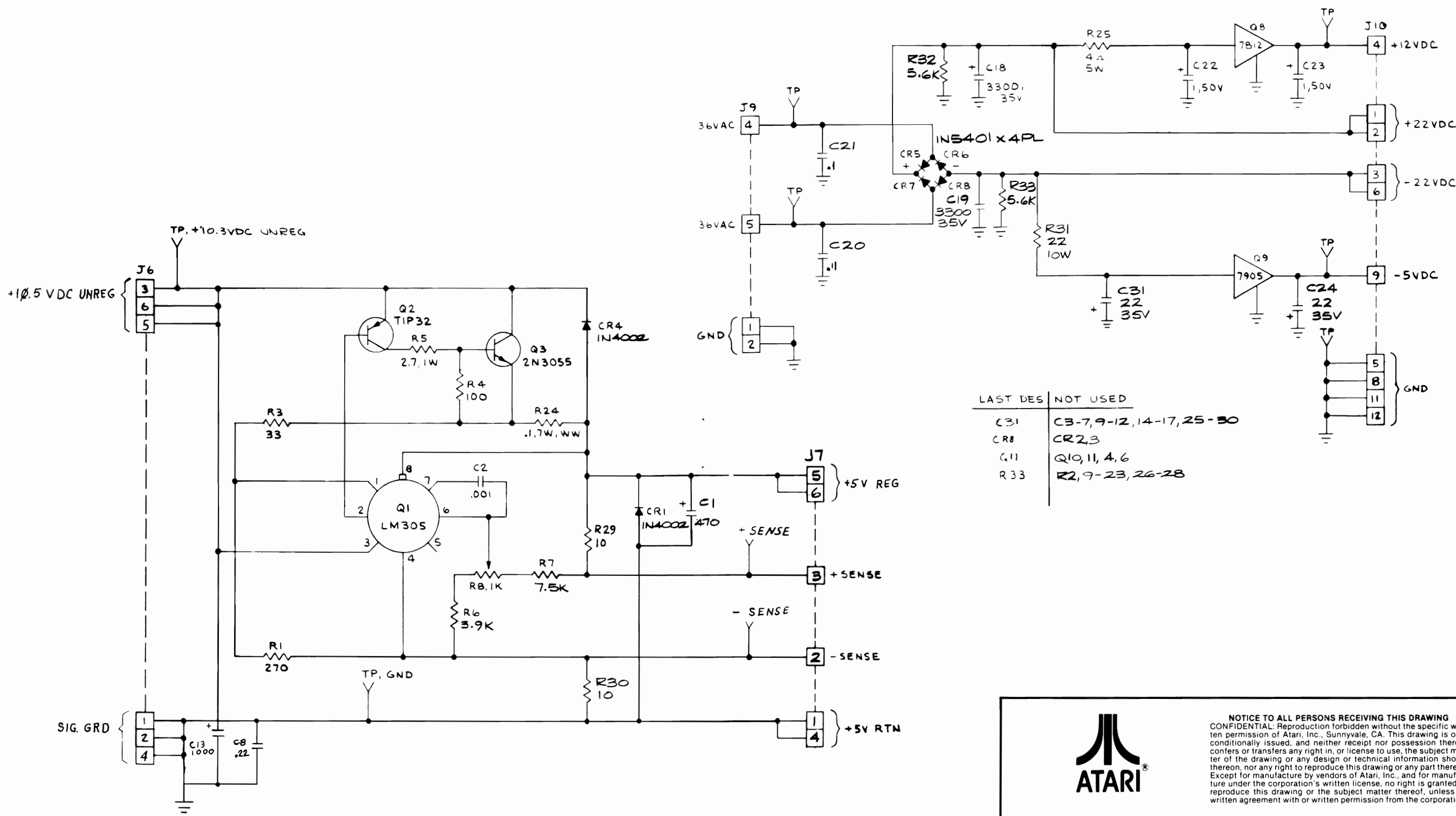


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Ireland-Built Kangaroo Game Wiring Diagram

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LAST DES	NOT USED
C31	C3-7, 9-12, 14-17, 25-30
CR8	CR2, 3
Q11	Q10, 11, 4, 6
R33	R2, 9-23, 26-28

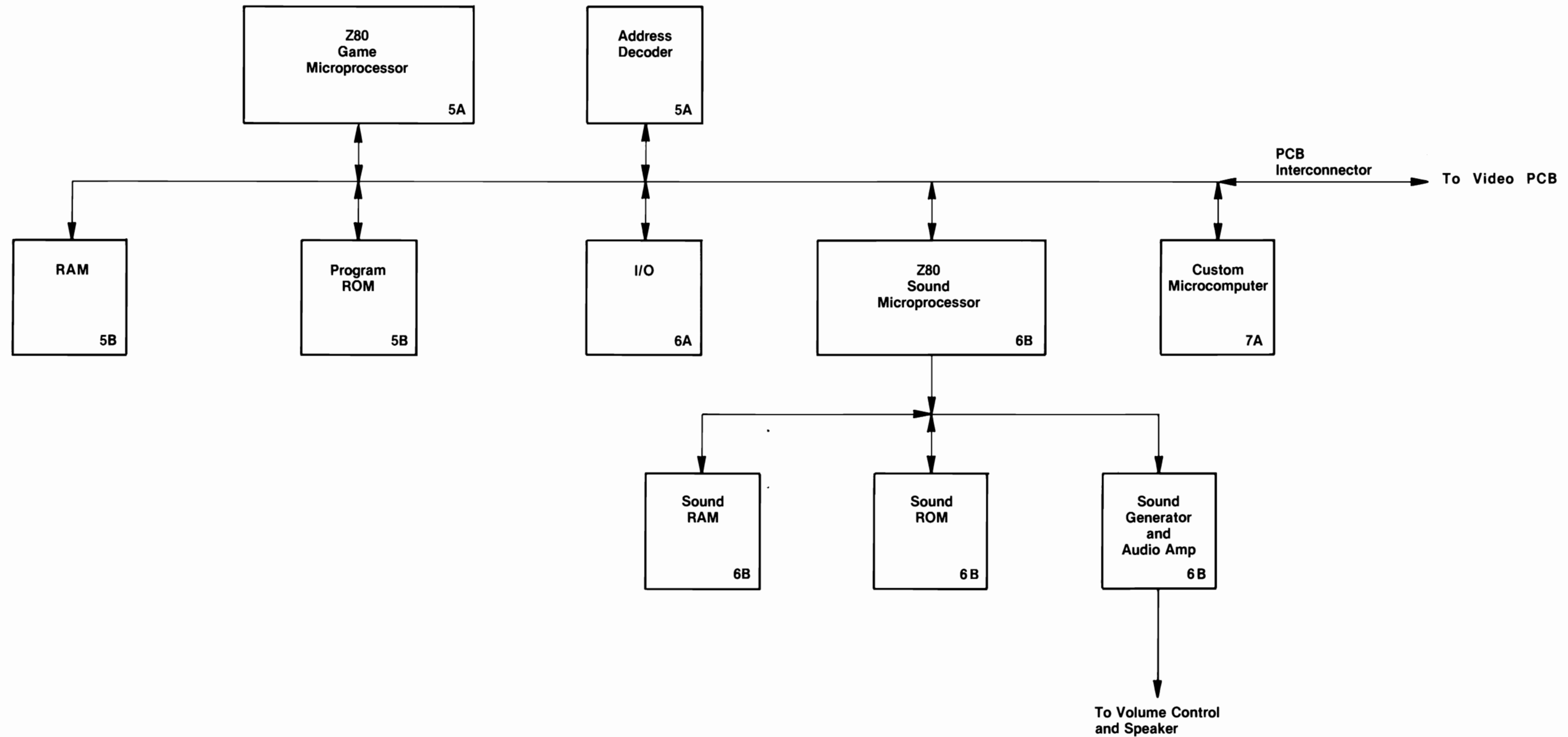



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Kangaroo Reg/Audio II PCB Schematic Diagram

Block Diagram (CPU PCB)

NOTE
 The **service switch**, located on the CPU PCB, allows you to enter credits without tripping the coin counter.





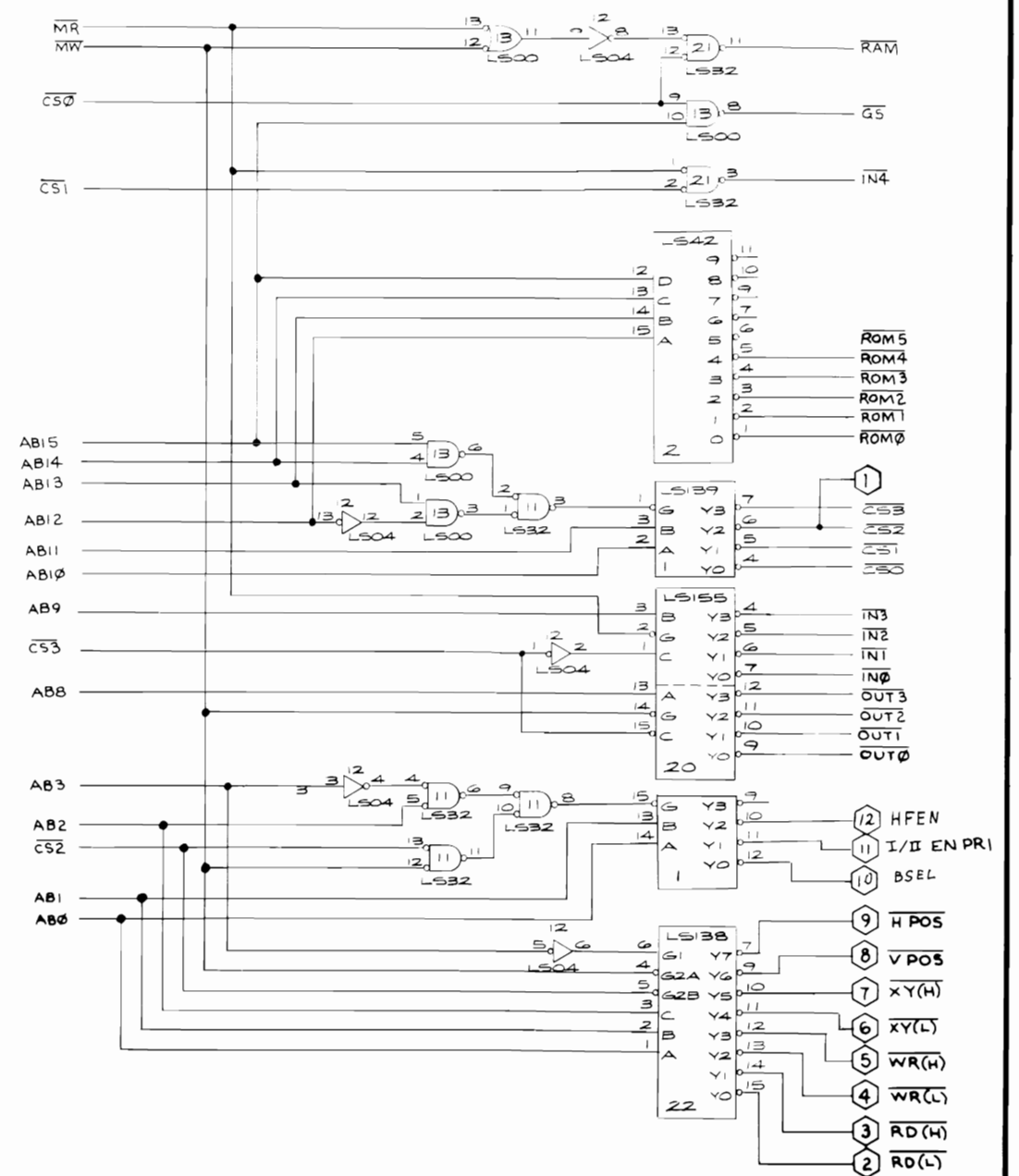
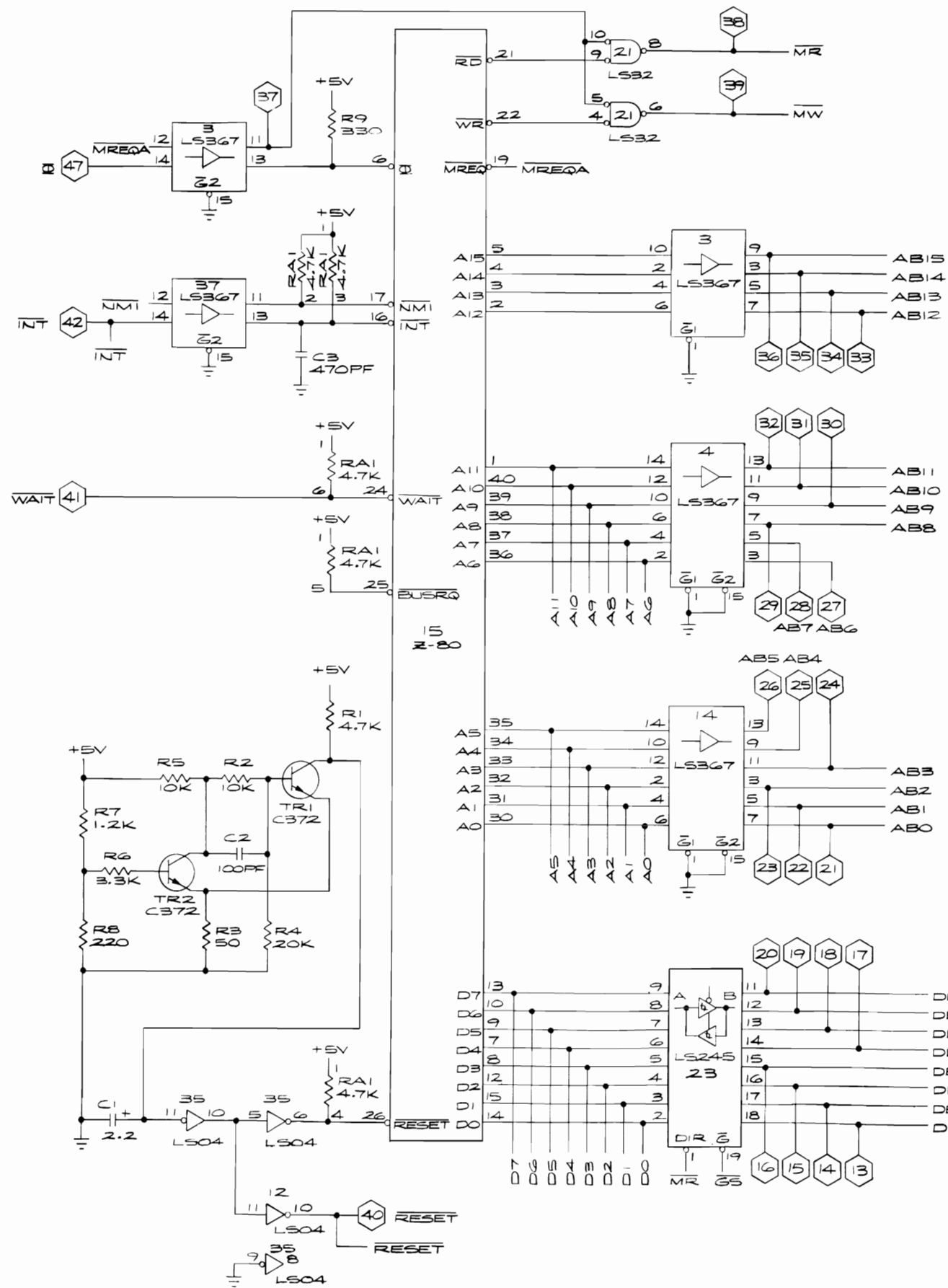
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Kangaroo CPU PCB Schematic Diagram

