

*PlayChoice*<sup>TM</sup>

UPRIGHT

NO: PCHU-MG5

**Nintendo**<sup>®</sup>

**OPERATION MANUAL**

**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. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. 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.**

**WARNING**

**Use of non-Nintendo parts or modifications of your Nintendo game circuitry may adversely affect the safety of your game, and may cause injury to your players.**

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PCK1-CPU Schematics .....	A - F
PCHU-MG5 Wiring Diagram/PCK-01-LED Schematic	
Monitor Schematics	
Self Test and Bookkeeping	

## WARNING

**Check before plugging the game in.**

### I. LOCATION SETUP

Playchoice – Upright is shipped ready for operation. Please check the following to insure proper operation.

- (1) Check the exterior of the game for shipping damage, dents, chips, or broken parts.
- (2) Remove the screws on the rear door panel.
- (3) Unlock and open the rear door panel, as well as the service door, and inspect the interior of the game as follows:
  - a) **Check that all the plug-in connectors are firmly connected.**
  - b) **Check all main subassemblies (monitor, power supply, control panel, etc.) to ensure they are securely mounted.**

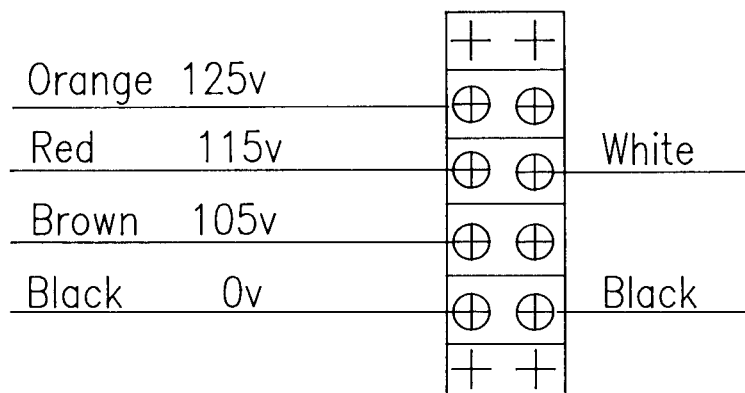
#### A. Game installation

- (1) Requirements

Amperage: 1.2 AMPS  
Temperature: 0 to 38 degrees Celsius (32 to 100 degrees Fahrenheit)  
Humidity: Not over 95% relative  
Space required:  $32\frac{3}{8} \times 23\frac{3}{4}$   
Height:  $68\frac{3}{8}$

#### B. Voltage selection for the Video Monitor

Before plugging in your game, make sure the terminal block of the power transformer is correct for your location's line voltage. See figure 1.



**Fig. 1**

### C. Power on/off switch

A power on/off switch is located in the rear of the game at the bottom center of the cabinet.

### WARNING

**Please be sure you use a grounded outlet for this game. Failure to do so may result in destruction of electronic components.**

### D. Grounding of Game (Use only if 3 wire outlet is unavailable.) See Fig. 2

- (1) A grounding wire should be connected to a grounding bar or a metal pipe which is firmly inserted into the ground.
- (2) Do not connect the grounding to a water pipe, because polyvinyl-chloride pipes are sometimes used in water lines, and the electronic continuity to the ground may be interrupted.
- (3) Absolutely do not connect the grounding wire to a gas pipe, as this can be extremely dangerous.

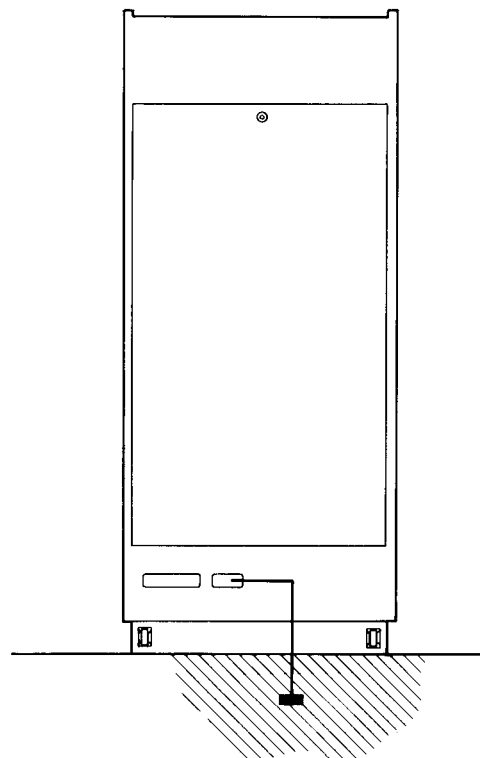
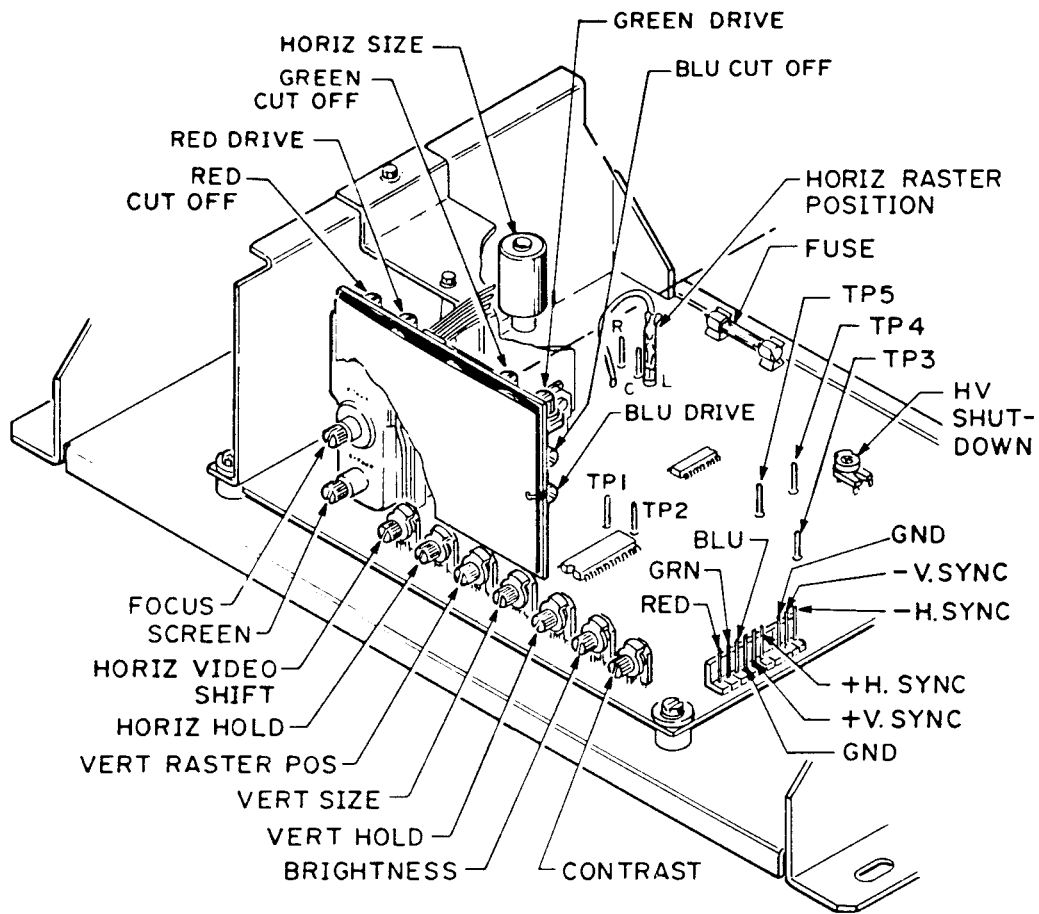


Fig. 2

## II. VIDEO MONITOR ADJUSTMENTS



**Fig. 3**

### —WARNING—

Do not touch the inside of the Video Monitor.  
It contains many parts supplied with high voltage.

### III. MAINTENANCE AND REPAIR

#### A. Fuse Replacements

This game contains 2 fuses. Replace fuses only with the same type as listed below.

#### Specification of Fuses

(1) Main Fuse	U.S. : 5A 125v/250v
(2) Video Monitor Fuse	2.0A 125V SB

#### B. Cleaning

The exterior of the game, all metal parts and all glass parts can be cleaned with a nonabrasive cleanser.

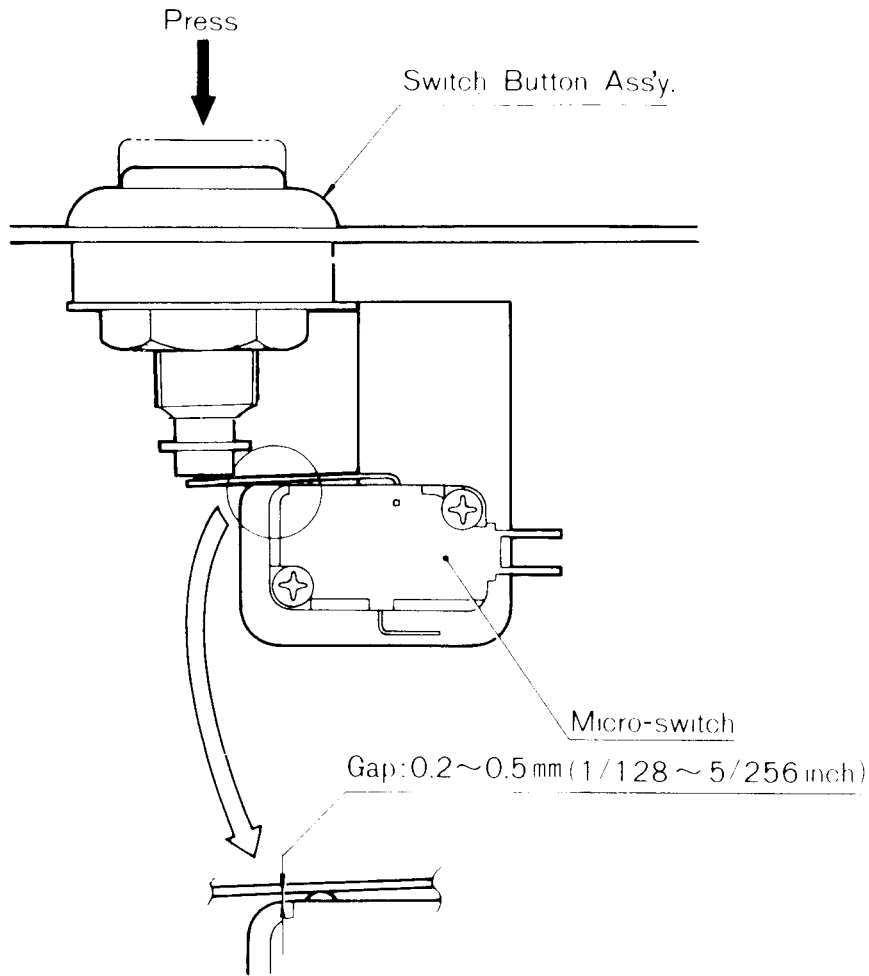
#### C. Operation Panel

##### (1) Operation Panel Removal

Before repairing or replacing any switches or 8 way Controllers on the Operation Panel, unplug the game. Open the Service Door, and reach through the opening, and unlock the Clamps, located at each end on the underside of the Operation Panel.

##### (2) Micro-switch Replacement

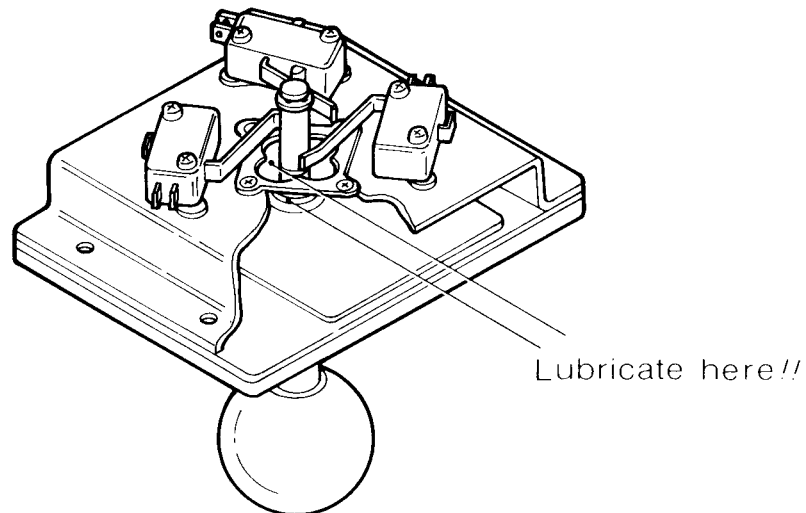
Whenever you replace any micro-switch on the Operation Panel, a switch gap adjustment is needed as shown in Fig. 4. This adjustment is not necessary for the player option buttons.



**Fig. 4** Switch gap adjustment

**(3) Lubrication for 8 way Controller**

To maintain the 8 way Controller in good condition, lubricate the ball socket and 8 way Guide Plate approx. every 3 months. See Fig. 5.



**Fig. 5** Lubrication points



## D. Front Screen and Video Monitor Removal

### (1) Front Screen Removal

To remove the Front Screen, first remove the Control Panel by reaching through the Service Door and releasing the Control Panel Clasps. Pull the bottom of the Front Screen toward you allowing it to drop into the slots. Then pull out toward center of game. See Fig. 6

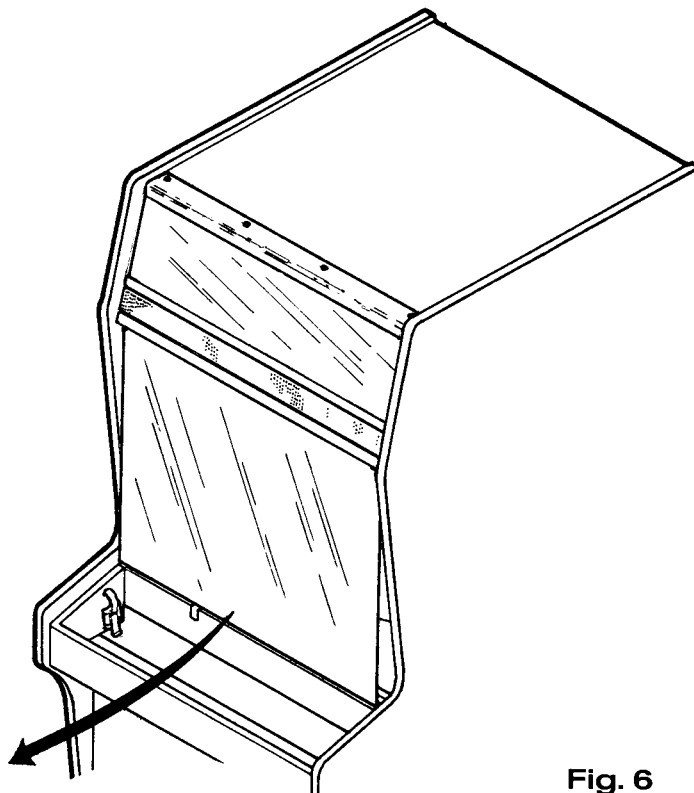


Fig. 6

### (2) Video Monitor Removal

If you need to remove the Video Monitor, follow the instructions listed below. But the following procedure should only be performed by an experienced service technician.

#### WARNING

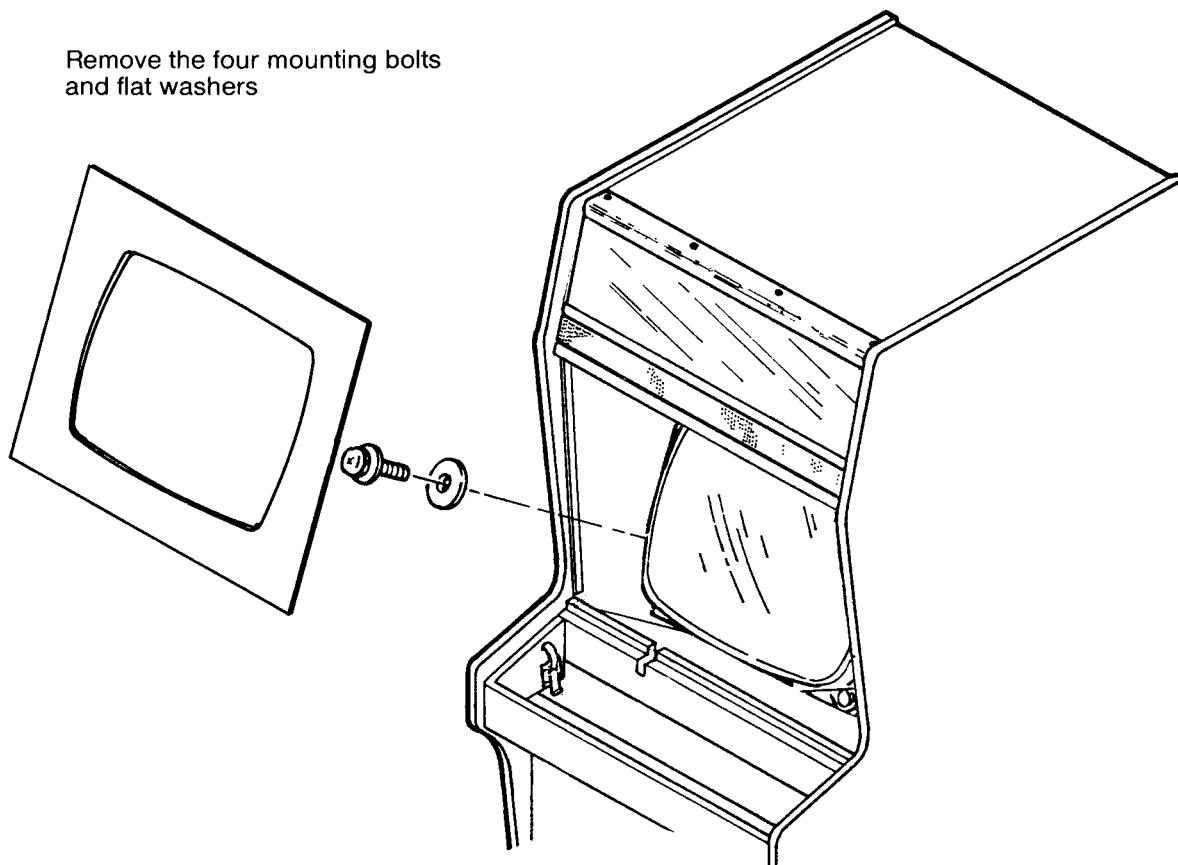
It is recommended the game be left unplugged for at least one hour before removing the Video Monitor. This will probably discharge the CRT, but extreme caution is still necessary.

- (a) Make sure game is unplugged.
- (b) Remove back door and unplug all the harnesses and cables from the Video Monitor.
- (c) Standing at the front opening of the game, remove the four mounting machine screws and flat washers. See Fig. 7.
- (d) Carefully lift the Video Monitor and pull out toward you.

