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THE PIT

SERVICE MANUAL



THE PIT

CENTURI, INC. 245 W. 74TH PLACE HIALEAH, FLA. 33014

CUSTOMER SERVICE:

TEL. #(305) 558-5200 (IN FLORIDA)

TEL. #(800) 327-7710 (OUTSIDE FLORIDA)

TELEX: 803694 ANSB CENTURI CABLE: CENTURI

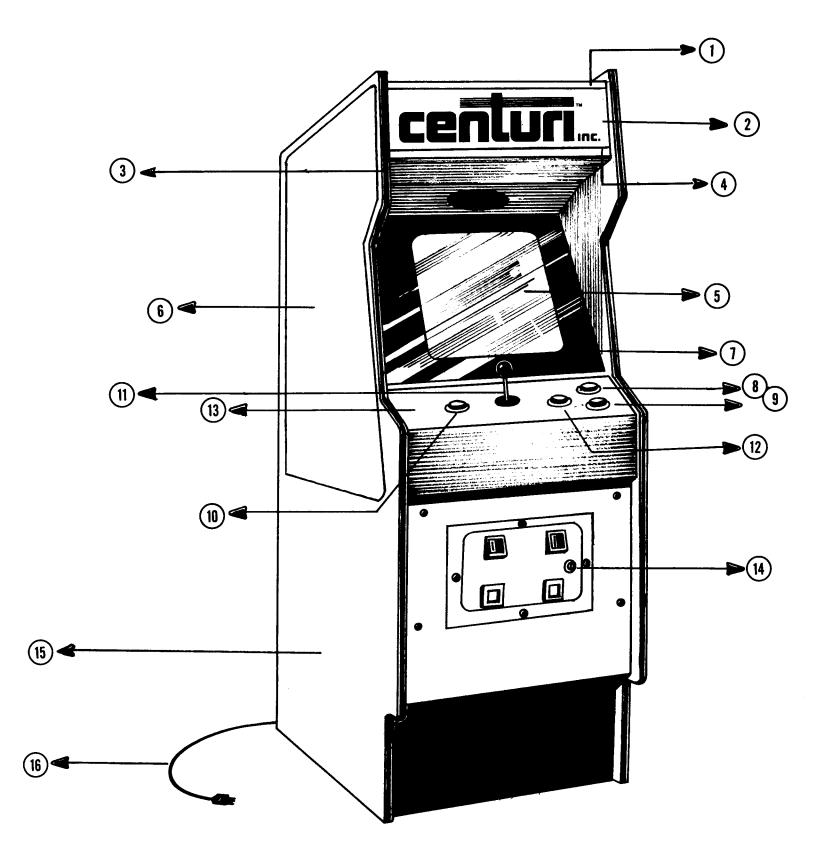
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USER INFORMATION - F.C.C.

WARNING

THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY, AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION 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 F.C.C. 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 RQUIRED TO TAKE WHATEVER MEASURES MAY BE REQUIRED TO CORRECT THE INTERFERENCE.



(FIG,1) FRONT VIEW OF CABINET

THE PIT CABINET

(FIGURE 1)

PARTS LIST

ITEM	CENTURI P/N:	DESCRIPTION:
1.	343-03-0200	TOP ANGLE HOLD DOWN BRACKET
2.	380-06-0100	SILK SCREENED MARQUEE PANEL
3.	361-10-0200	VINYL TRIM, 7 1/4" LONG
4.	361-03-0100	GLASS HOLDING BRACKET
5.	361-04-1000	VIEWING GLASS
6.	380-06-0200 380-06-0300	LEFT SIDE DECAL RIGHT SIDE DECAL
7.	380-06-0500	SILK SCREENED MONITOR OVERLAY
8.	~	1-PLAYER START BUTTON
9.		2-PLAYER START BUTTON
10.		FIRE BUTTON - LEFT
11.		4-POSITION JOYSTICK
12.		FIRE BUTTON - RIGHT
13.	380-14-0200	CONTROL PANEL WIRED ASSEMBLY
14.	360-14-0700	COINCO COIN DOOR (MODIFIED)
15.	375-01-0900A	WOOD CABINET ASSEMBLY
16.	361-12-0900A	LINE CORD

THE PIT

Continuing with its policy of producing high quality video games, Centuri, Inc., adds to its successful line, THE PIT. Centuri incorporates into this game, all the elements of sight and sound necessary to attract a player of any skill level.

The game begins with an underground cave, etched in tunnelling paths, illuminating the game screen. Atop the cave surface, stands a Shelter Station. Without delay, a Base Ship lands to the left of the Station, and an Astronaut-Explorer, garbed in green, exits the Ship to begin his Mission. His goal is to retrieve the Buried Treasure, which is secure in a chamber in the cave bottom, and return to the Base Ship.

The Astronaut-Explorer is guided down through the cave with the Laser Shooting Joystick. Paths are tunneled open by him, in the direction that he is guided. Openings can be made through the solid cave wall, to open paths, as well as around the barricading rocks. The Astronaut-Explorer must be wary of the rocks loosened by the Laser gun. If he does not move clear of them, they will fall on him and crush him.

Shortly after the Astronaut-Explorer embarks on his Mission, an enemy ship lands to the right of the Shelter Station. Enemy explorers depart from their ship, and descend into the depths of the cave, in attempt to steal the Buried Treasure, while trying to plummet the Astronaut-Explorer, hoping to destroy him. The Astronaut-Explorer defends himself by firing at the enemy from a right or left direction. As quickly as one enemy is shot (200 points), another enemy enters the cave to take its place.

Along his route to the Buried Treasure, the Astronaut-Explorer's Mission is enhanced if he collects any of the Blue Gem Crystals(1,000 pts.) found in the preexisting paths.

Upon reaching the Treasure chamber, the Astronaut-Explorer must cross the entrance at his own risk. He must quickly procure the Treasure(2,000 points), and exit the chamber, before the ceiling of rocks tumble down upon him, and destroy him.

After a safe exit is achieved, the Astronaut-Explorer must create a path to return to the Base Ship. The only entrance to the Ship is made accessible by crossing the "deadly Pit". The floor of the Pit begins to open immediately upon his presence. He must make it safely through the

opening, or fall to his death in the Pit bottom.

When the Astronaut-Explorer safely crosses the Pit and reboards the Base Ship(10,000 points), his Mission has been successful. The game then continues with a new, faster-paced round of play.

The whole phase of play, described above, is based on a predetermined time, visually displayed on the cave surface. From the time the enemy ship lands, it continuously shoots through the wall of the Shelter Station. In order for a Mission to be totally successful, it must be completed before the Shelter Station, and then the Base Ship are successively destroyed by the enemy ship fire.

THE PIT

GAME INSTRUCTIONS

- Insert Coin(s).
- 2. Select 1 or 2 Player Button.
- 3. Guide Astronaut through cave, to buried treasure, by forming tunnels with Laser Shooting Joystick.
- 4. Avoid falling rocks.
- 5. Shoot attacking enemy, score 200 points. Fire Button shoots only from a right or left direction.
- 6. Collect Blue Crystals from tunnel bottoms, score 1,000 Bonus points.
- 7. Secure treasure, score 2,000 points. Return to Base Ship, safely cross the "Pit" and reboard Ship, score 10,000 points.
- 8. Continue play with a new, faster-paced Mission.
- 9. Successful Mission must be completed before Shelter Station and Base Ship, on cave surface, are destroyed by enemy ship fire.

POINT SCORING

SHOOTING THE ENEMY - SCORE 200 POINTS FOR EACH COLLECT THE BLUE GEM CRYSTALS - SCORE 1,000 BONUS POINTS FOR EACH COLLECT THE BURIED TREASURE - SCORE 2,000 POINTS CROSS "THE PIT" SAFELY AND REBOARD THE SHIP - SCORE 10,000 POINTS.

OPTIONAL DIP SWITCH SETTINGS

The Dip Switches for the Pit Game are located on the C.P.U. Board. The following optional settings will aid you in your game format selection.

DIP SWITCH 1

POSITION 2	COIN - CREDIT OPTIONS		
OFF	1 PLAYER, 1 CREDIT; 2 PLAYERS, 2 CREDITS		
OFF	1 PLAYER, 2 CREDITS; 2 PLAYERS, 3 CREDITS		
ON	1 PLAYER, 2 CREDITS; 2 PLAYERS, 4 CREDITS		
ON	FREE PLAY - 9 CREDITS		
ION 3	GAME SPEED		
F	SLOW		
N	FAST		
ION 4	GAME TIME		
F	LONG		
N	SHORT		
	OFF OFF ON ON ION 3 F N ION 4		

DIP SWITCH 2

POSITION 1	POSITION 2	MONITOR CONFIGURATION		
OFF	OFF	NORMAL UPRIGHT		
ON	OFF	INVERTED UPRIGHT		
OFF	ON	NORMAL COCKTAIL		
ON ON INVERTED COCKTAIL				
	TION 3	NUMBER OF EXPLORERS PER GAME THREE		
-	FF	FOUR		
(ON	FOOR		
POSI	TION 4	DIAGNOSTIC TESTS		
0	FF	NORMAL GAME PLAY		
	ON	EXTRA TEST SEQUENCE		

INSTALLATION

Your game was shipped from the factory in ready-to-play condition. A brief inspection is suggested before the machine is removed from the carton. If there is damage to the shipping carton, contact the freight carrier for claim purposes. External damage could indicate possible damage to the cabinet and/or electronics components.

After the carton has been satisfactorily inspected, remove the machine from the shipping carton.

Examine the interior of the game for disconnected wires, cables, or harnesses. Make sure the electronic devices are securely mounted in their sockets, etc. Record the game serial number, since it will be required for reference and servicing.

ELECTRICAL REQUIREMENTS

Unless otherwise specified, this game is set to operate at 110 Volts A.C. (See Fig. 2 and 110/220 VAC conversion instructions.)

Power supply chasis schematic information and parts list are

included in this manual.

110/220 VAC CONVERSION INSTRUCTIONS

This game contains a harness configuration which allows the machine to be operated from either a 110 VAC or 220 VAC, 50 $\rm H_{Z}$ or 60 $\rm H_{Z}$ power source. All games shipped from Centuri, Inc., are in the 220 VAC configuration. To change to the 220 VAC configuration follow the procedure below.

