

Table of Contents

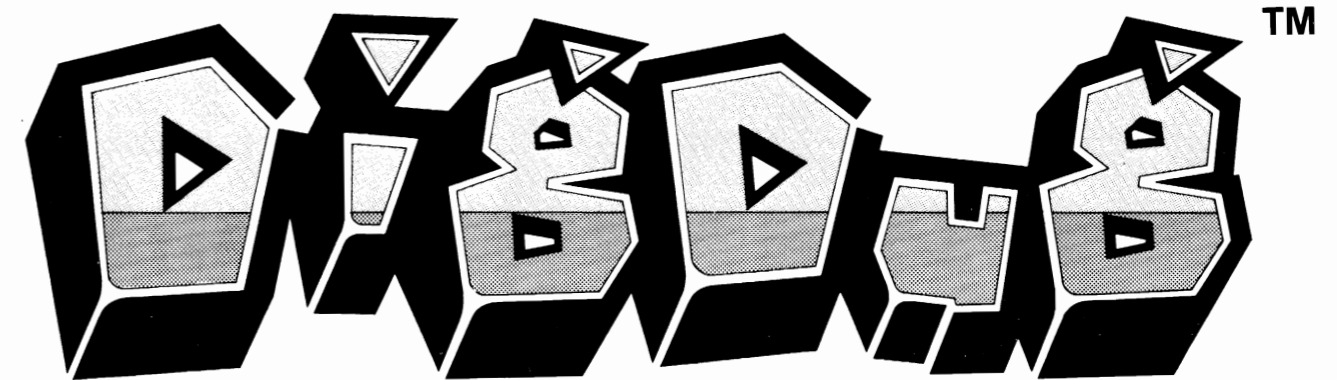
- Sheet 1A You Are Here
- Sheet 1B Dig Dug Upright Wiring Diagram (038294-01 A)
- Sheet 2A Color Raster-Scan Power Supply Wiring Diagram (037669-01 C)
Regulator/Audio II PCB Schematic Diagram (035435-05 A)
- Sheet 2B Coin Door Wiring Diagram (037542-01 A)
Utility Panel Wiring Diagram (038004-01 A)
Fluorescent Light and Speaker Wiring Diagram (035833-01 A)

Game PCB Schematics, Sheets 3A—8A

- Sheet 3A CPU PCB Power Input, Clock, NMI, Watchdog, and Memory Map
- Sheet 3B 1st Priority CPU, 2nd Priority CPU
- Sheet 4A 3rd Priority CPU, CPU PCB Address Decoder
- Sheet 4B Switch Inputs, Coin Door and Control Panel Outputs
- Sheet 5A Audio Output
- Sheet 5B Sync Generator
- Sheet 6A Playfield Generator
- Sheet 6B Motion Object RAM, Motion Object Address Generator, Decoder and Match Line Flag
- Sheet 7A Motion Object Generator
- Sheet 7B Video Output, Video Color Controller
- Sheet 8A High-Score Table
- Sheet 8B Electrohome 19-Inch Color Raster-Scan Video Display Schematic Diagram

NOTE
This staple temporarily holds the
schematic package together. Re-
move the staple before using the
schematics.

Schematic Package Supplement to

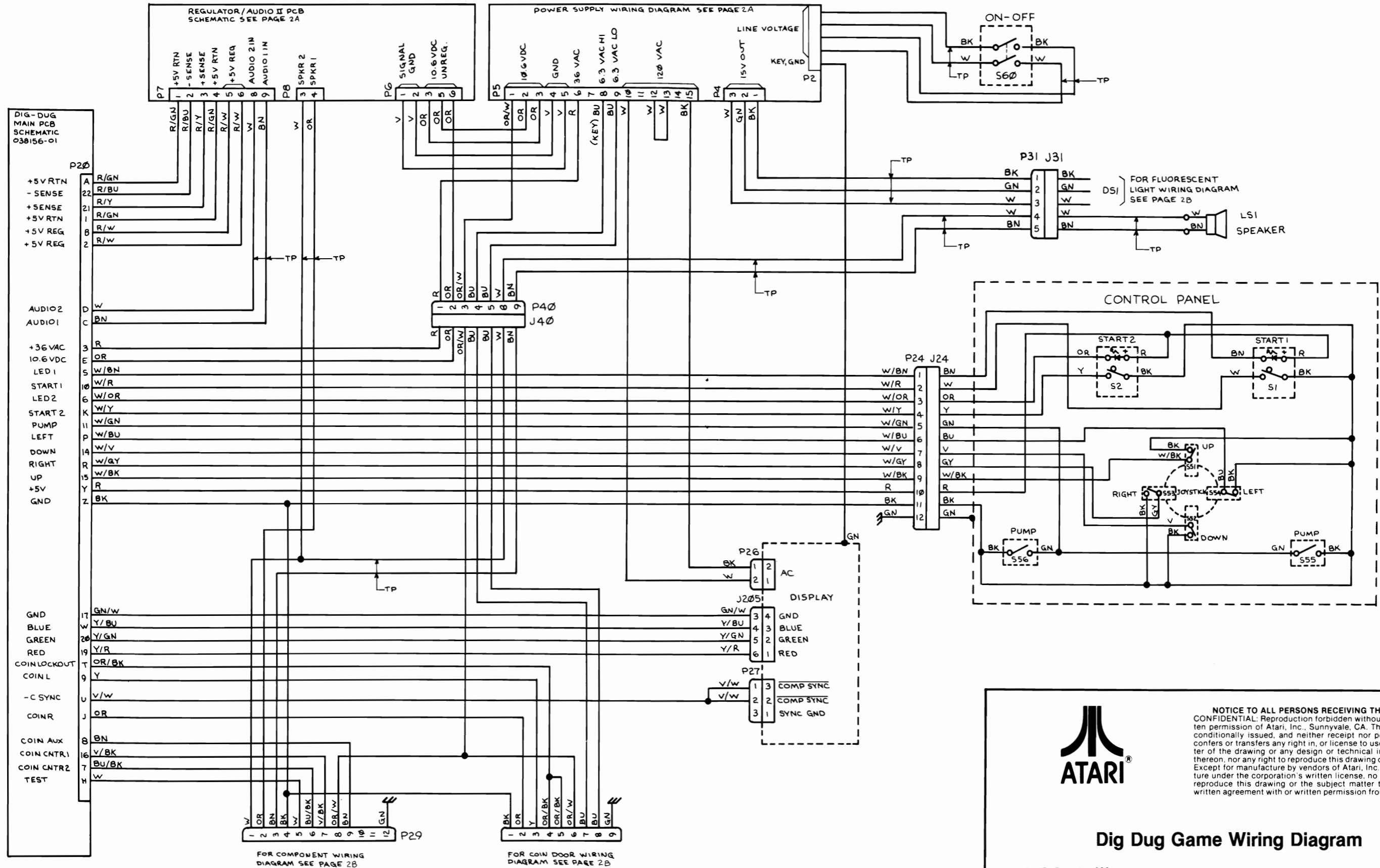



Operation, Maintenance and Service Manual



© ATARI INC. 1982

Dig Dug Upright Game Wiring Diagram





ATARI

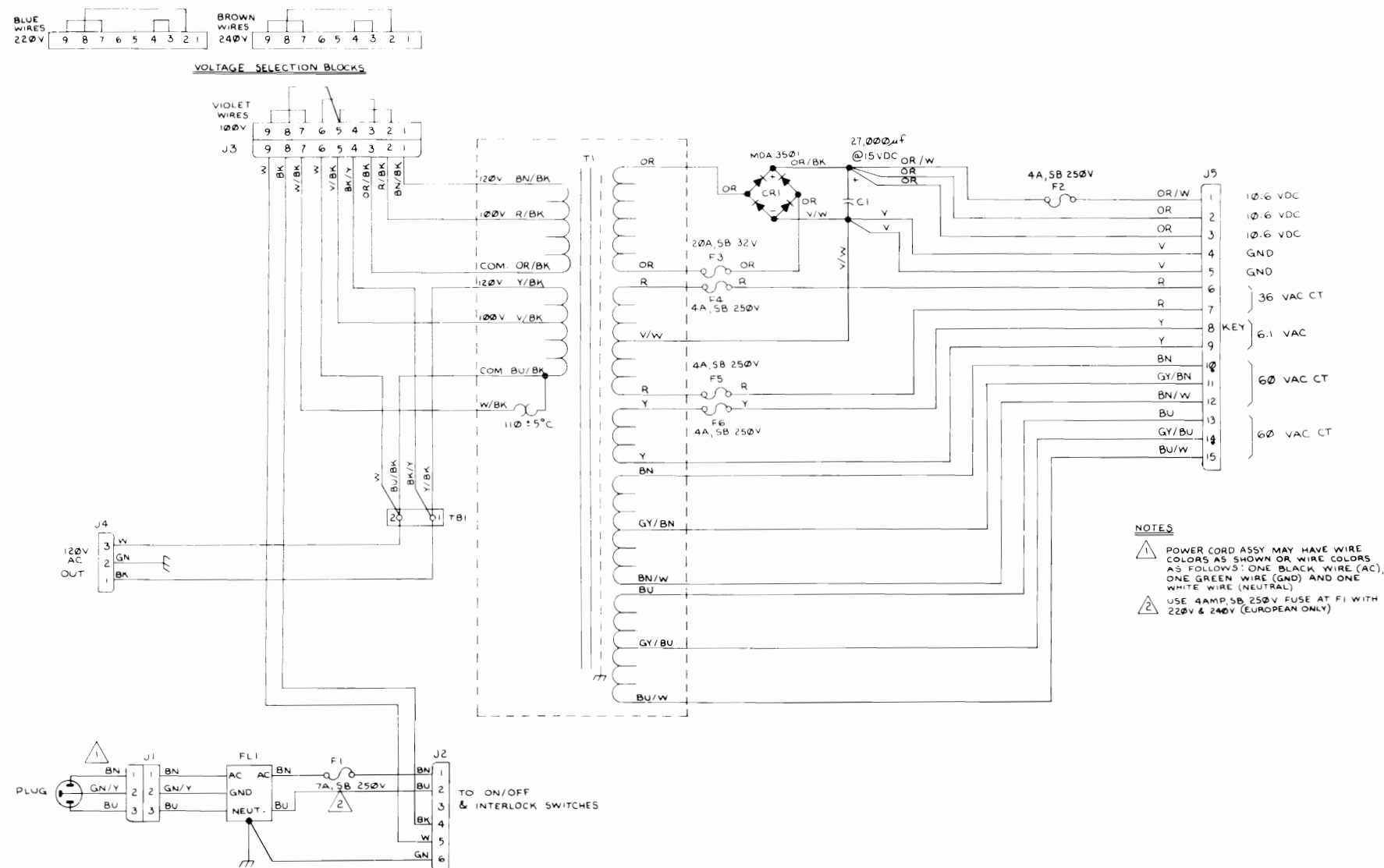
NOTICE TO ALL PERSONS RECEIVING THIS DRAWING
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject 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.

