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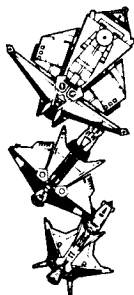
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NOTE
This staple temporarily holds the
schematic package together. Remove
the staple before using these sche-
matics.

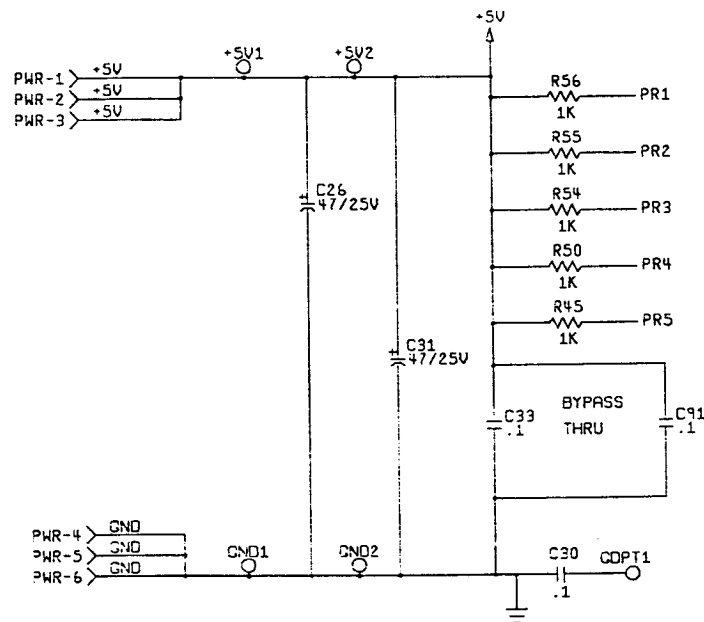


Schematic Package

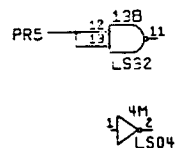
Supplement to the Operators Manual



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SPARE GATES



NOTES: UNLESS OTHERWISE SPECIFIED

1. RESISTORS ARE 1/8W, 5%.
 2. A 231000 ROM MAY BE INTERCHANGED WITH A PAIR OF 27312 EPROMS ON SHEET 6,7, AND 8 :
- 1L = 1L, 1M
 3L = 3L, 3M
 5M = 5M, 6/7M
 5N = 5N, 6/7N

Table 1 Faulty RAM Locations

Video Characteristic	Location on Game PCB	RAM Type
Red background	6/7L 5L	Upper Video RAM Lower Video RAM
Black background	15/16C 15/16B	Upper Color RAM Lower Color RAM

Table 2 Faulty Program ROM Locations

Error Address	Location on Game PCB
00000	U = 6C L = 6B
20000	U = 4C L = 4B

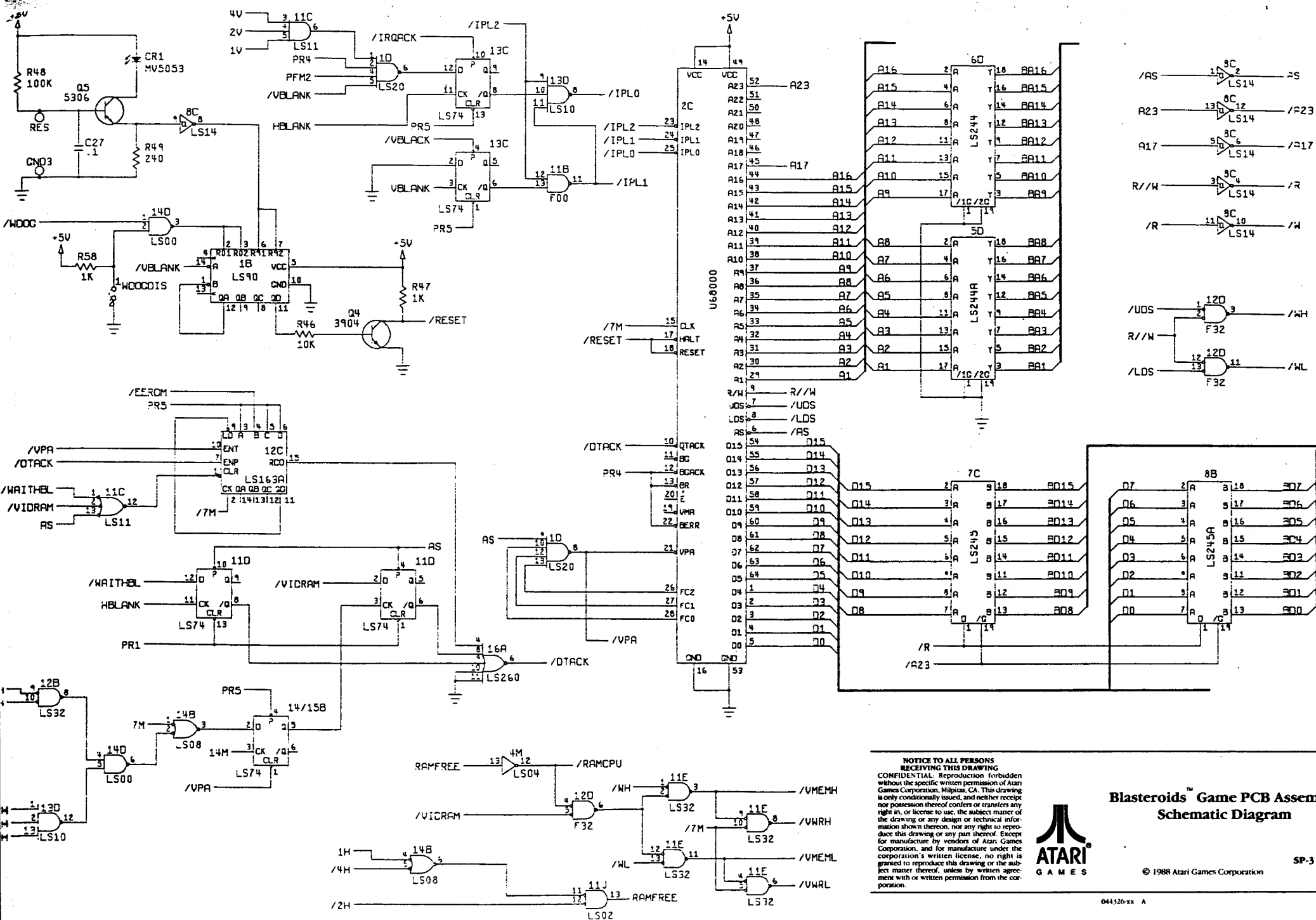
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Blasteroids™ Game PCB Assembly
Schematic Diagram, RAM/ROM Error

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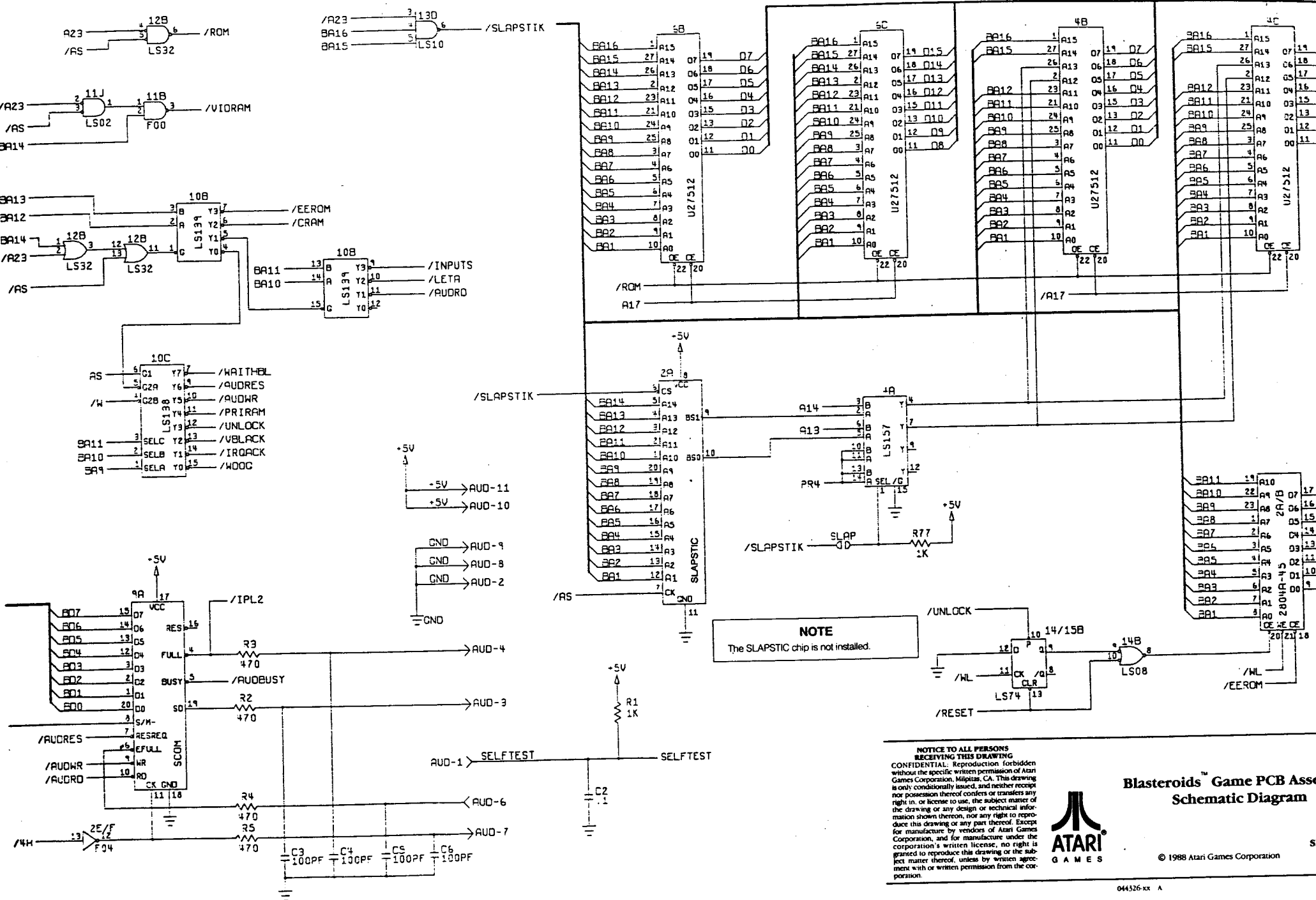