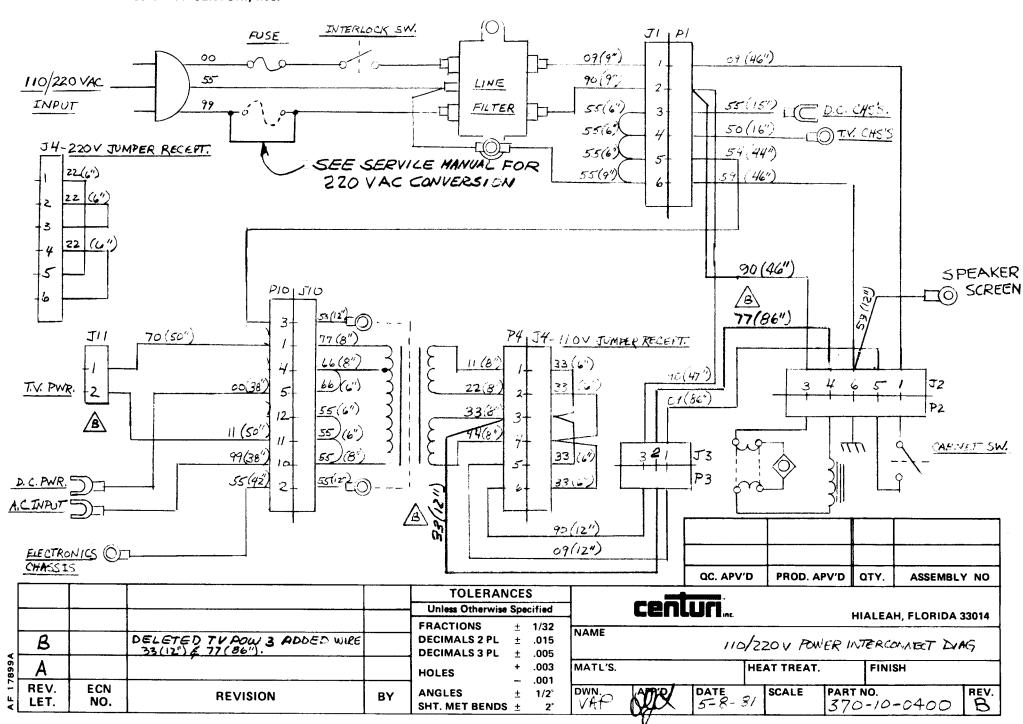
- FIRST: Unplug the machine from the wall outlet to completely eliminate shock hazards.
- SECOND: Remove the single 3 AMP slow-blow fuse found in the A.C. Distribution Bracket, and install two, 1.5 AMP slow-blow fuses. Next cut the #18 AWG. white jumper at both ends of the fuse holder, and replace the cover.
- THIRD: On the game power transformer, locate the "orange" jumper plug which is marked, 110 VAC. Unplug the "orange" jumper, and plug in the "red" jumper marked 220 VAC.

To revert back to $110\ \text{VAC}$, replace the components originally removed from the Steps above.

***NOTE: The common side of the A.C. Line must not be fused in the 110 VAC configuration - Replace the #18 AWG., white jumper wire.

(Refer also to FIG. 2, 110/220 POWER INTERCONNECT DIAGRAM, #370-10-0400B)

FIGURE 2



ROUTINE MAINTENANCE & SERVICE

Because of the solid state electronic circuitry, this machine should require very little maintenance, and only occassional adjustments. However, it is necessary to take steps to insure this.

The volume control is located on the bottom side of the printed circuit board, farthest from the side of the cabinet, and can be accessed through the rear door.

The video monitor has been properly adjusted before shipping. Occassionally minor adjustments are necessary. Technical information, along with schematics, can be found in this manual. Adjustment controls for the monitor are located on the rear of the monitor.

"DO NOT MAKE ANY ADJUSTMENTS ON THIS MACHINE WHILE THE POWER IS ON!" This machine should only be adjusted by a "qualified" technician.

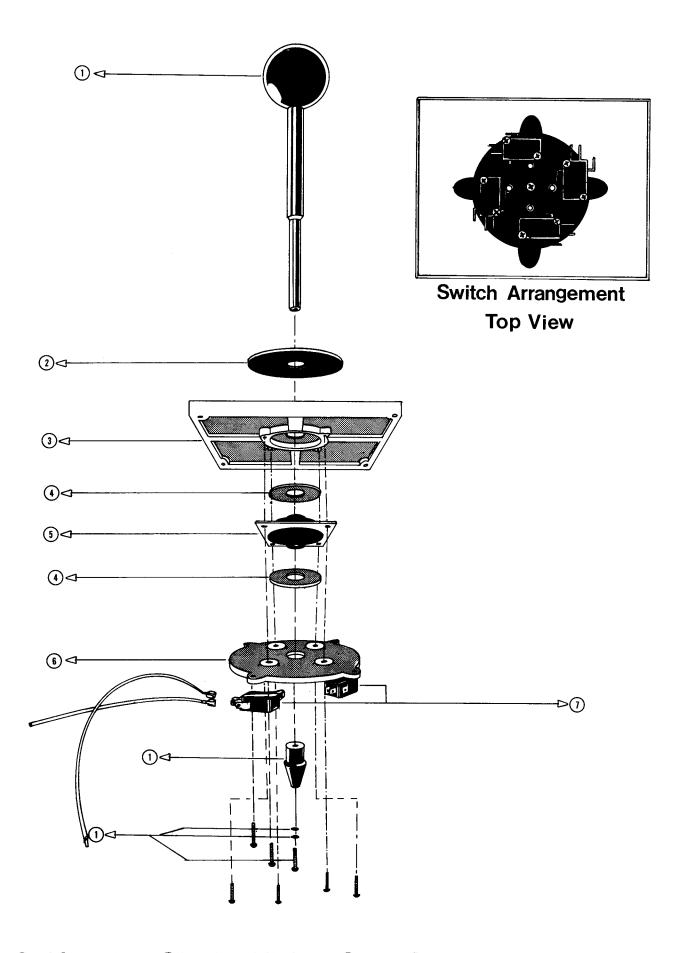
For Service Information, contact:

CENTURI, INC.

CUSTOMER SERVICE DEPARTMENT
#800-327-7710 (Outside the State of Fla.)
#305-556-5888 (In Florida)

POWER SUPPLY

The Computer Board in this game operates most efficiently and reliably when the power supply is set so the voltage on the Board is 5.0 Volts, ±0.1 Volts. To check this, place a meter across 5 Volts, and ground, at the edge connector. If necessary, adjust the screwdriver control on the power supply, so the meter reads between 4.9 and 5.1 Volts.

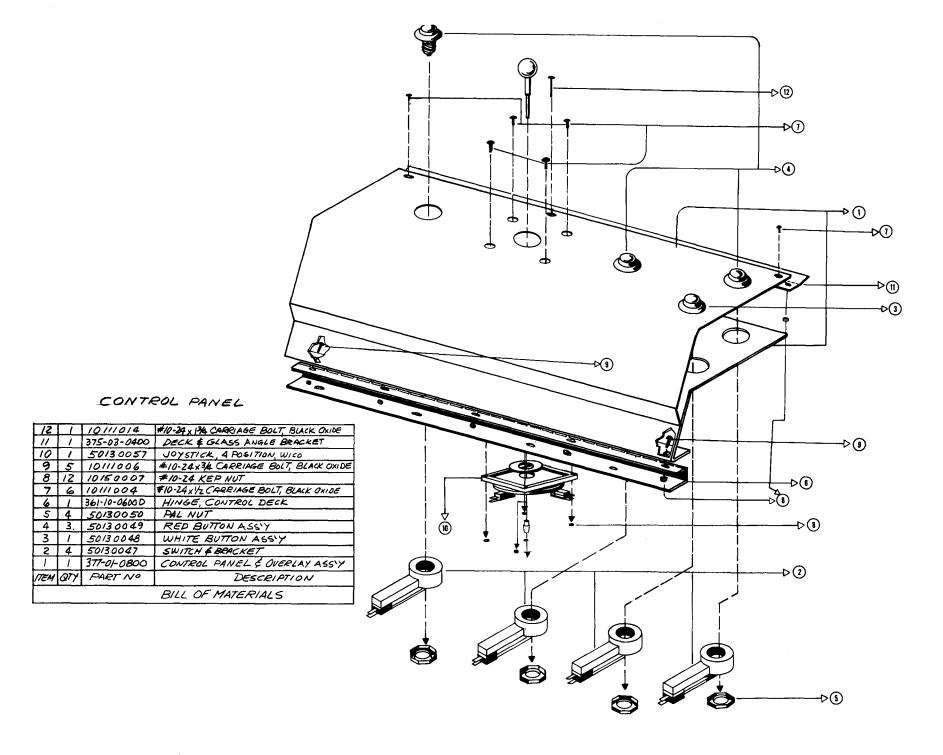


(FIG,3) EXPLODED VIEW OF JOY STICK ASS'Y.

WICO JOYSTICK ASSEMBLY (FIGURE 3)

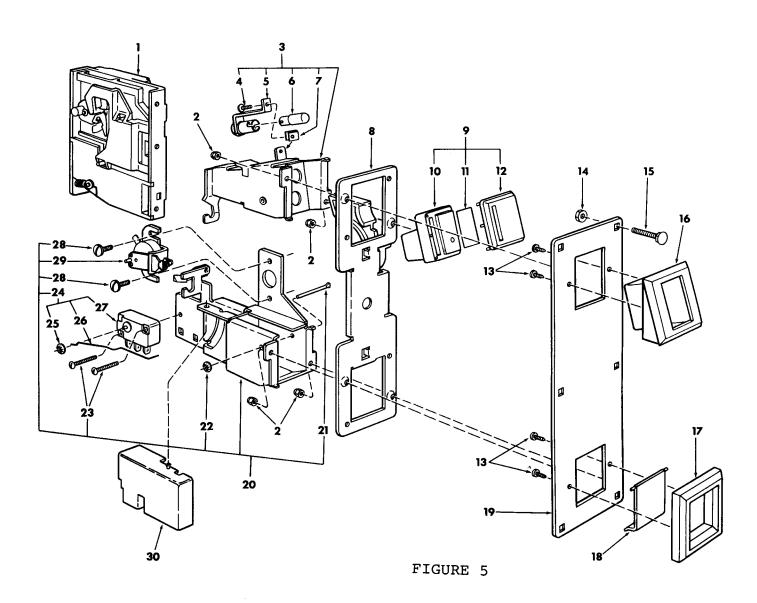
PARTS LIST

ITEM	CENTRUI P/N:	MANUFACTURING P/N:	DESCRIPTION:	QNTY.
1.	50270174	151419-01	KNOB & SHAFT ASS'Y. w/ACTUATOR & E RING	1
2.	50270175	15950401	PLASTIC WASHER, 2"DIA.	1
3.	50270176	15954101	TOP PLATE FOR JOYSTICK	1
4.	50270177	15950501	BOTTOM WASHER	2
5.	50270178	15952301	DIAPHRAGM	1
6.	50270179	15954201	SWITCH MOUNTING PLATE	1
7.	50130072	V-15FL22-1C2-K	MICROSWITCH	4
8.	50270180	15954501	ACTUATOR GUARD	4
9.	50270182	15950601	SWITCH MOUNTING BRKT.	4



(FIG,4) EXPLODED VIEW OF CONTROL PANEL ASS'Y.