Dig Dug Game Wiring Diagram

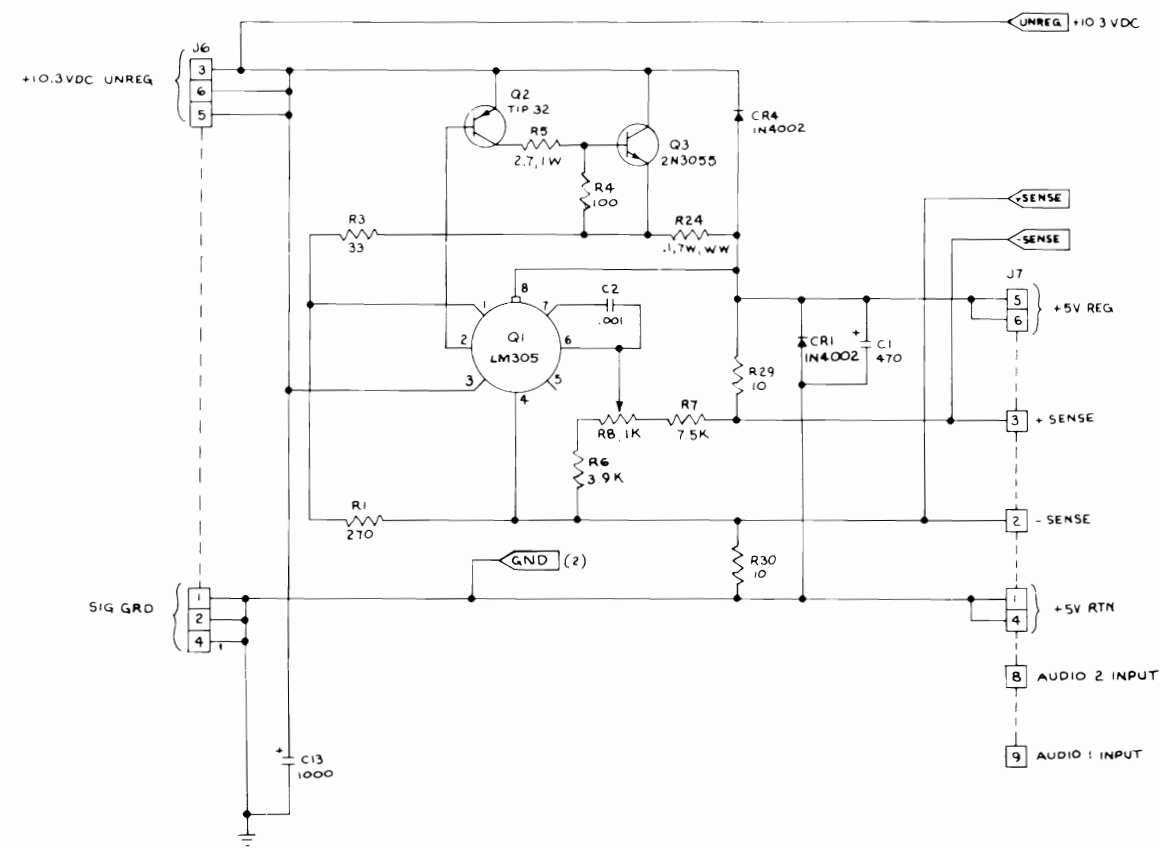
© ATARI INC., 1982
 A Warner Communications Company


SP-203 Sheet 1B
 1st printing 3L

Color Raster Power Supply Wiring Diagram



Regulator/Audio II PCB Schematic Diagram





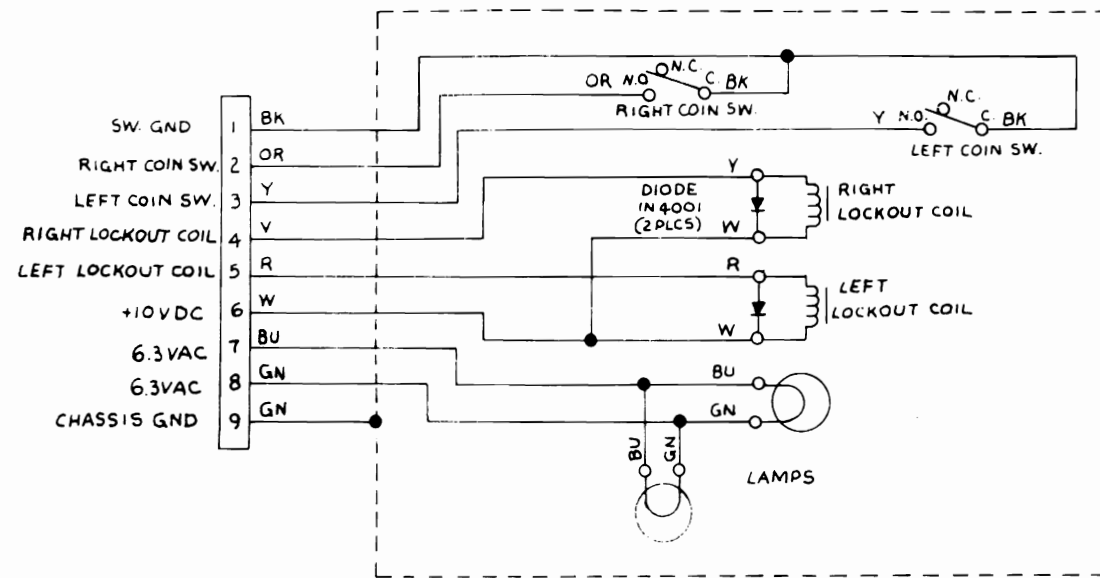
NOTICE TO ALL PERSONS RECEIVING THIS DRAWING
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject 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.

Dig Dug Power Supply and Reg./Audio II PCB

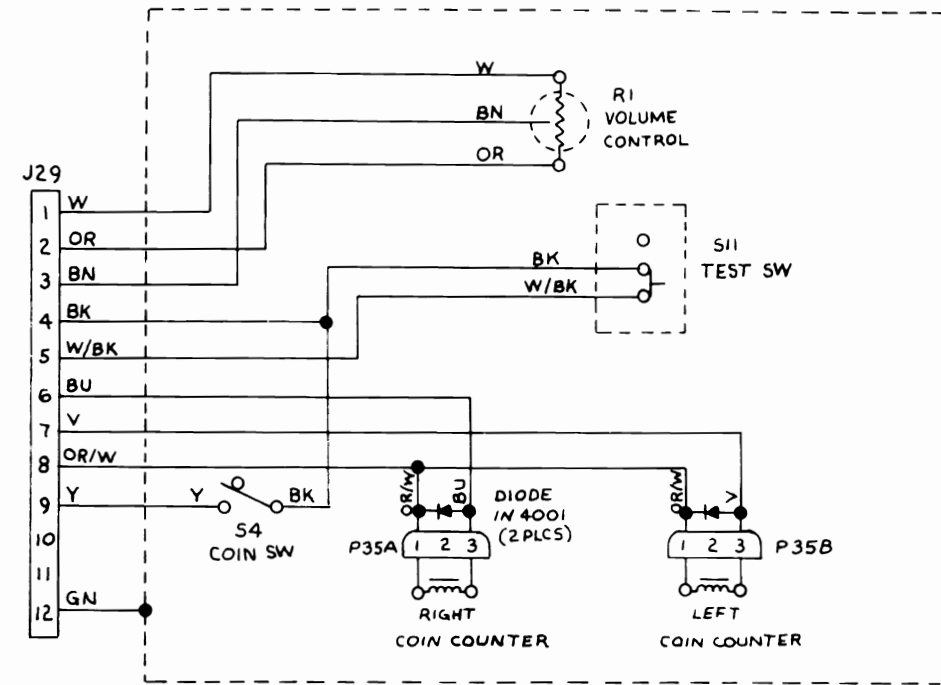
© ATARI INC., 1982
 A Warner Communications Company

