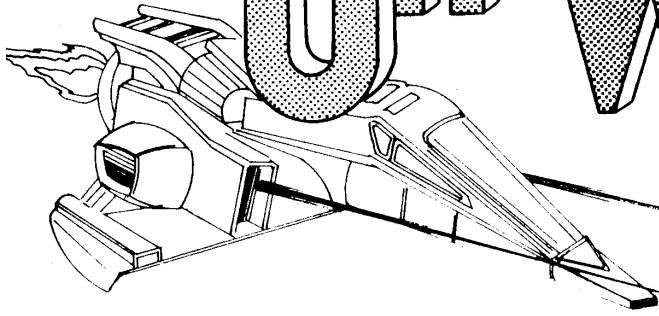


International Rental Electronics Machines

Unit Wars



irem
IREM CORPORATION

C O N T E N T S

1. LOCATION SET UP	2
A. INTRODUCTION	3
B. MATTERS TO BE ATTENDED TO THE LOCATION	5
2. GAME PLAY	6
A. HOW TO PLAY	7
B. ADJUSTMENT OF LOGIC PRINTED CIRCUIT BOARD	8
C. ADJUSTMENT OF VIDEO MONITOR BOARD(KB240142)	9
3. MAINTENANCE AND REPAIR	10
A. FUSE REPLACEMENT	11
B. OPENING THE CONTROL PANEL	12
C. TV MONITOR REPLACEMENT	13
D. PRINTED CIRCUIT BOARD REPLACEMENT	14
E. FLUORESCENT TUBE REPLACEMENT	15
F. GAME OPERATION	16
4. ILLUSTRATED PARTS LISTS	18
5. FIGURE 1. OVERVIEW OF GAME	3
FIGURE 2. OPENING THE CONTROL PANEL	12
FIGURE 3. TV MONITOR REMOVAL	13
FIGURE 4. GAME PCB REPLACEMENT	14
FIGURE 5. FLUORESCENT TUBE REPLACEMENT	15
FIGURE 6. POWER DISTRIBUTION	16
FIGURE 7. SIGNAL DIDTRIBUTION	17
FIGURE 8. FINAL ASSEMBLY	19
FIGURE 9. CONTROL PANEL ASSEMBLY	21
FIGURE 10. COIN DOOR ASSEMBLY	23
FIGURE 11. ON/OFF SWITCH & POWER CORD	24

LOCATION SETUP



1

Installation Requirements

Power Requirements

Power Supply

100V AC	220V AC
120V AC	240V AC

110 Watts

Temperature Range

On Location and
in Storage

No lower than 0 degrees Centigrade
(32 degrees Fahrenheit)

No higher than 35 degrees Centigrade
(95 degrees Fahrenheit)

Humidity Range

Relative Humidity

No more than 95%

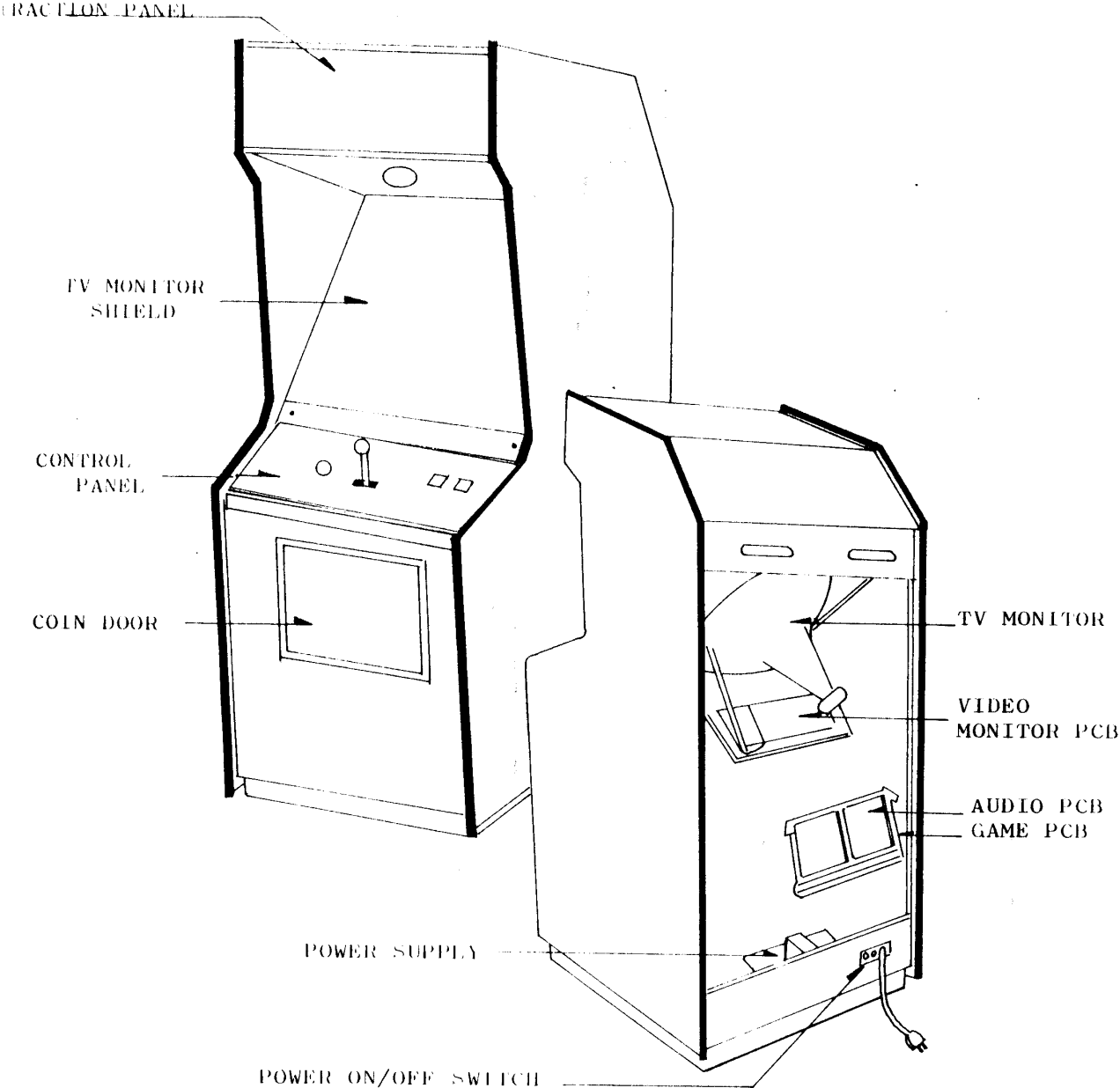
Location Space Requirements

Height	165 centimeters	(inches)
Width	65 centimeters	(inches)
Depth	865 centimeters	(inches)

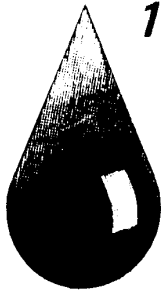
PV Monitor

20-inch Colour

A. INTRODUCTION

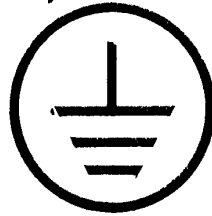


B. MATTERS TO BE ATTENDED TO THE LOCATION



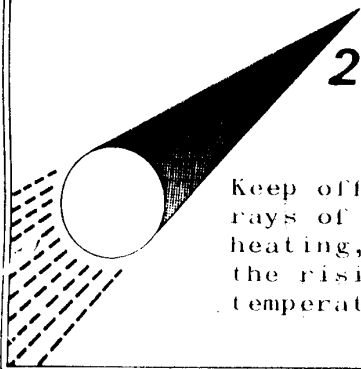
1 WATER, MOISTURE

Cabinet and Parts in the inside must be kept away from water or moisture.



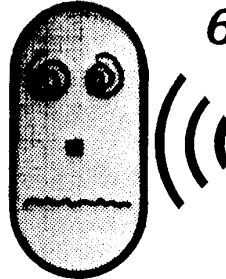
5 GROUND

Ground connection must be completed (The ground wire connects with the ground terminal)



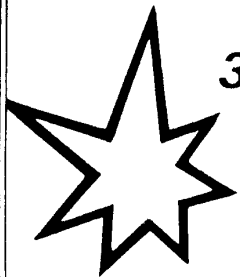
2 DIRECT RAYS OF THE SUN, HEATING

Keep off the direct rays of the sun or heating, and avoid the rising of inner temperature.



