

**technical manual for**

# **800 FATHOMS**



## INSTALLATION AND STARTING INSTRUCTIONS

Check carton for any damage that may have occurred during shipment. If any damage is noticed, contact the freight carrier for claim purposes. External damage could indicate damage to the cabinet and the internal components of the game. If no damage is noticed, remove the carton from the game.

Remove keys that have been secured to the top of the cabinet and open the cash box door. In the cash box you will find a set of leg levelers. Screw the levelers into the receivers at the bottom of the cabinet.

Unlock the rear door and remove the power cord from the bottom of the game. Check for any loose plugs or wires. The game was thoroughly tested at the factory, but vibration during shipment could cause the plugs to come apart. Plug the game into any 110V AC outlet and then pull the white button of the safety switch out. This will give power to the game. If the game does not go on, check the on/off switch just below the power cord notch. If you wish to use the game for 220V AC, remove the plug that is marked 110V from the transformer and replace with the plug with the 220V label.

The fuses that come with the game are 3 Amp Slow Blow. If you are going to use 220V AC, change them to 1½ Amp Slow Blow.

All games shipped from U. S. Billiards are set for 110V AC with 3 Amp fuses.

## MAINTENANCE

The CRT used in our games is like those employed on regular television sets. Therefore, please handle with care so as not to damage it.

- . Do not set up the game in open and very lighted areas, as the quality of image would be greatly reduced.
- . Do not set up the game close to heating sources and keep it 6 inches from the back wall.
- . If, when the game is on, no image appears on the screen, check power supply fuses and if connectors are properly connected.
- . If the screen is lit up but there is no image, check that C.P.U. board connectors are properly connected.
- . If the image slowly moves toward the side, it can be caused by a close magnet or by a transformer which might cause strong wavinesses.

If the game is rotated with power on, the image on the screen may change color. This is caused by the earth's magnetic field. To establish proper colors again, turn off the game for at least 5 minutes and then turn it on again.

## F.C.C. NOTES

This equipment has not been tested to show compliance with new F.C.C. rules. Paragraph J of Part 15 of the F.C.C. rules is designed to provide reasonable protection against radio communication interference. The operation of this equipment may cause interference, in which case, the user will be required to take whatever steps are necessary to correct the interference.

PARTS LIST - 800 FATHOMS

<u>Part #</u>	<u>Description</u>
<u>General Parts</u>	
521	Coin Chute (25¢)
519	Coin Switch
335	Dutch Cash Door, Frame with Cash Box
338	Cash Box Only for Dutch Cash Door
7002	Leg Leveler - each
11700	Back Service Door
11701	Speaker Grill - 6"x9"
11854	TV Monitor Cardboard Mask - 800 Fathoms
11855	TV Monitor Cardboard Side Panel - Right - 800 Fathoms
11856	TV Monitor Cardboard Side Panel - Left - 800 Fathoms
11857	Plastic Header Screened - 800 Fathoms
11707	Front Plastic Window - 23½x17½x3/16"
11708	Frame for Front Plastic Window
11858	Decal, Side - Right - 800 Fathoms
11859	Decal, Side - Left - 800 Fathoms
11860	Instruction Manual (800 Fathoms)
2949	"Caution High Voltage" Label
11772	Warning Label

METAL PARTS

11861	Control Panel complete with buttons (800 Fathoms)
11862	Control Panel with graphics without buttons (800 Fathoms)
11863	Graphics alone for Control Panel (800 Fathoms)
11819	California Switch Bracket
11716	Header Holding Spring
11820	Meter Bracket

TRIM

11719	Black T-Moulding for one side - 128"
11720	Aluminum Trim - 24"
11721	Black T-Moulding - 24"

LOCKS

1486	Random Lock with Key & Hardware
1487	#1150 Lock with Key & Hardware

HARDWARE

11761	Pal Nut for Push Button Switch
1296	3/18-16" T-Nut Pronged (for Leg Leveler)

ELECTRICAL PARTS

11853	Complete Game Board (800 Fathoms)
11724	Bulb for Coin Chute - 63V
11725	Red Push Button Assembly (Fire)
11726	White Push Button Assembly (Player 1, Player 2)

PARTS LIST - 800 FATHOMS (continued)

Part #            Description

ELECTRICAL PARTS (continued)