Blasteroids™ Game PCB Assembly Schematic Diagram

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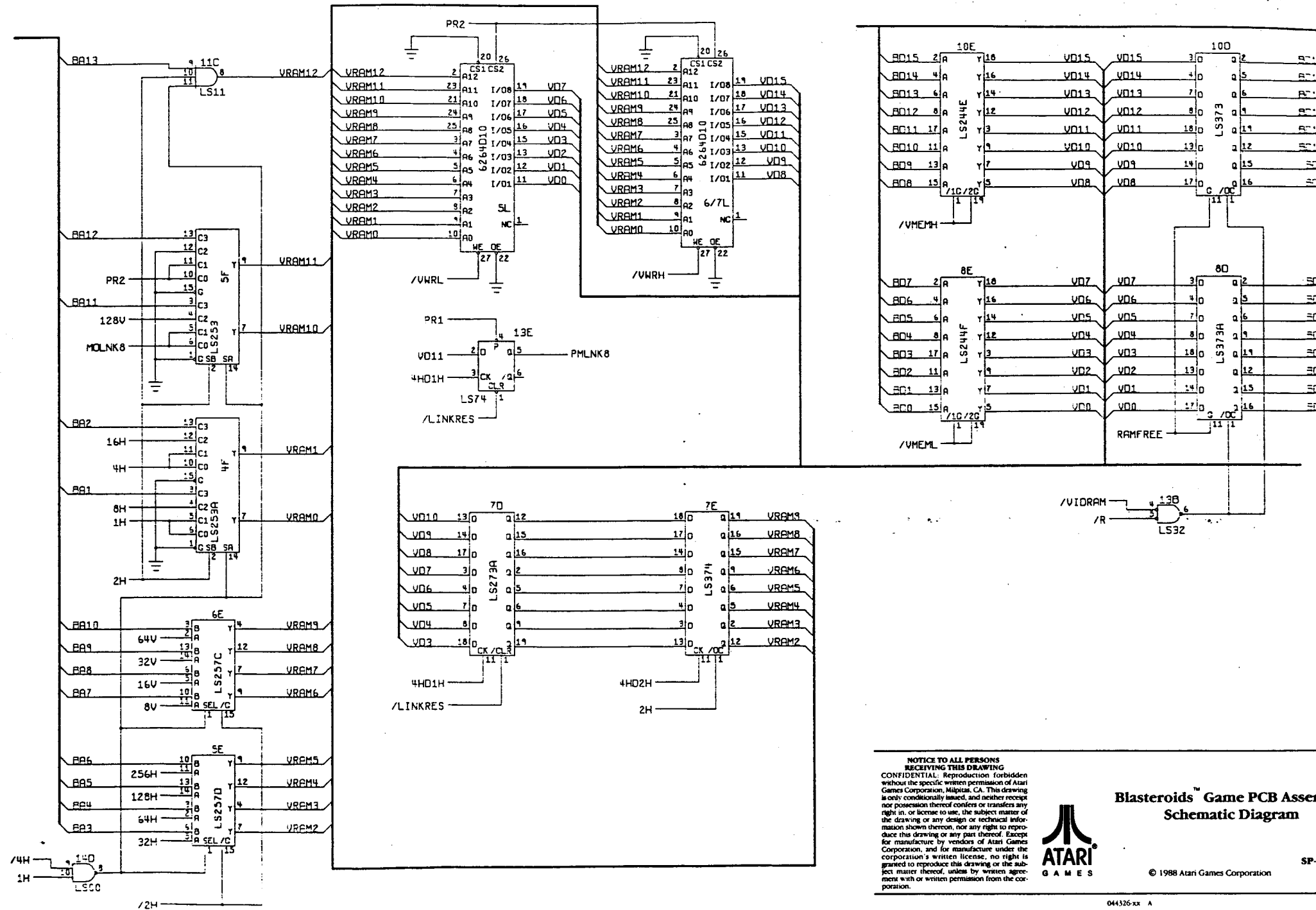
Blasteroids™ Game PCB Assembly Schematic Diagram

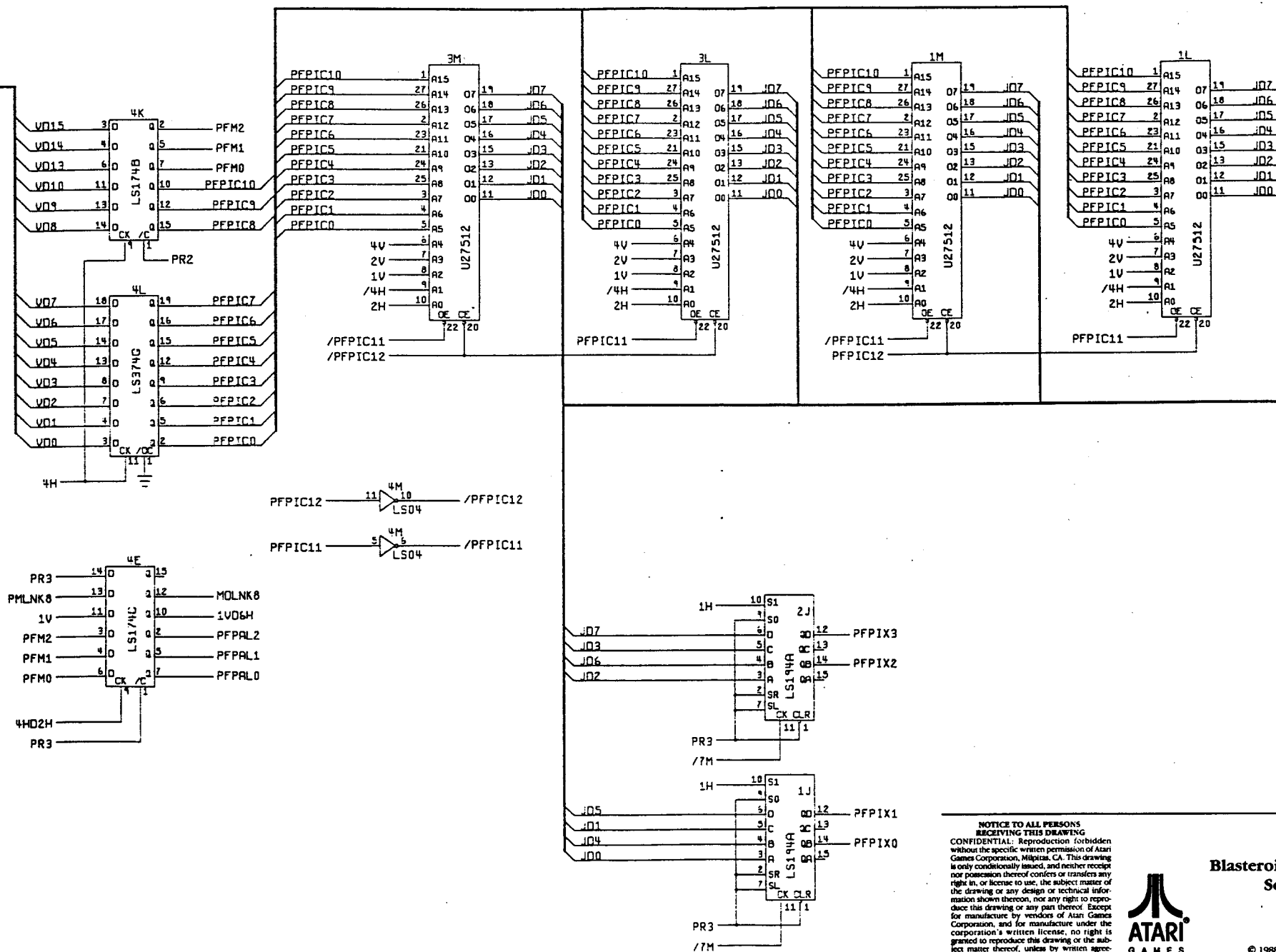


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Blasteroids™ Game PCB Assembly Schematic Diagram