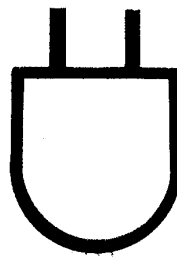
6 NOISE

Use the independent plug socket in order to keep off the obstacle from noise.



3 SHOCK IN TRANSPORTATION OR MOVEMENT

Pay attention to the transportation or movement because of using Color Video Monitor.



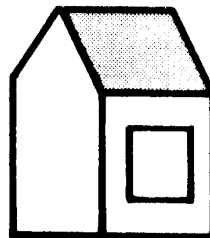
7 POWER SUPPLY

Use the power supply observing the rated voltage.



4 FIRE EXIT, FIRE DEFENSE SYSTEM

Don't set this machine around the fire exit, fire alarm or the like.



8 FOR INDOOR

This machine is for indoor only, please don't use in outdoor.

GAME PLAY



2

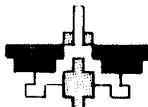

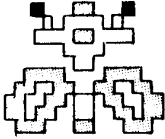
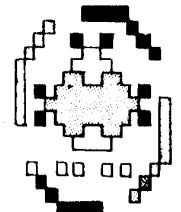

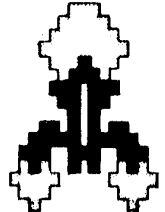
A HOW TO PLAY

INSERT COIN

PRESS BUTTON FOR ONE PLAYER OR TWO PLAYERS

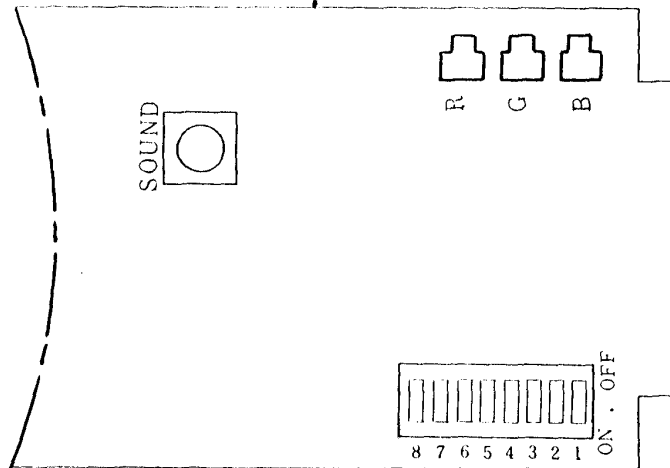
1. The movement of the Space Ship is controlled by the lever, and enemy attackers are shot by its fire power.
2. When space combat ends, ground combat starts after WARP.
3. Caution must be paid in moving your Space Ship as the Spy Alien underground can demolish your Ship by firing its electronic Spear.
4. Only a direct hit in the lower part opening can destroy the Rolling Fire.
5. When Killer King is exploded, the Spy Alien disappears.
6. A Space Ship is added when the score reaches 4,000/
5,000/7,000 points.

SCORING SYSTEM

 Super Mosquito 20 points	 Hovering Attacker 30 points	 Demon Fly 40 points
 Rolling Fire 50 points	 Spy Alien 100 points	 Killer King Big points

B. ADJUSTMENT OF LOGIC PRINTED CIRCUIT BOARD

"Univar S"



Adjustment of VR

Name of VR	Contents
SOUND	Sounds for Total
R G B	Red, Green and Blue Adjustment for the Color

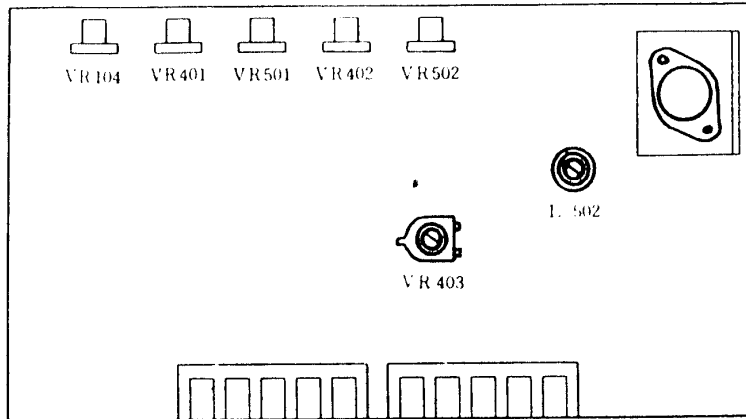
Adjustment of SW

ON OFF

Contents		SW No.							
		1	2	3	4	5	6	7	8
Coin System	Free play	<input type="radio"/>	<input type="radio"/>						
	2 coin 1 play	<input type="radio"/>	<input checked="" type="radio"/>						
	1 coin 1 play	<input checked="" type="radio"/>	<input checked="" type="radio"/>						
	1 coin 2 play	<input checked="" type="radio"/>	<input type="radio"/>						
Additional points of Spaceship	NO			<input checked="" type="radio"/>	<input checked="" type="radio"/>				
	4000			<input type="radio"/>	<input checked="" type="radio"/>				
	5000			<input checked="" type="radio"/>	<input type="radio"/>				
	7000			<input type="radio"/>	<input type="radio"/>				
Number of Spaceship	3					<input checked="" type="radio"/>			
	5					<input type="radio"/>			
Reflection	Turn round								<input type="radio"/>
	Fixation								<input checked="" type="radio"/>

please keep "OFF" (SW 6 and 7)

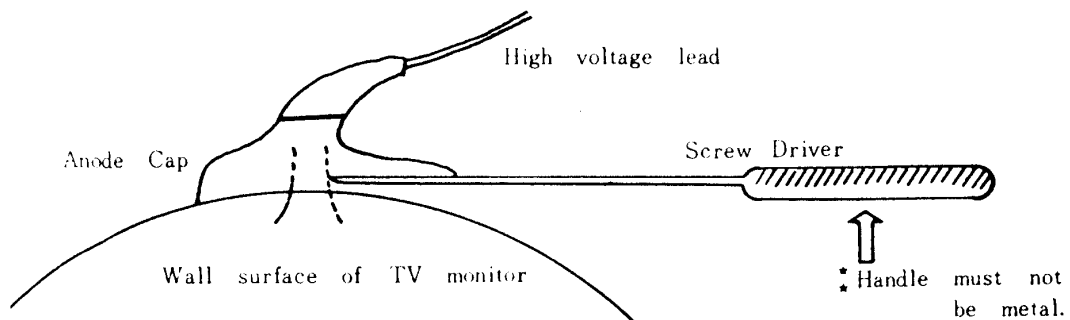
F ADJUSTMENT OF VIDEO MONITOR BOARD (KB 240142)



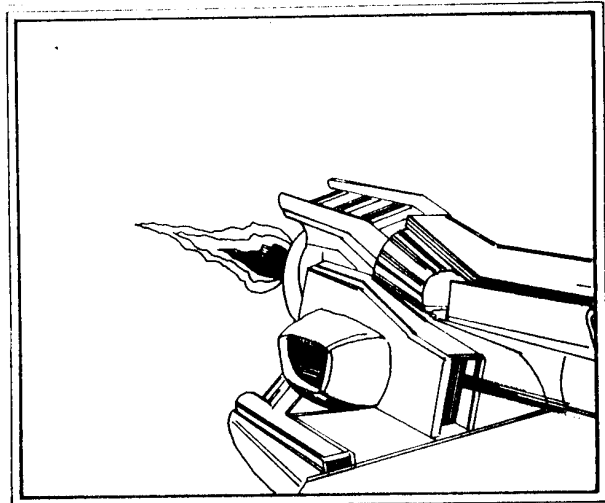
- # VR104To adjust the brightness of screen
- # VR401To stop the streaming of screen to up or down
- # VR501To adjust the skew stripes of screen
- # VR402To move screen to up or down
- # VR502To move screen to right or left
- # VR403To adjust the width of vertical
- # L 502To adjust the width of horizontal
- # Don't touch the other VRs please.

TAKING OUT THE TV MONITOR

1. Pull out the AC Power source plug.
2. Discharge the high voltage at the monitor anode as following.
 - (a) Insert a screw driver with a long stick like a picture below, along the surface of TV monitor wall.
 - (b) Touch the metal spring of anode cap by the tip of driver perfectly.