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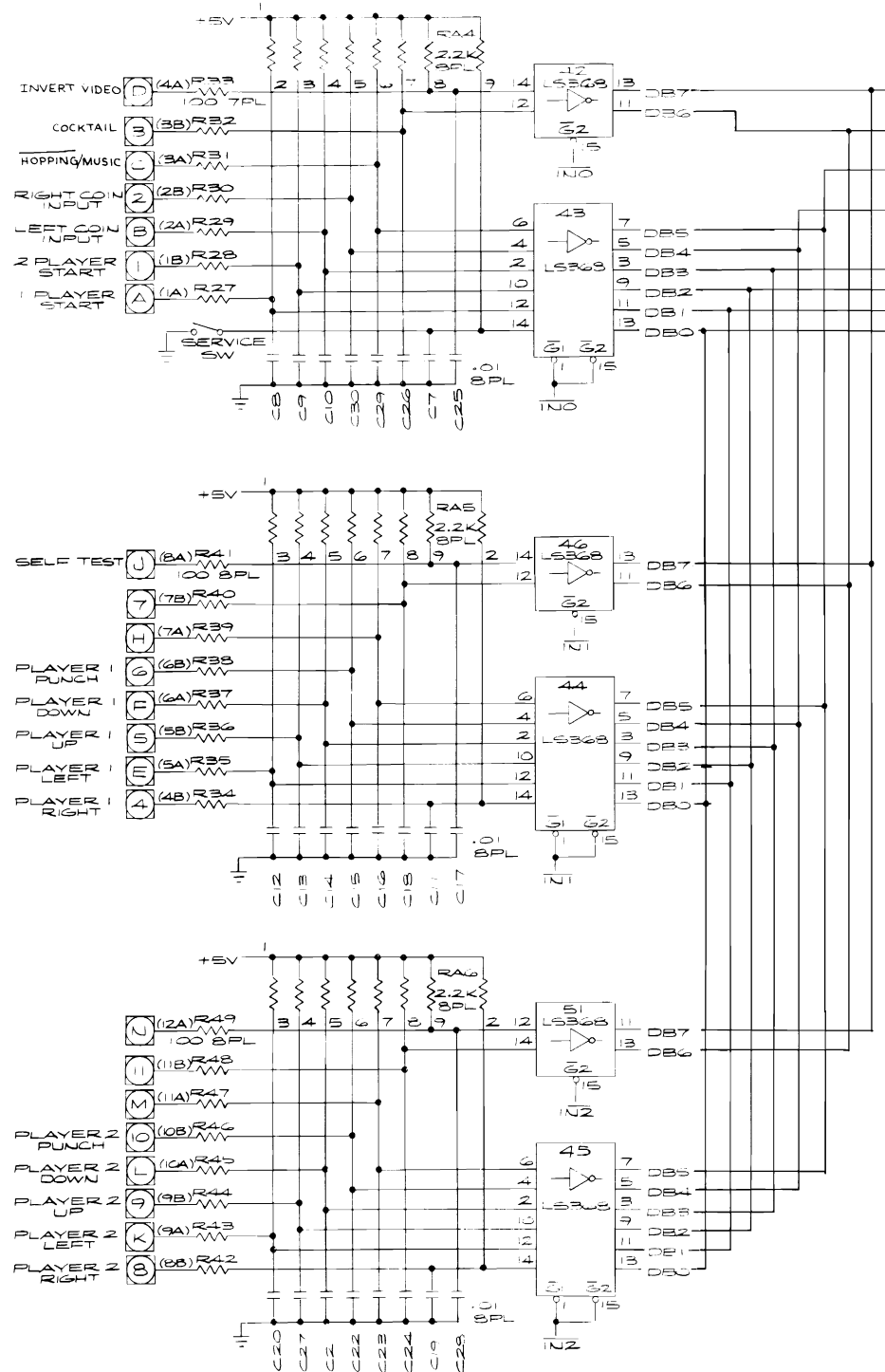
Game Microprocessor



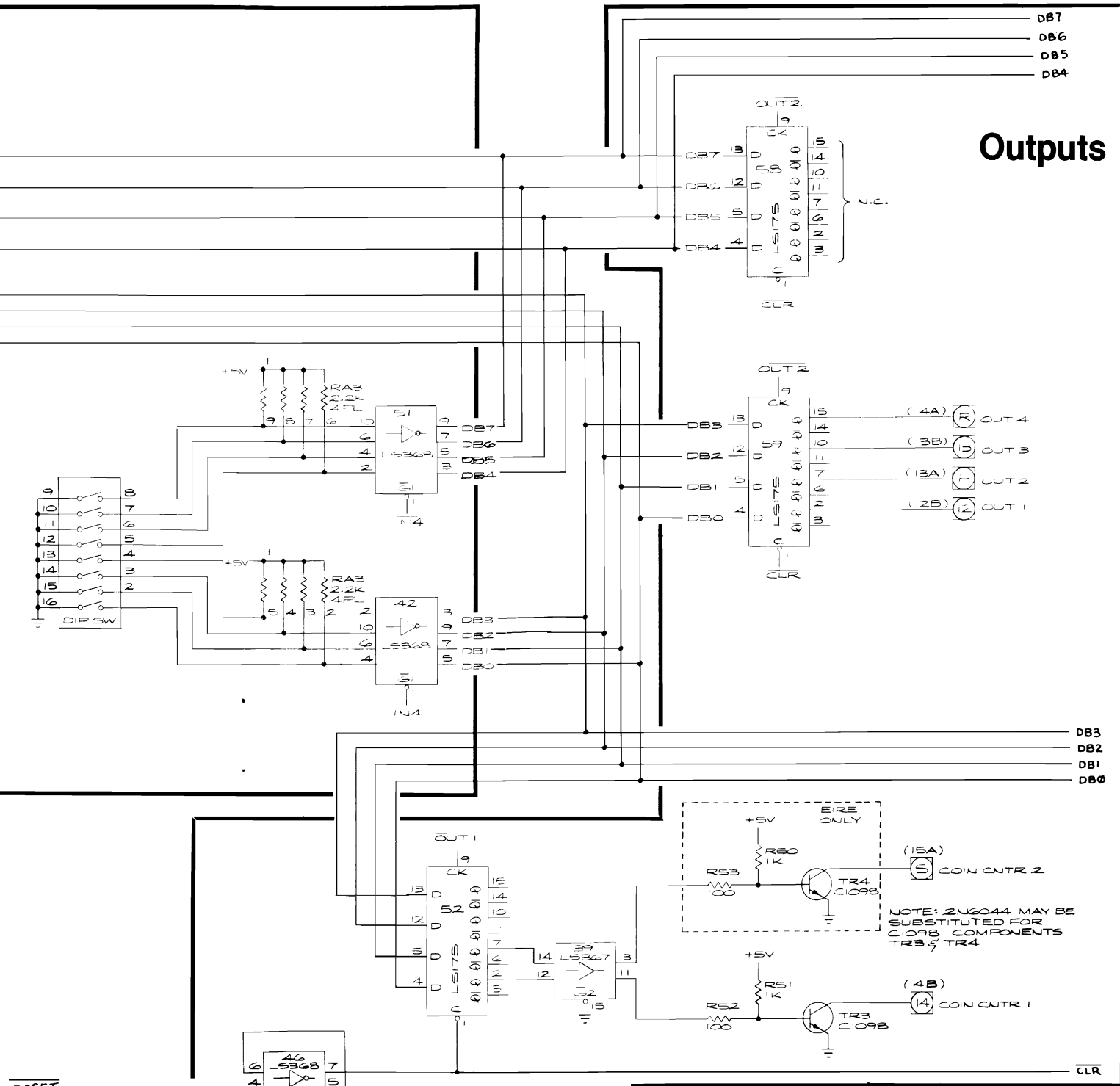
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Kangaroo CPU PCB Schematic Diagram

Inputs



Outputs



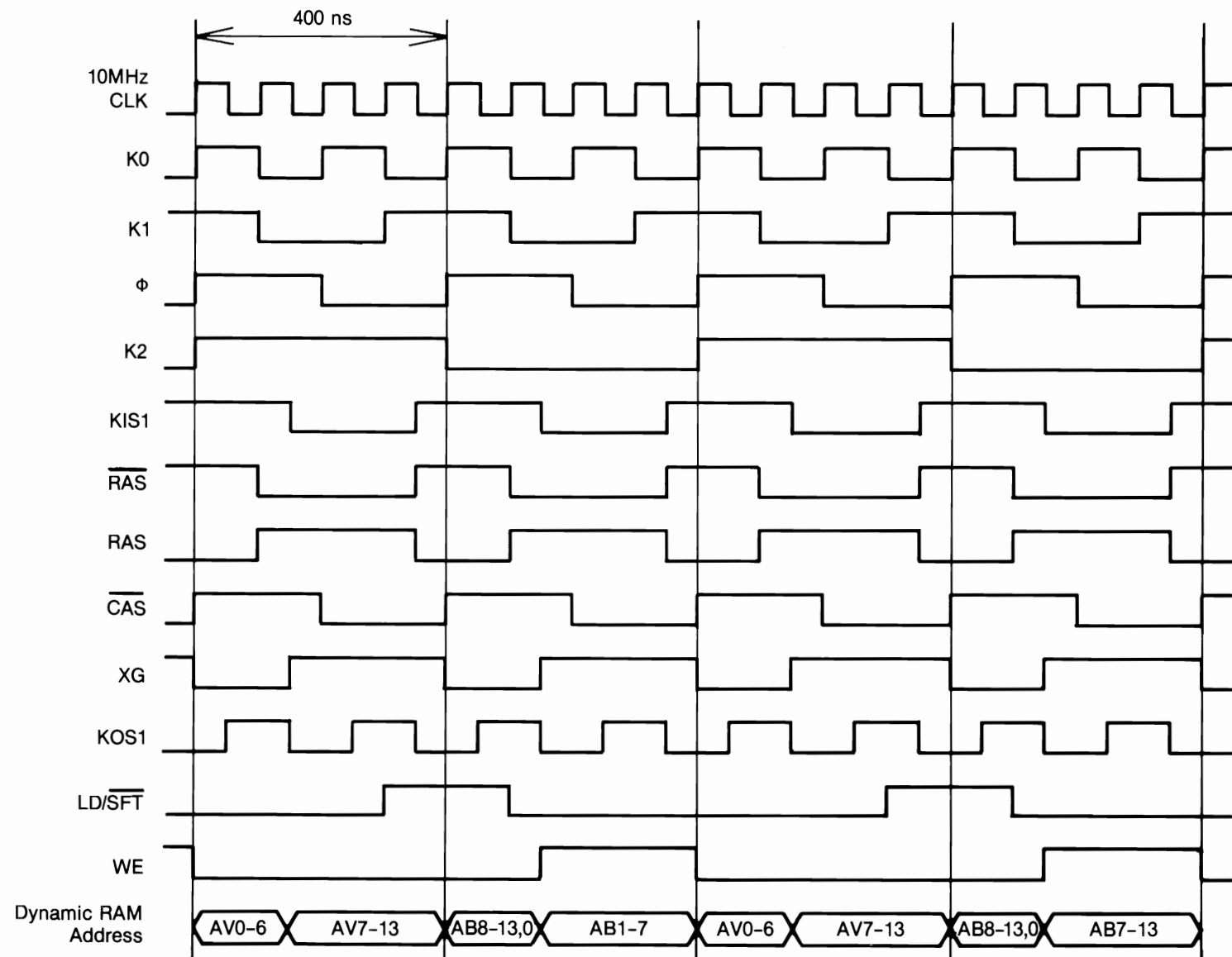
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Kangaroo CPU PCB Schematic Diagram

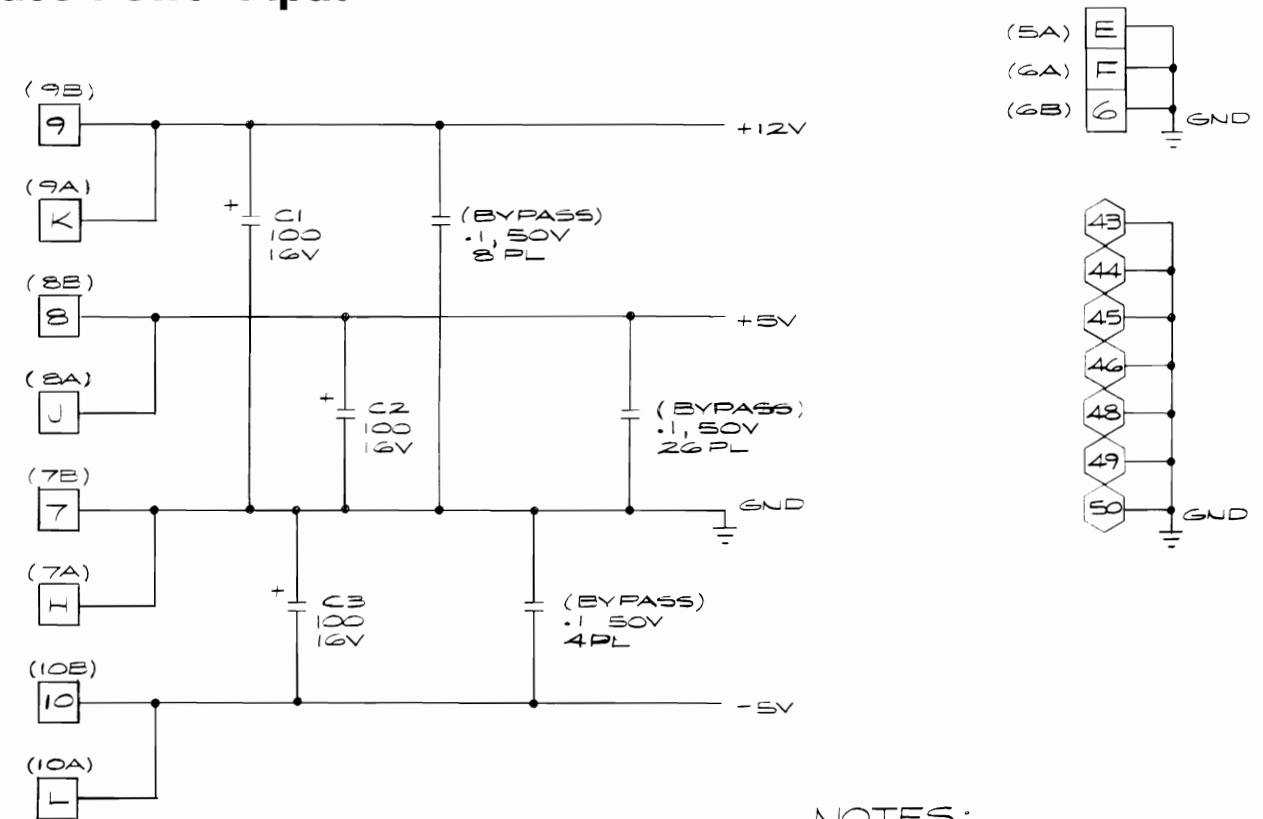
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Dynamic RAM Timing Diagram (Video PCB)



