

SEGA

H O L O G R A M[™]

Time Traveler[™]

Owner's Installation and
Operating Manual

SEGA ENTERPRISES, U.S.A.

P/N: 420-001

HOLOGRAM

TIME TRAVELLER

BY:

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SPECIFICATIONS

HEIGHT: 71 in.
WIDTH: 49 in.
DEPTH: 36 in.
NET WEIGHT: 480 lb.

POWER: 300 watts
VOLTAGE: 115 volts AC
CURRENT: 2.6 Amps

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

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NOTE: DESCRIPTIONS HEREIN CONTAINED MAY BE SUBJECT TO IMPROVEMENT OR CHANGES WITHOUT NOTICE.

INTRODUCTION OF THE OWNER'S MANUAL

SEGA ENTERPRISES, LTD., supported by its high electronic technology of LSIs, microprocessors, etc. and a wealth of experience, has for more than 30 years been supplying various innovative and popular game machines to the world market. This OWNER'S manual is intended to provide detailed comments together with all the necessary information covering the operation in general of electronic assemblies, electromechanical servicing control, spare parts, etc. The manual is intended for those who have knowledge of electricity and technical expertise especially in ICs, CRTs, microprocessors, etc. Carefully read so as to acquire sufficient knowledge before working on the machine. Should there be a malfunction, non-technical personnel should under no circumstances touch the interior system.

HANDLING PRECAUTIONS

When installing or inspecting, be very careful of the following points and pay attention to ensure that the player can enjoy the game safely.

- o Be sure to turn the power off before working on the machine.
- o To insert or pull out the plug quickly is dangerous.
- o It is necessary to make sure that the power cord or the grounding wire is not exposed on the road, etc. in a manner so as to be dangerous. Make sure that grounding connections are made safely at the position where specified.
- o Do not use any fuse that does not meet the specified rating.
- o Make complete connections for the IC board and other connectors. Insufficient insertion is very dangerous.

Also, for the IC board circuit inspections, only the logic probe is allowed. The use of a tester is not permitted, so be careful in this regard. After confirming that there are no irregularities, turn the power ON.

PREVENTION OF COUNTERFEITING AND CONVERSION

LABELLING

To prevent counterfeits and conversions, the following labels are put on all the SEGA products. When handling such goods, be sure to confirm the labels. They are used to prevent illegal acts such as the unauthorized copying of the products and the printed circuit boards thereof or carrying on business by manufacturing similar merchandise or by converting, selling or using such products or printed circuit boards.

The following seal is put on the machines manufactured by SEGA



ORIGINAL SEAL

COPYRIGHT NOTICE

This SEGA product has the copyright notice as follows:

© SEGA 1991

This signifies that this work was disclosed in 1991 and is the property of
SEGA ENTERPRISES, LTD.

PRECAUTIONS CONCERNING THE PLACE OF INSTALLATION

This is an indoor game machine. Absolutely do not install it outside. Even indoors, avoid installing in places mentioned below so as to ensure proper usage:

- o Places subject to rain or water leakage, or condensation due to humidity.
- o In the proximity of an indoor swimming pool and/or shower.
- o Places subject to direct sunlight.
- o Places subject to heat sources from heating units, etc., or hot air.
- o Vicinity of highly flammable/volatile chemicals or hazardous matter.
- o Sloped surfaces.
- o Vicinity of anti-disaster facilities such as fire exits and fire extinguishers.
- o Places subject to any type of violent impact.
- o Dusty places.
- o Residential Environment - (See F.C.C. statement below)

F.C.C. REQUIREMENTS

The Federal Communications Commission requires that all Class A equipment be verified and labeled as follows:

This equipment complies with the requirements in part 15 of FCC Rules for a Class A computing device. Operation of this equipment in a residential area may cause unacceptable interference to radio and TV reception requiring the operator to take what ever steps are necessary to correct the interference.