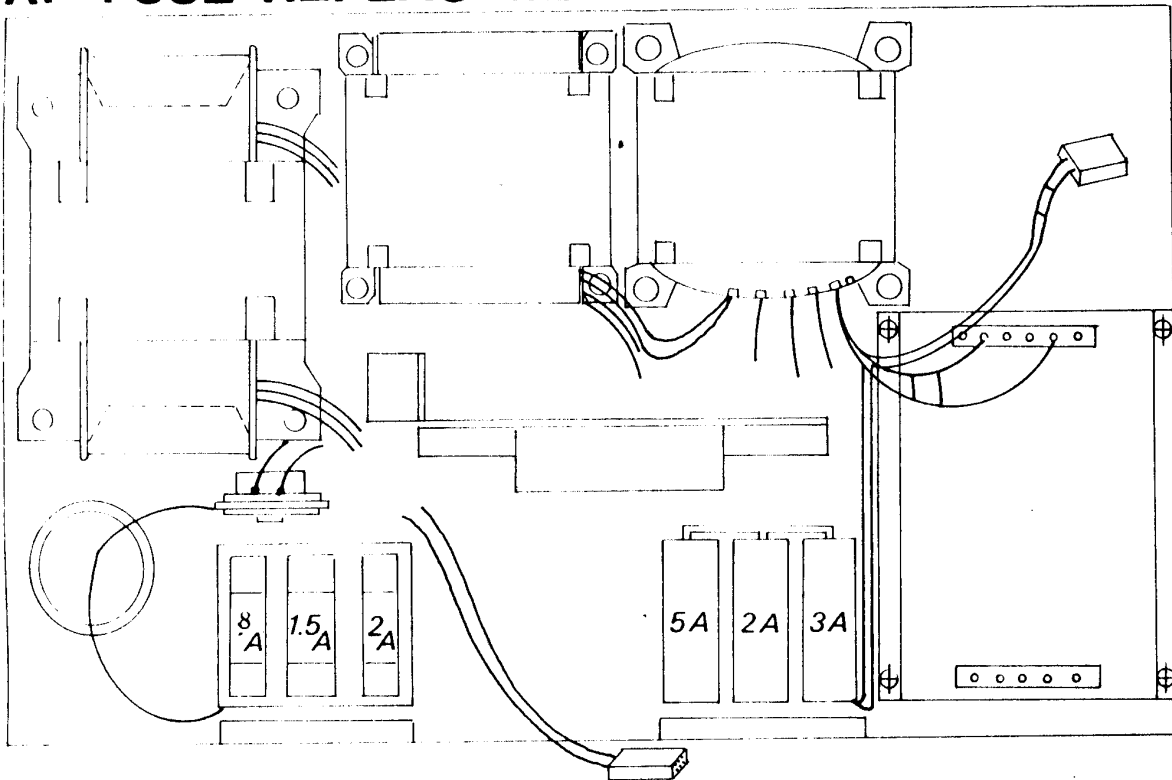


MAINTENANCE AND REPAIR



3

A. FUSE REPLACEMENT

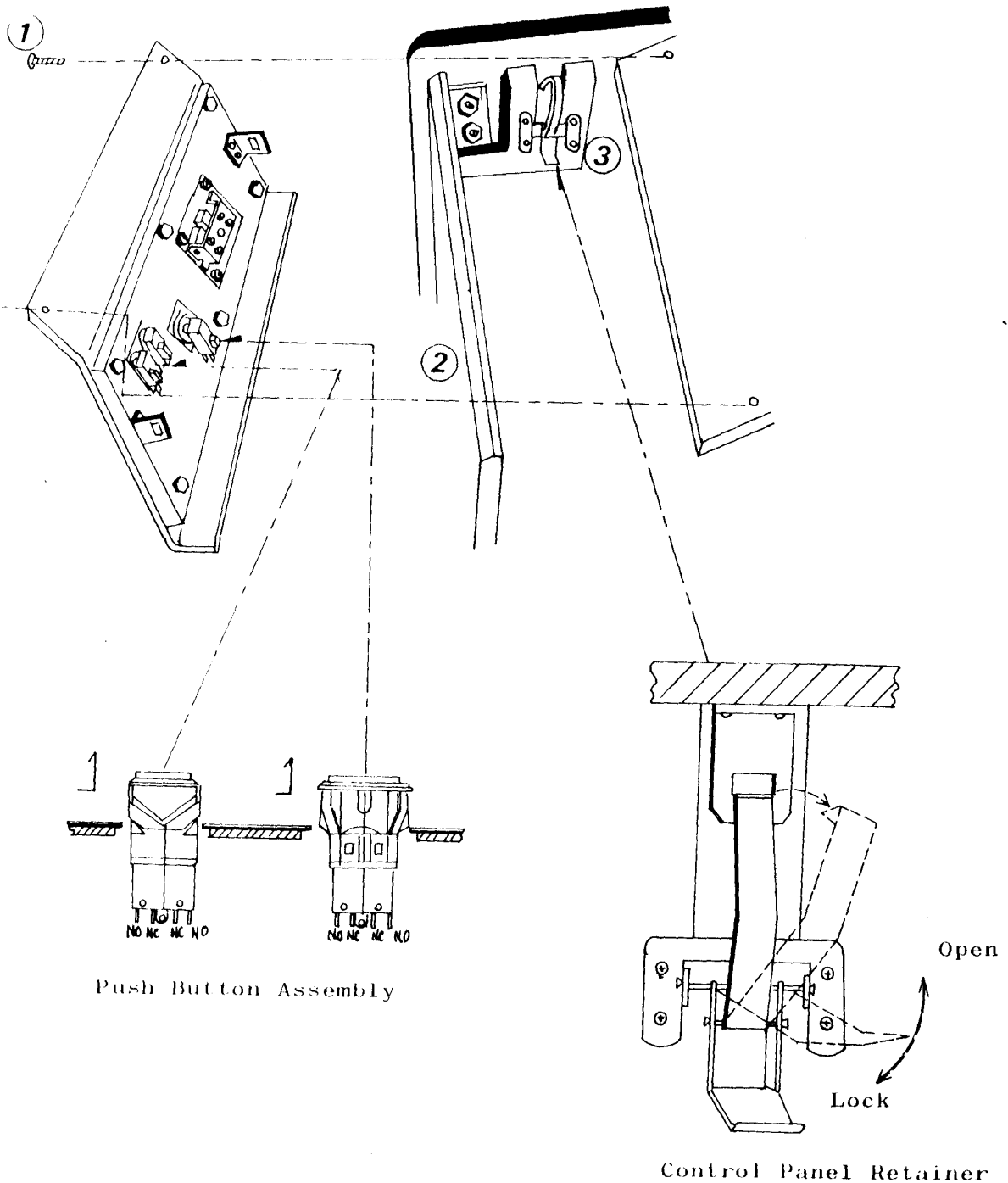


Item	Rated Capacity	Description
F801	2 Amp. 125 V	Use for GAME Logic P.C.B. AC 100V
F802	8 Amp. 125 V	Use for Logic P.C.B. 45 V
F803	2 Amp. 125 V	Use for Logic P.C.B. +12 V (GND side)
F804	1.5Amp. 125 V	Use for Logic P.C.B. -5 V (GND side)
F805	5 Amp. 125 V	Use for Monitor Circuits AC100 V
F806		Use for Over All Circuits Line V
F902	Fast-Blow 1.25 Amp. 125V	Use for Monitor P.C.B. AC100 V

