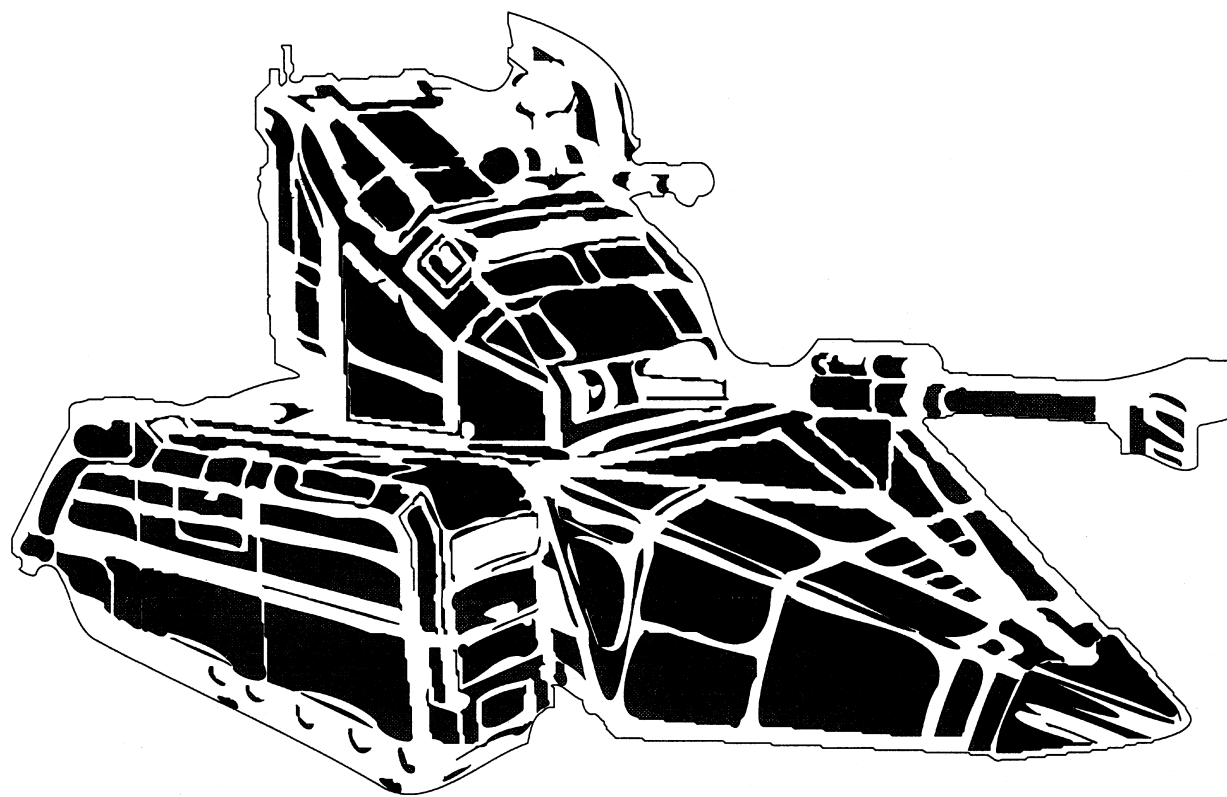


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NOTE
This staple temporarily holds the schematic package together. Remove the staple before using these schematics.

Vindicators™

Schematic Package

Supplement to the Operators Manual

Table 1 Faulty RAM Locations

RAM Type	Location	Video Display Characteristic on Game PCB
Upper PF/MO	2M	Background color is dark green and foreground is bright blue.
Lower PF/MO	1N	Background color is dark green and foreground is bright blue.
Upper AL/CPU	1M	Background color is dark brown and foreground is light blue.
Lower AL/CPU	2N	Background color is dark brown and foreground is light blue.
Upper Color RAM	18K	Reddish or brightly colored.
Lower Color RAM	16K	Blues and greens will be the prevalent colors.

Table 2 Faulty Upper or Lower Main ROM Locations

Error Address	Location on Game PCB	
00000	U=1D	L=2D
20000	U=1F	L=2F
40000	U=1K	L=2K

Table 3 Faulty Sound RAM and ROM Locations

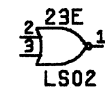
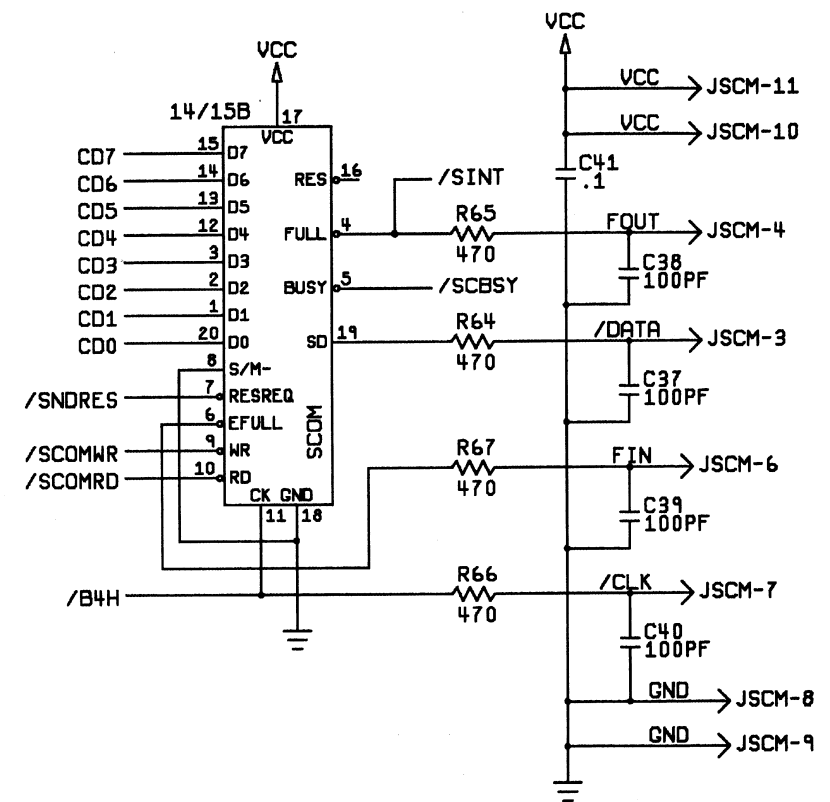
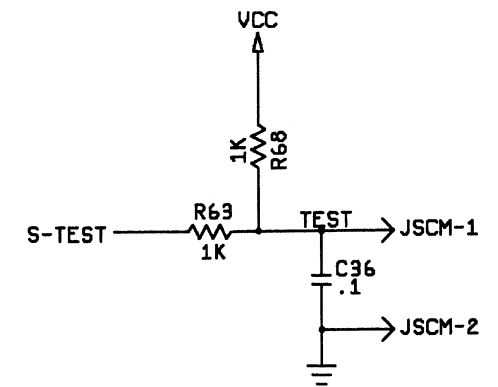
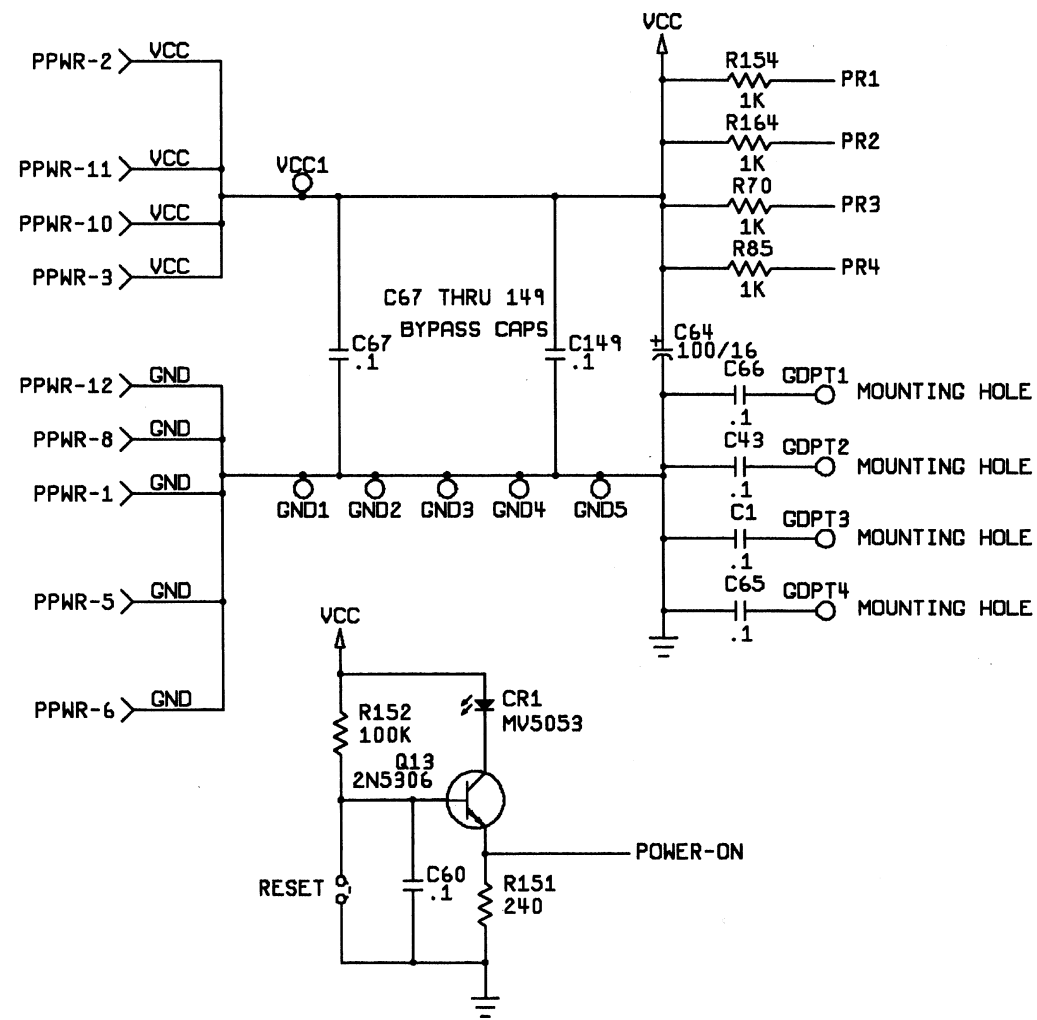
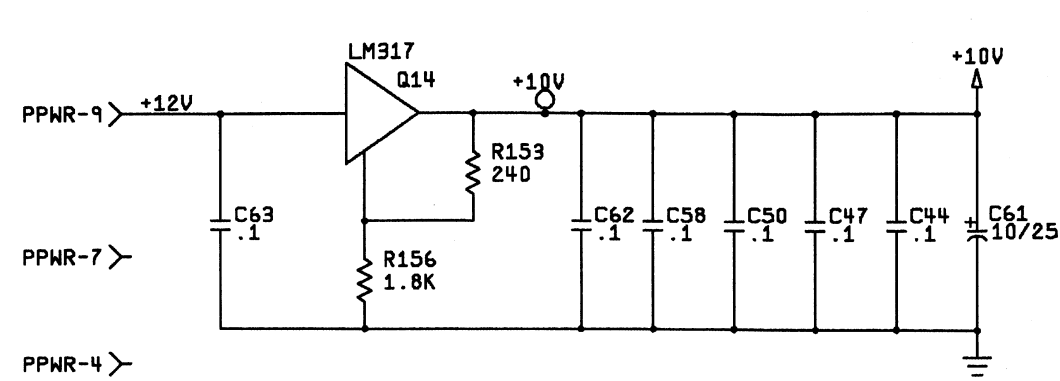
Error Message	Location on Stand-Alone Audio PCB/Cause
Music Chip Time Out	2F
Sound CPU Interrupt Error	2F, 5K, Transistor Q8
Sound CPU RAM 1 Error	2H
Sound CPU ROM 1 Error	2K If displayed when entering test, then sound processor cannot run further. Press Fire button to obtain next test.
Communications Error #1	1M Will count number of errors caused by either the Stand-Alone Audio PCB or Game PCB. This error message usually means that the chip no. 137526-001 on either of these two boards is bad or is loose in its socket.
Communications Error #2	A probable disconnection of the Stand-Alone Audio PCB from the Game PCB, or the chip at 1M is not inserted into its socket.
Sound Processor Not Responding	A major problem with the Audio PCB. If you cannot enter the self-test, the cause may be a harness disconnection between the Audio and Game PCBs.