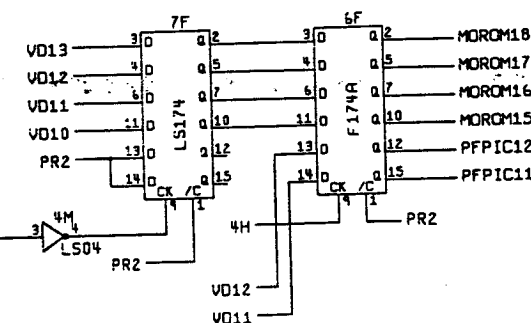
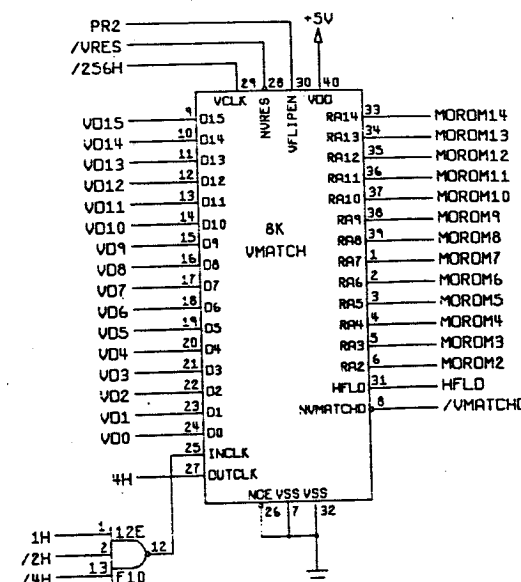
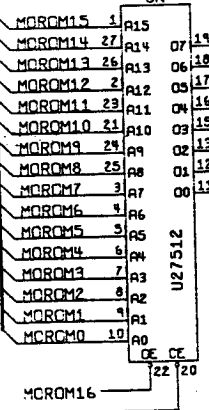
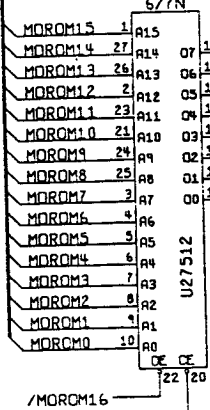
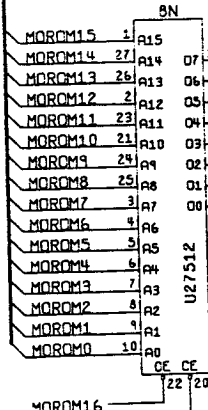
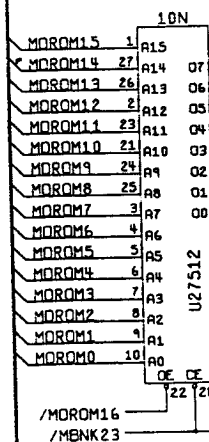
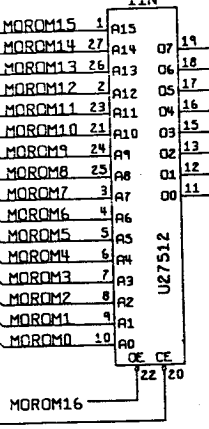
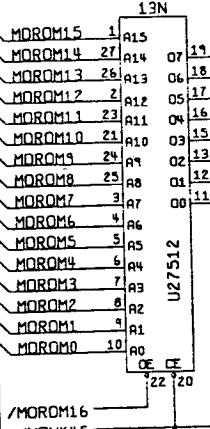
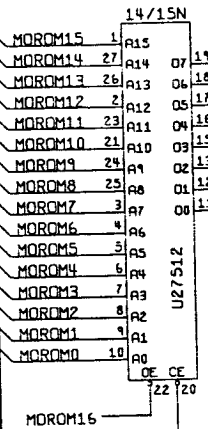
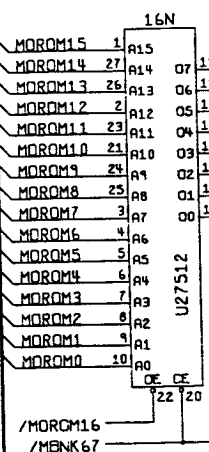
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LS139
Y3 7 /MENK67
Y2 6 /MENK45
Y1 5 /MENK23
Y0 4 /MENK01

4M
LS04 /MOROM16

40 12 11 MOROM1
LS86
40 10 8 MOROM0
LS86



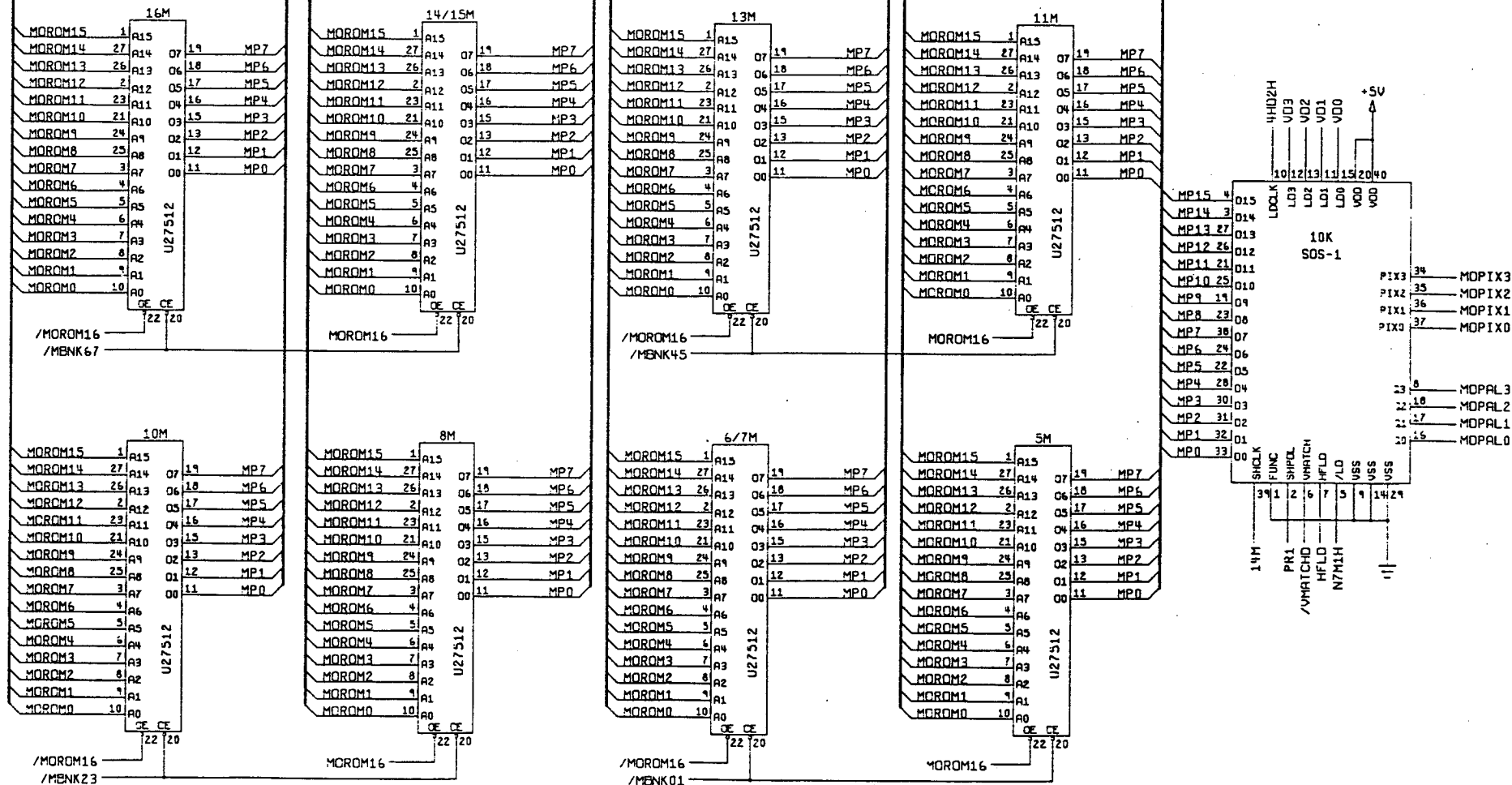
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Blasteroids™ Game PCB Assembly Schematic Diagram

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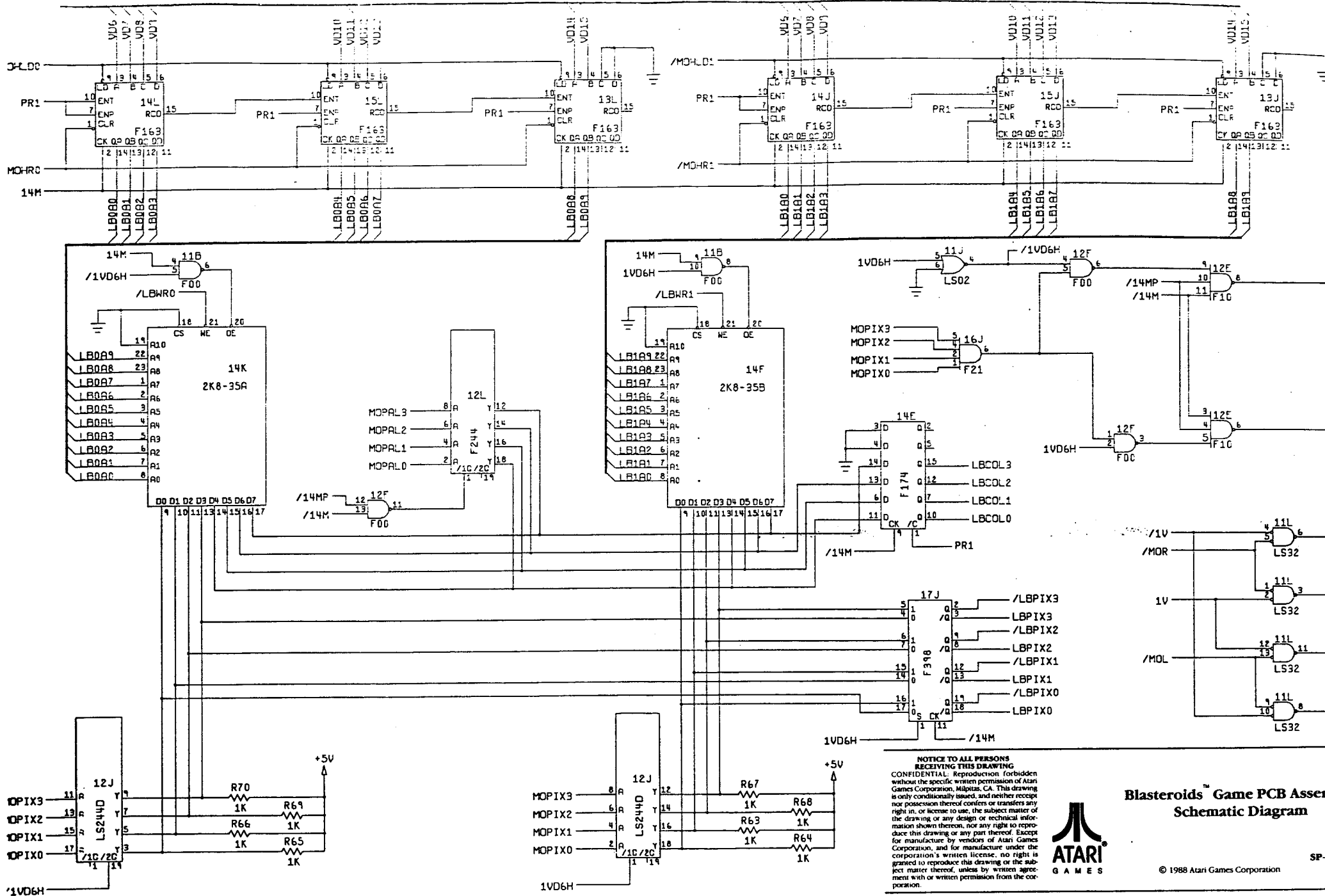
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Blasteroids™ Game PCB Assembly Schematic Diagram