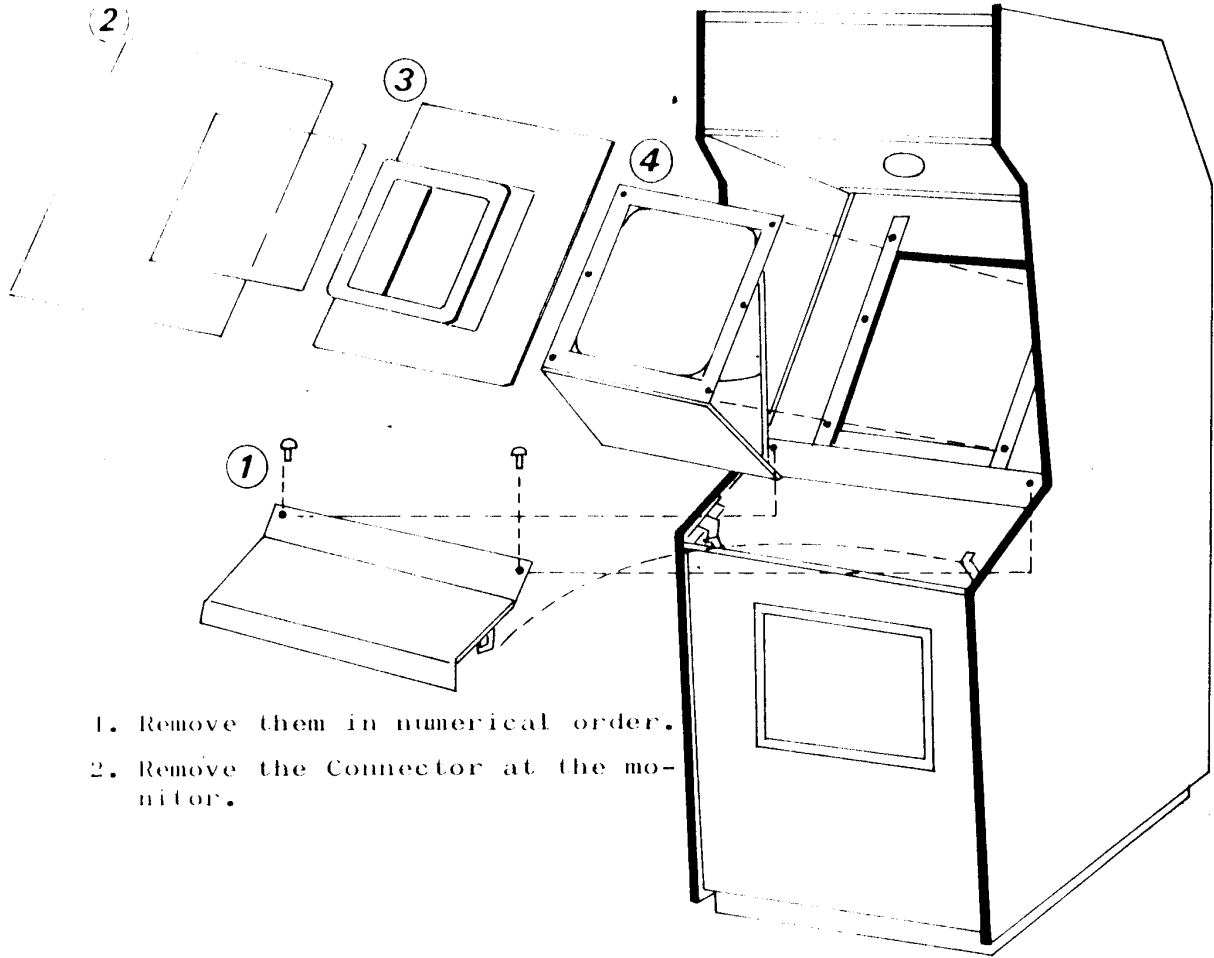
Item	Rated Capacity	Line Volatage
F806	5 Amp. 250 V	120 V
	3 Amp. 250 V	220 V, 240 V

B. OPENING THE CONTROL PANEL

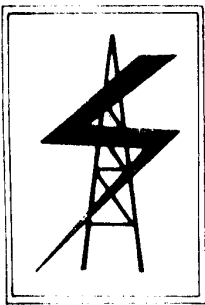
1. Remove the bolts.
2. Open the Coin-Door.,
3. Remove the Control Panel Retainer.



C. TV MONITOR REPLACEMENT



1. Remove them in numerical order.
2. Remove the Connector at the monitor.



Attention to High Voltage

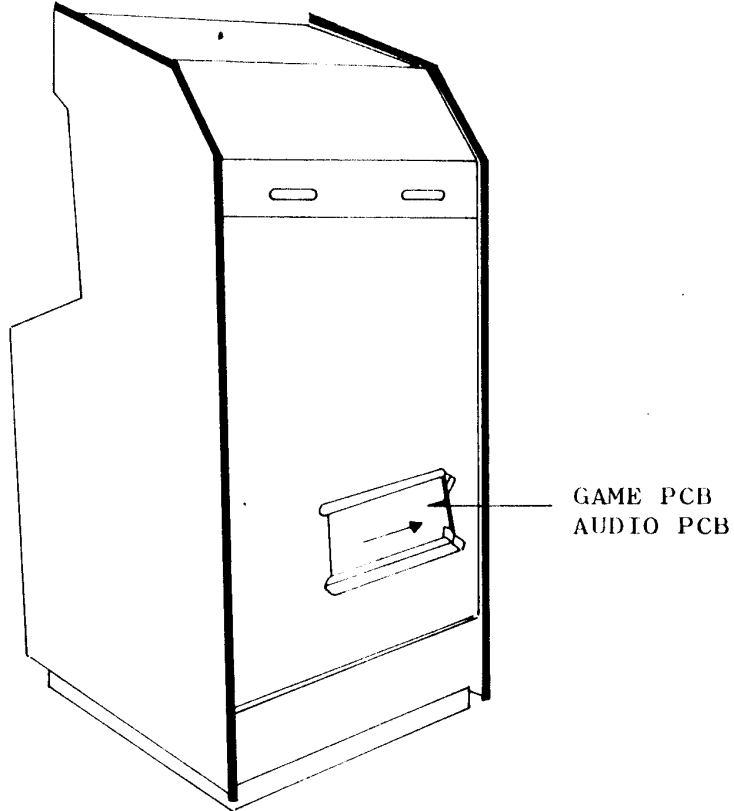
Please pay attention to high-tension circuit in the Color Video Monitor.

Door Switch

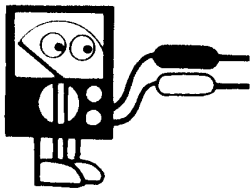
When top board is opened, power source switch will be turned off.

Figure 3. TV Monitor Removal

D. PRINTED CIRCUIT BOARD REPLACEMENT

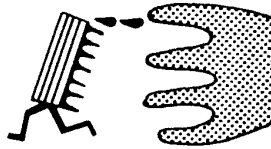


1. Check on the Tester



Don't examine the circuit with your Tester even if you found the defect of PCB. Because the voltage in the Tester may destroy the parts.

2. Treatment for PCB



Pay attention to handling PCB. If you touch the parts on PCB or keep in the sun light, the internal destruction will be invited.

OFF

3. Taking out or Putting in of PCB

When you take out or put in the PCB, please take out the power source plug beforehand.