2800-0 FRONT PLATE EXPLODED VIEW 25¢ COIN



Index No.	Part No.	Description	Index No.	Part No.	Description
1	5301-10	25¢ Coin Acceptor	16	904588	Coin Inlet Housing
2	400-4	#4-40 Self Locking Nut	17	904590	Coin Return Cover
3	404351	Coin Inlet Chute Assembly	18	904599	Coin Return Door
4	110-4-6	4 x 3/8 Screw	19	404463	Frontplate Assembly, 3-1/8" x 9-1/4"
5	904717	Lamp Socket	20	404350	Coin Return Chute Assembly
6	904716	#47 Lamp (6.3 Volt)	21	905115	Bar
7	904712	Fastener	22	904936	Keeper
8	404464	Inner Panel/Lever Assembly	23	100-4-12	4-40 x 3/4 Screw
9	404348	Coin Return Button Assembly	24	404353	Switch & Wire Assembly
10	904591	Coin Return Button	25	900651	Retainer
11	904703	25¢ Price Decal	26	904710-1	Switch Wire-Silver
12	904589-2	Reject Cover Button (25¢)	27	904845	Switch
13	345-4-5	#4 x 5/16 Pan Head Screw	28	100-6-3	6-32 x 3/16 Screw
14	406-10	#10-24 Hex Nut	29	404354	12 Volt Crem Assembly
17	400 10	(Mounting Hardware)	30	904762	Switch Cover
15	905022	#10-24 x 1-1/8 Carriage Bolt (Mounting Hardware)			

2800-0 FRONT PLATE EXPLODED VIEW

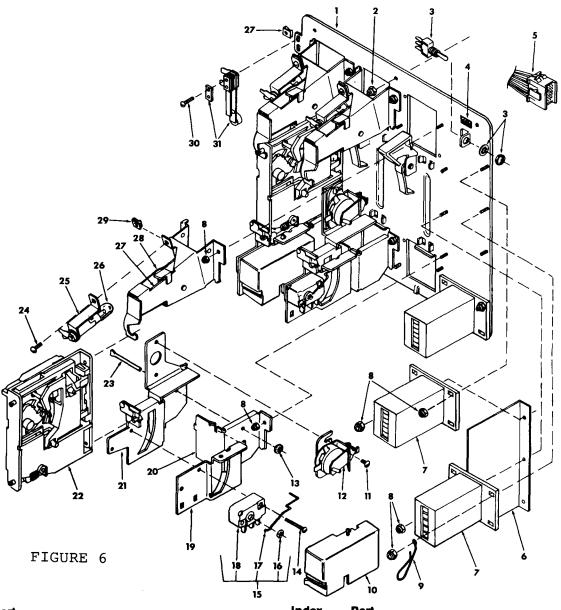
(FIGURE 5)

PARTS LIST

<u>NO</u> .	CENTURI P/N:	MANUFACTURING P/N:	DESCRIPTION:
1.	50270144	5031-10	25¢ COIN ACCEPTOR
5.	50270169	904717	LAMP SOCKET
6.	50270170	904716	#47 LAMP(6.3 VOLT)
8.	50270172	404464	INNER PANEL/LEVER ASS'Y.
10.	50270145	904591	COIN RETURN BUTTON
11.	50270146	904703	25¢ PRICE DECAL
12.	50270147	904589-2	REJECT COVER BUTTON (25¢)
16.	50270149	904588	COIN INLET HOUSING
17.	50270157	904590	COIN RETURN BEZEL
18.	50270150	904599	COIN RETURN DOOR
19.	50270173	404463	FRONTPLATE ASS'Y. $(3^{1}/8$ "x9 $\frac{1}{4}$ ")
21.	50270168	905115	BAR
25.	50270141	900651	RETAINER
26.	50270142	904710-1	SWITCH-WIRE, SILVER
27.	50130061	904845	SWITCH
29.	50270165	404354	12 VOLT C.R.E.M. ASS'Y.
30.	50270164	904762	SWITCH COVER

2800 SERIES COIN DOOR EXPLODED VIEW





index No.	Part No.	Description	Index No.	Part No.	Description
1	404429	Inner Panel With Levers Sub-Assembly	17	904710-1	Silver Switch Wire — for U.S. 25¢ Coin
2	400-8	Nut	18	904845	Switch
3	904782	Toggle Switch	19	904701	Coin Chute
4	904706	Test Switch Decal	20	904598	Coin Return Box
5 6	904822	Custom Harness Assembly Insulation	21	404428	Switch and C.R.E.M. Coil Bracket Assembly
7	404352	Coin Counter Assembly (6 Volt D.C.)	22	5301-10	25¢ Acceptor
8	400-4	Nut	23	905115	Bar
9	904722	Wire Key Holder	24	110-4-6	Screw
10	904762	Switch Cover	25	904717	Miniature Bayonet-Base Lamp
11	100-6-3	Screw			Socket
12	404354	C.R.E.M. Coil Assembly. 12 Volts D.C.	26 27	904716 404418	#47 Lamp (6.3 Volt) Coin Inlet Chute Sub-Assembly
13	904936	Keeper	28	904594	Right Half of Coin Inlet Chute
14	100-4-12	Screw		904712	"U"-Type Fastener
15	404353	Coin Switch Assembly for U.S. 25¢ Coin	30 31	116-4-8 904704	Screw Slam Switch Assembly
16	900651	Retainer	•	001104	Oldin Owner Assembly

2800 SERIES COIN DOOR EXPLODED VIEW

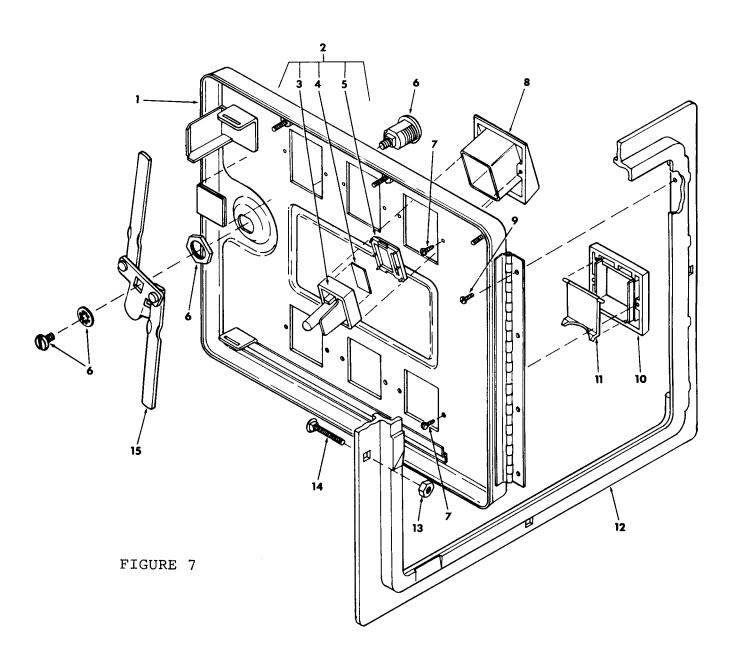
25¢ U.S. COIN

(FIGURE 6)

PARTS LIST

NO.	CENTURI P/N:	MANUFACTURING P/N:	DESCRIPTION:
1.	50270160	404429	INNER PANEL w/LEVERS SUBASS'Y.
3.	50130062	904782	TOGGLE SWITCH
4.	50270161	904706	TEST SWITCH DECAL
5.	364-62-1000A		CUSTOM HARNESS ASS'Y.
6.	50270162	904822	INSULATION
7.	50270140	404352	COIN COUNTER ASS'Y.
9.	50270163	904722	WIRE KEY HOLDER
10.	50270164	904762	SWITCH COVER
12.	50270165	404354	C.R.E.M. COIL ASS'Y. (12 VOLT D.C.)
17.	50270142	904710-1	SILVER SWITCH WIRE- FOR 25¢ U.S. COIN
18.	50130061	904845	SWITCH
19.	50270143	904701	COIN CHUTE
20.	50270166	904598	COIN RETURN BOX
21.	50270167	404428	SWITCH & C.R.E.M. COIL BRACKET ASS'Y.
22.	50270144	5301-10	25¢ ACCEPTOR
23.	50270168	905115	BAR
25.	50270169	904717	MINIATURE BAYONET-BASE LAMP SOCKET
26.	50270170	904716	#47 LAMP(6.3 VOLTS)
27.	50270171	404418	COIN INLET CHUTE-SUBASS'Y.
31.	50130063	904707	SLAM SWITCH ASSEMBLY

2800 SERIES COIN DOOR EXPLODED VIEW 25¢ U.S. COIN



Index No.	Part No.	Description	Index No.	Part No.	Description
1	404341	Coin Door Only (2 Coin)	7	345-4-5	Screw
	404341-1	Coin Door Only (3 Coin)	8	904588	Coin Button Housing
2	404348-1	Coin Return Button Assembly for	9	325-4-4	Screw
_		U.S. 25¢ Coin	10	904590	Coin Return Bezel
3	904591	Coin Return Button	11	904599	Coin Return Cover
4	904703	U.S. 25¢ Price Decal	12	904581	Coin Door Frame, 11-5/8" x 13-3/8"
5	904589-2	Coin Return Button Cover for U.S. 25¢ Coin			Mounts in a 10-3/8" x 12-3/16" Opening
6	904707-1	Lock Assembly	13	406-416	Hex Nut
•			14	904734	Carriage Bolt
			15	404357	Locking Arm Assembly

2800 SERIES COIN DOOR EXPLODED VIEW

25¢ U.S. COIN

(FIGURE 7)

PARTS LIST

NO.	CENTURI P/N:	MANUFACTURING P/N:	DESCRIPTION:
1.	50270152	404341	COIN DOOR ONLY (2 COIN)
2.	50270158	404348-1	COIN DOOR BUTTON ASS'Y. FOR U.S. 25¢ COIN
3.	50270145	904591	COIN RETURN BUTTON
4.	50270146	904703	U.S. 25¢ PRICE DECAL
5.	50270147	904589-2	COIN RETURN BUTTON COVER
6.	50270148	904707-1	LOCK ASSEMBLY w/KEYS
8.	50270149	904588	COIN BUTTON HOUSING (INLET HOUSING)
10.	50270157	904590	COIN RETURN BEZEL
11.	50270150	904599	COIN RETURN COVER
12.	50270151	904581	COIN DOOR FRAME (11 5/8"x13 3/8")
15.	50270159	404357	LOCKING ARM ASSEMBLY