SP-203 Sheet 2A
 1st printing 3L

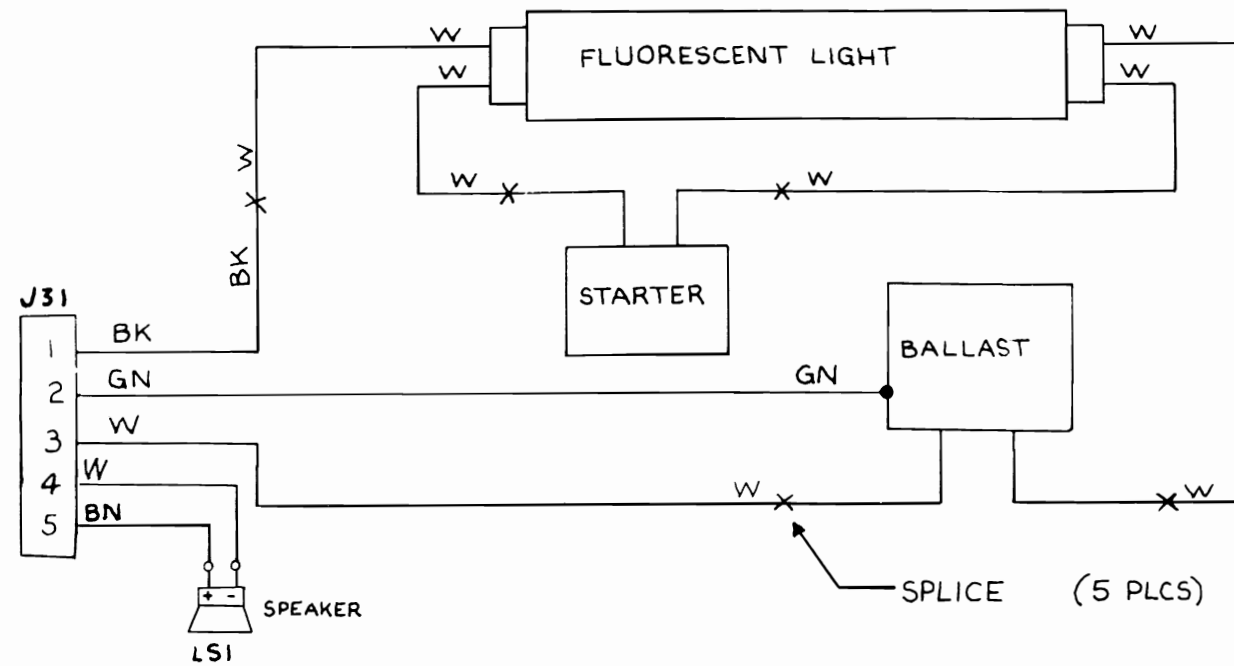
Coin Door Wiring Diagram



Utility Panel Wiring Diagram



Fluorescent Light And Speaker Wiring Diagram



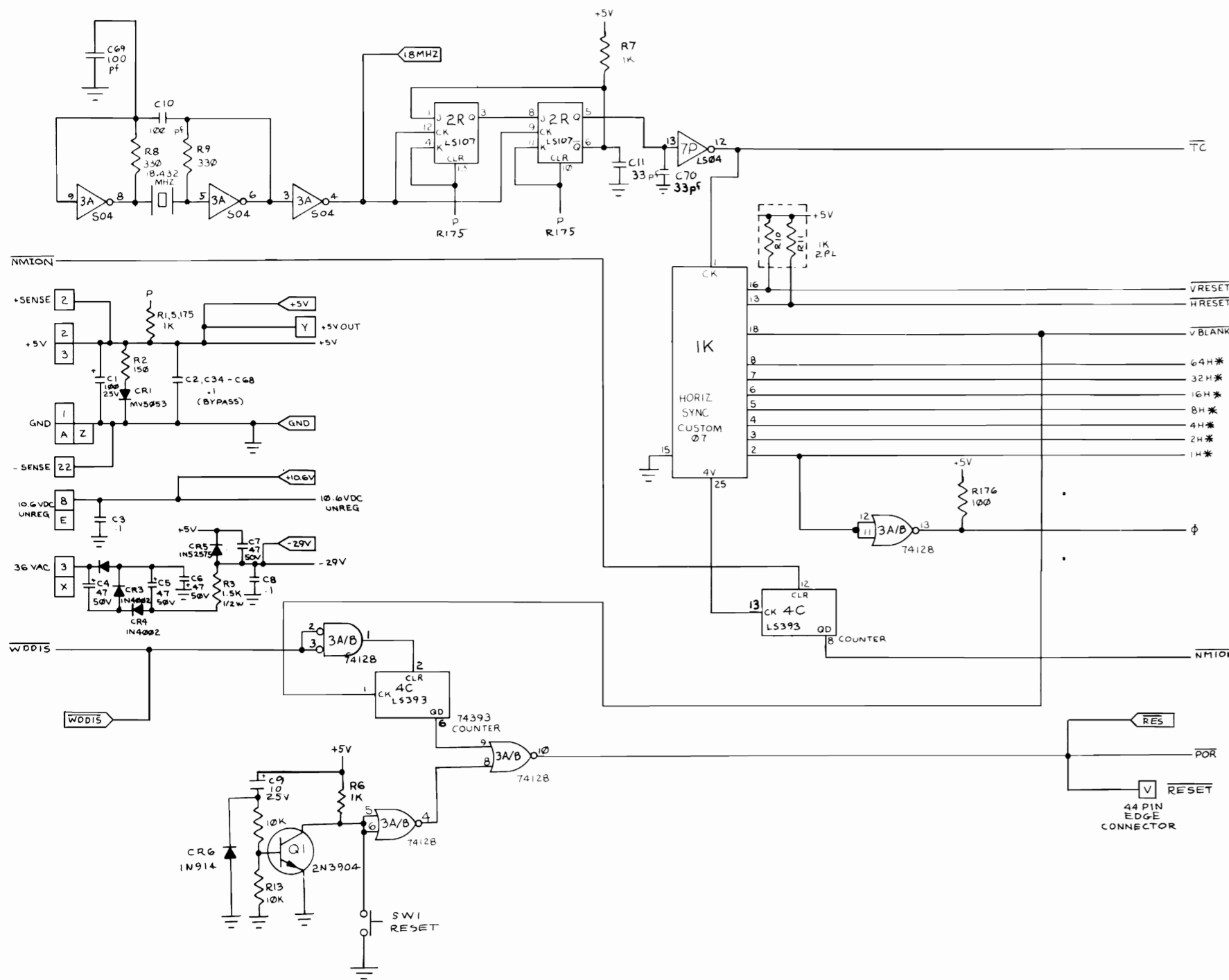
NOTICE TO ALL PERSONS RECEIVING THIS DRAWING
 CONFIDENTIAL. Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject 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.

Dig Dug Game Wiring Interfaces

© ATARI INC., 1982
 A Warner Communications Company

SP-203 Sheet 2B
 1st printing 3L

CPU PCB Power Input, Clock, NMI, and Watchdog



MEMORY MAP

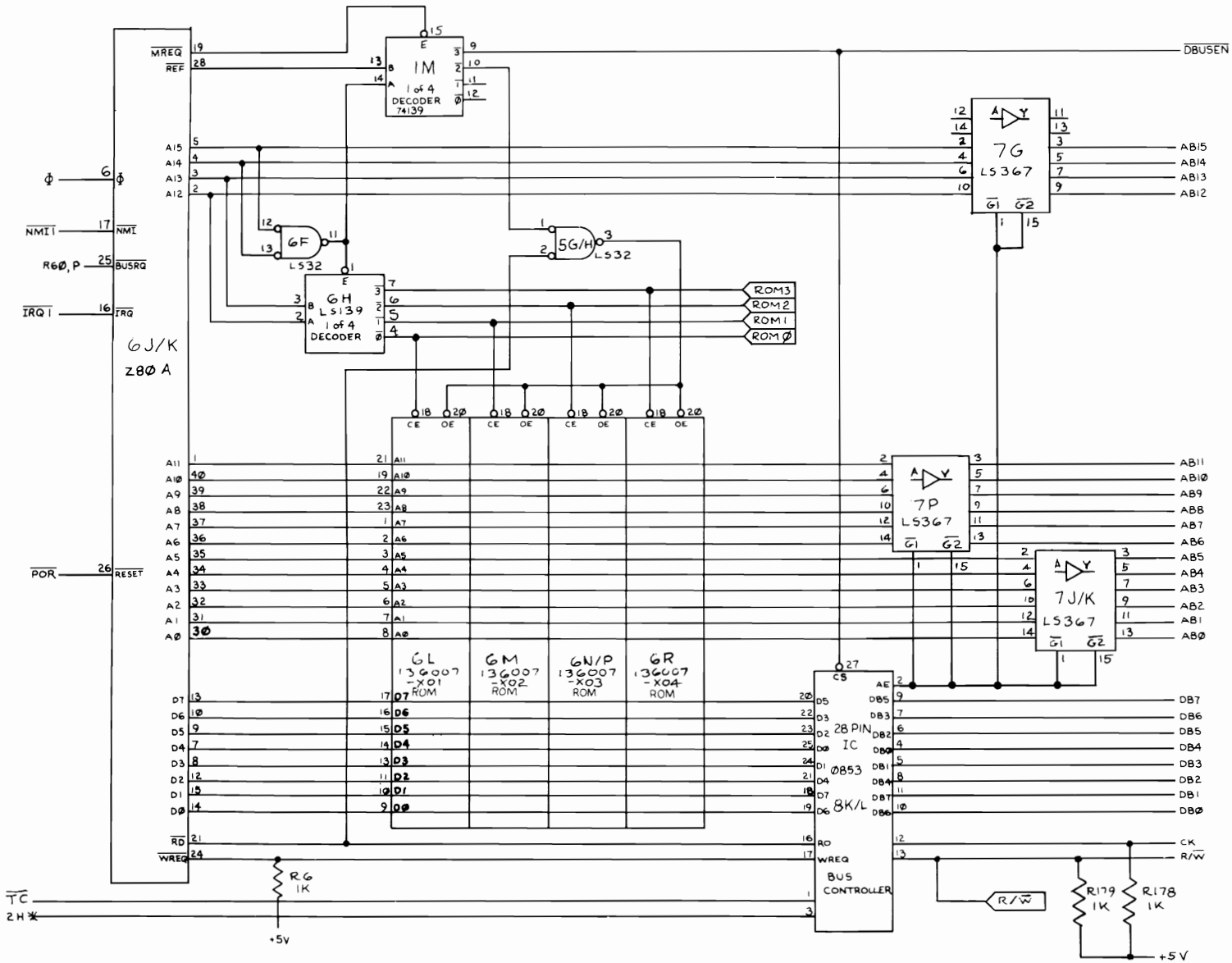
| HEXA-DECIMAL ADDRESS | R/W | DATA | | | | | | | | FUNCTION |
|----------------------|-----|------|----|----|----|----|----|----|----|--|
| | | D7 | D6 | D5 | D4 | D3 | D2 | D1 | D0 | |
| 0000-3FFF | R | D | D | D | D | D | D | D | D | 1st Priority Z80 CPU ROM (16K) |
| 0000-1FFF | R | D | D | D | D | D | D | D | D | 2nd Priority Z80 CPU ROM (8K) |
| 0000-0FFF | R | D | D | D | D | D | D | D | D | 3rd Priority Z80 CPU ROM (4K) |
| 6800-680F | W | | | | | D | D | D | D | Audio Control |
| 6810-681F | W | | | | | D | D | D | D | Audio Control |
| 6820 | W | | | | | | | | D | 0 = Reset IRQ1 (Latched) |
| 6821 | W | | | | | | | | D | 0 = Reset IRQ2 (Latched) |
| 6822 | W | | | | | | | | D | 0 = Enable NMI3 (Latched) |
| 6823 | W | | | | | | | | D | 0 = Reset 2nd and 3rd Z80 CPUs (Latched) |
| 6825 | W | | | | | | | | D | Custom Chip 53 Mode Control (Latched) |
| 6826 | W | | | | | | | | D | Custom Chip 53 Mode Control (Latched) |
| 6827 | W | | | | | | | | D | Custom Chip 53 Mode Control (Latched) |
| 6830 | W | | | | | | | | | Watchdog Reset |
| 7000 | R/W | D | D | D | D | D | D | D | D | Custom Chip 06—Data |
| 7100 | R/W | D | D | D | D | D | D | D | D | Custom Chip 06—Command |
| 8000-87FF | R/W | D | D | D | D | D | D | D | D | 2K Playfield RAM |
| 8800-8BFF | R/W | D | D | D | D | D | D | D | D | 1K Motion RAM (PIC) |
| 9000-93FF | R/W | D | D | D | D | D | D | D | D | 1K Motion RAM (HPOS, VPOS) |
| 9800-9BFF | R/W | D | D | D | D | D | D | D | D | 1K Motion RAM (FLIP) |
| A000 | W | | | | | | | | D | Playfield Select (Latched) |
| A001 | W | | | | | | | | D | Playfield Select (Latched) |
| A002 | W | | | | | | | | D | Playfield Color Select (Latched) |
| A003 | W | | | | | | | | D | Alphanumeric Color Select (Latched) |
| A004 | W | | | | | | | | D | Playfield Color Select (Latched) |
| A005 | W | | | | | | | | D | Playfield Color Select (Latched) |
| A007 | W | | | | | | | | D | Flip Video |
| B800-B83F | W | D | D | D | D | D | D | D | D | Write EAROM Address and Data |
| B800 | R | D | D | D | D | D | D | D | D | Read EAROM Data |
| B840 | W | | | | | D | D | D | D | Write EAROM Control |