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Vindicators™ RAM/ROM Error Tables




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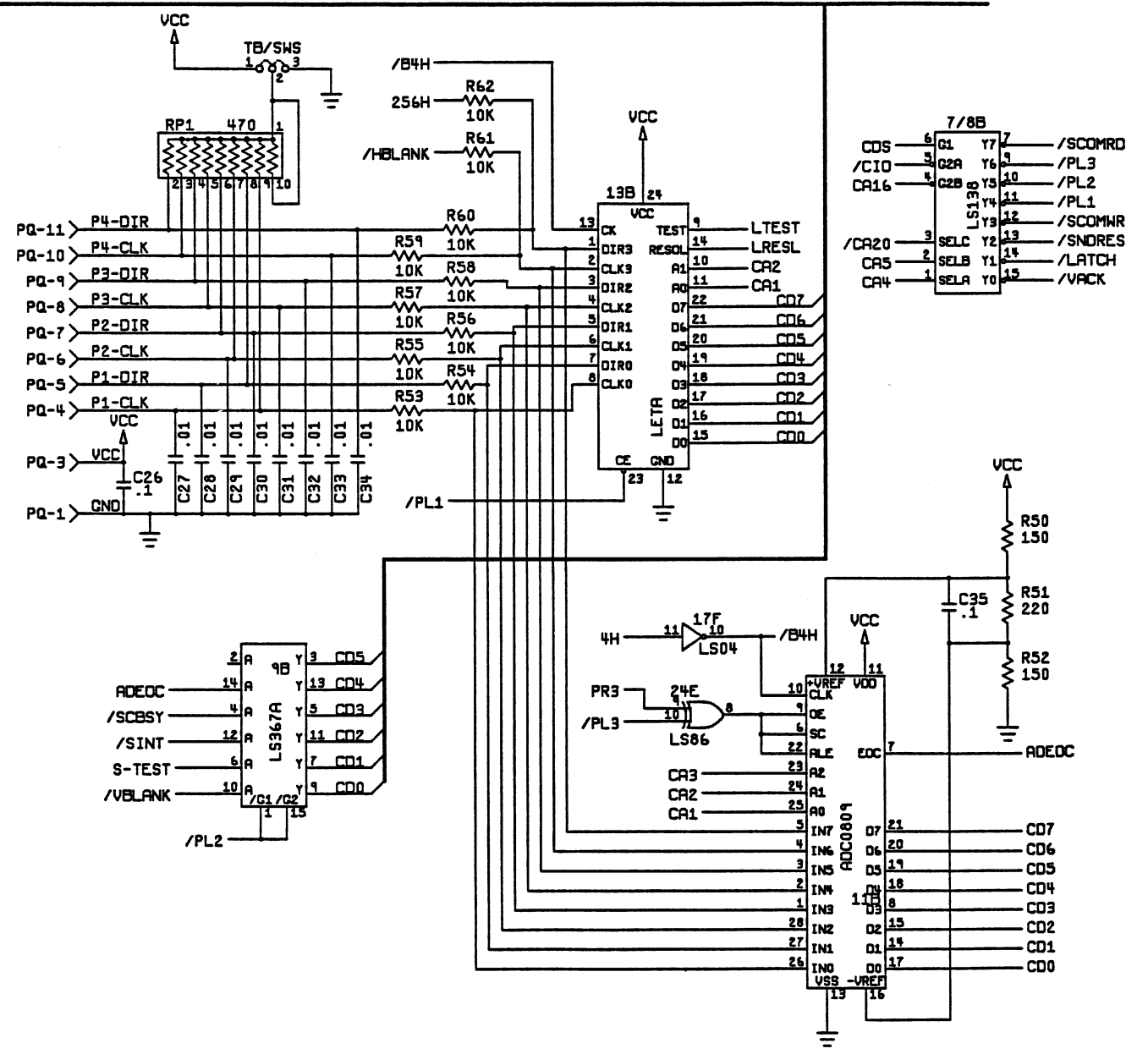
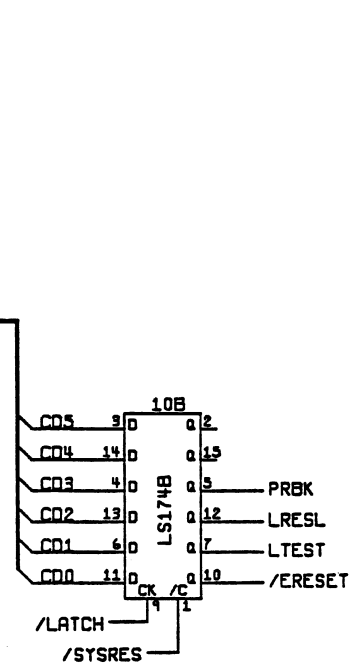
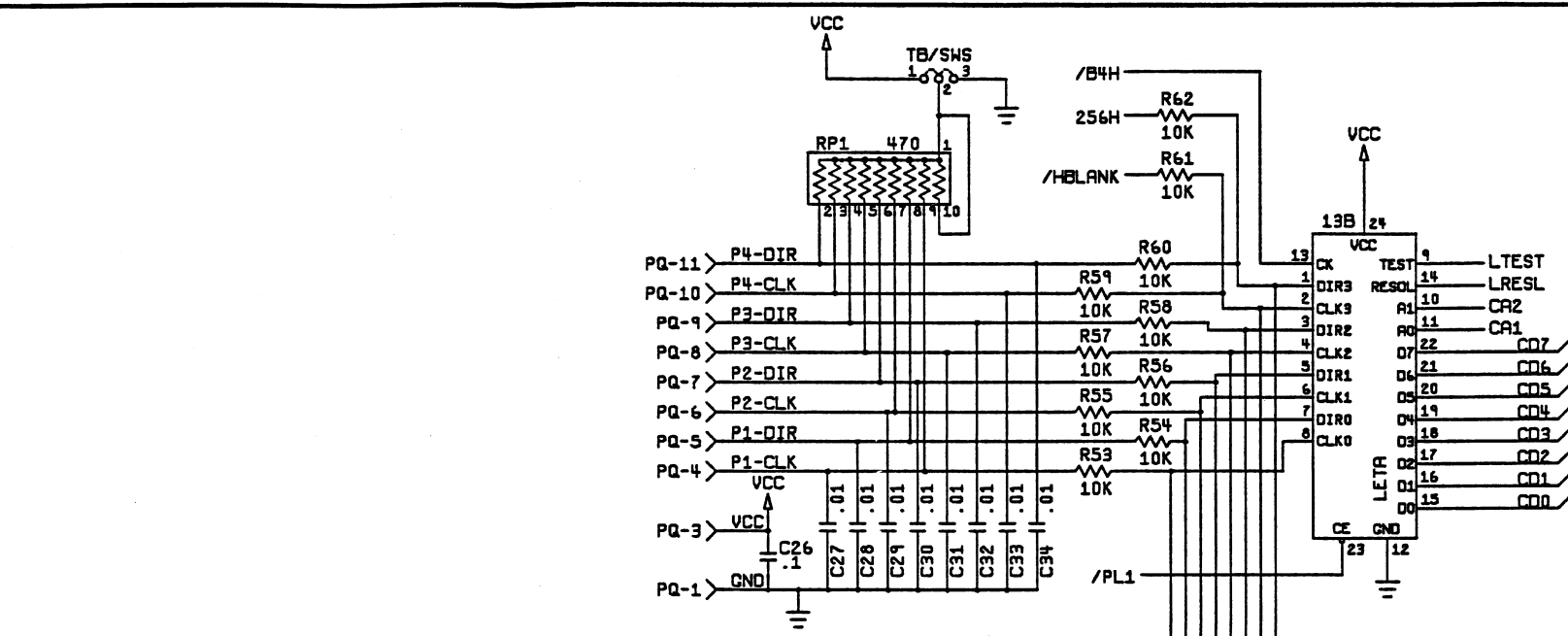
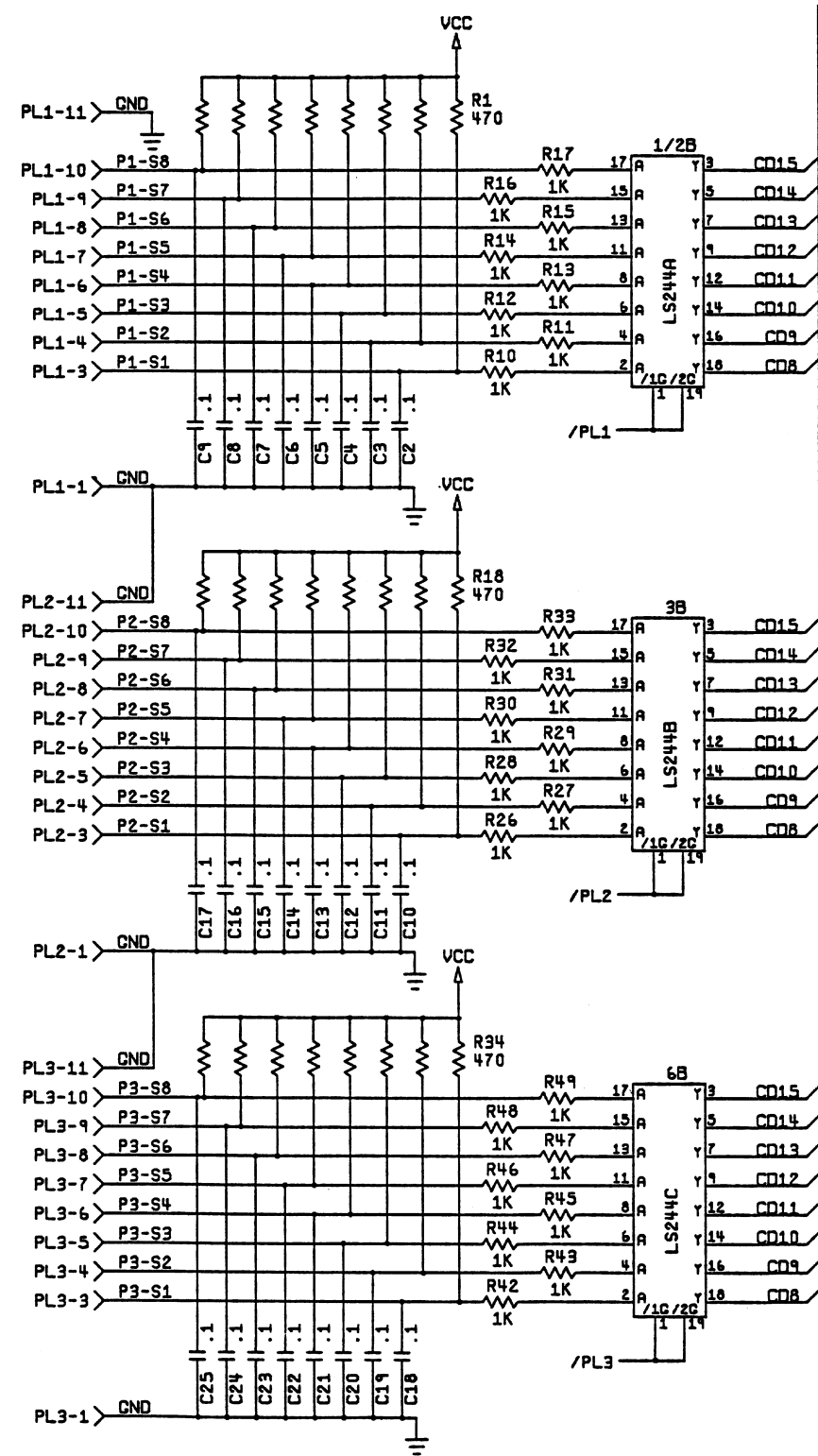
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Vindicators™ Game PCB Assembly Schematic Diagram

