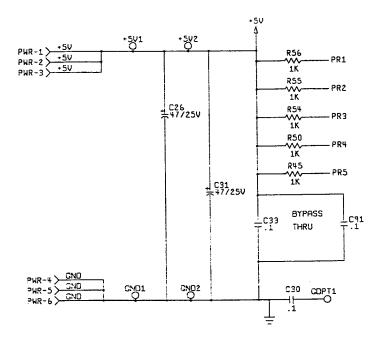
# **Table of Contents**

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**Schematic Package** Supplement to the Operators Manual

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SPARE GATES

NOTES: UNLESS OTHERWISE SPECIFIED

- 1. RESISTORS ARE 1/8N, 5%.
- 2. A 231000 ROM MAY BE INTERCHANCED WITH A PAIR OF 27512 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 Charac-<br>teristic | Location on<br>Game PCB | RAM Type                           |  |
|---------------------------|-------------------------|------------------------------------|--|
| Red background            | 6/7L -<br>5L            | Upper Video RAM<br>Lower Video RAM |  |
| Black background          | 15/16C<br>15/16B        | Upper Color RAM<br>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 |

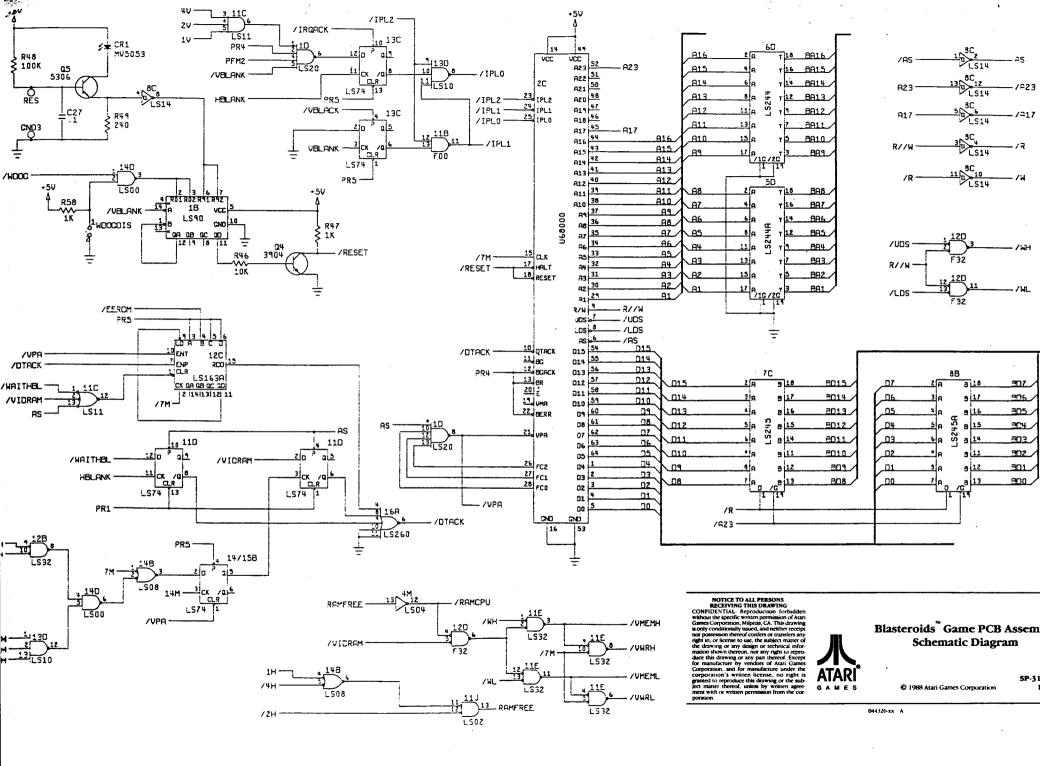
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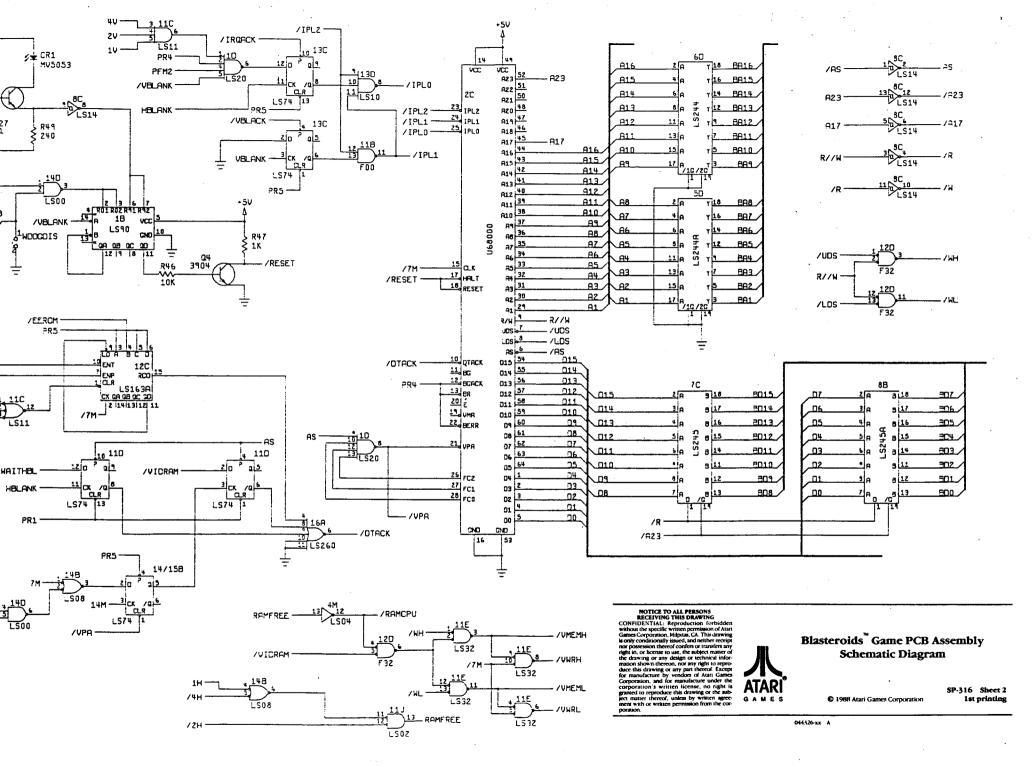


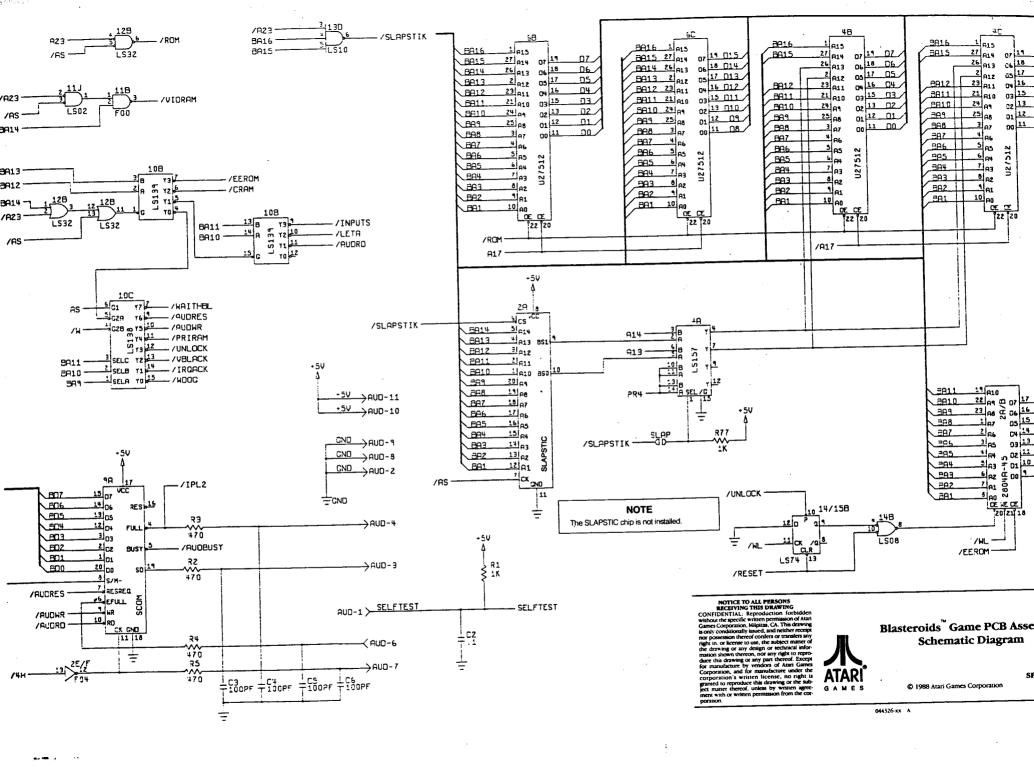
Blasteroids Game PCB Assemb Schematic Diagram, RAM/ROM Error