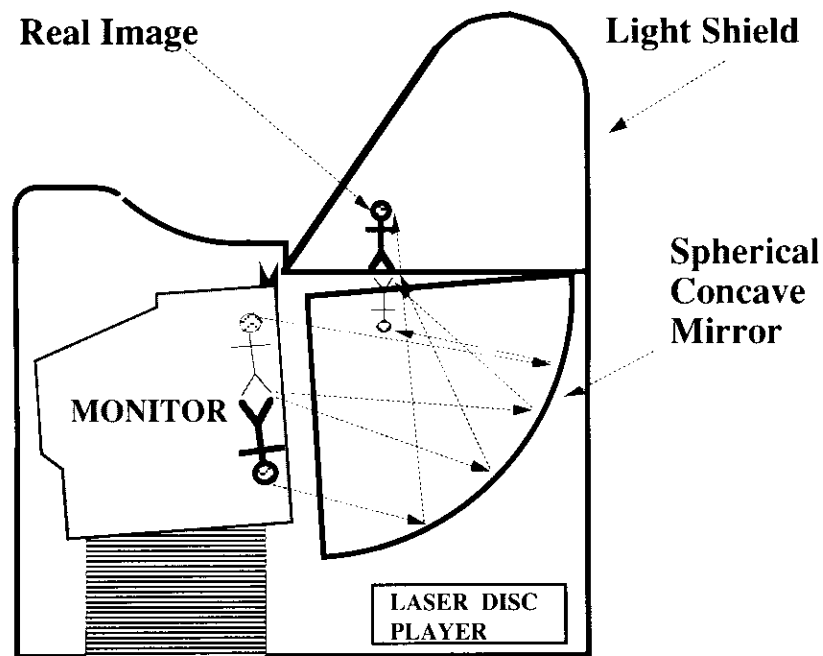
This label must be permanently attached in a conspicuous location and the text must be legible. If this label is removed or tampered with, such action is punishable under Section 503 of the Communications Act of 1934 (ACT), as amended.

Patented Display System:

The **Hologram™ Time Traveler™** game utilizes a display system defined in the United States under Patent Number 4,776,118. The basic elements of this system are the following:

1. A cathode-ray tube (TV Monitor)
2. A black surface, concave spherical mirror
3. A light-shielding structure

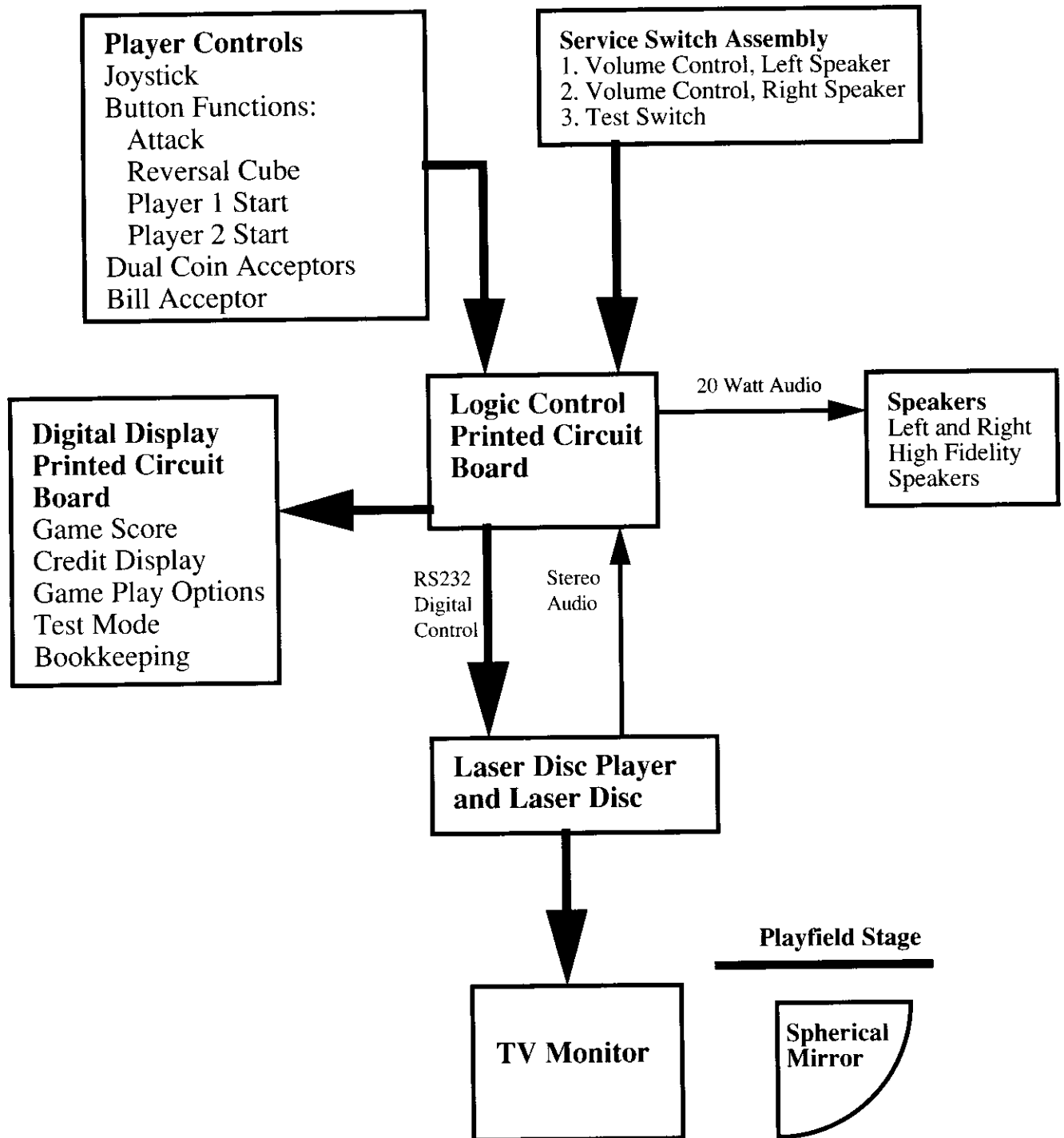
The concave spherical Mirror and Monitor are arranged such that light from the Monitor screen is reflected by the concave mirror (as indicated by the dotted lines in Figure 1) to form a "Real Image" of the picture on the Monitor screen in a space above the horizontal axis of the Mirror.