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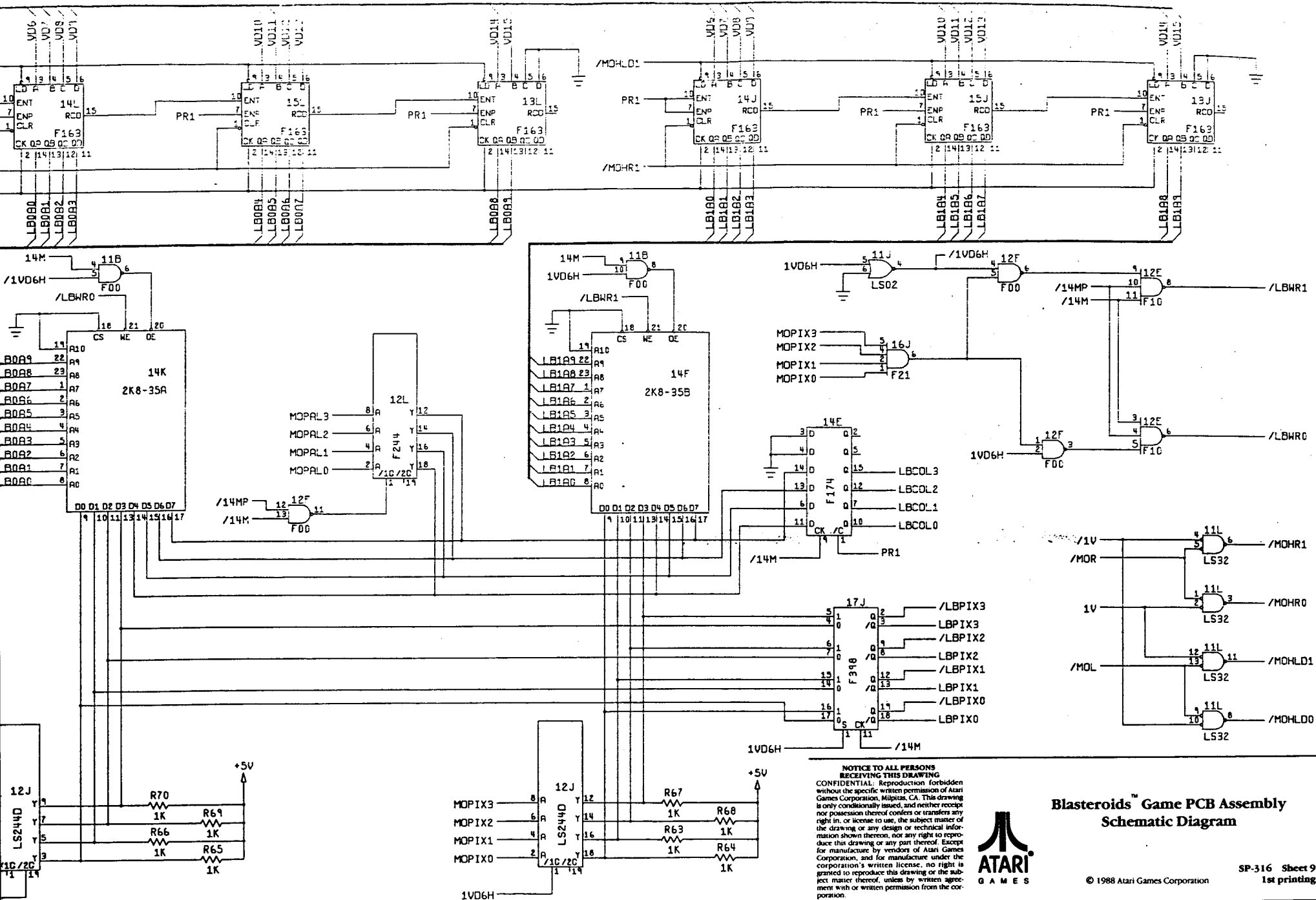


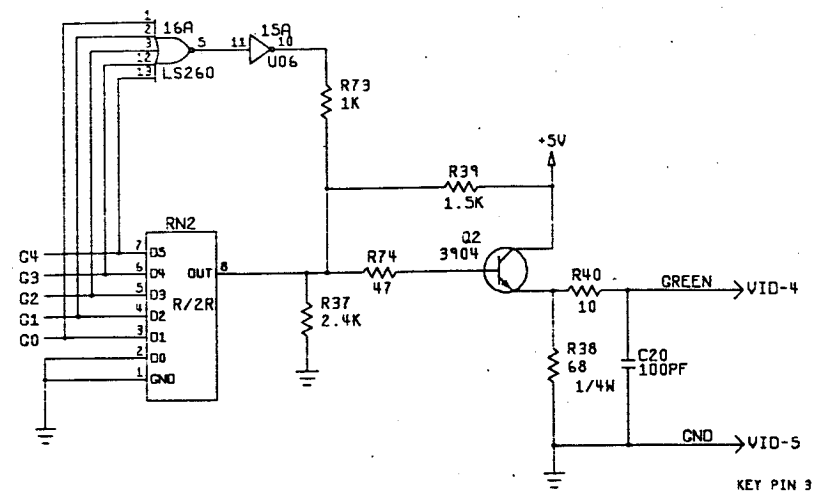
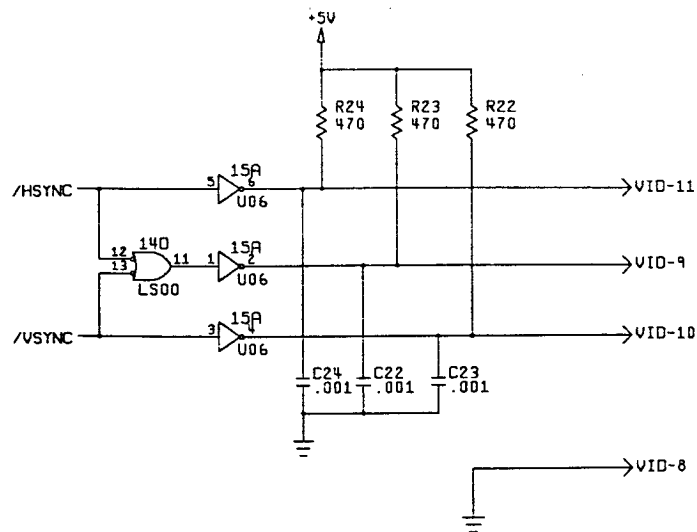
Blasteroids™ Game PCB Assembly Schematic Diagram



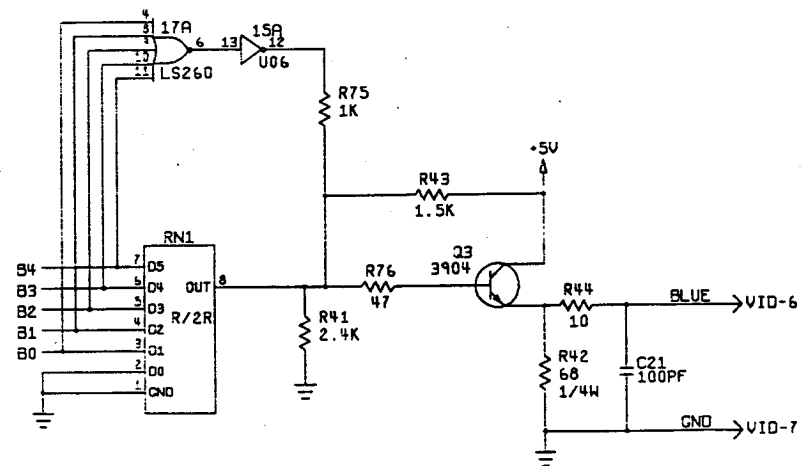
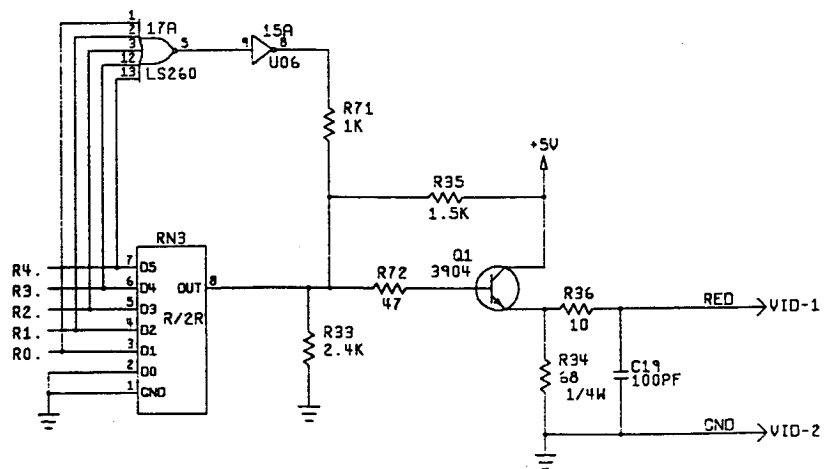
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SP-3





KEY PIN 3



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Blasteroids™ Game PCB Assembly Schematic Diagram

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BLASTEROIDS MEMORY MAP

NOTE: The address and data line numbers are stacked vertically to fit over the narrow columns. For example, the leftmost address line is A23, and the rightmost data line is D0.