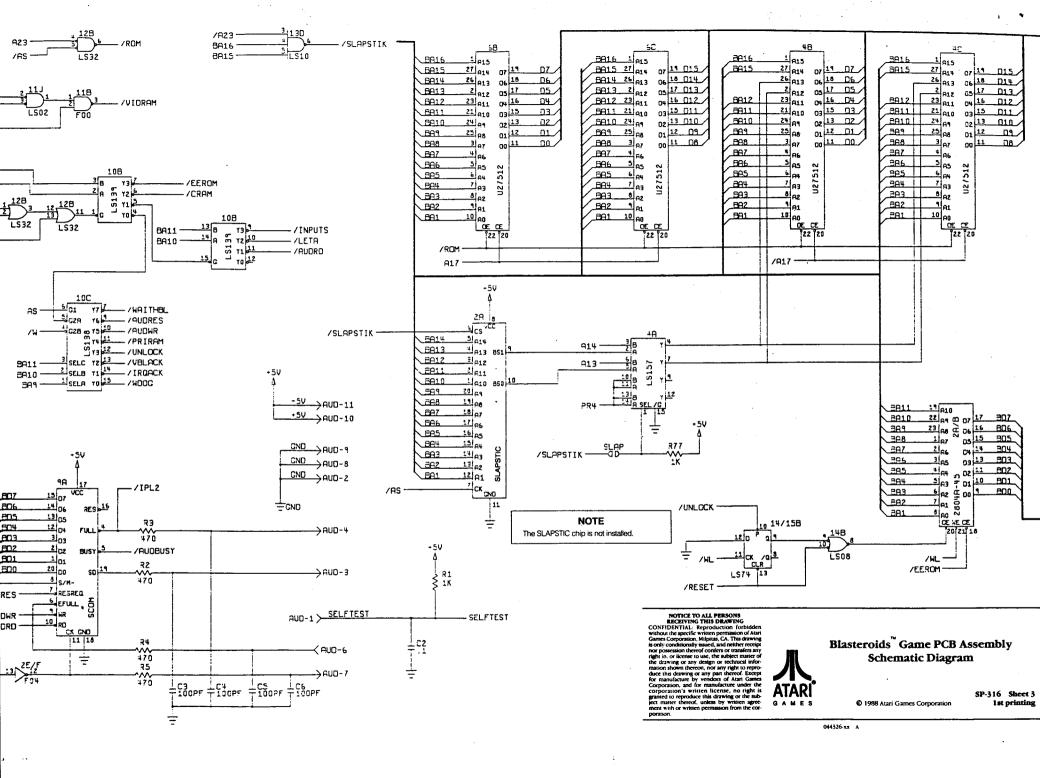
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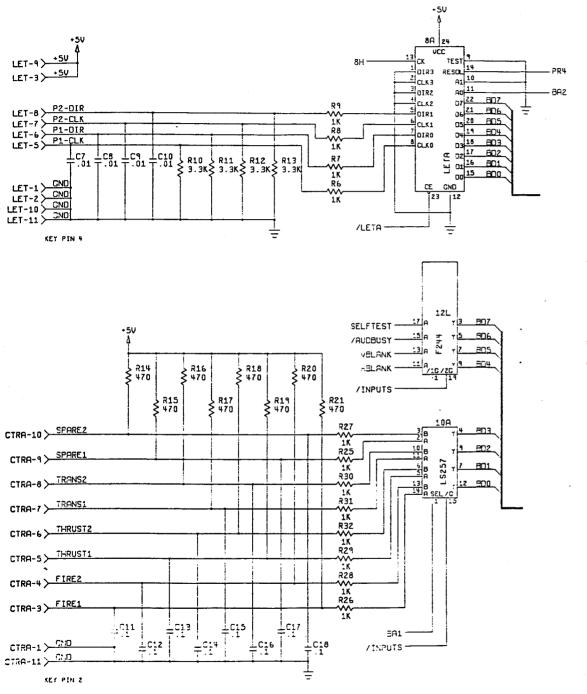
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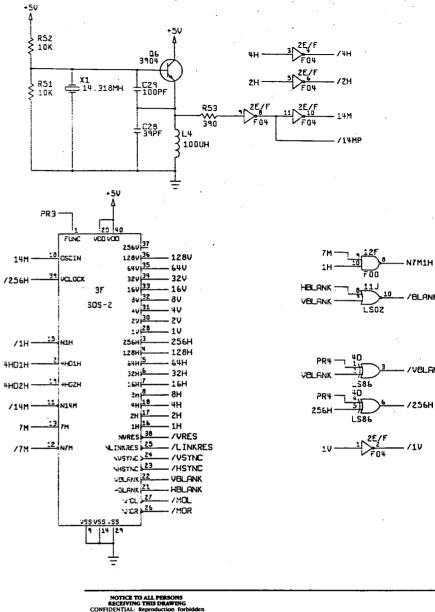