**WARNING**

**Use extreme caution and do not touch electrical parts of the yoke area with your hands or with any metal object in your hands.**

Remove the four mounting bolts and flat washers



**Fig. 7**

## E. Game PCB Removal

- (1) Make sure the game is unplugged!!
- (2) Open the rear door panel.
- (3) Remove the 36 pin and 44 pin edge connectors from the right side of the FCC-PCBs on the shield cover.
- (4) Pull out the 6 fasteners located on the perimeter of the shield cover. See Fig. 8
- (5) Remove the 56 pin FCC short harnesses from the game P.C. board.
- (6) Remove the game PCB from the shield cage by carefully sliding it straight out of the wooden PCB guides.

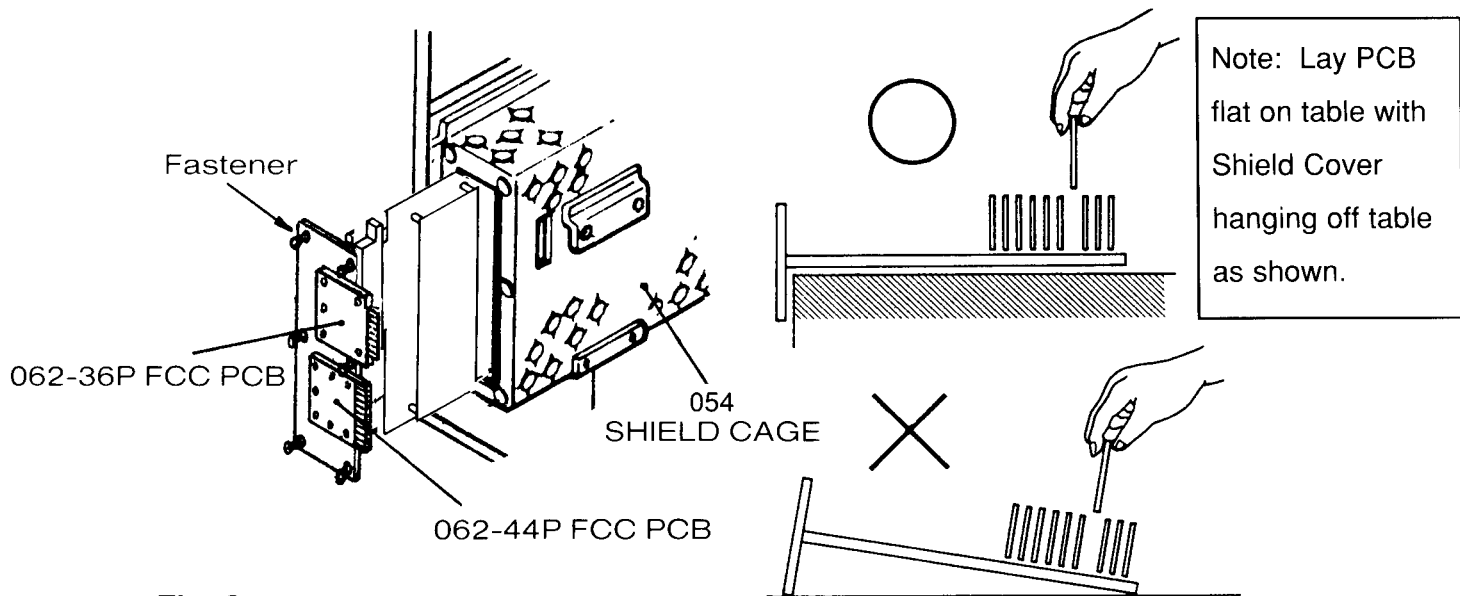


Fig. 8

### WARNING

**A reversed connector will damage your PCB! If the connectors don't slip on easily, don't force them!**

## IV. RADIO FREQUENCY INTERFERENCE

In order to protect against the RFI radiated from this equipment, please comply with the following.

- (A) Do not use non-Nintendo parts!
- (B) Do not modify your game circuitry!
- (C) Do not modify the wiring harness and connections!
- (D) Connect this game only to a grounded 3-wire outlet.
- (E) After servicing the Game PCB, shut the Shield Cover completely with the Fasteners. See Fig. 8.

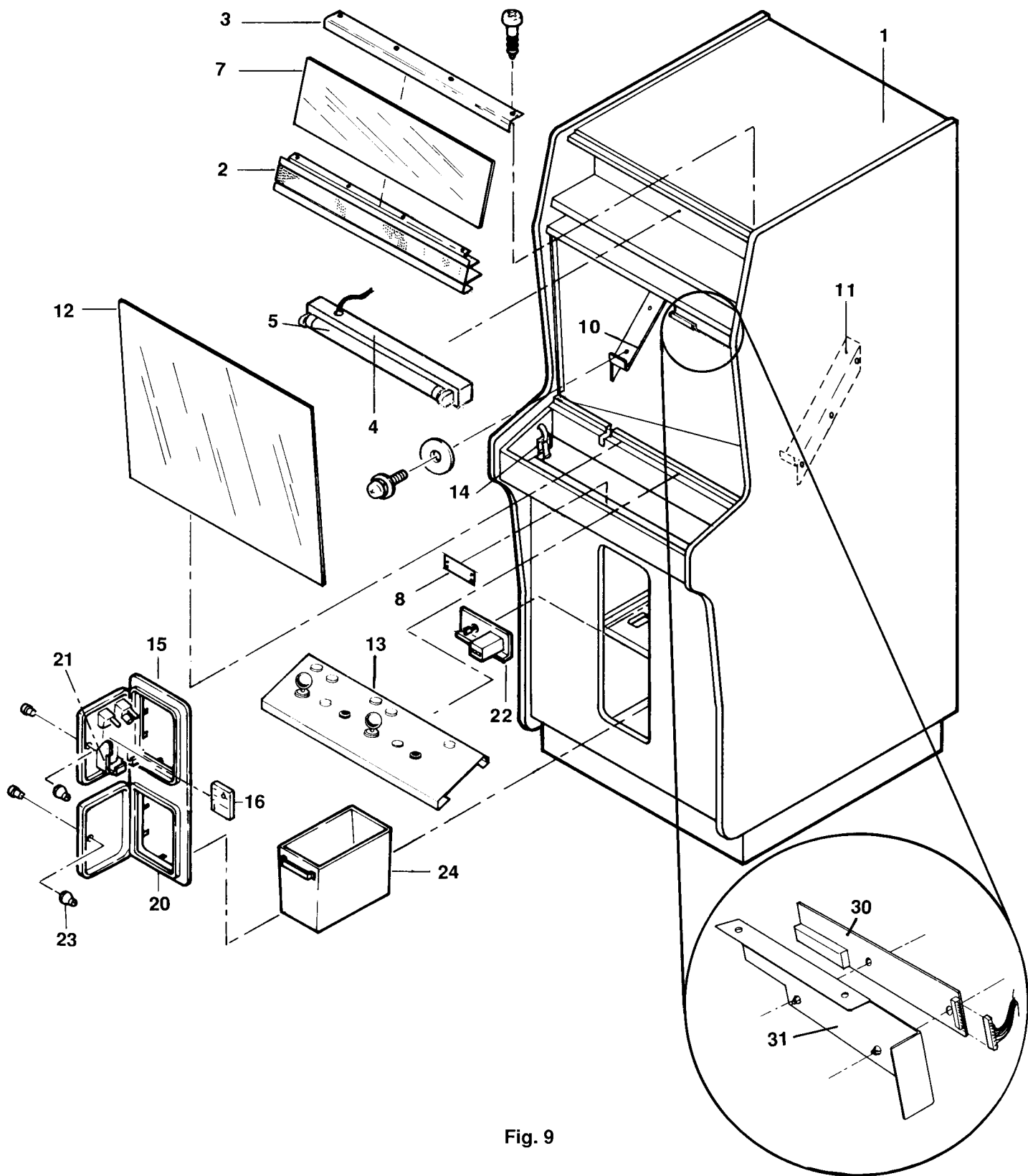


Fig. 9

## V. REORDER PARTS LIST

### Cabinet Assembly - Front View (Fig. 9)

ITEM	ORDER NO.	DESCRIPTION	REMARKS
1	19283	Cabinet	
2	1088	Speaker Grill	Same as MGSU-01-49
3	3295	Top Trim	
4	19050	Fluorescent Lamp 21"	
5	10951	Fluorescent Lamp Only 15w	
6	19048	Overlay, Name Plate w/Logo	
7	1107	Name Plate Plexi	Same as MGSU-01-24
8	3289	Control Panel Retainer	
9	593	T-Molding Black	Same as MDSA-01-72
10	576	Monitor Mtg. Bracket Left	Same as TPPU-01-50
11	577	Monitor Mtg. Bracket Right	Same as TPPU-01-51
12	6376	Front Screen (Glass)	Same as MGSA-01-23
13	7927	Control Panel Assy	Same as PCKG-23-60
14	3051	Draw Latch (Control Panel)	
15	19052	Door Assy. Complete	
16	19264	Coin Selection	
17	8487	Coin Slot 25¢	Same as PCKCT-01-09
18	19265	CoinSwitch w/Wire	
19	19267	Door Frame	
20	19268	Door Lower	
21	19269	Door Upper	
22	19277	Screw Door Hinge	
23	19270	Lock w/Cam	
24	19053	Cash Box (plastic)	
25	11151	Game Counter	
27	19064	Service Switch	
28	7932	Side Decal (PCKG)	Same as PCKG-61-12
29	19047	Side Decal Large Logo	
30	8496	Led PCB Assy	Same as PCKG-24-01
31	3927	Bracket Led PCB	Same as PCKCT-01-18
32	4468	Card Spacer KGLS-4	

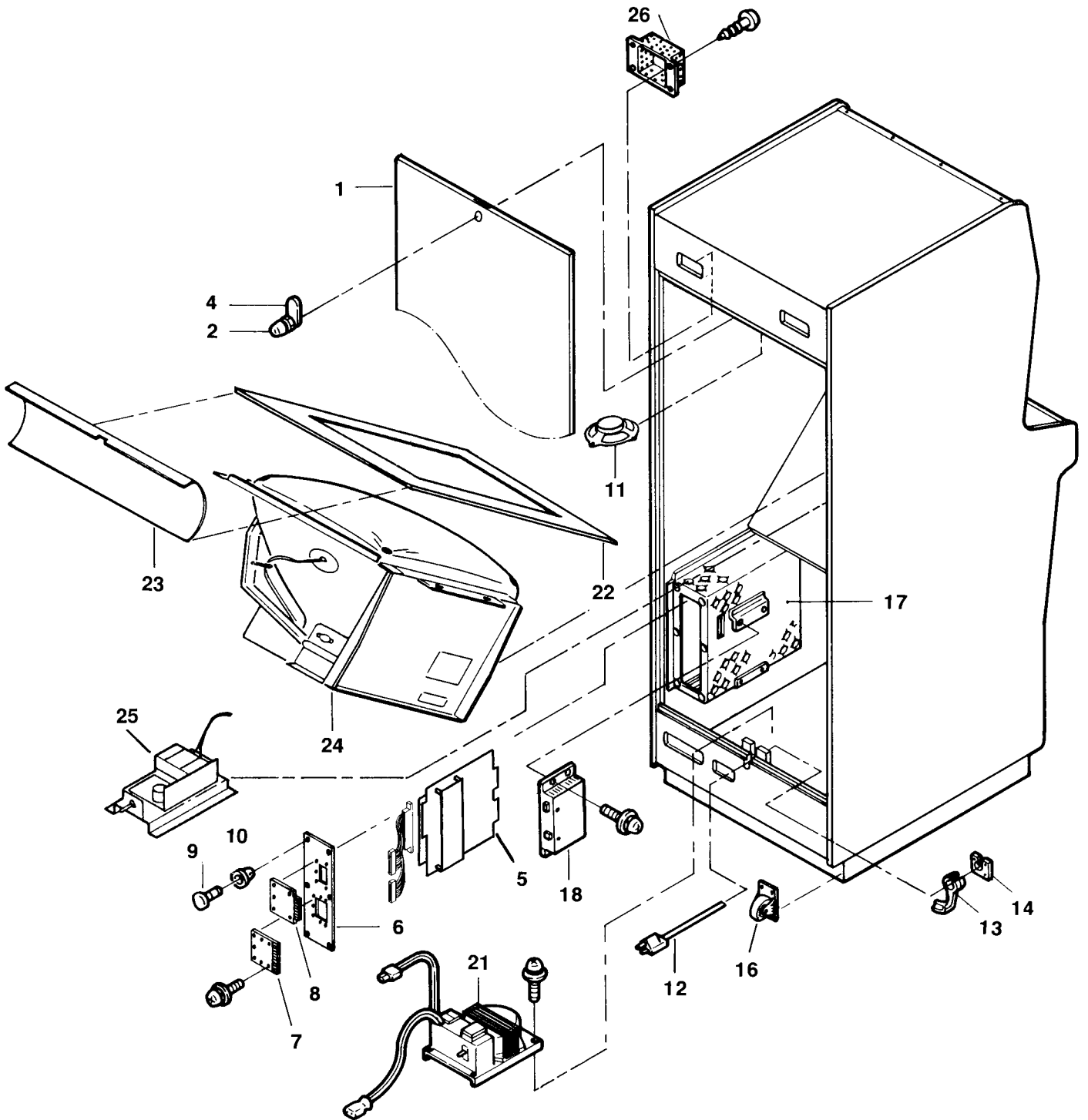


Fig. 10

## Cabinet Assembly - Back View (Fig. 10)

ITEM	ORDER NO.	DESCRIPTION	REMARKS
1	7070	Back Door	Same as MGSA-01-05
2	3050	Lock Back Door (Key 6510)	Same as TKGU-01-03
3	633	Key Back Door Only (Key 6510)	Same as TKGU-01-03-01
4	605	CamA-Type (BackDoor Lock)	Same as TKGU-01-05
5	8510	PCB PCK1-CPU Assy	Same as PCKU-21-01
6	6888	Shield Cover Cage w/o PCB	Same as MDSU-01-01-11
7	19244	PCB 44 Pin FCC	
8	1037	PCB 36 Pin FCC	Same as MDSU-01-01-13
9	1034	Fastener Nylatch	Same as CHPU 23-25
10	1033	Fastener Nylatch Grommet	Same as CHPU 23-24
11	612	Speaker 16 cm 8-ohm	
12	3063	Power Cord	Same as TKGU-01-43
13	455	Strain Relief Bushing	Same as TKGU-01-10
14	3056	Strain Relief Plate	Same as TKGU-01-65
15	19282	Manual, Op	
16	609	Caster	Same as TKGU-01-30
17	1029	Shield Cage	Same as CHPU-01-01-10
18	8931	Power Supply SA40-1304	
19	8761	Base Power Supply	
20	8762	Cover Power Supply	
21	19127	ISO Transformer Assy.	
22	566	Bezel, Monitor	Same as MGSP-01-67
23	7054	Bezel, Blind	
24	19061	Monitor 19" (Wells Gardner)	
25	19123	Audio Amp Assy.	
26	624	Vent Grill	Same as TKGU-01-61
27	450	Fuse 5A 125v	Same as TKGU-11-08

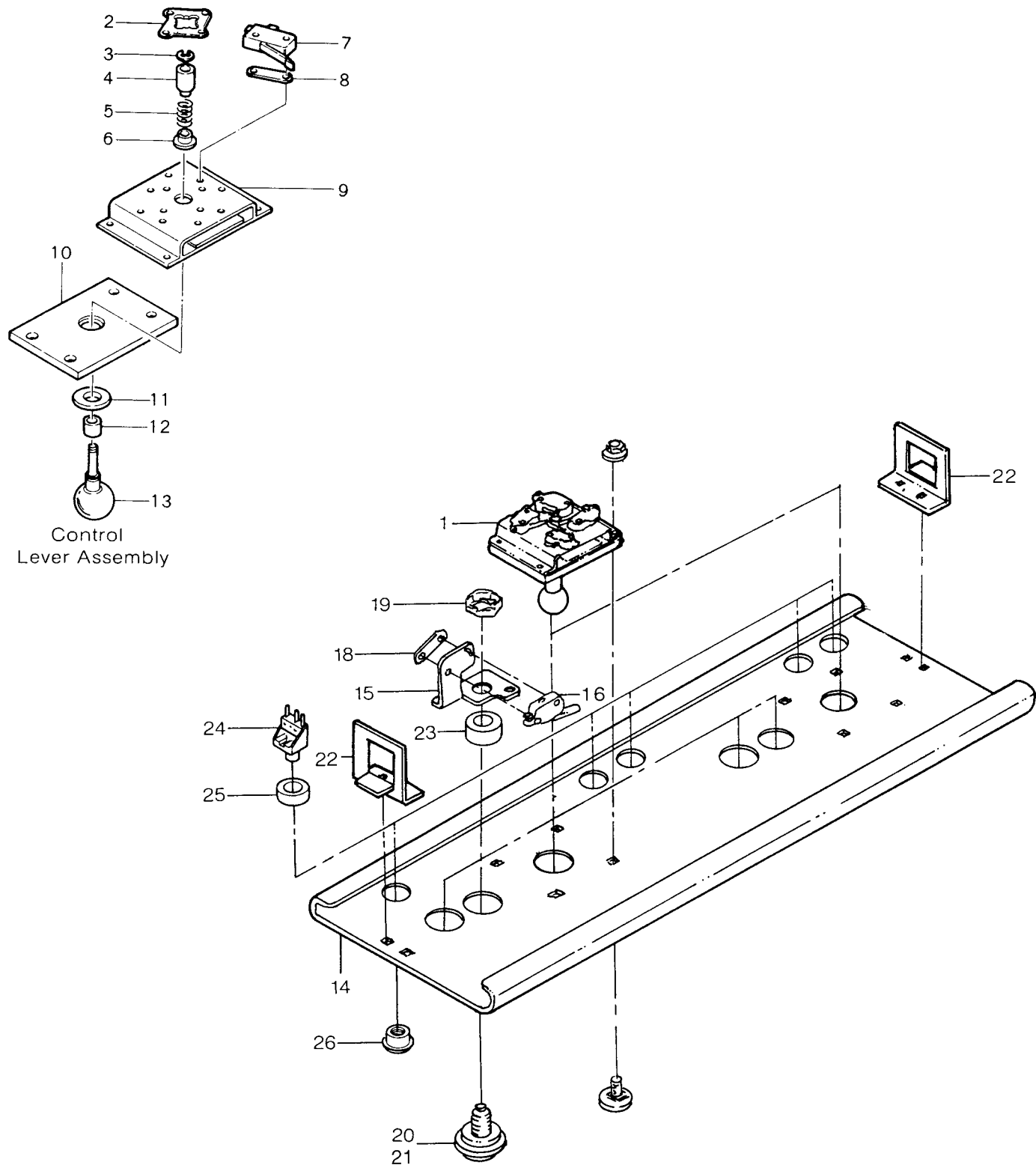


Fig. 11



## Operation Panel Assembly

ITEM	PART NO.	ORDER NO.	DESCRIPTION
1	MDST-14-12	773	8 Way Control Lever Assembly
2	TNX-23-18	808	8 Way Guide Plate
3	TKGU-23-23	813	E Ring 4
4	TKGU-23-21	811	Switch Collar
5	TKGU-23-22	812	Lever Spring
6	TKGU-23-20	810	Spring Stopper
7	TKGU-23-13	804	Micro Switch
8	TKGU-23-17	807	Switch Spacer
9	TKGU-23-16	806	Bearing Bracket
10	TMAU-12-15	784	Lever Plate
11	TMAU-12-14	783	Control Knob Plate
12	TMAU-12-16	785	Control Knob Collar 8L
13	TMAU-11-18	778	Knob with Shaft 80.5L
14	PCKG-12-11	7928	Operation Panel Base
15	TKGU-23-12	803	Switch Button Bracket
16	TMAU-34-18	821	Micro Switch VL 12L (Straight)
17	MDSU-12-17	896	Black Sponge, 2 x 10 x 580L
18	TKGU-23-26	814	Nut Plate
19	TKGU-23-34	818	Pal Nut M16
20	MDST-12-21	932	Button Assembly (Black)
21	MDST-12-17	854	Button Assembly (Crimson)
22	TMAK-11-19	865	Operation Panel Fastener
23	TMAU-12-18	943	Collar — 34 x 28 x 7H
24	MDSA-23-31	935	Micro Switch P163C3RU (Red)
25	MDSA-23-29	933	062U Switch Collar
26	MDSA-23-30	934	062U Switch Bezel