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I/O

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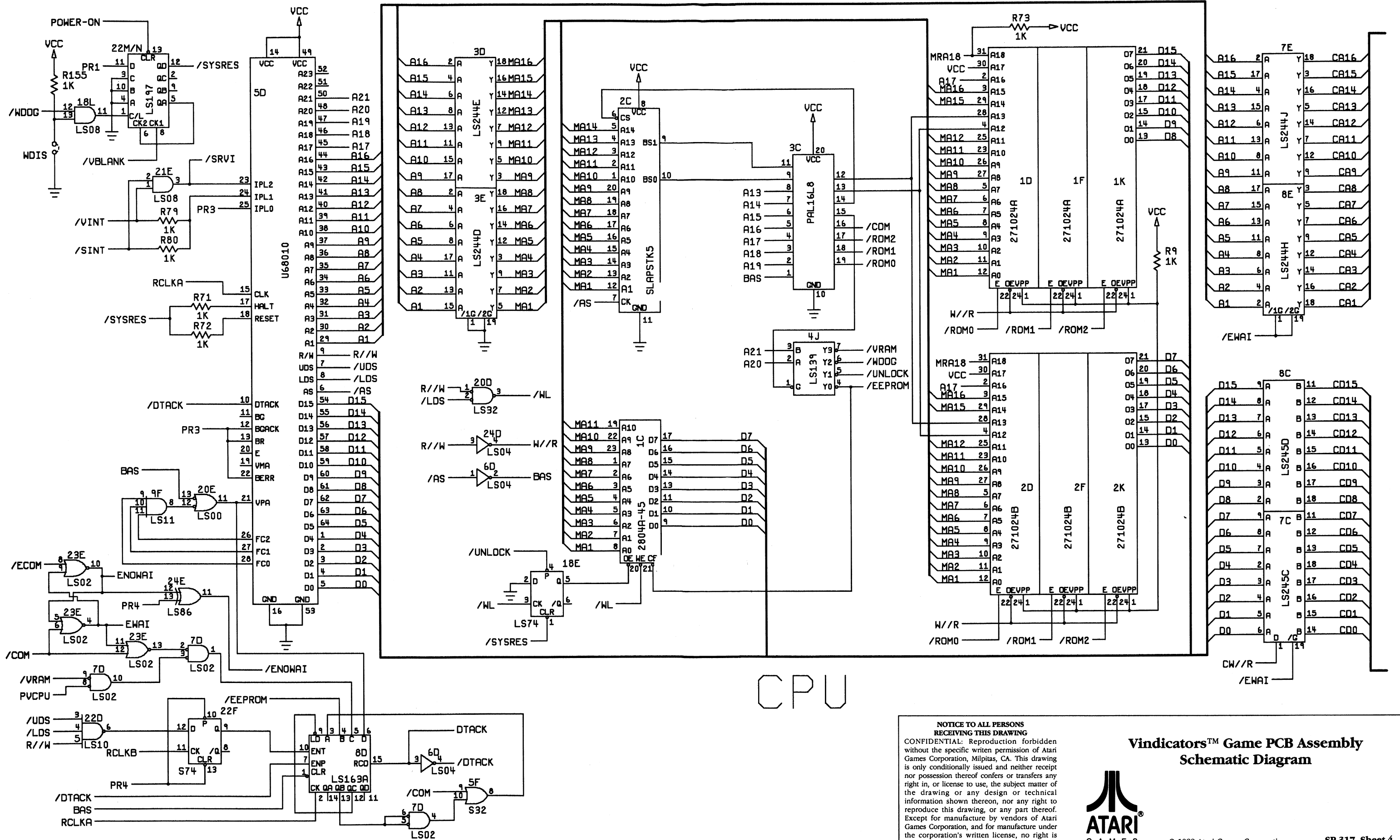
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CPU

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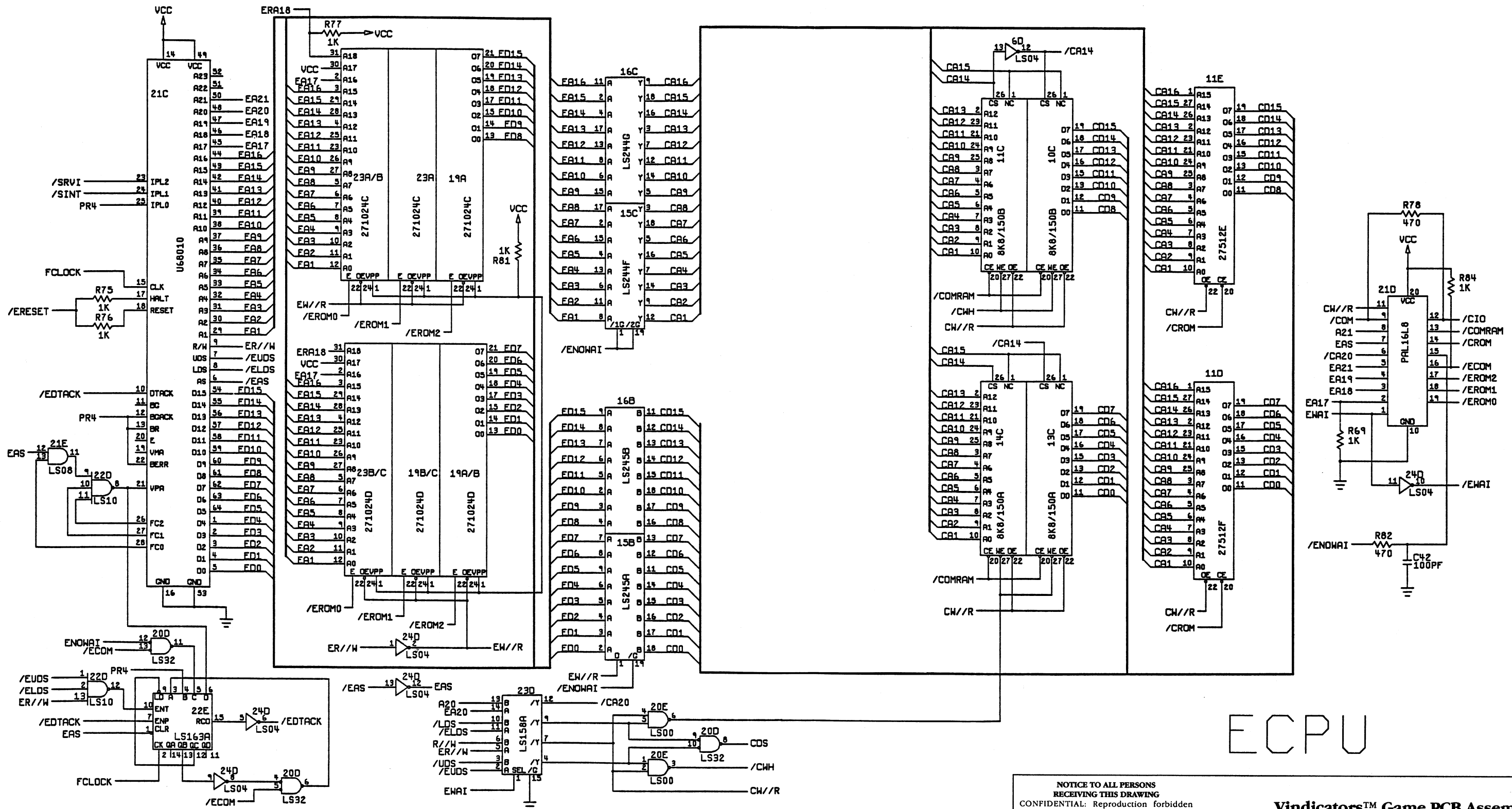
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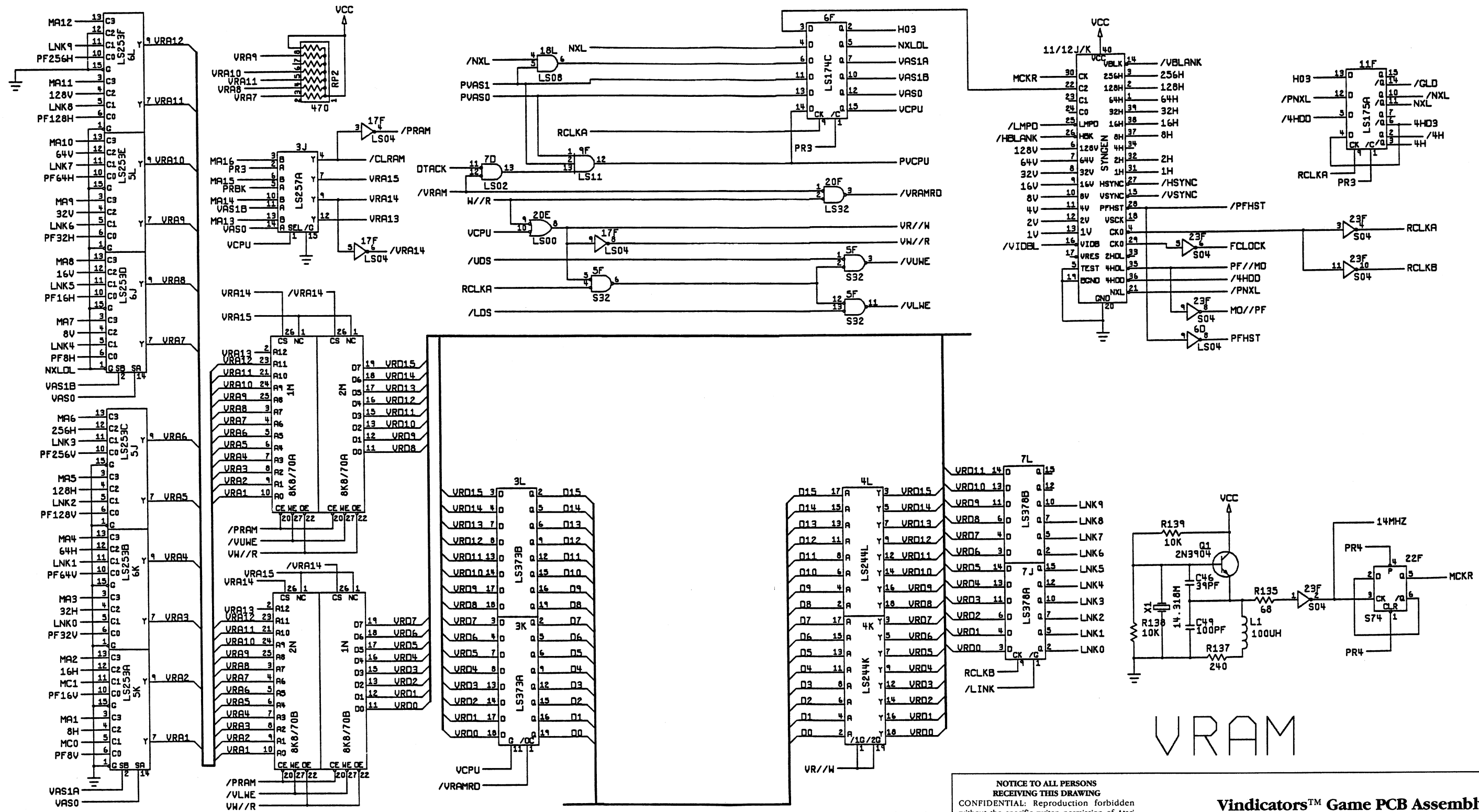