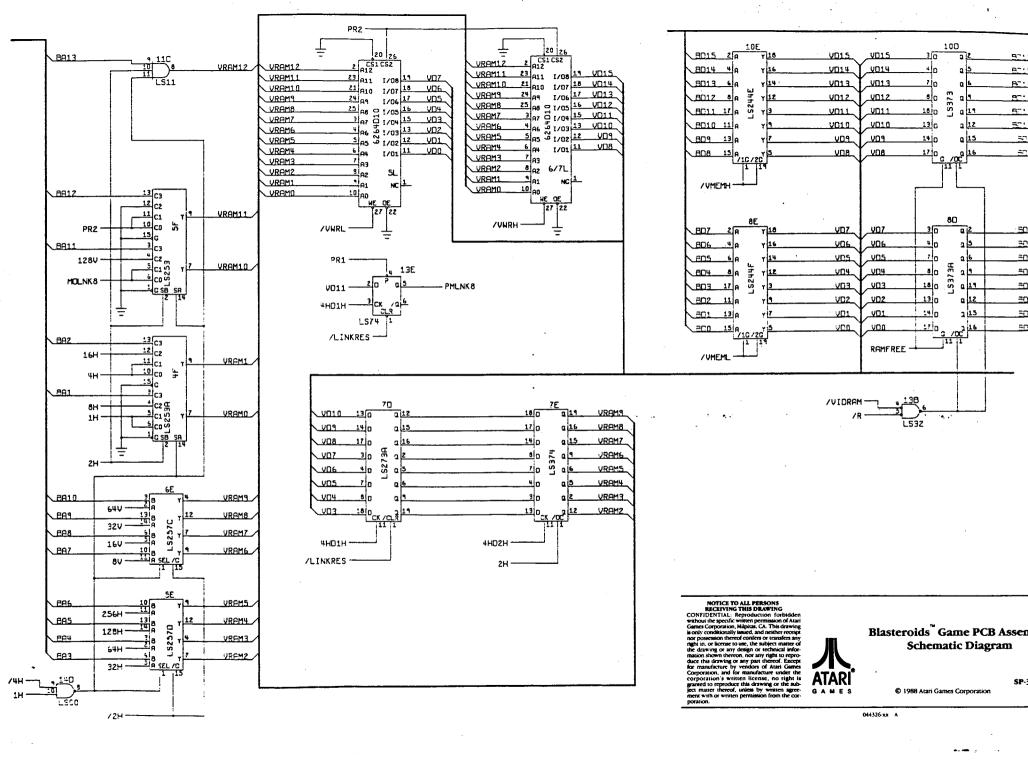
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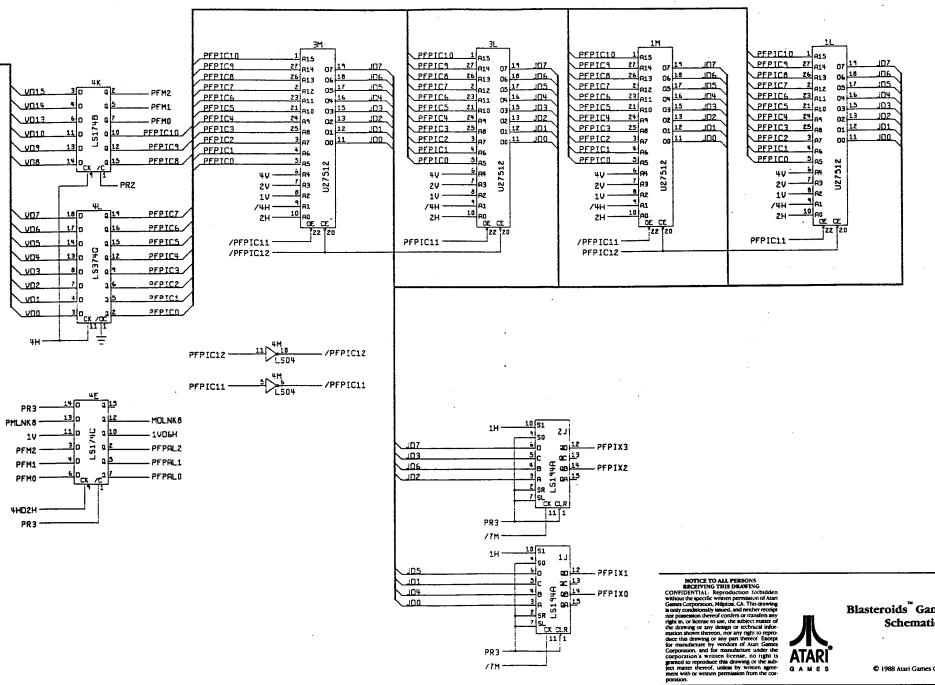


### Blasteroids Game PCB Assemb Schematic Diagram

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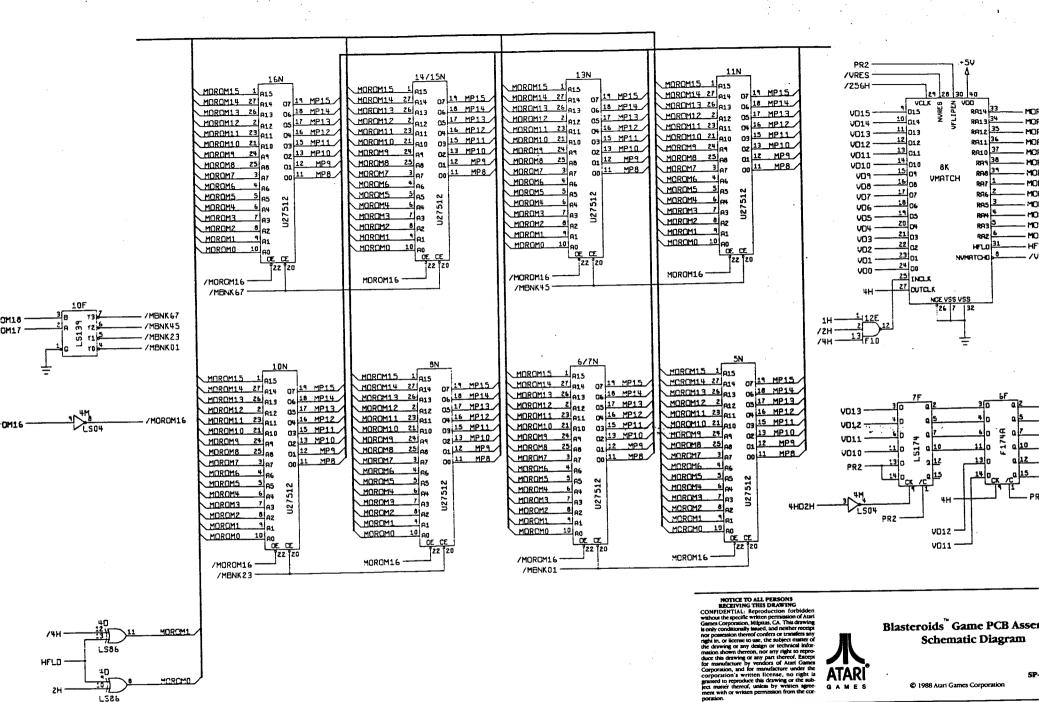


#### Blasteroids Game PCB Assembly Schematic Diagram

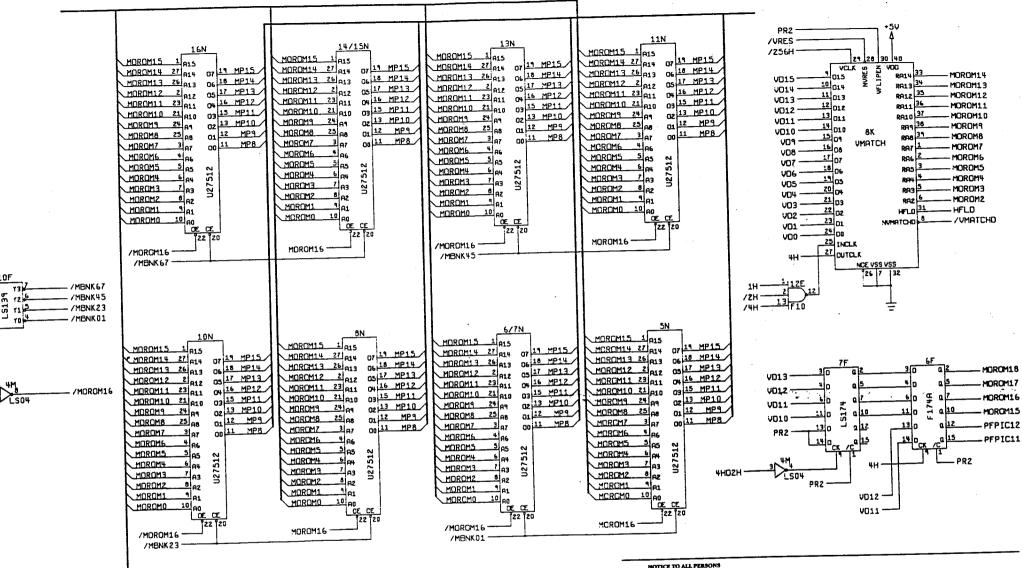
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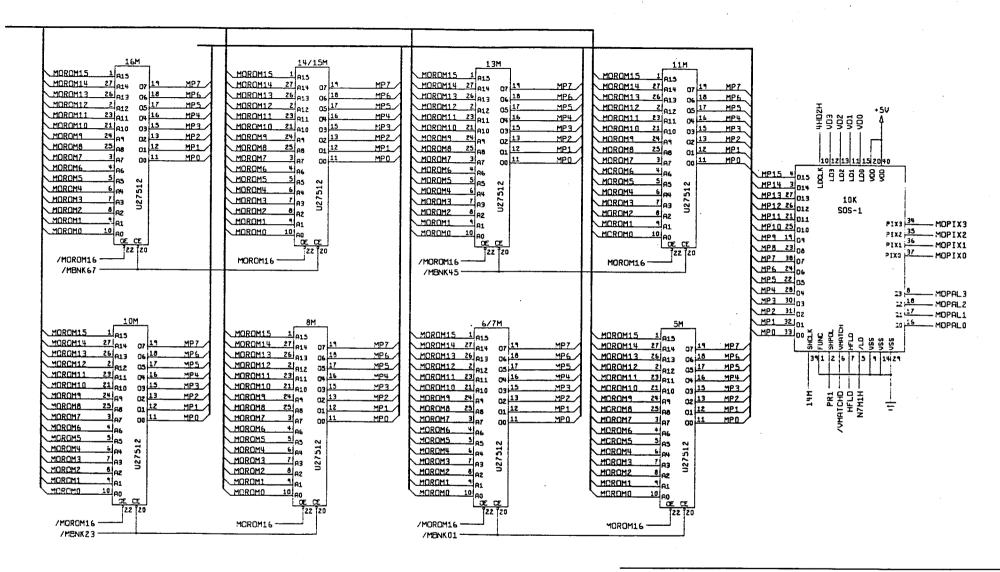
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## Blasteroids Game PCB Assembly Schematic Diagram

