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INTRODUCTION

HOW TO OPERATE SURVIVAL

Survival is an exciting game which consists of eight mazes formed by rectangular veins and thin golden cell membranes. Each succeeding maze is more complex than the preceding maze.

The player controls a large blue cell and zaps medicine into the veins. Each vein zapped disappears from the maze.

The enemy consists of four different colored viruses. The player must avoid the viruses or zap them. The color of the first virus zapped determines the color of the reborn viruses. When all viruses are the same color they can no longer be zapped.

When the last cell membrane is zapped, Aid Stations briefly appear in the 4 corners of the screen. The player must pick up extra zaps by reaching the corner before the Aid Stations revert to veins. Each time a player reaches an Aid Station he is awarded a baby cell. When the player receives 5 baby cells he gets an extra large blue cell.

The player must zap all veins in a maze before he runs out of zaps or cell life. If he fails, he loses a cell. When the player zaps all veins in a maze he gets a bonus and advances to the next maze.

If the player successfully completes all eight mazes,the maze pattern repeats with more viruses present.

RECEIVING AND INSTALLATION
(VIDEO GAMES)

RECEIVING INSPECTION

Your game was shipped in ready-to-play condition. However, after removal of the shipping carton, a brief visual examination is suggested.

Naturally, you'll want to make note of any physical damage to the game cabinet and its external components for freight claim purposes. Considering the quality of the shipping carton, any damage to the exterior would indicate possible interior damage as well.

The interior of the game should also undergo a brief examination for: loose mounting hardware (check to be sure that the major components are still securely mounted); disconnected or loose wires, cables or harnesses; electronic devices loose in their sockets; etc.

At this time the game serial number should be logged. Please remember that the game serial number will be required if you need service from your distributor.

ELECTRICAL REQUIREMENTS

A good earth ground is essential for the proper operation of this game or for that matter any electronic device. Problems with instability and erratic operation of computer-type devices can usually be traced to an ineffective ground system. Therefore, plug the game into a properly wired 3 prong outlet. If a 3 prong to 2 prong AC adaptor must be used, an alternate method of grounding the third prong must be used.

INITIAL ADJUSTMENTS

When the game is connected to AC power, one of the game sounds may be heard. This is normal.

The audio level (volume) can be easily adjusted. This is achieved by rotation of the volume control located on the coin door. The audio level should compete with other machines "on the floor" to maximize play time.

OPERATOR OPTIONS

The option switches allow you to select how many credits per coin, how many chances to play per game & bonus scoring. If your machine DOES NOT have multiple pricing capability, refer to page 2-2. If it DOES have multiple pricing capability, skip 2-2 and refer to page 2-3.

CREDIT BUTTON. When you push this button you can increase credits without affecting the counter. It's the red button on the coin door.

WARNING

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. As temporarily permitted by regulation it has not been tested for compliance pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

SURVIVAL OPTION SWITCHES

(LOCATED ON GAME BOARD NEAR PLUGS)

CHANGE OF DIP SWITCH								
DESCRIPTION	5P. DIP SW. POSITION (DS1)							
CELLS	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
2	OFF	OFF						
3	ON	OFF						
4	OFF	ON						
5	ON	ON						
BONUS CELL SCORE			SW3	SW4				
25,000			OFF	OFF				
35,000			ON	OFF				
45,000			OFF	ON				
55,000			ON	ON				
FREE PLAY/RESET					SW5			
NORMAL					OFF			
FREE	PATTERN TEST VIA 1 PLAYER SWITCH				ON			
RESET					ON THEN OFF			
COINAGE						SW6	SW7	
1 COIN / 1 PLAY						OFF	OFF	
2 COINS / 1 PLAY						ON	OFF	
3 COINS / 1 PLAY						OFF	ON	
5 COINS / 1 PLAY						ON	ON	
VIDEO/CONTROL FLIP-FLOP								SW8
UPRIGHT								OFF
COCKTAIL TABLE								ON

NORMAL SETTING 3 CELLS PER PLAYER
1ST BONUS CELL AT 25,000 POINTS

TURN OFF POWER TO GAME BEFORE CHANGING SWITCH POSITIONS
NEW SWITCH POSITION BECOME EFFECTIVE ON POWER UP

SURVIVAL OPTION SWITCHES (MULT-PRICE)

LOW DENOMINATION - LEFT REJECTOR

SET GAME BOARD SWITCHES

COLUMN	1	2	3	4
COINS	1 - (SW 6 OFF)	2 - (SW 6 ON)	3 - (SW 6 OFF)	5 - (SW 6 ON)
PLAYS	1 - (SW 7 OFF)	1 - (SW 7 OFF)	1 - (SW 7 ON)	1 - (SW 7 ON)

HIGH DENOMINATION - RIGHT REJECTOR

SET MULTI-PRICE BOARD SWITCHES

COINS	PLAYS	1	2	3	4	1	2	3	4	1	2	3	4
1	2	ON	ON	OFF	ON					ON	OFF	ON	ON
1	3	ON	OFF	OFF	ON					OFF	OFF	ON	ON
1	4	ON	ON	ON	OFF	ON	OFF	ON	ON	ON	ON	OFF	ON
1	5	ON	OFF	ON	OFF					OFF	ON	OFF	ON
1	6	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	OFF	OFF	ON
1	7	ON	OFF	OFF	OFF					OFF	OFF	OFF	ON
1	8					ON	ON	OFF	ON	ON	ON	ON	OFF
1	9									OFF	ON	ON	OFF
1	10					OFF	ON	OFF	ON				
2	3	OFF	OFF	ON	ON	NOTE: 1ST coin gives some credit							
2	5	OFF	ON	OFF	ON	For Example:							
2	7	OFF	OFF	OFF	ON	5 plays for 2 coins gives							
2	9	OFF	ON	ON	OFF	2 plays for 1st coin							
						3 plays for 2nd coin							

CIRCUIT DESCRIPTION OF MULTI-PRICING BOARD

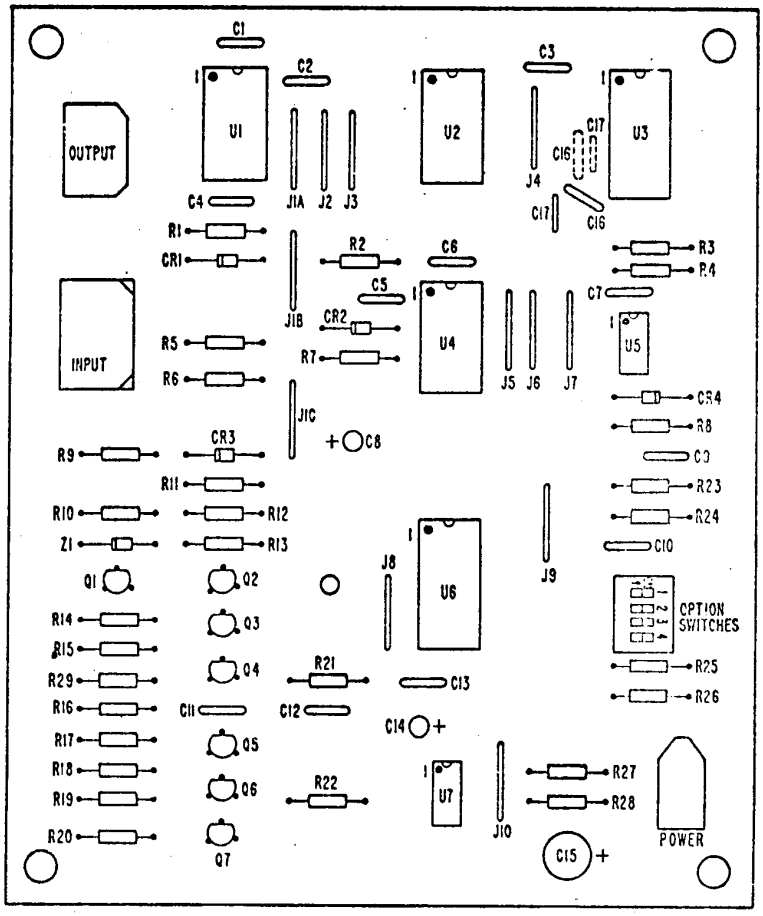
The purpose of the multi-pricing board is to establish a pricing scheme for the left rejector that is dependent on but different from that of the right rejector.

In the case of the right rejector, a coin deposited in the rejector will cause a pulse to be transmitted to the C.P.U. (via the distribution P.C. board) where it is processed as a single coin. Coins deposited in the left rejector are handled by the multi-pricing board to produce more than one pulse per coin — the exact number depending on the setting of the multi-pricing switch. When a coin is deposited in the left rejector, U1-5 will go low and be latched to U1 pin 6 as a high until the coin passes the contacts causing U1-6 to go low again. This positive pulse just created will be integrated and shaped as it arrives at U3-5 as a negative pulse. U3 counts "up" on the positive-going edge and stores the number of coins deposited. As long as any coin remains uprocessed a high will be seen at U1-13 and if U1-12 is also high, a low will be seen at U1-11. This low gets inverted by U4 and applied as a high to the preset enable of counter U6. U6 had been held in the preset mode until this point but is now ready to count down from the value set in by the DIP switch.

The pulses to count down U6 come from oscillator U7 which is enabled shortly after U6-11 goes high. To make sure that U6 doesn't count down until the pre load has gone high, a time delay is introduced by R21, C12, and U2. U7 will oscillate sending pulses to U6 causing its output to count down. These pulses are also the same pulses sent to the CPU board as "coins."

When U6 counts down to zero, a borrow is sent to one-shot U5. U5 will produce a positive pulse at pin 3. U4 will invert this signal and apply it to U3-4 subtracting one coin from the accumulated count. The one-shot will also cause U1-12 to go low for the duration of the pulse. U1-12 going low pre-loads the counter to the DIP switch value again. If another coin is awaiting processing, we will go again; if not U3 outputs 2, 3, 6, 7 will be low keeping oscillator U7 from running and keeping U6-11 low.

The power on reset signal appears on U3-14. It's purpose is to hold U3 reset until the 5 volts has come up and stabilized, preventing U3 from coming up in any configuration other than all lows on its output. This circuit also prevents erroneous pulses to be sent to the C.P.U. board by holding the collector of Q3 low until Q1 turns off.