EPCPU

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VRAM

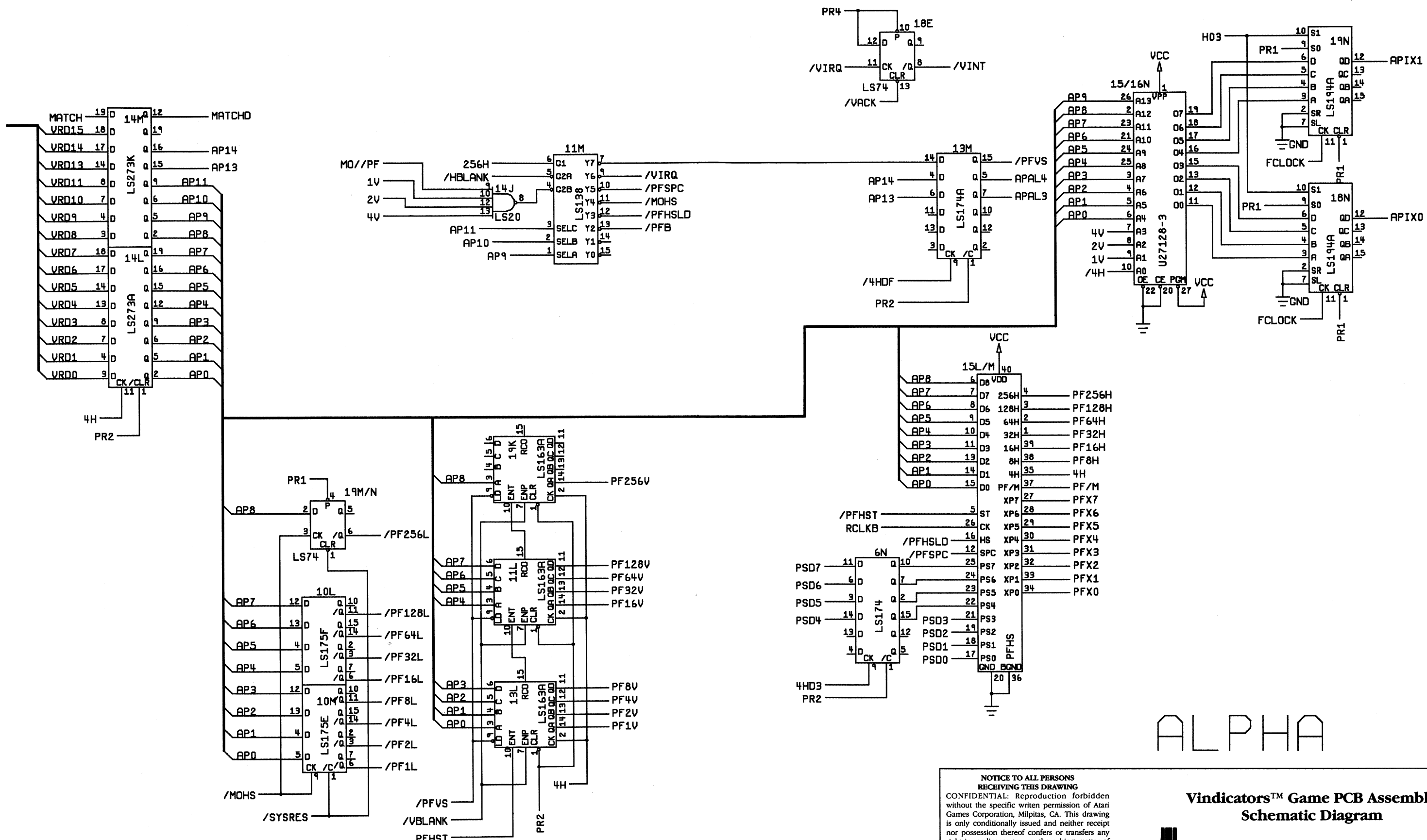
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ALPHA

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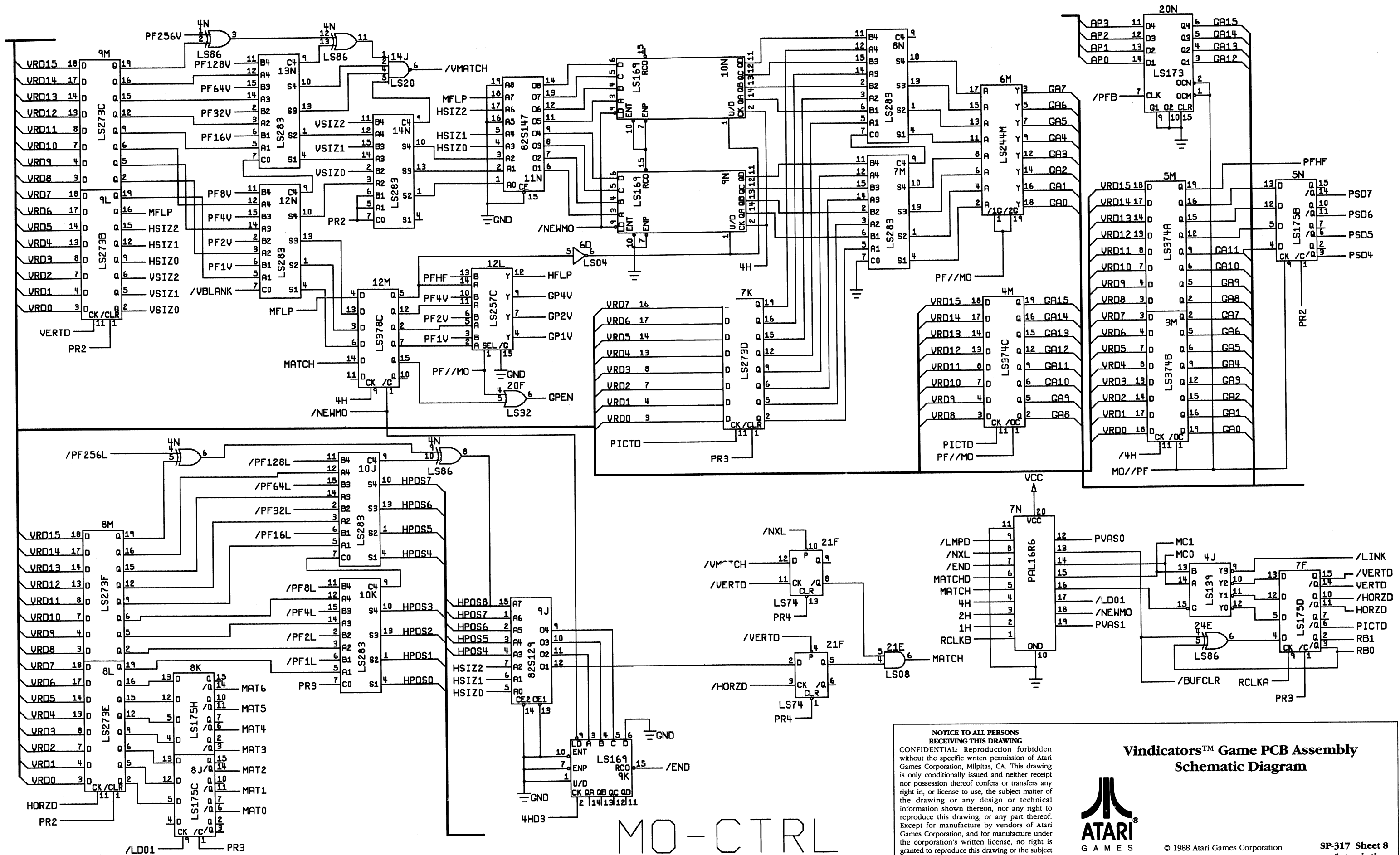
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MO-CTRL

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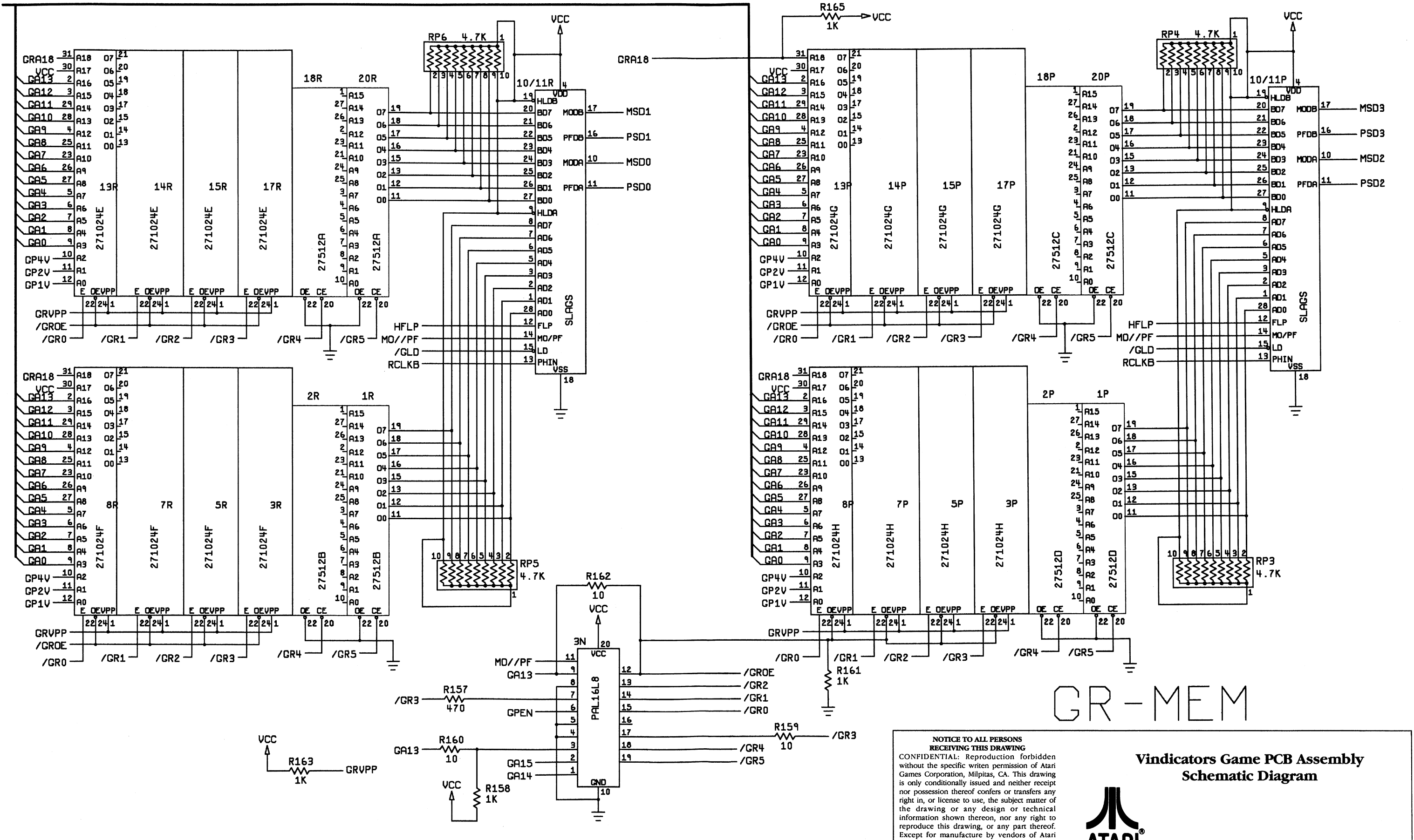
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GR-MEM