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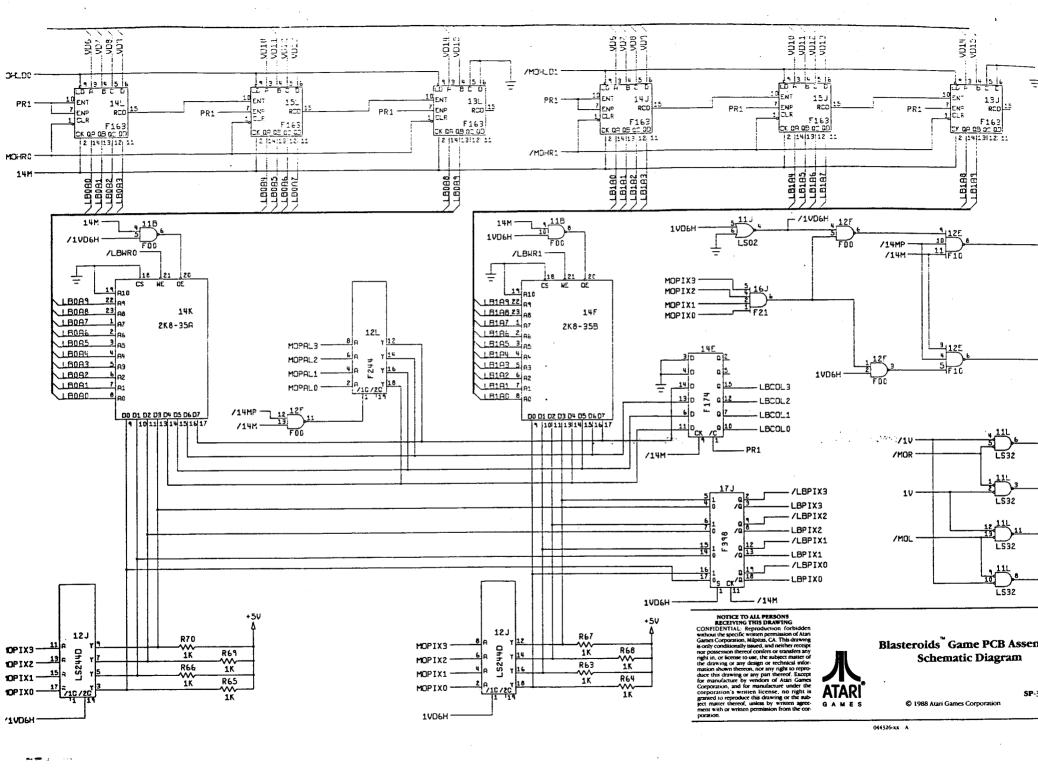


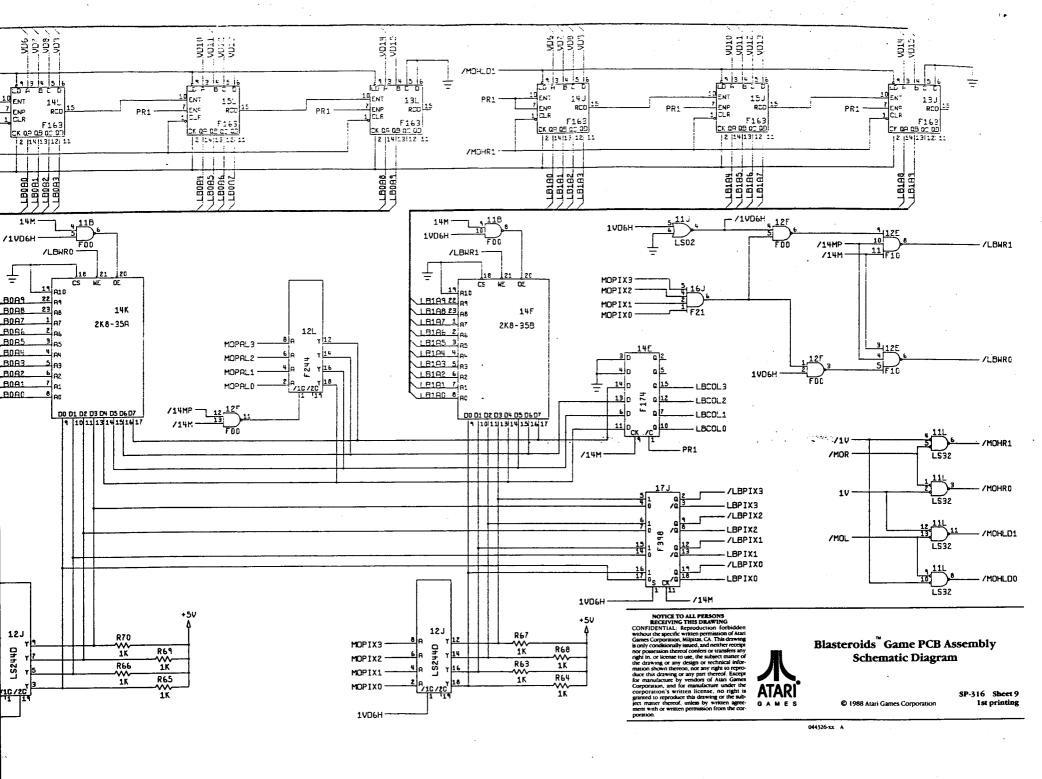
### Blasteroids Game PCB Assembly Schematic Diagram