VIDEO RAM & CONTROL BOARD PARTS LIST

NO.	PART NUMBER:	DESCRIPTION:	QNTY.
1.	50010045	74LS157 I.C.	10
2.	50010249	74LS245 I.C.	2
3.	50010261	74LS273 I.C.	2 7 2
4.	50010022	74LS86 I.C.	7
5.	50010195	74LS367 I.C.	2
6.	50010222	74LS194 I.C.	4 3 2 6 1
7.	50010008	74LS20 I.C.	3
8.	50010262	74LS283 I.C.	2
9.	50010035	74LS161 I.C.	6
10.	50010030	74LS174 I.C.	1
11.	50010004	74LS02 I.C.	1
12.	50010105	74LS32 I.C.	1
13.	50010019	74LS74 I.C.	4
14.	50010218	74LS377 I.C.	1
15.	50010139	74LS175 I.C.	1
16.	50010192	74LS139 I.C.	2
17.	50010005	74LS04 I.C.	2
18.	50010007	74LS10 I.C.	1
19.	50010310	2114 I.C.	4
20.	50010185	2716 I.C., ROM	2
21.	50010096	7408 I.C.	2
22.	50010329	2125 I.C.	6 4
23.	50010002	7400 I.C.	4
24.	50010026	74107 I.C.	1
25.	50030095	330 OHM, 1/4W., 5%, CARBON RESISTOR	2
26.	50030051	1K OHM, 1/4W., 5%, CARBON RESISTOR	6
27.	50030014	270 OHM, 1/4W., 5%, CARBON RESISTOR	2
28.	50040027	.01mfd, 16V., CERAMIC DISC CAPACITOR	27
29.	50040053	100pfd, 25v., CERAMIC DISC CAPACITOR	1
30.	50040171	47pfd, 16V., CERAMIC DISC CAPACITOR	1
31.	50060120	10mfd, 16V., ELECTROLYTIC CAPACITOR	4
32.	50060189	470 mfd, 25V., ELECTROLYTIC CAPACITOR	1
33.	5007001 3	CRYSTAL, 18.432 MH _Z	1
34.	50270003	TY-WRAP, 4"	1
35.	50150256	P.C.B. HEADER, 50 PIN, RIGHT ANGLE	2
36.	50360006	9 PIN RESISTOR PACK(S.I.P.), 1K OHM	1
37.	50150061	24 PIN SOLDER TRAIL SOCKET, LOW PROFILE	2
38.	50210233	PRINTED CIRCUIT BOARD, HT 01B	1

C.P.U. & SOUND BOARD PARTS LIST

NO.	PART NUMBER:	DESCRIPTION:	QNTY.
1.	50010005	74LS04 I.C.	3
2.	50010004	74LS02 I.C.	2
3.	50010248	74LS138 I.C.	5
4.	50010204	74LS393 I.C.	1
5.	50010195	74LS367 I.C.	6
6.	50010010	74LS27 I.C.	1
7.	50010224	74LS259 I.C.	1
8.	50010019	74LS74 I.C.	2
9.	50010192	74LS139 I.C.	1
10.	50010014	74LS42 I.C.	1
11.	50010105	74LS32 I.C.	1
12.	50010028	74LS153 I.C.	1
13.	50010249	74LS245 I.C.	1
14.	50010261	74LS273 I.C.	2
15.	50010264	74LS368 I.C.	4
16.	50010096	7408 I.C.	1
17.	50010002	7400 I.C.	2
18.	50010310	2114 I.C.	4
19.	50010095	7417 I.C.	1
20.	50010332	7051 I.C.	1
21.	50010045	74157 I.C.	2
22.	50010177	AY-3-8910 I.C., SOUND GENERATOR	1
23.	50010187	Z80 I.C., C.P.U.	2
24.	50010171	2716 I.C., ROM	2
25.	50100014	1N914 DIODE	1
26.	50120020	47K OHM, VR-1, POTENTIOMETER	1
27.	50030343	INSULATED ZERO OHM JUMPER RESISTOR	1
28.	50030038	100 OHM, 1/4W., 5%, CARBON RESISTOR	25
29.	50030010	470 OHM, 1/4W., 5%, CARBON RESISTOR	7
30.	50030051	1K OHM, 1/4W., 5%, CARBON RESISTOR	13
31.	50030125	220 OHM, 1/4W., 5%, CARBON RESISTOR	6
32.	50030151	22K OHM, 1/4W., 5%, CARBON RESISTOR	1
33.	50030063	10K OHM, 1/4W., 5%, CARBON RESISTOR	1

C.P.U. & SOUND BOARD PARTS LIST

NO.	PART NUMBER:	DESCRIPTION:	QNTY.
34.	50030163	560 OHM, 1/4W., 5%, CARBON RESISTOR	2
35.	50030084	12K OHM, 1/4W., 5%, CARBON RESISTOR	1
36.	50030017	10 OHM, 1/2W., 5%, CARBON RESISTOR	2
37.	50040027	.01mfd, 16V., CERAMIC DISC CAPACITOR	45
38.	50040171	47pfd, 16V., CERAMIC DISC CAPACITOR	1
39.	50060073	.1mfd, 25V., MYLAR CAPACITOR	1
40.	50050080	.01mfd, 50V., MYLAR CAPACITOR	2
41.	50060060	10mfd, 16V., ELECTROLYTIC CAPACITOR	1
42.	50060160	10mfd, 25V., ELECTROLYTIC CAPACITOR	2
43.	50060002	1mfd, 50V., ELECTROLYTIC CAPACITOR	2
44.	50060139	47mfd, 16V., ELECTROLYTIC CAPACITOR	1
45.	50060214	220mfd, 10V., ELECTROLYTIC CAPACITOR	1
46.	50060040	1K mfd, 25V., ELECTROLYTIC CAPACITOR	1
47.	50060189	470mfd, 25V., ELECTROLYTIC CAPACITOR	1
48.	50060165	10mfd, 25V., DIPPED TANTALUM CAPACITOR	3
49.	50360006	9 PIN RESISTOR PACK (S.I.P.), 1K OHM	4
50.	50150232	PRINTED CIRCUIT BOARD, HT 01A	1
51.	50150061	24 PIN SOLDER TRAIL SOCKET, LOW PROFILE	7
52.	50150060	40 PIN SOLDER TRAIL SOCKET, LOW PROFILE	3
53.	50010330	MB3730, AUDIO AMPLIFIER	1
54.	50130075	4 POSITION DIP SWITCH	2
55.	50070016	CRYSTAL, 10MH _Z	1
56.	50090023	HEAT SINK, ALUMINUM ANGLE, 3/4"x7/8"x1/2"x 1/16"	
57.	50150256	P.C.B. HEADER, 50 PIN, RIGHT ANGLE	3
58.	50010314	2732 EPROM I.C.	5

ELECTRONIC MODULE ASSEMBLY PARTS LIST

NO.	PART NUMBER:	DESCRIPTION:	QNTY.
1.	50210234	ELECTRONIC MODULE P.C.B	1
2.	50150256	P.C.B. HEADER, 50 PIN, RIGHT ANGLE	1

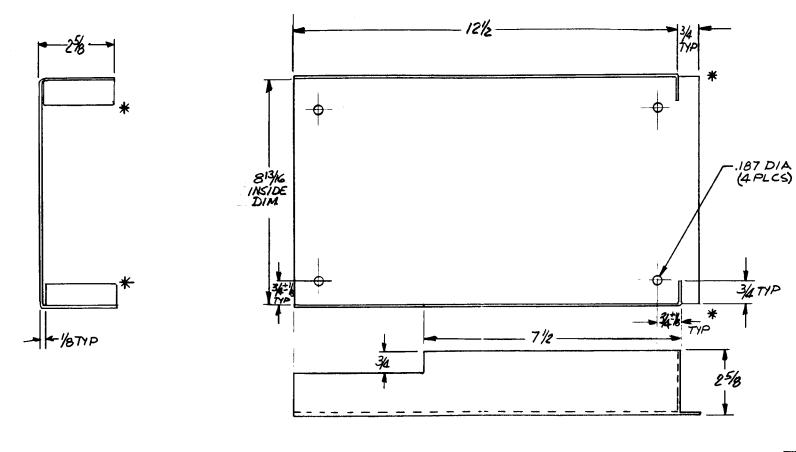
*NOTE - THIS BOARD IS EPOXY ENCASED. IF IT IS DETERMINED THAT THE CIR-CUITRY IS MALFUNCTIONING, THE ENTIRE MODULE ASS'Y. MUST BE PURCHASED, INCLUDING THE RIGHT ANGLE P.C.B. HEADER.

PARTS LIST - SHINDENGEN POWER SUPPLY

SYMBOL:	DESCRIPTION:	<u>USAGE</u> :
T1	TRANSFORMER, SINGLE PHASE, 2A VA	1
L1 L2, L4 L3	CHOKING COIL, 1.6mH, 1.5A CHOKING COIL, SF-T8-50S-03 CHOKING COIL, SF-HP-2A-03	1 2 1
D1 D2 D3, D6 D4 D5, D7 D12, D13 D14 RF1	DIODE, V19G DIODE, V06C DIODE, 1S1588 DIODE, S15S3 DIODE, 5CH1M DIODE, F113B DIODE, F113B DIODE, S4VB40(BRIDGE TYPE)	1 1 2 1 2 2 1 1
Q1 Q2 Q3 Q4	TRANSISTOR, 2SC2504 TRANSISTOR, 2SD467(B) TRANSISTOR, 2SC460(B) TRANSISTOR, 2SA673(B)	1 1 1
IC1	INTEGRATED CIRCUIT, RM723DC or HA17723G-02	1
PC1	PHOTO COUPLER, PS2001	1
PC1 R1 R8, R9 R3, 1-4 R4 R12 R28 R7 R26 R23 R10 R27 R2 R22 R21 R6 R11 R20 R17 R19 R18 R5 R16 R29 R39 R38	RESISTOR, 1/4 WATT, 68 OHM RESISTOR, 1/4 WATT, 330-470 OHM RESISTOR, 1/4 WATT, 220 OHM RESISTOR, 1/4 WATT, 270 OHM RESISTOR, 1/4 WATT, 330 OHM RESISTOR, 1/4 WATT, 68 OHM RESISTOR, 1/4 WATT, 68 OHM RESISTOR, 1/4 WATT, 680 OHM RESISTOR, 1/4 WATT, 800 OHM RESISTOR, 1/4 WATT, 1.2K OHM RESISTOR, 1/4 WATT, 1.2K OHM RESISTOR, 1/4 WATT, 1.0K OHM RESISTOR, 1/4 WATT, 220K OHM RESISTOR, 3 WATT, 27 OHM RESISTOR, 1/4 WATT, 4.7K OHM RESISTOR, 1/4 WATT, 5.6K OHM	1 2 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
R24 R25 RV1	RESISTOR, 1/4 WATT, 330 OHM RESISTOR, 1/4 WATT, 150 OHM VARIABLE RESISTOR, RJ-6P501	1 1 1