E. FLUORESCENT TUBE REPLACEMENT

1. Operate in numerical order.
2. When you remove No. 5 bolt, it is also possible to make a speaker exchange.

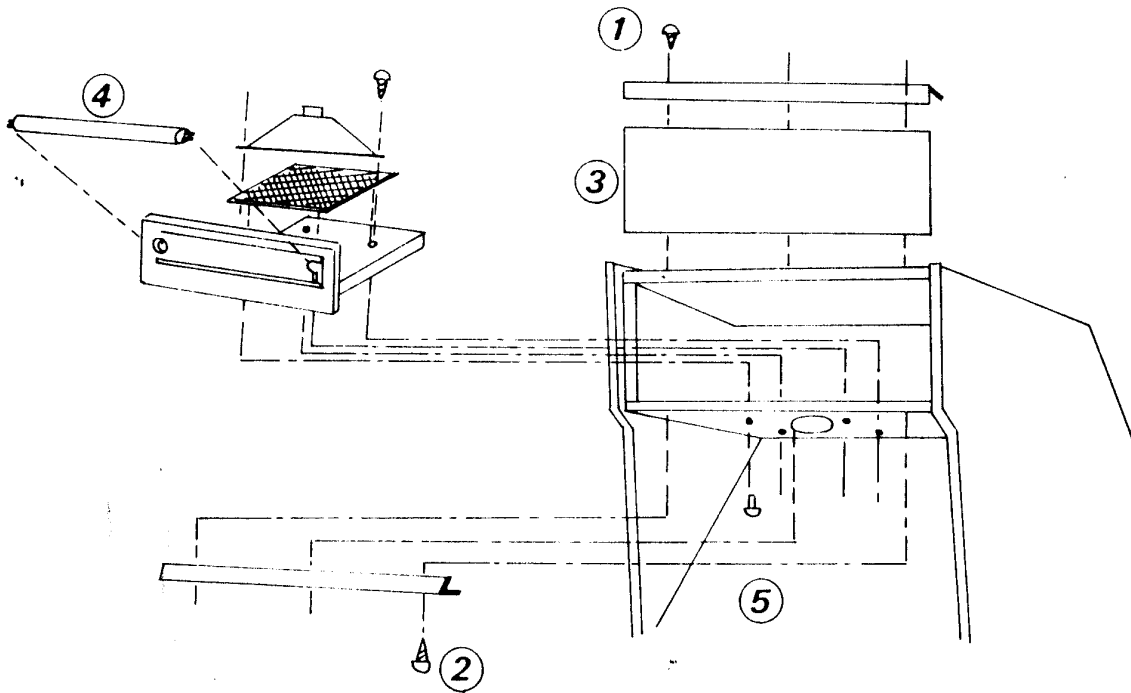
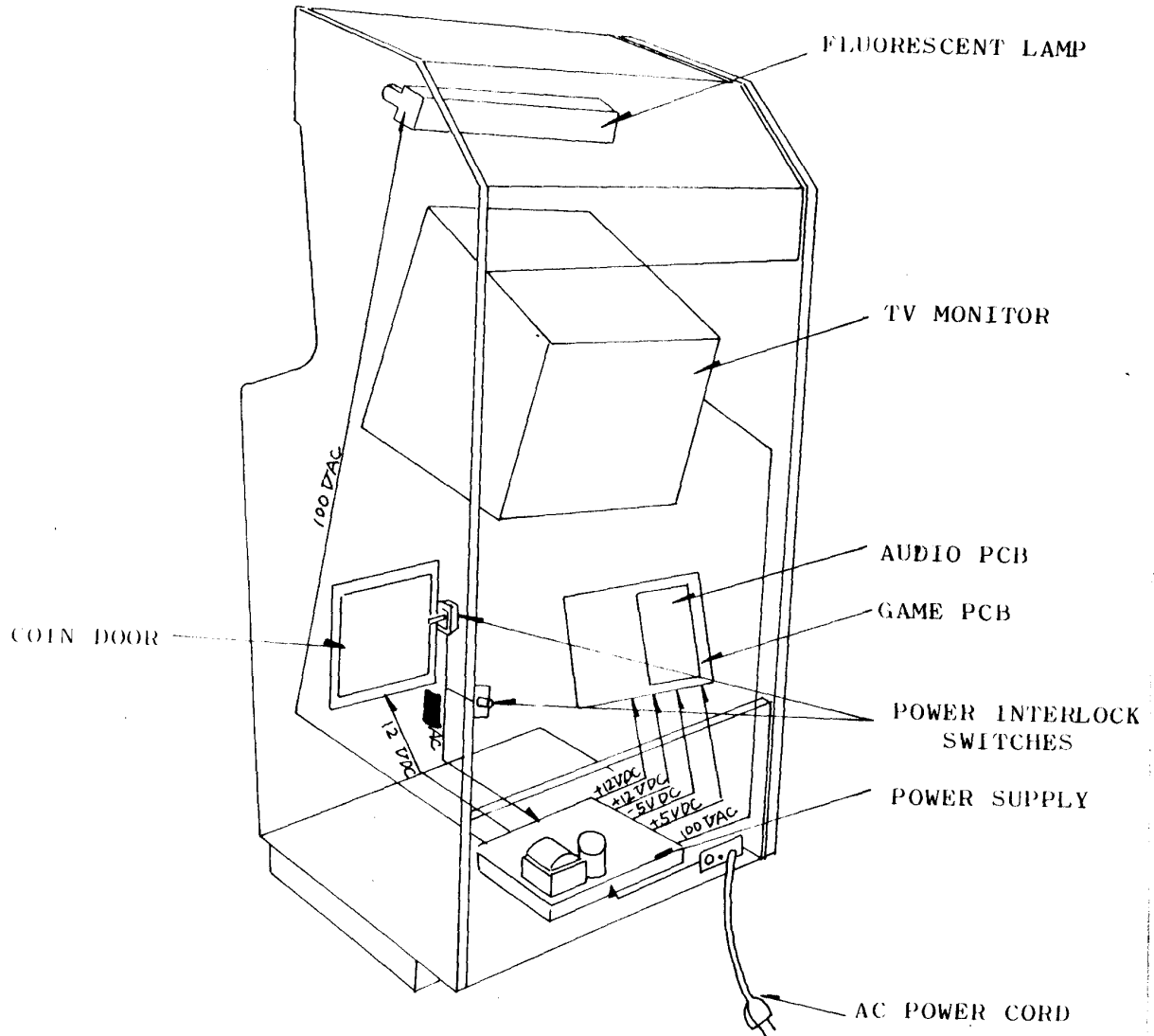