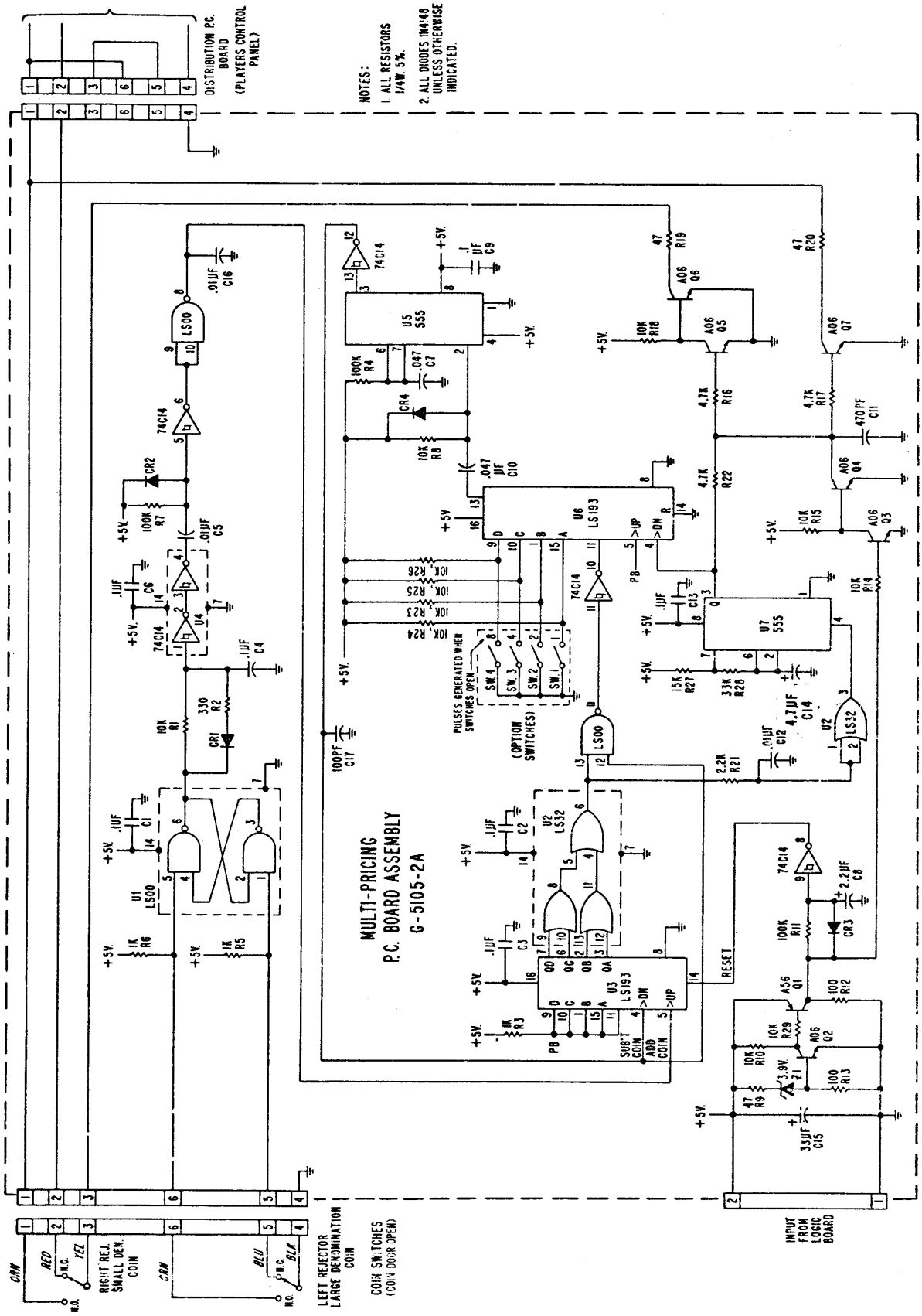


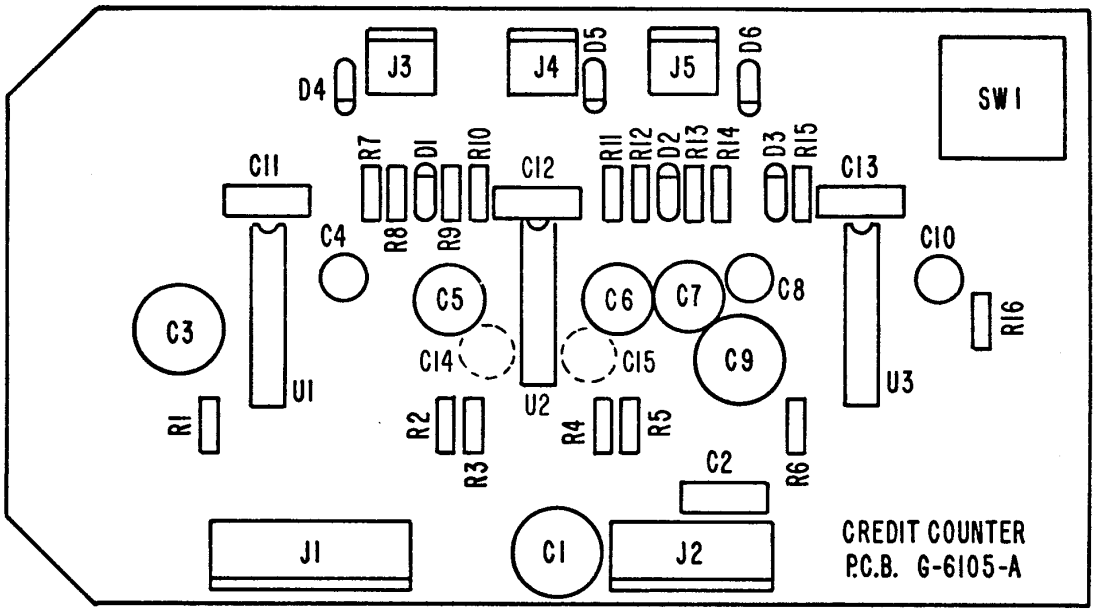
MULTI-PRICING P.C. BOARD ASSEMBLY G-5105-1A
(C16 & C17 IN DASHED LINES ARE FOR G-5105-2A)

MULTI-PRICING
P.C. BOARD ASSEMBLY
G-5105-2A

Item	Part No.	Description
	RESISTORS	
	Note: All Resistors 1/4 Watt 5%	
R1	51293	10K
R2	52344	330
R3	51564	1K
R4	50966	100K
R5	51564	1K
R6	51564	1K
R7	50966	100K
R8	51293	10K
R9	52374	47
R10	51293	10K
R11	50966	100K
R12	51289	100
R13	51289	100
R14	51293	10K
R15	51293	10K
R16	51292	4.7K
R17	51292	4.7K
R18	51293	10K
R19	52374	47
R20	52374	47
R21	52358	2.2K
R22	51292	4.7K
R23	51293	10K
R24	51293	10K
R25	51293	10K
R26	51293	10K
R27	52348	15K
R28	49268	33K
R29	51293	10K
	CAPACITORS	
C1	53299	.1 Mfd 50 WVDC 10%
C2	53299	.1 Mfd 50 WVDC 10%
C3	53299	.1 Mfd 50 WVDC 10%
C4	53299	.1 Mfd 50 WVDC 10%
C5	53302	.01 Mfd 50 WVDC 10%
C6	53299	.1 Mfd 50 WVDC 10%
C7	53337	.047 Mfd 50 WVDC 20%
C8	49146	2.2 Mfd 25 WVDC 20%
C9	53299	.1 Mfd 50 WVDC 10%
C10	53337	.047 Mfd 50 WVDC 20%
C11	33762	470 MMfd 1000V 10%
C12	53302	.01 Mfd 50 WVDC 10%
C13	53299	.1 Mfd 50 WVDC 10%
C14	53339	4.7 Mfd 15 WVDC 10%
C15	52736	33 Mfd 25 WVDC 10%
C16	53302	.01 Mfd 50 WVDC 10%
C17	53327	100 MMfd 63 WVDC 5%

Item	Part No.	Description
	DIODES	
CR1	51498	IN4148
CR2	51498	IN4148
CR3	51498	IN4148
CR4	51498	IN4148
Z1	G-5106	Zener 3.9V 400MW IN478A
	TRANSISTORS	
Q1	47831	MPS-A56 (PNP)
Q2 thru Q7	49415	MPS-A06 (NPN)
	INTEGRATED CIRCUITS	
U1	G-0677	IC Quad NAND Gate 74LS00
U2	G-0683	IC Quad OR Gate 74LS32
U3	G-5107	4 Bit Binary Counter 74LS193
U4	53338	IC Hex Schmitt Trigger 74C14
U5	51991	IC Timer LM555
U6	G-5107	4 Bit Binary Counter 74LS193
U7	51991	IC Timer LM555
	MISCELLANEOUS	
SW.	G-5108	4 Station Dip Switch
Soc.	52720	14 Contact Solder Dip Socket
Soc.	52724	16 Contact Solder Dip Socket
Hsg.	G-5117	2 Circ. Plug Housing
	G-0614	.093 Pin
Hsg.	G-0657	6 Circ. Receptacle Hsg
	G-5110	.093 Socket Solder Tail
Hsg.	G-5109	6 Circ. Plug Hsg.
	G-0613	.093 Pin Solder Tail
	ST-10759	Standoff - P.C.B.
	45816	Rubber Cushion (1/4 X 3/8 X 3 3/4 Lg)
	G-5095	P.C. Board for G-5105-A
	G-5095-1	P.C. Board for G-5105-1A


MULTI-PRICING
P.C. BOARD ASSEMBLY
G-5105-2A
NOTES:
1. ALL RESISTORS 1/4W. 5%.
2. ALL DIODES IN4148 UNLESS OTHERWISE INDICATED.
DISTRIBUTION P.C. BOARD (PLAYERS CONTROL PANEL)
RIGHT REJ. SMALL DEN. COIN
LEFT REJECTOR LARGE DENOMINATION COIN
COIN SWITCHES (COIN DOOR OPEN)
INPUT FROM LOGIC BOARD
PULSES GENERATED WHEN SWITCHES OPEN
(OPTION SWITCHES)
RESET
+5V.
U1 LS00
U2 LS32
U3 LS193
U4 74C14
U5 555
U6 LS193
U7 555
Q1 A56
Q2 A06
Q3 A06
Q4 A06
Q5 A06
Q6 A06
Q7 A06
CR1
CR2
CR3
CR4
Z1 3.9V.



CREDIT COUNTER P.C. BOARD ASSEMBLY

G-6105-A

ITEM NO.	PART NO.	DESCRIPTION	REF. DES.	MFGR. PART NO.
1	G-0812	Rectifier	D1, D2, D3, D4, D5, D6	IN4003
2	51289	Resistor 1/4W 5%	R2, R9, R12, R14	100 OHM
3	51564	Resistor 1/4W 5%	R3, R4, R5, R8, R10, R11, R13, R15	1K OHM
4	49269	Resistor 1/4W 5%	R1, R6	27K OHM
5	49268	Resistor 1/4W 5%	R7, R16	33K OHM
6	49146	Capacitor, Tantalum 25V	C4, C5, C6, C7, C10	2.2 MFD
7	53339	Capacitor, Tantalum 15V	C3, C9	4.7 MFD
8	52561	Capacitor, Tantalum 15V	C8	10 MFD
9	51988	Capacitor, Electrolytic 25V	C1	47 MFD
10	33762	Capacitor, Disc 1000V	C2	470 MMFD
11	53299	Capacitor,Monolythic 50V	C11, C12, C13	.1 MFD
12	52720	14 Contact Solder Dip Socket	U2	
13	52724	16 Contact Solder Dip Socket	U1, U3	
14	G-5136	2 Circuit Pin Header	J3, J4, J5	
15	G-5137	5 Circuit Pin Header	J2	
16	G-5459	6 Circuit Pin Header	J1	
17	G-6116	Quad 2-Input Nand Gate	U1	74LS03
18	G-6058	Dual Monostable Multivibrator	U1, U3	74221
19	52725-2	Key Switch - Single Contact - Red	SW1	
20	G-6106	Credit Counter P.C. Board		
21	G-0940	Capacitor, Ceramic Disc 50V	C14	.001 MFD
22	G-0940	Capacitor, Ceramic Disc 50V	C15	.001 MFD

GENERAL INFORMATION
AND PERIODIC MAINTENANCE

Your video game contains the same basic building blocks as any other video game.

THE POWER SUPPLY provides all the necessary voltages for the CPU, audio section, monitor and fluorescent light. Always unplug the game before replacing a fuse.

THE CENTRAL PROCESSING UNIT (CPU) is the "brain" of the game. It senses when a coin is dropped in the coin meter, and gives credit. It then reads what is happening at the operator controls, interprets and computes to make the game play according to what buttons the player pushes. It tells the monitor what to draw on the screen. And it tells the audio section when to make appropriate sound effects.

THE AUDIO SECTION generates all the sound effects for the game and powers the loudspeaker.

THE COLOR MONITOR is the picture tube. It draws pictures on the tube screen according to the instructions it receives from the CPU.

THE MAIN WIRING HARNESS carries power from the power supply to the CPU, audio section and monitor. It connects to each section through the Molex plugs. NEVER CONNECT OR DISCONNECT THE MOLEX POWER PLUGS UNLESS THE GAME IS UNPLUGGED.

PERIODIC MAINTENANCE - The only Periodic Maintenance required is an occasional cleaning. The very high voltage used on the picture tube attracts dust that gradually degrades picture quality. To clean: unplug game and let sit for at least 5 minutes to let voltages "bleed-off".

To clean the face of the picture tube and associated plastic parts, remove the control panel by loosening clamps on each side of panel on inside of cabinet. These clamps are accessible thru coin door. Remove the plexiglas window being careful not to scratch clear or painted areas. Window, gray filter and picture tube may now be cleaned with a mild solution of dish detergent. Dry all parts and reassemble.