HEXADECIMAL	ADDRESS						DATA				FUNCTION		
	AAAA	AAAA	AAAA	AA			DDDD	DD					
	2222	1111	1111	11AA	AAAA	AAAA	R/	1111	11DD	DDDD		DDDD	
	3210	9876	5432	1098	7654	3210	W	5432	1098	7654	3210		
000000-03FFFF	0XXX	XXAA	AAAA	AAAA	AAAA	AAAA	R	DDDD	DDDD	DDDD	DDDD	256K BYTES PROGRAM ROM	
038000-03FFFF	0XXX	XX11	1AAA	AAAA	AAAA	AAAA	R	DDDD	DDDD	DDDD	DDDD	32K BYTES SLAPSTIC PROGRAM ROM SPACE	
FF8000	1XXX	XXXX	X000	00XX	XXXX	XXXX	W					WATCHDOG RESET	
FF8200	1XXX	XXXX	X000	001X	XXXX	XXXX	W					IRQ ACKNOWLEDGE	
FF8400	1XXX	XXXX	X000	010X	XXXX	XXXX	W					VBLANK INTERRUPT ACKNOWLEDGE	
FF8600	1XXX	XXXX	X000	011X	XXXX	XXXX	W					UNLOCK EEROM	
FF8800-FF89FE	1XXX	XXXX	X000	100H	PPPM	MMMO	W				D	PRIORITY RAM (D0) (1 = MOTION OBJECT, 0 = PLAYFIELD)	
	H = PF HALF PALETTE, P = PF PALETTE, M = M.O. PALETTE												
FF8A01	1XXX	XXXX	X000	101X	XXXX	XX01	W		DDDD	DDDD		AUDIO SEND PORT	
FF8C00	1XXX	XXXX	X000	110X	XXXX	XXXX	W					RESET AUDIO PROCESSOR	
FF8E00	1XXX	XXXX	X000	111X	XXXX	XXXX	W					HALT CPU UNTIL HBLANK	
FF9401	1XXX	XXXX	X001	01XX	XXXX	XX01	R		DDDD	DDDD		AUDIO RECEIVE PORT	
FF9801	1XXX	XXXX	X001	10XX	XXXX	XX01	R		DDDD	DDDD		WHIRLY-GIG (PLAYER 1)	
FF9805	1XXX	XXXX	X001	10XX	XXXX	XX11	R		DDDD	DDDD		WHIRLY-GIG (PLAYER 2)	
FF9C01	1XXX	XXXX	X001	11XX	XXXX	XX01	R		D			SELF-TEST SWITCH (D7)	
FF9C01	1XXX	XXXX	X001	11XX	XXXX	XX01	R		D			AUDIO BUSY FLAG (D6) (0 = BUSY)	
FF9C01	1XXX	XXXX	X001	11XX	XXXX	XX01	R		D			VBLANK (D5)	
FF9C01	1XXX	XXXX	X001	11XX	XXXX	XX01	R		D			HBLANK (D4)	
FF9C01	1XXX	XXXX	X001	11XX	XXXX	XX01	R			DDDD		PLAYER 1 BUTTONS \ (D0 = FIRE; D1 = THRUST;	
FF9C03	1XXX	XXXX	X001	11XX	XXXX	XX11	R			DDDD		PLAYER 2 BUTTONS / D2 = TRANSFORM; D3 = SPARE)	
FFA000-FFA3FE	1XXX	XXXX	X010	XXAA	AAAA	AA00	R/W	RRR	RRGG	GGGB	BBBB	COLOR RAM	
FFA000-FFA1FE	1XXX	XXXX	X010	XX0P	PPPC	CCCC	R/W	RRR	RRGG	GGGB	BBBB	MOTION OBJECT COLOR RAM	
FFA200-FFA2FE	1XXX	XXXX	X010	XX10	PPPC	CCCC	R/W	RRR	RRGG	GGGB	BBBB	PLAYFIELD COLOR RAM	
	P = PALETTE C = COLOR												
FFB001-FFB3FF	1XXX	XXXX	X011	aaAA	AAAA	AA01	R/W			DDDD	DDDD	EEROM (2804: 512 BYTES; 2816: 2K BYTES)	
	a = ADDRESS BITS ON 2816 ONLY												
FFC000-FFFFF	1XXXX	X1AA	AAAA	AAAA	AAAA		R/W	DDDD	DDDD	DDDD	DDDD	16K BYTES VIDEO AND WORKING RAM	
FFC000-FFCFE	1XXX	XXXX	X100	RRRR	RCCC	CCCC	R/W	PPPD	DDDD	DDDD	DDDD	PLAYFIELD RAM (40 x 30 STAMPS)	
FFC050-FFCED0	1XXX	XXXX	X100	RRRR	R101	0000	R/W	D				ROW PROGRAMMABLE INTERRUPT (1 = INTERRUPT)	
	R = ROW C = COLUMN							P = PALETTE					(Last 47 bytes of each row are free)
FFC000-FFCFFF	1XXX	XXXX	X100	1111	AAAA	AAAA		DDDD	DDDD	DDDD	DDDD	256 BYTES FREE RAM	
FFD000-FFDFF8	1XXX	XXXX	X101	LLLL	LLLL	L000	R/W	VVVV	VVVV	V	ZZZZ	MOVPOS (V = vposition, Z = vsize)	
FFD002-FFDFFA	1XXX	XXXX	X101	LLLL	LLLL	L010	R/W	hVSS	SSSS	SSSS	SSSS	MOPIC (h = hflip, v = vflip, S = stamp)	
FFD004-FFDFFC	1XXX	XXXX	X101	LLLL	LLLL	L100	R/W		LLLL	LLLL	L	MOLINK (L = next link pointer)	
FFD006-FFDFFE	1XXX	XXXX	X101	LLLL	LLLL	L110	R/W	HHHH	HHHH	HH	PPPP	MOHPOS (H = hposition, P = palette)	
	L = LINK POINTER												
FFE000-FFFFF	1XXX	XXXX	X11A	AAAA	AAAA	AAAA	R/W	DDDD	DDDD	DDDD	DDDD	8K BYTES FREE RAM (TOTAL FREE RAM = 9858 BYTES = 4929 WORDS + ANY UNUSED MOTION OBJECT RAM)	