Video Power Input



NOTES:

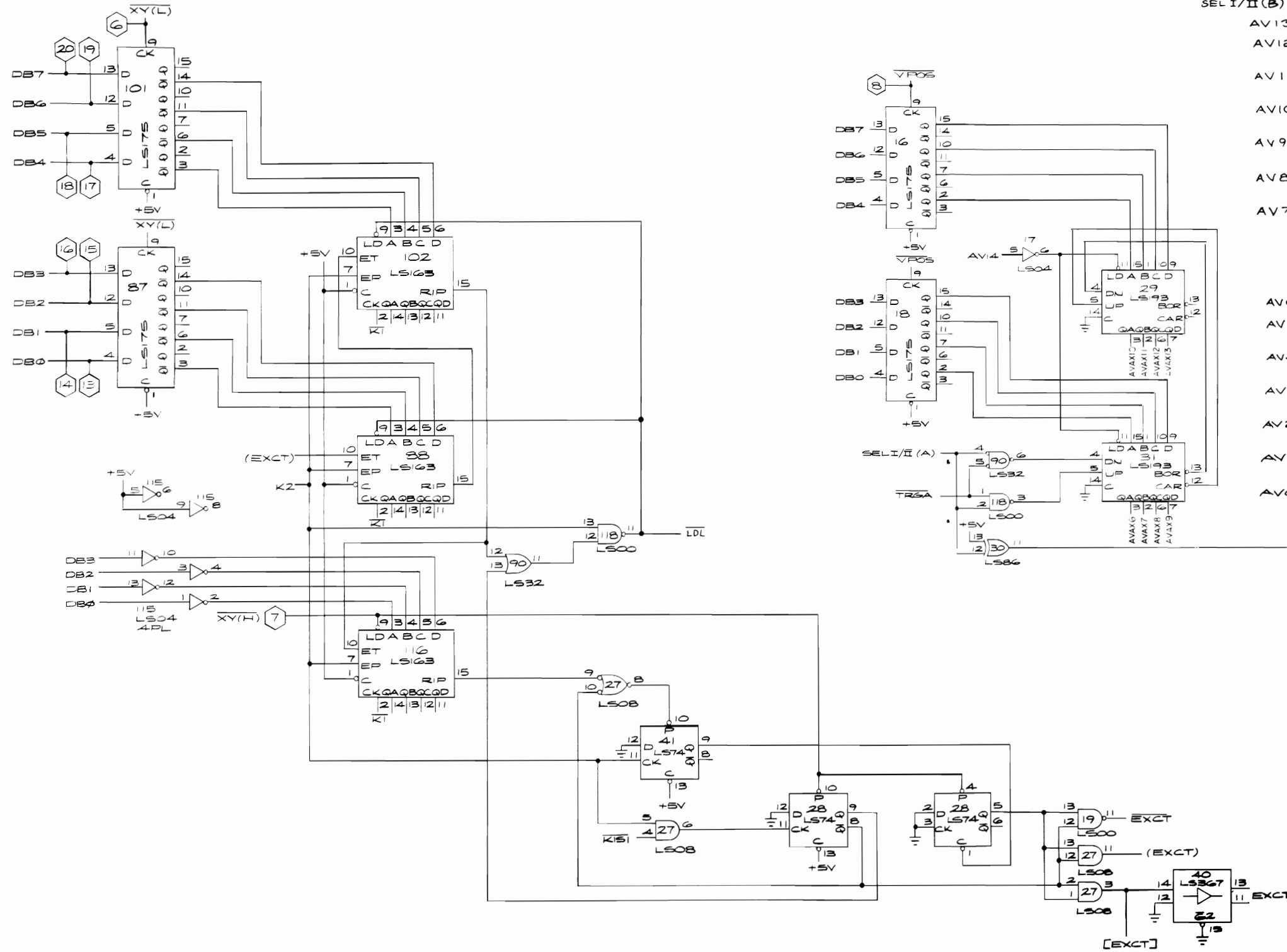
1. = CONNECTOR CN1
2. = CONNECTOR CN4



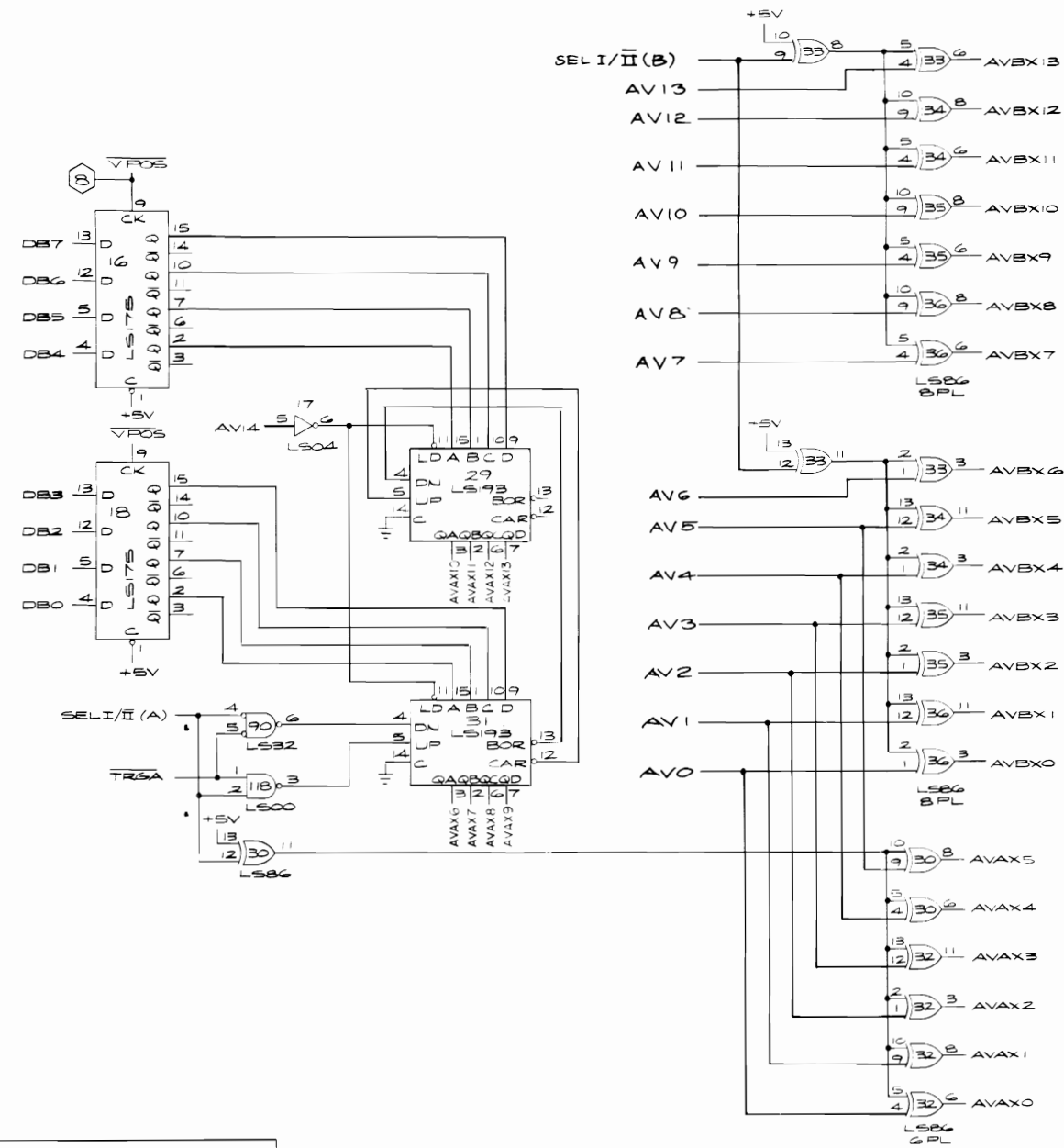
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Kangaroo Video PCB Schematic Diagram

DMA Control



Dynamic RAM Video Address and Flip





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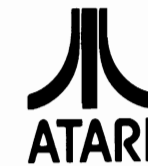
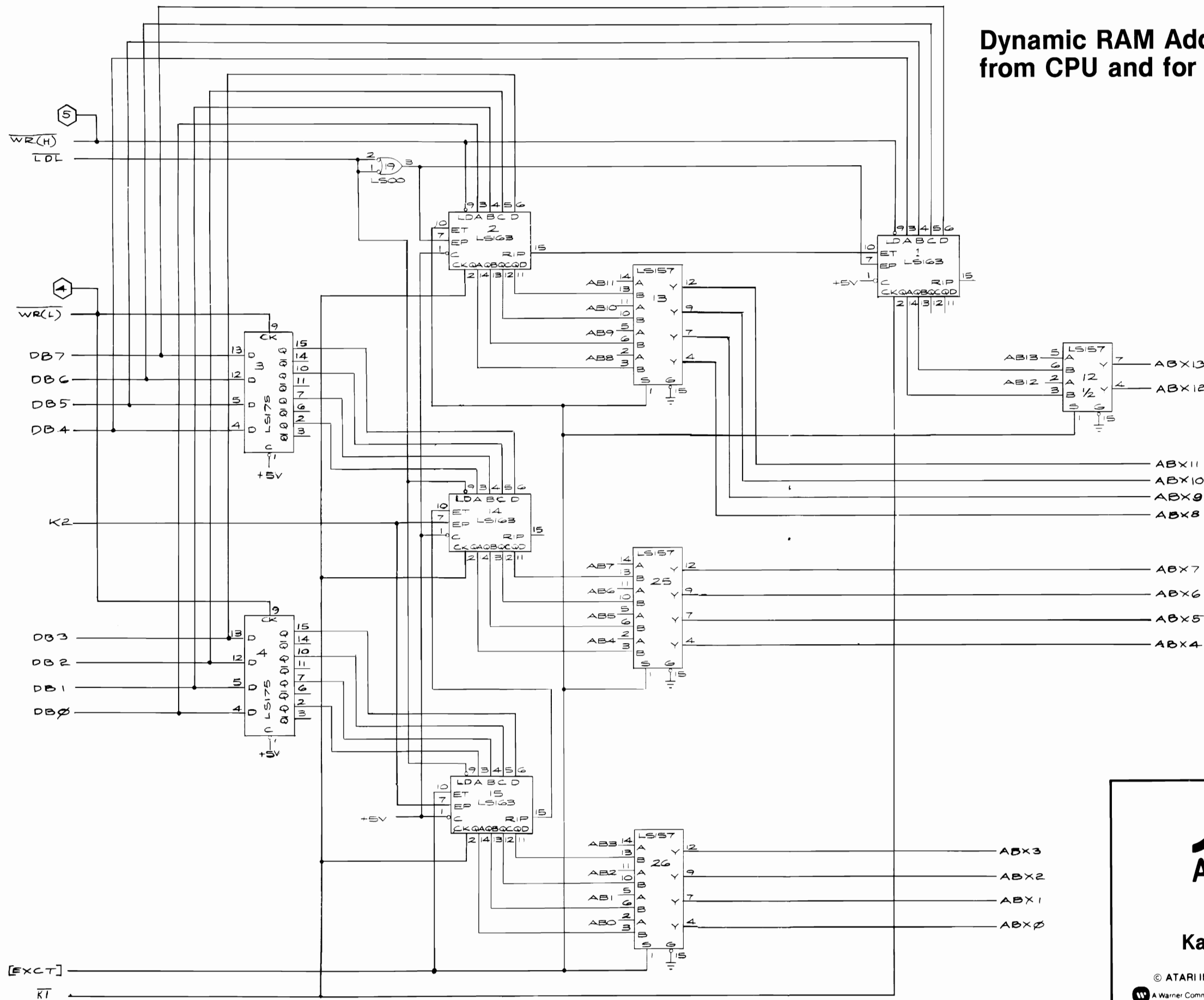
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Kangaroo Video PCB Schematic Diagram

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Dynamic RAM Address from CPU and for DMA