11728	Leaf Switch for Push Buttons & Holder Assembly
11729	Holder for Push Buttons
11801	Joystick Complete
11828	Joystick Handle Alone
11829	Joystick Round Spacer Alone
11830	Joystick Grey Actuator Alone
11831	Joystick Retainer Clip Alone
11832	Joystick Leaf Switch Alone
11802	Color Monitor
11731	Speaker - 6"x9"
11864	Power Supply Complete (+12V,+5V)
11811	Transformer Group Complete with Connectors
11759	California Switch - B5050
11851	Wiring Harness Complete
11827	110V-220V Reversal Harness Alone
10110	Fluorescent Fixture
10111	Fluorescent Bulb
2356	6V DC Counter
10529	Triple Outlet
11824	3 Amp Slo Blo Fuse
10153	Tilt Switch

\*\*\*\*\*  
 \* 800 FATHOMS \*  
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FUNCTION OF THE DIP SWITCH

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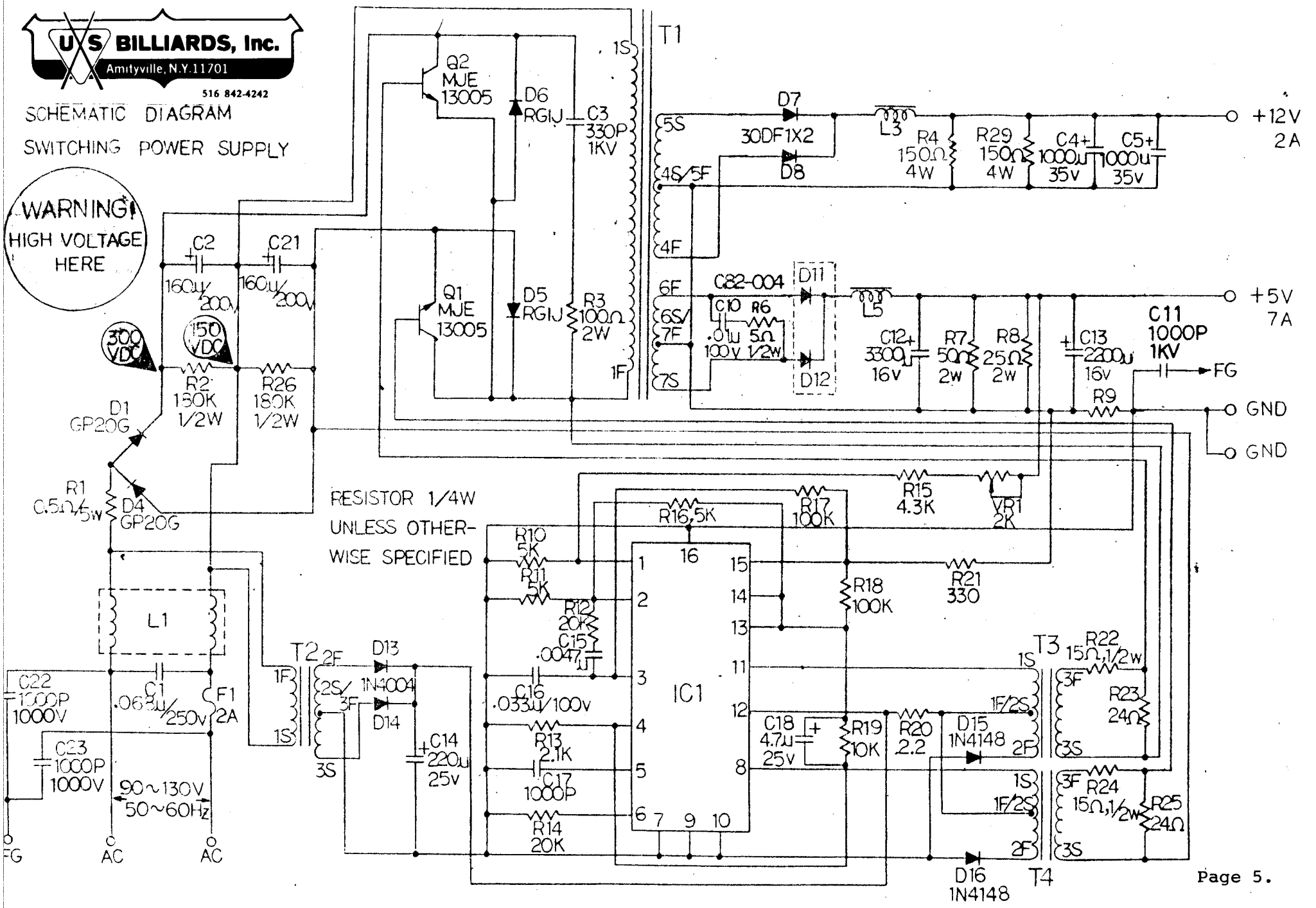
SWITCH #	2	3	4	5	6
GAME PRICING					
1 Coin/1 Play	ON	ON			
1 Coin/2 Credit	OFF	ON			
1 Coin/3 Credit	ON	OFF			
1 Coin/4 Credit	OFF	OFF			
# OF SUBMARINES					
3				ON	ON
4				OFF	ON
5				ON	OFF
Infinite				OFF	OFF
CONFIGURATION					
Upright			ON		
Cocktail			OFF		