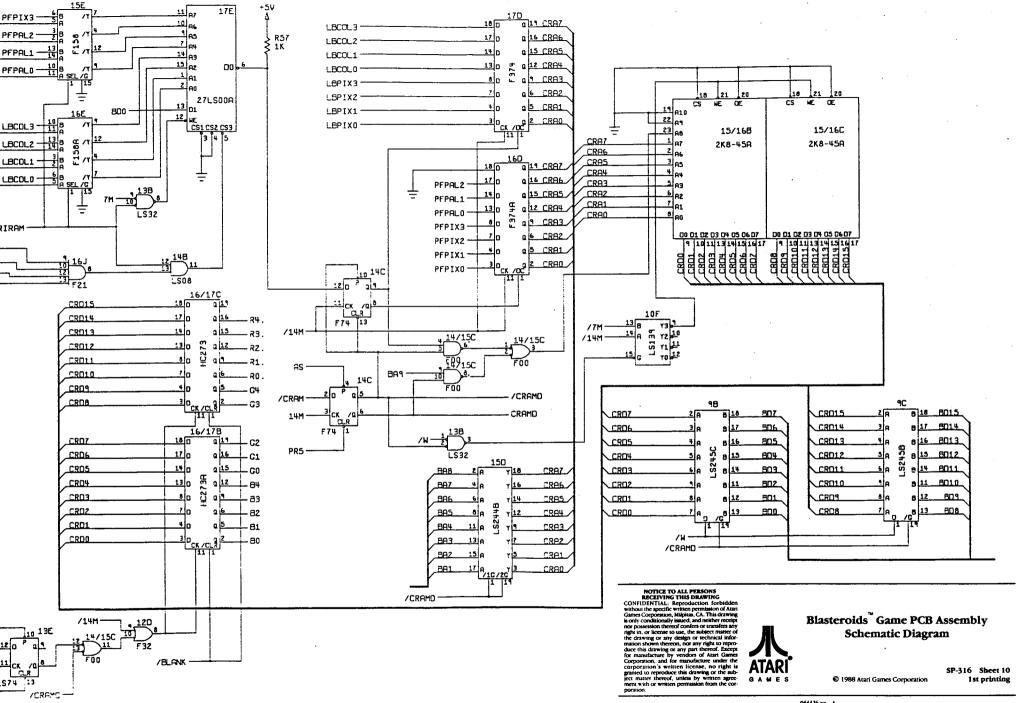
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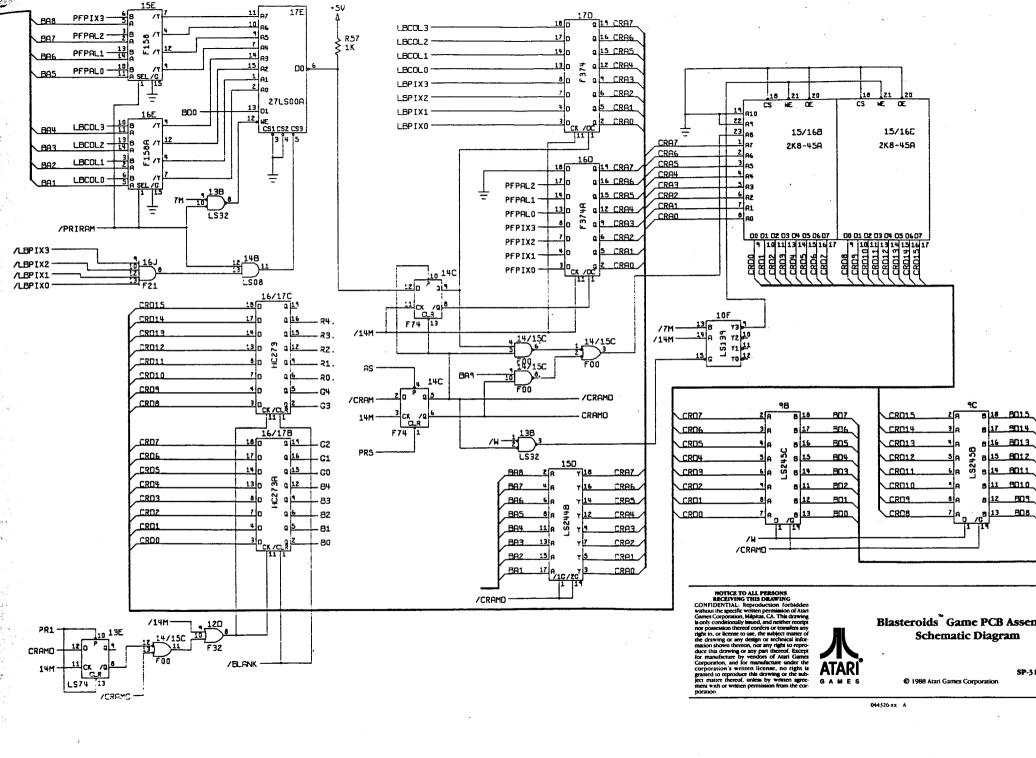
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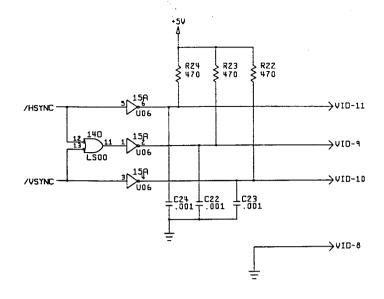
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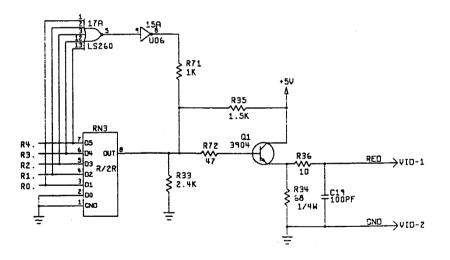


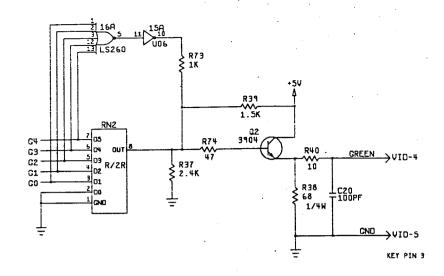


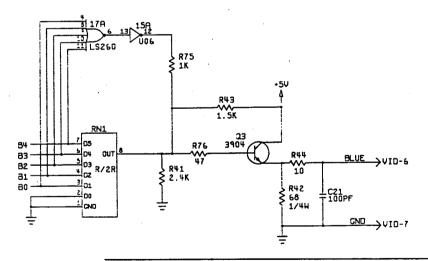












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# Blasteroids<sup>™</sup> Game PCB Assembly **Schematic Diagram**