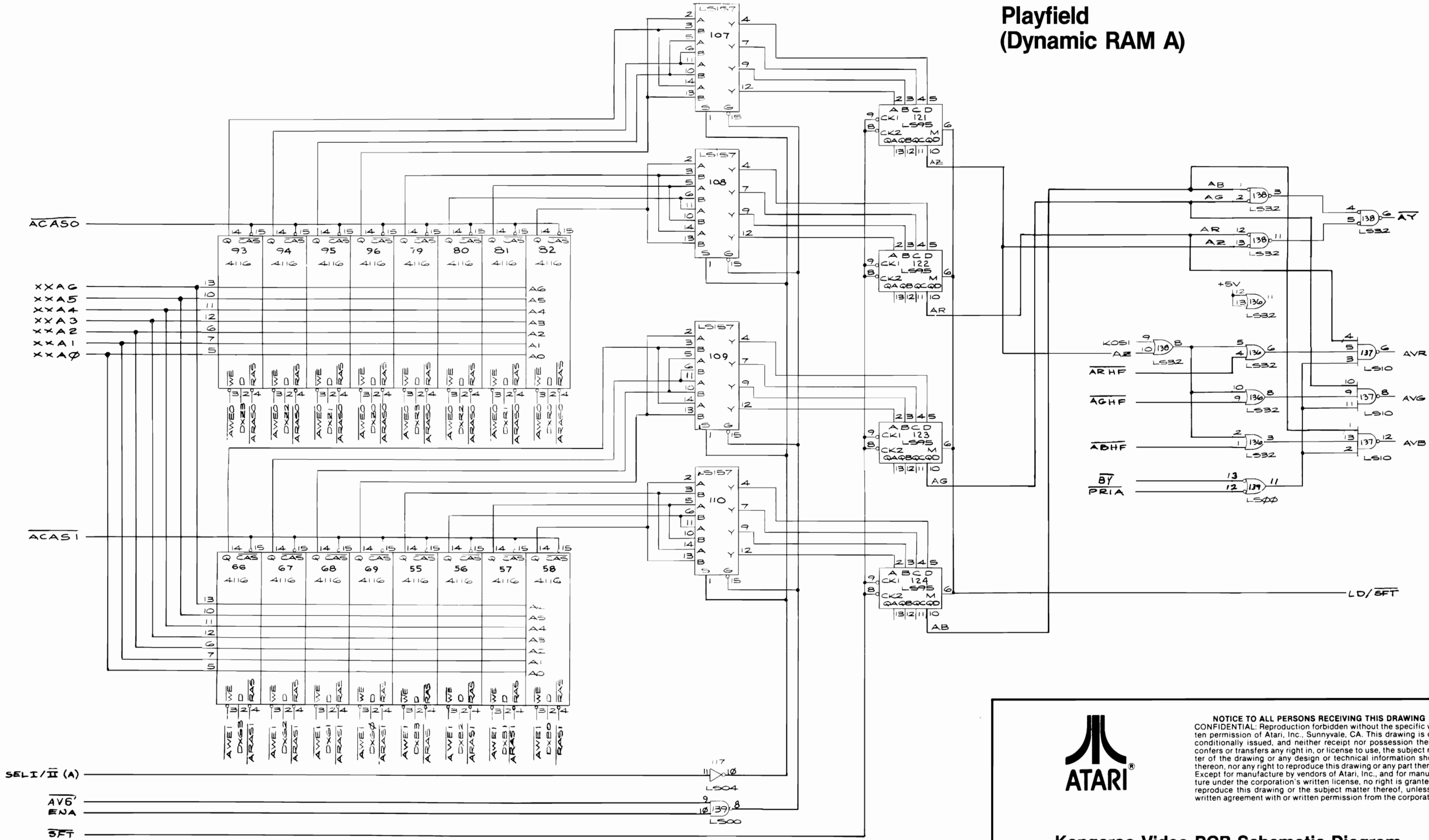
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Kangaroo Video PCB Schematic Diagram

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Playfield (Dynamic RAM A)



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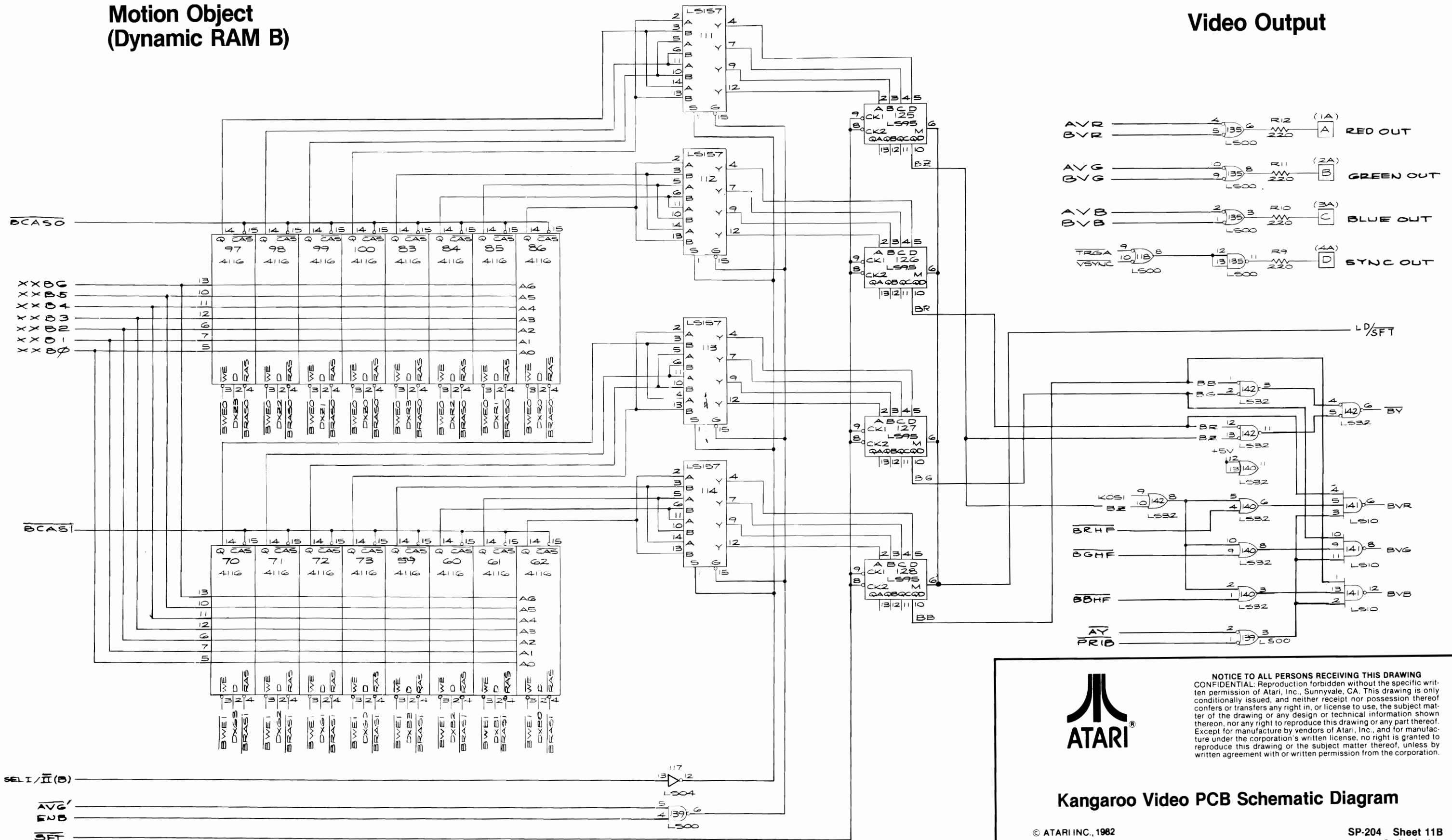
Kangaroo Video PCB Schematic Diagram

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Motion Object (Dynamic RAM B)

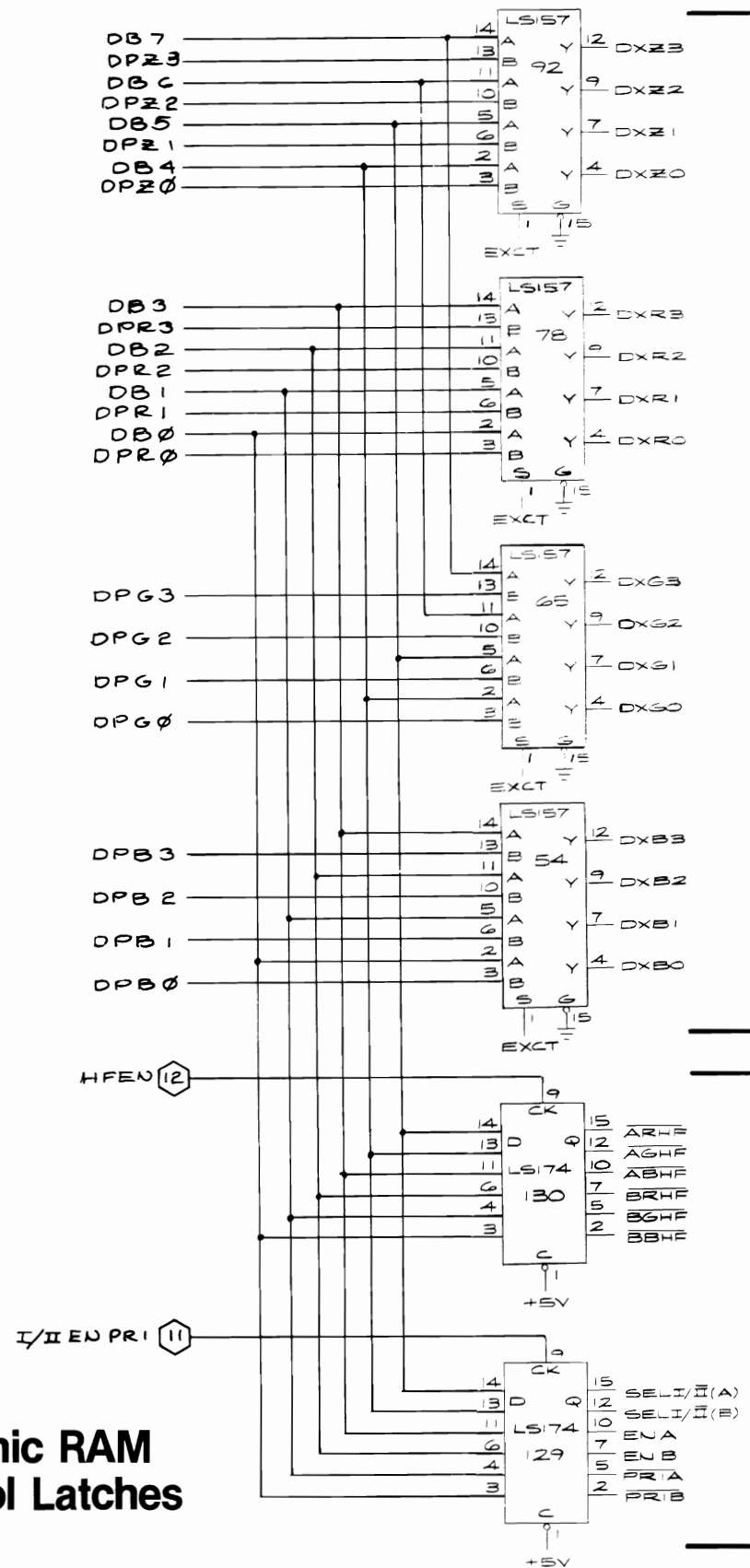
Video Output



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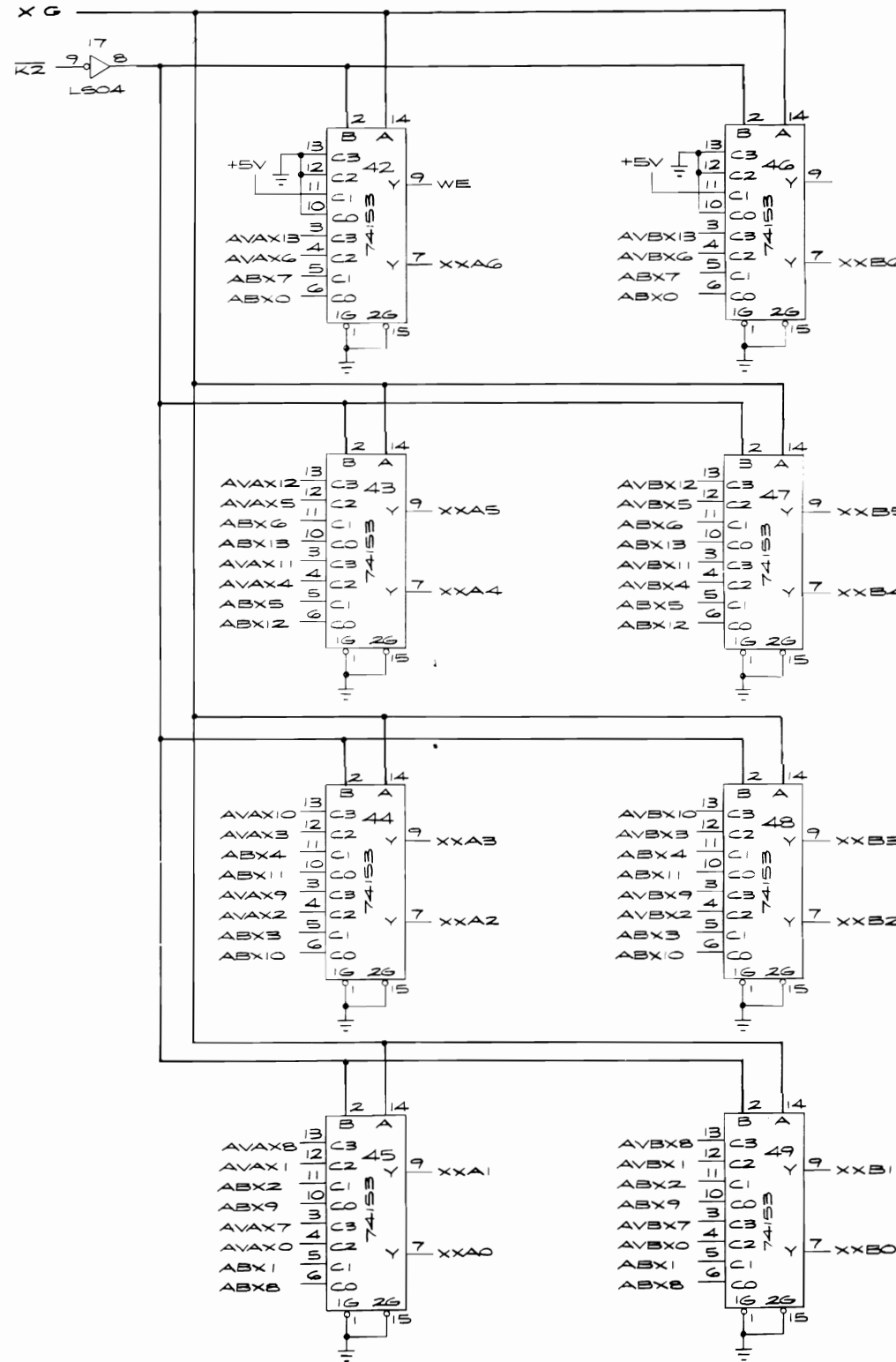
Kangaroo Video PCB Schematic Diagram