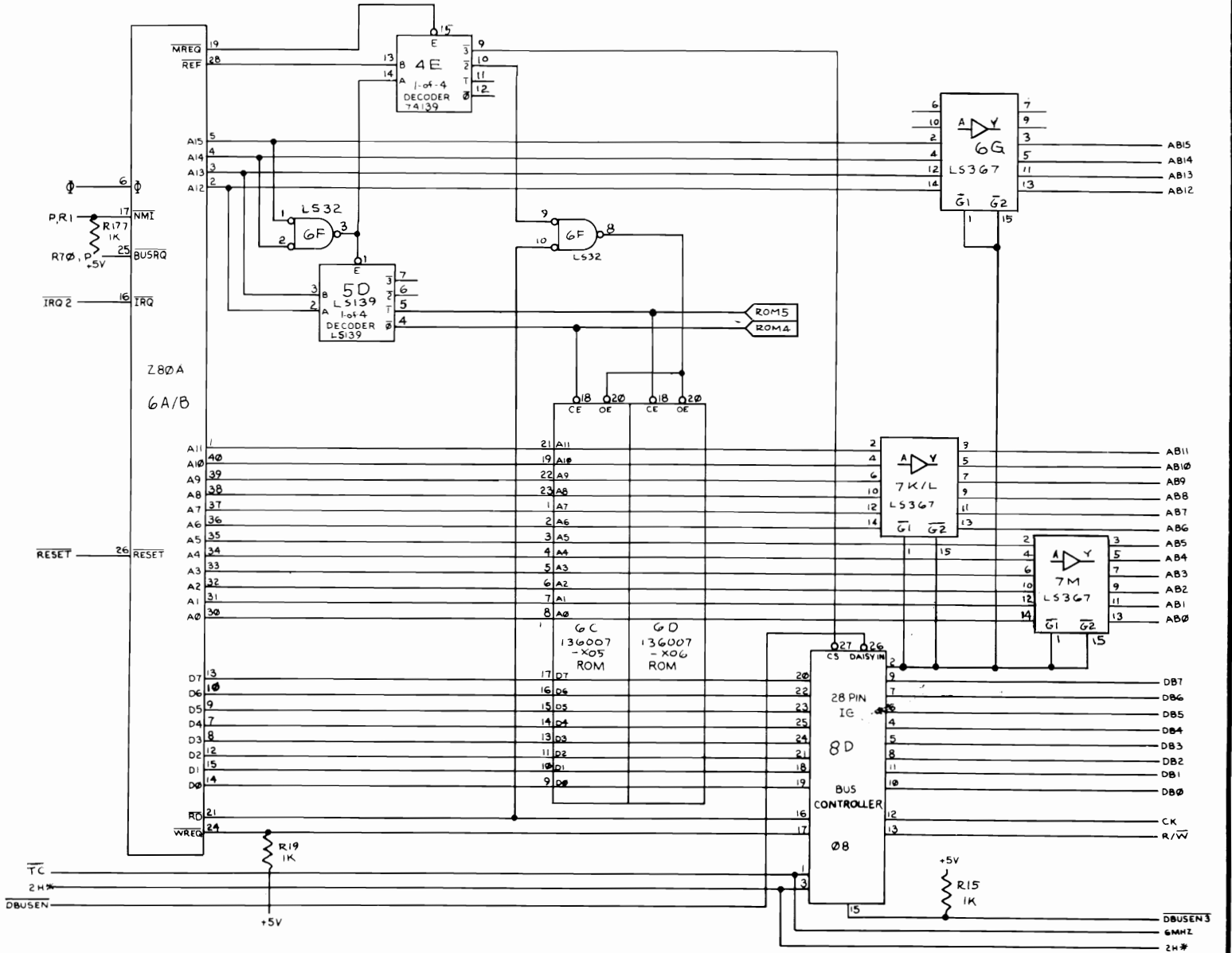
NOTICE TO ALL PERSONS RECEIVING THIS DRAWING
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject 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.

Dig Dug CPU PCB Schematic Diagram

1st Priority CPU



2nd Priority CPU



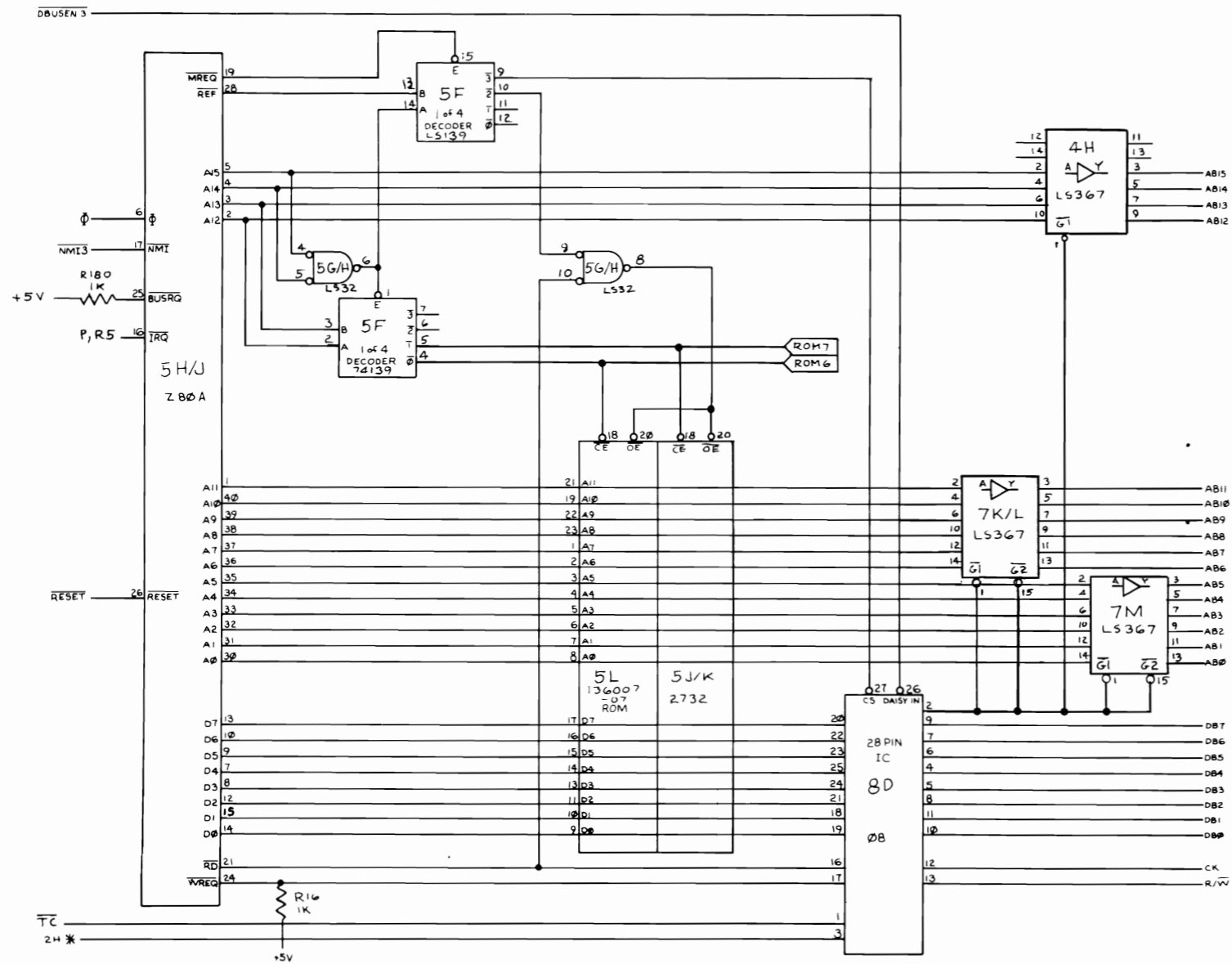
NOTICE TO ALL PERSONS RECEIVING THIS DRAWING
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject 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.

Dig Dug CPU PCB Schematic Diagram

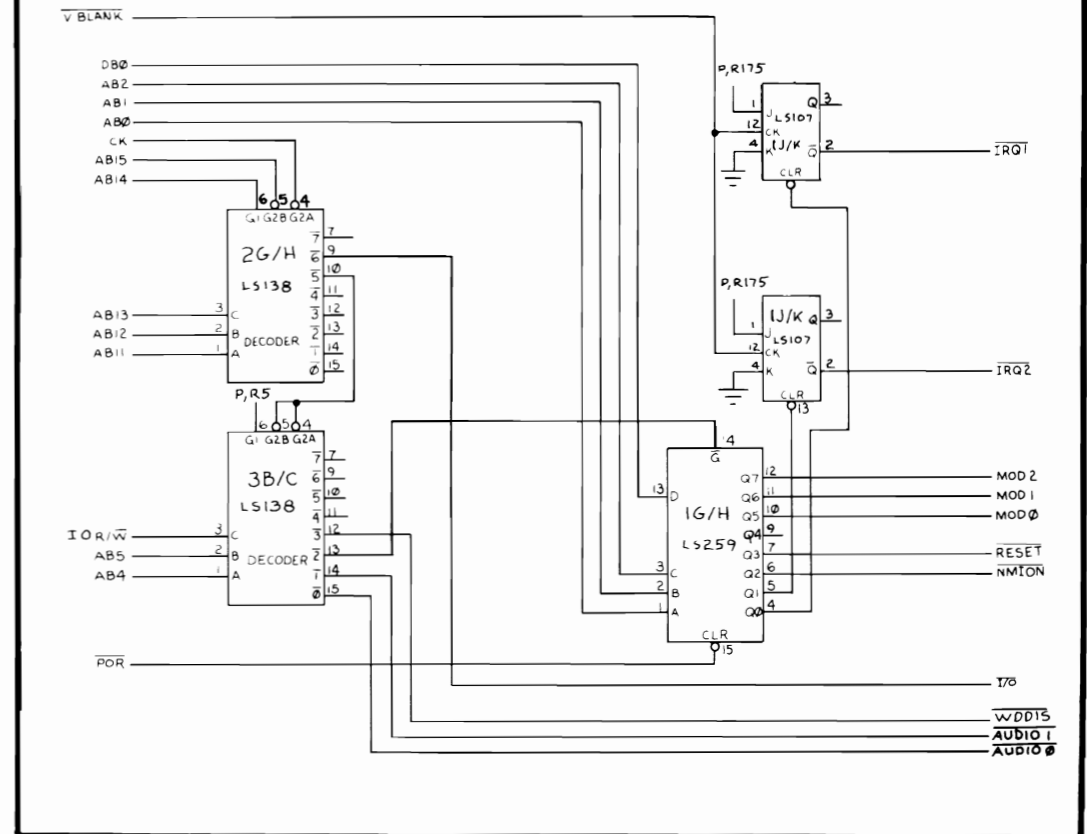
© ATARI INC., 1982
 A Warner Communications Company