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**ATARI** 

#### 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.

|                | ADDRESS   | 1      | DATA                     | 1  |
|----------------|---|--------|--------------------------|--|
|                | - AAAA AAAA AAA                                     | -i     | DDDD DD                  |  |
|                | 2222 1111 1111 11AA AAAA AAAA                       | İR/    |                          | FUNCTION                                       |
| HEXADECIMAL    | 3210 9876 5432 1098 7654 3210                       | W      | 5432 1098 7654 3210      | i siicizei                                     |
| 000000-03FFFF  | OXXX XXAA AAAA AAAA AAAA                            | R      | מססס מססס מססס סססס      |  |
| 038000-03FFFF  | OXXX XXII IAAA AAAA AAAA AAAA                       | R      | ממסם מפסם מססם מססם      | 32K BYTES SLAPSTIC PROGRAM ROM SPACE           |
| FF8000         | 1xxx xxxx x000 000x xxxx xxxx                       |        | į                        | WATCHDOG RESET                                 |
| FF8200         | 1XXX XXXX X000 001X XXXX XXXX                       |        | !                        | IRQ ACKNOWLEDGE                                |
| FF8400         | 1XXX XXXX X000 Olox XXXX XXXX                       | W      | !                        | VBLANK INTERRUPT ACKNOWLEDGE                   |
| <b>FF8600</b>  | 1 1XXX XXXX X000 011X XXXX XXXX                     | W      |                          | UNLOCK EEROM                                   |
| FF8800-FF89FE  | 1XXX XXXX X000 100H PPPM MMMO                       | i w    | D                        | PRIORITY RAM (DO) (1 = MOTION OBJECT,          |
|                | H = PF HALF PALETTE, P = PF PA                      | LETT   | E, M = M.O. PALETTE      | O = PLAYFIELD)                                 |
| FF8A01         | 1XXX XXXX X000 101X XXXX XXX1                       | W      | מממס מממס                | AUDIO SEND PORT                                |
| FF8C00         | 1 1XXX XXXX XXXX XXXX                               | W      | l                        | RESET AUDIO PROCESSOR                          |
| FF8E00         | 1 1XXX XXXX XXXX 111X XXXX XXXX                     | W      |                          | HALT CPU UNTIL HBLANK                          |
| <b>FF</b> 9401 | 1XXX XXXX XXXI O1XX XXXX XXXI                       | İR     | ממממ ממממ                | AUDIO RECEIVE PORT                             |
| FF9801         | 1XXX XXXX XOO1 1OXX XXXX XOX1                       | l R    |                          |  |
| <b>FF</b> 9805 | 1 1XXX XXXX X001 10XX XXXX X1X1                     |        |                          | WHIRLY-GIG (PLAYER 2)                          |
| FF9C01         | 1 1XXX XXXX X001 11XX XXXX XXX1                     | İR     | מ                        | SELF-TEST SWITCH (D7)                          |
| FF9C01         | 1XXX XXXX XOO1 11XX XXXX XXX1                       | R      |                          | AUDIO BUSY FLAG (D6) (0 = BUSY)                |
| FF9C01         | 1xxx xxxx x001 11xx xxxx xxx1                       | R      | D                        | VBLANK (D5)                                    |
| FF9C01         | 1XXX XXXX X001 11XX XXXX XX01                       | R      | Œ                        | HBLANK (D4)                                    |
| FF9C01         | 1 1XXX XXXX XXXX XXXI                               | R      | DODD                     | PLAYER 1 BUTTONS \ (DO = FIRE: D1 = THRUST:    |
| FF9C03         | 1 1XXX XXXX XXXI 11XX XXXX XX11                     | R      | מססס                     | PLAYER 2 BUTTONS / D2 = TRANSFORM; D3 = SPARE) |
| FFA000-FFA3FE  | OAAA AAAA AAXX 010X XXXX XXXI                       | R/W    | RRR RRGG GGGB BBBB       | COLOR RAM                                      |
| FFA000-FFA1FE  | 1 1XXX XXXX X010 XXOP PPPC CCCO                     | R/W    | RRR RRCG CCCR BRBB       | MOTTON ORTEOT COLOR DAM                        |
| FFA200-FFA2FE  | 1XXX XXXX X010 XX10 PPPC CCC0 P = PALETTE C = COLOR | R/W    | RRR RRGG GGGB BBBB       | PLAYFIELD COLOR RAM                            |
| FFB001-FFB3FF  | 1XXX XXXX XOll amaA AmaA Amal                       | l p /w | מממ מממם                 | HTTON (2004 - 572 pro-                         |
|                | a = ADDRESS BITS ON 2816 ONLY                       | N.     | 2000 0000                | EEROM (2804: 512 BYTES;<br>2816: 2K BYTES )    |
| FFC000-FFFFFF  | 1XXXXX X1AA AAAA AAAA AAAA                          | R/W    | מסמם מסמם מסמם מסמם      | 16K BYTES VIDEO AND WORKING RAM                |
| FFC000-FFCEFE  | 1XXX XXXX X100 RRRR RCCC CCCO                       | R/W    | PPPD DDDD DODD DDDD      | PLAYFIELD RAM (40 x 30 STAMPS)                 |
| FFC050-FFCED0  | 1 1XXX XXXX X100 RRRR R101 0000                     | R/W    | D                        | ROW PROGRAMMABLE INTERRUPT (1 = INTERRUPT)     |
| BROWN PROPER   | R = ROW C = COLUMN                                  | !!     | P = PALETTE              | (Last 47 bytes of each row are free)           |
| FFCF00-FFCFFF  | 1XXX XXXX X100 1111 AAAA AAAA                       | i i    | ממממ ממממ ממסמ           | 256 BYTES FREE RAM                             |
| FFD000-FFDFF8  | 1XXX XXXX X101 LLLL LLLL L000                       | R/W    | WW WW V ZZZZ             | MOVPOS (V = vposition, Z = vsize)              |
| FFD002-FFDFFA  | 1XXX XXXX X101 LLLL LLLL L010                       | IR/WI  | hvss ssss ssss ssss f    | 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  | L = LINK POINTER                                    | [R/W   | нин ини ин рррр          | MOHPOS (H = hposition, P = palette)            |
| FFE000-FFFFFF  | 1XXX XXXX X11A AAAA AAAA AAAA                       | R/W    | ו<br>החחת מסמם מפסם מסמם | 8K BYTES FREE RAM                              |
|                |   | Ιij    |                          | (TOTAL FREE RAM = 9858 BYTES = 4929 WORDS      |
|                |   | 1 i    | į                        | + ANY UNUSED MOTION OBJECT RAM)                |

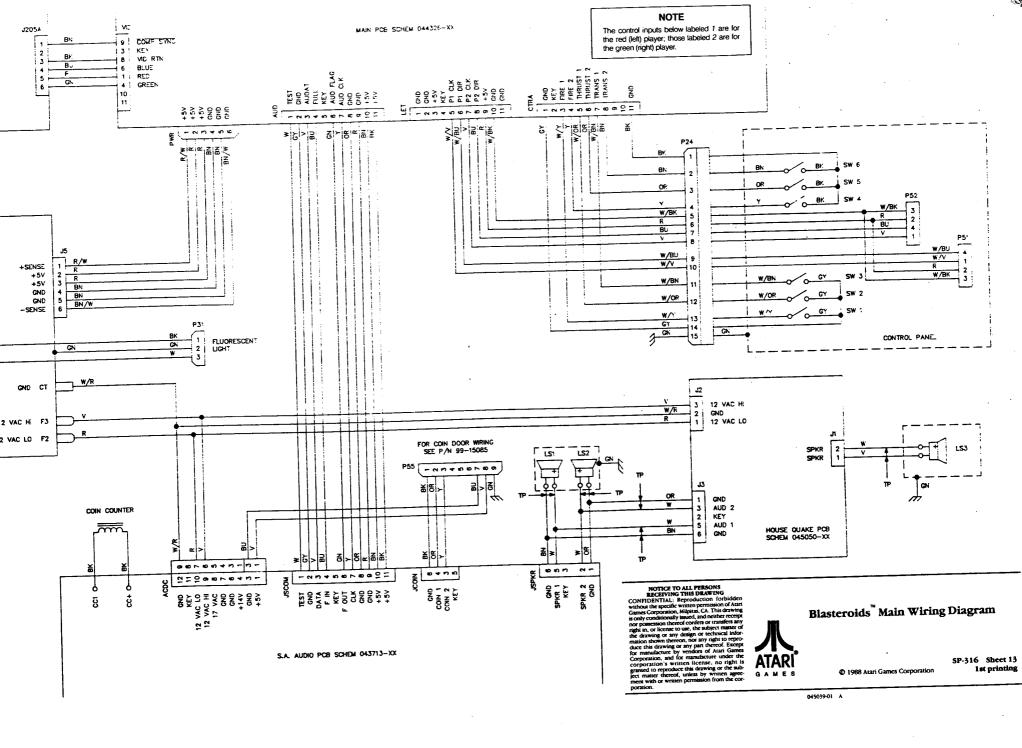
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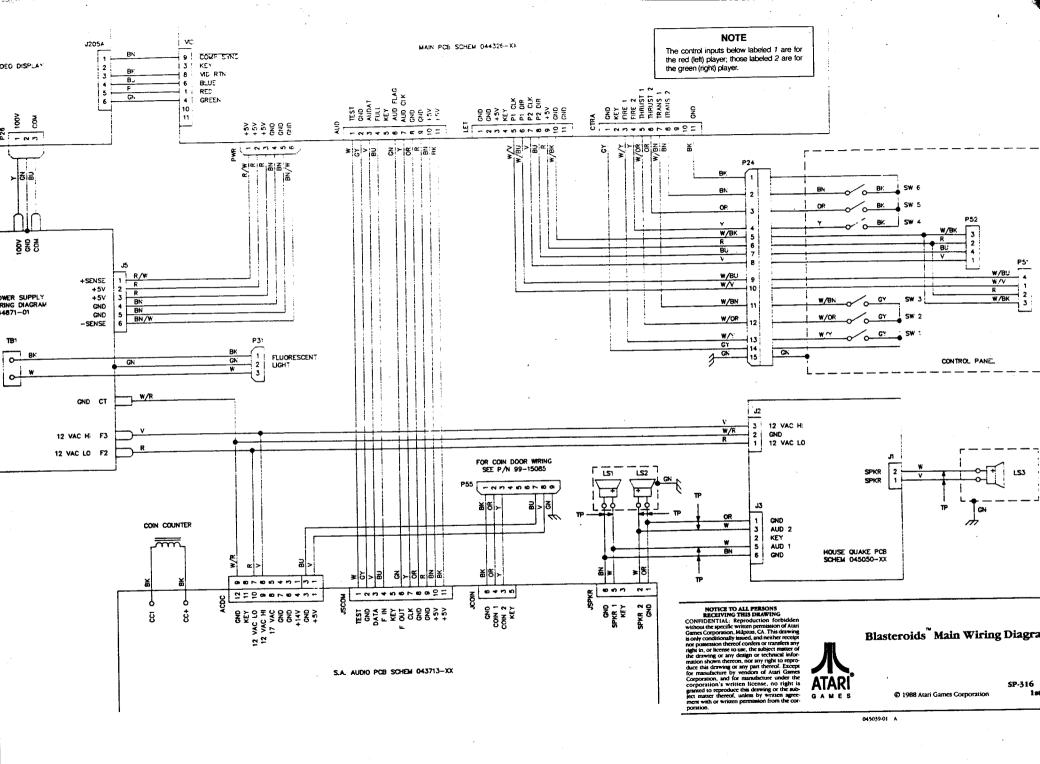