Dynamic RAM Data Selector



Dynamic RAM Control Latches

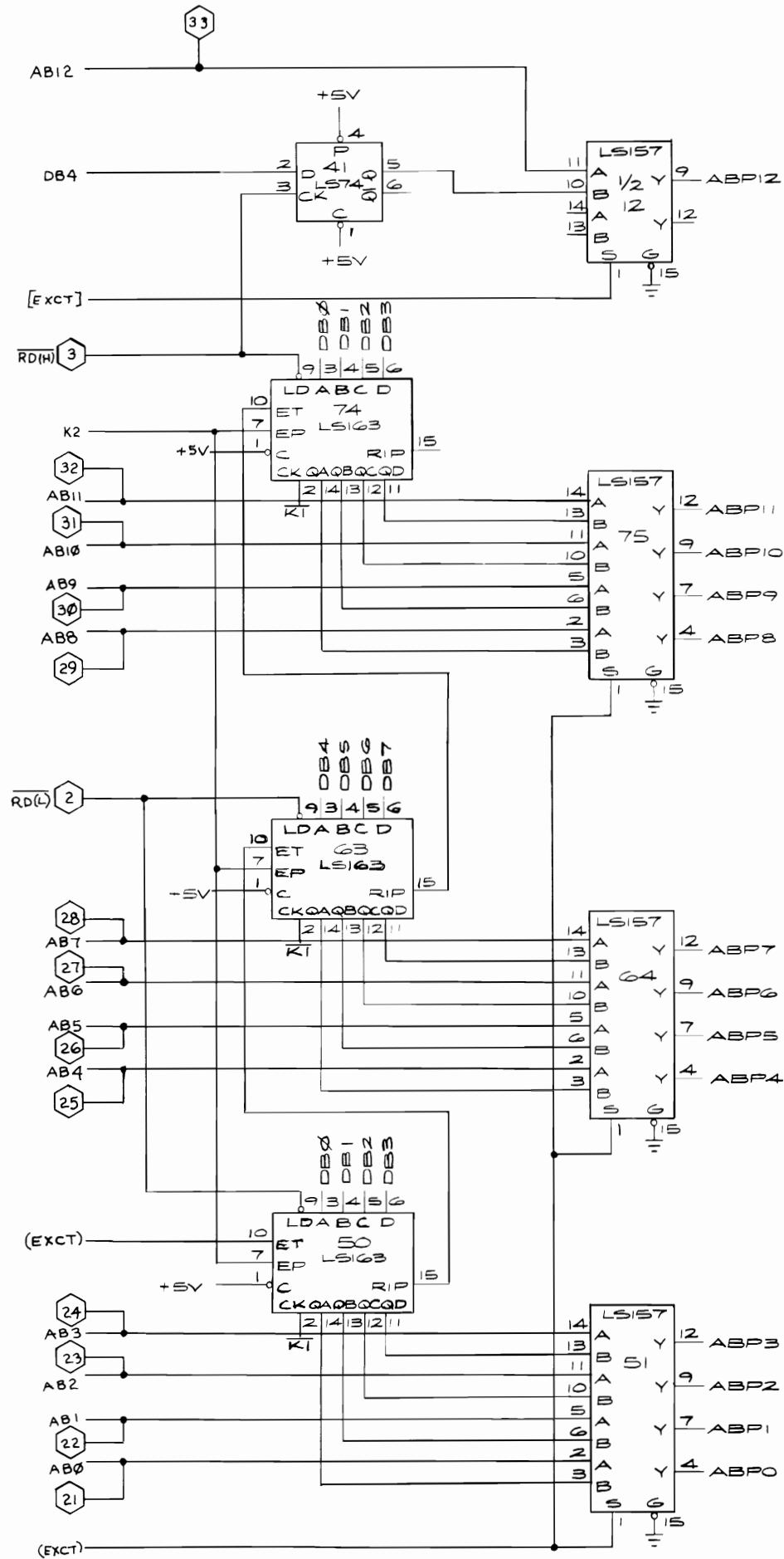
Dynamic RAM Address Selector



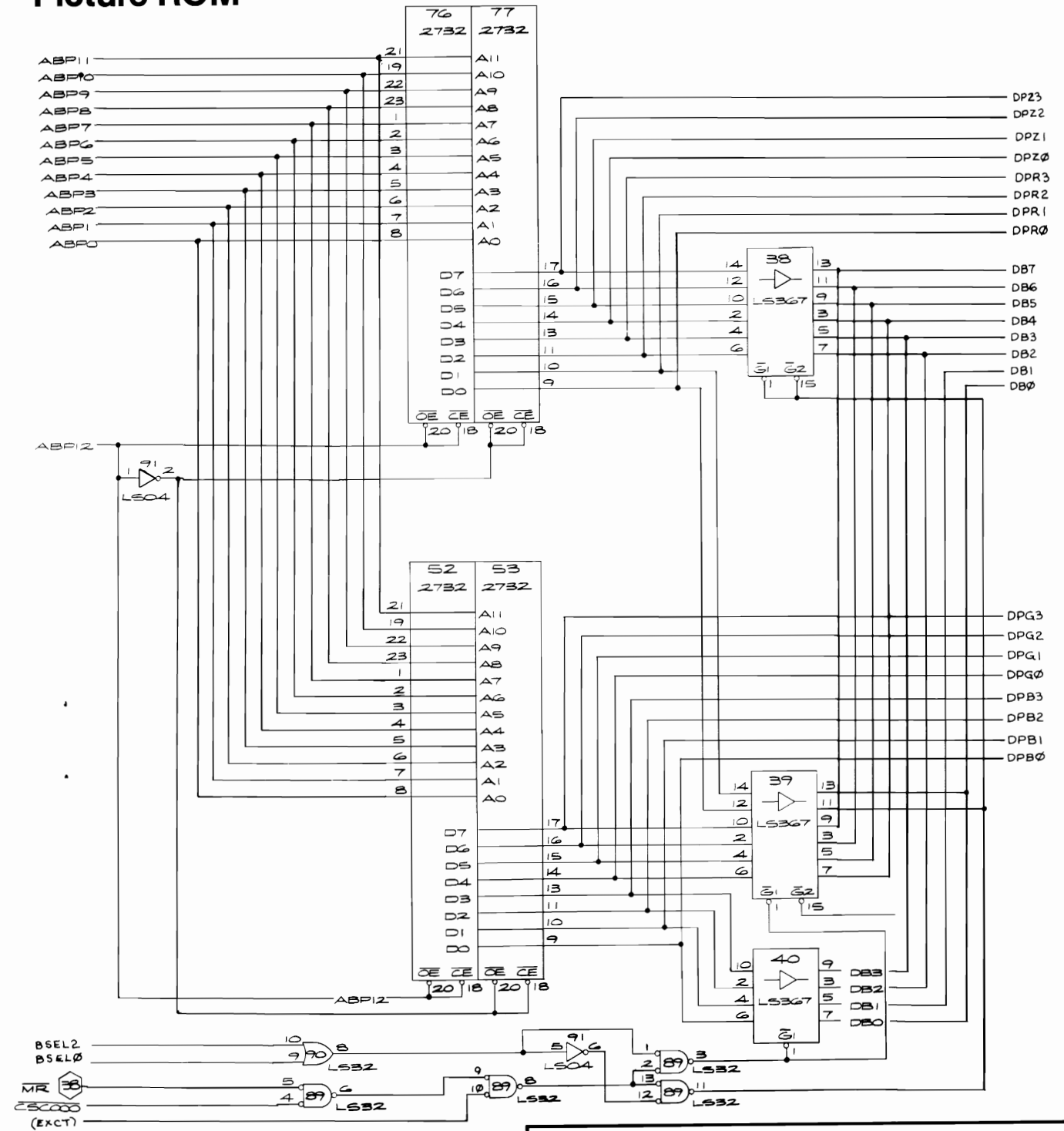
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Kangaroo Video PCB Schematic Diagram

Picture ROM Address Selector



Picture ROM



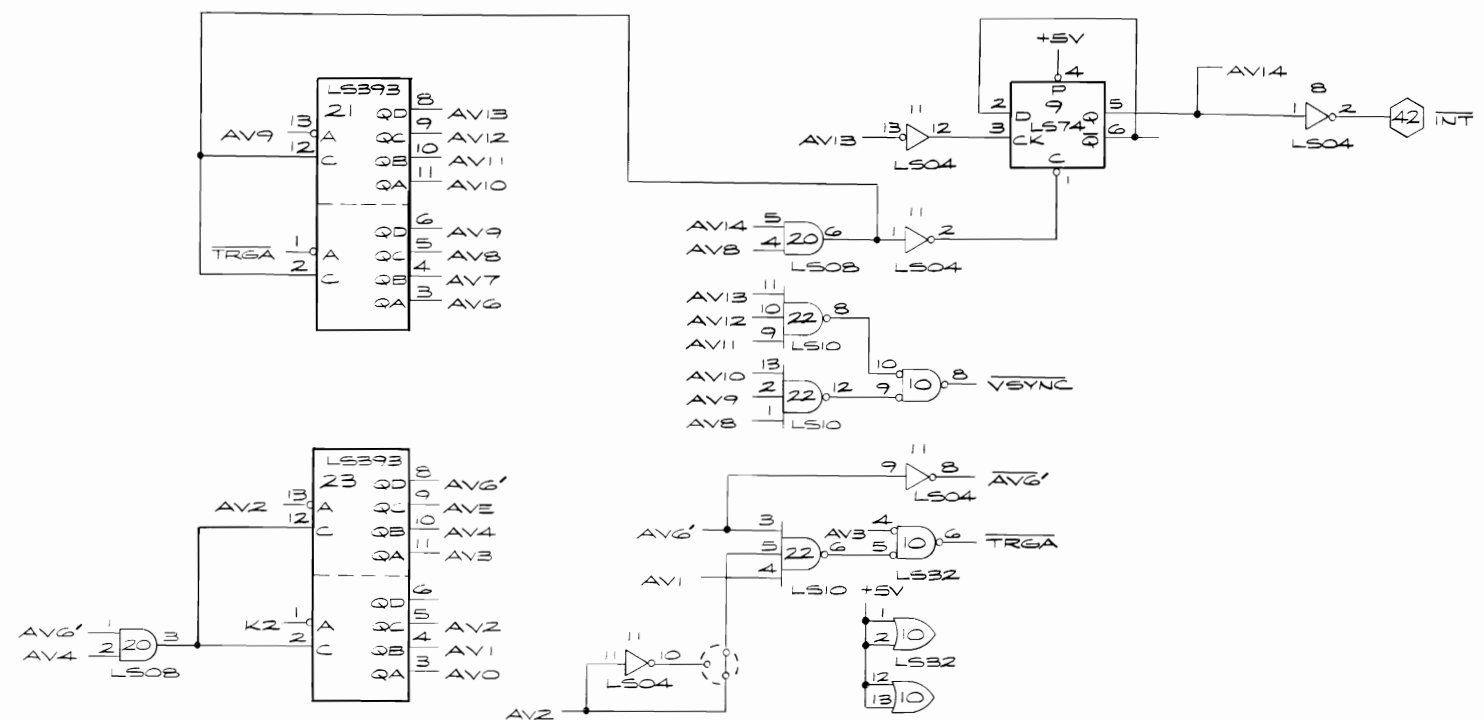
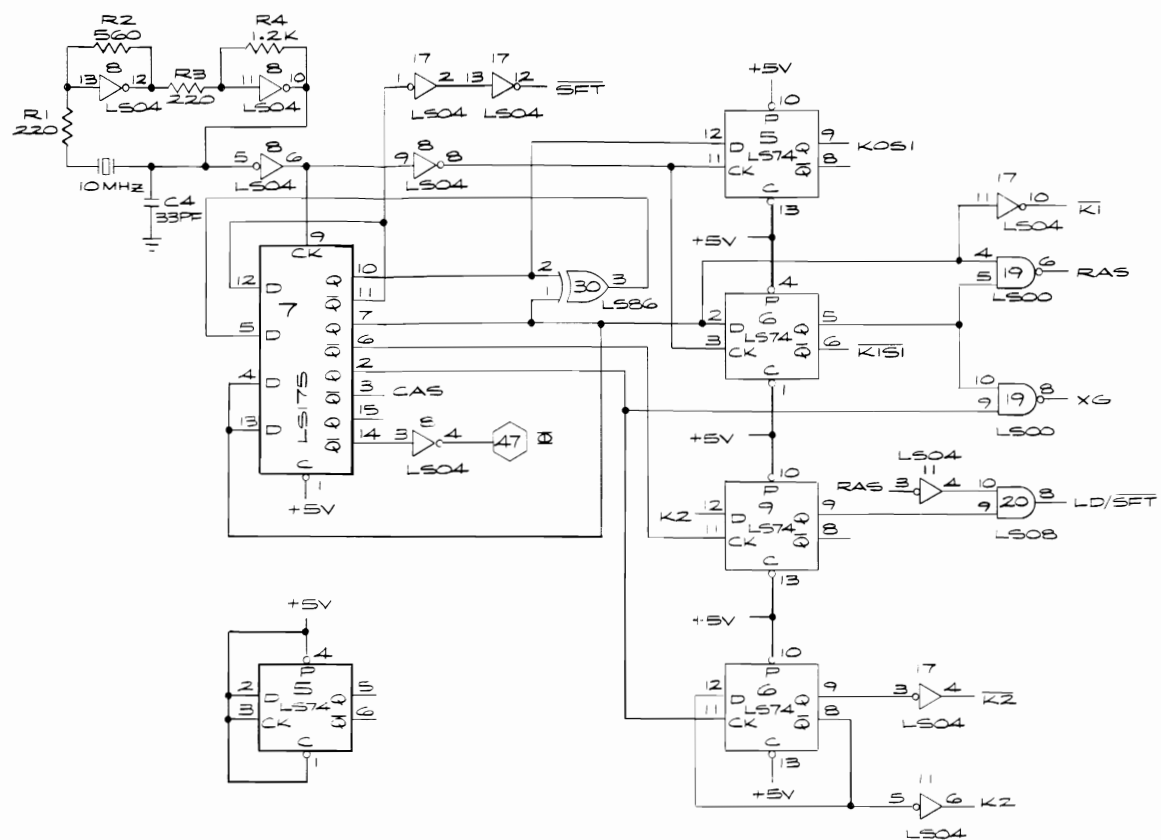
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Kangaroo Video PCB Schematic Diagram