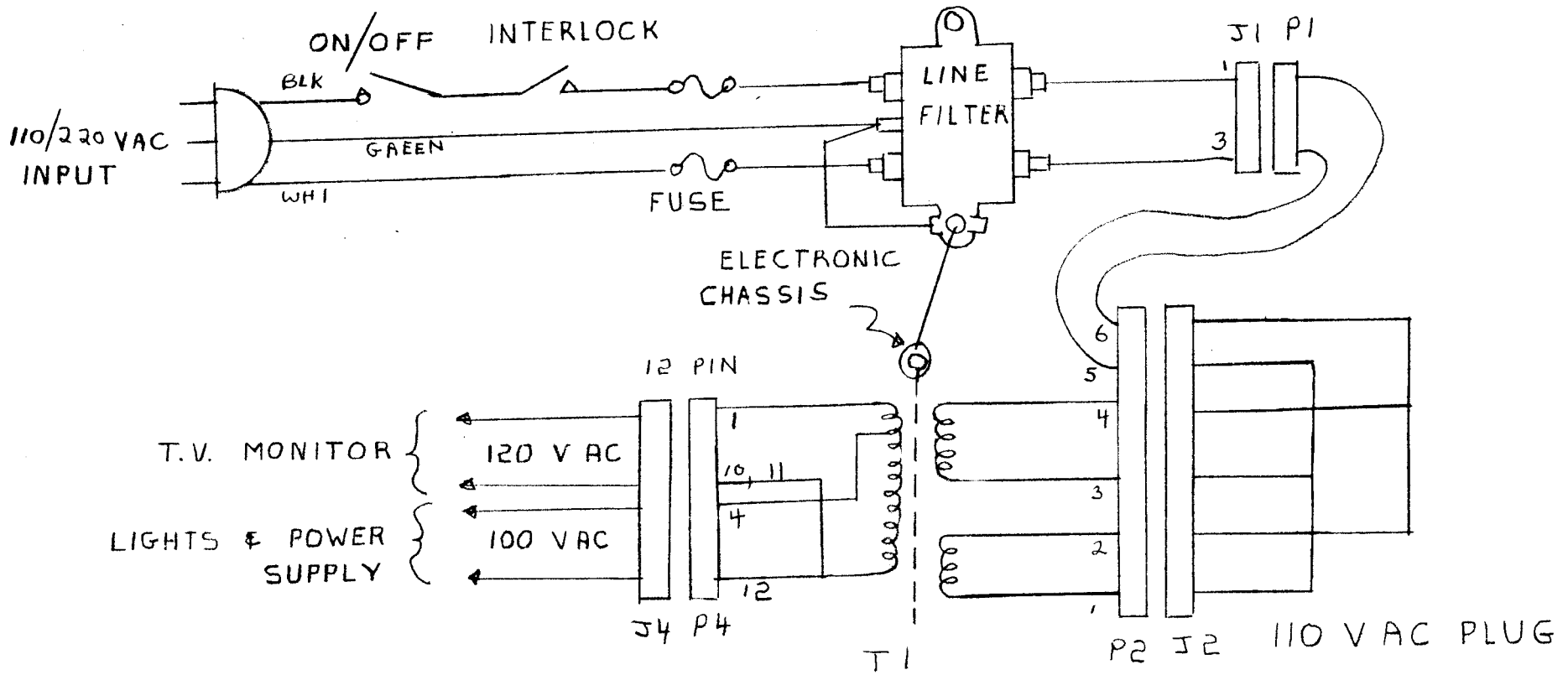
SWITCHES 1, 7 & 8 ARE NOT USED



SCHMATIC DIAGRAM  
SWITCHING POWER SUPPLY

**WARNING!**  
HIGH VOLTAGE  
HERE

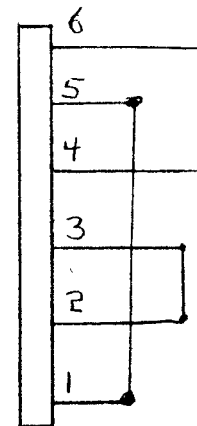




516 842-4242

120/220 POWER INTERLOCK  
8/31/81

J3 220 VAC PLUG



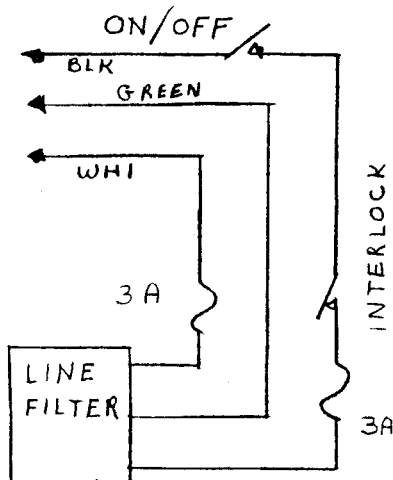
BOARD



516 842-4242

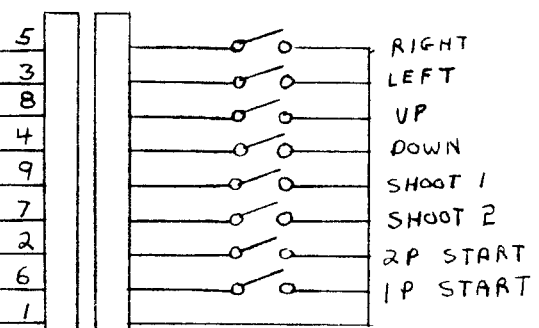
# 800 FATHOMS WIRING DIAGRAM

110/  
220  
INPUT

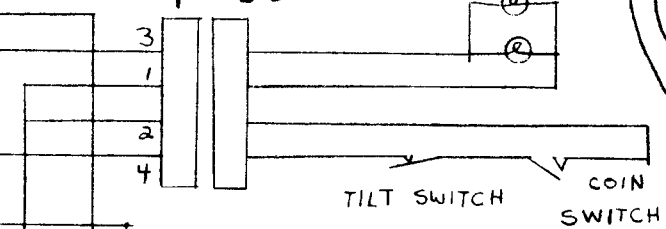


+5	1	1
+5	2	2
+5	3	3
1P RIGHT	4	4
2P LEFT	4	4
1P LEFT	5	5
2P RIGHT	5	5
1P UP	6	6
2P UP	6	6
1P DOWN	7	7
2P DOWN	7	7
1P SHOOT 1	8	8
2P SHOOT 1	8	8
1P SHOOT 2	9	9
2P SHOOT 2	9	9
SERVICE	10	
2P START	10	
COIN I	11	
1P START	11	
COIN COUNTER	12	
GREEN	12	
COIN II	13	
RED	13	
BLUE	14	
SPEAKER OUT	15	
SYNC	15	
+12V	16	
+12V	16	
GND	17	
GND	17	
GND	18	
GND	18	

P4 J3



P3 J3



LINE FILTER

110 VAC PLUG

TILT SWITCH COIN SWITCH

T.V. MONITOR

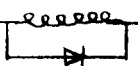
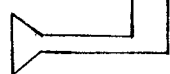
GREEN 2  
RED 1  
BLUE 3  
SYNC 9,10  
GRD