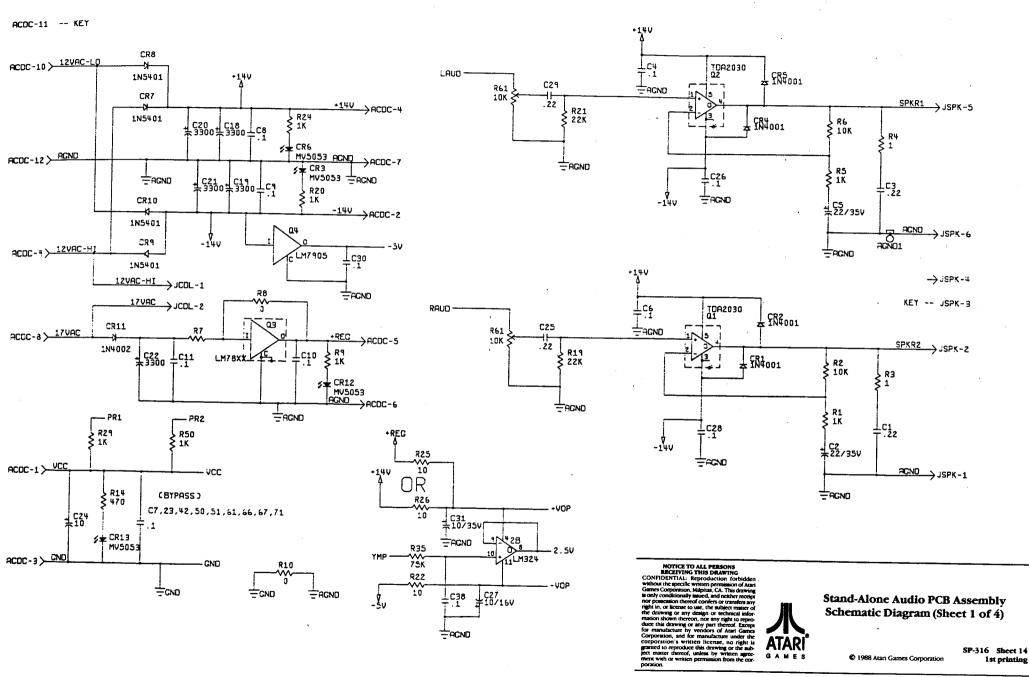
Blasteroids Memory Map

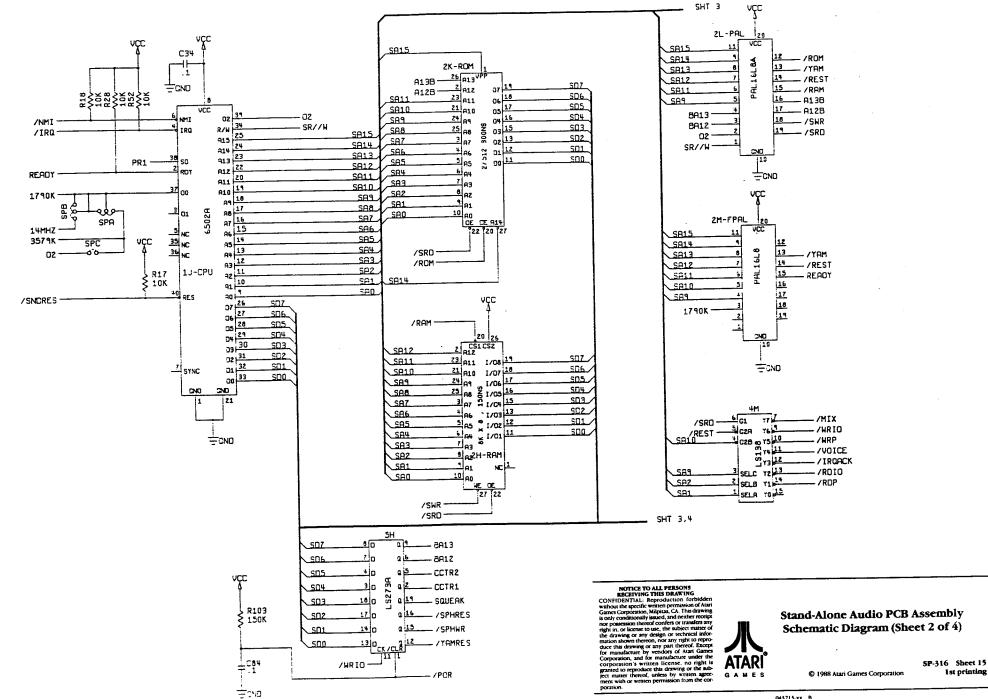
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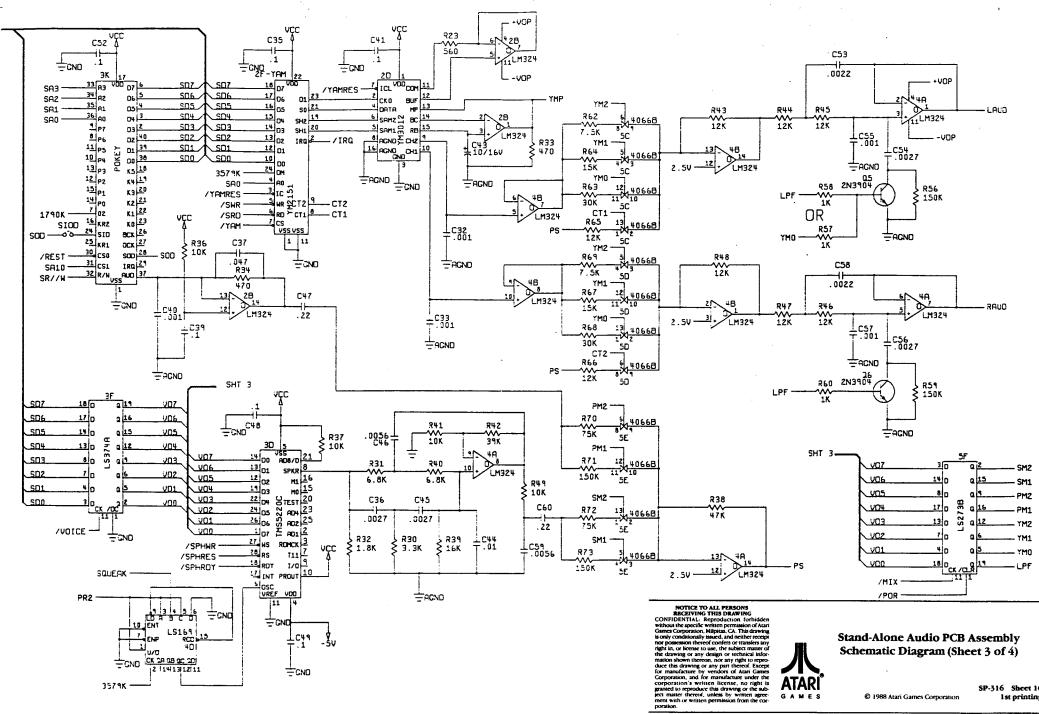
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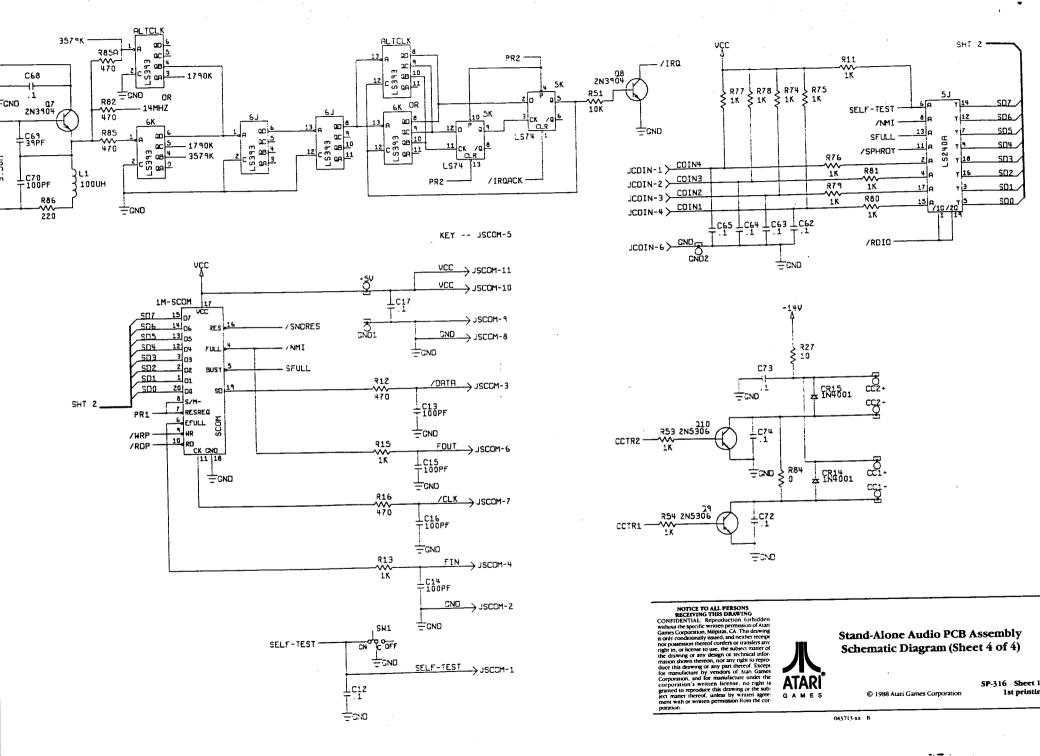