INTERFACE BOARD

MODEL K4675 BOARD P317

MODEL K4677 BOARD P318

WELLS-GARDNER PARTS...ORDER FROM THEM...SEE PAGE 4-1

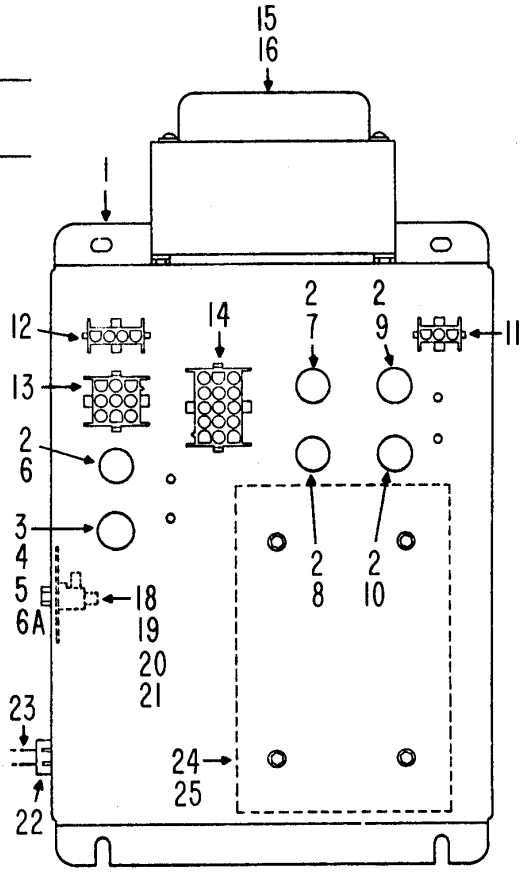
Ref. No.	Part No.	Description	
	RESISTORS		
R201	340X3910-934	1/2W 5%	91 Ohm
R202	340X2223-934	1/4W 5%	22K Ohm
R203	340X3102-934	1/2W 5%	1K Ohm
R204	340X2101-934	1/4W 5%	100 Ohm
R205	340X2104-934	1/4W 5%	100K Ohm
R206	340X3331-944	1/2W 10%	330 Ohm
R207	340X2222-934	1/4W 5%	2.2K Ohm
R208	340X2222-934	1/4W 5%	2.2K Ohm
R209	340X2104-934	1/4W 5%	100K Ohm
R210	340X2101-934	1/4W 5%	100 Ohm
R217	340X2101-934	1/4W 5%	100 Ohm
R218	340X3102-934	1/4W 5%	1K Ohm
R219	340X3102-934	1/2W 5%	1K Ohm
R220	340X3681-934	1/2W 5%	680 Ohm
R223	340X2104-934	1/4W 5%	100K Ohm
R224	340X3102-934	1/2W 5%	1K Ohm
R225	340X2822-934	1/2W 5%	8.2K Ohm
R226	340X2822-934	1/2W 5%	8.2K Ohm
R227	340X2822-934	1/2W 5%	8.2K Ohm
	MODEL K4675 BOARD P317		
R211	340X2471-934	1/4W 5%	470 Ohm
R212	340X2471-934	1/4W 5%	470 Ohm
R213	340X2471-934	1/4W 5%	470 Ohm
R214	340X2151-934	1/4W 5%	150 Ohm
R215	340X2151-934	1/4W 5%	150 Ohm
R216	340X2151-934	1/4W 5%	150 Ohm
R221	340X3271-934	1/2W 5%	270 Ohm
R222	340X3271-934	1/2W 5%	270 Ohm
	MODEL K4677 BOARD P318		
R211	340X2201-934	1/4W 5%	200 Ohm
R212	340X2201-934	1/4W 5%	200 Ohm
R213	340X2201-934	1/4W 5%	200 Ohm
R214	340X2201-934	1/4W 5%	200 Ohm
R215	340X2201-934	1/4W 5%	200 Ohm
R216	340X2201-934	1/4W 5%	200 Ohm
R221	340X3471-934	1/2W 5%	470 Ohm
R222	340X2201-934	1/4W 5%	200 Ohm

Ref. No.	Part No.	Description	
	CAPACITORS		
C201	45X0524-038	16V	1000mf
C202	45X0524-053	16V	470mf
C203	349X2232-109	100V	.022mf
C204	80X0099-020		680pf
	SEMICONDUCTORS		
TR201	86X0113-001	Transistor NPN	
TR202	86X0113-001	Transistor NPN	
TR203	86X0113-001	Transistor NPN	
TR204	86X0066-001	Transistor PNP	
TR205	86X0066-001	Transistor PNP	
TR206	86X0066-001	Transistor PNP	
TR207	86X0113-001	Transistor NPN	
TR208	86X0113-001	Transistor NPN	
TR209	86X0113-001	Transistor NPN	
TR210	86X0113-001	Transistor NPN	
X201	66X0046-001	Diode, Silicon	
X202	66X0046-001	Diode, Silicon	
X203	66X0046-001	Diode, Silicon	
X204	66X0046-001	Diode, Silicon	
ZD201	66X0040-019	Diode, Zener	
	MISCELLANEOUS		
J201	204X9300-958	Socket, 6 Pin	
J202	204X9300-958	Socket, 6 Pin	
J203	206X5019-207	Socket, 4 Pin	
P201	204X9601-195	Plug, 6 Pin	
P202	204X9601-195	Plug, 6 Pin	
P203	204X9600-845	Plug, 4 Pin	
P204	6A393-003	Plug, 3 Pin	
P205	6A0393-006	Plug, 6 Pin	

POWER SUPPLY ASSEMBLY

G-6060-A

ITEM NO.	PART NO.	DESCRIPTION
1	G-6063-A	Power Supply Chassis Weld Assembly
	G-6071-A	Power Supply Chassis Weld Assembly Canada only
2	49250	Shock Safe Fuseholder
3	G-5403-A	Fuseholder Assembly - Canada only
4	44935	Snap-in Steel Clip - Canada only
5	ST-9843	Tapered Caplug #5 - Red
6	ST-3090	3 Amp 250V Slo-Blo Fuse
6A	44930	Fusetron GMQ 3.2A Fuse (F1) Canada only
7	ST-9631	5 Amp 250V Slo-Blo Fuse
8	ST-4332	1 Amp 250V Slo-Blo Fuse
9	ST-4323	0.8 Amp 250V Slo-Blo Fuse
10	ST-10703	0.5 Amp 250V Slo-Blo Fuse
11	ST-10589	3 Circuit Universal Socket Housing
12	ST-10588	4 Circuit Universal Socket Housing
13	ST-10570	9 Circuit Universal Socket Housing
14	ST-10500	15 Circuit Universal Socket Housing
15	G-6059-A	Power Transformer Assembly
	G-6059-CA	Power Transformer Assembly Canada only
16	ST-8722	10-32 Hex Flg Whiz-Lock Nut
17	ST-10062	8-36 X 5/16 M.S. Brass - Green Iridite
18	49007	Input Terminal Insulator
19	47827	3 Pole Input Terminal
20	ST-4518	6-32 X 1/2 Mach. Screw
21	ST-8715	6-32 Nut, Hex Flange - Serrated
22	ST-10762	Universal Strain Relief
23	G-5357	3 Conductor Cord & Plug - Domestic, Canada
	G-5377	3 Conductor Cord & Plug - Australia
	G-5378-A	3 Conductor Cord & Plug - England
	G-5376	Cordset - Germany, Belgium, France
24	G-6062-A	Switching Regulator MC014A
25	ST-8267	8-32 X 1/4 Tapping Screw



"SURVIVAL" PARTS LIST (G-205)

OVERALL ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION
1	G-6345-A	Cabinet Assembly
2	G-6310-A	Control Panel Assembly
3	G-6100-A	Monitor Assembly - Complete
4	G-6355-A	Game P.C.B. (Complete) 2 Boards (Survival)
5	G-6060-A	Power Supply - Complete - Domestic
6	G-6334	Service Manual & Parts Cataloge
7	G-6337	Schematic - Survival (3 Sheets)

CABINET ASSEMBLY - SURVIVAL

G-6345-A

1	G-24525-A	Cabinet - Wood
2	G-6115-A	Coin Door - Complete - Canada & Domestic
	G-6115-AA	Coin Door - Complete - Australia
	G-6115-BA	Coin Door - Complete - Belgium
	G-6115-FA	Coin Door - Complete - France
	G-6115-GA	Coin Door - Complete - Germany
	G-6115-JA	Coin Door - Complete - Japan
3	G-6108-A	Counter #1 - Complete (Single Price)
4	G-6109-A	Counter #1 & #2 - Complete (Multi-Price)
5	G-5419-A	Counter Assembly Only
6	G-6072-A	Coin Switch Cable
7	G-5092-A	Braided Shield - Short
8	G-5693	Bracket - Volume Control ┐ Standard
9	G-5694	Potentiometer (Small) ┘
10	G-5664	Pointer Knob
11	G-5454	Bracket - Volume Control ┐ Alternate
12	G-5422	Potentiometer (Large) ┘
13	33463	Pointer Knob
14	G-6105-A	Credit Counter P.C.B. Only (w/o Brkt)
15	ST-10539	Circuit Board Support (5/8")
16	ST-3340-D	10-24 X 1 1/4 Carriage Bolt - Blk Ox
17	ST-4813	.203 I.D. X 1/2 O.D. X .032 Fl. Washer - Z.P.
18	ST-8724-D	10-24 Hex Flg Whiz Lock Nut - Blk Ox
19	G-5282	Speaker Grille - Blk
20	G-5022	Speaker - 6 X 9
21	G-5199	Mounting Rail - 19"
22	ST-1443-D	1/4-20 X 1 1/4 Carriage Bolt - Blk Ox
23	ST-301	1/4 Int. Lock Washer
24	ST-1376	1/4-20 Wingnut
25	G-6060-A	Power Supply - 120V. Note Suffixes -CA Canada, -EA England, -AA Australia, -GA Germany, Belgium, France
26	G-5012-1	Tongue Brkt - C.B.
27	G-5048-A	Coin Box & Handle Assy
28	G-5014	Coin Box Cover
29	G-5439	Retainer - P.C.B. (Runner - R.H. Top)
30	ST-9741	8 X 1/2 Hex Flg (Type A) Z.P.
31	G-6100-A	Monitor - 19" Raster - Complete (w/Guard & Cable)
32	G-6101-A	Monitor - 19" Raster (Monitor only)
33	G-5428-A	Monitor Power Cable Assy
34	G-5638	Guard - CRT

CABINET ASSEMBLY - SURVIVAL

G-6345-A

ITEM NO.	PART NO.	DESCRIPTION
35	G-24073	Monitor Platform Rail (Wood)
36	G-5441	End Mounting Bracket
37	ST-10904	10-32 X 1 Hex Flg Swageform - Z.P.
38	ST-3340-D	10-24 X 1 1/4 Carriage Bolt - Blk Ox
39	ST-3139	.203 I.D. X 5/8 O.D. X .031 Fl. Wshr - Z.P.
40	ST-8724-D	10-24 Hex Flg Whiz Lock Nut - Blk Ox
41	G-0831	Bezel - CRT (Blk)
42	G-5436	CRT Filter - Gray
43	G-5413-A	Light Assembly - 120V
	G-5414-A	Light Assembly - 220/240V
44	ST-3341-D	8-32 X 1 Carriage Bolt - Blk Ox
45	ST-8721	8-32 Hex Flg Whiz Lock Nut - Z.P.
46	49557	Ballast Plate
47	49554-2	Ballast Insulator
48	11556	14-15-20 Watt Starter (FS-2)
	49301	Insulated Starter 20 Watt 220/240V
49	G-5043	Fluorescent Lamp (F15T12) CW 15 Watt
50	G-6331	Top Window - Survival
51	G-5254	Retainer - Inner Top (Blk)
52	G-5253	Retainer - Top (Blk)
53	ST-10753-D	8 X 5/8 Pan Hd. Box Dr. (Type A) Blk Ox
54	G-5342	Clamp Fastener (Cabinet)
55	G-6310-A	Control Panel - Survival - Complete
56	G-6299	Control Panel - Screened - Survival
57	G-0623	Switch & Mtg. Assembly
58	G-0624	Button Assembly - Long
59	G-5341	Control Panel Clip
60	G-6046-A	Joystick Assembly - 8 Way
61	G-5433	Cover Plate - Joystick - Blue
62	G-5429-A	Control Panel Cable Assy
63	G-5469	Retainer - Front (Blk)
64	G-5252	Retainer - Center (Blk)
65	G-5249	Retainer - Rear
66	G-5247	CRT Window - Vertical (Blue)
67	G-5031-1	Price Card - 25¢
	G-5032-1	Price Card - Germany
	G-5033-1	Price Card - Belgium
	G-5034-1	Price Card - France
	G-5037-1	Price Card - England
68	G-6155-A	On/Off Interlock Sw. Cable Assembly (Includes Two Switches) -A (Canada and Domestic - 120V) White Plug -EA (England - 240V) Green Plug -GA (Germ - Belg - France - 220V) Blue Plug
69	V-22637	Switch - Cheat Interlock
70	49240	DPST Rocker Switch (On/Off)
71	G-6355-A	Game P.C.B. (Complete) 2 Boards
72	G-6360-A	PACEL - 001A P.C.B. Assembly (Survival)
73	G-6365-A	PACEL - 001B P.C.B. Assembly (Survival)
74	G-5409-A	Braided Shield Assembly
75	G-6333-A	Main Cable Assembly (Cab)
76	G-5257-A	Back Door Assembly - Complete
77	G-24085-A	Back Door Assembly - (Wood Only)
78	G-5126	Lock Bracket
79	ST-10760	Lock, Cam Bolts & Keys
80	G-6332	Decal - Survival