THIS PAL CAN BE REPLACED WITH
 A 74LS138 FOR A STANDARD
 27512 EPROM OR 1M ROM CONFIGURATION

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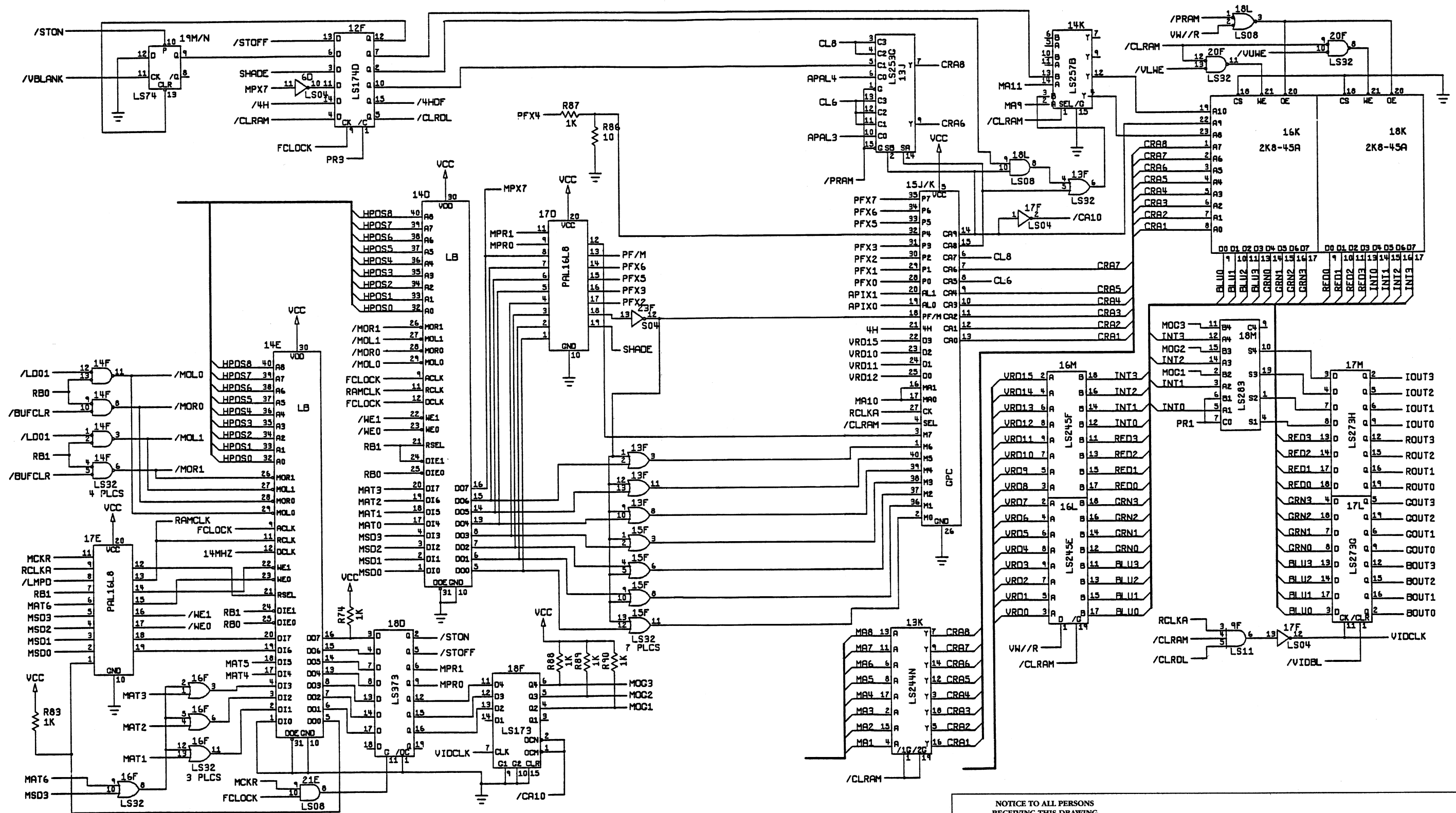
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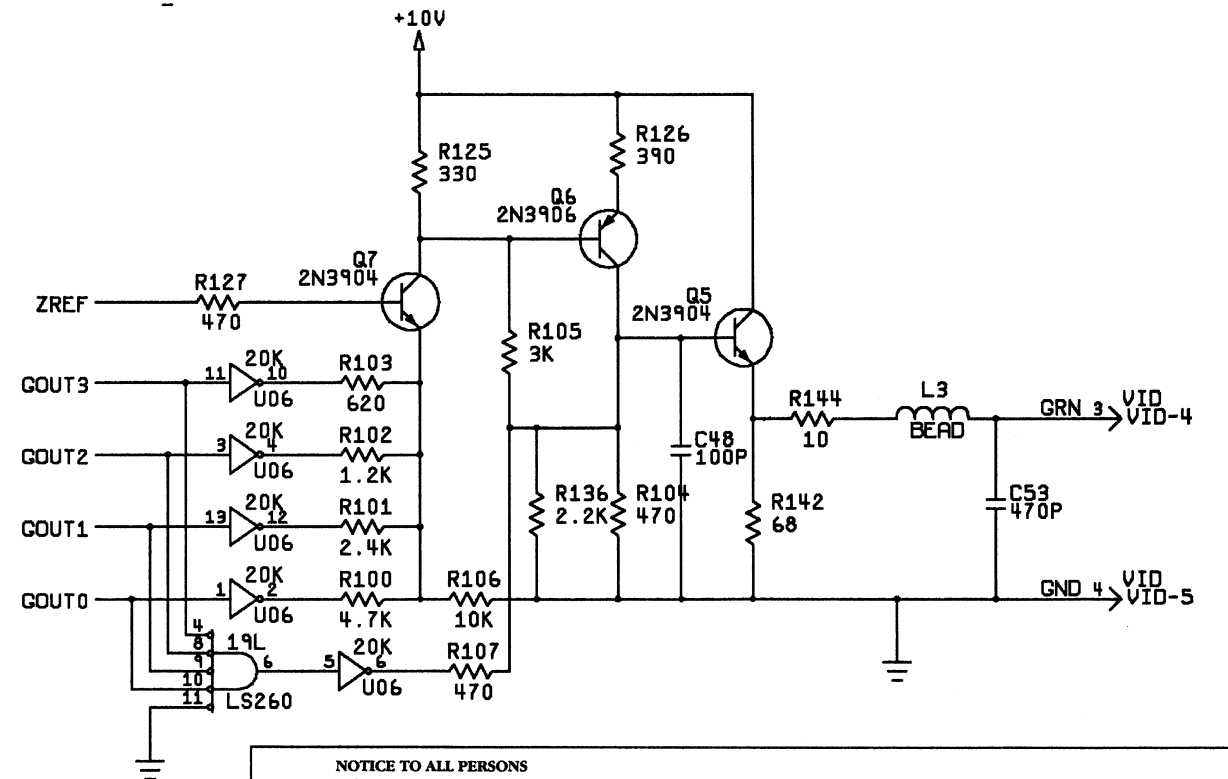
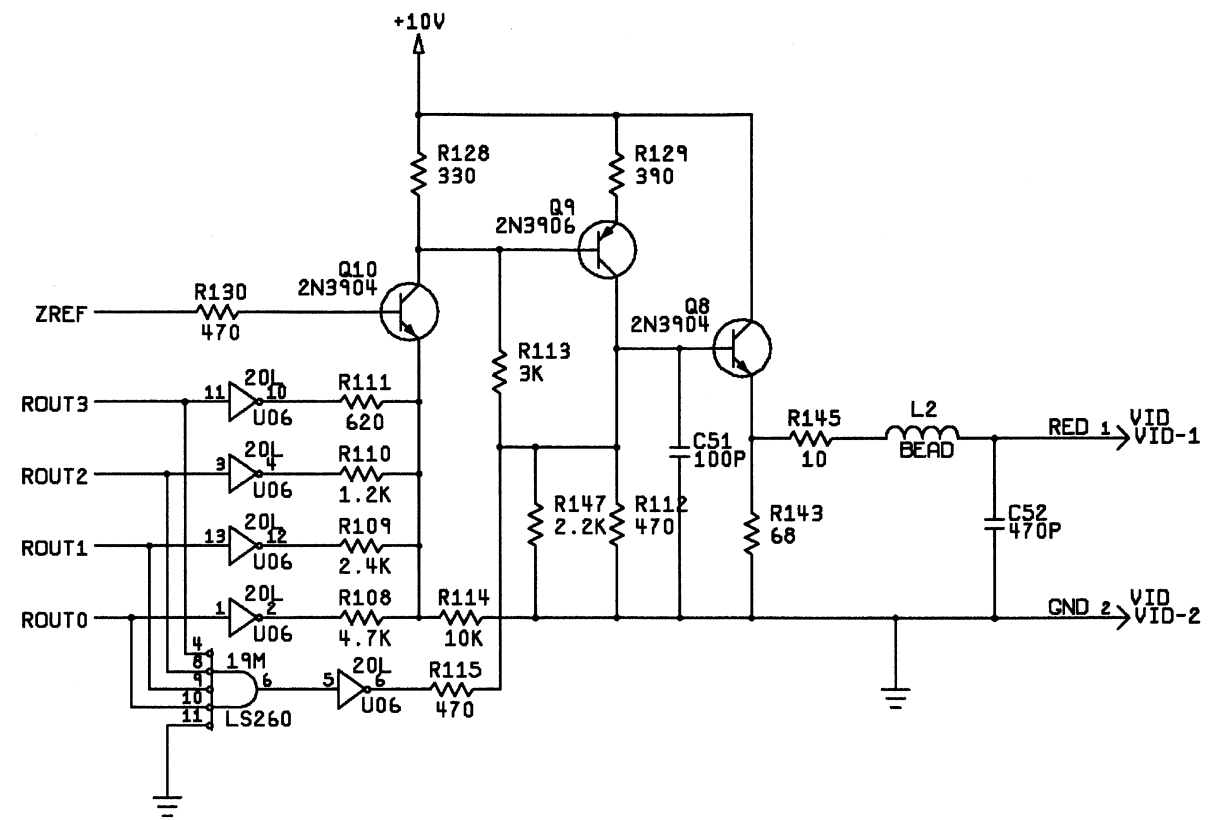
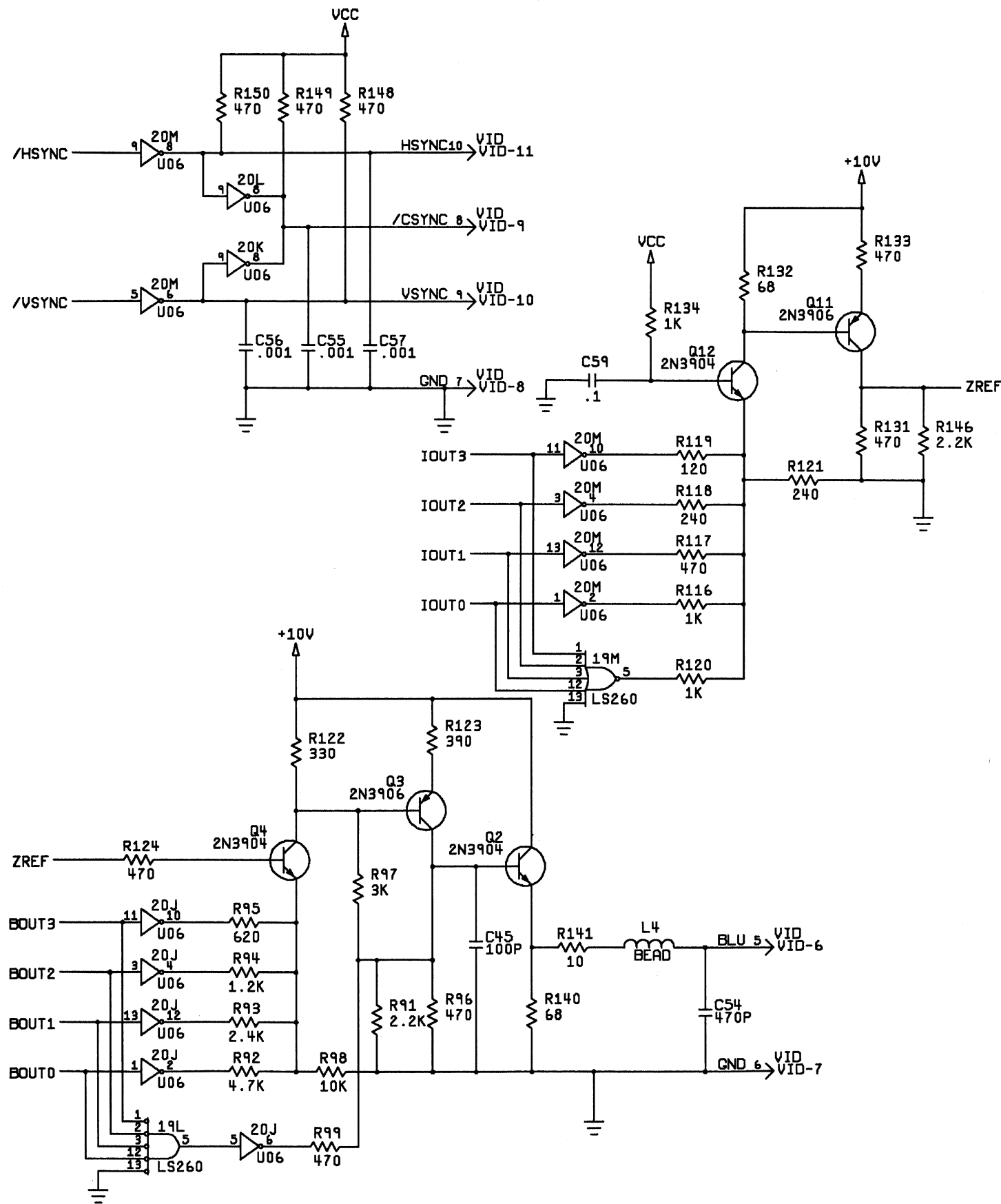
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Vindicators™ Game PCB Assembly Schematic Diagram