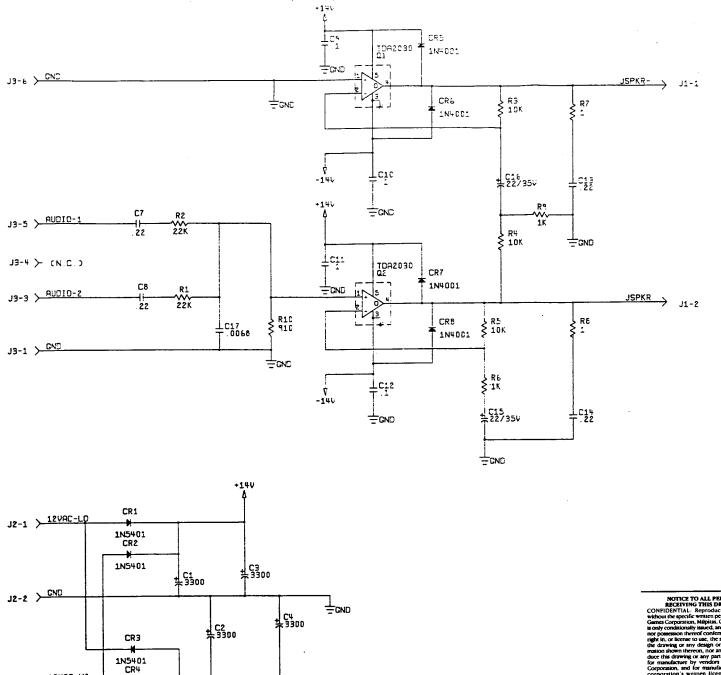












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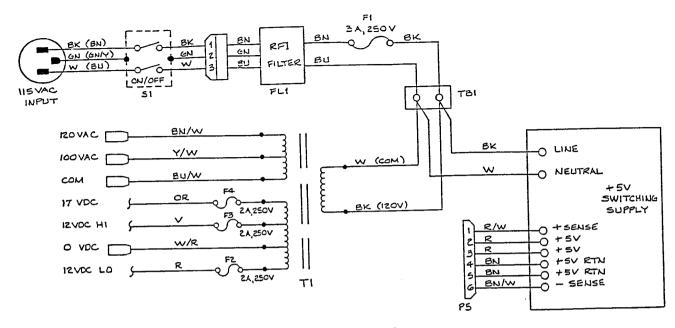
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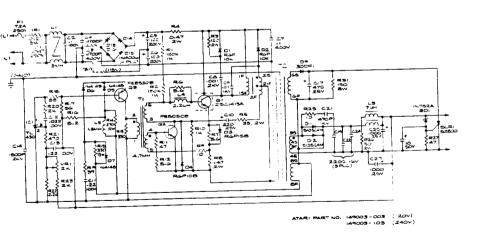
# Housequake <sup>™</sup> PCB Assembly Schematic Diagram

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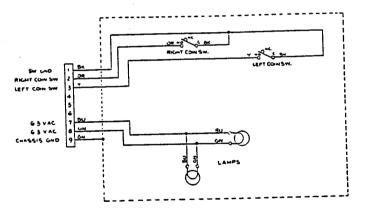


Switching/Linear (SL) Power Supply



Hitron 5V 10A Switching Power Supply

## Coin Door Wiring Diagram



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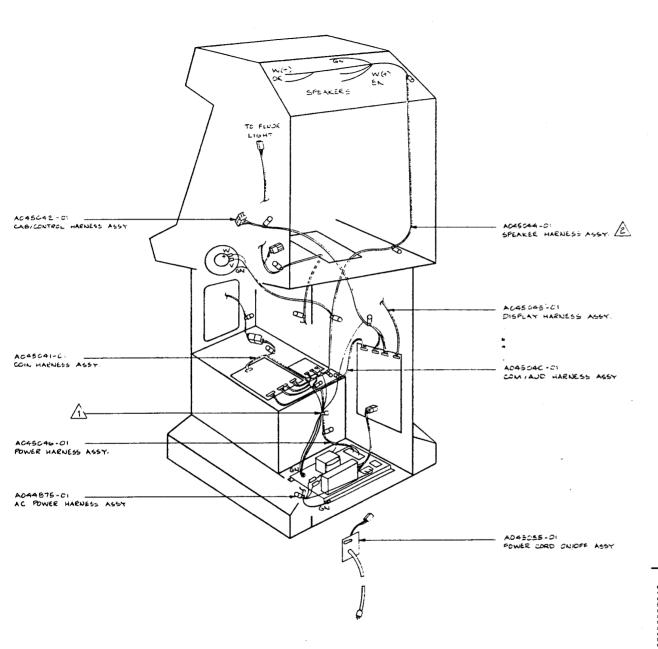
Wiring Diagrams for Switching/Linear (SL) Power Supply, Hitron 5V 10A Switching Power Supply, and Coin Door

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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



A SECURE GROUND WIRES TO POWER HARNESS ASSY, WHERE SHOWN .



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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