+5  
+12  
GND

115 VAC

107 VAC

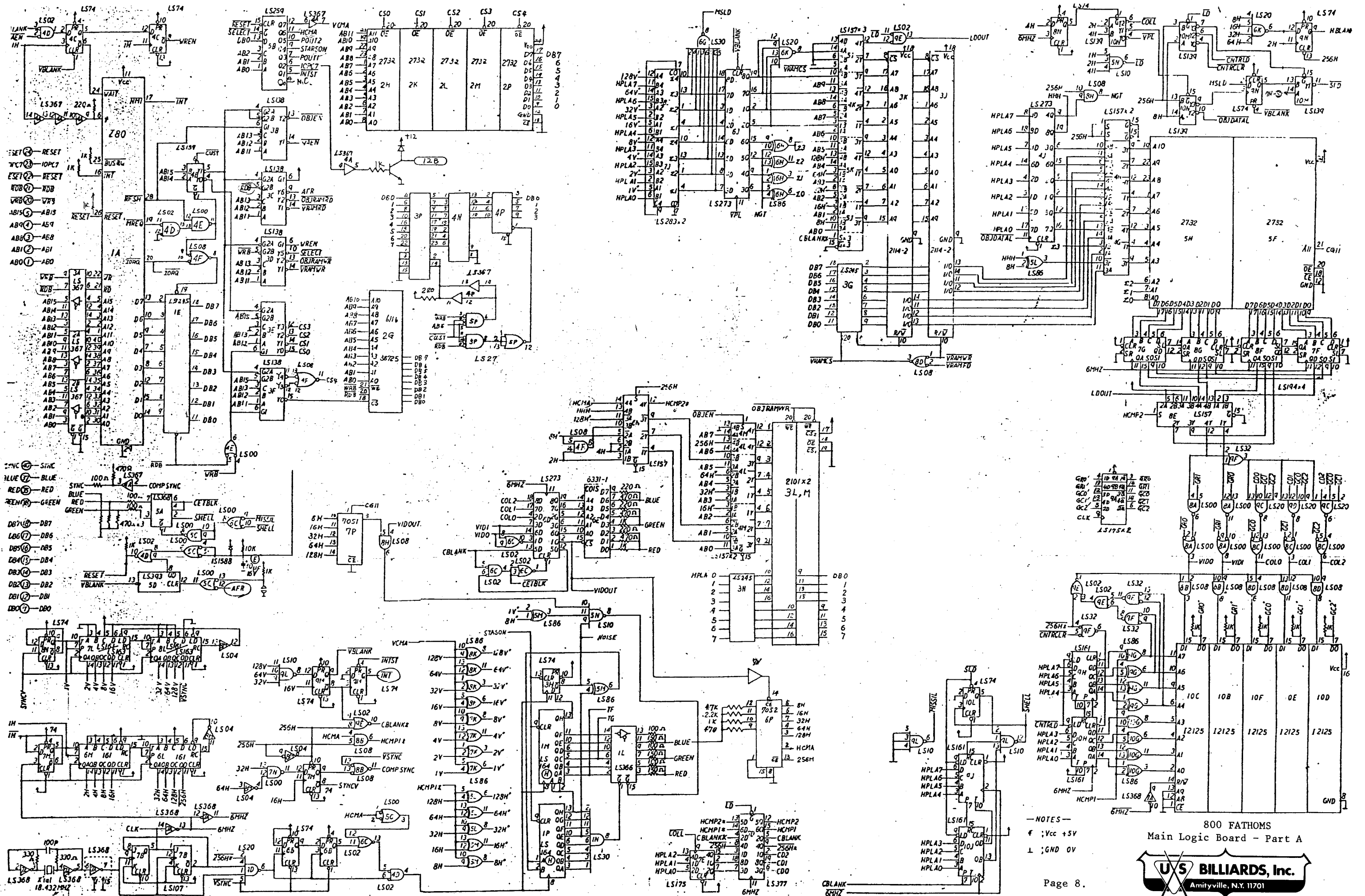
SPEAKER



COIN COUNTER

SWITCHING POWER SUPPLY HSA-122B