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Blasteroids™ Memory Map

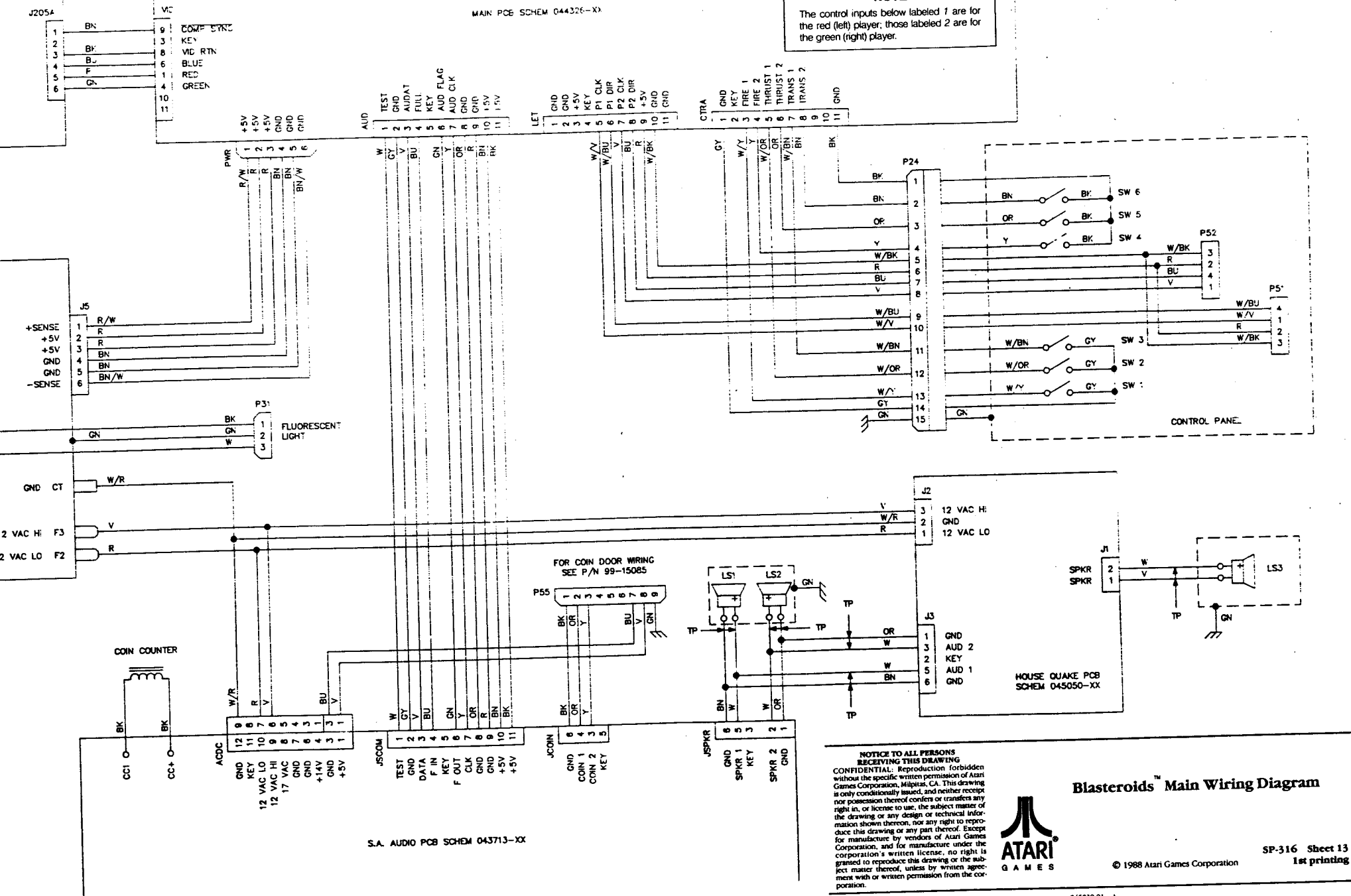
J205A

VCC

MAIN PCB SCHEM 044326-XX

NOTE

The control inputs below labeled 1 are for the red (left) player; those labeled 2 are for the green (right) player.



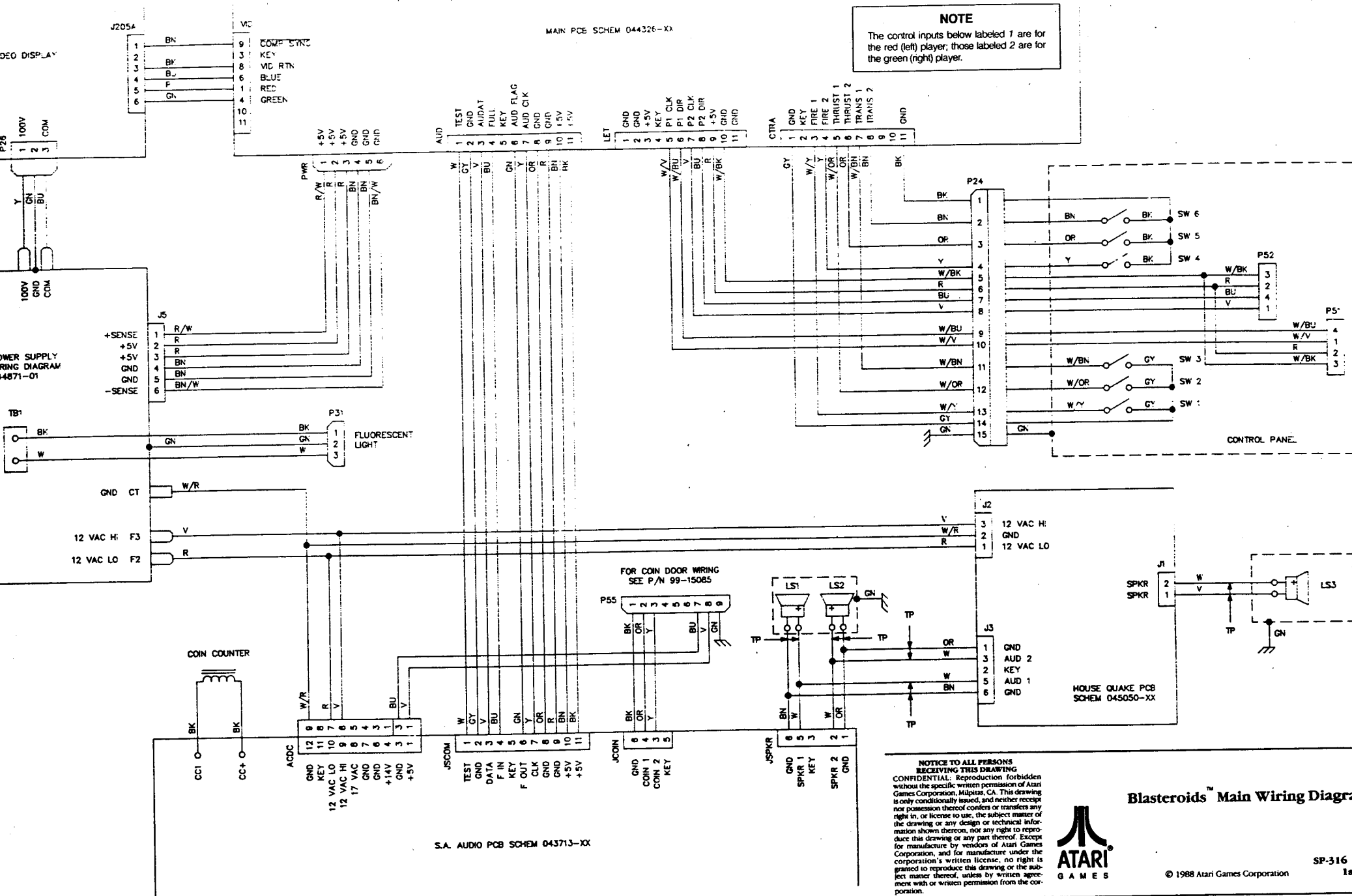
S.A. AUDIO PCB SCHEM 043713-XX

Blasteroids™ Main Wiring Diagram

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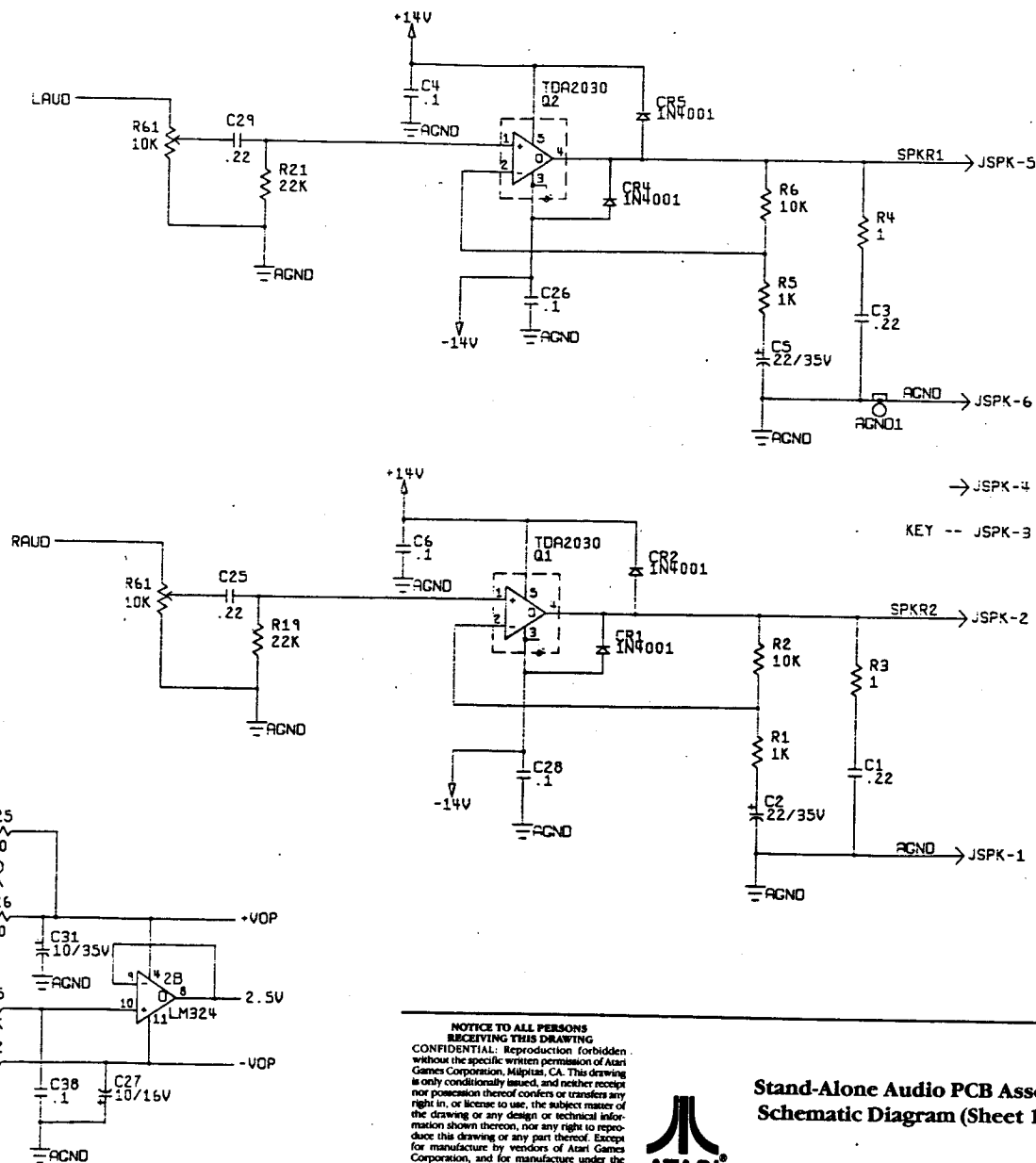
Blasteroids™ Main Wiring Diagram



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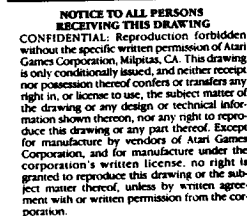
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Stand-Alone Audio PCB Assembly Schematic Diagram (Sheet 1 of 4)