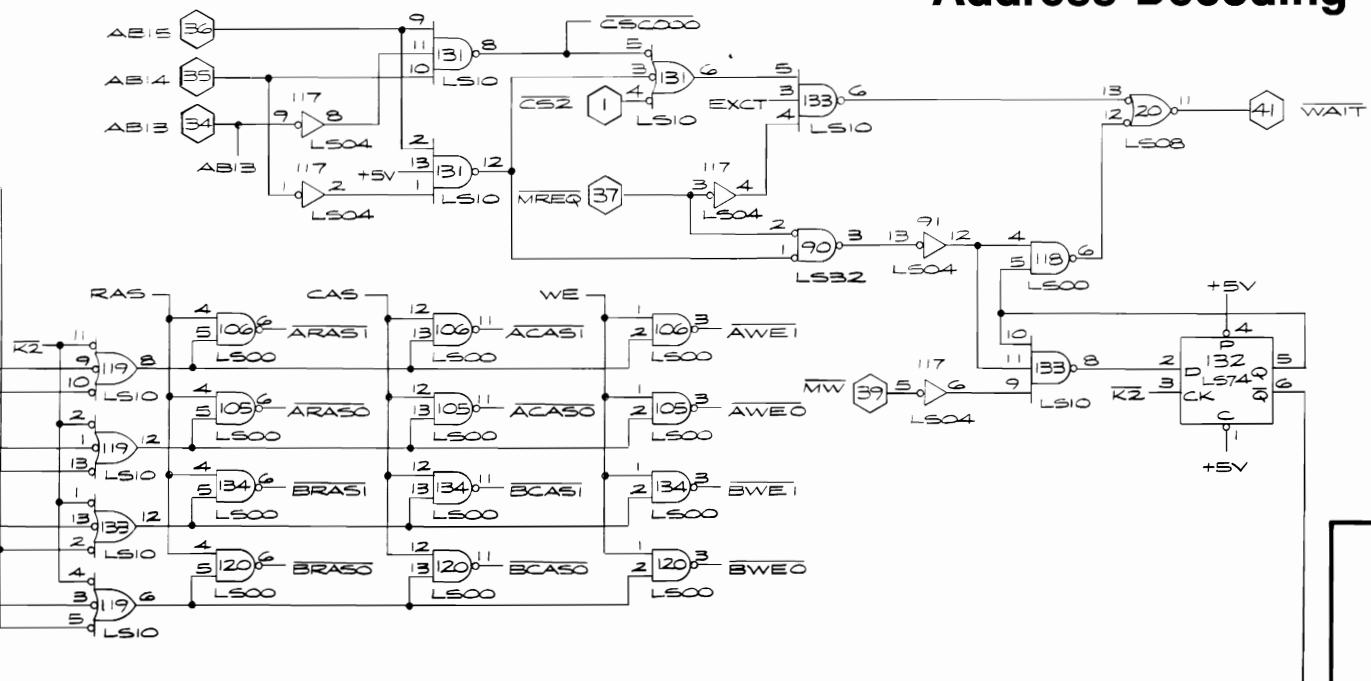
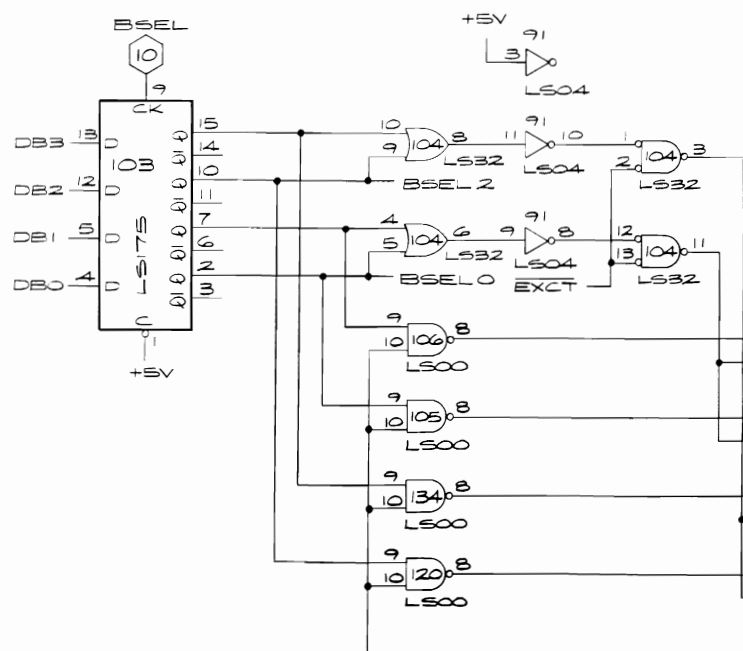
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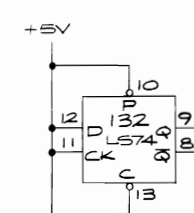
Clock, Sync Chain, and Timing Signals



Dynamic RAM Control



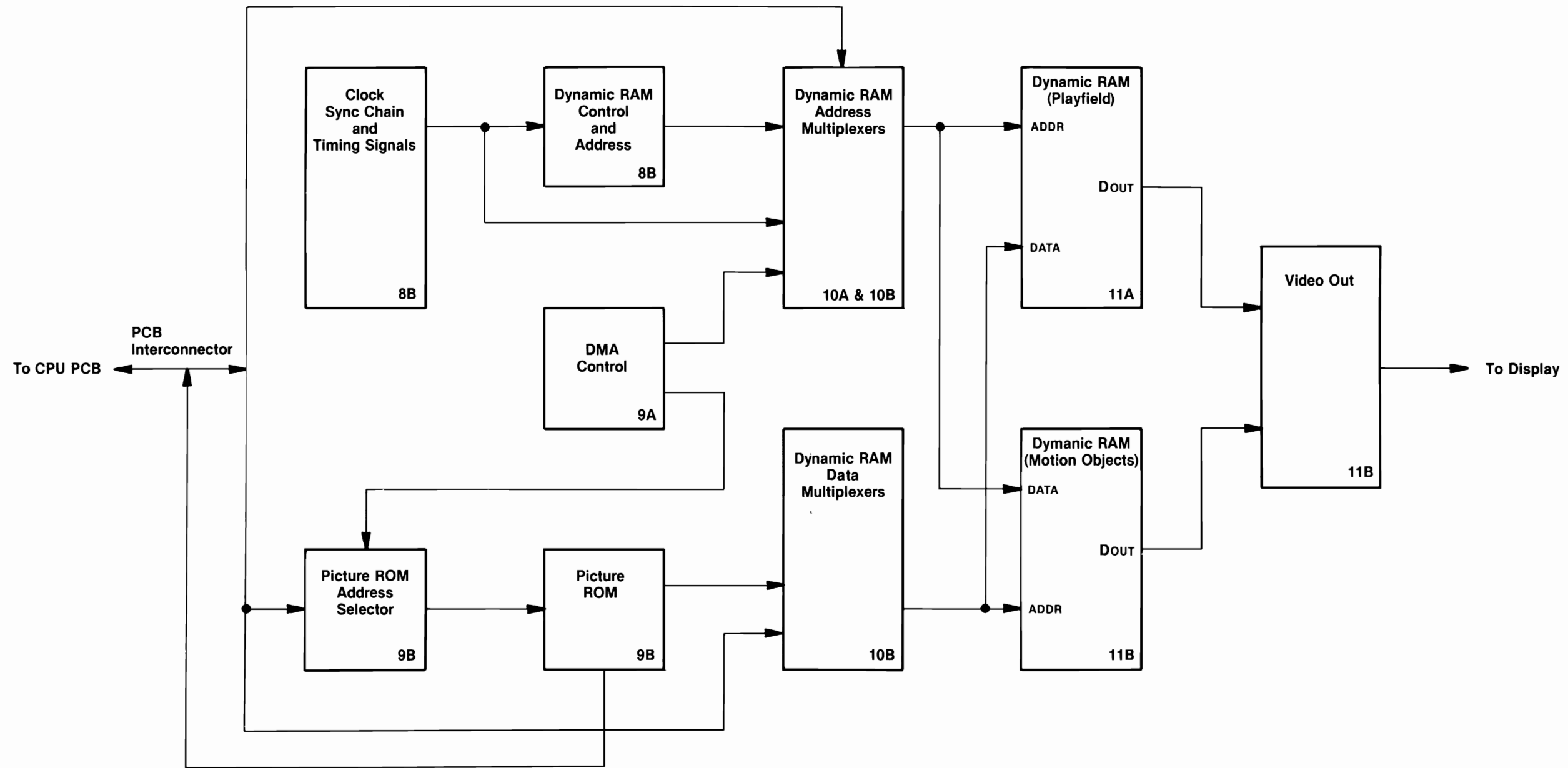
Address Decoding



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Kangaroo Video PCB Schematic Diagram

Block Diagram (Video PCB)



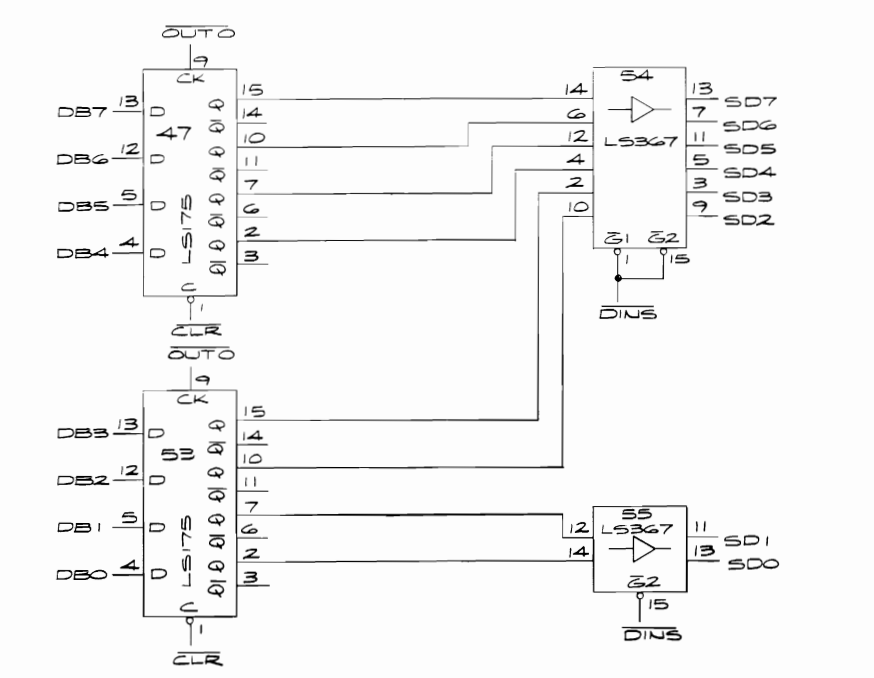
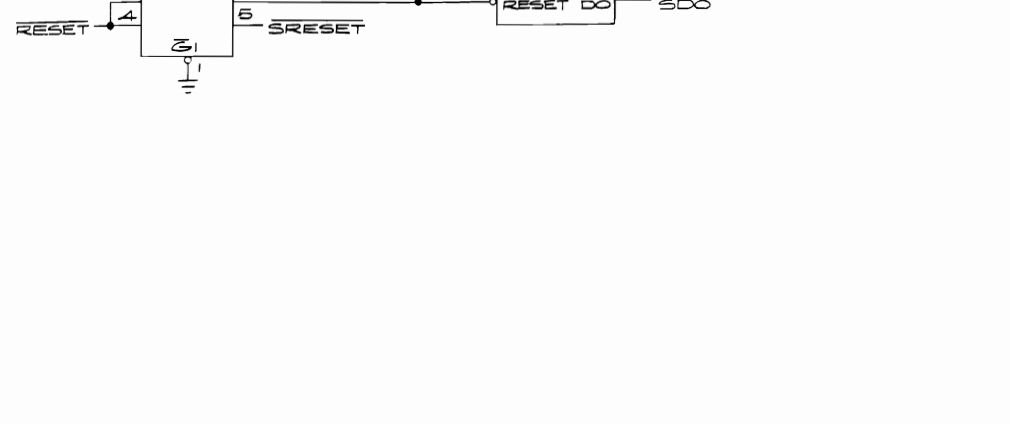
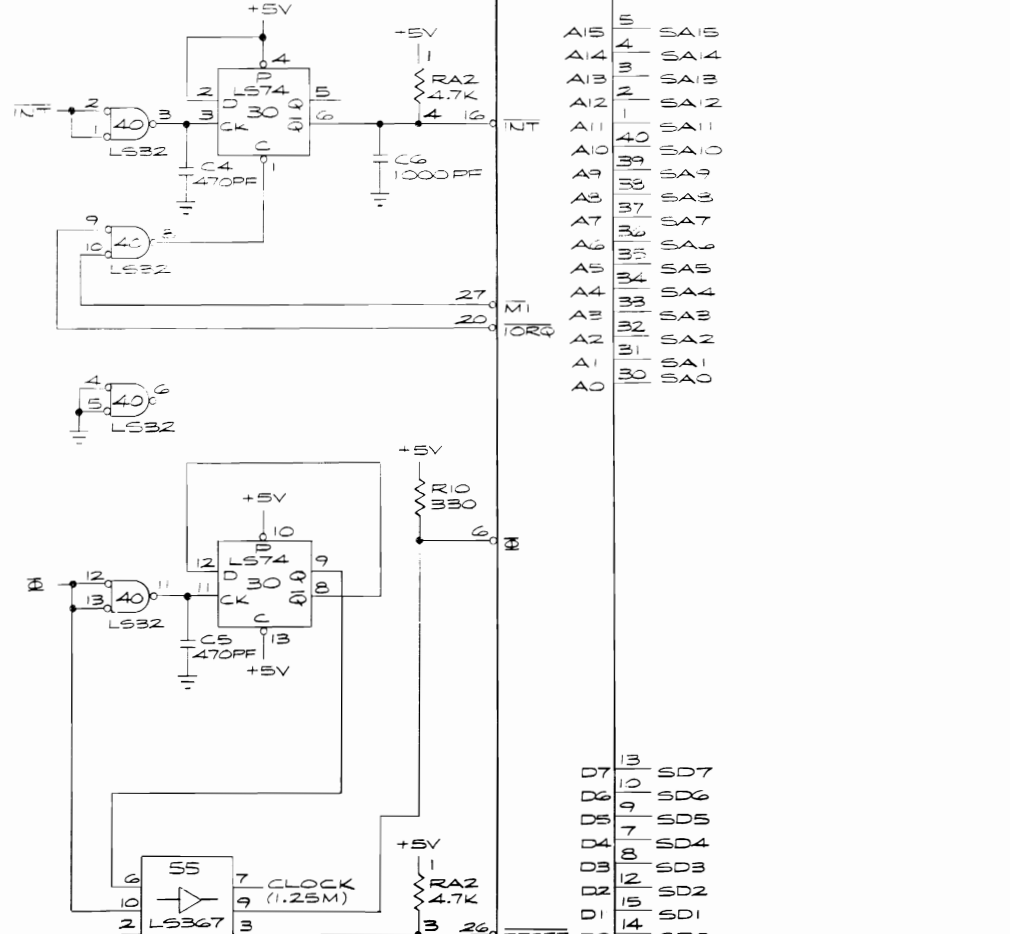
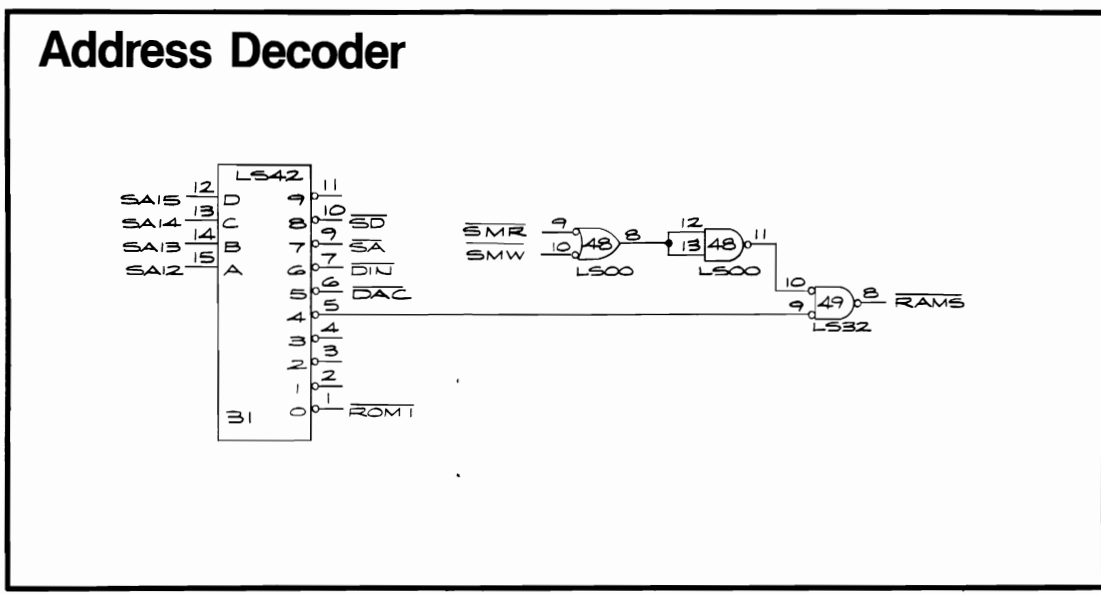
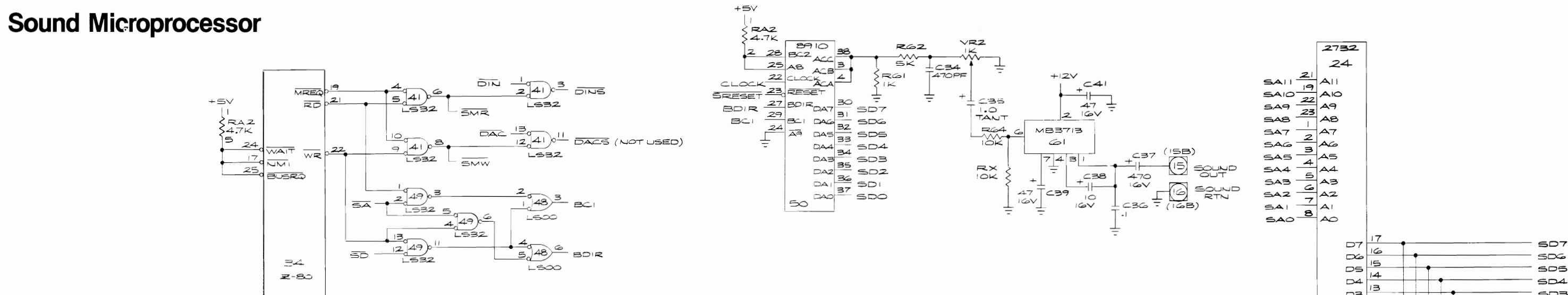
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Kangaroo Video PCB Schematic Diagram