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DESCRIPTION	ADDRESS	R/W	DATA
Program ROM	000000-05FFFF	R	D15-D0
EEPROM	0E0001-0E2FFF	R/W	D7-D0
UNLOCK EEPROM	1F0000	W	
Player 1 Input	260000	R	D8-D15
Player 2 Input	260010	R	D8-D15
Player 3 Input	260020	R	D8-D15
	<i>Player Inputs:</i>		D15 (Switch 1) D14 (Switch 2) D13 (Switch 3) D12 (Switch 4) D11 (Switch 5) D10 (Switch 6) D9 (Switch 7) D8 (Switch 8)
VBLANK	260010	R	D0
Self-Test	260010	R	D1
SCOM Input Buffer Full (@ 260030)	260010	R	D2
SCOM Output Buffer Full (@ 360030)	260010	R	D3
Read Sound Processor (SCOM)	260030	R	D0-D7
Watch Dog	2E0000	W	xx (128 msec. timeout)
Video Interrupt Acknowledge	360000	W	xx
Sound Processor Reset	360020	W	xx
Write Sound Processor (SCOM)	360030	W	D0-D7
Playfield RAM	3F0000-3F1FFF	R/W	D15-D0
Motion Object RAM	3F2000-3F3FFF	R/W	D15-D0
Alphanumerics RAM	3F4000-3F4FFF	R/W	D15-D0
SLIP pointers	3F4F80-3F4FFF	R/W	M.O. link pointers
Working RAM	3F5000-3F7FFF	R/W	D15-D0
Color RAM Alpha	3E0000-3E01FF	R/W	D15-D0
Color RAM Spare	3E0080-3E00FF		D15-D0
Color RAM Spare	3E0180-3E01FF		D15-D0
Color RAM Motion Object	3E0200-3E03FF	R/W	D15-D0
Color RAM Playfield	3E0400-3E05FF	R/W	D15-D0
Color RAM Playfield Shadow	3E0600-3E07FF	R/W	D15-D0
Color RAM Spare	3E0800-3E0FFF	R/W	D15-D0

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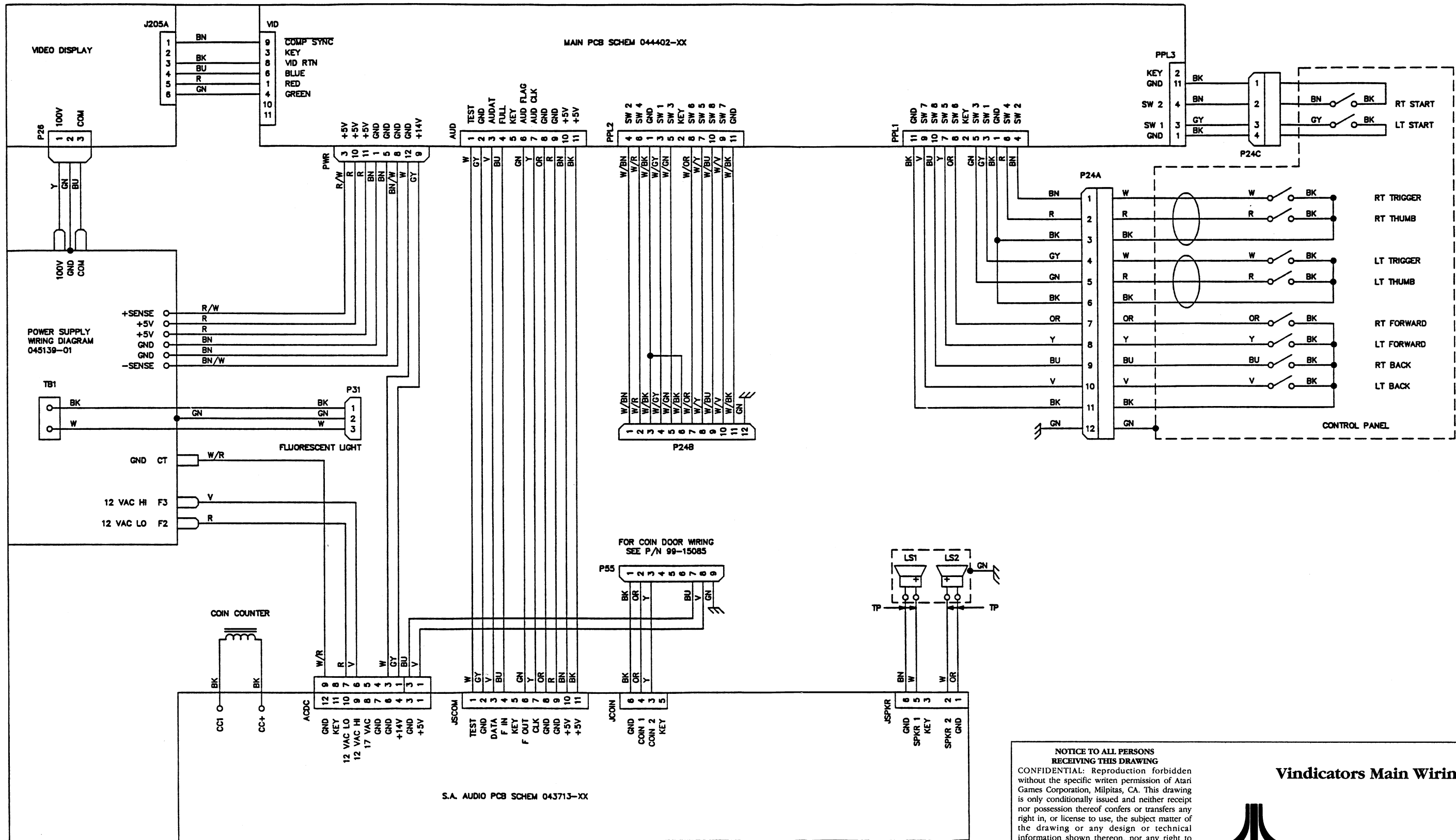


Vindicators Memory Map

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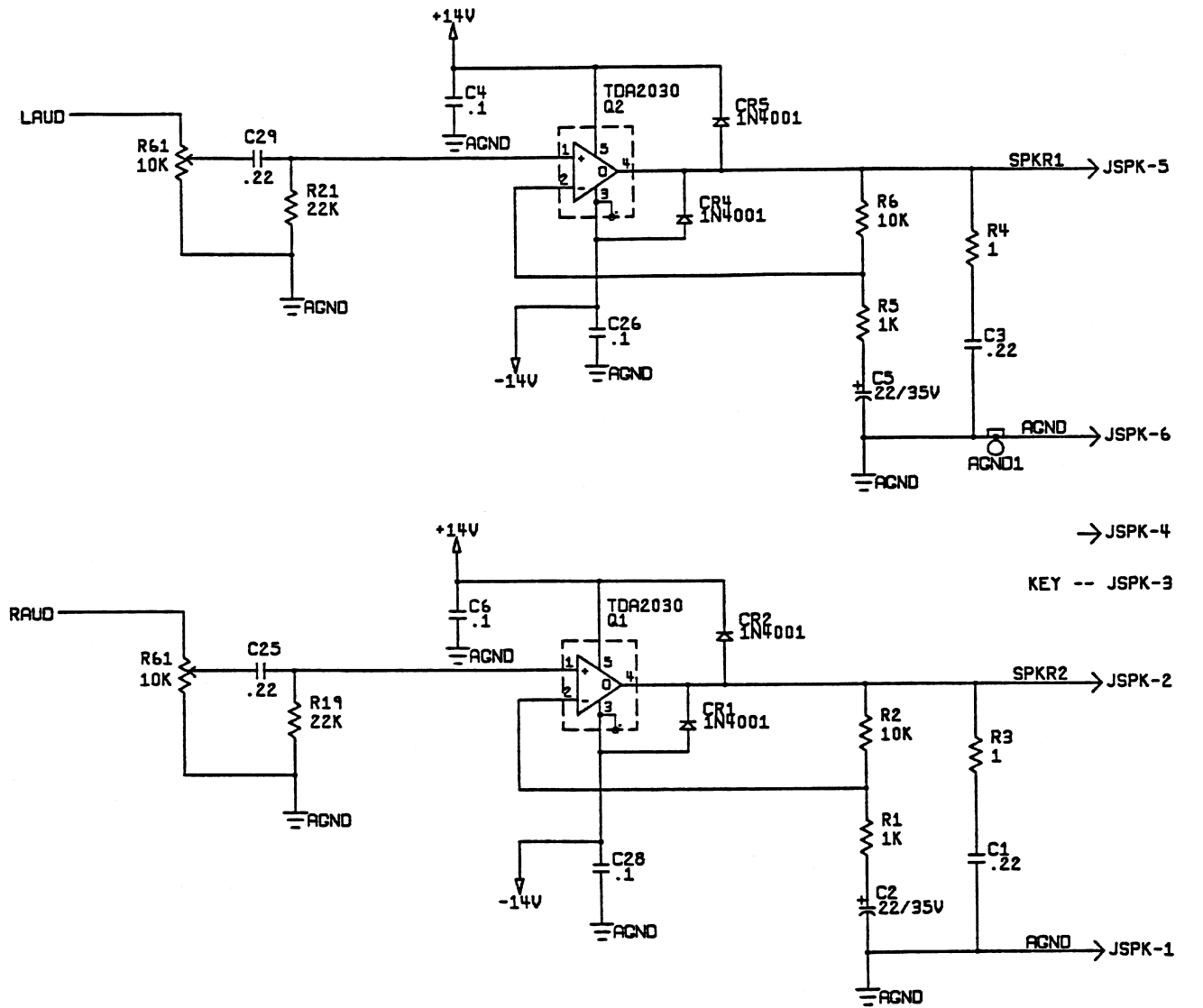
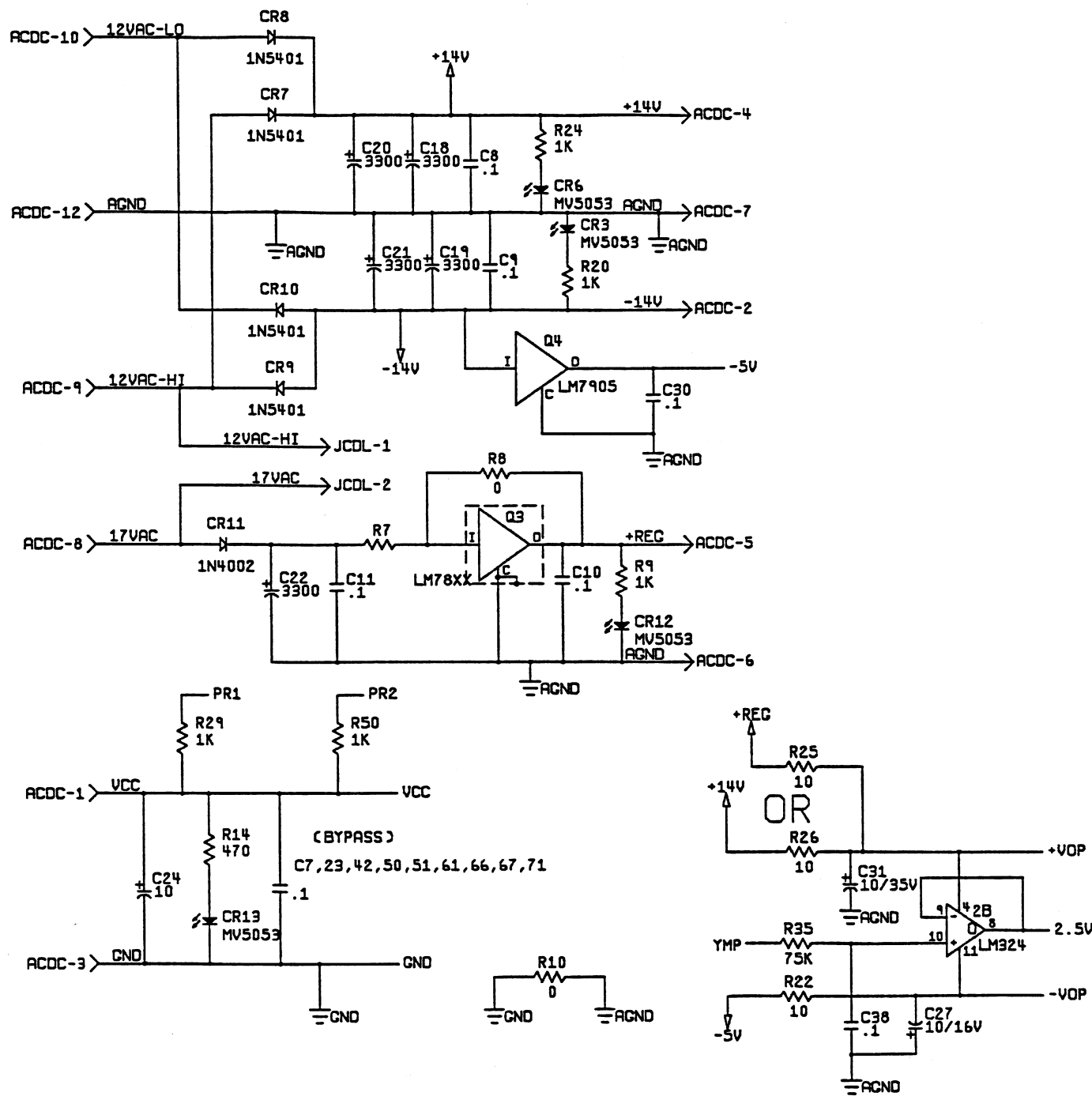
Vindicators Main Wiring Diagram