Figure 5. *Fluorescent tube replacement*

F. GAME OPERATION



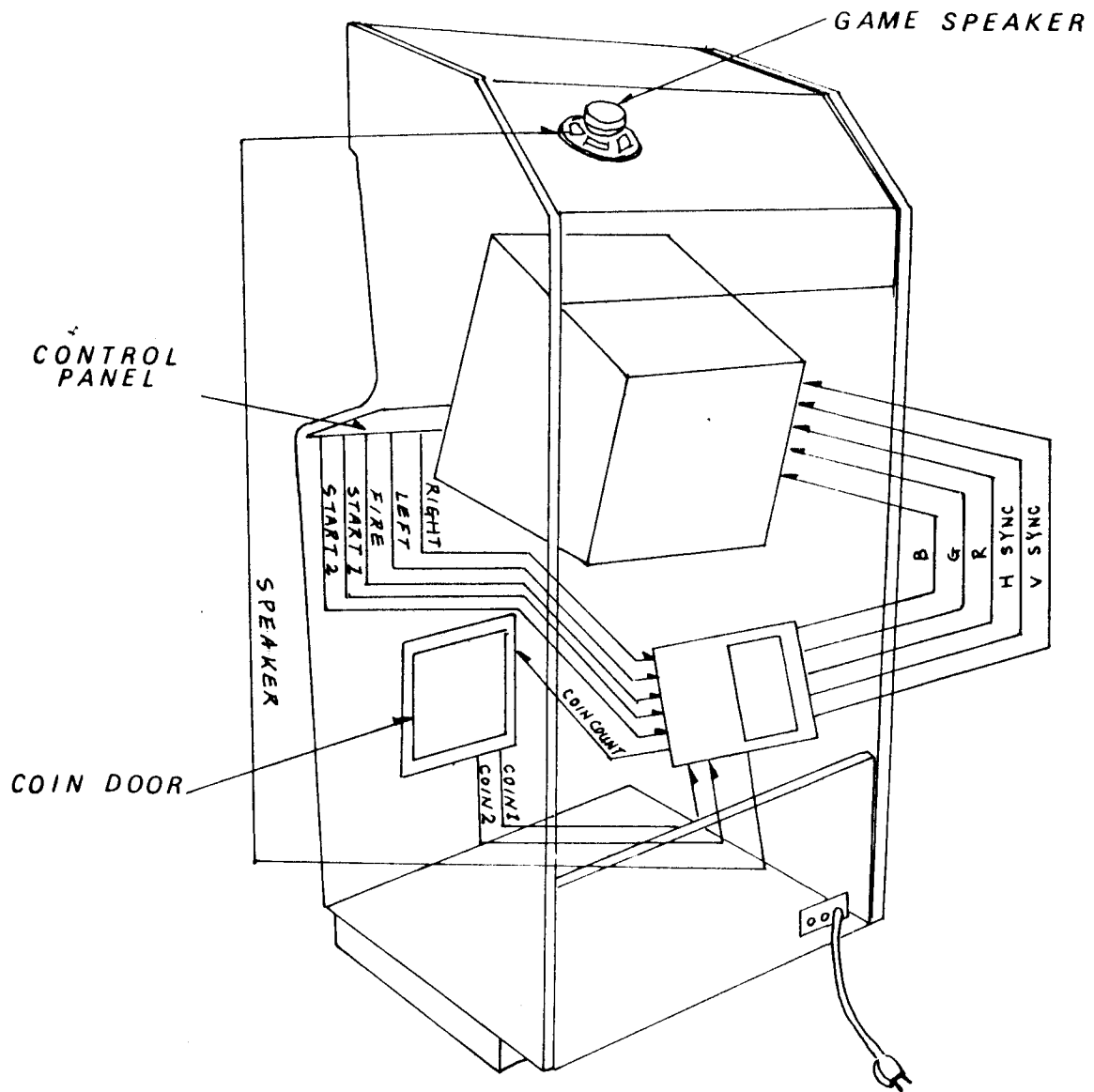


Figure 7. Signal Distribution

**ILLUSTRATED
PARTS LISTS**



4

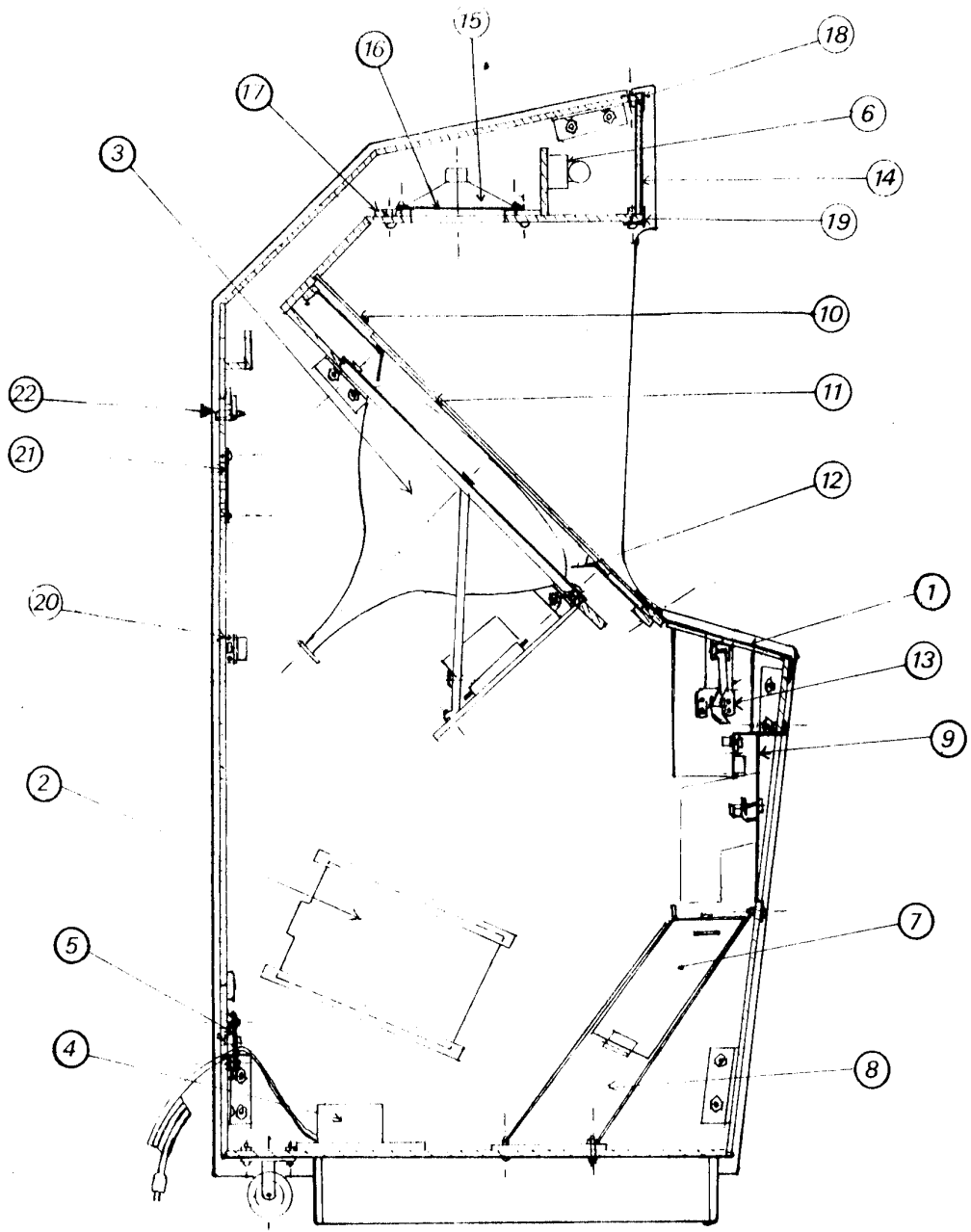


Figure 8. Final Assembly

FINAL ASSEMBLY PARTS LIST

Item	Part No.	Description
1.	3E09016AA	Control Panel Assembly See Figure
2.	3E09006AA	Game P.C.B. Assembly (PA)
3.	3E09019AA	TV Monitor Assembly
4.	3E09011AA	Power Supply Assembly
5.	3E09020AA	ON/OFF switch and power cord See Figure
6.	0F09329AA	Fluorescent Light Assembly
7.	3X09002AA	Coin Box Assembly
8.	3X56003AA	Coin Box Bracket
9.	2B47256AC	Coin Door Assembly See Figure
10.	3X57004AA	TV Monitor Shield with graphics
11.	3X57005AA	Smoke Panel
12.	3X57006AA	TV Monitor Mask
13.	3X56007AA	Control Panel Retainer
14.	3X57008AA	Attraction Panel with graphics
15.	0F35328A1	Speaker
16.	3X57009AA	Speaker Grille
17.	3X57010AA	Speaker Mount Board
18.	3X57011AA	Upper Retainer Strip
19.	3X57012AA	Lower Retainer Strip
20.	0F45020A2	Interlock Switch
21.	3X57013AA	Air Condition Grille
22.	3X57014AA	Access Panel Lock

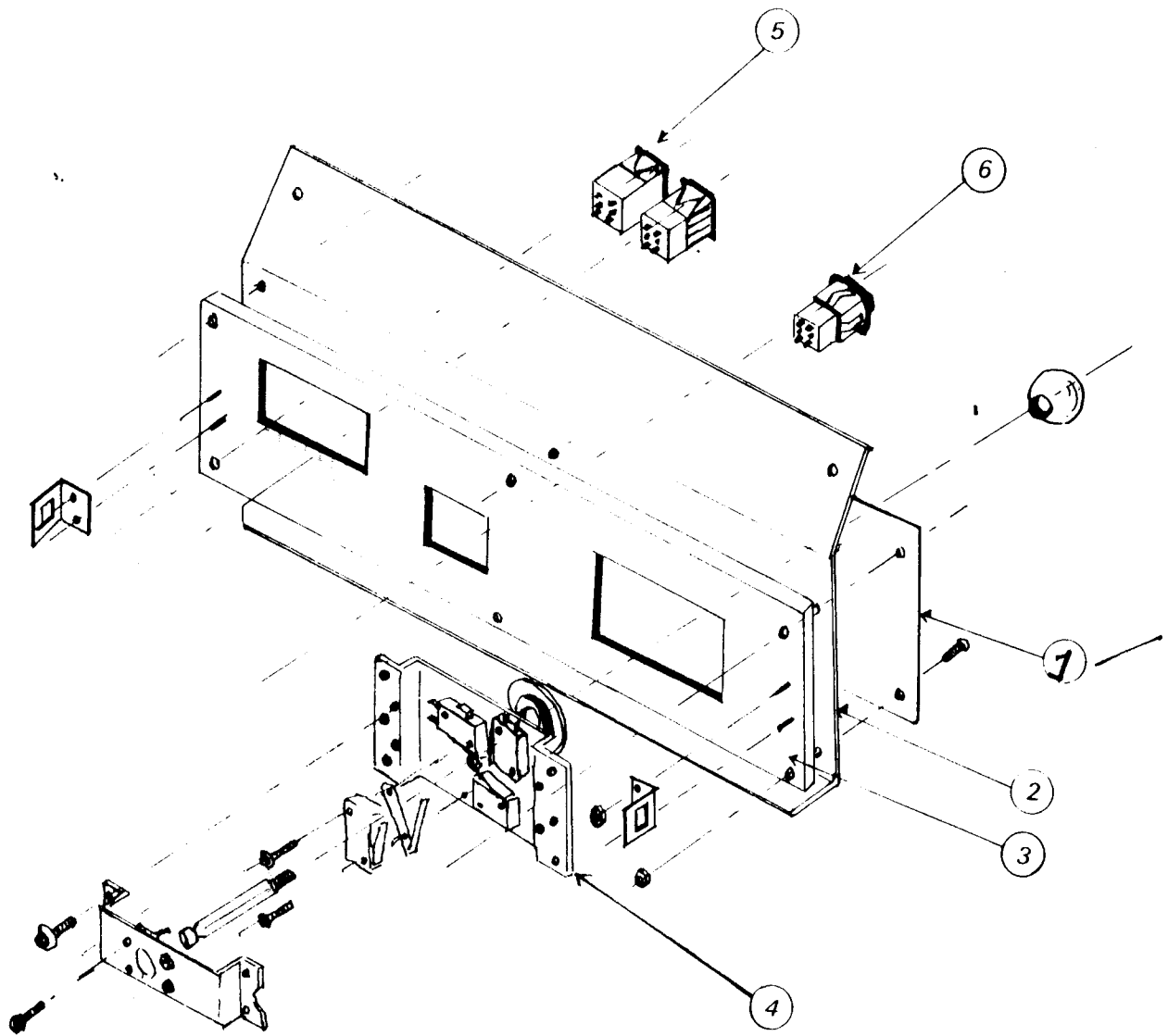


Figure 9. Control Panel Assembly

(GG)