"SURVIVAL" PARTS LIST (G-205)

OVERALL ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION
1	G-6345-A	Cabinet Assembly
2	G-6310-A	Control Panel Assembly
3	G-6100-A	Monitor Assembly - Complete
4	G-6355-A	Game P.C.B. (Complete) 2 Boards (Survival)
5	G-6060-A	Power Supply - Complete - Domestic
6	G-6334	Service Manual & Parts Cataloge
7	G-6337	Schematic - Survival (3 Sheets)

CABINET ASSEMBLY - SURVIVAL

G-6345-A

1	G-24525-A	Cabinet - Wood
2	G-6115-A	Coin Door - Complete - Canada & Domestic
	G-6115-AA	Coin Door - Complete - Australia
	G-6115-BA	Coin Door - Complete - Belgium
	G-6115-FA	Coin Door - Complete - France
	G-6115-GA	Coin Door - Complete - Germany
	G-6115-JA	Coin Door - Complete - Japan
3	G-6108-A	Counter #1 - Complete (Single Price)
4	G-6109-A	Counter #1 & #2 - Complete (Multi-Price)
5	G-5419-A	Counter Assembly Only
6	G-6072-A	Coin Switch Cable
7	G-5092-A	Braided Shield - Short
8	G-5693	Bracket - Volume Control ┐ Standard
9	G-5694	Potentiometer (Small) ┘
10	G-5664	Pointer Knob
11	G-5454	Bracket - Volume Control ┐ Alternate
12	G-5422	Potentiometer (Large) ┘
13	33463	Pointer Knob
14	G-6105-A	Credit Counter P.C.B. Only (w/o Brkt)
15	ST-10539	Circuit Board Support (5/8")
16	ST-3340-D	10-24 X 1 1/4 Carriage Bolt - Blk Ox
17	ST-4813	.203 I.D. X 1/2 O.D. X .032 Fl. Washer - Z.P.
18	ST-8724-D	10-24 Hex Flg Whiz Lock Nut - Blk Ox
19	G-5282	Speaker Grille - Blk
20	G-5022	Speaker - 6 X 9
21	G-5199	Mounting Rail - 19"
22	ST-1443-D	1/4-20 X 1 1/4 Carriage Bolt - Blk Ox
23	ST-301	1/4 Int. Lock Washer
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28	G-5014	Coin Box Cover
29	G-5439	Retainer - P.C.B. (Runner - R.H. Top)
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32	G-6101-A	Monitor - 19" Raster (Monitor only)
33	G-5428-A	Monitor Power Cable Assy
34	G-5638	Guard - CRT

CABINET ASSEMBLY - SURVIVAL

G-6345-A

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36	G-5441	End Mounting Bracket
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38	ST-3340-D	10-24 X 1 1/4 Carriage Bolt - Blk Ox
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42	G-5436	CRT Filter - Gray
43	G-5413-A	Light Assembly - 120V
	G-5414-A	Light Assembly - 220/240V
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45	ST-8721	8-32 Hex Flg Whiz Lock Nut - Z.P.
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53	ST-10753-D	8 X 5/8 Pan Hd. Box Dr. (Type A) Blk Ox
54	G-5342	Clamp Fastener (Cabinet)
55	G-6310-A	Control Panel - Survival - Complete
56	G-6299	Control Panel - Screened - Survival
57	G-0623	Switch & Mtg. Assembly
58	G-0624	Button Assembly - Long
59	G-5341	Control Panel Clip
60	G-6046-A	Joystick Assembly - 8 Way
61	G-5433	Cover Plate - Joystick - Blue
62	G-5429-A	Control Panel Cable Assy
63	G-5469	Retainer - Front (Blk)
64	G-5252	Retainer - Center (Blk)
65	G-5249	Retainer - Rear
66	G-5247	CRT Window - Vertical (Blue)
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	G-5032-1	Price Card - Germany
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69	V-22637	Switch - Cheat Interlock
70	49240	DPST Rocker Switch (On/Off)
71	G-6355-A	Game P.C.B. (Complete) 2 Boards
72	G-6360-A	PACEL - 001A P.C.B. Assembly (Survival)
73	G-6365-A	PACEL - 001B P.C.B. Assembly (Survival)
74	G-5409-A	Braided Shield Assembly
75	G-6333-A	Main Cable Assembly (Cab)
76	G-5257-A	Back Door Assembly - Complete
77	G-24085-A	Back Door Assembly - (Wood Only)
78	G-5126	Lock Bracket
79	ST-10760	Lock, Cam Bolts & Keys
80	G-6332	Decal - Survival

SURVIVAL GAME P.C. BOARD ASSEMBLY

G-6355-M

ITEM NO.	PART NO.	DESCRIPTION	REQ'D
1	G-6360-A	Pacel-001A P.C.B. Assembly (Survival)	1
2	G-6365-A	Pacel-001B P.C.B. Assembly (Survival)	1
3	G-6145-A	50 Conductor Ribbon Cable Assembly	2

PACEL-001A P.C.B. ASSEMBLY

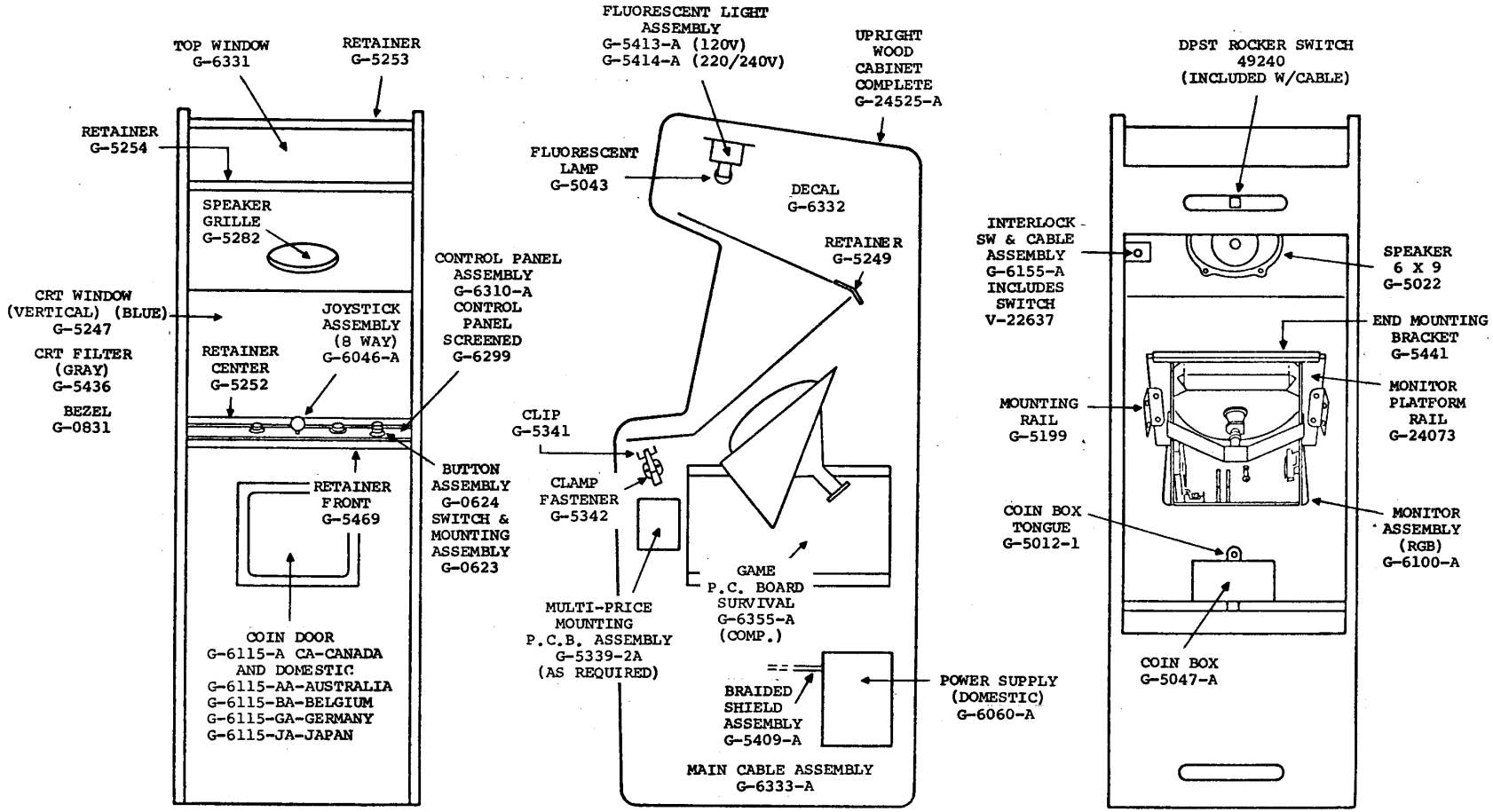
G-6360-A

ITEM NO.	PART NO.	DESCRIPTION	REF. DES.	MFGR. PART NO.
1	G-6272	Octal Tranceiver	IC1	74LS245
2	G-6016	Octal D Flip Flop	IC2	74LS374
3	G-6121	Octal Buffer, Invert.	IC3, IC4	74LS244
4	G-6118	Quad Exclusive Or Gate	IC7, IC22	74LS136
5	G-6005	1 of 8 Decoder/De-Plexer	IC8, IC10, IC19, IC33	74LS138
6	G-6361	CPU	IC9	D8085A
7	G-0689	Quad Data Selector	IC12, IC24, IC25	74LS157
8	G-0677	Nand Gate	IC15, IC27, IC36, IC39, IC53	74LS00
9	G-0680	And Gate	IC16, IC32, IC33	74LS08
10	G-6117	Quad Bus Buffer Gate	IC17	74LS125
11	G-0683	Or Gate	IC18, IC26, IC34, IC35	74LS32
12	54174	Hex Inverter	IC29	7405
13	53706	Dual D Latch	IC30, IC37, IC48	74LS74
14	G-0687	Dual J-K Flip Flop	IC31	74LS107
15	G-6009	Hex D-Type Flip Flop W/R	IC32	74LS174
16	G-0707-1	Survival "A"	IC40	
17	G-0707-2	Survival "B"	IC41	
18	G-0686	Exclusive Or	IC42	74LS86
19	G-6362	Audio Power Ampl.	IC44	LM380
20	54177	Hex Buffer/Drive (O.C.)	IC47	7407
21	G-0682	Nor Gate	IC49	74LS27
22	G-6363	Survival IC	IC50	DL57S22
23	G-6206	Sound Generator	IC51	AY-3-8910
24	51304	8 Station Dip Switch SPST	IC11	
25	G-6035	Trim Control	VR1	10K OHM
26	51289	Resistor 1/4W 5%	R13, R16, R86, R87, R88	100 OHM
27	53888	Resistor 1/4W 5%	R3, R4, R5	180 OHM
28	52376	Resistor 1/4W 5%	R6, R7, R8, R9, R10, R11, R15	270 OHM
29	51564	Resistor 1/4W 5%	R1, R2, R14, R89, R90, R92	1K OHM
30	53676	Resistor 1/4W 5%	R81	1.2K OHM
31	51384	Resistor 1/4W 5%	R12	2.7K OHM
32	51571	Resistor 1/4W 5%	R83	6.8K OHM
33	53978	Resistor Pack	RY1, RY2, RY4	1K OHM X 8
34	G-6364	Resistor Pack	RY3	1K OHM X 4
35	G-6031	Diode, Signal	D1, D2, D3	1S953
36	33088	Capacitor, Disc 1000V	C1, C39	330 PF
37	G-940	Capacitor, Disc 50V	C37	0.001 MFD
38	52393	Capacitor, Disc 100V	C3 Thru C12	0.05 MFD
39	52708	Capacitor, Tantalum 25V	C2, C32, C33	10 MFD
40	51988	Capacitor, Electrol. 25V	C34, C38	47 MFD
41	53893	Capacitor, Electrol. 35V	C35	470 MFD
42	G-0948	Capacitor, Film 100V	C15, C16	0.1 MFD
43	52720	14 Contact Solder Dip Socket		
44	52724	16 Contact Solder Dip Socket		
45	53711	40 Contact Solder Dip Socket		
46	G-6172	50 Circ. Right Angle Header		