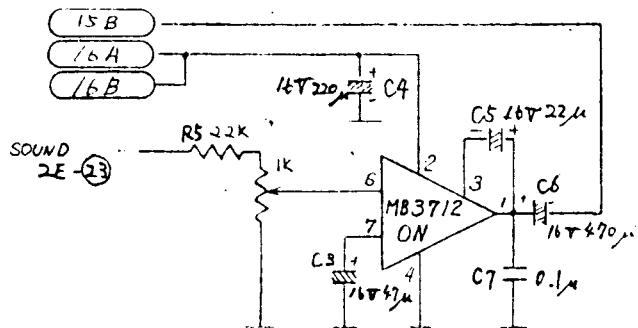
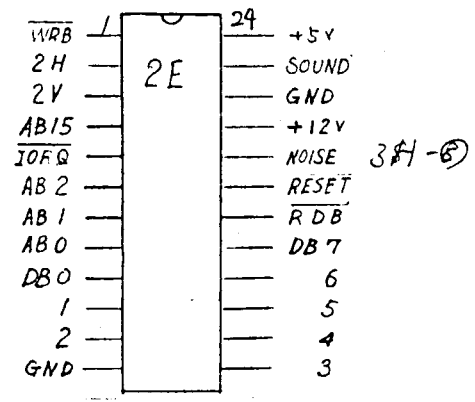
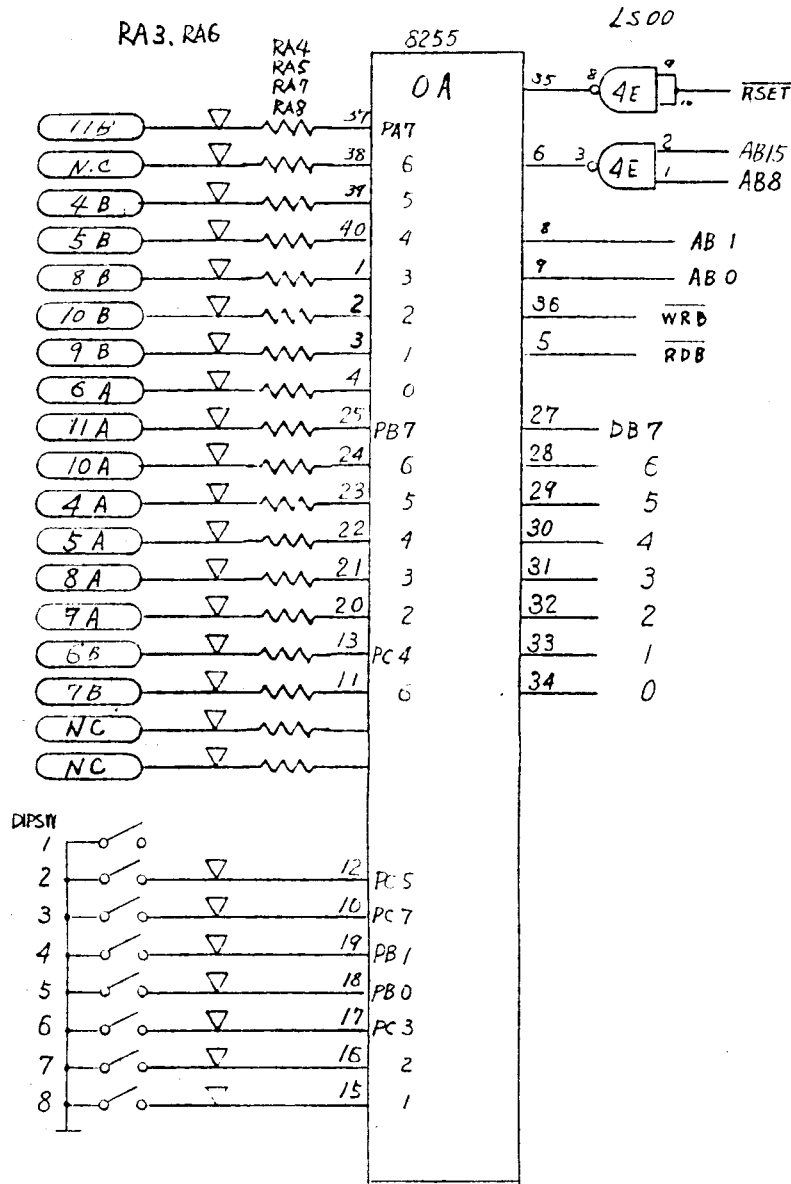