SP-203 Sheet 3B
 1st printing 3L

3rd Priority CPU



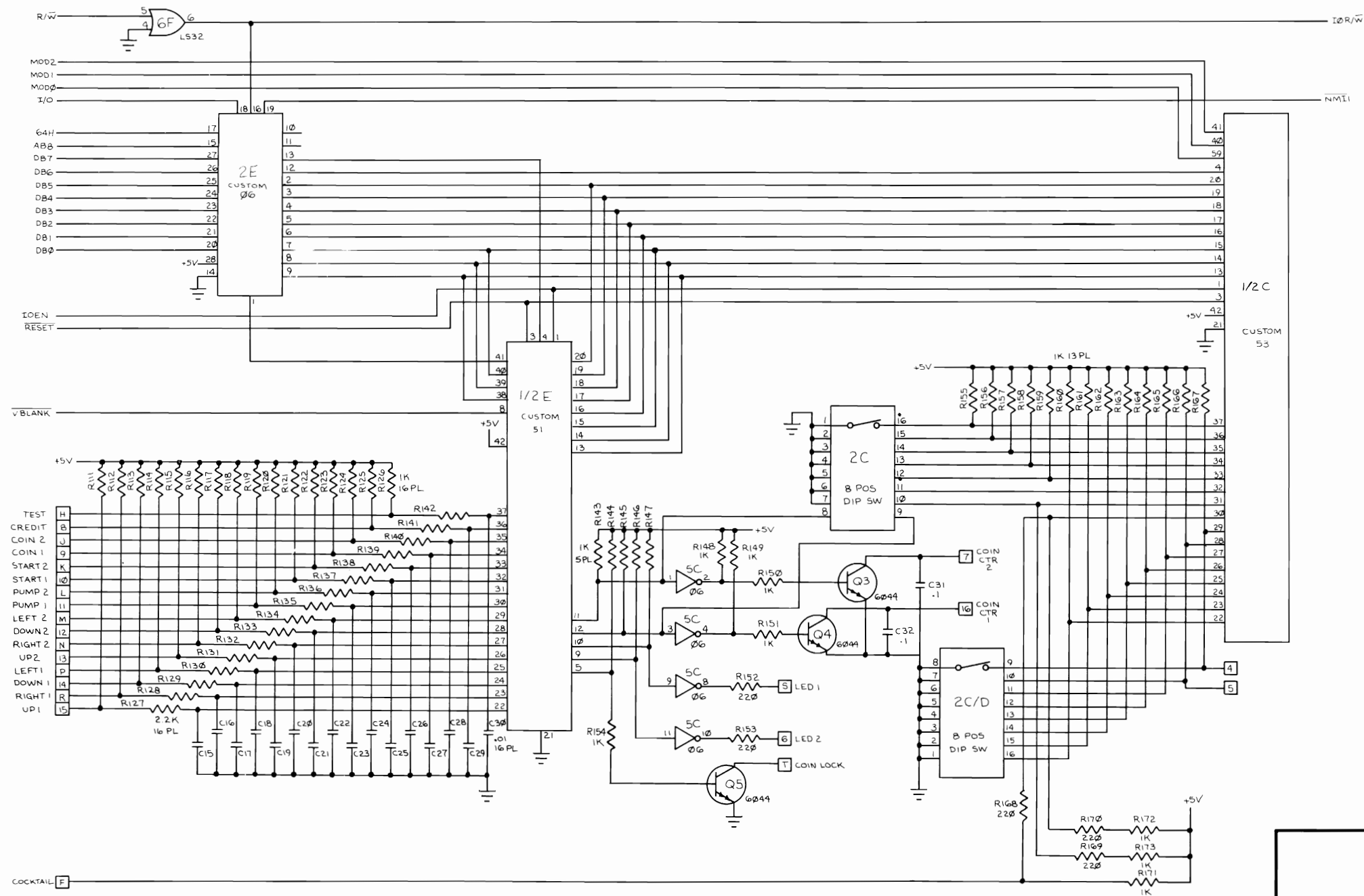
CPU PCB Address Decoder



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.

Dig Dug CPU PCB Schematic Diagram

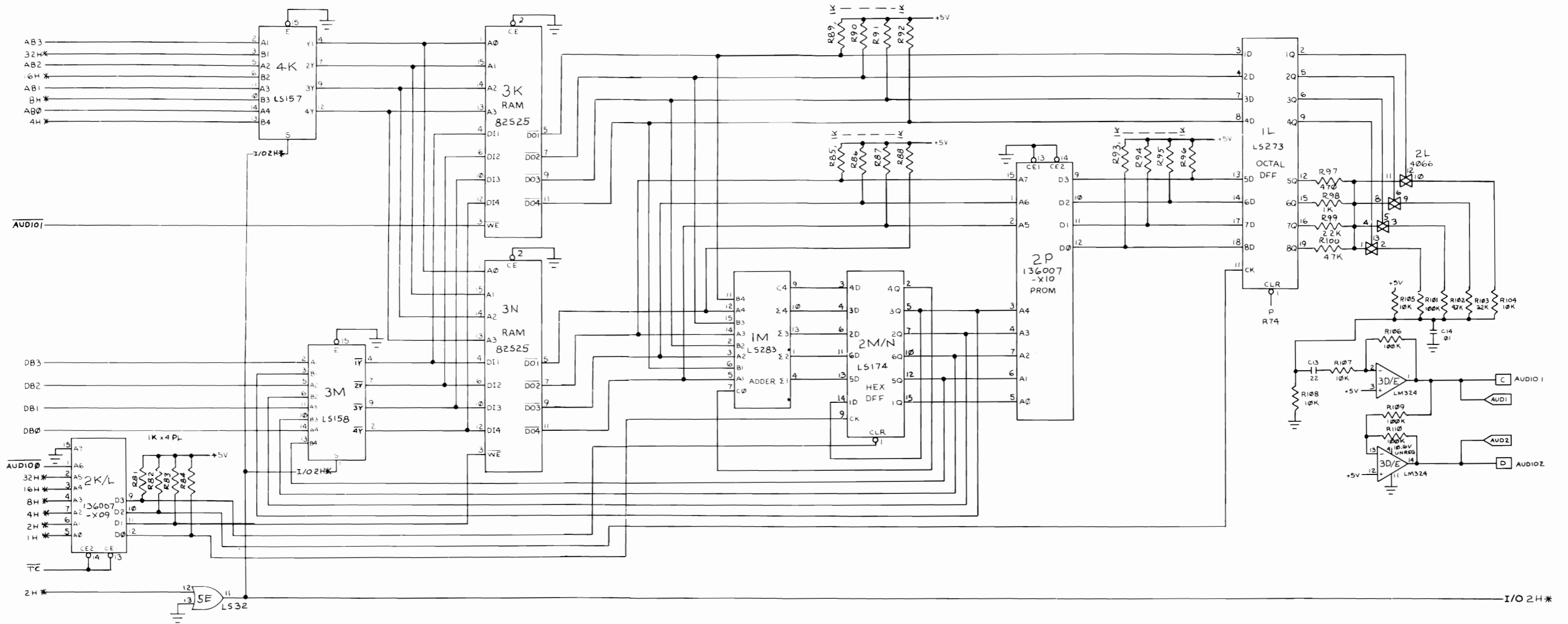
Switch Inputs, Coin Door and Control Panel Outputs



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.

Dig Dug CPU PCB Schematic Diagram

Audio



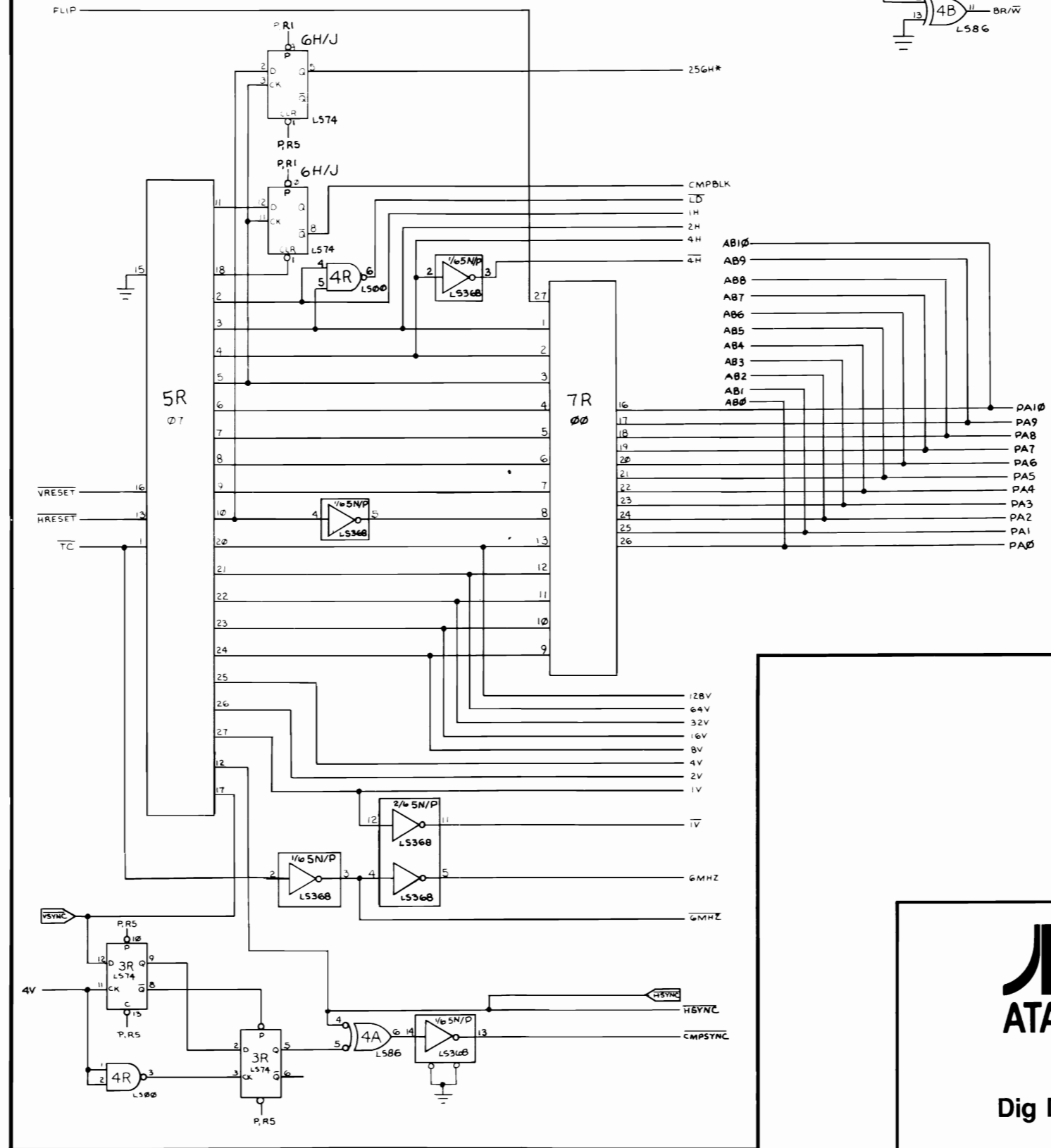
NOTICE TO ALL PERSONS RECEIVING THIS DRAWING
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject 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.