United States Patent Number: 4,776,118
Date of Patent: October 11, 1988

Figure 1

Hologram *Time Traveler* Diagram (Figure 2)



Player Controls

The Player Controls allow the player to select the type of game (1 player or 2 player) to be played, along with full control of game play. The instructions are located on the control panel to inform the player of game play.

Service Switch Assembly

The Service Switch Assembly is located on the inside of the Coin Door Assembly. This assembly contains the Volume Controls for the left and right Speakers, the System Test Push Button, and Coin Counter.

The Test Button allows the operator to select service and bookkeeping functions contained within the game. See the following functions:

BOOKKEEPING

COIN1	Number of coins deposited in the system
COIN2	Number of coins deposited in the form of paper money. COIN2 = BILLS X BILL MULTIPLIER (e.g., 4 quarters = 1 dollar)
1PLAYER	Number of 1 player games
2PLAYER	Number of 2 player games
FREE GAMES	Number of games won by playing the Devil
SERVICE CREDITS	Number of games played by access to diagnostics switch
SYSTEM TIME	Time the system has been running
PLAY TIME	Time the game has been active while playing
AVG TIME	Length of the average game
MAX TIME	Longest game played
NEW GAME	Total number of new games played
CUBES	Number of cubes purchased
EXIT	Exit Bookkeeping mode; back to diagnostics

CLR BOOKKEEPING

Reset all of the above values to their initialized state.

RESET HIGH SCORE

Reset High Scores to default values.

SERVICE CREDIT

Allow service personnel to play the game without modifying the coin counter.

DISPLAY TEST

Writes O's and *'s to the display to test all the segments. Hit Attack to exit.

I/O TEST

Test the Lamp, Joystick, Buttons, and Coin switches. Hit Attack to exit.

LASER TEST

Attempts to initialize the Laser Disc Player, then searches to frames 1, 27000, and 45000 three times and calculates how long it takes to complete the sequence. If the sequence takes more the 15% longer than normal, it will print the message "FLIP DISC". This may occur if the Disc is "dished", so the disc should be removed and cleaned, then flipped over to let it warp back in the opposite direction. If an error still occurs the optics within the Laser Disc Player may need to be cleaned. Call Sega's Customer Service Department for further instruction.

MONITOR TEST

The Laser Disc will search to the first of five video calibration patterns. To go to the next one, push the joystick forward. To go to the previous one, pull the joystick back. To exit, push the Attack button.

AUDIO TEST

Play a few beeps from the speaker, then play the Trader video sequence two times. Track A plays the first time, Track B the second time.

DIP SWITCH 11,12, and 13

Current Dip Switch settings; 1 = ON, 0 = OFF.

Displayed Switch Postion =

8	7	6	5	4	3	2	1
---	---	---	---	---	---	---	---

EXIT SERVICE

Exit and restart Attract Loop.