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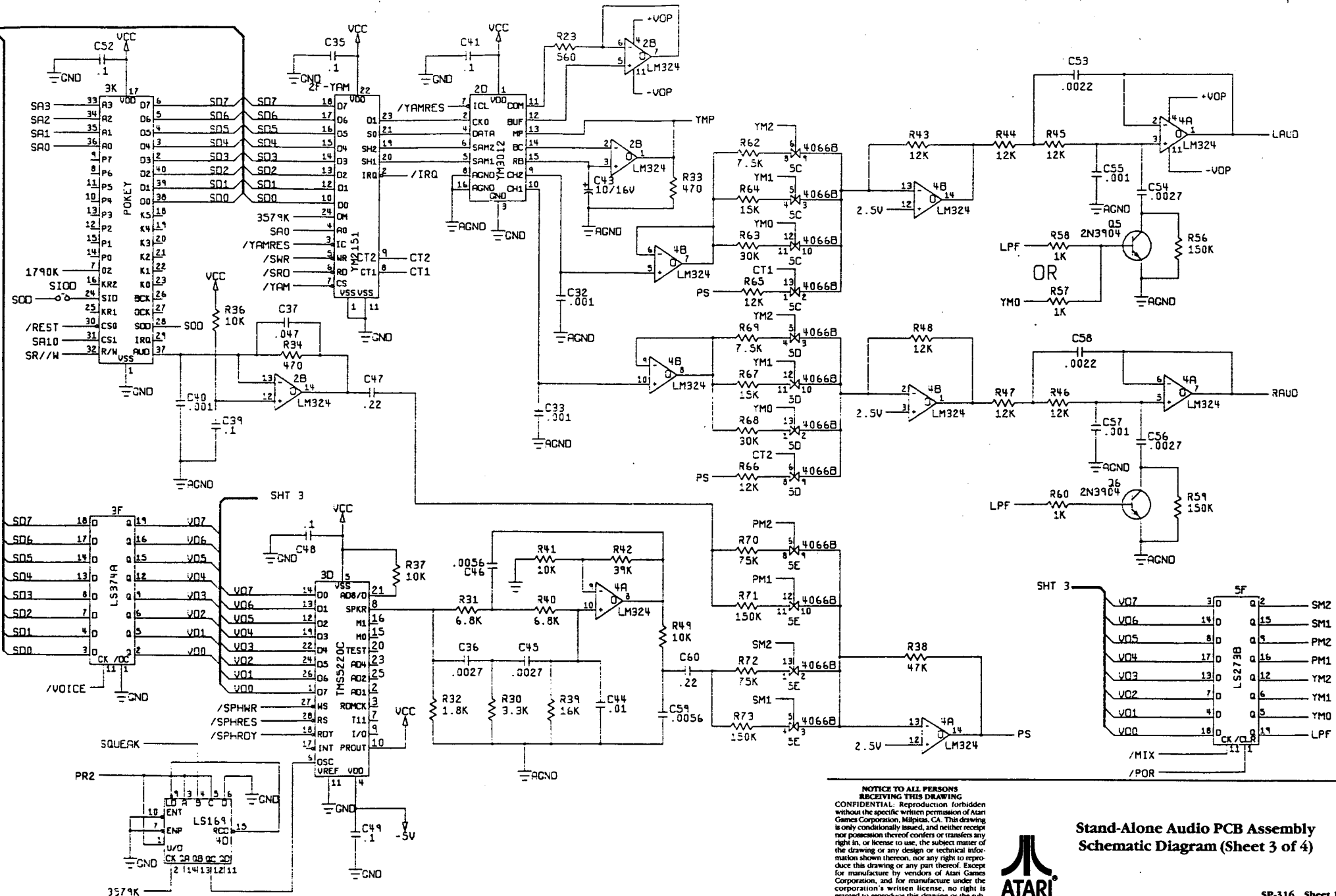
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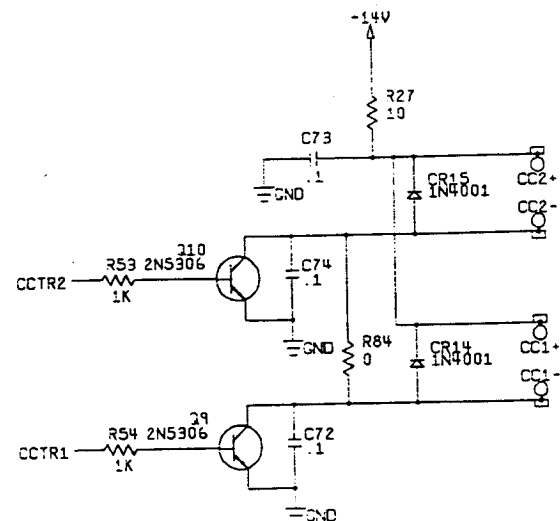
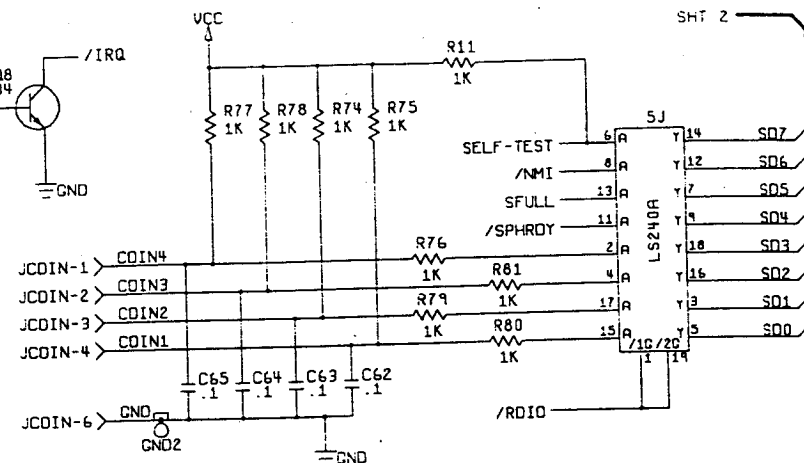
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Stand-Alone Audio PCB Assembly Schematic Diagram (Sheet 3 of 4)

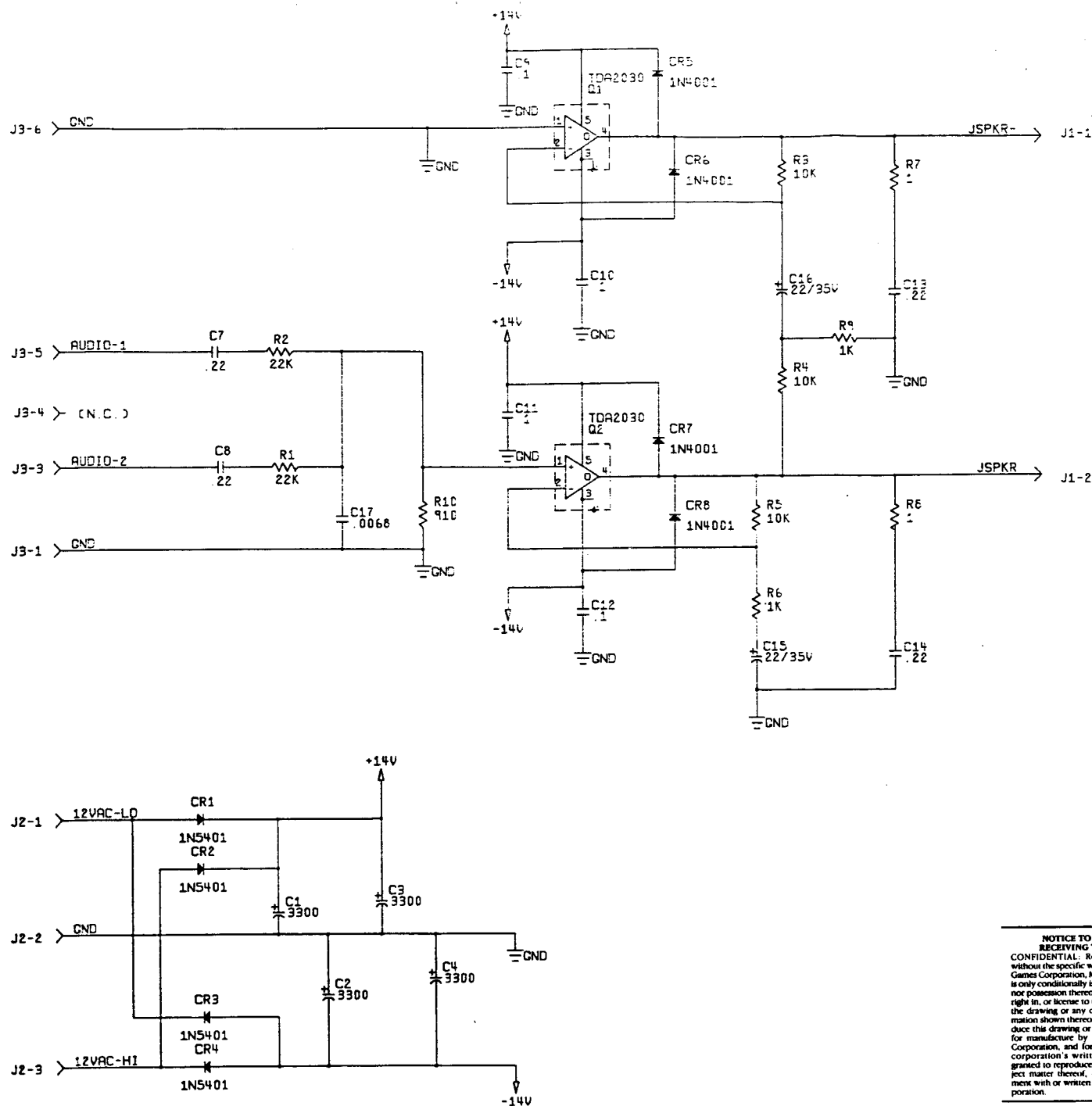
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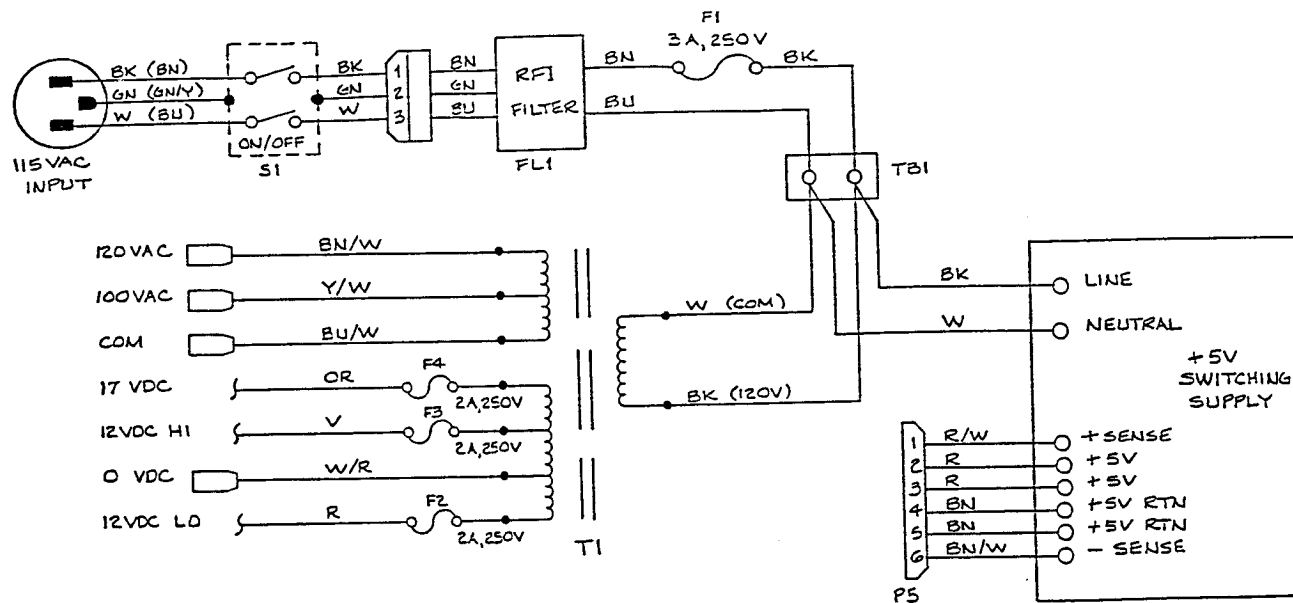
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Housequake™ PCB Assembly Schematic Diagram