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Sound Microprocessor





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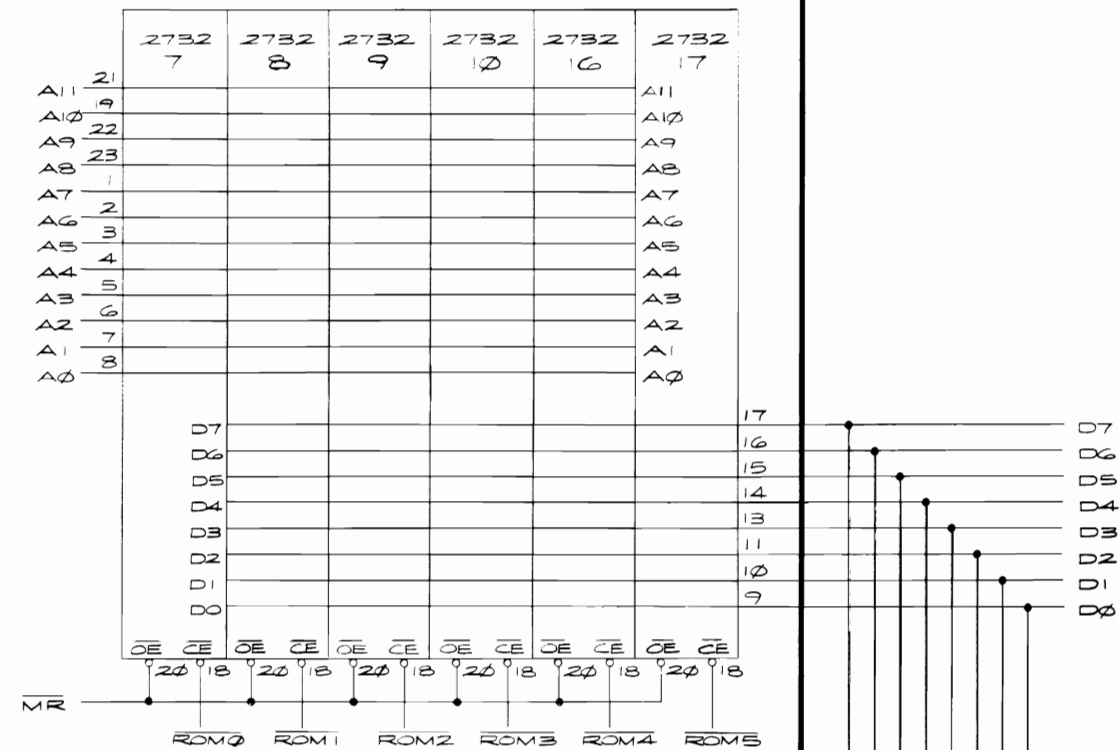
Kangaroo CPU PCB Schematic Diagram

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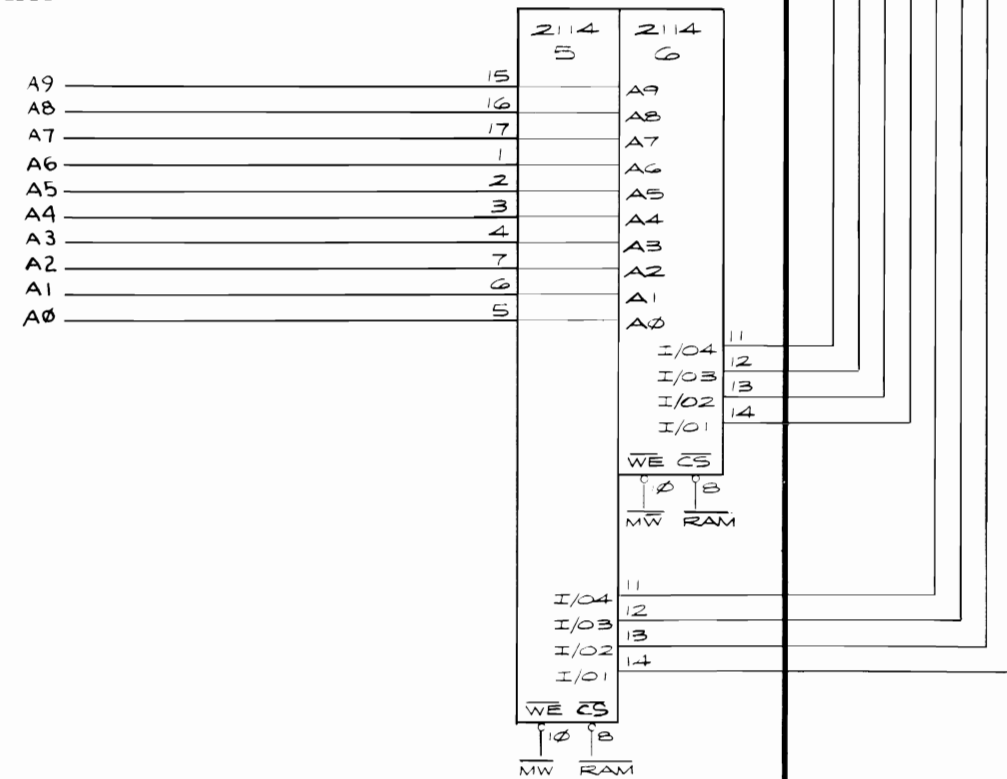
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Program ROM



RAM



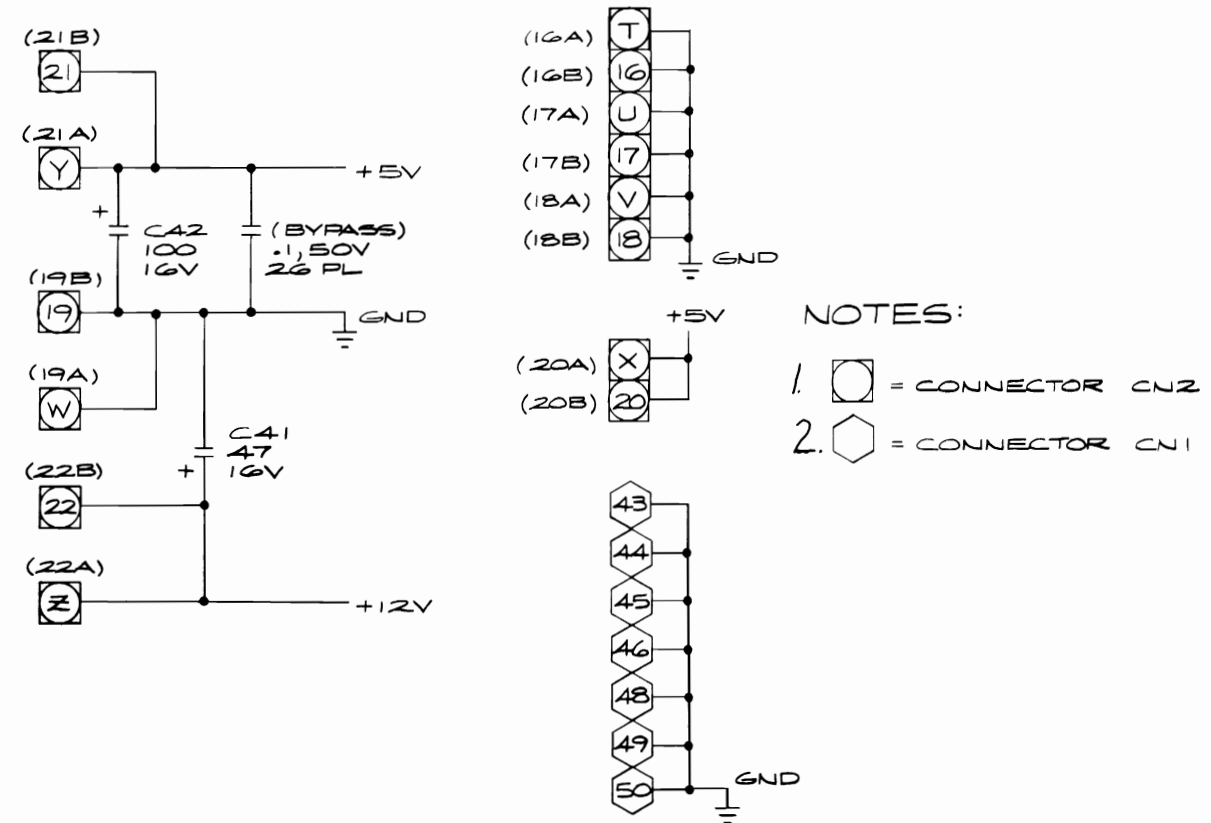
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Kangaroo CPU PCB Schematic Diagram

Memory Map

HEXA-DECIMAL ADDRESS	R/W	DATA								FUNCTION
		D7	D6	D5	D4	D3	D2	D1	D0	
Game Microprocessor Memory Space (IC15)										
0000-5FFF	R	D	D	D	D	D	D	D	D	Z80 24K Program ROM
E000-E3FF	R/W	D	D	D	D	D	D	D	D	1K Working RAM
E400	R	D	D	D	D	D	D	D	D	Option Switch
E800	W	D	D	D	D	D	D	D	D	Low Byte } Start Address of Data in Picture High Byte } ROM for DMA
E801	W	D	D	D	D	D	D	D	D	
E802	W	D	D	D	D	D	D	D	D	Low Byte } Start Address in Bit Map RAM (where High Byte } picture is to be written) During DMA
E803	W	D	D	D	D	D	D	D	D	
E804	W	D	D	D	D	D	D	D	D	Low Byte } Picture Size for DMA High Byte } and DMA Start
E805	W	D	D	D	D	D	D	D	D	
E806	W	D	D	D	D	D	D	D	D	Vertical Start Address in Bit Map
E807	W	D	D	D	D	D	D	D	D	Horizontal Start Address in Bit Map
E808	W							D	D	Bank Select Latch
E809	W			D	D	D	D	D	D	A & B Bit Map Control Latch (A = playfield, B = motion)
E80A	W			D	D	D	D	D	D	Color-Shading Latch
EC00	W	D	D	D	D	D	D	D	D	Sound DATA to Sound Microprocessor
EC00	R							D		Utility Coin Switch
EC00	R							D		1 Player Start
EC00	R							D		2 Player Start
EC00	R					D				Left Coin Input
EC00	R				D					Right Coin Input
ED00	W								D	Coin Counter 1
ED00	W							D		Coin Counter 2 (European games)
ED00	R							D		Player 1 Right
ED00	R							D		Player 1 Left
ED00	R							D		Player 1 Up
ED00	R					D				Player 1 Down
ED00	R				D					Player 1 Punch
EE00	R								D	Player 2 Right
EE00	R							D		Player 2 Left
EE00	R							D		Player 2 Up
EE00	R					D				Player 2 Down
EE00	R				D					Player 2 Punch
EFXX	W				D	D	D	D		Output to Custom Microcomputer
EFXX	R				D	D	D	D		Input from Custom Microcomputer
Sound Microprocessor Memory Space (IC34)										
0000-0FFF	R	D	D	D	D	D	D	D	D	4K Program ROM
4000-43FF	R/W	D	D	D	D	D	D	D	D	1K Working RAM
6000	R	D	D	D	D	D	D	D	D	Read DATA from Game Microprocessor
7000	W	D	D	D	D	D	D	D	D	Write to Sound Chip (GI-AY-3-8910)
8000	R	D	D	D	D	D	D	D	D	Read from Sound Chip