Dig Dug CPU PCB Schematic Diagram

© ATARI INC., 1982
 A Warner Communications Company

SP-203 Sheet 5A
 1st printing 3L

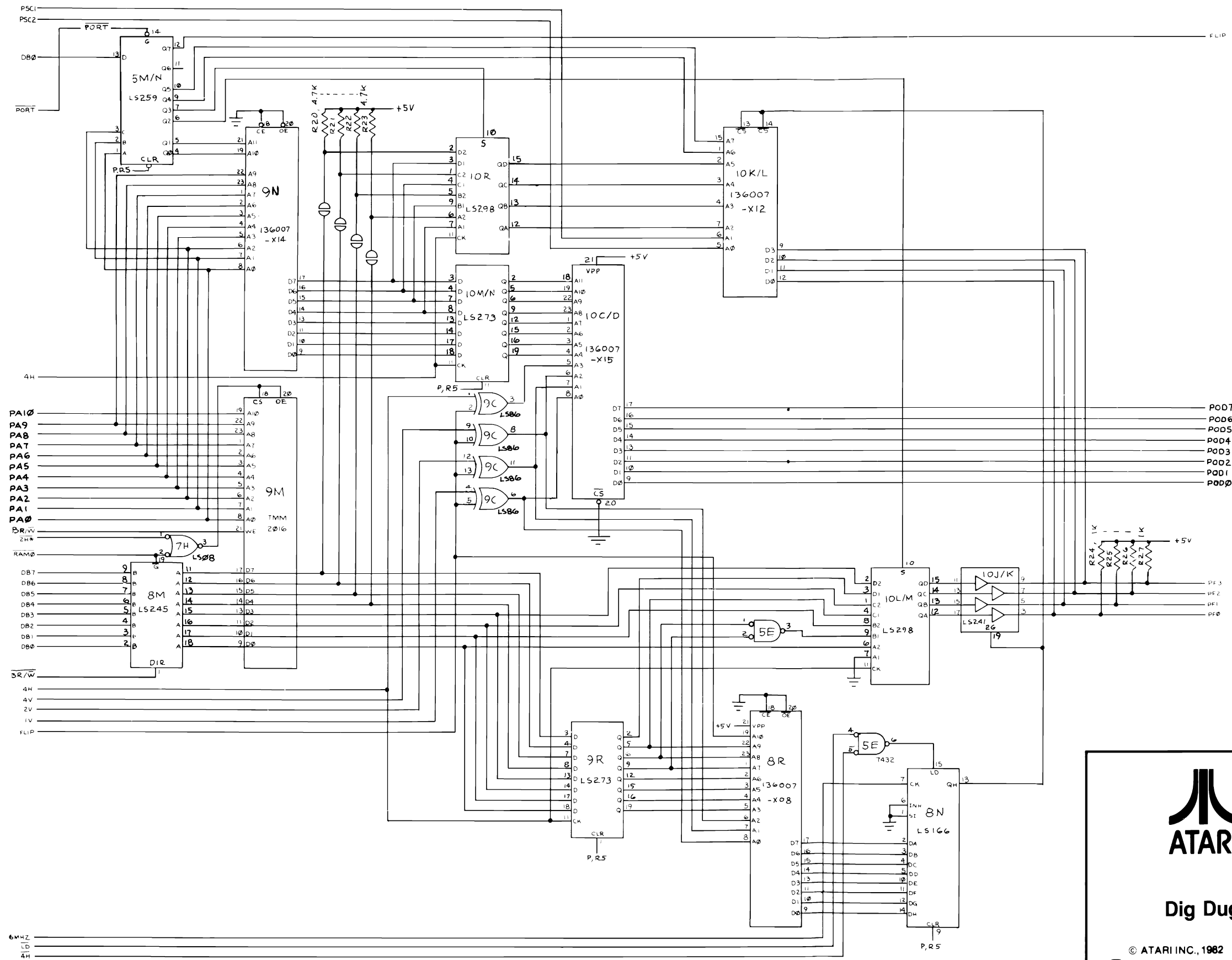
Sync Generator




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.

Dig Dug Video PCB Schematic Diagram

Playfield Generator





ATARI

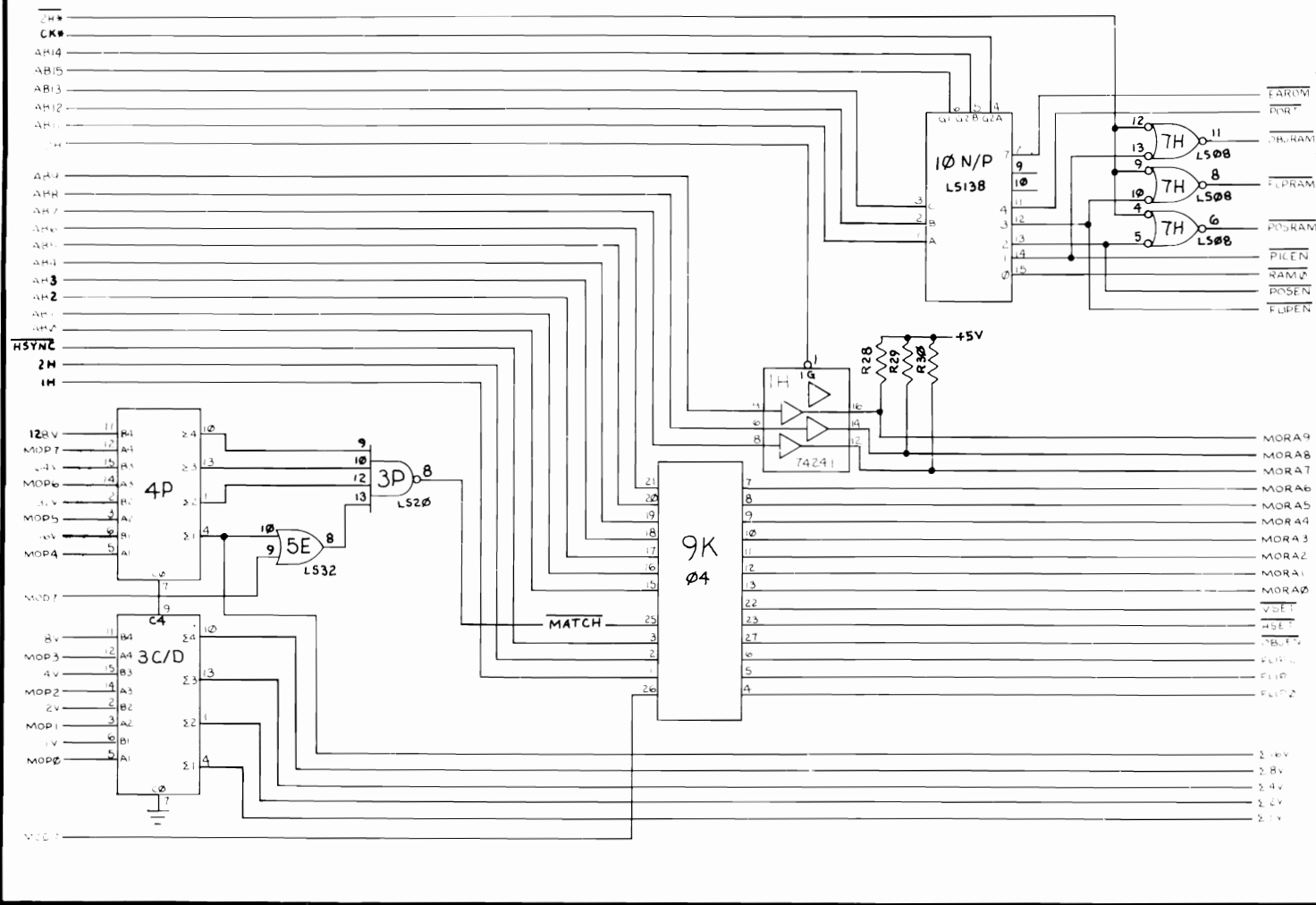
Dig Dug Video PCB Schematic Diagram

© ATARI INC., 1982
A Warner Communications Company

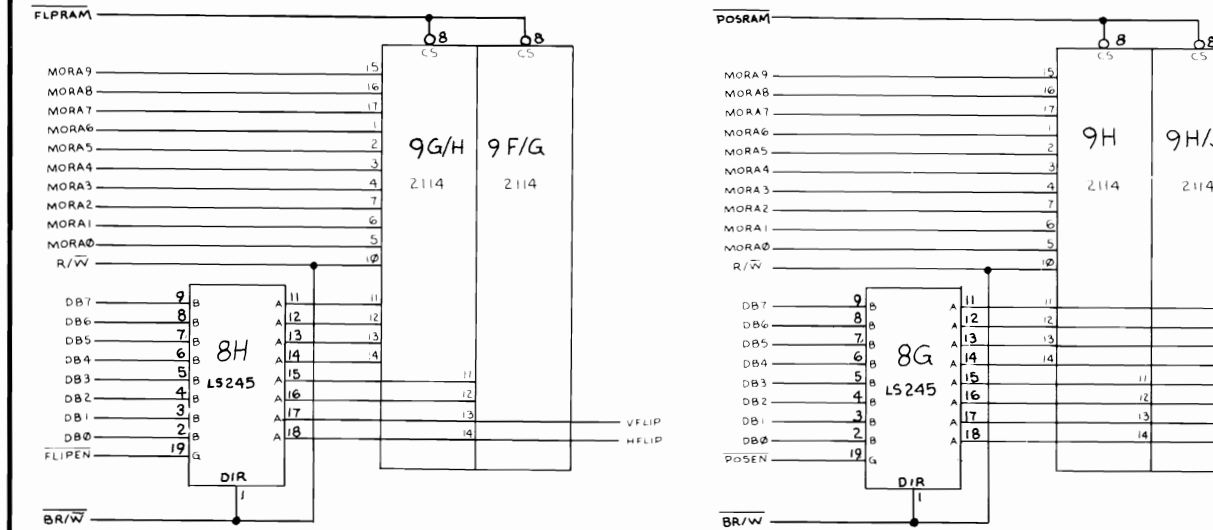
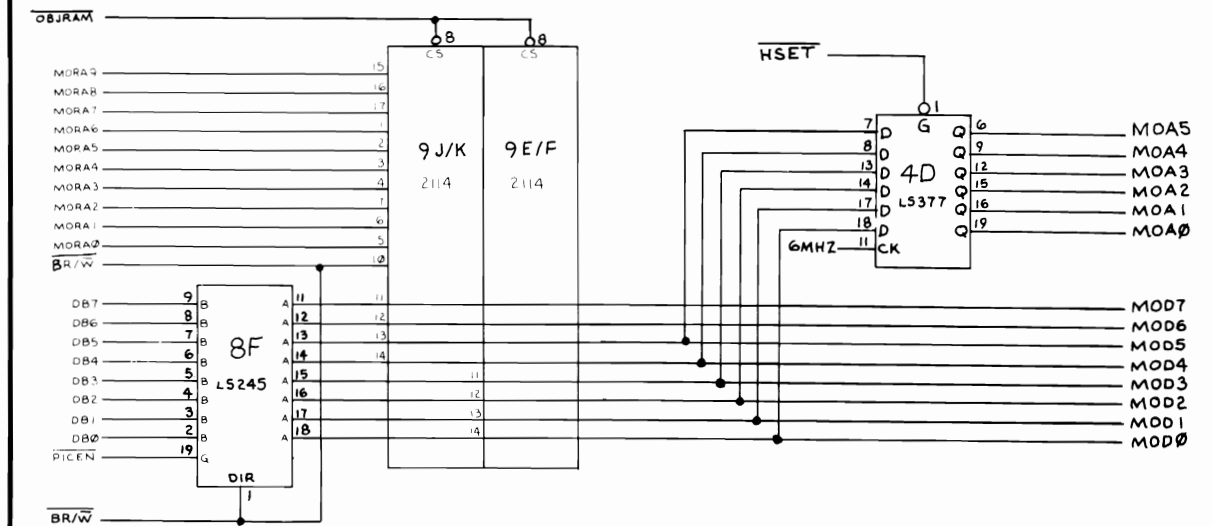
NOTICE TO ALL PERSONS RECEIVING THIS DRAWING
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject 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-203 Sheet 6A
1st printing 3L