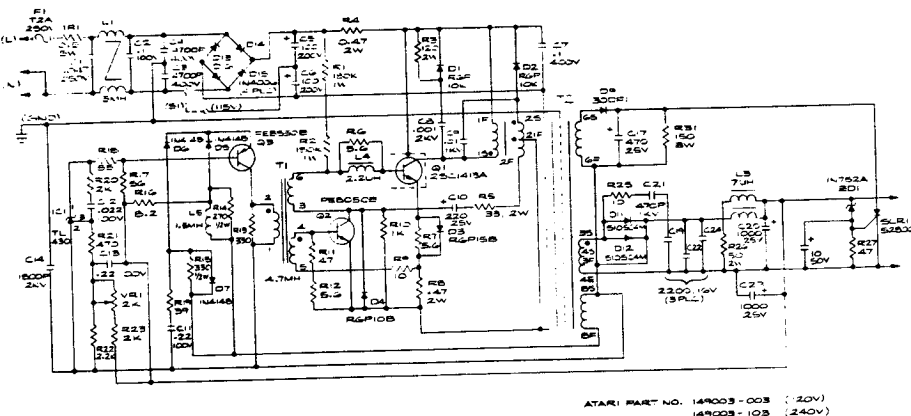
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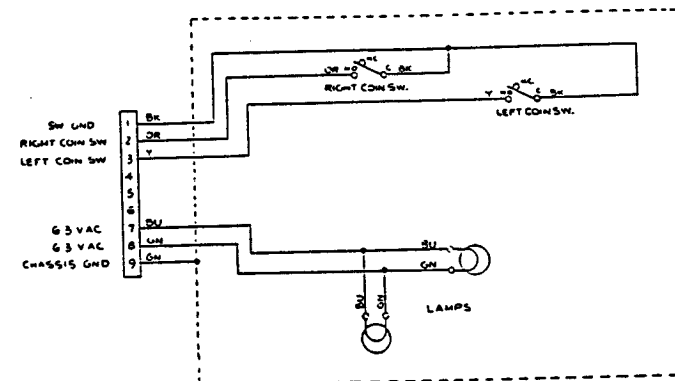


Switching/Linear (SL) Power Supply

Coin Door Wiring Diagram



Hitron 5V 10A Switching Power Supply



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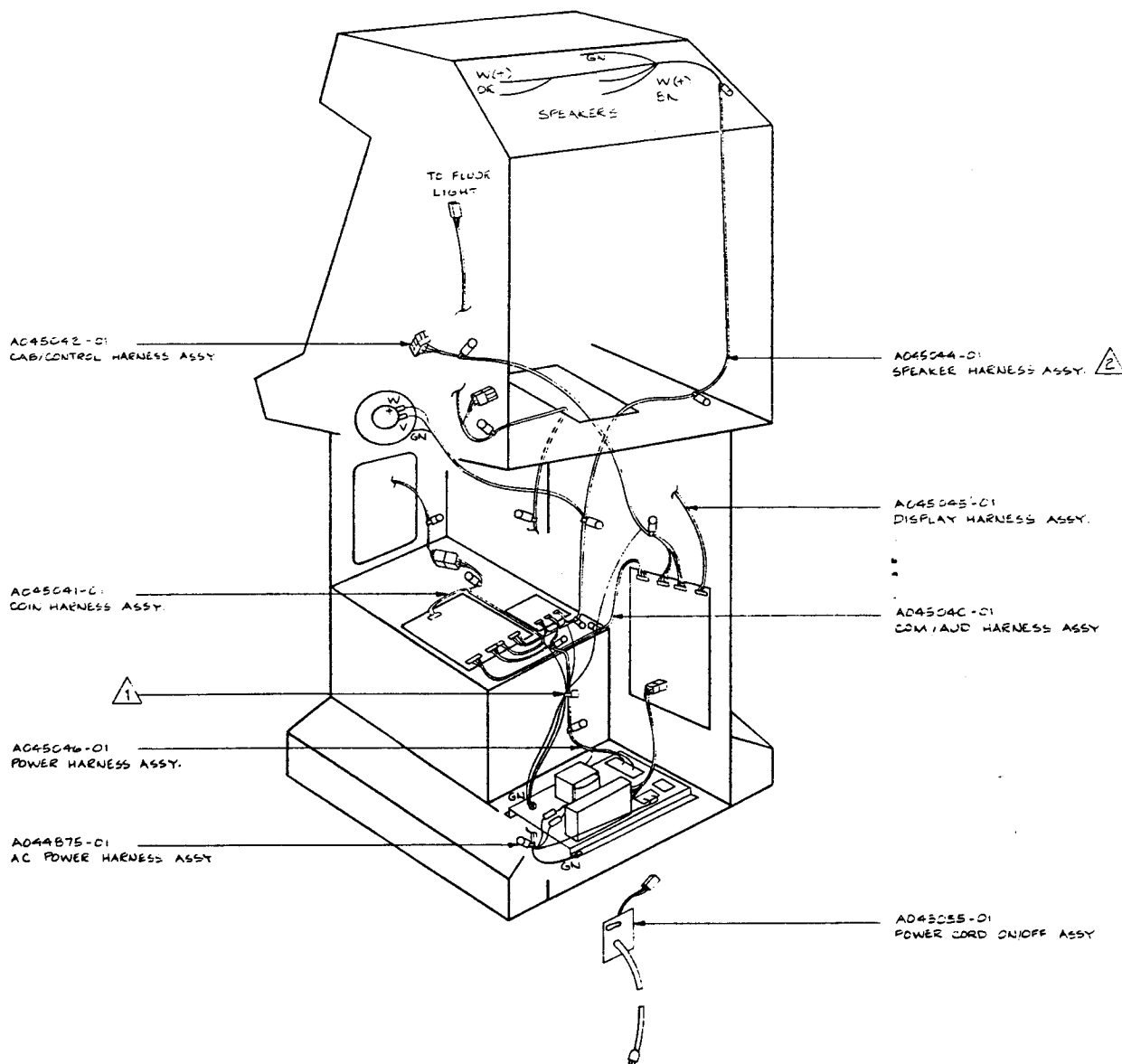
Wiring Diagrams for Switching/Linear (SL) Power Supply, Hitron 5V 10A Switching Power Supply, and Coin Door

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NOTE

If you replace any of the harnesses in this game, be sure to install them as shown in this illustration. Installing them in a different way may cause this game to generate excessive electromagnetic interference.



NOTES

- 1 SECURE GROUND WIRES TO POWER HARNESS ASSY. WHERE SHOWN.
- 2 STAPLE GROUND WIRE TO LEFT REAR CORNER OF TOP SPEAKER PANEL AND BOTTOM LEFT CORNER OF LOWER SPEAKER PANEL.

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Blasteroids Harness Installation

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