PACEL-001B P.C.B. ASSEMBLY

G-6365-A

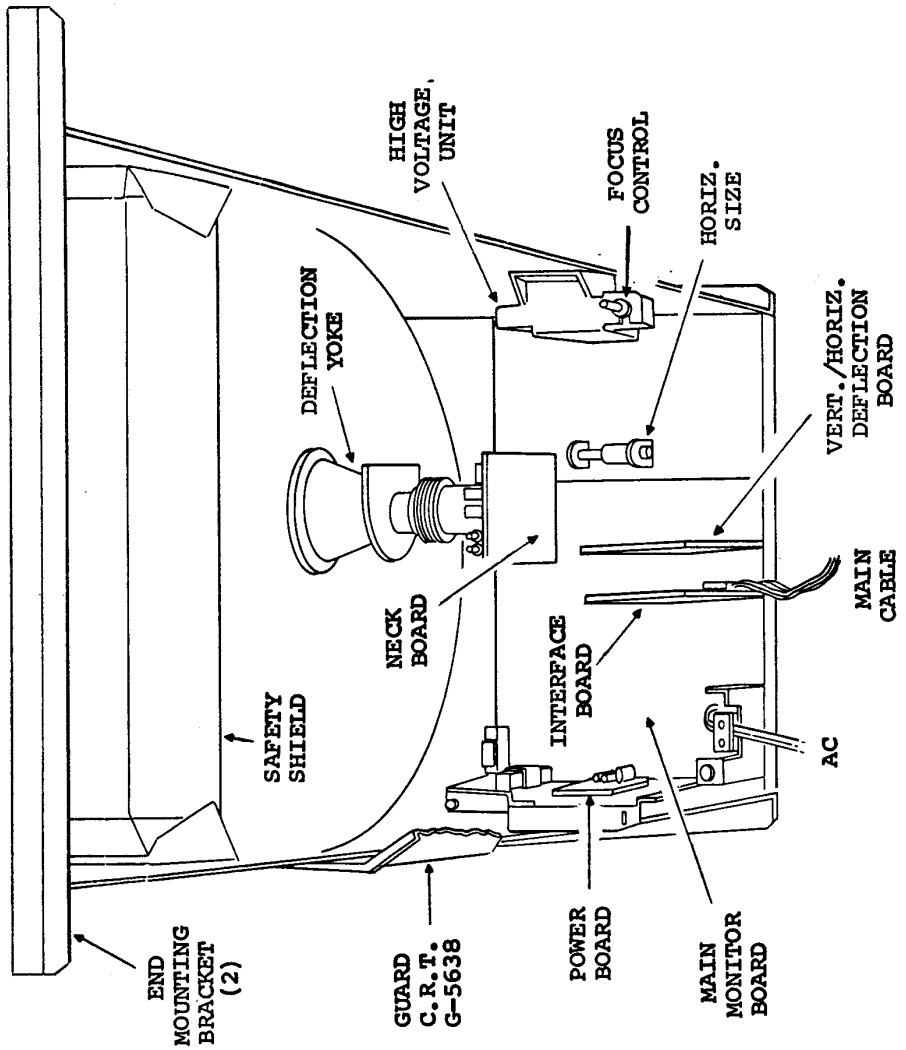
ITEM NO.	PART NO.	DESCRIPTION	REF. DES.	MFGR. PART NO.
1	G-0690	Binary Counter	IC1, IC4, IC12, IC13	74LS163
2	G-0686	Exclusive Or	IC2, IC3, IC11, IC21	74LS86
3	53706	Dual D Latch	IC5	74LS74
4	G-6228	Quad 2 Input Nand Schmitt Trig.	IC6	74LS132
5	G-6367	Hex Inverter	IC7	7404
6	G-6016	Octal D Flip Flop (3 State)	IC8, IC16, IC31	74LS374
7	G-6013	4 Bit Adder	IC9, IC10, IC20	74LS283
8	G-0688	1 Of 8 Data Selector	IC14, IC15, IC29, IC30	74LS151
9	G-6009	Hex D-Type Flip Flop W/R	IC17, IC18, IC32, IC33	74LS74
10	G-0689	Quad Data Selector	IC19, IC34, IC35, IC36	74LS157
11	G-6272	Octal Tranceiver	IC22, IC38	74LS245
12	G-6019	RAM	IC25, IC26, IC27, IC28 IC41, IC42, IC43, IC44	2114
13	G-6121	Octal Buffer, Invert	IC37	74LS244
14	G-0959-32	Game Program 1	IC45	2716
15	G-0959-33	Game Program 2	IC46	2716
16	G-0959-34	Game Program 3	IC47	2716
17	G-0959-35	Game Program 4	IC48	2716
18	G-0959-36	Game Program 5	IC49	2716
19	G-0959-37	Game Program 6	IC50	2716
20	G-0959-38	Game Program 7	IC51	2716
21	G-0959-39	Game Program 8	IC52	2716
22	G-0959-40	Game Program 9	IC39	2716
23	G-0959-41	Game Program 10	IC40	2716
24	G-0959-42	Game Program 11	IC23	2716
25	G-0959-43	Game Program 12	IC24	2716
26	G-6366	11.000 MHz Crystal	X1	
27	51289	Resistor 1/4W. 5%	R1	100 OHM
28	51564	Resistor 1/4W. 5%	R2, R3	1K OHM
29	G-0940	Capacitor, Disc 50V	C1, C2, C30, C31, C35, C36	0.001 MFD
30	33088	Capacitor, Disc 1000V	C3	330 PF
31	33762	Capacitor, Disc	C33	470 PF
32	52393	Capacitor, Disc 100V	C5 Thru C29	0.05 MFD
33	G-0993	Capacitor, Electrol.	C4	47 MFD
34	52722	24 Contact Solder Dip Socket		
35	G-6172	50 Circ. Right Angle Header		