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ACDC-11 -- KEY



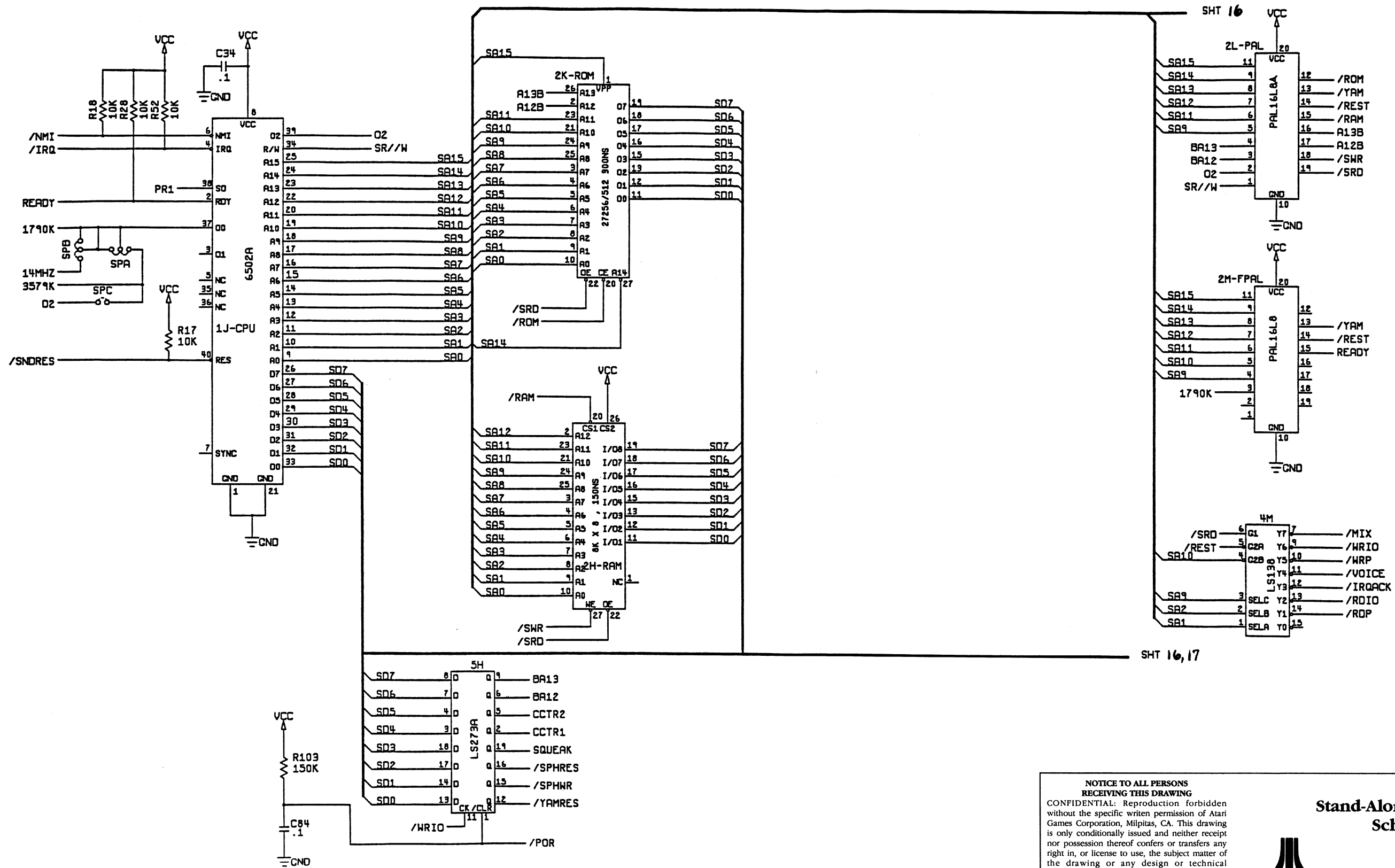
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Stand-Alone Audio PCB Assembly Schematic Diagram



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SHT 16, 17

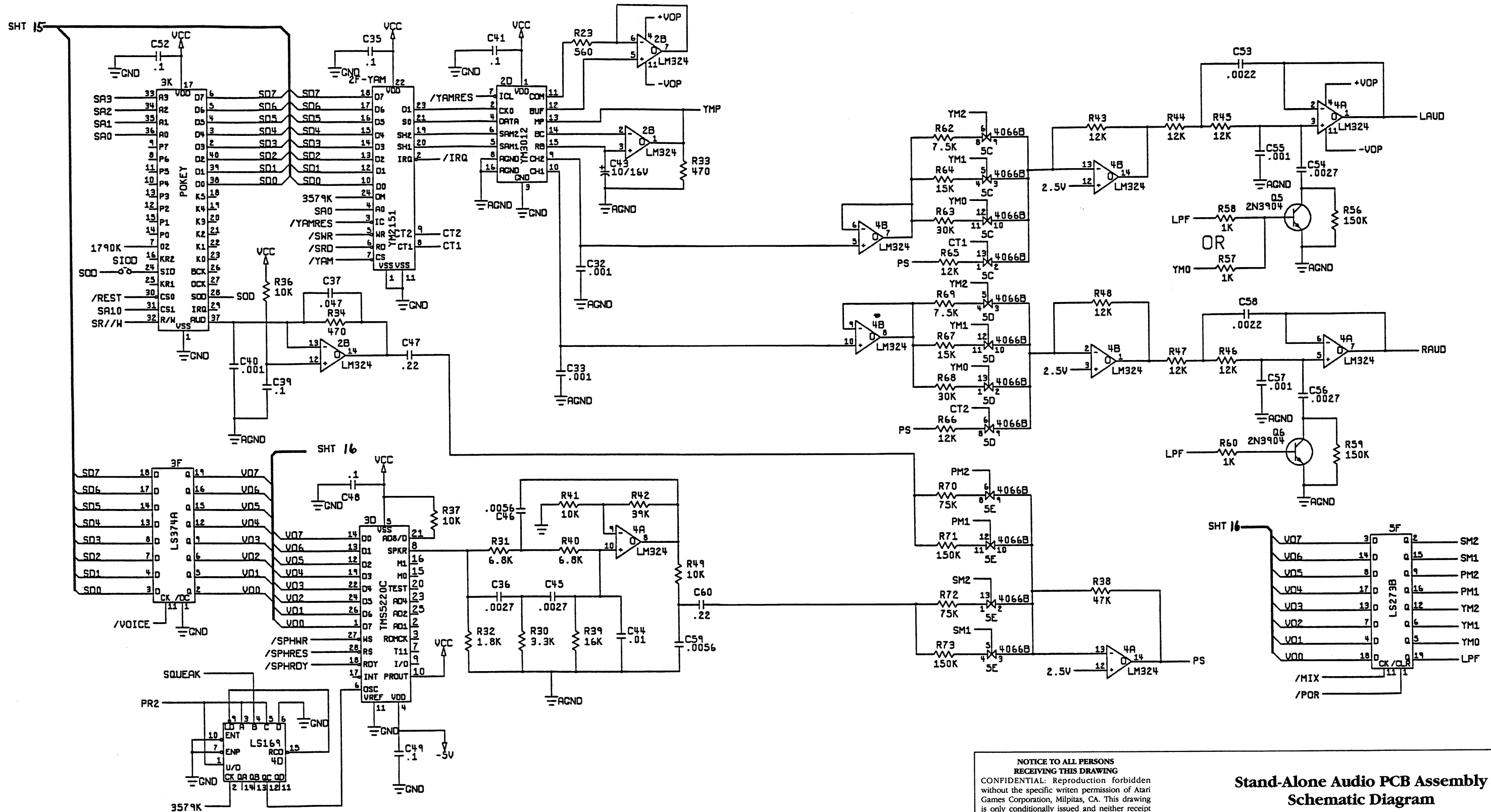
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Stand-Alone Audio PCB Assembly Schematic Diagram

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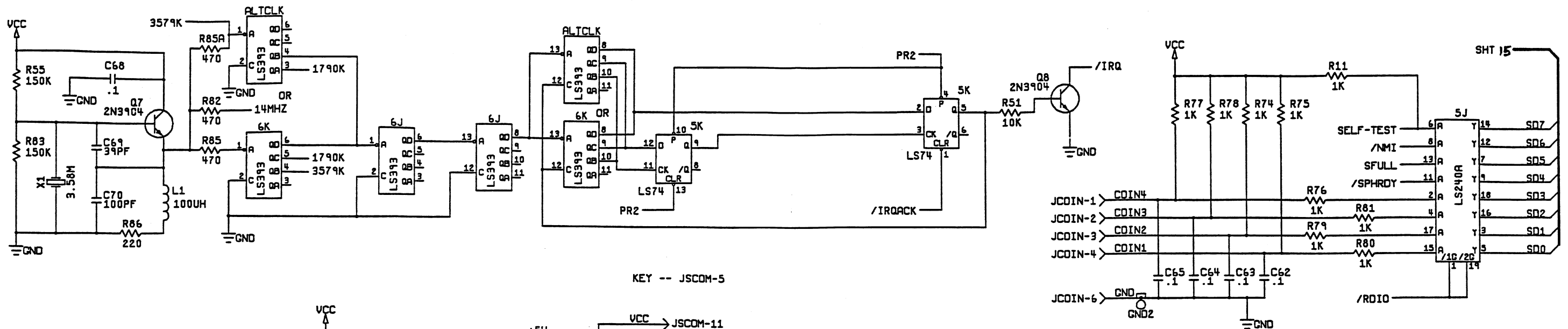
Stand-Alone Audio PCB Assembly Schematic Diagram