Figure Control Panel Assembly

Item	Part No.	Description
1.	3X57019AA	Control Panel with graphics
2.	3X57022AA	Control Panel Box
3.	3X56020AA	Control Panel Support
4.	3E09013AA	Control Lever Assembly
5.	0F45331A1	1 Player, 2 Players Start Switch
6.	0F45330A1	Fire Switch

Figure Coin Door Assembly
Parts List

Item	Part No.	Description
1.	2B47257AC	Coin Door Weldment
2.	0F49300A1	Coin Selector Assembly
3.	0F39326A1	Coin Counter
4.	0F45020A1	Interlock Switch
5.	0F45004A2	Service Switch
6.	0F49004A9	Coin Door Lock
7.	0F45005A1	Coin Selector Switch Assembly

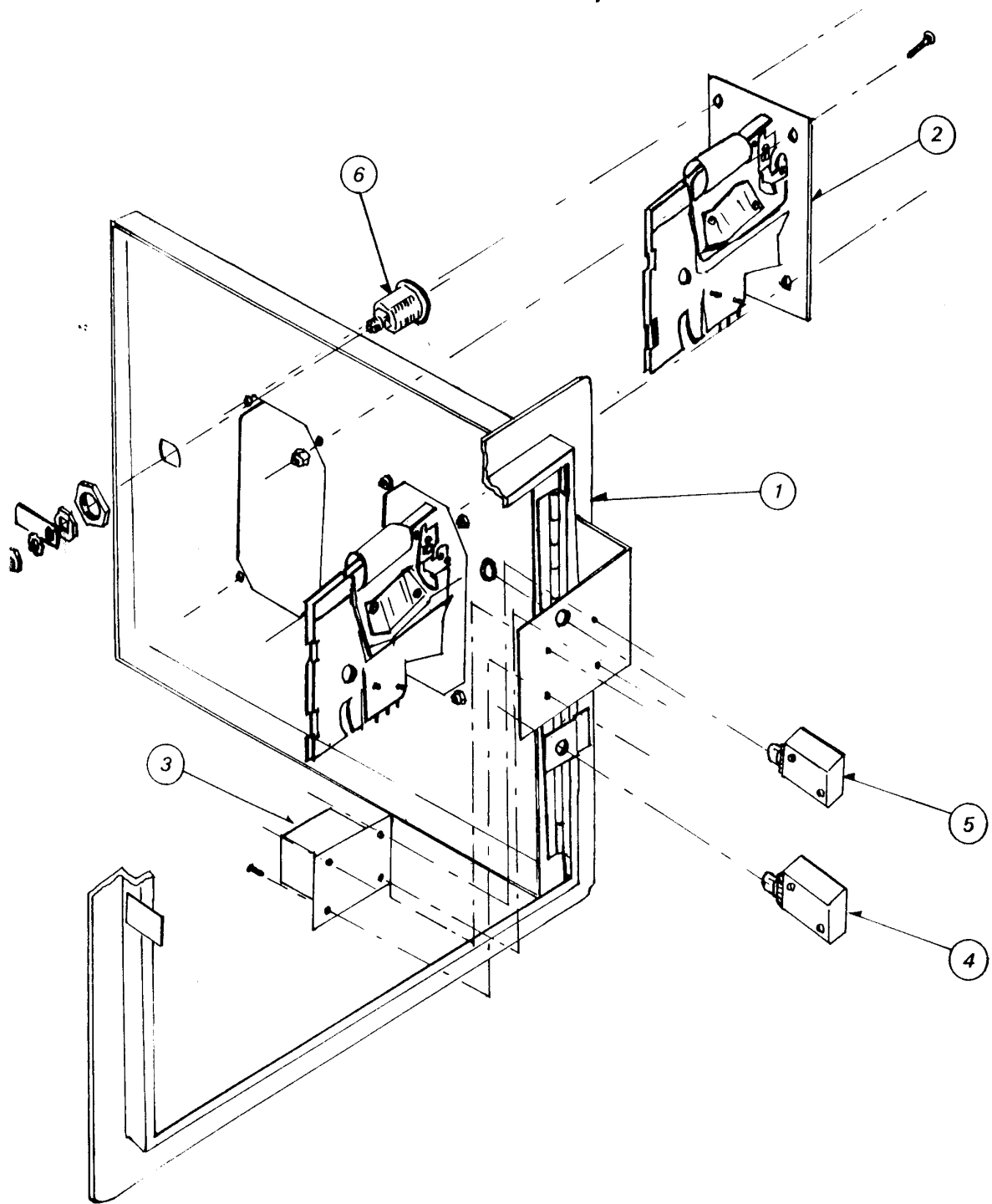


Figure10. Coin Door Assembly

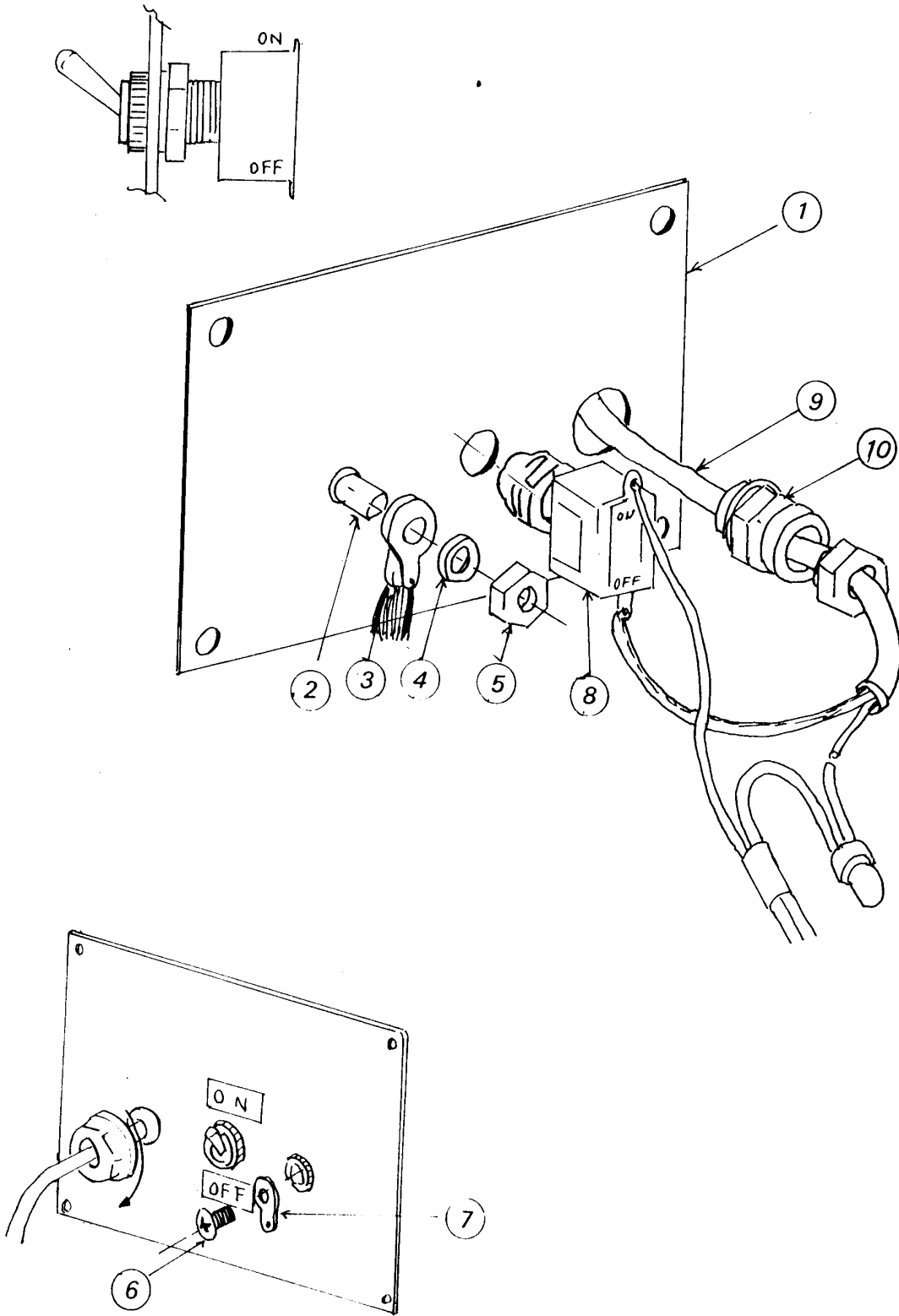


Figure 11. ON/OFF Switch and Power Cord

Item	Part No.	Description
1.	3A57522AA	ON/OFF Switch Bracket
2.	3A59526AA	Earth Terminal
3.		Earth Terminal Processed Goods
4.	FF91060ZD	Spring
5.	FF69060ZD	Nut-Hex.
6.	BF764060N	Screw-N-Truss