## Power Supply (SA40-1304)

ORDER NO.	DESCRIPTION (REFERENCE DESIGNATIONS & LOCATIONS)	
18317	RECTIFIER, DIODE RGP 10B	D9
18318	RECTIFIER, DIODE1N 4001 GP	D12-13
18319	RECTIFIER, DIODE GP10A	D3
18320	RECTIFIER, BRIDGE KBP08	DB1
2076	RES, CARBON 10 OHM 1/4 W 5%	R10-R28-R32
2078	RES, CARBON 1/4 W 5%	R5
18321	RES, CARBON 15 OHM 1/4 W + 5%	R11
2103	RES, CARBON 22 OHM 1/4 W 5%	R27
2111	RES, CARBON 27 OHM 1/4 W 5%	R8
2112	RES, CARBON 270 OHM 1/2 W + -5%	R15-R16
2121	RES, CARBON 330 OHM 1/4 W 5%	R18-R21
7247	RES, CARBON 47 OHM 1/4 W 5%	R14
2133	RES, CARBON 470 OHM 1/4 W 5%	R22
2136	RES, CARBON 470K OHM 1/2 W 5%	R1
4713	RES, CARBON 56 OHM 1/4 W 5%	R19
18322	RES, CARBON 5.6 OHM 1/4 W +/-5%	R13
2148	RES, CARBON 68 OHM 1/4 W 5%	R20-R9
18323	RES, CARBON 8.2 OHM 1/4 W +/-5%	R17
18324	RES, M.FILM .75 OHM 1 W +/-5%	R12
18325	RES, M.FILM 1 OHM 1 W +/-5%	R7
18326	RES, M.FILM 18 OHM 1/4W +/-1%	R25
18327	RES, M.FILM 2.7 OHM 1/4W +/-1%	R24
18328	RES, M.FILM 8.2 OHM 1/4W +/-1%	R23
1997	RES, OXIDE 100K OHM 1 W +/-5%	R3-R4
18239	RES, OXIDE 120 OHM 2 W +/-5%	R6-R29
18330	RES, WIRE WD 15 OHM 5 W +/-5%	R30
18331	RES, WIRE WD 33OHM 3 W +/-5%	R2
18292	CAP, CERAMIC 100 PF 3KV +/-20%	C9
18293	CAP, CERAMIC .01 MF 100V + 80 - 20%	C23
18294	CAP, CERAMIC 330P 100V +/-20%	C18
18295	CAP, ELECTRO 100 MF 25V +/-20% RADIAL	C14
18296	CAP, ELECTRO 1000 MF 16V +/-20% RADIAL	C20
18297	CAP, ELECTRO 1000 MF 10V+/-20% RADIAL	C15
18298	CAP, ELECTRO 100 MF 10V +/-20% RADIAL	C17
18299	CAP, ELECTRO 220 MF 10V+ 100 - 10% RADIAL	C8
18300	CAP, ELECTRO 2200MF 16V +/-20% RADIAL	C12
18301	CAP, ELECTRO 470 MF 16V +/-20% RADIAL	C19
18302	CAP, POLYESTER .01 MF 50V +/-5%	C13
18303	CAP, MP .1 MF 250V +/-20%	C1-C2
18304	CAP, POLYESTER 2200P 250V +/-20%	C3-C4
18305	CAP, POLYESTER .022 MF 50V +/-20%	C16
18306	CAP, MP 0.022 MF 250V +/-20%	C10
18307	CAP, POLYESTER .22 MF 100V +/-20%	C11-C21

## Power Supply (SA40-1304) - continued

ORDER NO.	DESCRIPTION (REFERENCE DESIGNATIONS & LOCATIONS)	
18308	CAP, MPR 2200P 250V = +/-20%	C5
18309	FUSE, F2A 250V (SA40-1304)	F1
18310	CONN. 4 PIN (SA40-1304)	TB2
7161	TRANSISTOR, 2SC 2120	Q1
18311	TRANSISTOR, 2SB 561	Q3
18312	REGULATOR, 431	1C1
18313	DIODE, SI IN4606	D11-D6-D7
18314	DIODE, ZENER 5.6V 240 MA +/-5%	Z1
18315	RECTIFIER, DIODE RGP10A	D1
18316	RECTIFIER, DIODE RGP10J	D2-D4-D5
18322	RES, VARIABLE 1K OHM TOP ADJUST	VR1
18333	THERMIST, 84 +/-20%	TMI-TM2
18334	COIL, CHOKE 1.5 MH	L4
18335	COIL, CHOKE 2.2 UH	L3
18336	TRANSFORMER, CONTROL ASSY	T3
18337	TRANSFORMER, POWER AC8154	T2
18338	TRANSFORMER, COM MODE ASSY	T1
18339	COIL, CHOKE ASSY0	L5
18340	COIL, CHOKE FILTER	L6
18341	RECTIFIER, HEAT SINK ASSY	D10
18342	TRANSISTOR, 2SD1494 HEAT SINK ASSY	Q2
18343	REGULATOR, UA7912	IC2
18344	DIODE, SKCE 12CTQ035	D8
18345	SCR, 2N6395	SCR1

## Wiring Harness

ORDER NO.	DESCRIPTION	REMARKS
2357	44 Pin FCC Harness	Same as MDSU-41-12
2356	36 Pin FCC Harness	Same as MDSU-41-11
8968	44 Pin Edge Connector Harness	Same as MGSU-41-13
7933	36 Pin Edge Connector Harness	Same as PCKG-41-11
2337	15 Pin Switch Harness	Same as MGSU-42-11
7934	12 Pin Switch Harness	Same as PCKG-41-11
19107	Audio PCB Harness	
19109	Coin Counter Harness	
19116	Service Switch Harness	
19106	9 Pin Power Harness (Astec)	
19101	2 Pin Lamp Plug	
19102	3 Pin Monitor	
19114	Power Supply AC Harness (Astec)	
19259	12v Power Supply AC Harness	
19105	6 Pin Video Harness	
19129	Transformer Assembly Harness	
19128	4 Pin Coin Harness	
19099	2 Pin AC Input Harness	
19103	3 Pin Transformer Harness	
19110	Fuse Harness (Black)	
19111	Noise Filter Harness (Black)	
19112	Noise Filter Harness (White)	
19113	Noise Filter Harness (Green)	
19117	Terminal Block Harness (Black)	
19118	Terminal Block Harness (Red)	
19119	Terminal Block Harness (Brown)	
19120	Terminal Block Harness (Orange)	

## Main PC Board

PART NO.	ORDER NO.	DESCRIPTION (Reference Designations and Locations)
PCKU-21-01	7929	PCK1 CPU Complete PCB Assembly
PCHU-21-11	946	Z80A Microprocessor (5X)
PCHU-21-12	945	RP2A03E Microprocessor (1H)
PCHU-21-13	4460	RP2C03B PPU (3H)
PCKU-21-14	7936	27128 16K-Byte EP-ROM 300ns PCK 1-C-8T (8T)
PCKU-21-15	7937	2764 8K-Byte EP-ROM 300ns PCK 1-C-8K (8K)
PCKU-21-16	7938	2764 8K-Byte EP-ROM 300ns PCK 1-C-8M (8M)
PCKU-21-17	7939	2764 8K-Byte EP-ROM 300ns PCK 1-C-8P (8P)
PCHU-21-18	2060	TMM2115BP-15 2K-Byte RAM 150ns (2K)
PCHU-21-19	2061	HM6116 ASP-20 2K-Byte RAM 200ns (4K, 8R, 8V)
PCHU-21-20	4811	TC5517 CPL-20 2K-Byte C-MOS RAM 200ns (8W)
PCKU-21-21	7940	N82S129N 256x4-Bit Bipolar ROM PCK1-C-6D (6D)
PCKU-21-22	7941	N82S129N 256x4-Bit Bipolar ROM PCK1-C-6E (6E)
PCKU-21-23	7942	N82S129N 256x4-Bit Bipolar ROM PCK1-C-6F (6F)
PCHU-21-24	2189	74LS00 Quad 2-Input NAND (5H, 8J, 6U)
PCHU-21-25	2190	74LS02 Quad 2-Input NOR (4U)
PCHU-21-26	2191	74LS04 Hex Inverters (8D, 3G, 8G, 5J, 7R, 7Y, 4Z)
PCHU-21-27	2193	74LS08 Quad 2-Input AND (7X)
PCHU-21-28	2195	74LS11 Triple 3-Input AND (5P)
PCHU-21-29	2196	74LS14 Hex Schmitt Inverters (4V)
PCHU-21-30	2202	74LS32 Quad 2-Input OR (7C, 5T)
PCHU-21-31	2203	74LS42 4 To 10 Decoders (4T)
PCHU-21-32	2204	74LS55 2-Wide 4-Input AND-OR-INVERT Gates (5K)
PCHU-21-33	2205	74LS74A Dual "D" Flip-Flops (P, CL) (7J, 7K, 5M)
TPP2-06-20	2208	74LS86 Quad 2 Input EX-OR (4M)
PCHU-21-34	2210	74LS109A Dual J-K Flip-Flops (PLE, CL) (4Y)
PCHU-21-35	2216	74LS139 Dual 2 To 4 Decoders (7H, 2L, 6T)
PCHU-21-36	2220	74LS157 Quad 2 To 1 Data Selectors (7S, 7T, 7U, 7V)
PCHU-21-37	2223	74LS161A 4-Bit Binary Counters (6H, 6J, 6K, 6L, 6M, 4R)
PCHU-21-38	2225	74LS164 8-Bit Shift Registers (8H, 5Q)
PCHU-21-39	2226	74LS165A 8-Bit Shift Registers (8B, 8C, 7F)
PCHU-21-40	2228	74LS175 Quad "D" Flip-Flops (CL) (4S)
PCHU-21-41	2229	74LS194A 4-Bit Shift Registers (6Q, 6R)
PCHU-21-42	2230	74LS240 Octal Bus Inverters (TS) (5A, 6A, 7B)
PCHU-21-43	2232	74LS244 Octal Buffers & Line Drivers (TS) (6B, 1L, 2M, 3M, 8S, 5V, 6V)
PCHU-21-44	2233	74LS245 Octal Bus Transceivers (TS) (1K, 6Z)
PCHU-21-45	2235	74LS259 8-Bit Addressable Latches (7D, 7E)
PCHU-21-46	2239	74LS299 8-Bit Shift/Storage Registers (7L, 7N, 7Q)
PCHU-21-47	2242	74LS367A Hex Bus Drivers (4L)
PCHU-21-48	2243	74LS368A Hex Bus Drivers (8E, 8F, 5S)
PCHU-21-50	2247	74LS377 Octal "D" Flip-Flops (6P)
PCHU-21-51	2267	74S04 Hex Inverters (2G, 6N)
PCHU-21-52	2259	7437 Quad-2-Input NAND Buffers (4X)
PCHU-21-53	2278	75471 Dual Peripheral AND Drivers (6C)
PCHU-21-54	4812	74HC10 Triple 3-Input NAND C-MOS (8Y)
PCHU-21-55	8004	TC74HC373 Octal 3-State D-Latches C-MOS (3K)
PCKU-21-55	1143	PST518A Low Voltage Detector (7Z)
PCHU-21-56	1445	LM324 Quad Operational Amplifiers (3E)
PCHU-21-57	1443	LM3900 Quad Operational Amplifiers (1E)

## Main PC Board - continued

PART NO.	ORDER NO.	DESCRIPTION (Reference Designations and Locations)
PCKU-21-57	7943	TC 4053BP Triple 2-Channel Multiplexer C-MOS (5C)
PCHU-21-58	735	CD 406 6B Quad Analog Switches C-MOS (3C)
PCHU-21-59	2178	2SA933 Silicon PNP Transistor (Q11, Q12, Q14, Q15, Q17, Q18)
PCHU-21-60	2179	2SA1015 Silicon PNP Transistor (Q3, Q5, Q7, Q20)
PCHU-21-61	2184	2SC1740 Silicon NPN Transistor (Q8~Q10, Q13, Q16, Q19, Q20~Q26)
PCHU-21-62	2185	2SC1815 Silicon NPN Transistor (Q1, Q2, Q4, Q6)
PCHU-21-63	1003	ES1F Diode (D1)
PCHU-21-64	1012	1S5277B Diode (D3, D4)
PCHU-21-65	4813	EG01Y Diode (D2)
PCHU-21-66	1002	DAN401 Quad Cathode-Common Diode Array (DA1~DA8)
PCHU-21-67	4817	1.0f 5.5V Electric Double Layer Capacitor (EEC F5R 5U105) (C3)
PCHU-21-68	680	68pf 50V Ceramic-Disc Capacitor (C44)
PCHU-21-69	663	100pf 50V Ceramic-Disc Capacitor (C35, C36, C45, C71)
PCHU-21-70	669	180pf 50V Ceramic-Disc Capacitor (C11, C39)
PCHU-21-71	675	330pf 50V Ceramic-Disc Capacitor (C2, C6, C40, C41)
PCKU-21-71	7945	470pf 50V Ceramic-Disc Capacitor (C12)
PCHU-21-72	664	1000pf 50V Ceramic-Disc Capacitor (C5)
PCHU-21-73	665	0.01uf 50V Ceramic-Disc Capacitor (C4, C22, C38, C43, C80~C83, C86~C89, C91, C92, C94~C101, C103~C108, C110~C120, C122~C126, C128, C130~C144, C146, C148~C156, C158~C163, C165~C187)
PCHU-21-74	4815	0.047uf 50V Ceramic-Disc Capacitor (C15~C17)
PCHU-21-75	655	0.2uf 12V Ceramic-Disc Capacitor (C21)
PCHU-21-76	716	0.047uf 50V Film Capacitor (C33, C34)
PCHU-21-77	685	1uf 16V Al Electrolytic Radial Cap. (C7, C8)
PCHU-21-78	689	3.3uf 16V Al Electrolytic Radial Cap. (C13, C14, C25, C28, C31, C32)
PCHU-21-79	683	10uf 16V Al Electrolytic Radial Cap. (C23, C24, C26, C27, C29, C30, C37, C42)
PCHU-21-80	688	33uf 16V Al Electrolytic Axial Cap. (C9)
PCHU-21-81	4818	47uf 16V Al Electrolytic Radial Cap. (C47~C50)
PCHU-21-82	684	100uf 16V Al Electrolytic Axial Cap. (C46)
PCHU-21-83	4819	100uf 25V Al Electrolytic Axial Cap. (C70)
PCHU-21-84	687	220uf 16V Al Electrolytic Axial Cap. (C1)
PCHU-21-85	691	470uf 16V Al Electrolytic Axial Cap. (C20)
PCHU-21-86	4820	3.3uf 16V Tantalum Electrolytic Cap. (C85, C90, C93, C102, C109, C121, C127, C145, C157)
PCHU-21-87	2075	0 Ohm Shunt Lead (R99)
PCHU-21-88	2076	10 Ohm 1/4W $\pm$ 5% Resistor (R7)
PCHU-21-89	2120	33 Ohm 1/4W $\pm$ 5% Resistor (R32, R37)
PCHU-21-90	2137	51 Ohm 1/4W $\pm$ 5% Resistor (R8, R19, R23, R27, R31)
PCHU-21-91	2077	100 Ohm 1/4W $\pm$ 5% Resistor (R17, R68, R69, R73)
PCHU-21-92	2082	110 Ohm 1/4W $\pm$ 5% Resistor (R3)
PCHU-21-93	2121	330 Ohm 1/4W $\pm$ 5% Resistor (R13, R14, R18, R21, R25, R29, R36, R90, R91, R97, R98, R110, R111, R112)
PCHU-21-94	2138	510 Ohm 1/4W $\pm$ 5% Resistor (R46, R56, R66)
PCHU-21-95	2155	820 Ohm 1/4W $\pm$ 5% Resistor (R1, R2)
PCHU-21-96	2078	1K Ohm 1/4W $\pm$ 5% Resistor (R94~R96, R120~R131)
PCHU-21-97	2099	2K Ohm 1/4W $\pm$ 5% Resistor (R15, R87, R109)
PCHU-21-98	2105	2.2K Ohm 1/4W $\pm$ 5% Resistor (R35, R40, R42, R50, R45, R52, R55, R60, R62, R65)
PCHU-21-99	2134	4.7K Ohm 1/4W $\pm$ 5% Resistor (R43, R53, R63)
PCHU-21-100	2139	5.1K Ohm 1/4W $\pm$ 5% Resistor (R4, R5, R22, R26, R30, R88, R89)
PCHU-21-101	2152	7.5K Ohm 1/4W $\pm$ 5% Resistor (R16)