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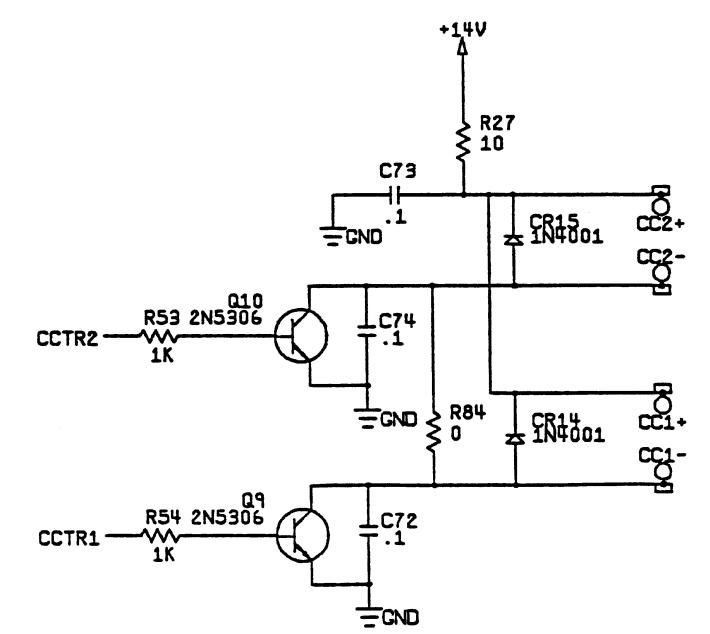
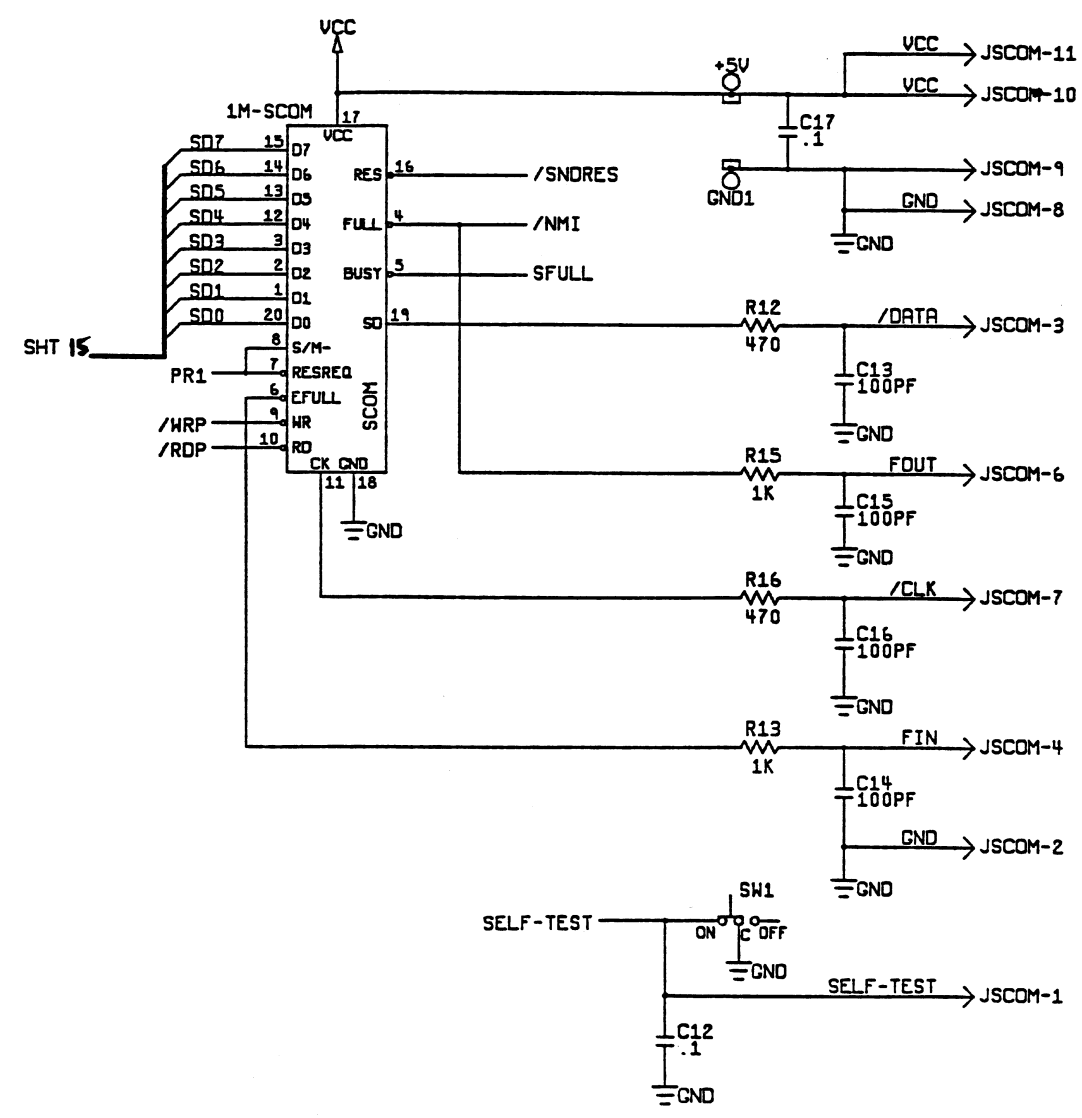
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KEY -- JSCOM-5



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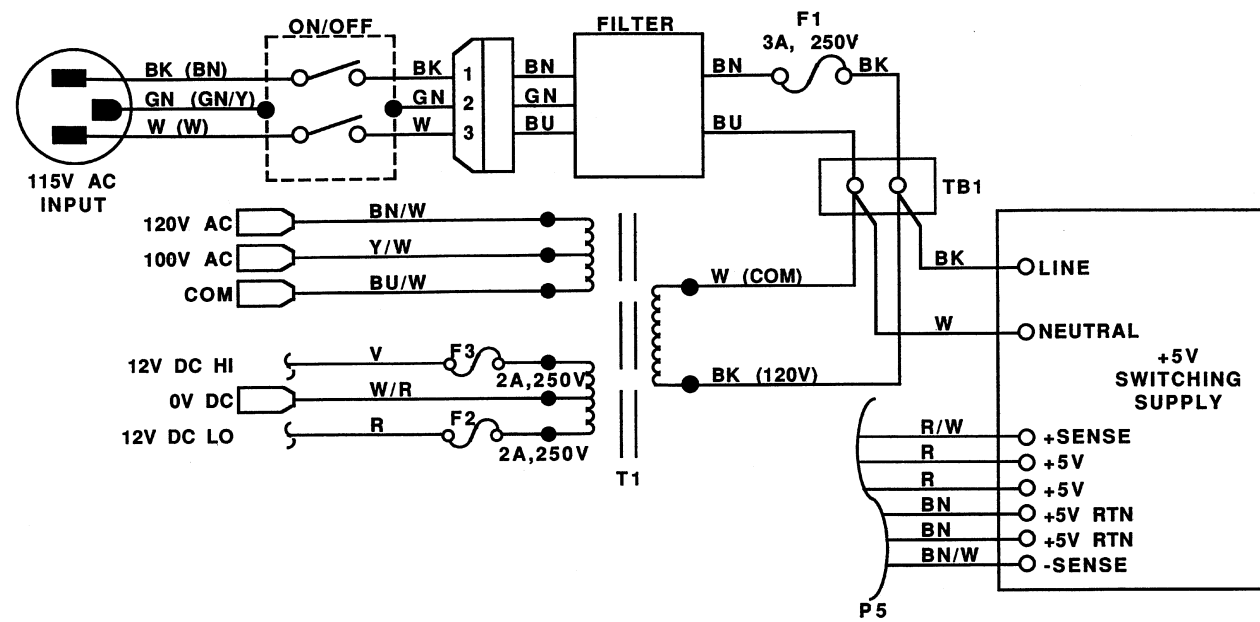
Stand-Alone Audio PCB Assembly Schematic Diagram

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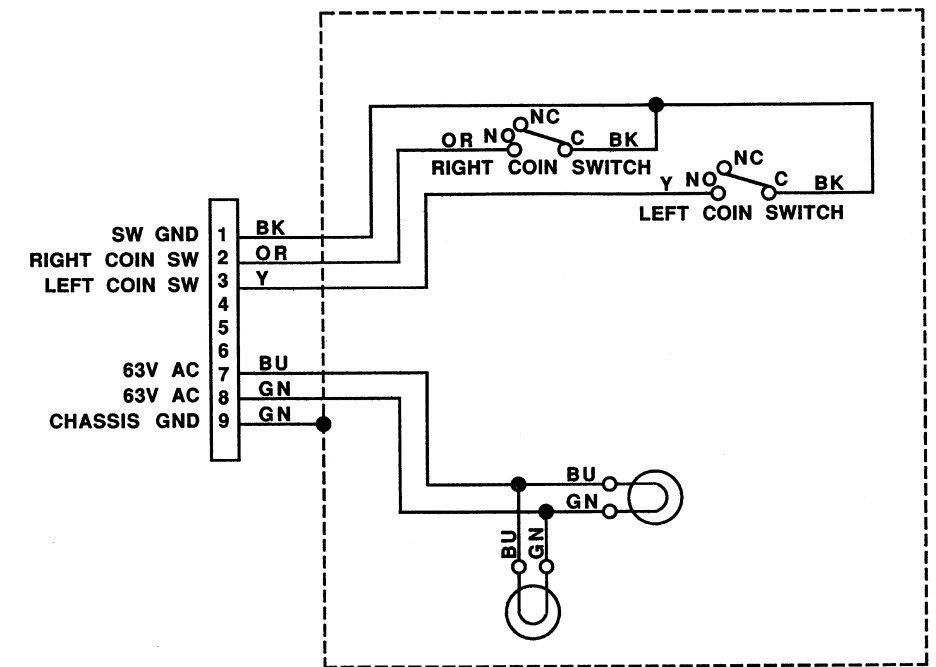
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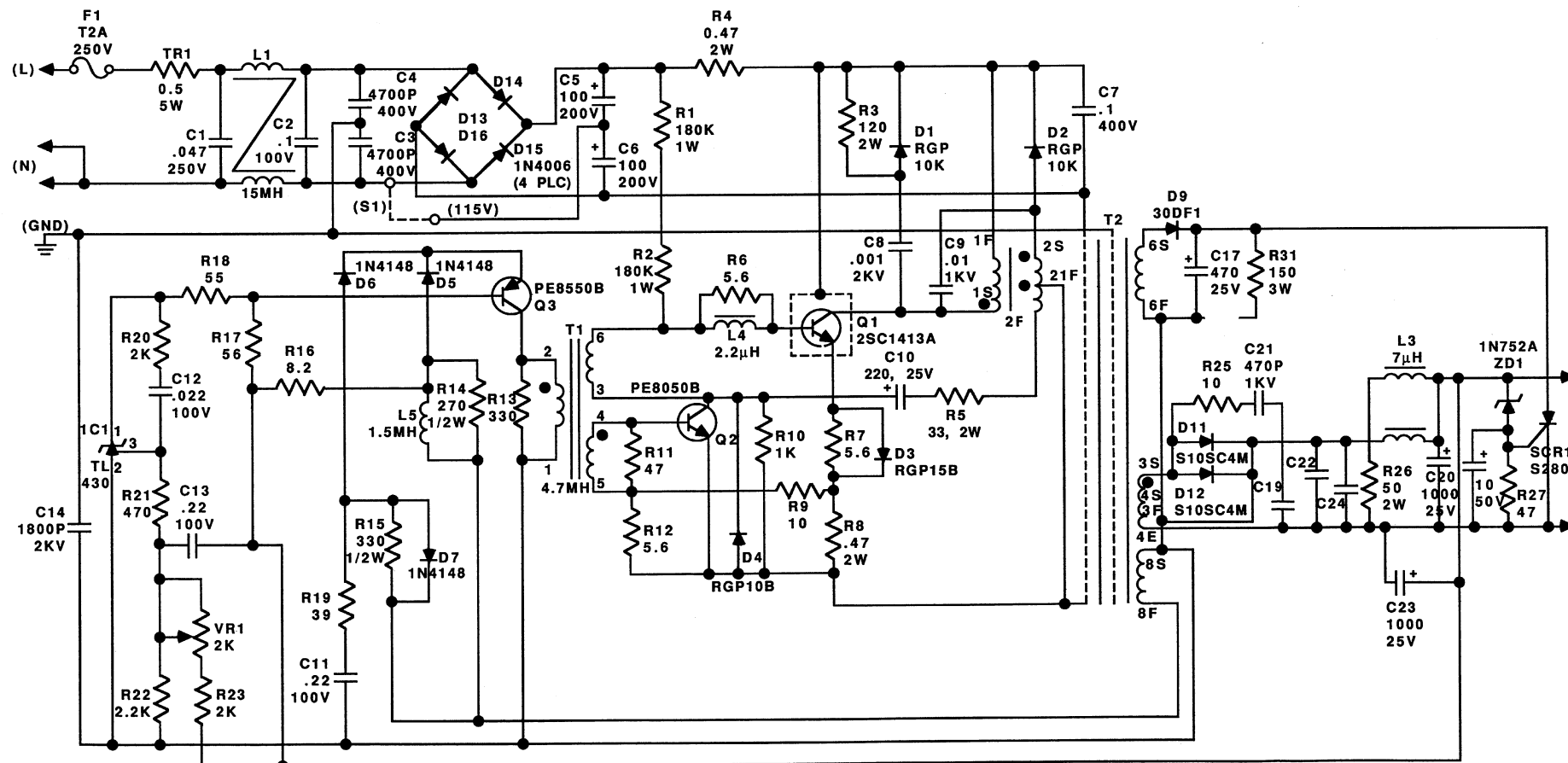
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Switching/Linear (SL) Power Supply



Coin Door Wiring Diagram



ATARI PART NO: 149003-003 (120V)
149003-103 (240V)

Hitron 5V 10A Switching Power Supply

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Wiring Diagrams for Switching/Linear (SL)
Power Supply, Hitron 5V 10A Switching
Power Supply, and Coin Door



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