7.	OF44003A2	Lug-Terminal
8.	OF45008A1	Power Switch
9.	OF54321A2	Power Cord
10.	OF54323A1	Cord Bushing

Voltage Regulator Assembly

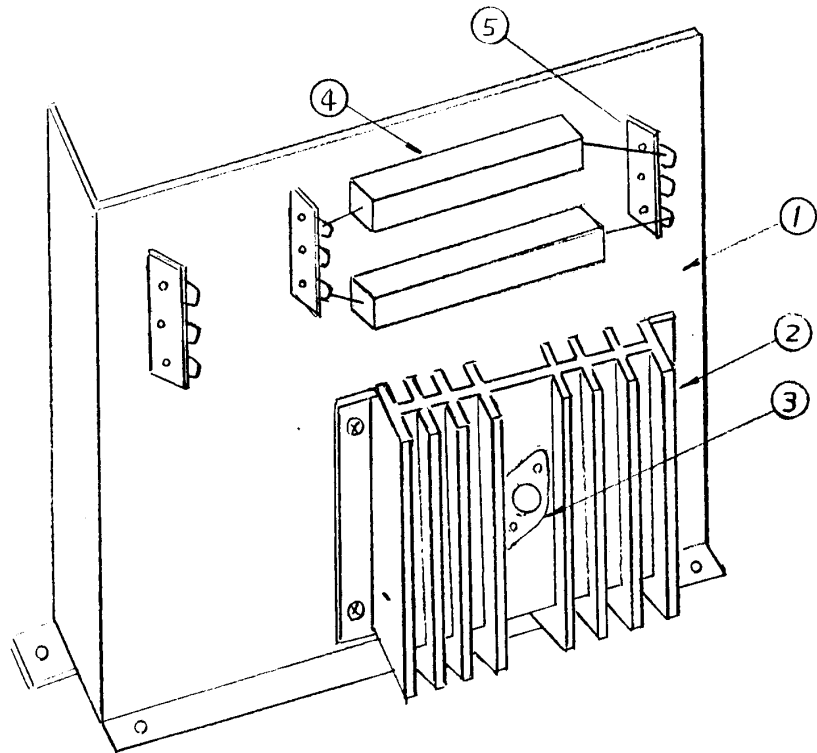
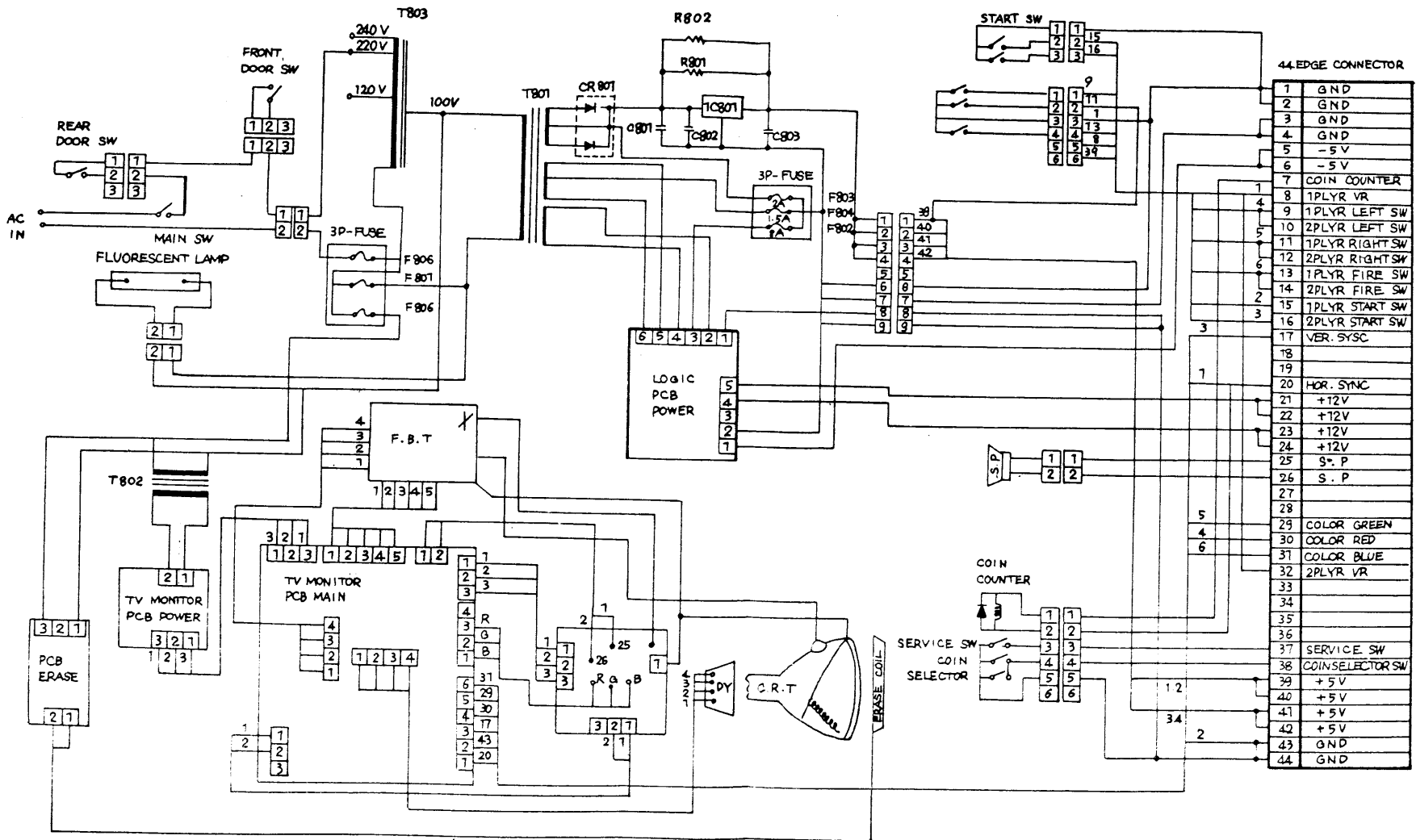


Figure _____

Item	Parts Number	Q'ty	Description
1	3C56189AA	1	IC Radiator Base
2	0F49007A1	1	IC Radiator
3	0F26008A1	1	IC SI-3554M
4	0G043R9KK	2	Resistor-Cement
5	0F44010A1	3	1L2P Lug-Terminal



44. EDGE CONNECTOR	
1	GND
2	GND
3	GND
4	GND
5	-5V
6	-5V
7	COIN COUNTER
8	1PLYR VR
9	1PLYR LEFT SW
10	2PLYR LEFT SW
11	1PLYR RIGHT SW
12	2PLYR RIGHT SW
13	1PLYR FIRE SW
14	2PLYR FIRE SW
15	1PLYR START SW
16	2PLYR START SW
17	VER. SYSC
18	
19	
20	HOR. SYSC
21	+12V
22	+12V
23	+12V
24	+12V
25	S . P
26	S . P
27	
28	
29	COLOR GREEN
30	COLOR RED
31	COLOR BLUE
32	2PLYR VR
33	
34	
35	
36	
37	SERVICE SW
38	COINSELECTOR SW
39	+5V
40	+5V
41	+5V
42	+5V
43	GND
44	GND

Uni War. S Wire Harness Schematic Diagram