## Main PC Board - continued

PART NO.	ORDER NO.	DESCRIPTION (Reference Designations and Locations)
PCHU-21-102	2079	10K Ohm 1/4W $\pm$ 5% Resistor (R12, R34, R38, R41, R44, R51, R54, R61, R64, R74, R82, R83, R92, R93, R100~R102, R104, R106, R108)
PCHU-21-103	2086	12K Ohm 1/4W $\pm$ 5% Resistor (R71)
PCHU-21-104	2100	20K Ohm 1/4W $\pm$ 5% Resistor (R6, R39, R70, R72, R103, R, 105, R107)
PCHU-21-105	2080	100K Ohm 1/4W $\pm$ 5% Resistor (R33, R75)
PCHU-21-106	2101	200K Ohm 1/4W $\pm$ 5% Resistor (R9~R11)
PCHU-21-107	2126	360K Ohm 1/4W $\pm$ 5% Resistor (R79)
PCHU-21-108	2154	750K Ohm 1/4W $\pm$ 5% Resistor (R78, R80, R84)
PCHU-21-109	2081	1M Ohm 1/4W $\pm$ 5% Resistor (R76, R85)
PCHU-21-110	2097	1.8M Ohm 1/4W $\pm$ 5% Resistor (R81)
PCHU-21-111	2107	2.2M Ohm 1/4W $\pm$ 5% Resistor (R77, R86)
PCHU-21-112	2068	Hex 5.1K Ohm Series Resistor Array (RM1, RM16)
PCHU-21-113	2065	Octal 1K Ohm Series Resistor Array (RM5, RM8~RM10, RM13)
PCHU-21-114	2071	Quad 68 Ohm Parallel Resistor Array (RM6, RM7, RM11, RM12, RM14, RM15)
PCHU-21-115	4821	NT-01 Resistor Array (RM2~RM4)
PCHU-21-116	2290	500 Ohm Variable Resistor, Red Cap (VR1)
PCHU-21-117	2289	500 Ohm Variable Resistor, Green Cap (VR2)
PCHU-21-118	2279	500 Ohm Variable Resistor, Blue Cap (VR3)
PCHU-21-119	2411	8MHZ Crystal (X1)
PCHU-21-121	2414	21.47727 MHz Crystal (X2, X3)
PCHU-21-123	2174	8-Station, Single-Throw, DIP Bit Switch (SW1, SW2)
PCHU-21-124	4823	MINI-BIT Header (SW3)
PCHU-21-125	2166	16 Pin DIP IC Socket (S6~S8)
PCHU-21-126	2171	28 Pin DIP IC Socket (S2~S5)
PCHU-21-127	2172	40 Pin DIP IC Socket (S1, S9, S10)
PCHU-21-129	4880	96 Pin DIN Connector Receptacle (CH1~CH10)
PCHU-21-130	4825	GL-3HD1 Visible Light Emitting Diode (LED1)

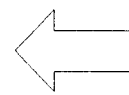
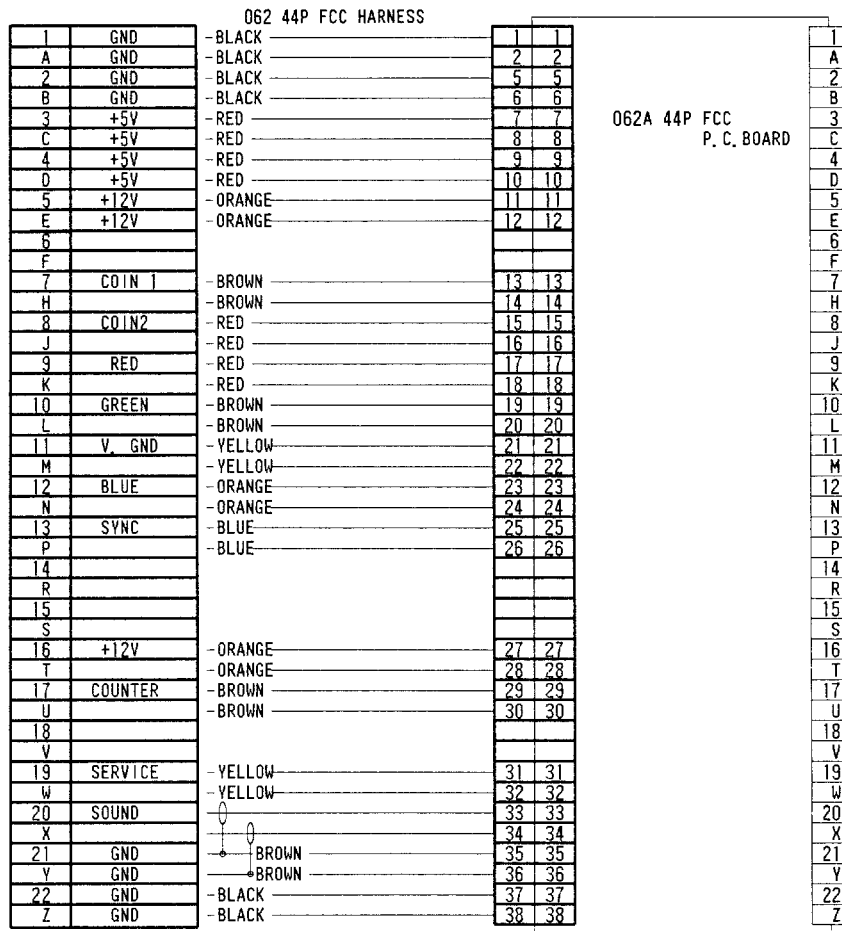
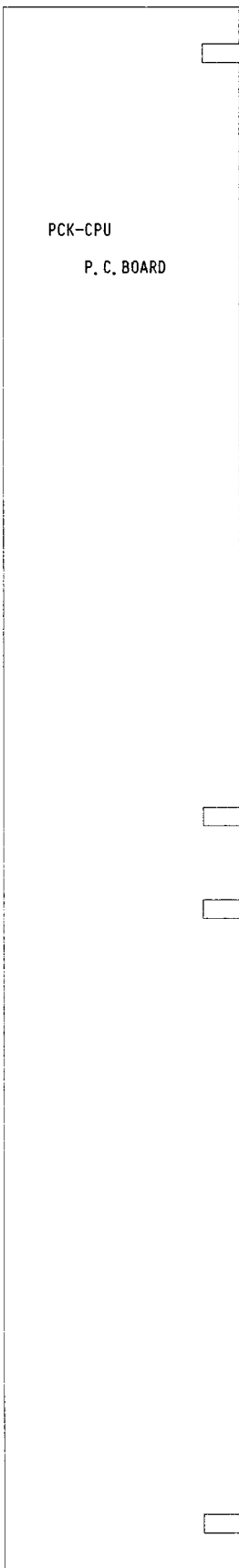


## PCK 1 - LED PCB Assembly

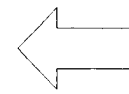
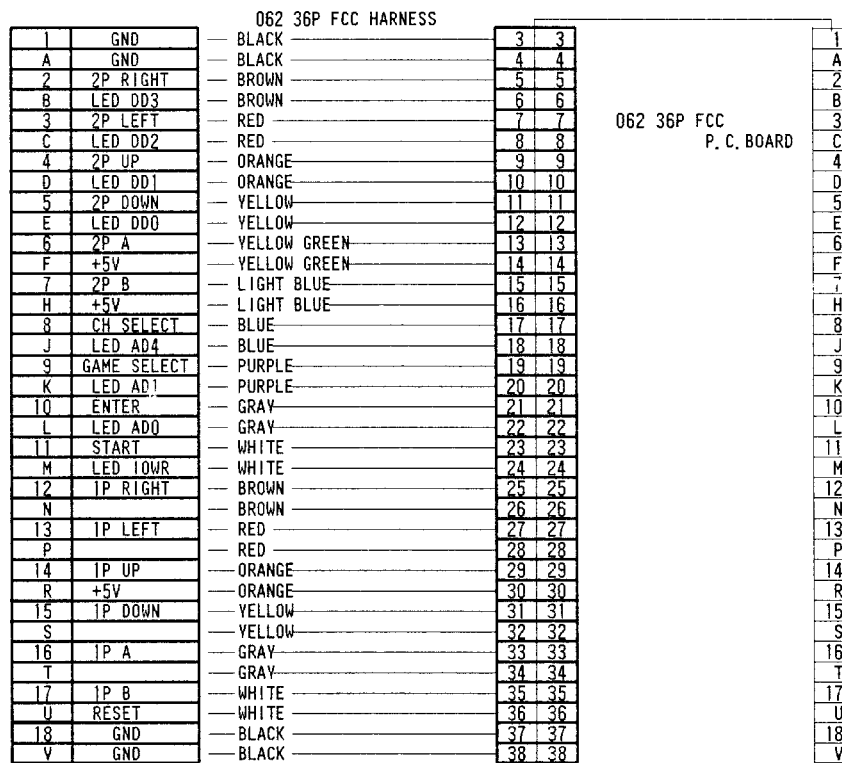
PART NO.	ORDER NO.	DESCRIPTION (Reference Designations )	
PCKU-24-11	7947	74HCT138 3 TO 8 Demultiplexer	(U5)
PCKU-24-12	7948	LR74HC4511/TC74HC4511P BCD to 7 Segment Latch Decoder /Driver	(U1~U4)
TPP2-07-32	7142	1S5277B Diode	(D1~D3)
TPP2-07-33	1002	DAN401 Quad Cathode-Common Diode Array	(DM1)
CHPU-22-56	663	100 pf. 50V Ceramic-Disc Capacitor	(C7~C10)
CHPU-21-62	665	0.01 uF 50V Ceramic-Disc Capacitor	(C2~C6)
TPP2-07-39	688	33uF 16V Al Electrolytic Axial Cap.	(C1)
TPP2-07-63	2065	Octal 1K Ohm Series Resistor Array	(RM1)
PCKU-24-16	7950	EI 12 pin Plug Connector Right Angle	(P1)
PCKU-24-17	7949	GL-8E040 7-Segment Visible Light Emitting Diode	(LED1~LED4)

## K700 Monitor Parts

PART NO.	ORDER NO.	DESCRIPTION
MON-20-01	8558	IC, Regulator STR 3123
MON-20-02	8559	IC, Video UPC 1397 NEC
MON-20-03	8560	IC, Horiz Vert LA7823
MON-20-04	8561	IC, Vert Output UPC 1378
MON-21-01	8562	Diode, D1 Fast SW RU-2
MON-21-02	8563	Diode, S1 1A 600v
MON-21-03	8564	Diode, GFE 10R
MON-22-01	8565	Transistor, NPN CC
MON-22-02	8566	Transistor, 2SD1398
MON-22-03	8567	Transistor, 2SC2068
MON-23-01	8568	Coil, Width — T0DAI
MON-23-02	8569	Coil, Lin — T0DAI
MON-24-01	8570	Transformer, Flyback
MON-24-02	8571	Transformer, Horiz Driver
MON-25-01	8572	Res, Variable 2K ohm
MON-25-02	8573	Res, Variable 10K ohm
MON-25-03	8574	Res, Variable 200 ohm
MON-25-04	8575	Res, Variable 200K ohm
MON-25-05	8576	Res, Variable 100 ohm
MON-25-06	8577	Res, Trim Pot 2K ohm 0.3w
MON-25-07	8578	Res, Trim Pot 200 ohm
MON-26-01	8579	Cap, Electrolytic 1.0 UF 50V
MON-26-02	8580	Cap, Electrolytic 10 UF 25V
MON-26-03	8581	Cap, Electrolytic 22 UF 160v
MON-26-04	8582	Cap, Electrolytic 47 UF 25V
MON-26-05	8583	Cap, Electrolytic 470 UF 516V
MON-26-06	8584	Cap, Electrolytic 1000 UF 16V
MON-26-07	8585	Cap, Electrolytic 1000 UF 25V
MON-26-08	8586	Cap, PolyPro PP6100 2% 1500V
MON-26-09	8587	Cap, PolyPro .39 UF 5% 200V
MON-26-10	8588	Cap, .1 20% 125v AC
MON-26-11	8589	Cap, Disc .0015 10% 500v
MON-26-12	8590	Cap, Disc .0022 10% 500v
MON-27-01	8591	Res, M. Oxide 3.9K 5%
MON-27-02	8592	Res, 2.7 ohm 5% 7w
MON-27-03	8593	Res, Thermister
MON-28-01	8594	Fuse, 1.5 A
MON-29-01	8595	Plug, 2 Pin
MON-29-02	8596	Plug, 4 Pin
MON-30-01	19279	Picture tube, 19" (Wells-Gardner)
MON-30-02	19280	Yoke, Deflection (Wells-Gardner)
MON-30-03	19281	Coil, Degaussing (Wells-Gardner)



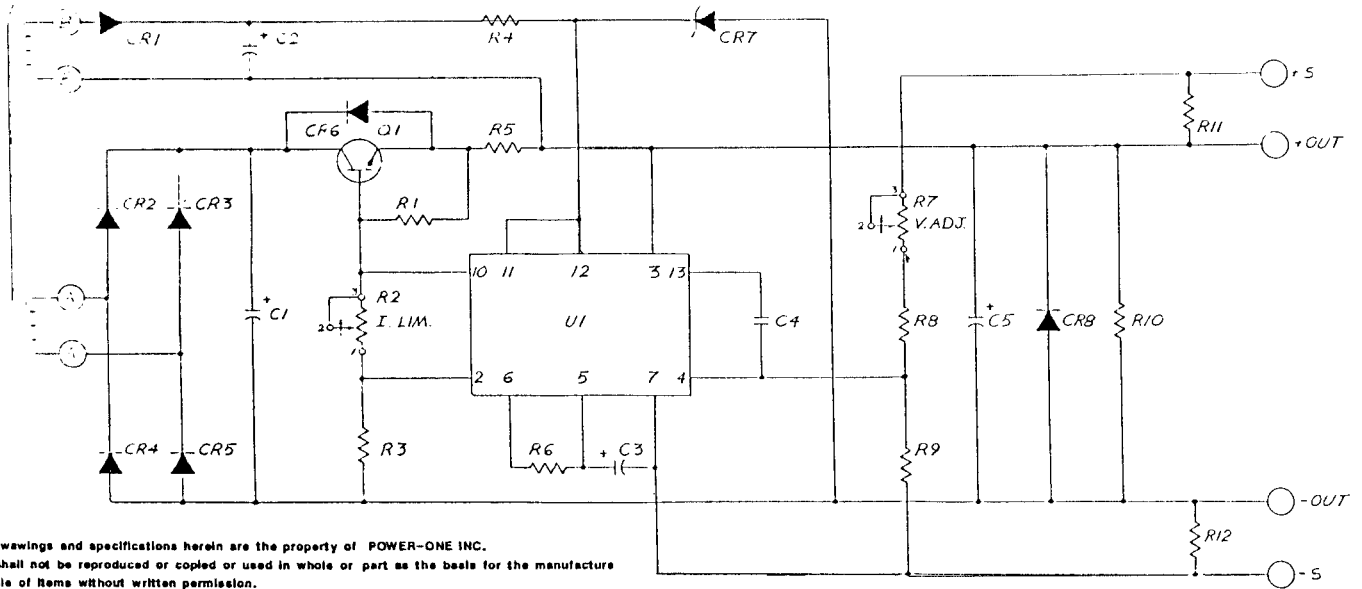
44P Edge Harness Connector



36P Edge Harness Connector

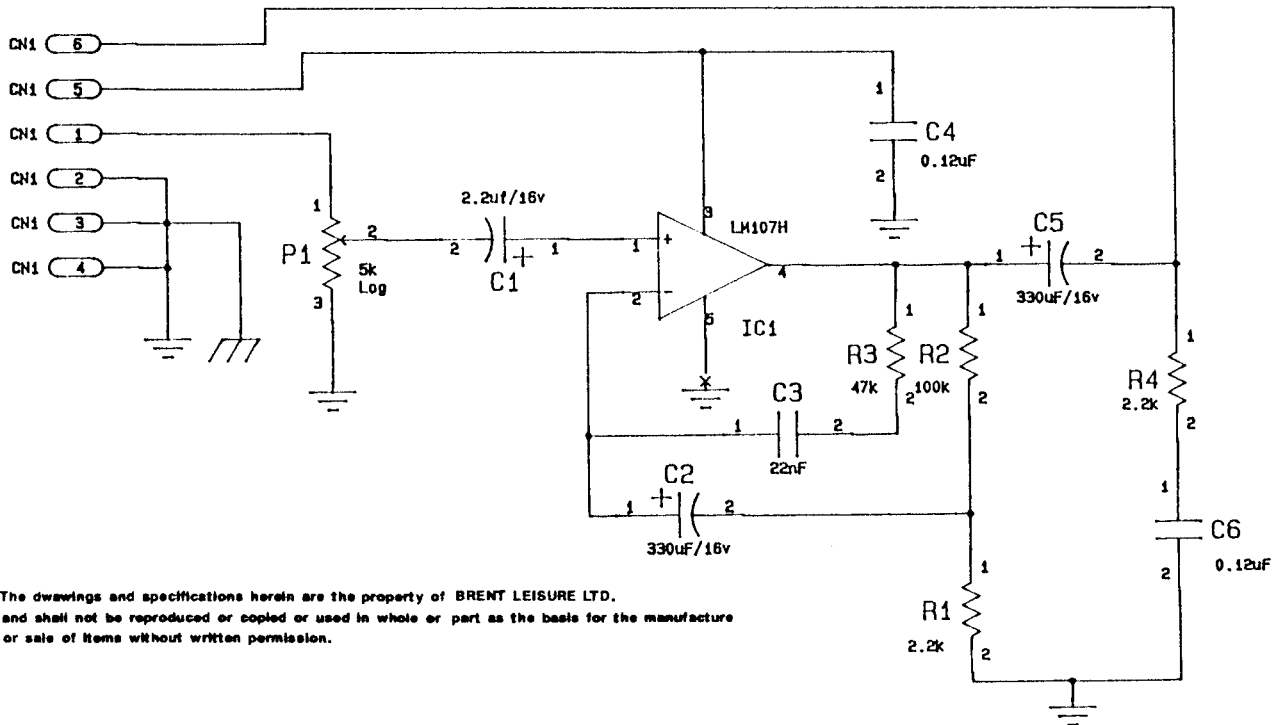
WIRING DIAGRAM	
SCALE:	DRAWN BY: H. KAMADA
DATA:02/07/90	APPROVED BY:
MODEL: PCK-UP FCC HARNESS	
Nintendo of America Inc.	

# Audio Power Supply



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# Audio Amplifier



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# Self-Test and Bookkeeping

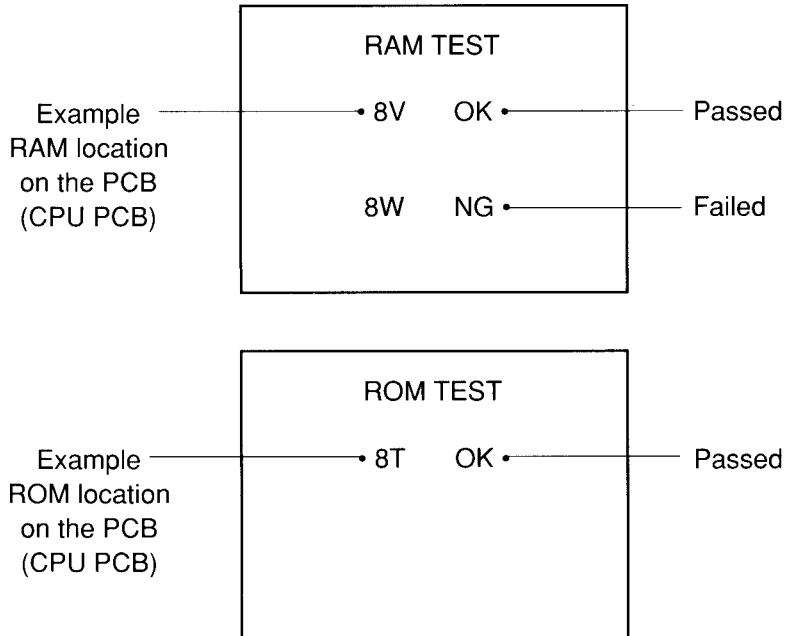
## A. Self Test Mode

There are three ways to enter the self-test mode from which the bookkeeping can be accessed.