Logic Control Printed Circuit Board

The Logic Control Printed Circuit Board is the main control unit within the game system. This board receives inputs from the game player and issues commands to the Laser Player to display the proper video sequence in response to the inputs. This board also outputs data to the Digital Display Printed Circuit Board to display the player's game status information (Game play coinage, Score, etc.). The 20 Watt audio amplifier is also located on the Control PCB; the stereo output of the Laser Player is amplified and then sent to the High Fidelity Speakers.

Laser Disc Player

The Laser Disc Player is the Model LDP-1450 manufactured by Sony Corporation. This player is an industrial player designed for long term reliability and use. The LDP-1450 is the latest and most advanced Laser Disc Player available today for use in the *Time Traveler* application.

T.V. Monitor

The T.V. Monitor is the Model KV-20TR22 manufactured by Sony Corporation. This Monitor uses the Trinitron picture tube and accepts the full bandwidth NTSC signal generated by the Laser Disc Player. The Trinitron tube provides the resolution, color purity, and brightness required for the detailed display used by the *Time Traveler* game.

All adjustments of the T.V. Monitor can be performed by the Remote Control unit provided with the game. This Remote Control operation allows Monitor adjustments to be made while viewing the display in the same position as a player would view it.

System Filtering and Cooling

The **Hologram** *Time Traveler* Game contains two (2) 105 CFM fans which provide cooling and air filtration. The air is drawn from outside the cabinet and is filtered by a 45 PPI (Pores Per Inch) filter which removes coarse dust particals from entering the inside of the system and provides cooling for the Logic Control PCB and Power Supply Assembly. Once the cool air is drawn into the cabinet, it is again filtered by a 60 PPI filter to remove fine dust particals from entering the Laser Disc Player Enclosure. By forcing filtered, positive air pressure into the Laser Disc Player Enclosure, dust accumulation is minimal inside of the Laser Disc Player, and cooling in this area is provided as well.

ASSEMBLY & INSTALLATION PROCEDURES

COMPLETELY UN-PACKAGE UNIT

(Note: The Laser Disc Player carton includes the Laser Disc Player and Laser Disc.)

REMOVE CANOPY ASSY

1. Locate the T27 Torx wrench and back door keys that are taped to the glass of the Mirror Cabinet.
2. Use the key to open and remove the back door. (Note: Unplug the Fan connector before removing the door.)
3. Unplug the Display Ribbon Cable from the Logic PCB and disconnect the 4 pin Speaker connector. These two harnesses are routed vertically up through the Canopy Assy.
4. Use the T27 Torx wrench to remove the (10) T27 Torx screws which mount the Canopy Assembly to the Mirror Cabinet. (Figure 1)
5. Lift the Canopy Assembly vertically to separate from the Mirror Cabinet.
(Caution: Be careful not to damage the two harnesses attached to the Canopy Assy while lifting the Assy off the unit.).
Set Canopy Assembly aside.

REMOVE GLASS STAGE

6. From the rear of the Mirror Cabinet, remove the Glass Stage and support by lifting the glass and sliding toward yourself. Set the Glass Stage aside.

ATTACHING FRONT AND REAR CABINETS

7. Position the Front Cabinet in front of the rear cabinet.

8. Connect the A.C. harness located between the front and rear cabinets, located on the right inside, when viewed from front of game.
9. Connect the two D.C. harnesses to the Logic PCB. The 24 pin connector is installed into J2 and the 9 pin connector is installed into J5.
10. Connect the Monitor Video BNC connector to the mating BNC extension cable from the Laser Disc Player Enclosure.
11. Carefully slide the Front Cabinet into position to mate with the Rear Cabinet. (NOTE: assure no harnessing obstructs movement or alignment.)
12. From the top of the Rear Cabinet latch the two left and two right clamps that secure the front and rear cabinets together.
13. Assure the Black Fabric obscures the harnessing and Logic PCB when viewed from the top of the Rear Cabinet.

LASER DISC PLAYER INSTALLATION

14. At the Mirror Cabinet rear, remove 5 ea Hex Screws from the Laser Disc Player Enclosure (on left) and remove the Cover.
15. Locate the harness for the Laser Disc Player (LDP) inside the LDP Enclosure and extend toward yourself to the outside rear of the cabinet.
16. Locate the Laser Disc Player and set at cabinet rear (Set Disc aside). Connect the male DB25 connector of the Harness to the female DB25 connector on the rear of the Laser Disc Player. (Secure connector using mounting screws.)
17. Connect the BNC Video Connector located on the rear of the Laser Disc Player.
18. Connect the RCA Audio Cables to the Laser Disc Player. (Red is the right channel and Black is the left channel.)