PARTS LIST - SHINDENGEN POWER SUPPLY

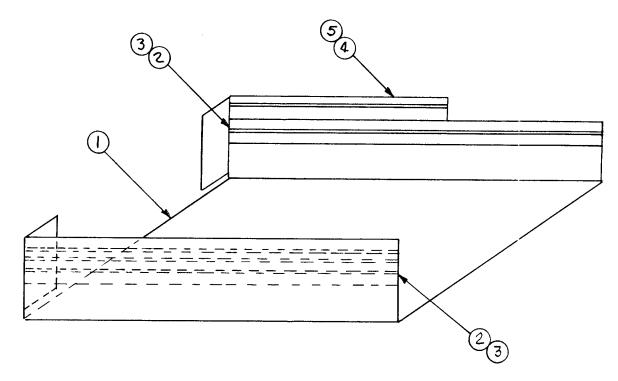
SYMBOL:	DESCRIPTION:	<u>USAGE</u> :
C1, C2	CAPACITOR, ECK-DAL102E	2
C3-1,-2	CAPACITOR, 160VSN100	2
C9, C10	CAPACITOR, SM10VB-2200	2
C11, C23	CAPACITOR, SM10VB-2200	2
C12, C13, C15	CAPACITOR, SL25VB-10	3
C27	CAPACITOR, SL25VB-10	1
C18, C19, C20	CAPACITOR, SM35VB-1000	3
C26	CAPACITOR, SM35VB-1000	1
C21, C22, C25	CAPACITOR, SM16VB-1000	3
C5	CAPACITOR, DMY21H472K	1
C6	CAPACITOR, DMY21H104K	1
C14, C16	CAPACITOR, DMY21H222K	2
C4	CAPACITOR, CM20XC511K5	1
C8	CAPACITOR, MDD22G473K	1
C5-2	CAPACITOR, DMY21H222K	1
F1, F2	ENCLOSED TYPE FUSE, 3A	2



NOTE: USE \$16 OR
1/4 RAD. AT THE
CORNERS MARKED *

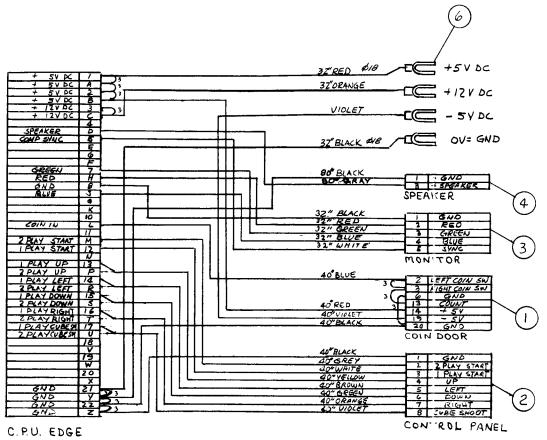
									377-01-0300
						QC. APV'D	PROD. APV'D	QTY.	ASSEMBLY NO
				TOLERANCES					
				Unless Otherwise Specified	j ceni			HIALEA	H, FLORIDA 33014
				FRACTIONS ± 1/32 DECIMALS 2 PL ± .015 DECIMALS 3 PL ± .005	NAME C. P. U.	SHIEL	D & BRA	9CK	<u>e</u> T
				HOLES + .003	MATL'S. 18GA	GALV. HE	AT TREAT.	FINI	SH
REV. LET.	ECN NO.	REVISION	BY	001 ANGLES ± 1/2* SHT. MET BENDS ± 2*	AAN WY		SCALE PAR	T NO.	-0100 REV.

THE MATERIAL CONTAINED HEREIN IS CONFIDENTIAL AND NO PART OF IT CAN BE REPRODUCED WITHOUT THE EXPRESSED PERMISSION OF CENTURI, INC.



5	/	377-10-0400	DOU	BLE SID	ED TAFE	3/4WX	1/32TK x 71/2 LG
4	1	377-10-0300	P.C.	B. VINYL	GUIDE G	DAY S	LIDE 7/2LG
3	3	359-10-0200	DOU	BLE SI	DED TAPE	= 3/4W	x /32 TK x 12 1/2 LE
2	3	364-10-0100	Q.C.	B. VINY	GUIDE	GRAY	SLIDE 12/2
1	1	377-03-0100		USHEI			
ITEM	ary	PART Nº		De	ESCIZI.	PT/O	N
			BIL	LOFI	IATER	PAL	5
			Ī			ī	377-01-0200

						QC. APV'D	PROD. APV'D		ASSEMBLY NO
				TOLERANCES Unless Otherwise Specified	cei	ituri			H. FLORIDA 33014
				FRACTIONS ± 1/32 DECIMALS 2 PL ± .015 DECIMALS 3 PL ± .006	NAME		LDING A		·
				HOLES + .003 001	MATL'S. SEE	ABOVE !	HEAT TREAT.	FINI	SH///
REV. LET.	ECN NO.	REVISION	ВУ	ANGLES ± 1/2° SHT. MET BENDS ± 2°	DWN AAN TU	10-8-8	SCALE PAR	T NO. 77-01	1-0300 REV.

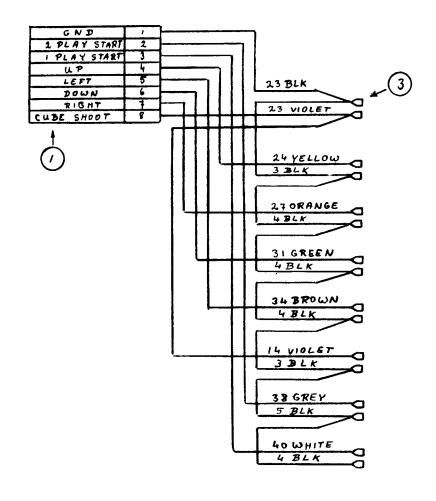


22	18	50270003	77- V	VRAP,	4"	*********	
21	72"	50170006	 			WHITE	ZZ AWG
20	120"	50178806	*	*	4	GREY	22 AWG
19	80"	5017 7706	#	v	,	VIOLET	ZZ AWG
18	78 "	50176606	"		4	BLUE	ZZ AWG
17	72"	50175506	4	H	H	GREEN	ZZAW
16	40 7	50174406	4	U	H	YELLOW	ZZAWO
15	75"	5017 3306	и	w	H	ORANGE	ZZAWG
14	81."	50172206	"	#	4	RED	ZZAWG
/3	40"	50171106	4	//	11	BROWN	ZZ AWG
12	204"	50179906	1	H	~	BLACK	ZZAWG
11	32"	50179904	"	"	11	BLACK	18AWG
10	3Z"	5017 2204	INSUL	CATED	WIR	E, RED I	BAWG
9	24	50/50318	CRIMA	TERM	INAL,	MOLEX#08	?-03- <i>0303</i>
8	7	50150269	SOCKE	TTERMI	WAL,	AMP# 35	0665-1
7	15	50150ZZ3				MOLEX#0	
6	4	50150293	INSULA	TED O	PEN	LUG	
5	1	50150320	44 PIN(D	DUALZZ)	EDGE CO	ONN., MOLEX#	09-50-5225
4	1	50150231	3 PIN	RECEP	TACL	E MOLEX# Q	13-09-103/
3	/	50150262	6 PIN	RECEI	TACL	E, MOLEX#	03-09-100
2	1	50150263	12 PIN	RECEI	OTACL	E MOLEX	#03-09-11.
1	1	50150268				CE, AMP#	
ITEM	aty	PARTNS				IPTION	
		B	LL OF	MAT	ERI	ALS	

377-01-0200 QC. APV'D PROD. APV'D QTY, ASSEMBLY NO TOLERANCES centur. Unless Otherwise Specified HIALEAH, FLORIDA 33014 FRACTIONS ± 1/32 377-04 WIRE TO BO" GRAY 12 AWE SPEAKER NAME DECIMALS 2 PL ± .015 C. P.U. HARNESS DECIMALS 3 PL ± .005 CHANGE PART NO. ITEM ! 377-01 .003 FINISH SEE ABOVE HOLES FROM 50150318 TO 50150268 .001 REV. ECN PART NO. 377-12-0100 ANGLES ± 1/2" REVISION 10.8.81 NO. SHT. MET BENDS ±

CONNECTOR

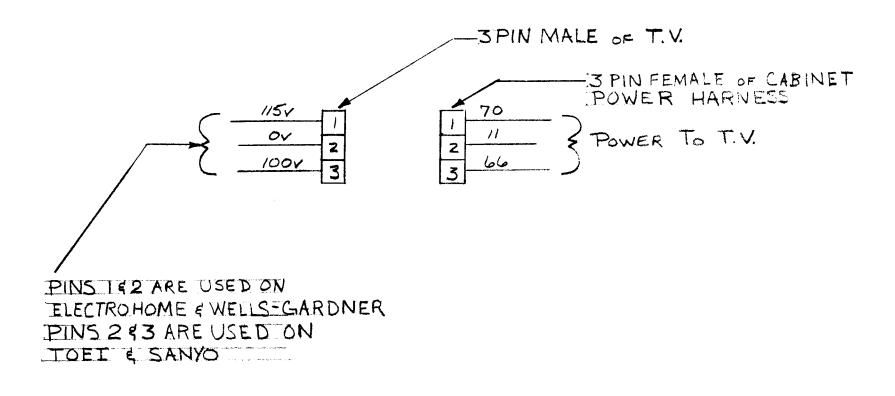
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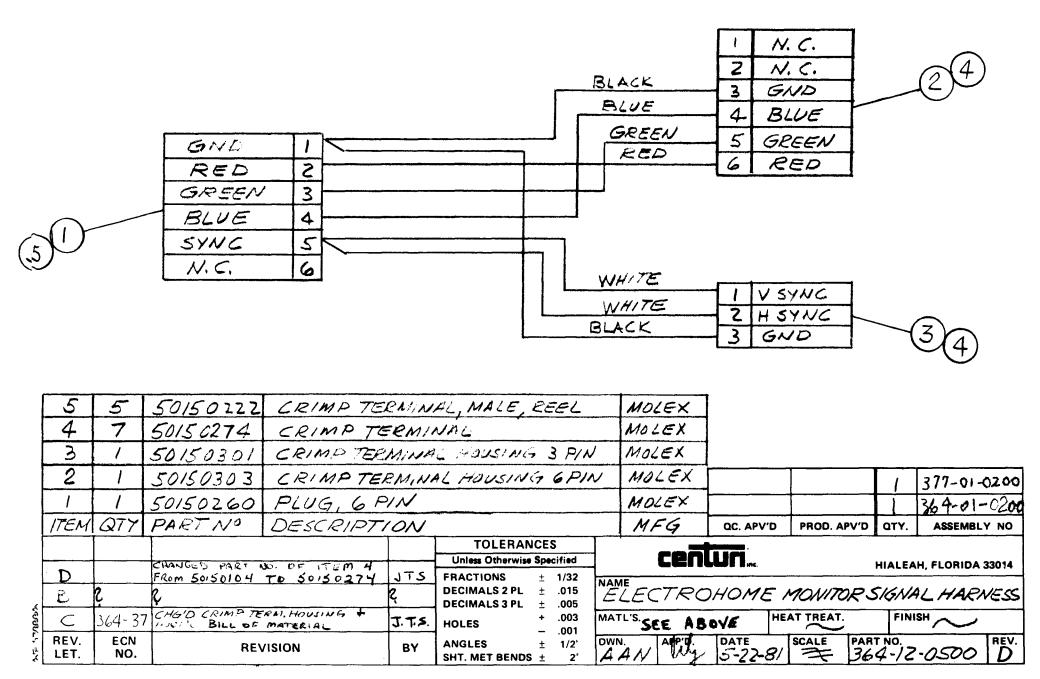
L		BILL	OF MATE	RIALS				
ITEH	QTY	PART NO	DESCRI	PrioN				
/	1	501 50261	12 PIN PLUG,	MOLEX # 03-09-2122				
2	8	501 50222	PIN TERMINAL, MOLEX # 02-09-2116					
3	16	50150029	3/16" PUSH-ON TERMINAL					
4	10	50270003	TY-WRAP,	<i>'</i> +"				
5	50	50179906	INSULATED W	DIRE, BLACK, 22 AWG				
6	34	50171106	')	BROWN 11				
7	27	5017 3306	11	ORANGE "				
8	24	50174406	7)	YELLOW "				
9	31	50175506	/1	GREEN "				
10	38	50178806	٨	GREY "				
"	40	50170006	7,	WHITE "				
12	37	50177706	١,	VIOLET "				
<u> </u>								