1. Press the SERVICE switch and ENTER buttons simultaneously during either GAME or ATTRACT modes.
2. With the main power switch in the "OFF" position press and hold the SERVICE switch. While continuing to depress the SERVICE switch, set the main power switch to the "ON" position.
3. With the main power switch in the "OFF" position set DIP switch H (SW1) to "ON" then set the main power switch to the "ON" position.

The Self-Test will advance automatically until the "Option Switch" chart is displayed. Follow the on Screen instructions to exit the Self-Test mode.

### Self-Test



## B. Bookkeeping Mode

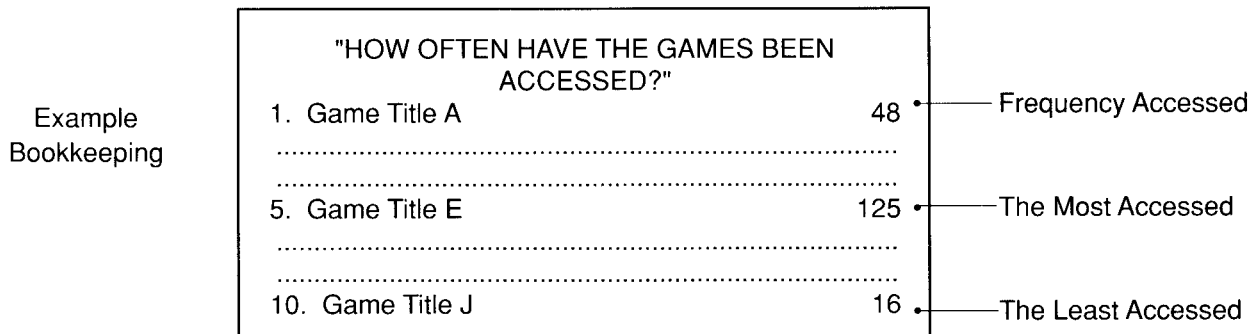
1. Enter Bookkeeping Mode

To enter the Bookkeeping Mode, follow method 1 or 2 of the Self-Test as described above.

2. Reset Bookkeeping

With the Bookkeeping (as diagramed below) on the screen hold the SERVICE switch in and press ENTER.

### Bookkeeping



# PRIME TIME (bonus) for 2 COINS

When using PRIME TIME (bonus) for 2 COINS, both SW1 and SW2 must be adjusted for proper game operation

\*\*\*\*\*

## Prime Time bonus %

SW1	PRIME TIME BONUS %	TOTAL PRIME TIME = XXXX	Toggle Settings					
			A	B	C	D	E	F
Displayed on Video Monitor as follows :  <div style="border: 1px solid black; padding: 5px; width: fit-content;">                         Regular Time                          1 COIN = 300                           PRIME TIME                          2 COINS = <del>600</del><sup>XXXX</sup> </div>	8%	650	O N	O N	O N	OFF	OFF	OFF
	17%	700	OFF	OFF	OFF	O N	OFF	OFF
	25%	750	O N	OFF	OFF	O N	OFF	OFF
	33%	800	OFF	OFF	OFF	OFF	O N	OFF
	42%	850	O N	OFF	OFF	OFF	O N	OFF
	50%	900	OFF	O N	OFF	OFF	O N	OFF
	58%	950	O N	O N	OFF	OFF	O N	OFF
	67%	1000	OFF	OFF	O N	OFF	O N	OFF
	75%	1050	O N	OFF	O N	OFF	O N	OFF
	83%	1100	OFF	O N	O N	OFF	O N	OFF
	92%	1150	O N	O N	O N	OFF	O N	OFF
	100%	1200	OFF	OFF	OFF	O N	O N	OFF

\*

EXAMPLE. Displayed as

Regular Time 1 COIN = 300(3min.)  
 700(7min.)  
 PRIME TIME 2 COINS = 600(6min.)

Toggle A = OFF, B = OFF, C = OFF, D = ON, E = OFF, F = OFF,

I = OFF, J = OFF, K = OFF, L = ON, M = OFF, N = ON, O = OFF, P = ON

## Seconds per Coin

SW2 Play Time/Coin (sec)	Toggle Settings								
	I	J	K	L	M	N	O	P	
4 min. (240)	OFF	OFF	O N	OFF	O N	O N	OFF	O N	
3 min. 50 sec. (230)	OFF	O N	OFF	OFF	O N	O N	OFF	O N	
40 sec. (220)	OFF	OFF	OFF	OFF	O N	O N	OFF	O N	
30 sec. (210)	OFF	O N	O N	O N	OFF	O N	OFF	O N	
20 sec. (200)	OFF	OFF	O N	O N	OFF	O N	OFF	O N	
10 sec. (190)	OFF	O N	OFF	O N	OFF	O N	OFF	O N	
3 min. (180)	OFF	OFF	OFF	O N	OFF	O N	OFF	O N	
2 min. 50 sec. (170)	OFF	O N	O N	OFF	OFF	O N	OFF	O N	
40 sec. (160)	OFF	OFF	O N	OFF	OFF	O N	OFF	O N	
30 sec. (150)	OFF	O N	OFF	OFF	OFF	O N	OFF	O N	
20 sec. (140)	OFF	OFF	OFF	OFF	OFF	O N	OFF	O N	
10 sec. (130)	OFF	O N	O N	O N	O N	OFF	OFF	O N	
2 min. (120)	OFF	OFF	O N	O N	O N	OFF	OFF	O N	

\*

\* Factory Settings

\*\*\*\*\*

# PRIME TIME (bonus) for 4 COINS

When using PRIME TIME (bonus) for 4 COINS, both SW1 and SW2 must be adjusted for proper game operation

\*\*\*\*\*

## Prime Time bonus %

SW1	PRIME TIME	TOTAL PRIME TIME = XXXX	Toggle Settings					
	BONUS %		A	B	C	D	E	F
Displayed on Video Monitor as follows :  <div style="border: 1px solid black; padding: 5px; width: fit-content;">                         Regular Time                          1 COIN = 300                           PRIME TIME                          4 COINS = <del>1200</del><sup>XXXXX</sup> </div>	8%	1300	OFF	OFF	ON	OFF	OFF	OFF
	17%	1400	ON	OFF	ON	OFF	OFF	OFF
	25%	1500	OFF	ON	ON	OFF	OFF	OFF
	33%	1600	ON	ON	ON	OFF	OFF	OFF
	42%	1700	OFF	OFF	OFF	ON	OFF	OFF
	50%	1800	ON	OFF	OFF	ON	OFF	OFF
	58%	1900	OFF	OFF	OFF	OFF	ON	OFF
	67%	2000	ON	OFF	OFF	OFF	ON	OFF
	75%	2100	OFF	ON	OFF	OFF	ON	OFF
	83%	2200	ON	ON	OFF	OFF	ON	OFF
	92%	2300	OFF	OFF	ON	OFF	ON	OFF
	100%	2400	ON	OFF	ON	OFF	ON	OFF

EXAMPLE. Displayed as

Regular Time 1 COIN = 300( 3min)  
 1500(15min.)  
 PRIME TIME 4 COINS = ~~1200(12min.)~~

Toggle A = OFF, B = ON, C = ON, D = OFF, E = OFF, F = OFF,

I = OFF, J = OFF, K = OFF, L = ON, M = OFF, N = ON, O = OFF, P = OFF

## Seconds per Coin

SW2 Play Time/Coin (sec)	Toggle Settings								
	I	J	K	L	M	N	O	P	
4 min. (240)	OFF	OFF	ON	OFF	ON	ON	OFF	OFF	
3 min. 50 sec. (230)	OFF	ON	OFF	OFF	ON	ON	OFF	OFF	
40 sec. (220)	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	
30 sec. (210)	OFF	ON	ON	ON	OFF	ON	OFF	OFF	
20 sec. (200)	OFF	OFF	ON	ON	OFF	ON	OFF	OFF	
10 sec. (190)	OFF	ON	OFF	ON	OFF	ON	OFF	OFF	
3 min. (180)	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	
2 min. 50 sec. (170)	OFF	ON	ON	OFF	OFF	ON	OFF	OFF	
40 sec. (160)	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	
30 sec. (150)	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	
20 sec. (140)	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	
10 sec. (130)	OFF	ON	ON	ON	ON	OFF	OFF	OFF	
2 min. (120)	OFF	OFF	ON	ON	ON	OFF	OFF	OFF	

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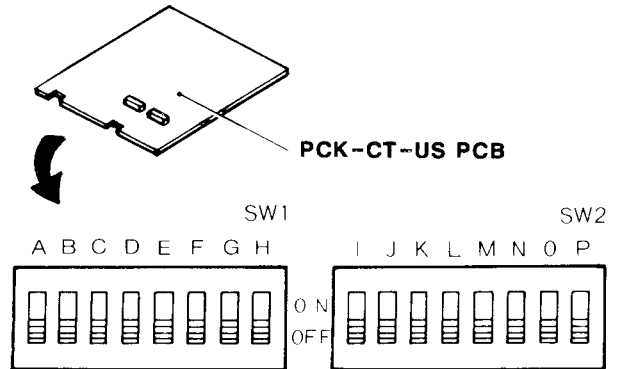
# Game Settings

## WARNING

All the Option Switch Settings MUST be done with Power Off.

		SW1 Toggle Settings		
		G	H	
Attract music	O N	O N		*
	OFF	OFF		
Self-Test/Game				
Game			OFF	*
Self-Test			O N	

\* RECOMMENDED SETTINGS



## STANDARD TIME (no bonus)

\*\*\*\*\*

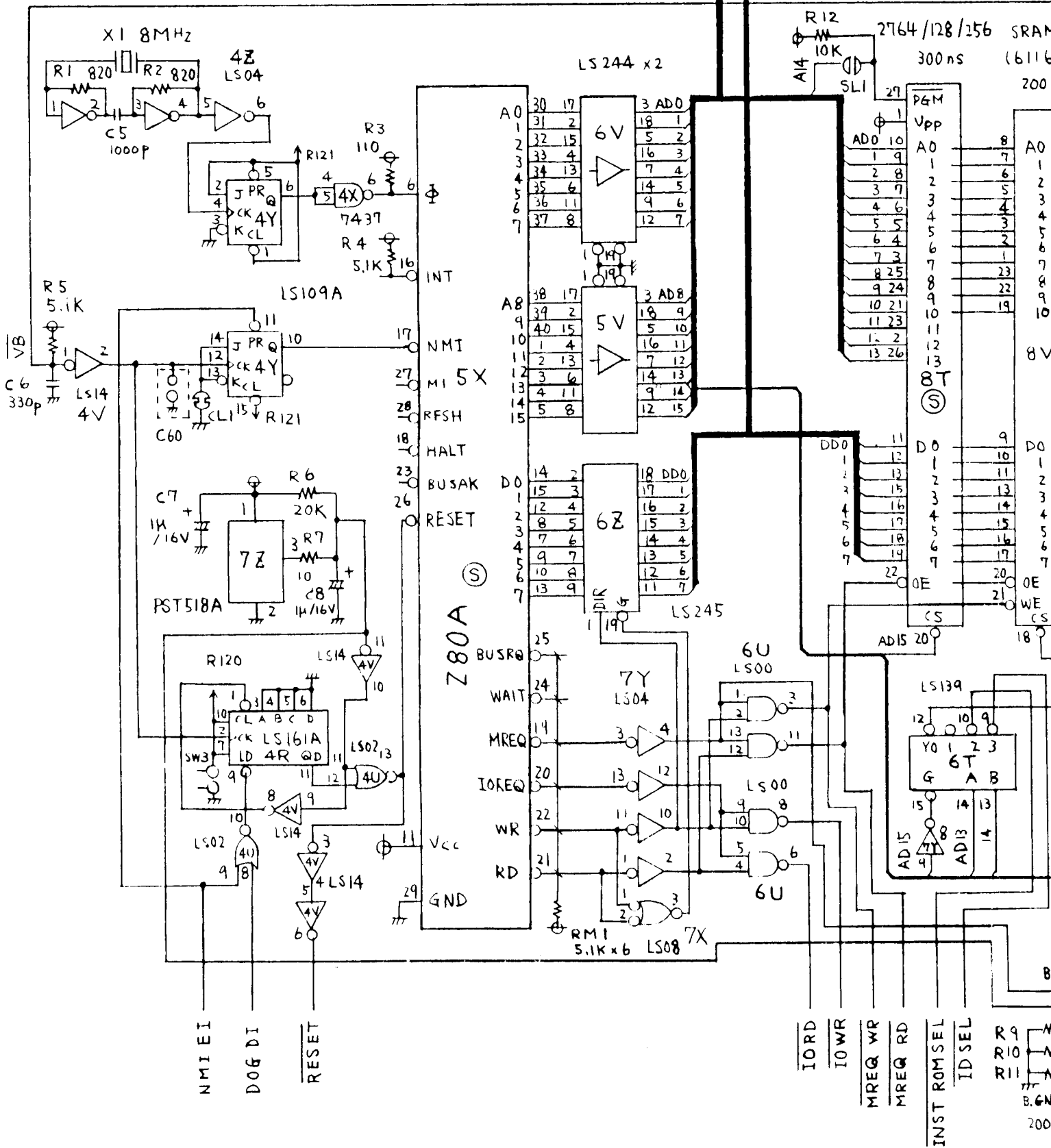
### No Prime Time

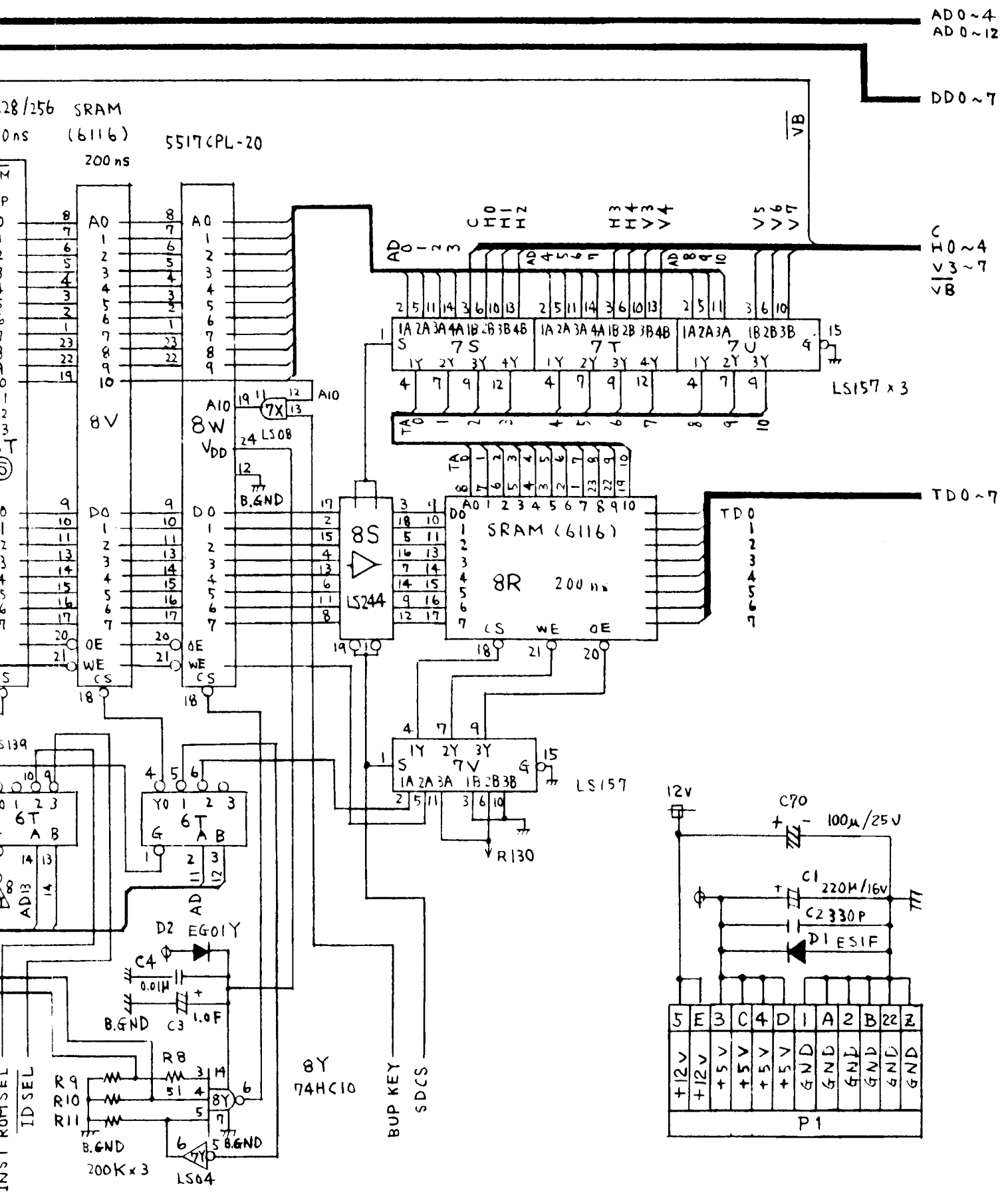
SW1	Toggle Settings					
	A	B	C	D	E	F
Toggle A-Toggle F must be "OFF"	OFF	OFF	OFF	OFF	OFF	OFF

### Seconds per Coin

SW2 Play Time/Coin	Toggle Settings							
	I	J	K	L	M	N	O	P
Free Play	OFF	OFF	OFF	OFF	OFF	OFF	OFF	O N
4 min. 50 sec.	OFF	O N	O N	O N	O N	O N	O N	O N
40 sec.	OFF	OFF	O N	O N	O N	O N	O N	O N
30 sec.	OFF	O N	OFF	O N	O N	O N	O N	O N
20 sec.	OFF	OFF	OFF	O N	O N	O N	O N	O N
10 sec.	OFF	O N	O N	OFF	O N	O N	O N	O N
4 min.	OFF	OFF	O N	OFF	O N	O N	O N	O N
3 min. 50 sec.	OFF	O N	OFF	OFF	O N	O N	O N	O N
40 sec.	OFF	OFF	OFF	OFF	O N	O N	O N	O N
30 sec.	OFF	O N	O N	O N	OFF	O N	O N	O N
20 sec.	OFF	OFF	O N	O N	OFF	O N	O N	O N
10 sec.	OFF	O N	OFF	O N	OFF	O N	O N	O N
3 min.	OFF	OFF	OFF	O N	OFF	O N	O N	O N
2 min. 50 sec.	OFF	O N	O N	OFF	OFF	O N	O N	O N
40 sec.	OFF	OFF	O N	OFF	OFF	O N	O N	O N
30 sec.	OFF	O N	OFF	OFF	OFF	O N	O N	O N
20 sec.	OFF	OFF	OFF	OFF	OFF	O N	O N	O N
10 sec.	OFF	O N	O N	O N	O N	OFF	O N	O N
2 min.	OFF	OFF	O N	O N	O N	OFF	O N	O N