Motion Object Address Generator, Decoder, and Match Line Flag



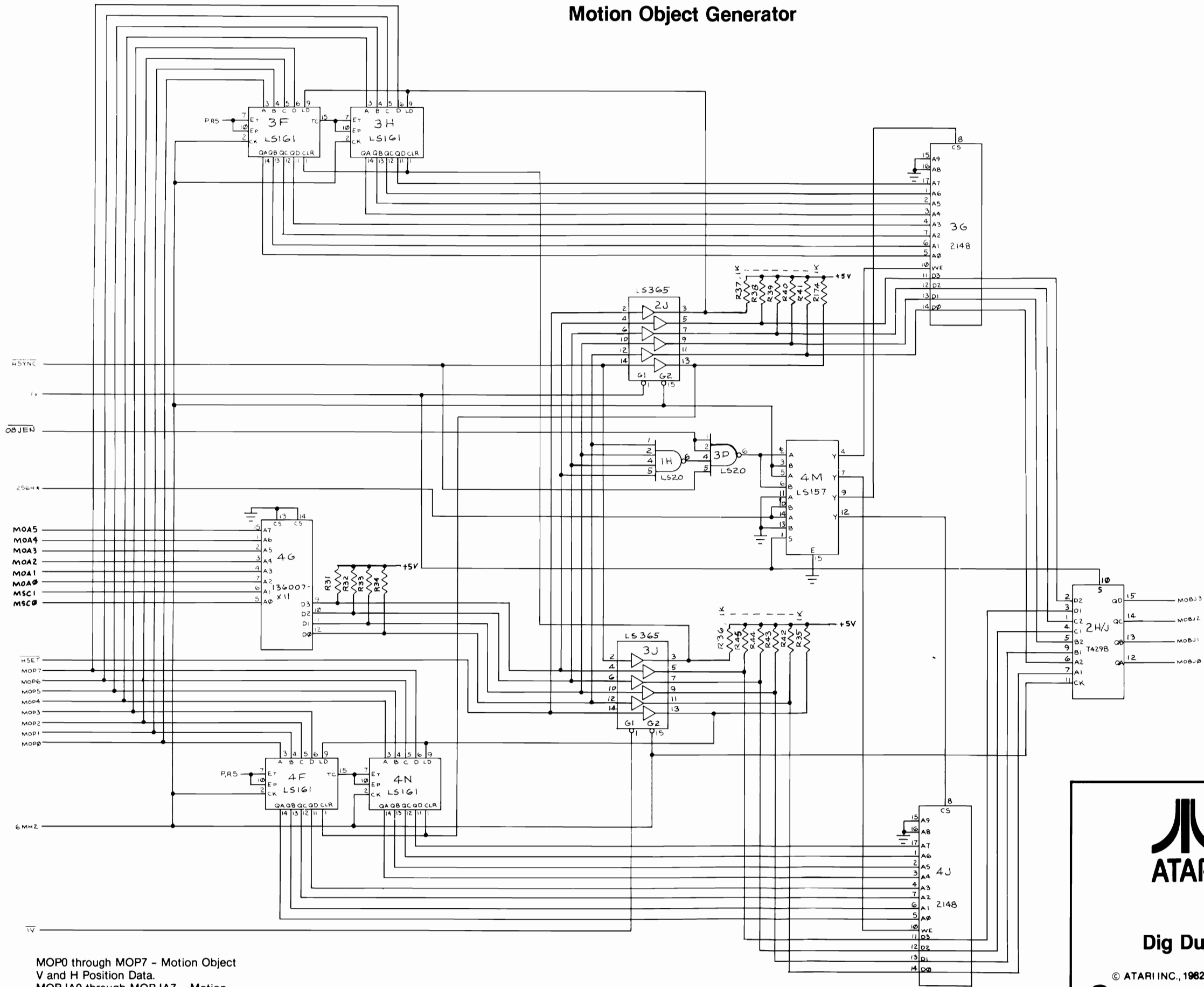
Motion Object RAM



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.


Dig Dug Video PCB Schematic Diagram

Motion Object Generator



MOBJ0 through MOBJ3 -
Motion Object Output.

MOP0 through MOP7 - Motion Object
V and H Position Data.
MOBJA0 through MOBJA7 - Motion
Object Picture Address.



ATARI

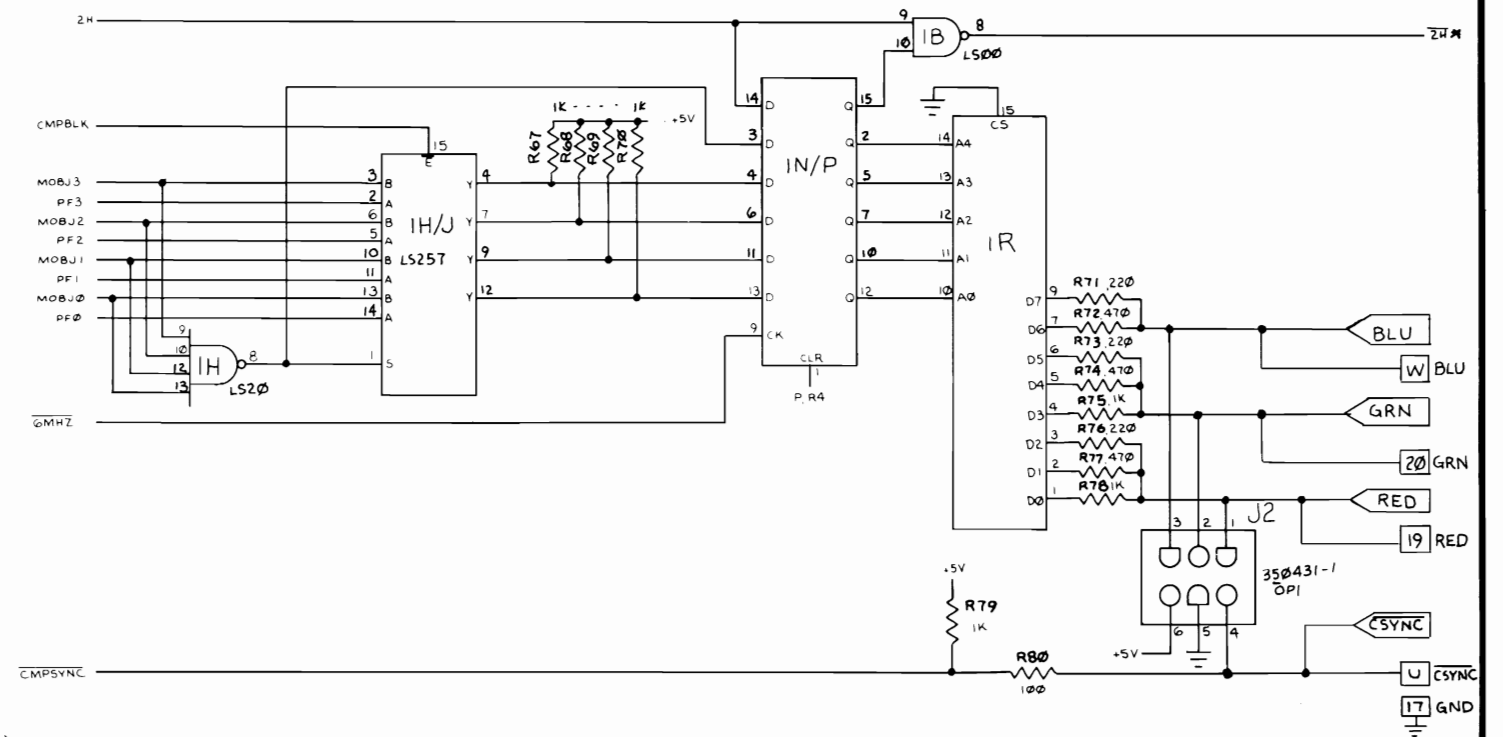
Dig Dug Video PCB Schematic Diagram

© ATARI INC., 1982
A Warner Communications Company

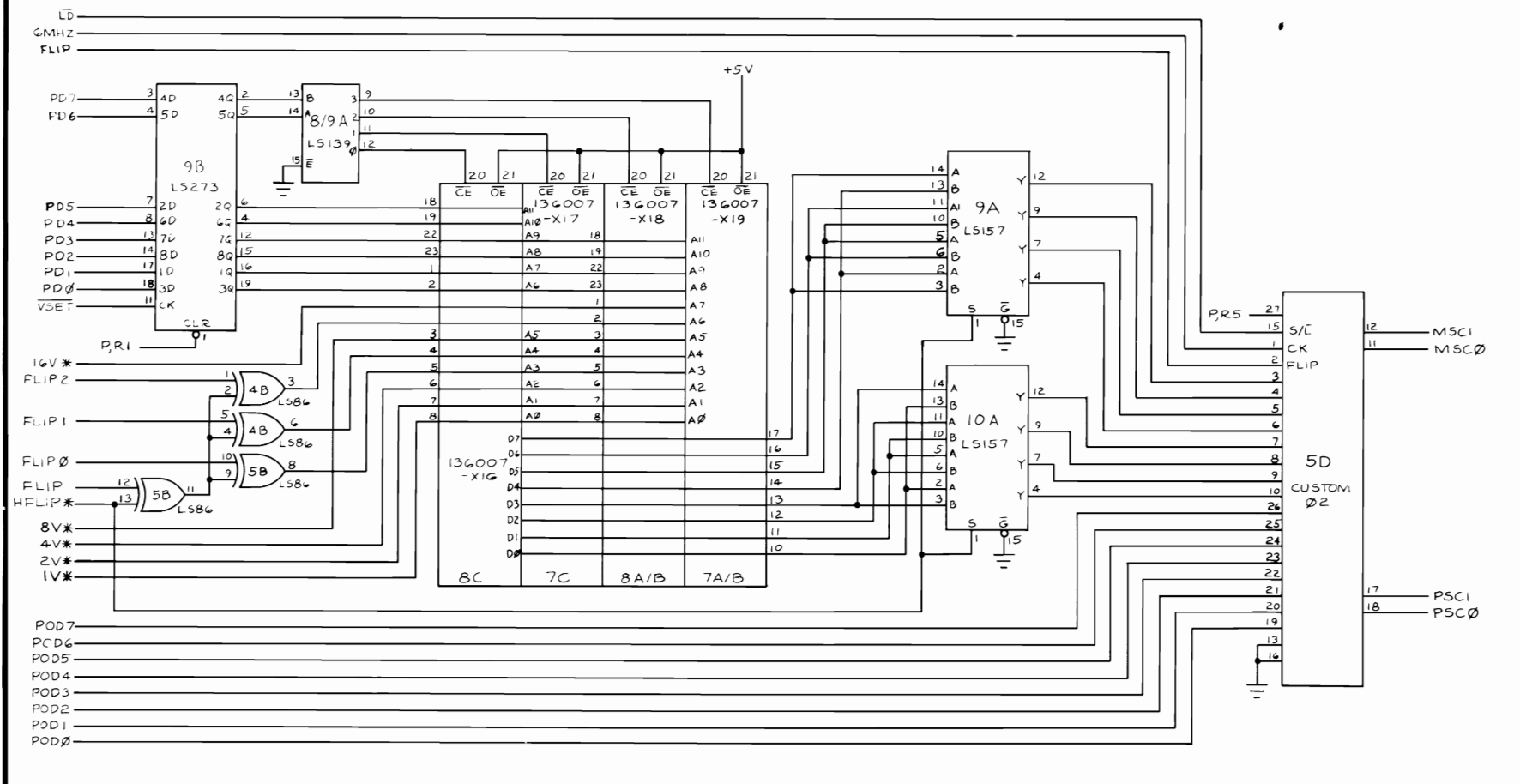
NOTICE TO ALL PERSONS RECEIVING THIS DRAWING
 CONFIDENTIAL: Reproduction forbidden without the specific written permission of Atari, Inc., Sunnyvale, CA. This drawing is only conditionally issued, and neither receipt nor possession thereof confers or transfers any right in, or license to use, the subject 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-203 Sheet 7A
1st printing 3L