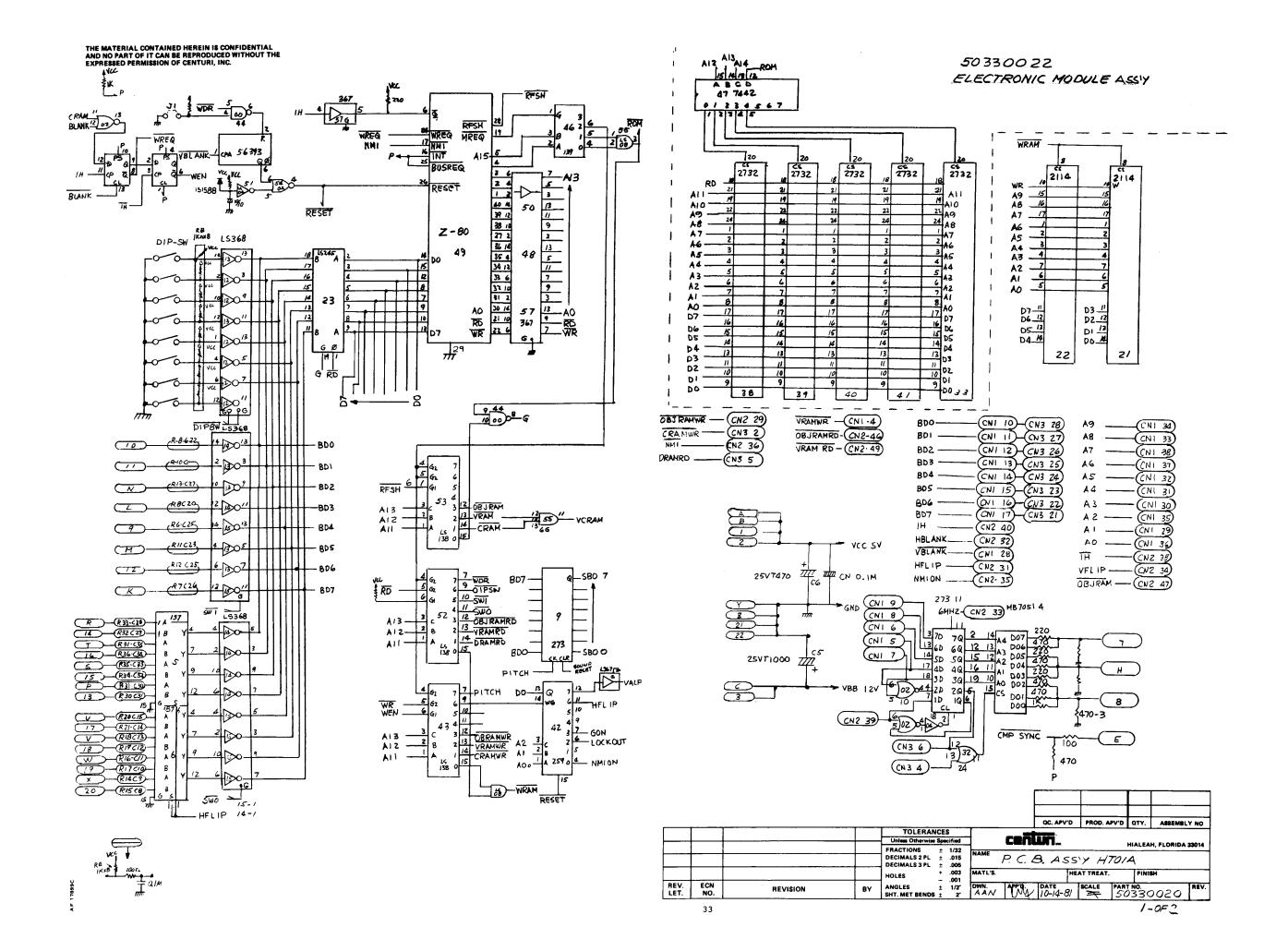
377-01-0700

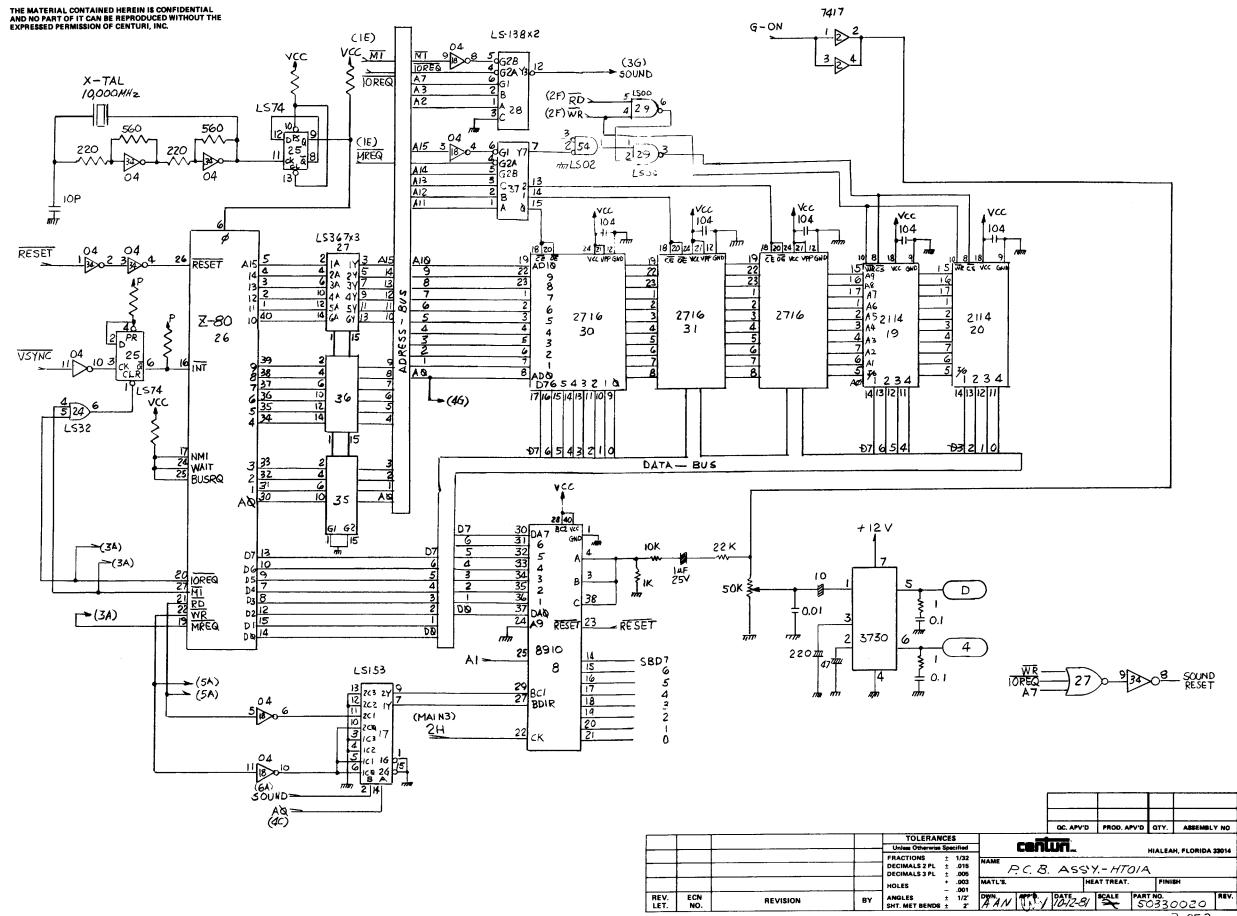
								QC. APV'	PROD. A	PV'D	QTY.	ASSEMBL	Y NO
					TOLERANC	ES		1					1
<u> </u>					Unless Otherwise S	pecified] CEr	יוועוו		н	HALEA	H, FLORIDA	33014
					DECIMALS 2 PL	1/32 .015 .005	NAMECONTR	OL PA	NEL H	ARI	VE S	55.	
¥8687					HOLES	.003	MATL'S. SEE	Ewm.	HEAT TREAT.		FINI	SH ~	
- R	EV. ET.	ECN NO.	REVISION	BY	ANGLES :	<u>t</u> 1/2°	DWN. APPRO.	- 10-8-8	" SCALE	PART 37	NO. 7-12	- 0400	REV.



					QC. APV'D PROD	D. APV'D QTY. ASSEMBLY NO
				TOLERANCES Unless Otherwise Specified	centuri	HIALEAH, FLORIDA 33014
				FRACTIONS ± 1/32 DECIMALS 2 PL ± .015 DECIMALS 3 PL ± .005	MONITOR POWER	ROPTIONS
¥ 60 8				HOLES + .003 001	MATL'S. HEAT TRE	AT. FINISH
REV.	ECN NO.	REVISION	BY	ANGLES ± 1/2° SHT. MET BENDS ± 2°	DWN APP. DATE SCALE	PART NO. 370-10-0300 REV.