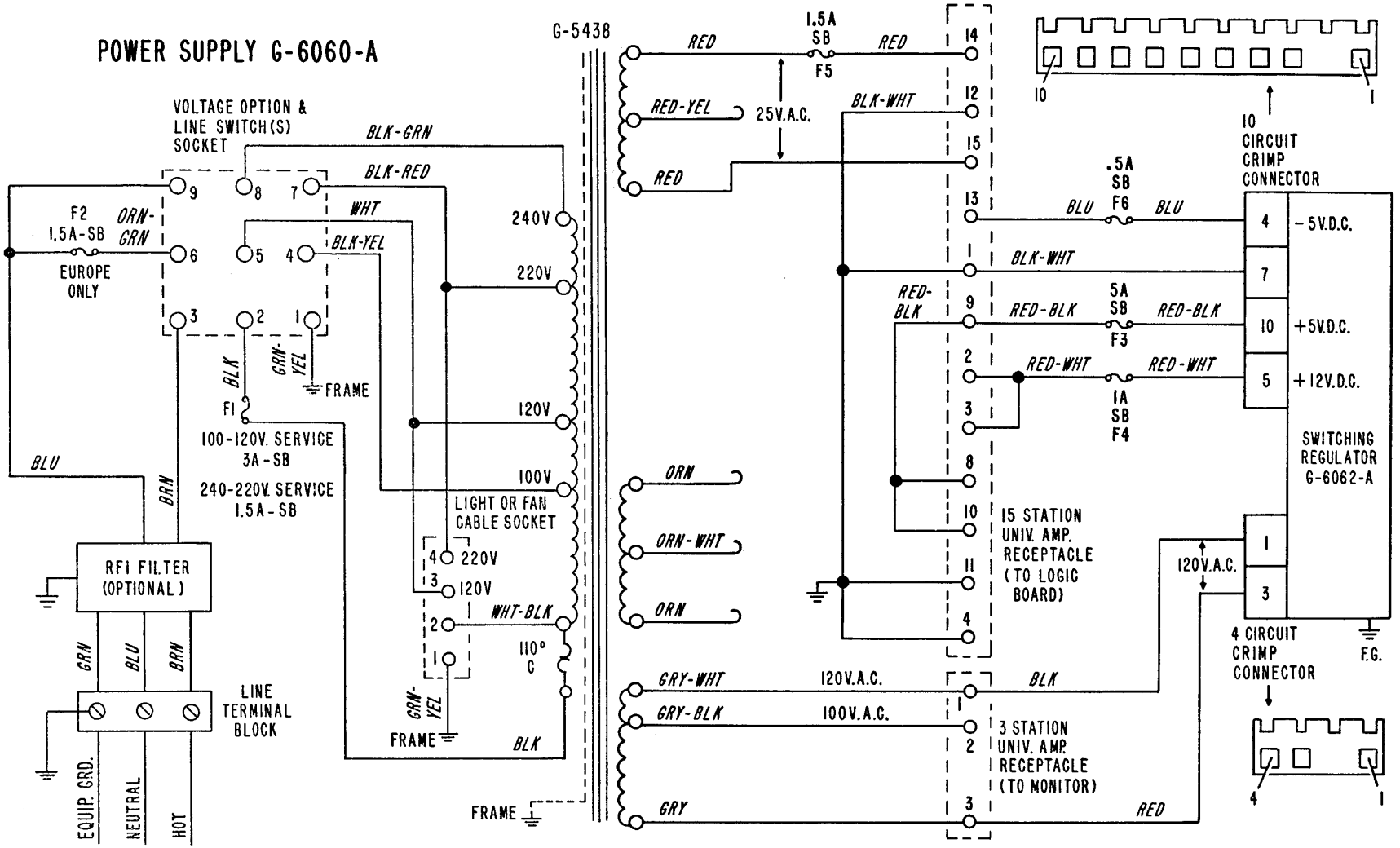
SURVIVAL

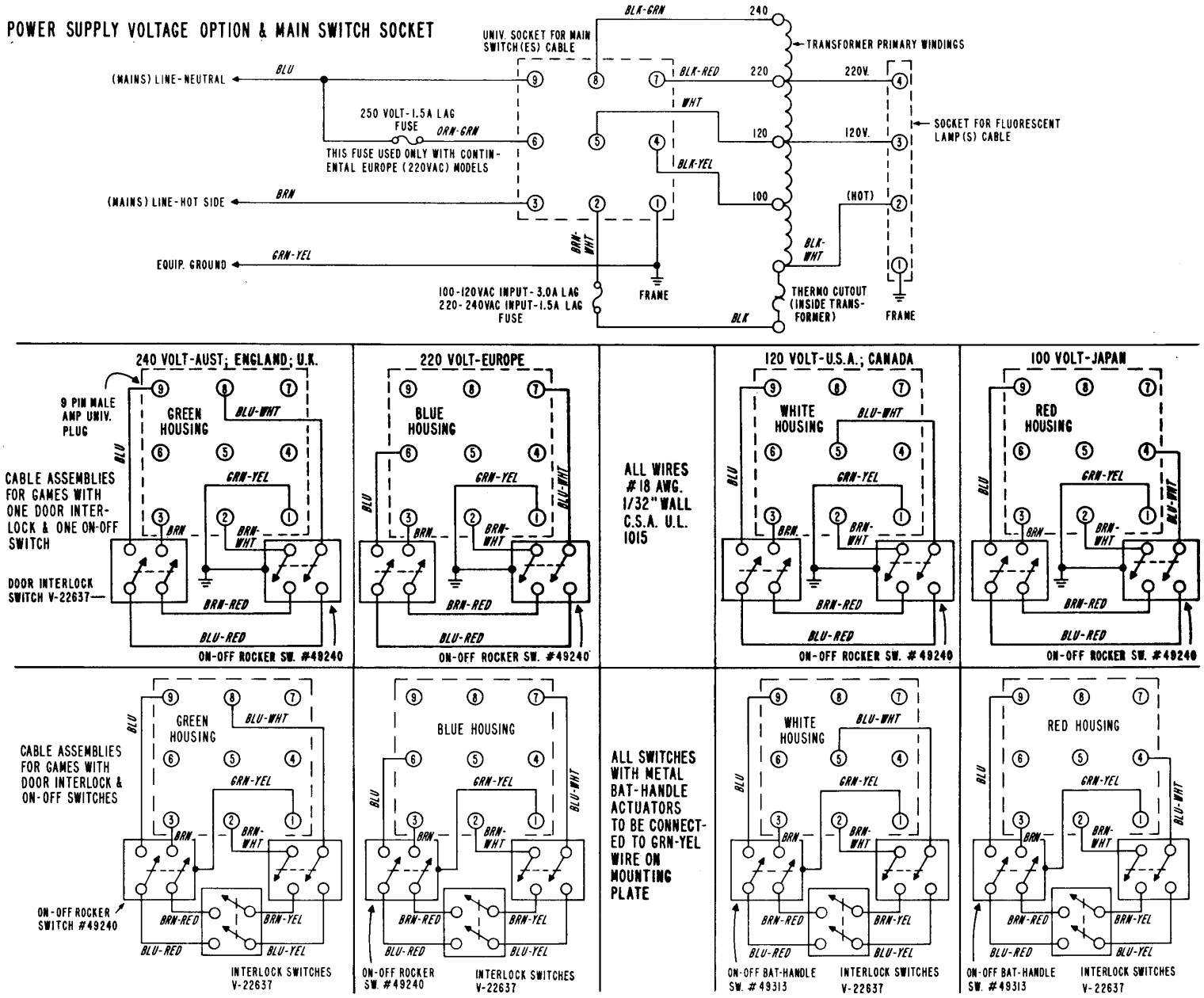
G-205

CABINET PARTS



WELLS-GARDNER MONITOR ASSEMBLY


POWER SUPPLY G-6060-A
G-5438
VOLTAGE OPTION & LINE SWITCH(S) SOCKET
F2 1.5A-SB
EUROPE ONLY
ORN-GRN
BLK-GRN
BLK-RED
WHT
BLK-YEL
240V
220V
120V
100V
BLK
GRN-YEL
FRAME
F1
100-120V. SERVICE 3A-SB
240-220V. SERVICE 1.5A-SB
BLU
BRN
LIGHT OR FAN CABLE SOCKET
220V
120V
WHT-BLK
110° C
RFI FILTER (OPTIONAL)
GRN
BLU
BRN
LINE TERMINAL BLOCK
EQUIP. GRD.
NEUTRAL
HOT
RED
1.5A SB F5
RED-YEL
25V.A.C.
BLK-WHT
ORN
ORN-WHT
GRY-WHT
120V.A.C.
GRY-BLK
100V.A.C.
GRY
15 STATION UNIV. AMP. RECEPTACLE (TO LOGIC BOARD)
3 STATION UNIV. AMP. RECEPTACLE (TO MONITOR)
.5A SB F6
BLU
5A SB F3
RED-BLK
1A SB F4
RED-WHT
10 CIRCUIT CRIMP CONNECTOR
- 5V.D.C.
+5V.D.C.
+12V.D.C.
SWITCHING REGULATOR G-6062-A
4 CIRCUIT CRIMP CONNECTOR
F.G.


POWER SUPPLY VOLTAGE OPTION & MAIN SWITCH SOCKET
UNIV. SOCKET FOR MAIN SWITCH(ES) CABLE
TRANSFORMER PRIMARY WINDINGS
(MAINS) LINE-NEUTRAL
BLU
BLK-GRN
240
BLK-RED
220
220V.
WHT
250 VOLT-1.5A LAG FUSE
ORN-GRN
THIS FUSE USED ONLY WITH CONTINENTAL EUROPE (220VAC) MODELS
120
120V.
SOCKET FOR FLUORESCENT LAMP(S) CABLE
BLK-YEL
(MAINS) LINE-HOT SIDE
BRN
100
(HOT)
BRN-WHT
BLK-WHT
EQUIP. GROUND
GRN-YEL
100-120VAC INPUT-3.0A LAG
220-240VAC INPUT-1.5A LAG FUSE
FRAME
THERMO CUTOUT (INSIDE TRANSFORMER)
BLK
FRAME
240 VOLT-AUST; ENGLAND; U.K.
9 PIN MALE AMP UNIV. PLUG
GREEN HOUSING
BLU-WHT
GRN-YEL
BRN
BRN-WHT
BRN-RED
BLU-RED
CABLE ASSEMBLIES FOR GAMES WITH ONE DOOR INTERLOCK & ONE ON-OFF SWITCH
DOOR INTERLOCK SWITCH V-22637
ON-OFF ROCKER SW. #49240
220 VOLT-EUROPE
BLUE HOUSING
ON-OFF ROCKER SW. #49240
ALL WIRES #18 AWG. 1/32" WALL C.S.A. U.L. 1015
120 VOLT-U.S.A.; CANADA
WHITE HOUSING
ON-OFF ROCKER SW. #49240
100 VOLT-JAPAN
RED HOUSING
ON-OFF ROCKER SW. #49240
CABLE ASSEMBLIES FOR GAMES WITH DOOR INTERLOCK & ON-OFF SWITCHES
ON-OFF ROCKER SWITCH #49240
BRN-YEL
BLU-YEL
INTERLOCK SWITCHES V-22637
ON-OFF ROCKER SW. #49240
INTERLOCK SWITCHES V-22637
ALL SWITCHES WITH METAL BAT-HANDLE ACTUATORS TO BE CONNECTED TO GRN-YEL WIRE ON MOUNTING PLATE
ON-OFF BAT-HANDLE SW. #49313
INTERLOCK SWITCHES V-22637
ON-OFF BAT-HANDLE SW. #49313
INTERLOCK SWITCHES V-22637

JOYSTICK SWITCH ADJUSTMENTS
(8 WAY)

Fig. 1. Adjust each individual switch as follows:

1.1 Loosen front screw on switch bracket.

1.2 Move cam as far as possible toward switch & hold in this position.

1.3 Rotate switch toward cam until switch contacts close.

1.4 Continue to rotate switch until top blade deflects approx. 1/16".

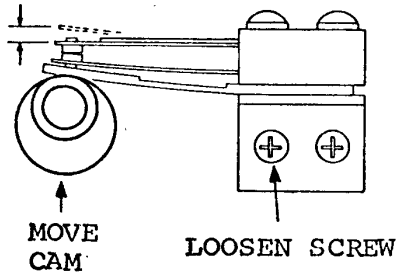
1.5 Lock front screw on bracket.

Fig. 2. After adjusting all four switches, move lever against top, bottom & sides of circle and check switch action.

2.1 Switch #1 must break before switch #2 makes. No two switches can make contact at the same time at positions 1, 2, 3 & 4.

Fig. 3. Move lever at 45° angle (4 ways) and check. In this position, two switches must make at the same time.

1/16" Fig. 1



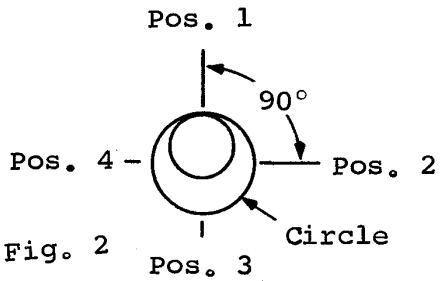


Fig. 2

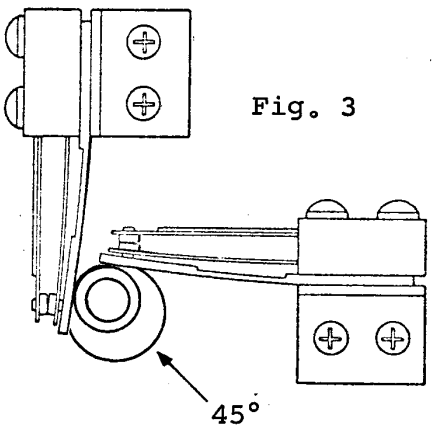
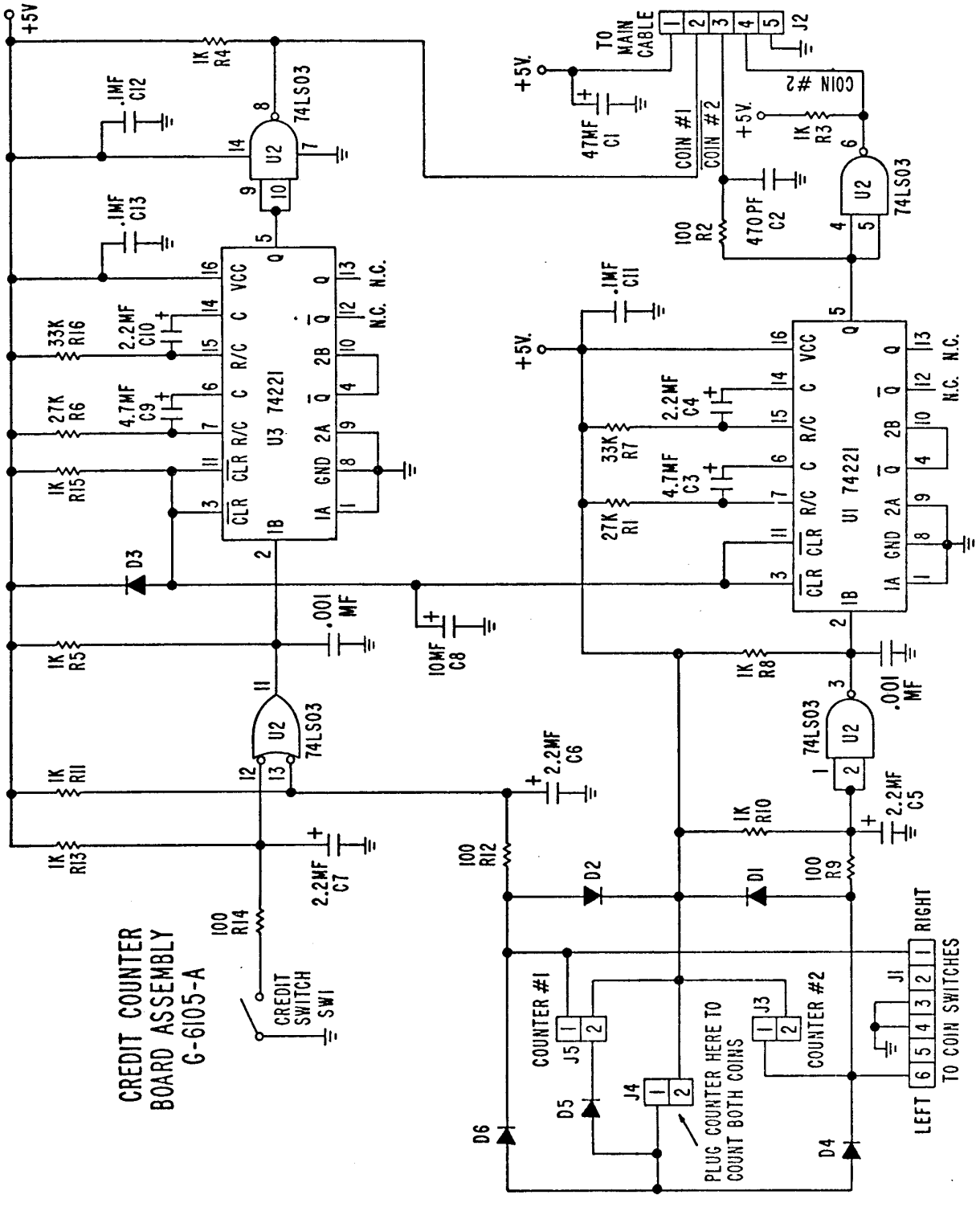


Fig. 3

IMPORTANT: TIGHTEN ALL SCREWS on switch brackets to prevent any movement after adjusting.


CREDIT COUNTER
BOARD ASSEMBLY
G-6105-A
+5V
+5V.
TO MAIN CABLE
J2
COIN #1
COIN #2
COIN #2
47MF C1
470PF C2
100 R2
1K R3
1K R4
.1MF C12
.1MF C13
.1MF C11
74LS03
U2
U3 74221
U1 74221
2.2MF C10
4.7MF C9
27K R6
33K R16
1K R15
2.2MF C4
4.7MF C3
33K R7
27K R1
D3
.001 MF
10MF C8
1K R5
1K R8
1K R11
1K R13
2.2MF C6
2.2MF C7
2.2MF C5
100 R12
100 R14
100 R9
1K R10
D1
D2
D4
D5
D6
CREDIT SWITCH SW1
COUNTER #1
COUNTER #2
J5
J4
J3
J1
PLUG COUNTER HERE TO COUNT BOTH COINS
LEFT
RIGHT
TO COIN SWITCHES
N.C.