19. Set the BAUD RATE to 4800 Baud by setting the Dip Switch located on the rear of the Laser Player as follows:
1 = Down , 2 = Down, 3 = Up, 4 = Down.
20. Route the Laser Disc Player AC Cord through the right rear opening of the LDP Enclosure and connect to the Power Supply Assembly Board AC Outlet.

LASER DISC INSERTION

21. Apply Power to the Hologram Game. Assure that the Laser Disc Player and TV Power switches are in the "ON" position.
22. Press the Eject (Open/Close) button on front of the LDP to open the tray.
23. Locate the Laser Disc and carefully install into the Eject Tray of the Laser Disc Player. (Side one and Side 2 are identical.) Press the Eject button once again to close the tray.
24. Power Down the Hologram Game to Reset the System and to continue the installation process.

INSTALLATION OF CANOPY

25. Place the glass stage back into position on the Mirror Cabinet.
26. Lift the Canopy and hold above Rear Cabinet. Feed The Speaker Harness and Ribbon Cable through the gap between the glass stage and cabinet rear wall. Lower Canopy into position on the Mirror Cabinet.
27. Connect the Display Ribbon Cable to the Logic PCB.
28. Connect the Speaker Harness to the 4 pin mating connector.
29. Apply Power to the Hologram Game System.
30. The Game is now operational. Verify that the operation is good prior

to the completion of Cabinet Assembly.

OPERATIONAL TESTING

31. When Power is applied to the Hologram Game System, the game executes a self test program. This program will verify system operation and will indicate proper operation on the Digital Display. If an error is detected, the Digital Display will indicate the error along with an audio Beep sequence. Error indications are as follows:

Startup Errors:

1 BEEP PER SECOND

Bad serial port or SONY Disc Player is offline

2 BEEPS EVERY 20 SECONDS

Bad serial port or PIONEER Disc Player is offline

3 BEEPS

Laser Disc error; Disc is online but confused.

Try powering off and start again.

4 BEEPS

EEPROM error

BAD RAM

Bad chips were found

BAD ROM

Checksum error; bad ROM chip.

32. Once the Power On automatic testing is complete, the game will enter the game attract mode of operation. Press the Manual Test Push Button located on the Coin Door for further system verification. This Test Button places the system into a diagnostic and informational mode. Different Test or Functions are selected with the Joystick and executed when the Attack Button is pressed. The following describes the operation of the Test Mode:

BOOKKEEPING

COIN1

Number of coins deposited in the system

COIN2

Number of coins deposited in the form of paper money. COIN2 = BILLS X BILL MULTIPLIER (e.g., 4 quarters = 1 dollar)

1PLAYER	Number of 1 player games
2PLAYER	Number of 2 player games
FREE GAMES	Number of games won by playing the Devil
SERVICE CREDITS	Number of games played by access to diagnostics switch
SYSTEM TIME	Time the system has been running
PLAY TIME	Time the game has been active while playing
AVG TIME	Length of the average game
MAX TIME	Longest game played
NEW GAME	Total number of new games played
CUBES	Number of Reversal Cubes purchased
EXIT	Exit Bookkeeping mode; back to diagnostics

CLR BOOKKEEPING

Reset all of the above values to their initialized state.

RESET HIGH SCORE

Reset High Scores to default values.

SERVICE CREDIT

Allow service personnel to play the game without modifying the coin counter.

DISPLAY TEST

Writes O's and *'s to the display to test all the segments. Hit Attack to exit.

I/O TEST

Test the Lamp, Joystick, Buttons, and Coin switches. Hit Attack to exit.

LASER TEST

Attempts to initialize the Laser Disc Player, then searches to frames 1, 27000, and 45000, three times and calculates how long it takes to complete the sequence. If the sequence takes more the 15% longer than normal, it will print the message

"FLIP DISC". This may occur if the Disc is "dished", so the disc should be removed and cleaned, then flipped over to let it warp back in the opposite direction. If an error still occurs the optics within the Laser Disc Player may need to be cleaned, call Sega's Customer Service Department for further instruction. (Full instructions will be included later in the full system manual.

MONITOR TEST

The Laser Disc will search to the first of five video calibration patterns. To go to the next one, push the joystick forward; to go to the previous one, pull the joystick back; to exit, push the Attack button.