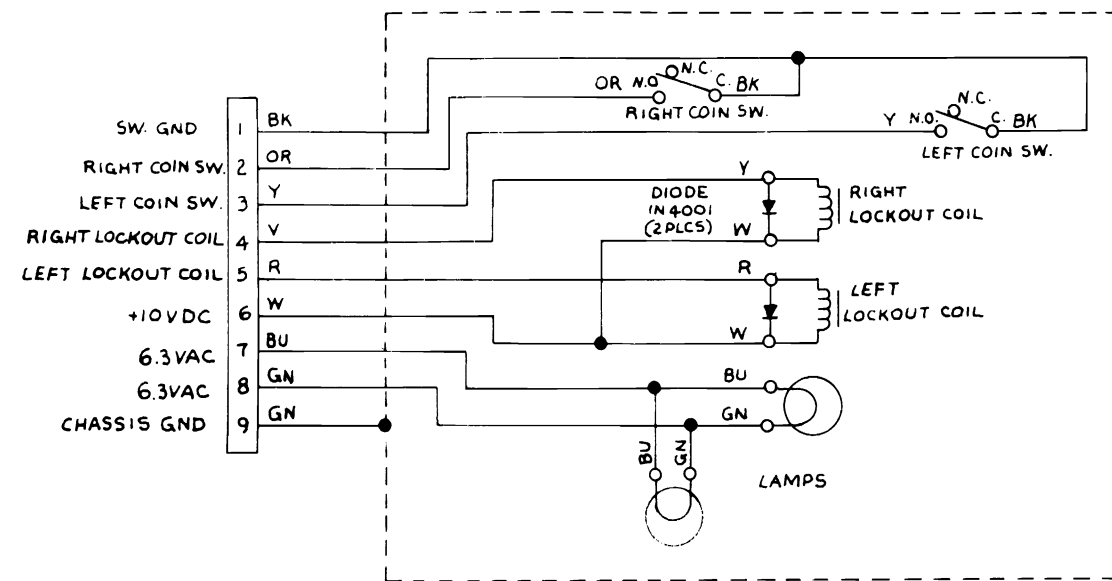
CPU Power Input



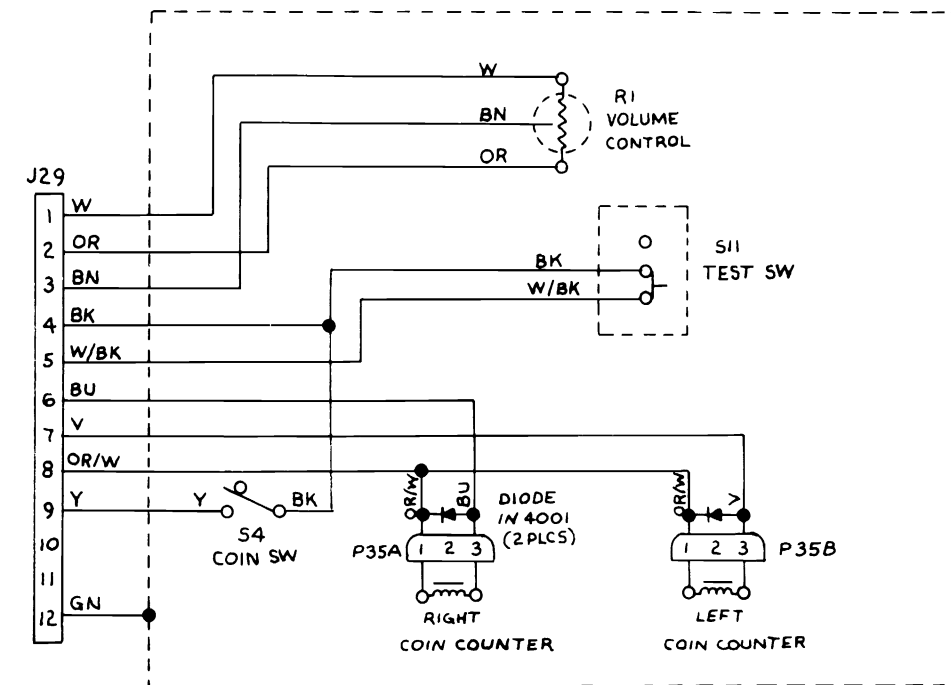
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Kangaroo CPU PCB Schematic Diagram

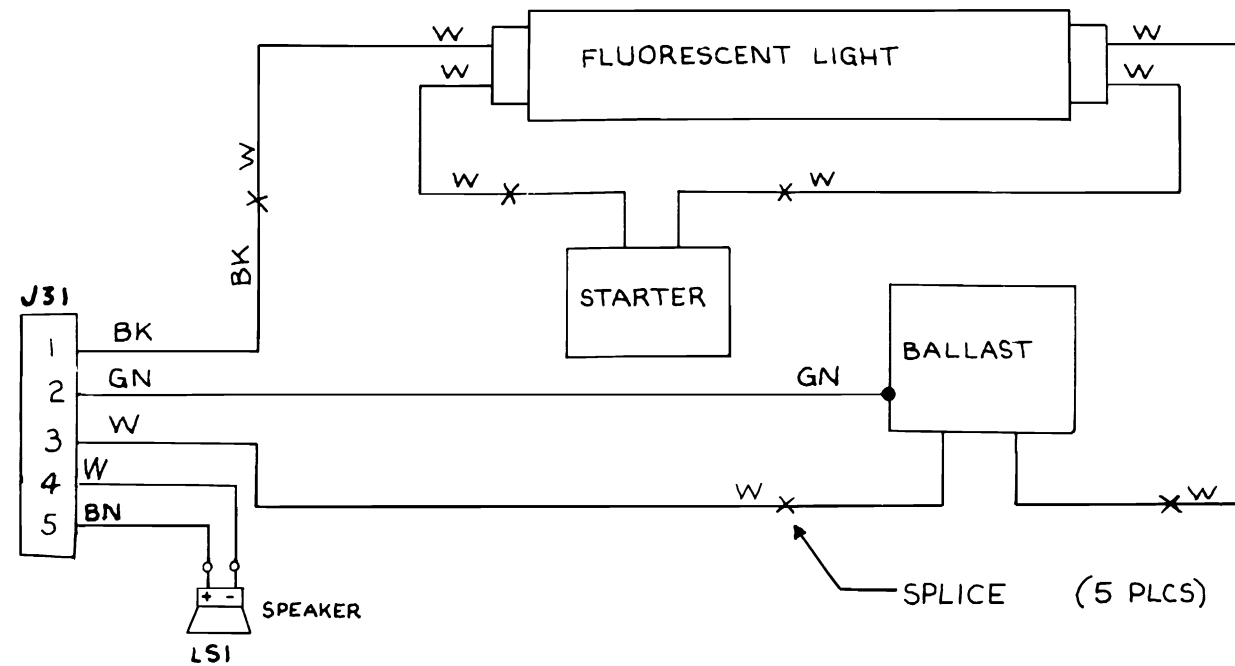
Coin Door Wiring Diagram



Utility Panel Wiring Diagram

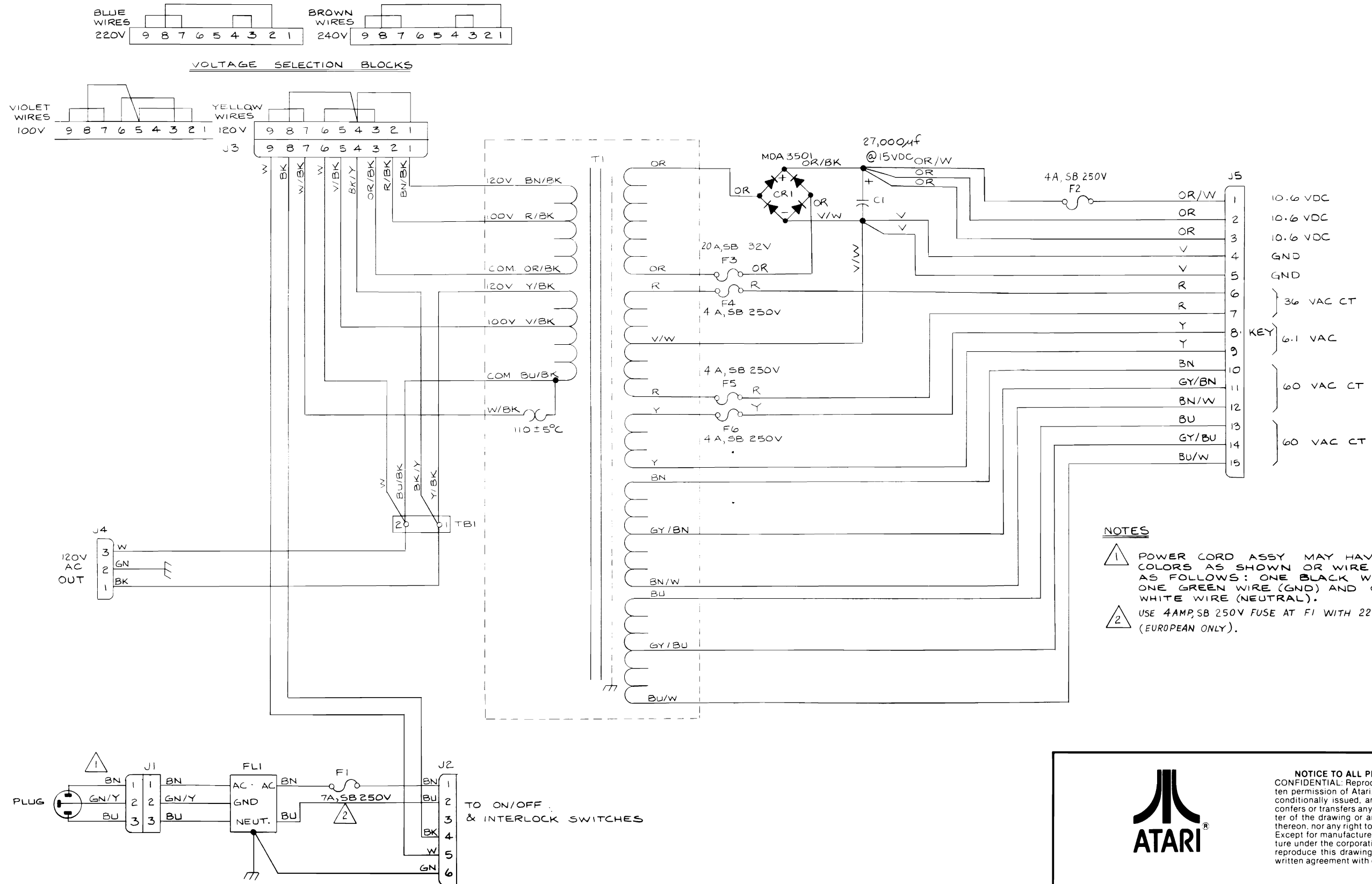


Fluorescent Light and Speaker Wiring Diagram



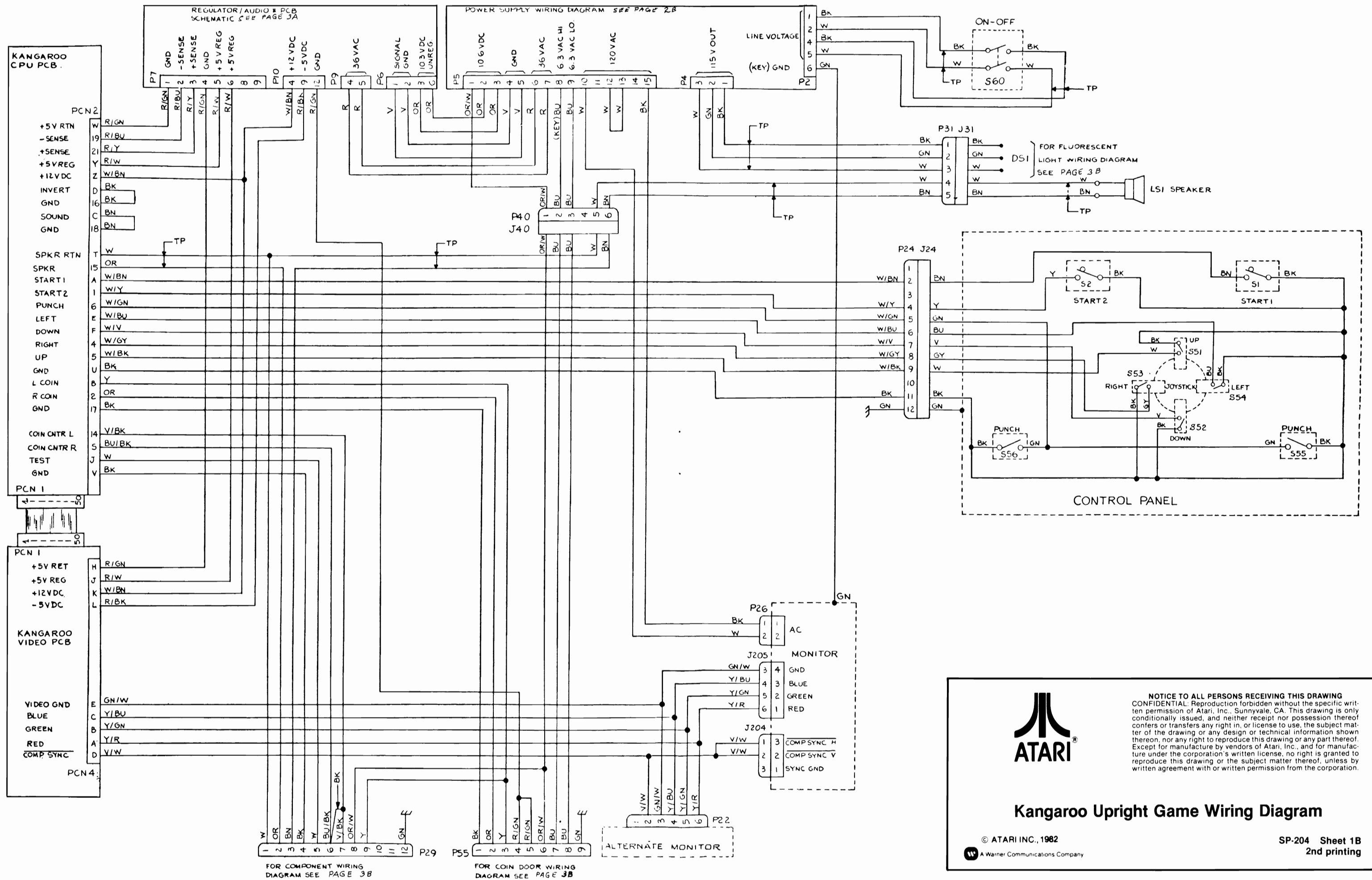
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Kangaroo Game Wiring Interfaces



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Kangaroo Power Supply



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Kangaroo Upright Game Wiring Diagram

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