19" COLOR MONITOR SCHEMATIC DIAGRAM - MODEL K4675 & K4677

REF	K4675	K4677
R211	470	200
R212	470	200
R213	470	200
R214	150	200
R215	150	200
R216	150	200
R221	270	470
R222	270	200

(K4675) INTERFACE BOARD P317
(K4677) INTERFACE BOARD P318
← * SEE CHART FOR VALUES

MAIN BOARD

SERVICE TIP

VERTICAL RASTER POSITION ADJUSTMENT
CENTER
UP
DOWN

V.OSC 2SA826 2SA1015/2SA825 TR301
V.OSC 2SC1740 2SC1815 TR302
V PRE DRIVE 2SC1740 2SC1815 TR303
V.DRIVE 2SC1740 2SC1815 TR304
V. OUT 2SA490 TR305
V. AMP 2SC1740 2SC1815 TR307

V SIZE
VERT HOLD
V.OUT TR306 2SC1625
PROTECTOR TR353 TR354 2SA825 2SC1740 / 2SC1815 2SA1015 / 2SA826
SYNC AMP TR308 2SC1740 2SC1815
HOR HOLD
HOR.OSC TR351 2SA854/2SA562
HOR. DRIVE TR352 2SC1722/2SC2242
VERT/HOR BOARD

DEFL YOKE COIL
VERTICAL
HORIZONTAL
YEL GRN BLUE RED
7603 SIDE PIN TRNS
TR601 HOR. OUT 2SC1893/2SC1942/2SC1170B
T602 H DRIVE TRNS
L602 10uH
L702 HORIZ. SIZE COIL
P611
P608
J608
HORIZ. RASTER POSITION ADJ.
LEFT CTR RIGHT
TO P607③

AUDIO/ POWER BOARD ERROR AMP
TR501 2SC1740 2SC1815
V ADJ
TR502 2SC1106 2SC1454
A.V.R
TP-91

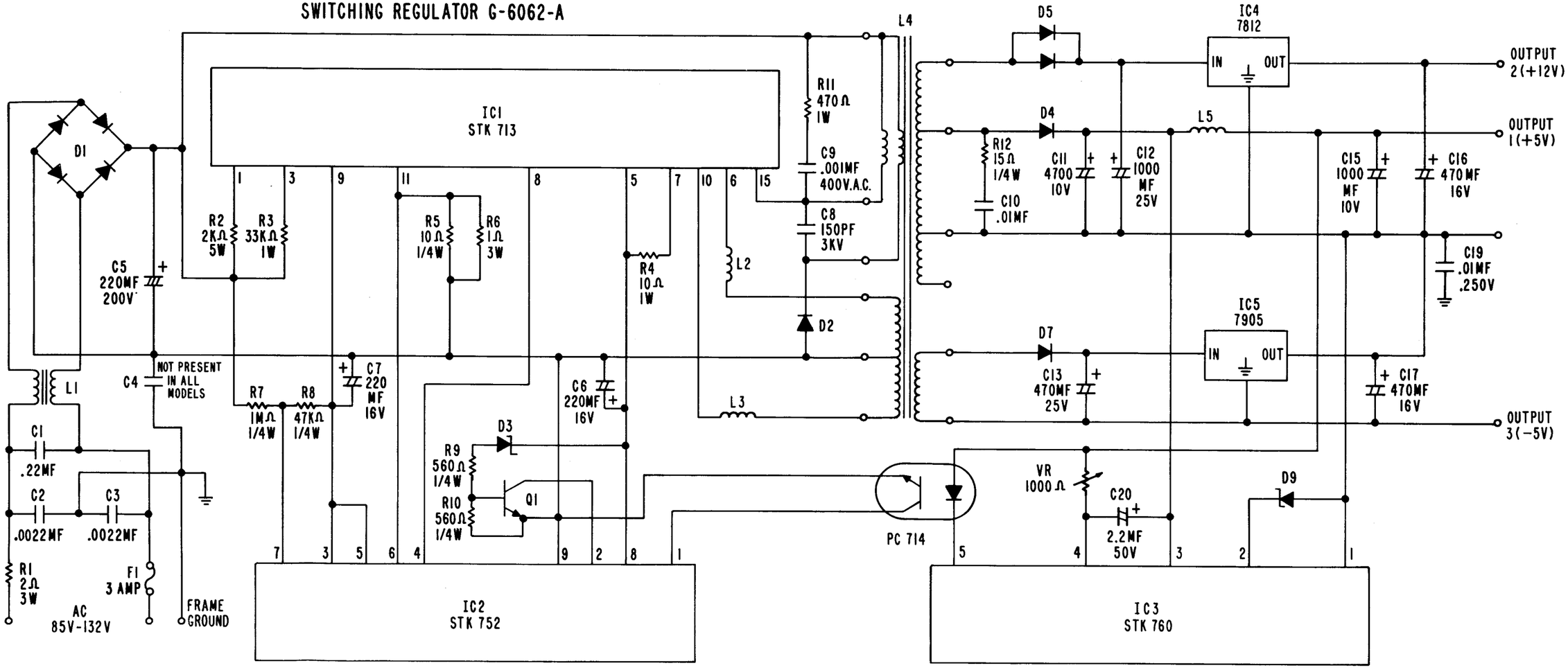
T 701 H.V UNIT
×701~×703
TO CRT ANODE
TO CRT FOCUS
FOCUS ADJ
VR701 825M
TO R652
TO P302③
TO P607

TO T701 H.V. UNIT
CRT.19VJTP22
NECK BOARD
R.DRIVE
R.OUT TR401 2SC2068 2SC1514
G.OUT TR402 2SC2068 2SC1514
B.OUT TR403 2SC2068 2SC1514
B.DRIVE
R CUT OFF
G CUT OFF
B CUT OFF
SCREEN
SERVICE TIP
TO T701 FOCUS

AC 120V 60Hz
F601 3A 125V
L601
L701 DEGAUSSING COIL
P602
P302
P301
P201
P202
P203
P204
P205
J201
J202
J203
J302
J301
J402
J401
TO P302⑩
TO P808②
TO P201⑩
TO P607③

2SC1170B 2SC1106 2SC1454 2SC1893
2SA608 2SA826 2SA854 2SC1740 2SC1815 2SA825
2SC2068
2SC1722 2SC1723 2SC1625 2SA490 2SC2242
2SC1514

SWITCHING REGULATOR G-6062-A



MACHINE WIRING DIAGRAM
G-205 SURVIVAL

120 VAC 50/60 HZ
BALLAST
STARTER FS-2 S-2
15W T12 LAMP
FRAME GRN-YEL
BLK
WHT
4 PIN AMP PLUG
USED ONLY WITH UPRIGHT MODEL
USED ONLY WITH COCKTAIL MODEL
120 VAC 50/60HZ
BLOWER MOTOR
OR
ON/OFF SW. 49240
GRN-YEL
BRN-WHT
BLU-WHT
BLU-RED
BRN-RED
INTERLOCK SW. V-22637
(HOT) BRN
(NEUTRAL) BLU
9 PIN AMP PLUG
NOTE:
MAIN POWER SWITCH ASSEMBLY SHOWN IS FOR 120 VAC (N. AMERICAN) SERVICE IN UPRIGHT MODEL ONLY.
FOR OTHER COUNTRIES & MODELS SEE MANUAL.
120 VAC
WHT (NEUTRAL)
GRN-YEL (EQUIP. GRD.)
BLK (HOT)

CABINET CABLE
COIN COM. BLK (2)
+12V. RED (E)
+12V. RED (5)
LOGIC COM. BLK-WHT (8)
+5V. PINK (COIN)
+5V. PINK (K)
+5V. PINK-BLK (9)
POWER GRND (A&1)
ORN-WHT
25V.A.C. RED-WHT
25V.A.C. RED-BLK
15 PIN AMP PLUG
120VAC
FRAME
ISOLATED WINDING FOR MONITOR USE ONLY-1.0 AMP. MAX.
120VAC
100VAC
COMMON
3 CIRCUIT AMP PLUG
GRY
GRY-WHT
2 CIR. MOLEX PLUG
INPUT 120 & 100VAC 3.0 AMP LAG
F1
INPUT 220 & 240VAC 1.5 AMP LAG
F2
USED ONLY WITH CONTINENTAL EUROPE (220VAC) MODELS
F3 +5V. 5 AMP LAG FUSE
F4 +12V. 1 AMP LAG FUSE
F5 25V.A.C 1.5 AMP LAG FUSE
F6 -5V. 0.5 AMP LAG FUSE
POWER SUPPLY ASSEMBLY

COLOR MONITOR ASSEMBLY
(WELLS-GARDNER PINOUT SHOWN)
6 CIRCUIT AMP SOCKET (MOD I)
3 CIRCUIT AMP SOCKET (MOD I)
(T) PIX RED YEL-RED
(16) PIX GRN YEL-GRN
(U) PIX BLU YEL-BLU
COMMON BLK-WHT
(17) PIX SYNC YEL-BRN

KEYBOARD LIGHTS
USED ONLY ON COCKTAIL MODEL
RED-WHT 25VAC
RED-BLK 25VAC
2 CIRCUIT MOLEX PLUG
#1895 10Ω 5W
8Ω LOUDSPEAKER
RED DOT
ORN-GRN AUDIO (VOL. CONT.)
VIO-ORN AUDIO COMMON (21)
.250" QUICK CONNECT (2)

TO GAME P.C. BOARD ASSEMBLY

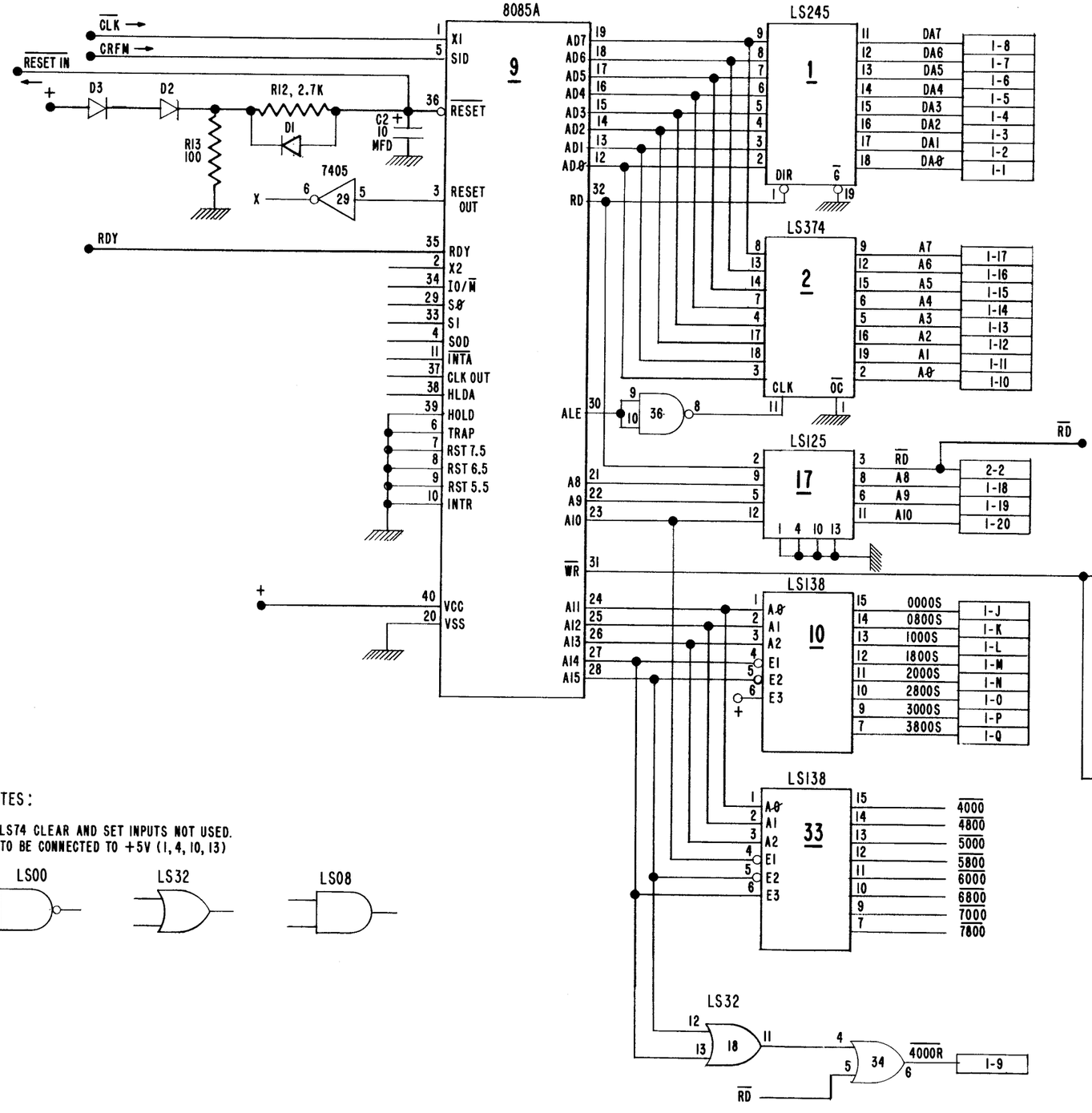
POWER GRND	ORN-WHT	A
POWER GRND	ORN-WHT	I
LOGIC COMMON	BLK-WHT	B
LOGIC COMMON	BLK-WHT	2
COIN COMMON	BLK-ORN	C
GROUND	BLK	3
AUDIO COMMON	VIO-ORN	D
AUDIO OUTPUT	YEL-BLK	4
+12V.D.C.	RED	E
+12V.D.C.	RED	5
	N.C.	F
	N.C.	6
	N.C.	H
PLAYER 1 FIRE	TAN-YEL	7
	N.C.	J
PLAYER 2 FIRE	GRY-YEL	8
+5V.D.C.	PINK	K
+5V.D.C.	PINK	9
	N.C.	L
	N.C.	10
PLAYER 1 UP	TAN-BLK	M
PLAYER 2 UP	GRY-BLK	11
2 PLAYER START	GRY	N
	N.C.	12
1 PLAYER START	TAN	P
COIN SWITCH	ORN	13
PLAYER 1 RIGHT	TAN-GRN	R
PLAYER 1 DOWN	TAN-BLU	14
PLAYER 1 LEFT	TAN-RED	S
PIX. RED	YEL-RED	15
PIX. BLU	YEL-BLU	T
PLAYER 2 RIGHT	GRY-GRN	16
PIX. GRN	YEL-GRN	U
PLAYER 2 LEFT	GRY-RED	17
PIX. SYNC.	YEL-BRN	V
PLAYER 2 DOWN	GRY-ORN	18