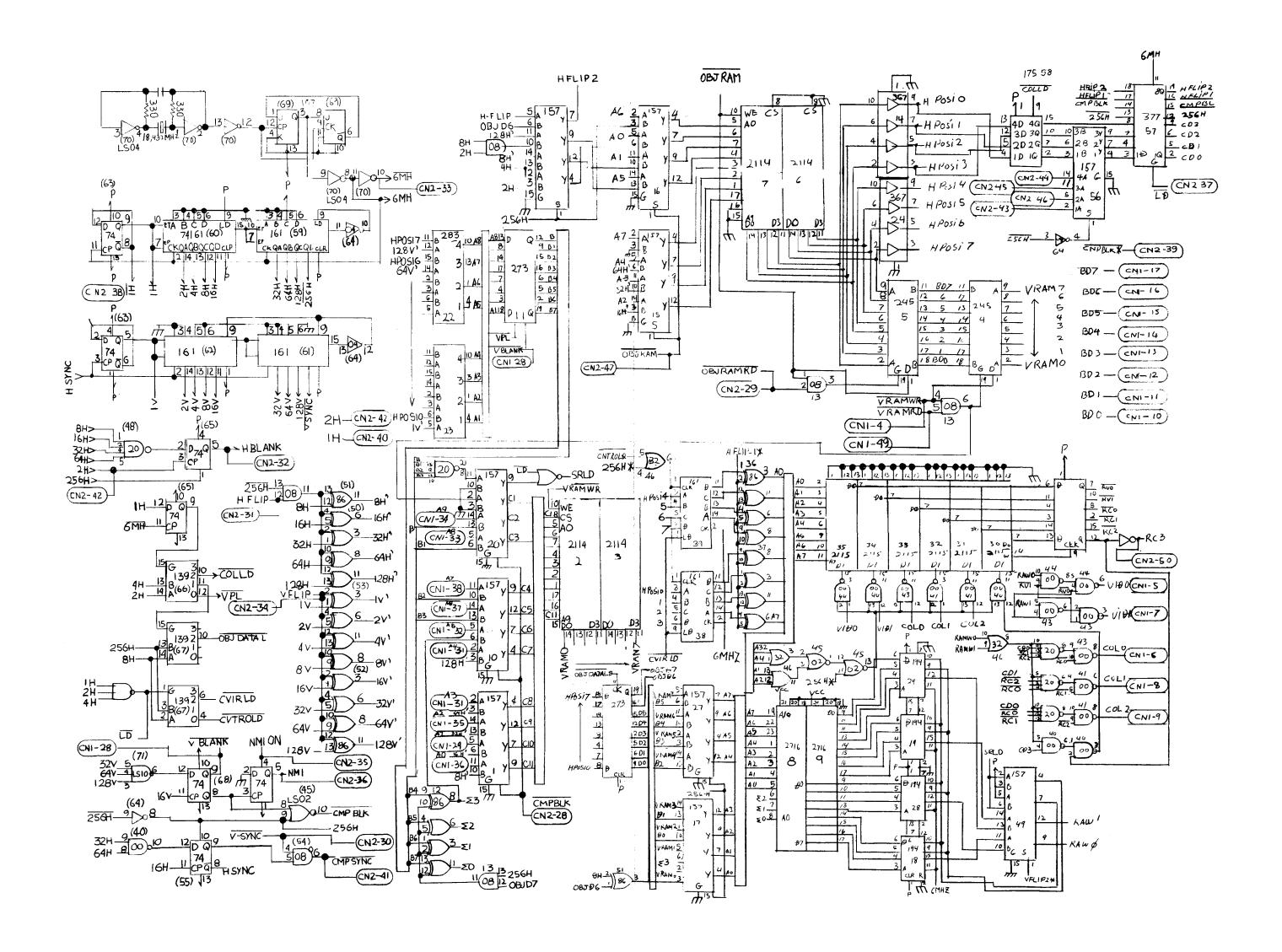




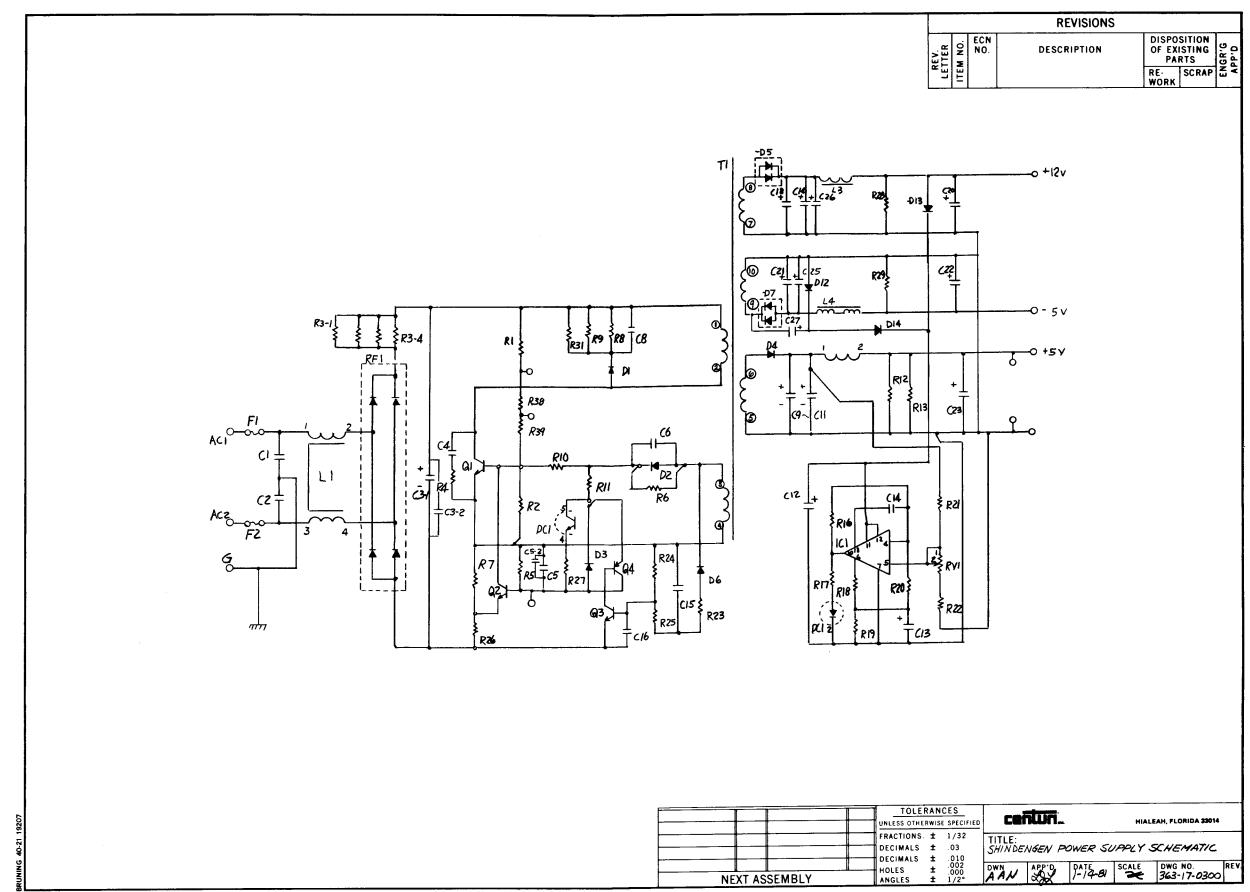


34

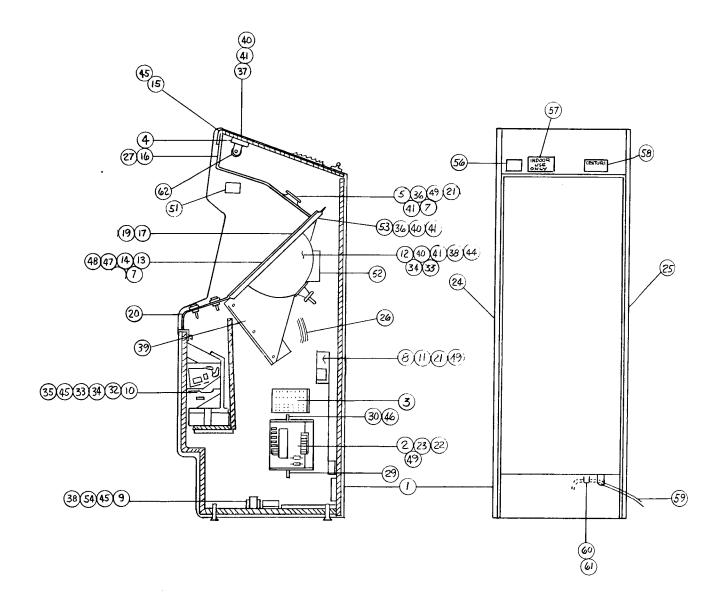
2-0F2



						QC. APV'D	PROD. APV'D	QTY. ASSEMBLY NO
				TOLERANCES Unless Otherwise Specified	cen	.in		HIALEAH, FLORIDA 33014
				FRACTIONS ± 1/32 DECIMALS 2 PL ± .015 DECIMALS 3 PL ± .005	PCB.	ASS'Y	HTC	I B
REV.	ECN		-	+ .003 001 ANGLES ± 1/2*	DWN. APD			T NO I DEV
LET.	NO.	REVISION	BY	SHT. MET BENDS ± 2'	AL. G	10-12-61		33021