Video Output



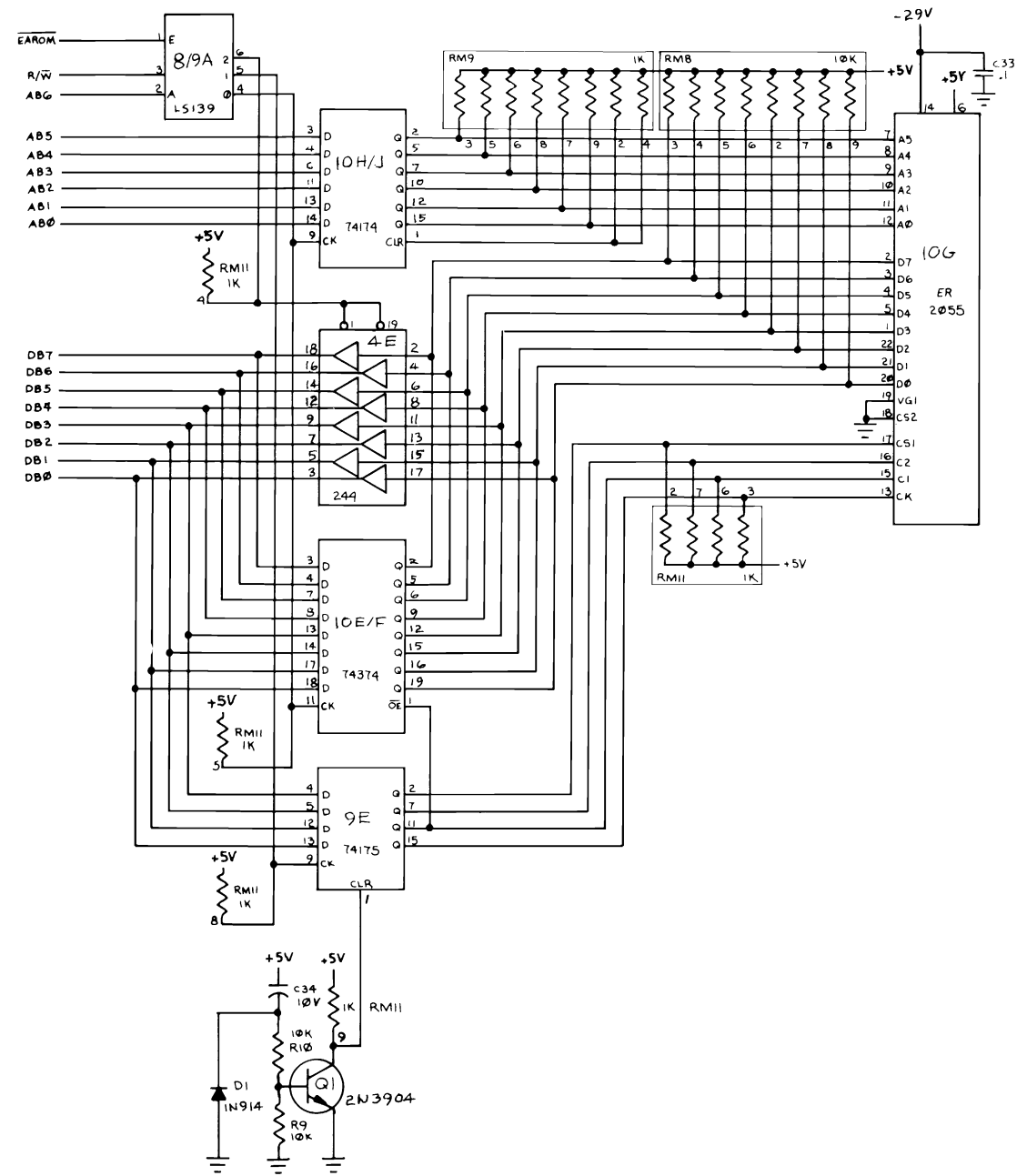
Video Color Controller



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.

Dig Dug Video PCB Schematic Diagram

High-Score Table



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.

Dig Dug Video PCB Schematic Diagram

Color Display Schematic Diagram

Schematic Notes

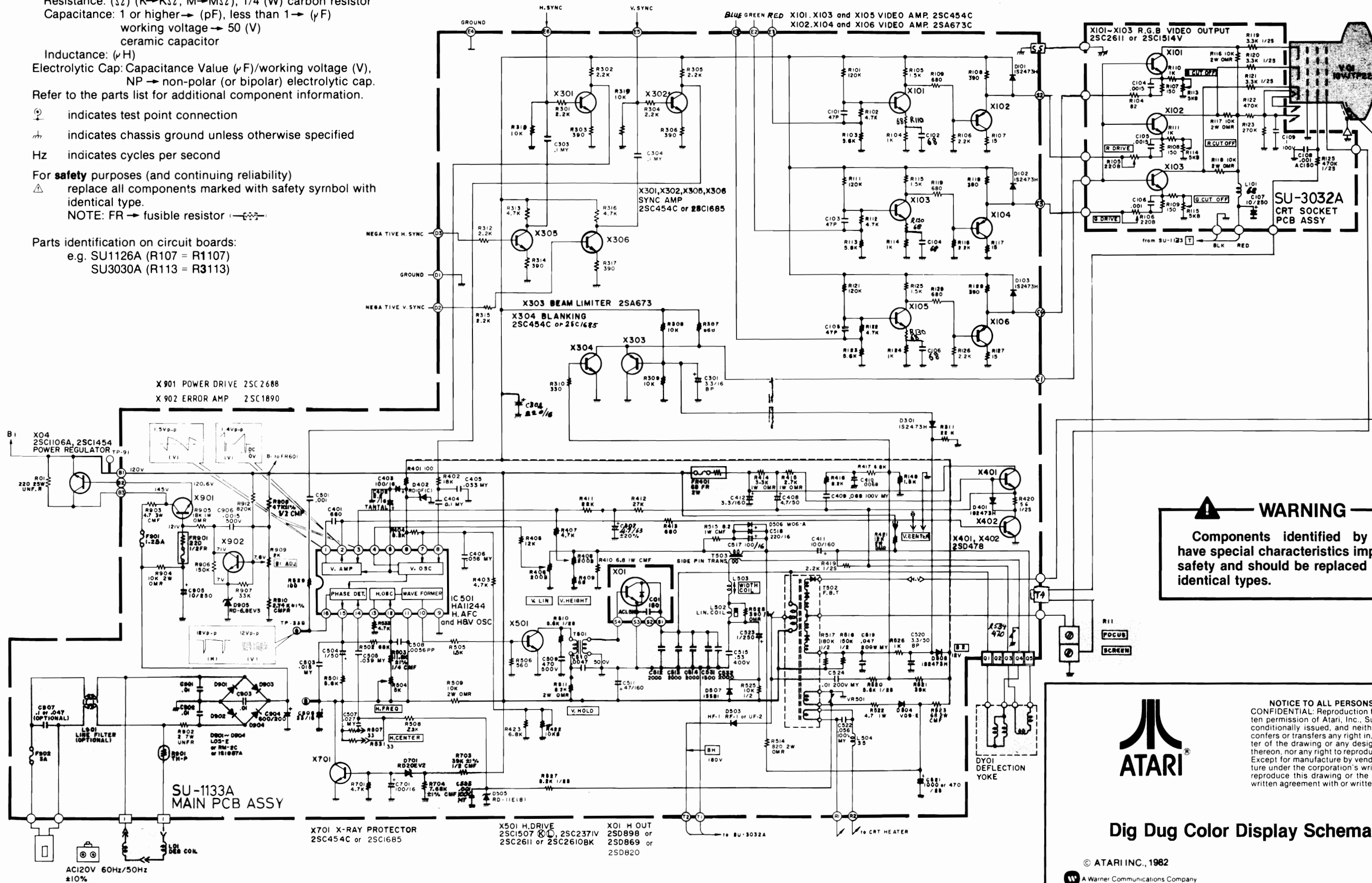
Unless otherwise specified
 Resistance: (Ω) (K \rightarrow K Ω , M \rightarrow M Ω), 1/4 (W) carbon resistor
 Capacitance: 1 or higher \rightarrow (pF), less than 1 \rightarrow (μ F)
 working voltage \rightarrow 50 (V)
 ceramic capacitor

Inductance: (μ H)
 Electrolytic Cap: Capacitance Value (μ F)/working voltage (V),
 NP \rightarrow non-polar (or bipolar) electrolytic cap.
 Refer to the parts list for additional component information.

\odot indicates test point connection
 \perp indicates chassis ground unless otherwise specified
 Hz indicates cycles per second

For **safety** purposes (and continuing reliability)
 \triangle replace all components marked with safety symbol with identical type.
 NOTE: FR \rightarrow fusible resistor

Parts identification on circuit boards:
 e.g. SU1126A (R107 = R1107)
 SU3030A (R113 = R3113)



WARNING
 Components identified by shading have special characteristics important to safety and should be replaced only with identical types.

ATARI

Dig Dug Color Display Schematic 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-203 Sheet 8B
 1st printing 3L