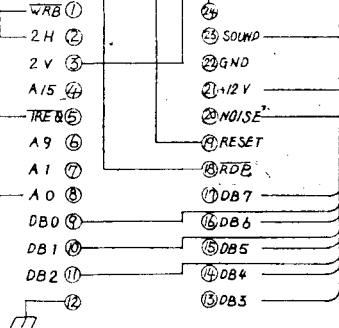
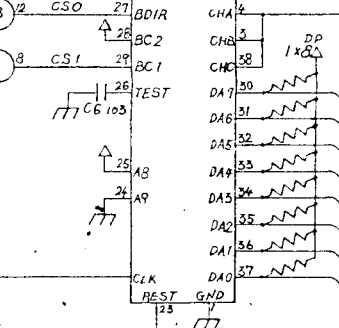
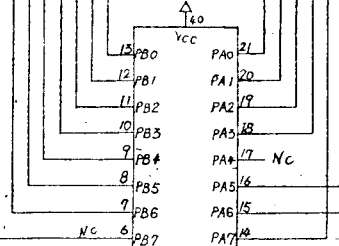
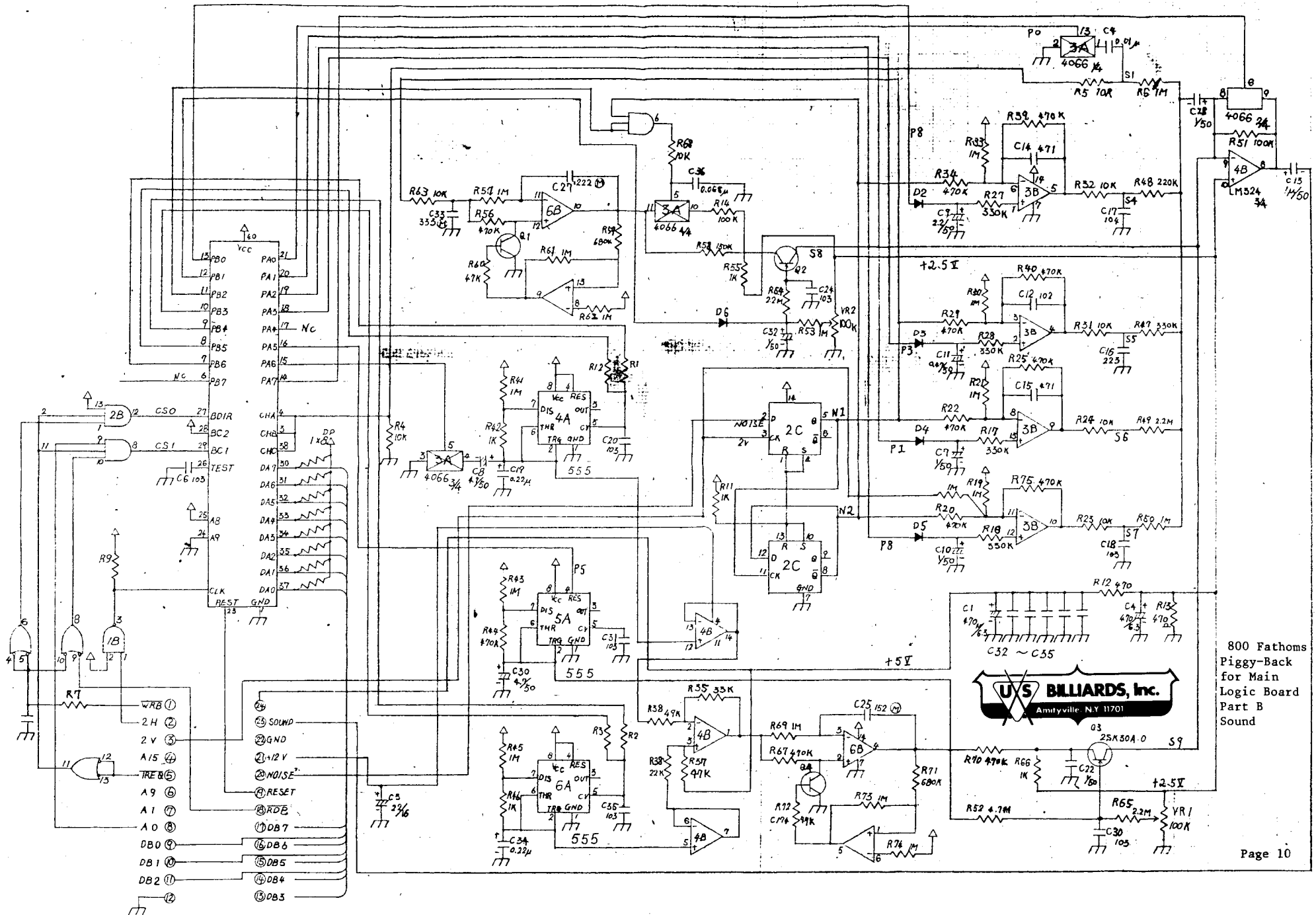
800 FATHOMS  
Main Logic Board - Part A

NOTES  
 # Vcc +5V  
 L GND 0V  
 Page 8.



800 FATHOMS  
Main Logic Board - Part B





800 Fathoms  
Piggy-Back  
for Main  
Logic Board  
Part B  
Sound