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		\vdash	Unless Otherwise Specified FRACTIONS ± 1/32	cen	WII		HIALEA	1, FLORIDA 33014
			TOLERANCES	-a5			•	
					QC. APV'D	PROD. APV'D	QTY.	ASSEMBLY NO
			BILL	OF MATE	ERIAL	5		
TEM QTY	PARTNO	\Box		DESCR	PTION	/		
2 1	377-01-0300		C. P. U. HOLDI NOODCABINE			·		
3 /			POWER SUPPLY					
4 1	361-14-03001	A F	LOURESCENT LA	MPÉSWITCI	H WIRED	ASSY		
6 <i>E∈F</i> 1	<u> 360-08-090</u> 361-03-030		SPEAKER SCI		~~~~~			
7 /	378-14-0500		SPEAKER WI REFERENCE "			<i></i>		
용 /	361-14-0100	c ,	A.C.LINE DIST			4557		
9 /	37/-14-0700	4	ISOLATION TRA	NSFORME			Y	
10 1	360-14-070		COINCO COIN DO		. 33 /7 33			
11 1	502500210120		19" COLON: MONITO CABINET POW		=55 A46	\ Y		
13 /	375-03-0200		GLASS HOLDING		ACK)			
14 1	375-10-0300		MONITUR BEZE	۷				
15 1	343-03-020		TOP ANGLE M					
17 1	361-04-1000 380-06-010		VEIWING GLI MARQUEE PA		KSCPEE	(ايم		
	361-08-060		REF. VEI WIN					
19 1	380-06-050		MONETOR OVER		KSCRE	en)		
20 /	364-01-1400 380-14-0200		CONTROL PA		ASSY			
22 /	377-12-010		C.P.U. HARN FUSE COVER					
23 /	380-0- 020	0	P.C.B. A58	Y (MODIF	(EQ)			
25 / 24 /	380-06-0300		LEFT SIDE					
26 /			PLANT SUDE		ARDNER ,	MONITOR	5/6N	AL HARNES
27 2	361-10-020	2 1	JINYL TRIM?	7/4	:			
28 REF.	235-8-28	9 /	REF. VINYL	RIM				
30_1 29_1_	364-03-030		C.P.U. SHEIL					
			MONITOR M					
	10//1/10		4-20 × 1/4 CARR				Ē	
33 18	1050006		1/4-20 KEP NO	IT				
35 / 34 4	10111106	-	1/4-20×3/4 CA 1/4-20 FLAT W		OLT BL	ACK OX	DE	
	10111008		10-24 X1 CAR					
	10111010		10-24×11/4 CAR		OLT BLA	CK OXIL	E	
38 2			10-24x1" RD			· · · · · · · · · · · · · · · · · · ·		
<u>40 11</u> 39 4	10010151		10-24 KEP N 10-24×3/4 PA					
	10190009		#10 FLAT WAS					
	1020000		#10 SPLIT LOC		re .			
43 5	10170002		#10-24 WING		/==/	· /75 A	•	
45 25 44 4	1004003/		#8×5/8 PA/PH 1/4-20×1/2 MA		OLT HE	X HEAT		
	10100001		#8-32×3/8 774		€W			
47 6"	50270/20		VELCED HOD					
48 6"			VELCED LOG		SIVE FR	STENE	7 <i>P</i>	
50 MR	50270012		STAPLES WIRE TY'S S	·/>"				
51 1	364-06-05	200	F.C.C. LABE	<i>ا</i> د				
32 /	380-01-050		MANUALES	CHEMPTI		У		
54 <i>1</i>	361-03-010		GLASS HOL			445.7		
<u>55 /</u>	50270/87		CENTURY CA			0.00		
	50270/85		DISCONNECT			LABGL		
<i>57 </i>	50270184		FOR INDOOR					
58 1	50270/55		CENTURI SE	•		165		
59 1	5027 0095		GROUND WA		851			 -
	244-8-0 5027000		3/8"CABLE C		·		-	
61 12"	50/8003	-	DOUBLE 5/A			VATT		
72			515					

PSR-5110 SWITCHING POWER SUPPLY

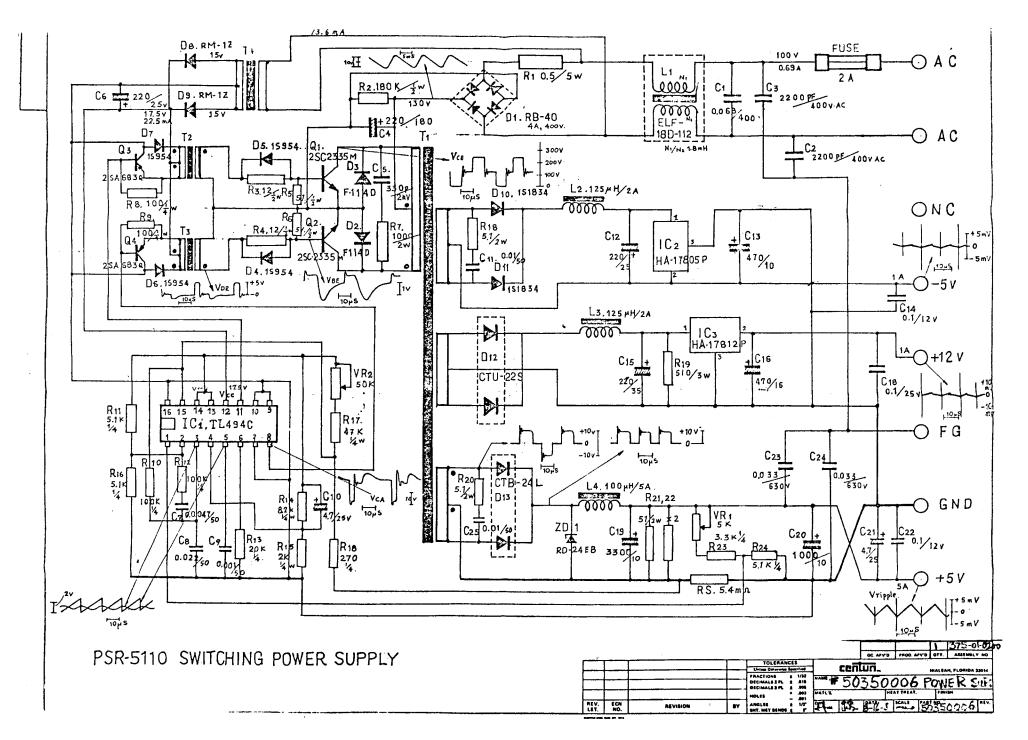
PARTS · LIST

SYMBOL:	DESCRIPTION:	QNTY.
D1	STACK DIODE	1
D8, D9	RECTIFIER	2
D2, D3	HIGH SPEED DIODE	2
D4, D5, D6, D7	HIGH SPEED DIODE	4
D13	HIGH SPEED DIODE	1
D12	HIGH SPEED DIODE	1
D10, D11	HIGH SPEED DIODE	2
ZD1	ZENER DIODE	1
Q1, Q2	TRANSISTOR	2
IC1	I.C.	1
IC2	I.C.	1
IC3	I.C.	1
T1	PULSE POWER TRANSFORMER	1
-· •	PULSE DRIVE TRANSFORMER BIAS TRANSFORMER	2
T4	R.F. CHOK TRANSFORMER	1 2
L2, L3 L4	R.F. CHOK TRANSFORMER	1
L1	A.C. LINE FILTER	1
	LINE BY-PASS CONDENSER	
C1, C23, C24	METALIZED POLIESTER CONDENSER	3 3
C9	MYLAR CONDENSER	1
C7	MYLAR CONDENSER	1
C11, C25	MYLAR CONDENSER	$\bar{2}$
C8	MYLAR CONDENSER	1
	CERAMIC CONDENSER	1
C14, C18, C24	CERAMIC CONDENSER	3
C10, C21	ELECTROLYTIC CONDENSER	3 2 2 1
C13, C16	ELECTROLYTIC CONDENSER	2
C20	ELECTROLYTIC CONDENSER	
C19	ELECTROLYTIC CONDENSER	1
C12, C15	ELECTROLYTIC CONDENSER	2
C6	ELECTROLYTIC CONDNESER	1
C4	ELECTROLYTIC CONDENSER	1
R1	CEMENT FUSE RESISTOR	1
R21, R22	METAL RESISTOR	2
R19	METAL RESISTOR	1
R7	METAL RESISTOR	1 2
R18, R20	METAL RESISTOR	18
R2, R3, R4 R5, R6, R8,		10
R9, R10, R11, R12, R13, R14, R15, R16, R17, R18		
R23, R24	•	
RS	MANGAN WIRE, 5.4M, OHM	1
VR1	SEMI-FIXED RESISTOR	ī
VR2	SEMI-FIXED RESISTOR	$\overline{1}$
F1	FUSE	$\bar{1}$
F2	FUSE HOLDER	1
10m/m	NICKEL WIRE, 0.7¢	1
150m/m	TUBE, 1.0¢	1
100m/m	TUBE, 1.5¢	1
J11	LEAD WIRE	1
J12	LEAD WIRE	1
J13	LEAD WIRE	1

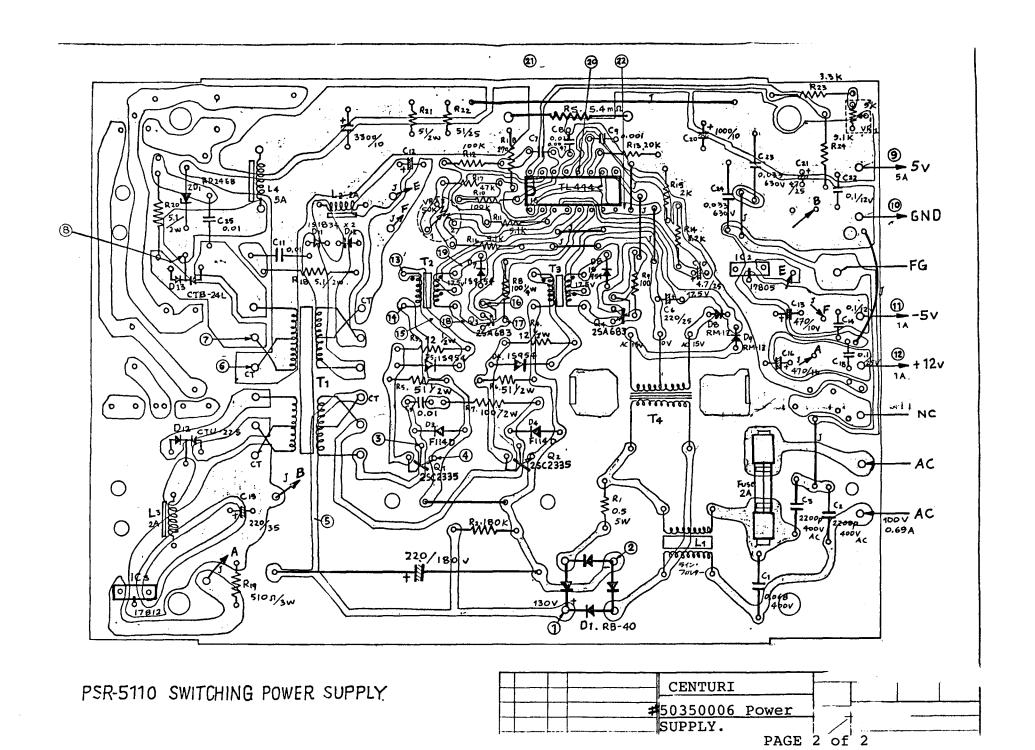
PSR-5110 SWITCHING POWER SUPPLY

PARTS LIST

SYMBOL:	DESCRIPTION:	QNTY.
J14	LEAD WIRE	1
	BIND TUBE	3
SM221	MAIN P.C. BOARD	1
	TERMINAL	1
	RATING LABEL	1
	TERMINAL LABEL	1
	BIND SCREW	5
	TRUSS SCREW	8
	TAPPING SCREW	13
	HEX NUT	7
	FLAT WASHER	7
	RECTANGULAR WASHER	6
	SPRING WASHER	7
	MICA WASHER	12
	INSULATION BUSHING	6
	TOP CASE/BOTTOM CASE	2
	FRONT PANEL	1
	REAR PANEL	1
	TERMINAL SUPPORT	1
	HEAT SINK A	1
	HEAT SINK B	1
	HEAT SINK C	1
	HEAT SINK D	1
	METAL HOLDER	4



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