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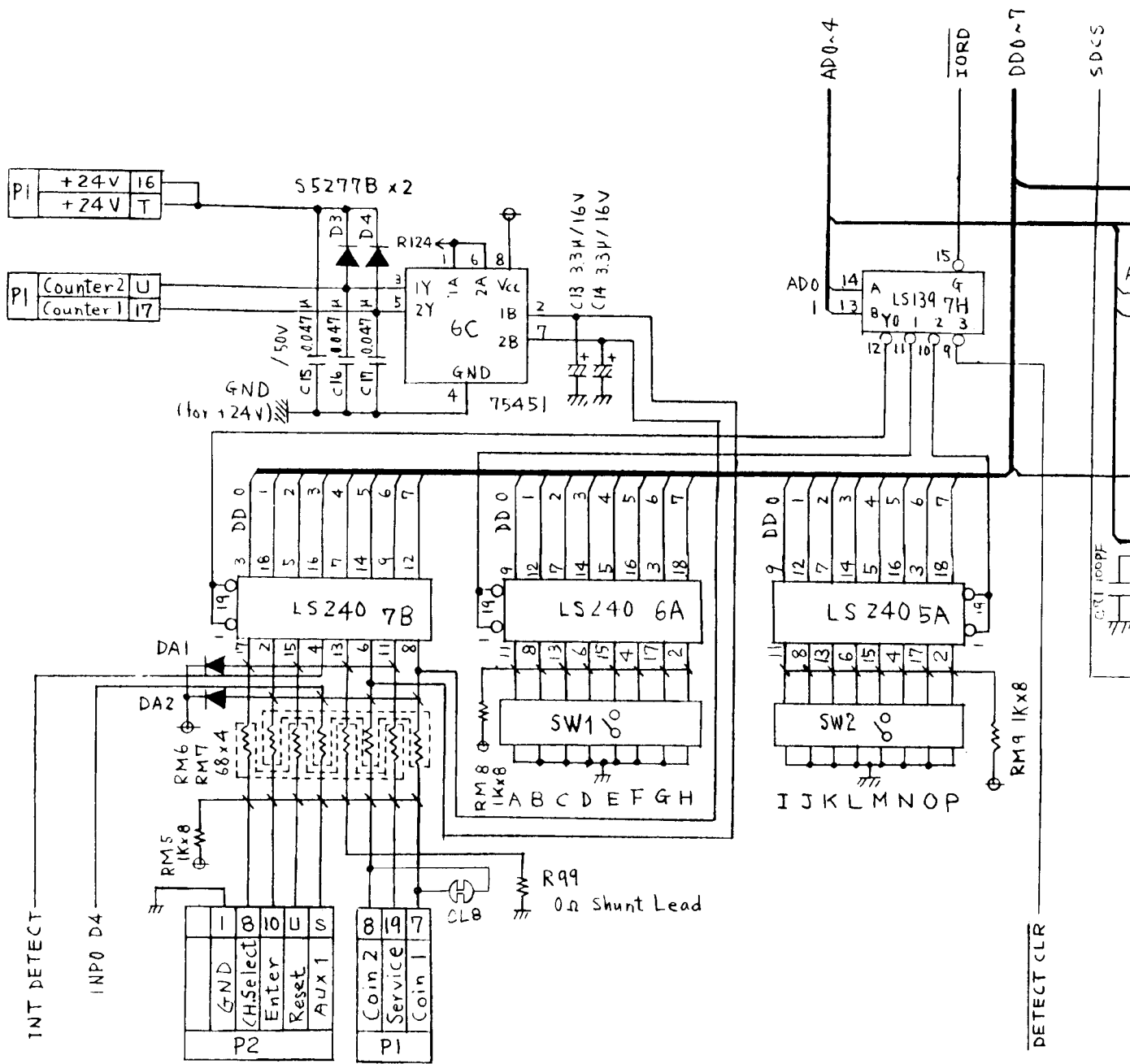


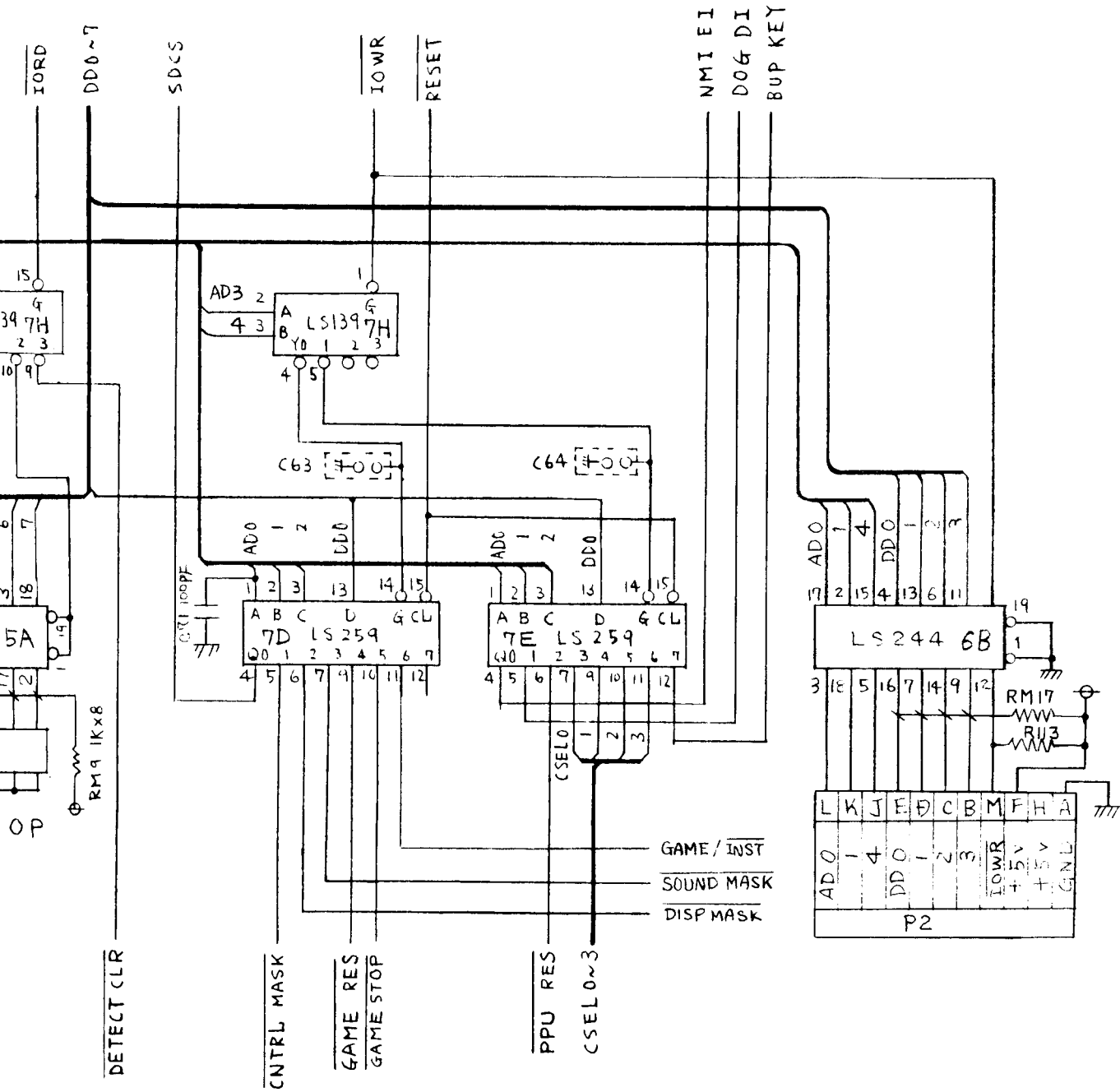


**A** PCK1-CPU SCHEMATIC  
Sheet 1



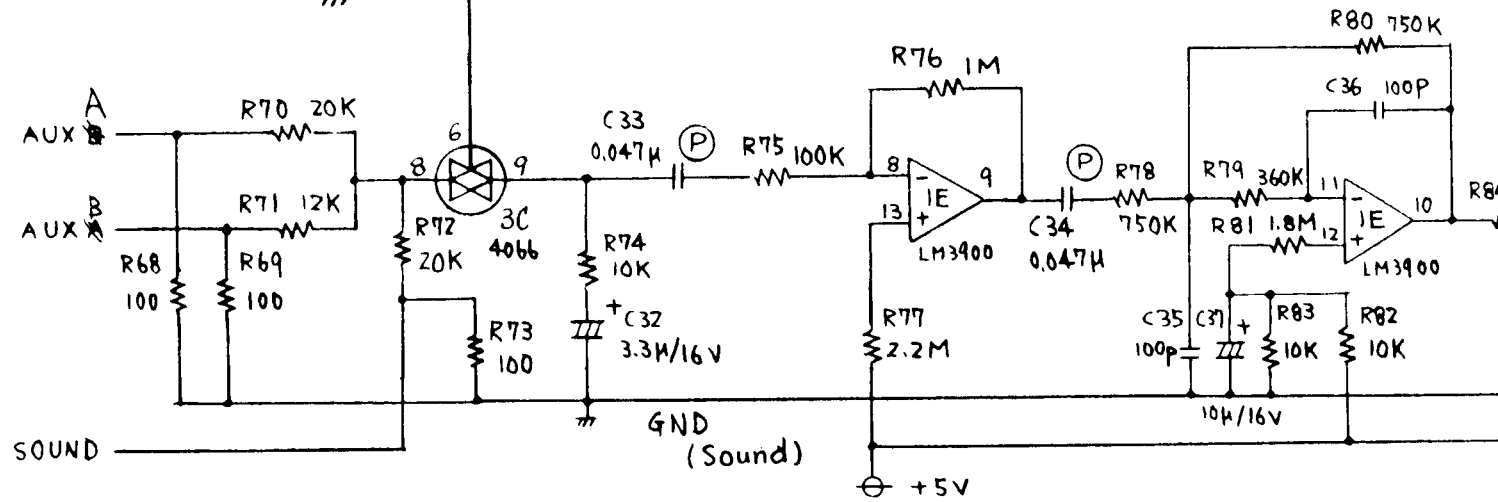
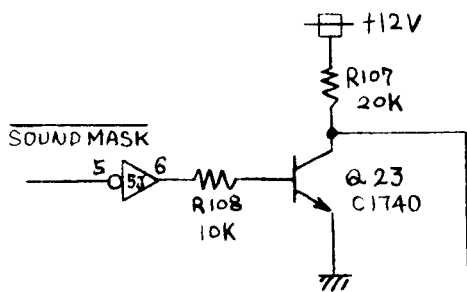
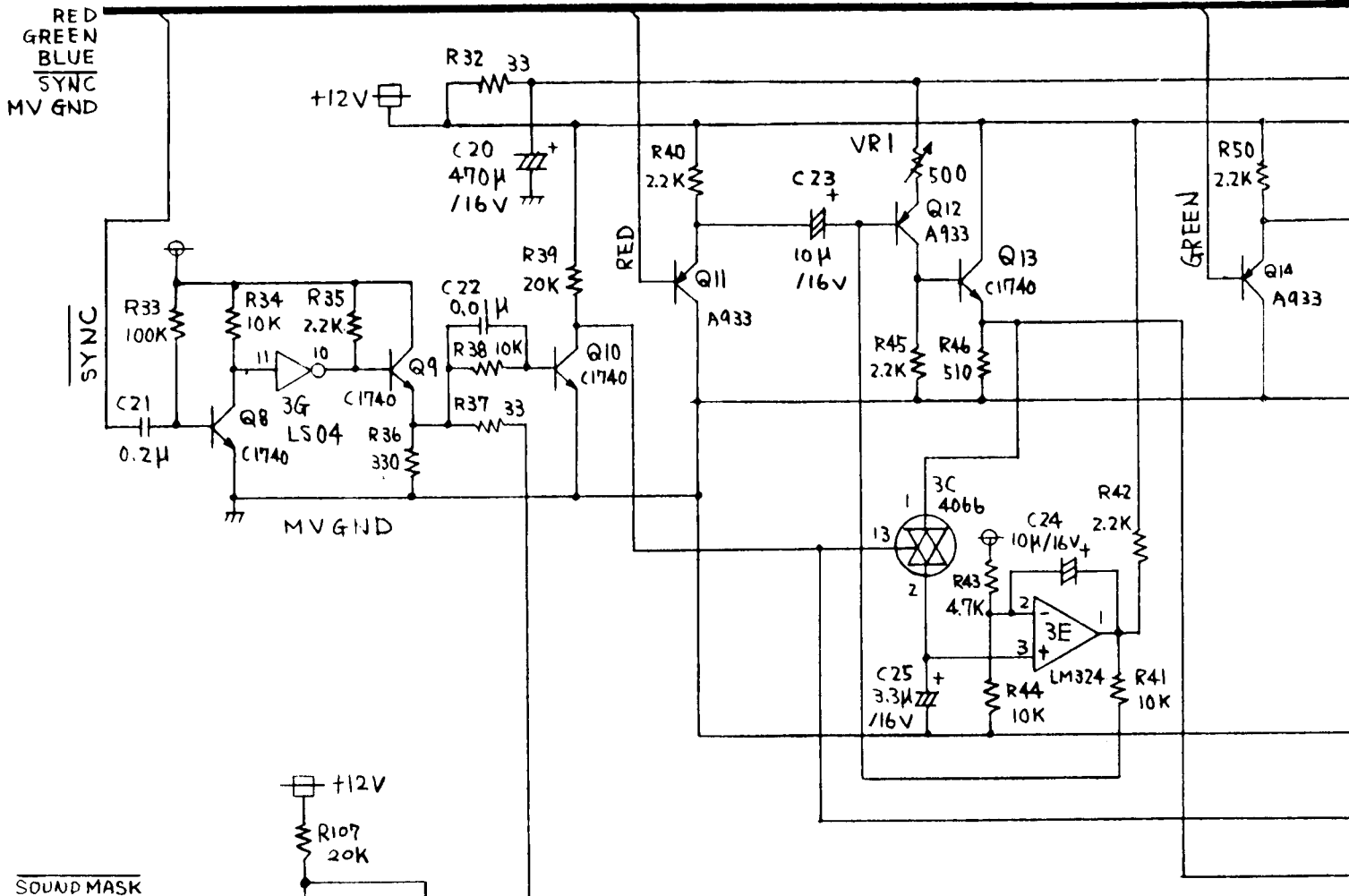




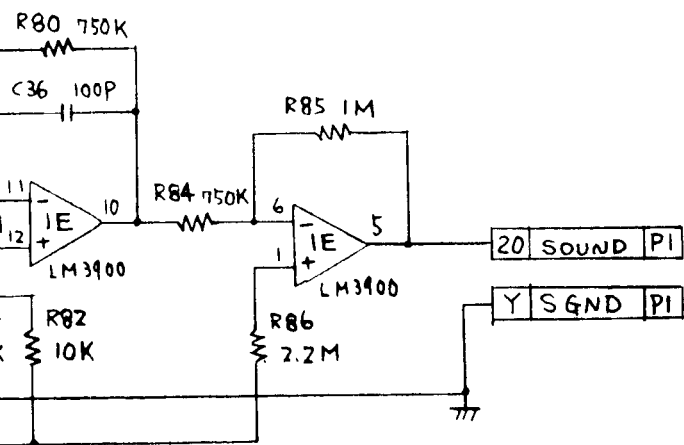
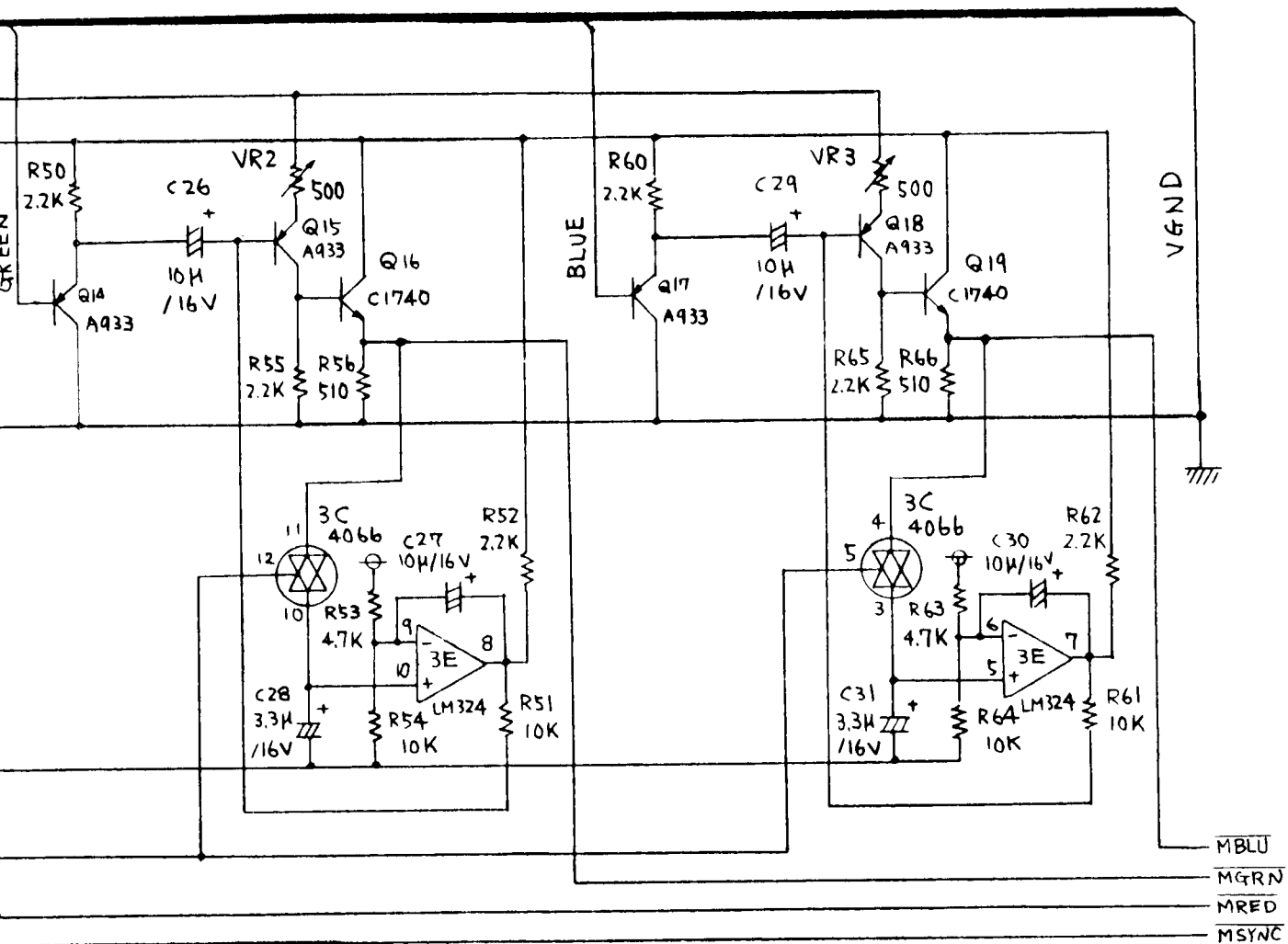