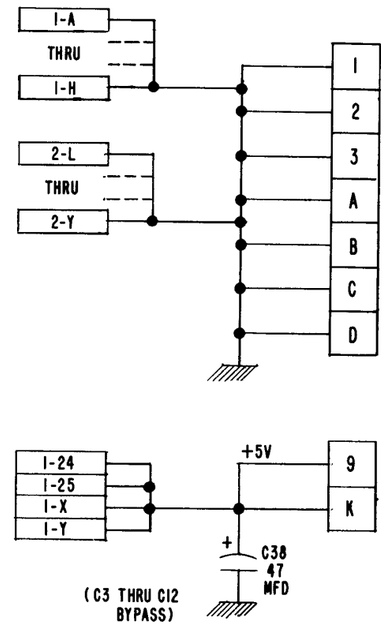
36 CIRCUIT AMP-LEAF 18 DUAL SOCKET

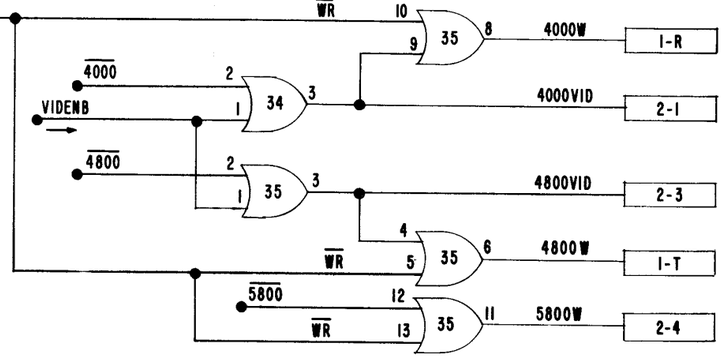
KEYBOARD ASSEMBLY - ALL MODELS
(B) BLK-WHT LOGIC COMMON BLK-WHT
(R) TAN-GRN PLAYER-RIGHT
(N) TAN-BLK PLAYER-UP
(S) TAN-RED PLAYER-LEFT
(14) TAN-BLU PLAYER-DOWN
(7) TAN-YEL PLAY 1 FIRE
(P) TAN ONE PLAYER START
(N) GRY TWO PLAYER START
9 CIRCUIT MOLEX PLUGS
(B) BLK-WHT LOGIC COMMON BLK-WHT
(16) GRY-GRN PLAYER #2-RIGHT
(11) GRY-BLK PLAYER #2-UP
(17) GRY-RED PLAYER #2-LEFT
(18) GRY-ORN PLAYER #2-DOWN
(8) GRY-YEL PLAYER 2 FIRE
WHT
THIS KEYBOARD USED ONLY WITH COCKTAIL MODEL

COIN DOOR WIRING
COIN SWITCHES R L
ORN RED YEL BLK BLU GRN
6 CIRCUIT MOLEX SOCKET
100Ω VOLUME CONTROL
VIO-ORN
ORN-GRN
YEL-BLK
3 CIRCUIT MOLEX SOCKET
VIO-ORN 21 & SPEAKER
ORN-GRN AUDIO VOLUME SPEAKER
YEL-BLK AUDIO OUTPUT
MULTI-PRICE COUNTER
SINGLE PRICE COUNTER
2 CIRCUIT MOLEX SOCKETS
MULTI-PRICE COUNTER
CREDIT COUNTER BOARD G-6106
CREDIT SWITCH
5 CIRCUIT MOLEX SOCKET
PINK
ORN
GRN-RED
GRN-WHT
BLK
5 CIRCUIT MOLEX PLUG

MULTI-PRICE ONLY
PINK
BLK
2 CIRCUIT MOLEX SOCKET (RED)
PINK
ORN
GRN-RED
BLK
GRN-WHT
6 CIRCUIT MOLEX SOCKET
MULTI-PRICE BOARD G-5105-1A
ORN
BLK
6 CIRCUIT MOLEX PLUG
5 CIRCUIT MOLEX SOCKET
PINK-BLK +5V
ORN COIN 1 (13)
BLK COMMON
BLK-ORN COIN COMMON





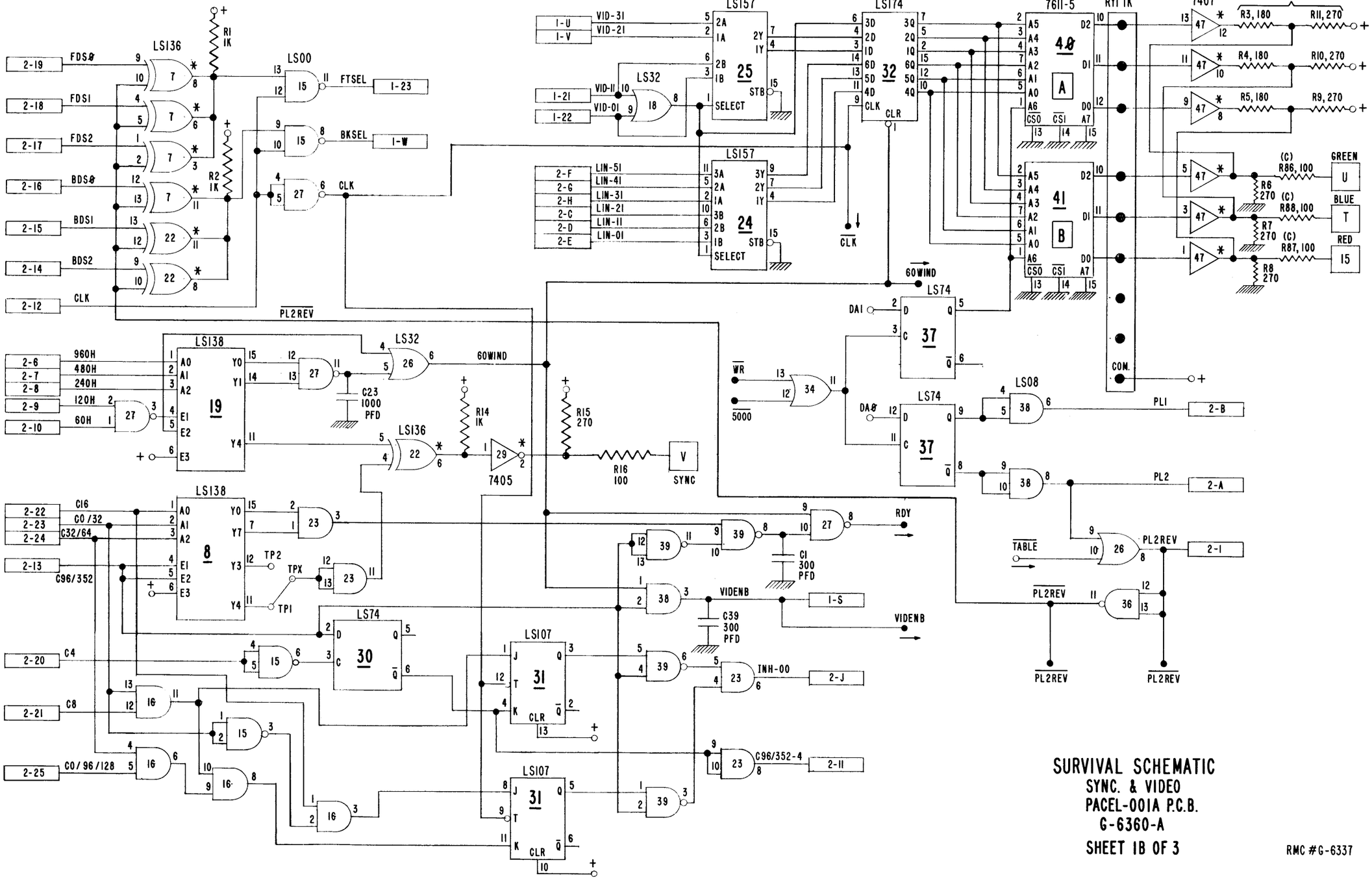


NOTES:

1. LS74 CLEAR AND SET INPUTS NOT USED. TO BE CONNECTED TO +5V (1, 4, 10, 13)
2. LS00 LS32 LS08

SURVIVAL SCHEMATIC
CPU
PACEL-001A P.C.B.
G-6360-A
SHEET 1A OF 3

RMC # G-6337

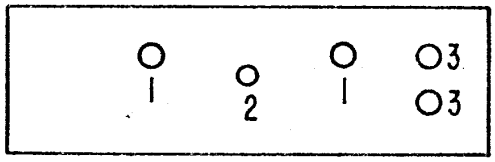


SURVIVAL SCHEMATIC
SYNC. & VIDEO
PACEL-001A P.C.B.
G-6360-A
SHEET 1B OF 3

RMC #G-6337

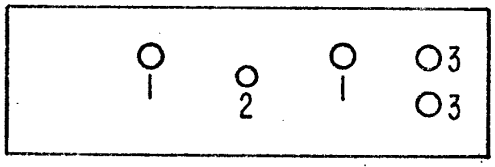
CONTROL PANELS

MERMAID
KIT #G-2328



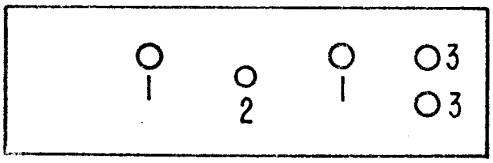
1 - Reverse Sail Button (2)
2 - 8 Way Joystick (1)
RMC #G-6046-A
3 - Player 1 & 2 Buttons (2)

SURVIVAL
KIT #G-2329



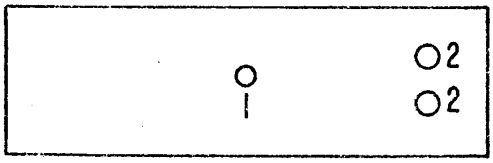
1 - Fire Button (2)
2 - 8 Way Joystick (1)
RMC #G-6046-A
3 - Player 1 & 2 Buttons (2)

EYES
KIT #G-2330



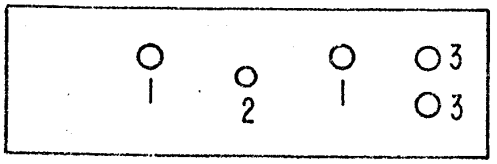
1 - Fire Button (2)
2 - 4 Way Joystick (1)
RMC #G-5431-1A
3 - Player 1 & 2 Buttons (2)

NIBBLER
KIT #G-2331



1 - 4 Way Joystick - Heavy Duty (1)
RMC #G-6477-A
2 - Player 1 & 2 Buttons (2)

LEVERS
KIT #G-2332



1 - Fire Buttons (2)
2 - 4 Way Joystick (1)
RMC #G-5431-1A
3 - Player 1 & 2 Buttons (2)