C

PCK1-CPU SCHEMATIC  
Sheet 3

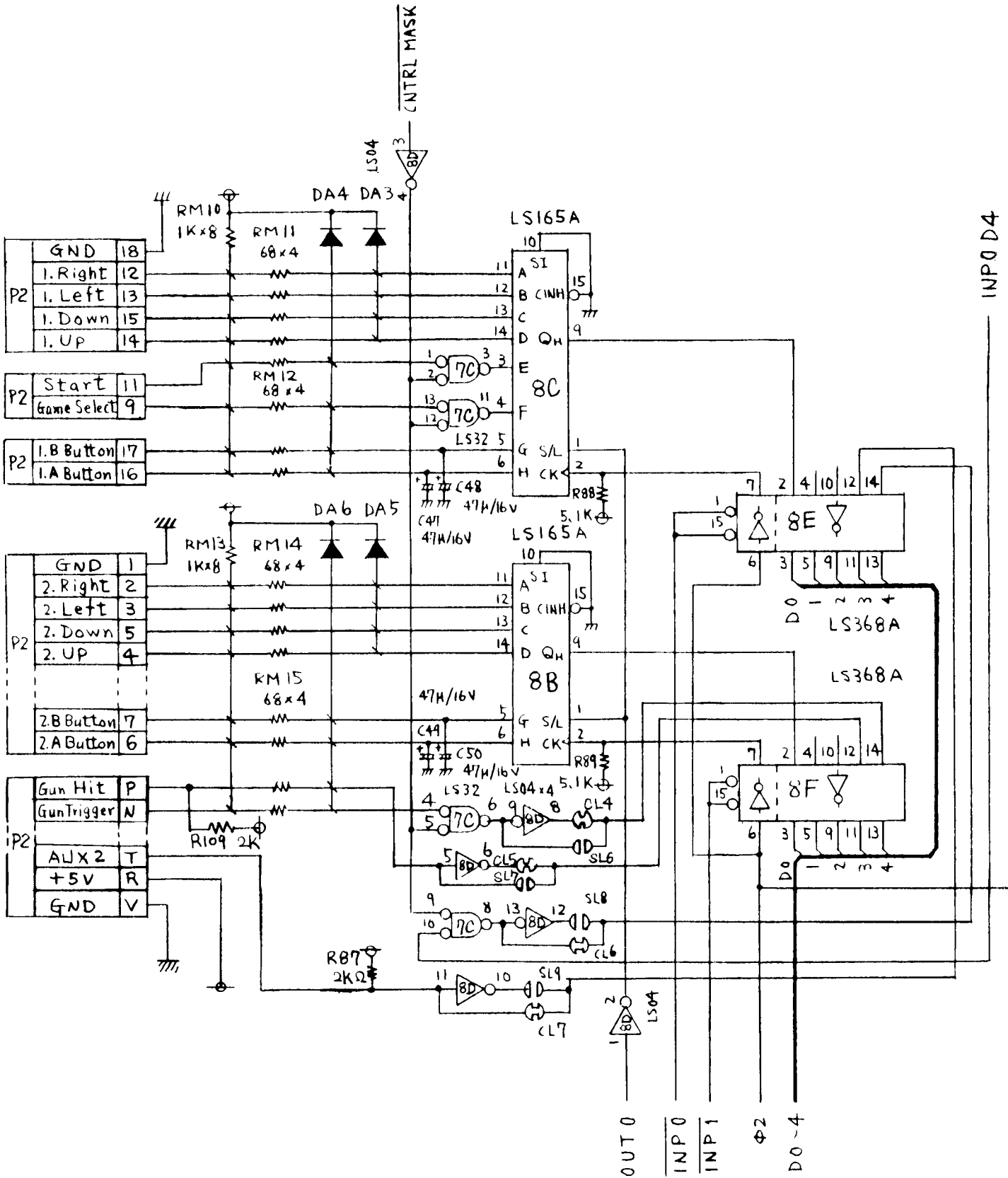




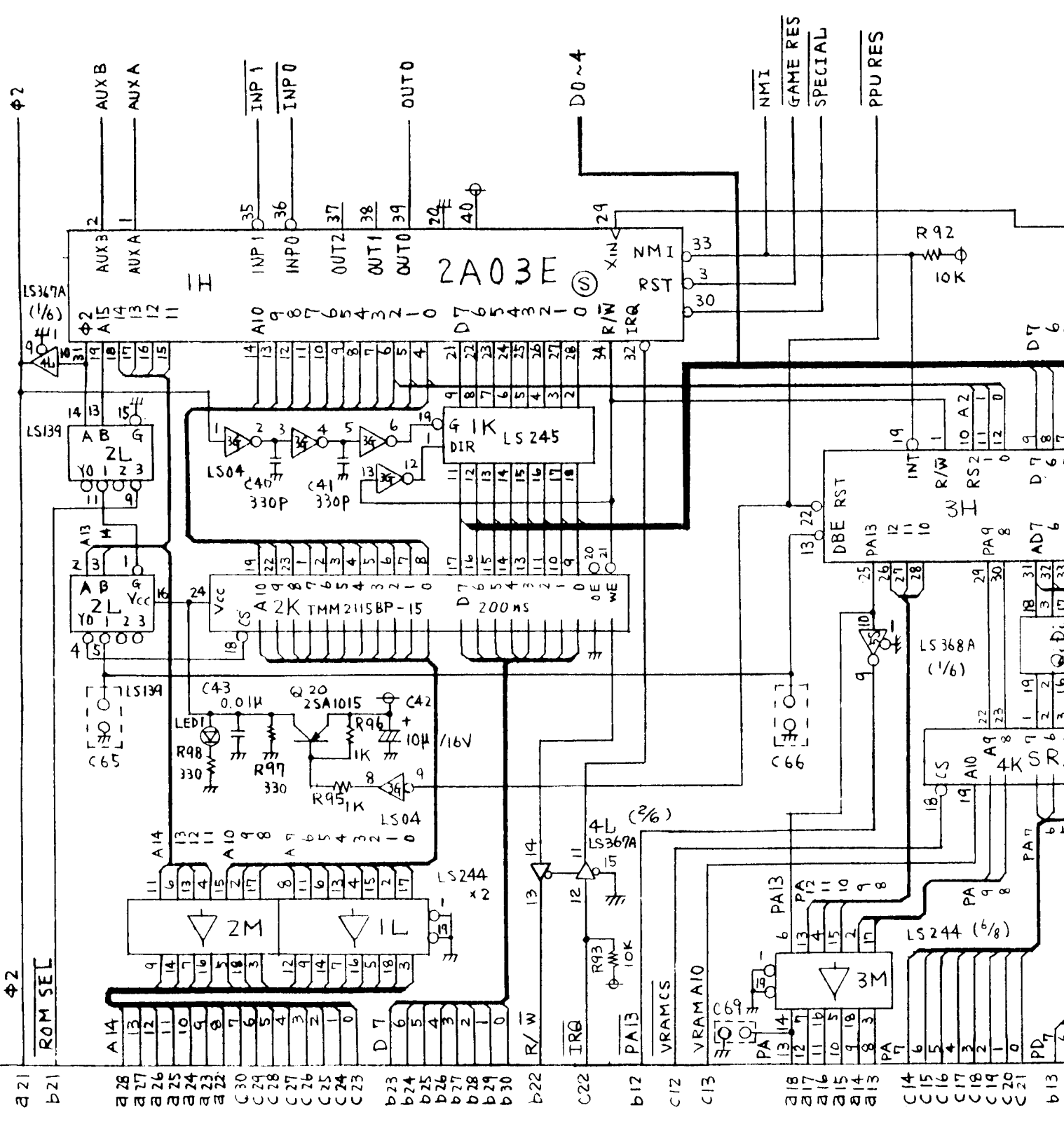


<NOTE>

- 1) LM324 ... 11 pin GND  
4 pin +12V
- 2) ⊗ 4066 ... 7 pin GND  
14 pin +12V
- 3) ⊗ 4066 ... 7 pin GND  
& LM3900 ... 14 pin +5V







Φ2

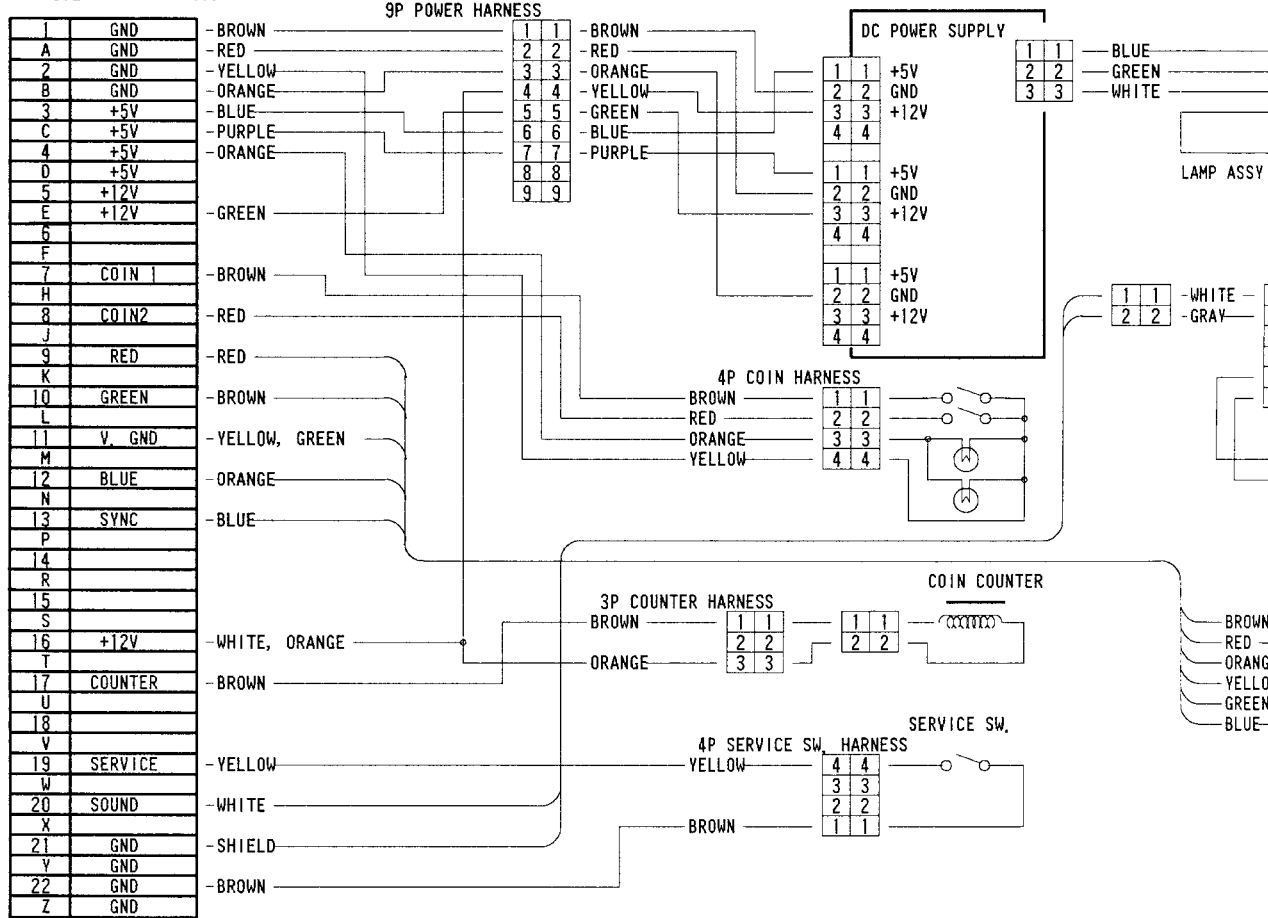
ROM SEL

a21 b21  
 a28 a27 a26 a25 a24 a23 a22  
 c30 c29 c28 c27 c26 c25 c24 c23  
 b23 b24 b25 b26 b27 b28 b29 b30  
 b22  
 c22  
 b12  
 c12  
 c13  
 a18 a17 a16 a15 a14 a13  
 c14 c15 c16 c17 c18 c19 c20 c21  
 b13 b14 b15

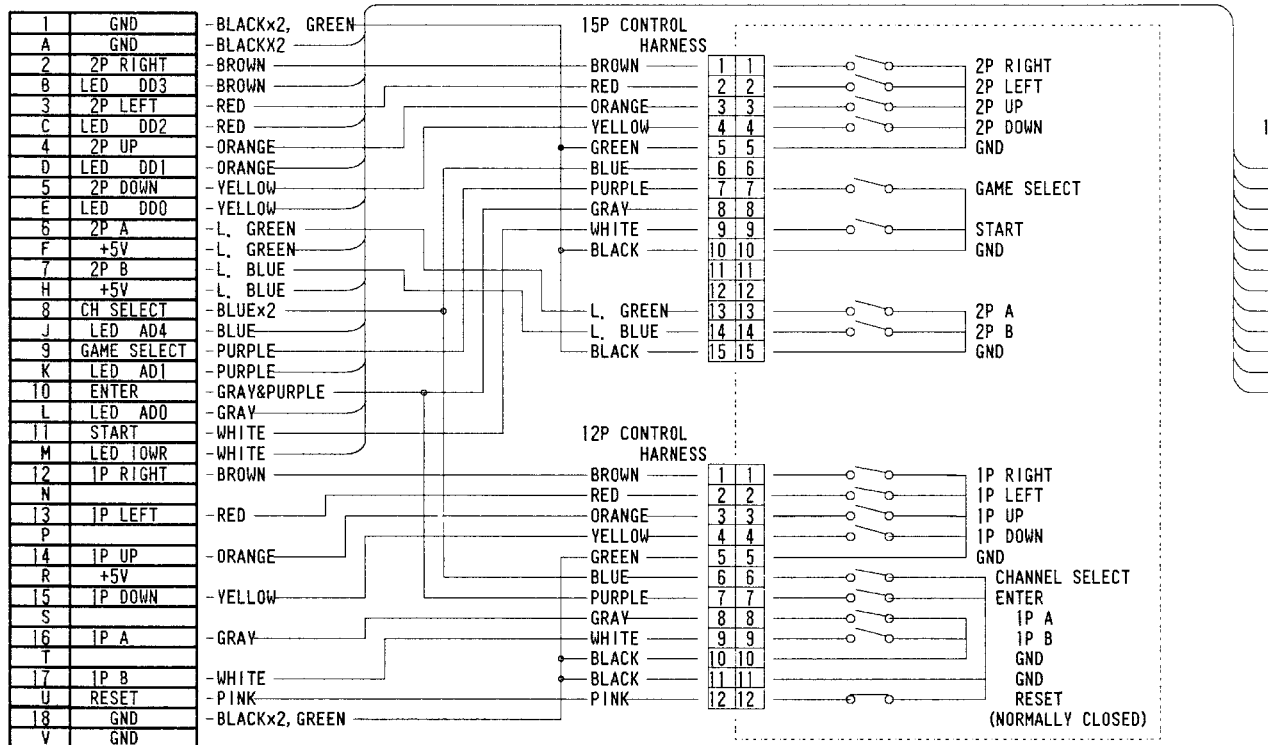
AUX B  
 AUX A  
 INP 1  
 INP 0  
 OUT 1  
 OUT 0  
 D0~4  
 NMI  
 GAME RES  
 SPECIAL  
 PPU RES  
 D7  
 D6  
 D5  
 D4  
 D3  
 D2  
 D1  
 D0  
 DIR  
 DBE RST  
 INT  
 R/W  
 RS2  
 RS1  
 RS0  
 AD7  
 D7  
 D6  
 D5  
 D4  
 D3  
 D2  
 D1  
 D0  
 PA7  
 PA6  
 PA5  
 PA4  
 PA3  
 PA2  
 PA1  
 PA0  
 PA7  
 PA6  
 PA5  
 PA4  
 PA3  
 PA2  
 PA1  
 PA0  
 PD7  
 PD6  
 PD5  
 PD4  
 PD3  
 PD2  
 PD1  
 PD0

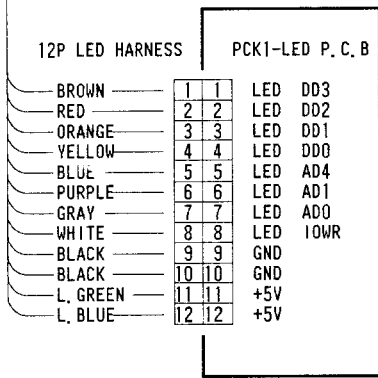
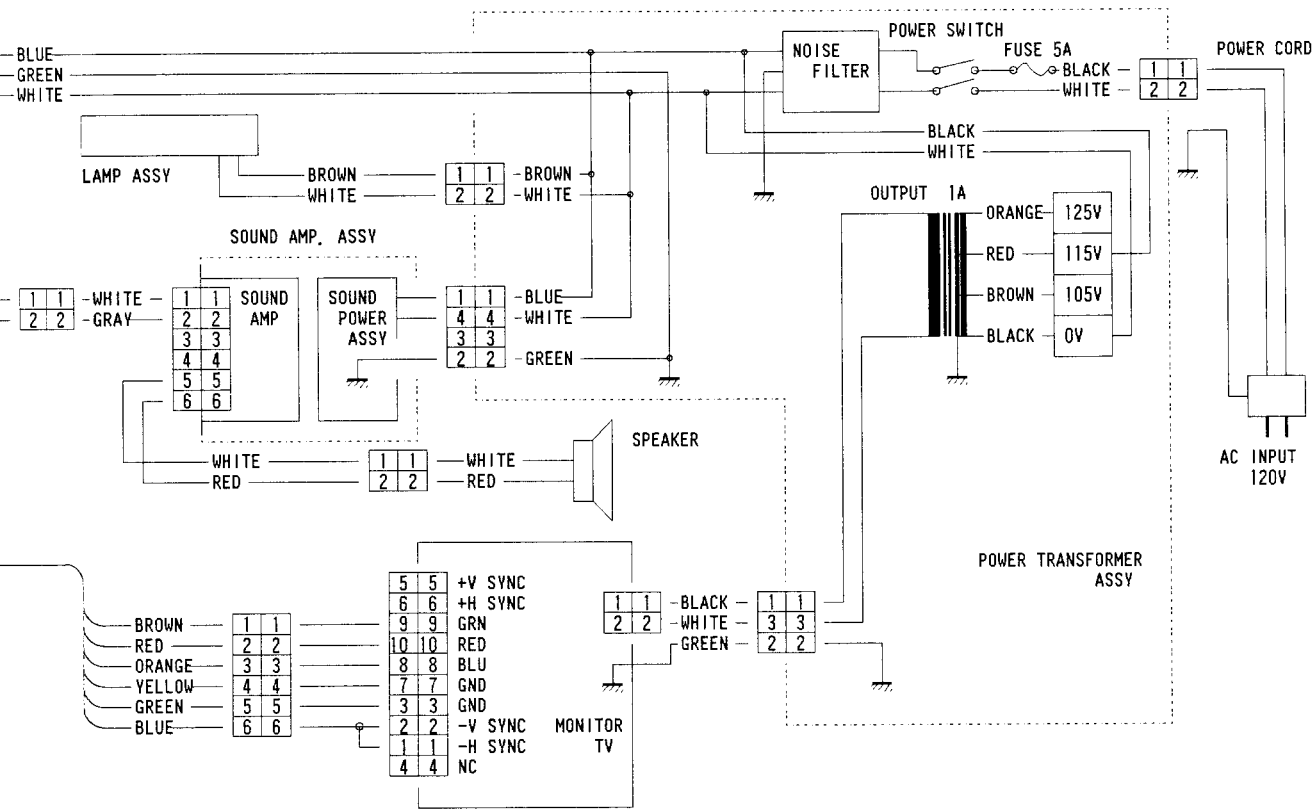


UP44P-072A EDGE HARNESS



UP36P-080 EDGE HARNESS

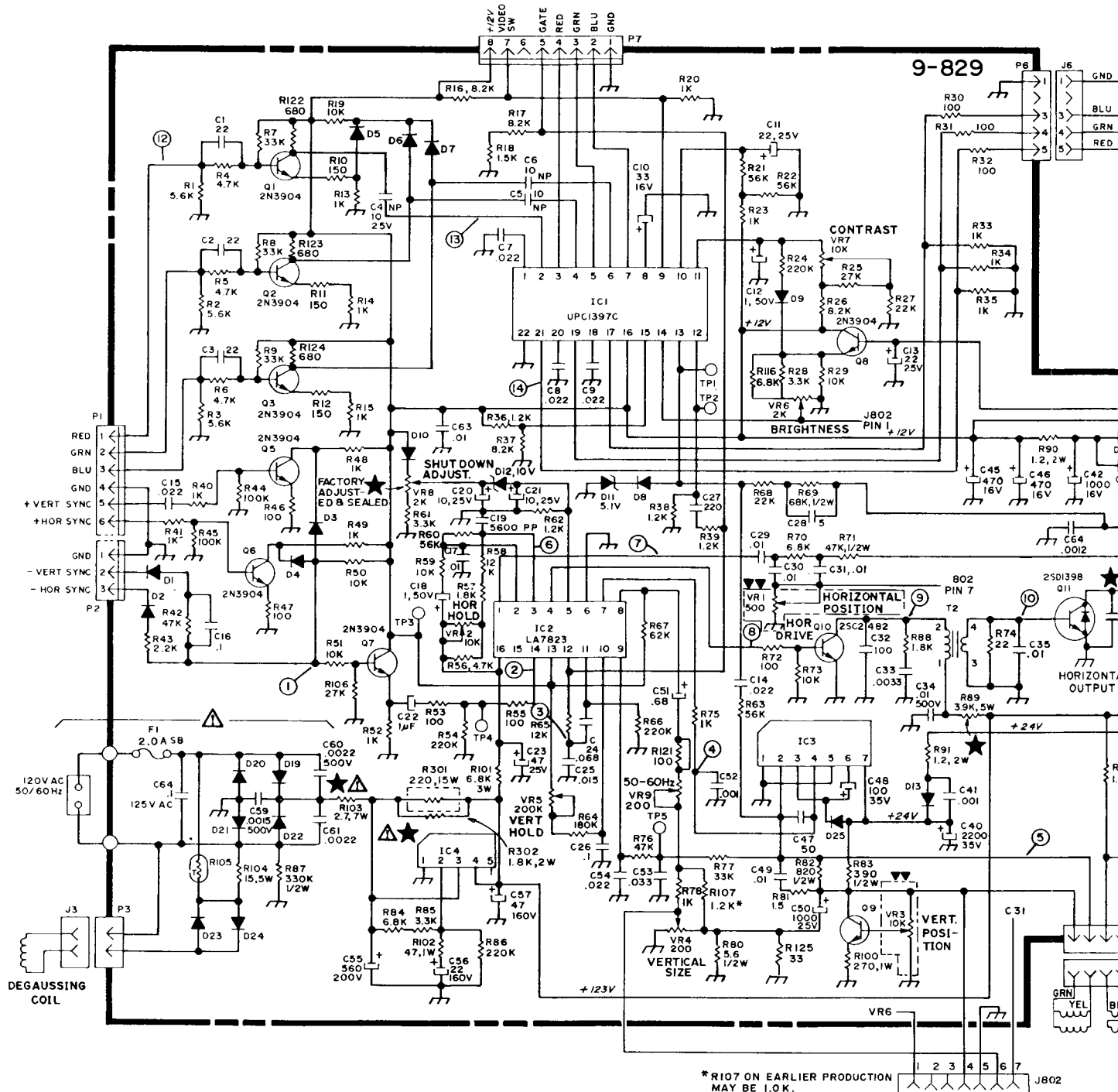




WIRING DIAGRAM	
SCALE:	DRAWN BY: H. KAMADA
DATE: 02/02/90	APPROVED BY:
MODEL: PCK-UP	
Nintendo of America Inc.	

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# COLOR MONITOR SCHEMATIC DIAGRAM



\* R107 ON EARLIER PRODUCTION MAY BE 1.0K.

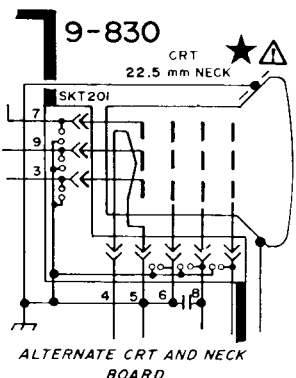
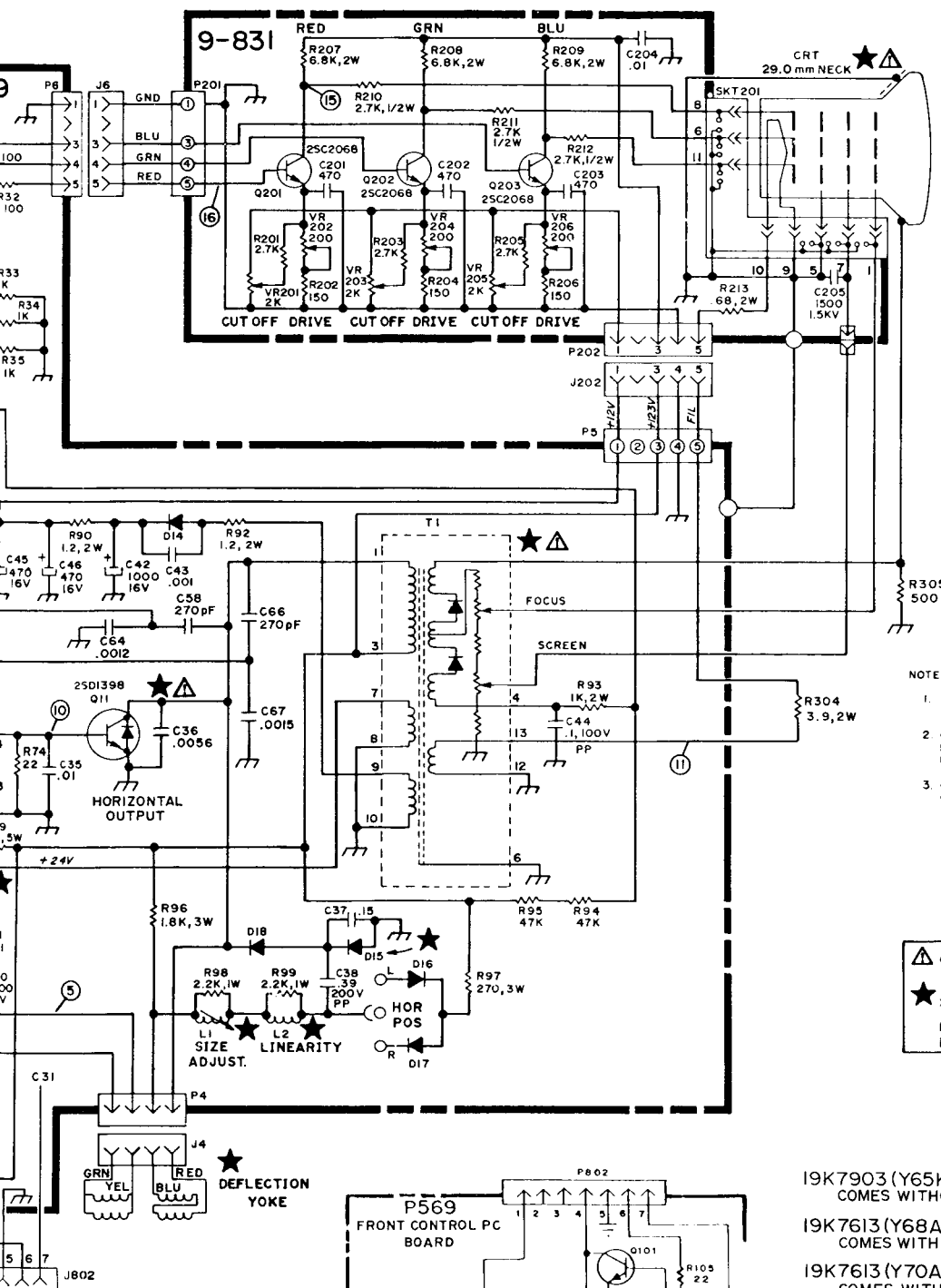
▼ COMPONENTS (VR1 & VR3) ENCLOSED ARE REMOVED WHEN USING P569 CONTROL BD.



SAMPLES OF PART MUST BE SUBMITTED TO WELLS GARDNER ELECTRONICS CORPORATION ENGINEERING DEPARTMENT FOR CHECK AND APPROVAL BEFORE PROCEEDING WITH PRODUCTION ON ORIGINAL ORDERS AND EVERY ISSUE.

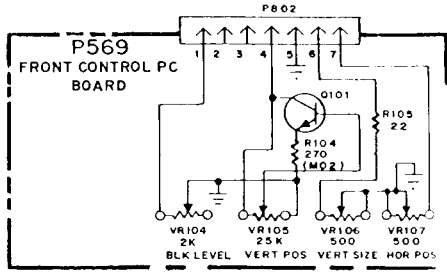
D PART 100X0213-001

TRK	APP'D BY	CHANGES
ORIG		



- NOTES:
1. ALL RESISTORS ARE IN OHMS, 1/4W, 5% UNLESS OTHERWISE INDICATED.
  2. CAPACITANCE VALUES LESS THAN 1 ARE IN MICROFARADS, ABOVE 1 IN PICOFARADS UNLESS OTHERWISE INDICATED.
  3. CIRCLED NUMBERS INDICATE LOCATIONS OF CERTAIN WAVEFORM READINGS.

**CAUTION** SAFETY CRITICAL COMPONENT.  
 X-RAY RADIATION RELATED COMPONENT.  
 REPLACE ONLY WITH SAME TYPE PARTS AS SHOWN IN PARTS LIST.



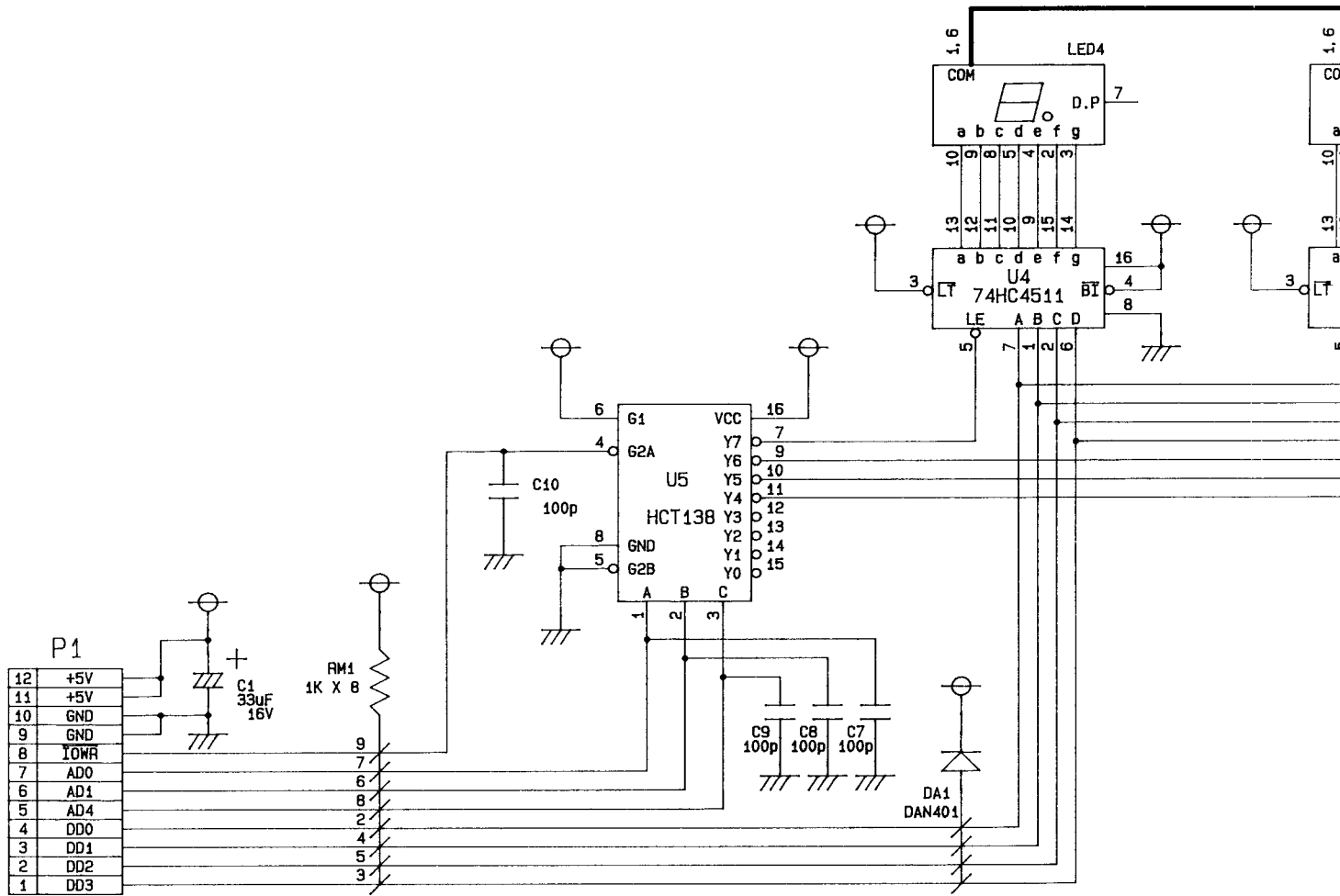
- 19K7903 (Y65K7903) COMES WITHOUT CONTROL BD.
- 19K7613 (Y68A7613) COMES WITH P569 & 9-830 NECK BD.
- 19K7613 (Y70A7613) COMES WITH P569 & 9-831 NECK BD.

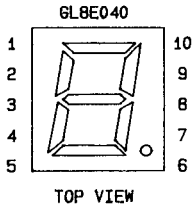
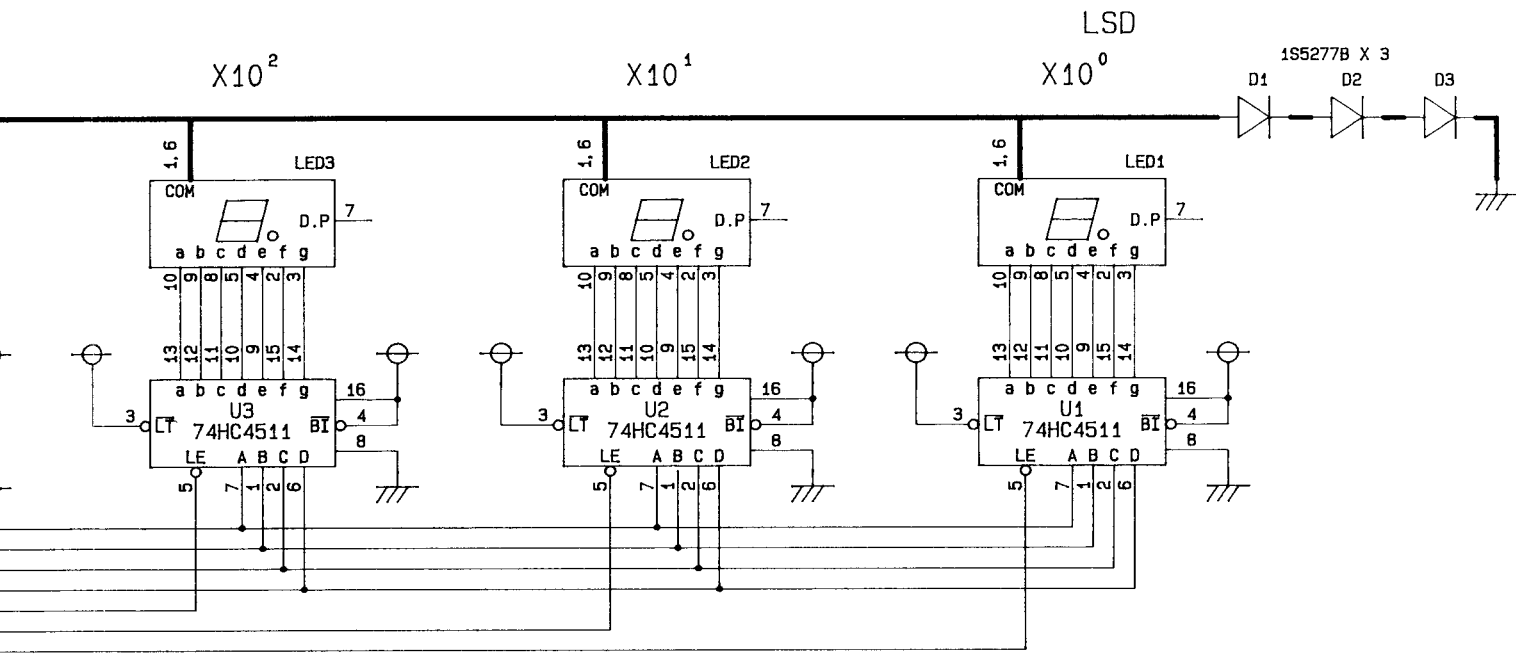
THE EXCLUSIVE USE OF DECIMAL DIMENSIONS ON THIS SHEET IS FOR CONVENIENCE IN CHECKING AND IS NOT TO BE CONSTRUED AS AN INDICATOR OF TIGHTER TOLERANCES THAN SPECIFIED BELOW UNLESS OTHERWISE SPECIFIED.

± 0.10 FOR ALL DIMENSIONS EXCEPT ROUND HOLES  
 ± 0.02 FOR ALL ROUND HOLES AND ROUND PARTS  
 ± 90° ON ANGULAR PARTS  
 ALL THREADS TO BE CLASS 2B FIT.  
 ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.  
 DO NOT SCALE THIS PRINT.

FINISH	SCALE	DRAWN BY
		CBH
MATERIAL		
NAME ZENITH COLOR MONITOR SCHEM. DIAG.		
D PART NO. 100X0213-001		

MSD  
X10<sup>3</sup>





SCALE:	APPROVED BY:	DRAWN BY T. HIBINO
DATE 08/04/88		REVISED
PCK-01-LED		
Nintendo of America Inc.		