AUDIO TEST

Play a few beeps from the speaker, then play the Trader video sequence two times. Track A plays the first time, then track B the second time.

DIP SWITCH 11,12, and 13

Current Dip Switch settings; 1 = ON, 0 = OFF.

EXIT SERVICE

Exit and restart Attract Loop.

FINAL ASSEMBLY

33. Proceed with Cabinet assembly by securing the Canopy Assembly to the Mirror Cabinet with the (10) T27 Torx screws and Side Trim.
34. Slide the Laser Disc Player into the Laser Player's Enclosure and secure the cover with the (5) Hex screws.
36. Connect the 3 pin connector for the Fan on the Rear Door and install the Rear Door.

INSTALLATION OF THE HOLOGRAM GAME IS NOW COMPLETE

CONTROL PANEL SERVICE

The Control Panel may be serviced by unlatching the clamp located on the inside front center of the Control Panel. Access to this clamp is through the Coin Door using the following procedure:

1. Open the Coin Door
2. Reach through the Coin Door opening and over the rear of the monitor to the front and center of the Control Panel.
3. Unlatch the clamp
4. Raise the front of the Control Panel (Note: The rear of the Control Panel is hinged)
5. Once the Control Panel is raised, all player controls can be accessed
6. To close the Control Panel reverse the above procedure.

SONY MONITOR ADJUSTMENTS

The TV Monitor can be adjusted from the front of the Hologram cabinet by using the Remote Control Unit. Point this unit toward the spherical mirror directly above the glass stage. The operation of this unit is described on page 13 of the Sony Trinitron Color TV manual 3-752-986-21 (1).

NOTE: The TV must be operated in the VIDEO mode for proper operation of the Hologram Game.

SONY LASER DISC PLAYER INFORMATION

The Operation Instructions are supplied with the LDP-1450 Laser Disc Player. See Sony Videodisc Player manual 3-751-327-23 (1) for detailed information.

NOTE: The VIDEODISC PLAYER must be set to 4800 BAUD for operation of the Hologram Game.

DOLLAR BILL ACCEPTOR INFORMATION

The Hologram game has been pre-wired for the MARS Bill Acceptor (Model VFM3SL1D6C). Located on the left of the Coin Door is the removable plate where the acceptor is designed to be installed. The unit will receive 115VAC from the pre-wired connector and will generate an input to the Logic PCB on Coin 2 input. Refer to the mounting and assembly instructions supplied with the Mars Bill Acceptor.

PRECAUTIONS AND PREVENTATIVE MAINTENANCE

The Laser Disc Player is housed in a pressurized enclosure to prevent dust accumulation and to provide cooling. **The filters** for both Fans which carry cool air from outside the cabinet through the Laser Disc Player **must be cleaned every 3 months.**

Do not operate the Hologram game right after having transported it from a cold location directly to a warm location or in a room where the temperature rises suddenly, as moisture may condense in the operation section of the unit. Wait for 2 hours before turning the power on in the new location. If the unit is operated with moisture condensation, the game may be damaged.

Remove the Disc from the Laser Disc Player compartment if the game will not be used for any length of time.

Do not transport the Hologram game with a Disc loaded in the Laser Disc Player.

PROPER CARE OF:

FORMICA CABINET

Dirt and spillage from the surface of the cabinet can be removed by using a mild detergent mixed with water. Paint may be removed by using paint thinner and clean cloth.

FILTERS

Both the 60ppi and 45ppi fan filters may be cleaned by washing the filters with a mild detergent mixed with water. Allow to completely air dry prior to re-installing in order to prevent moisture from entering the system.

OPTICS

The spherical mirror should only be cleaned with a "new" feather duster in order to remove dust accumulation on the mirror. Finger prints can be removed from the surface of the mirror by using alcohol and cheese cloth. Caution: The surface of the mirror is very sensitive and can be scratched very easily.

GLASS STAGE

The surface of the Glass Stage can be cleaned with Glass Cleaner or an equivalent.

STAGE DISPLAY BLOCKS

The Stage Blocks should be cleaned with a mild detergent mixed with water. The Stage Blocks are attached to the Glass Stage with "Super Glue Wood Bonding Adhesive". It is recommended if Blocks are replaced, all Glue residue is removed from the Glass and the Glass is clean and dry.

HOLOGRAM DIP SWITCHES

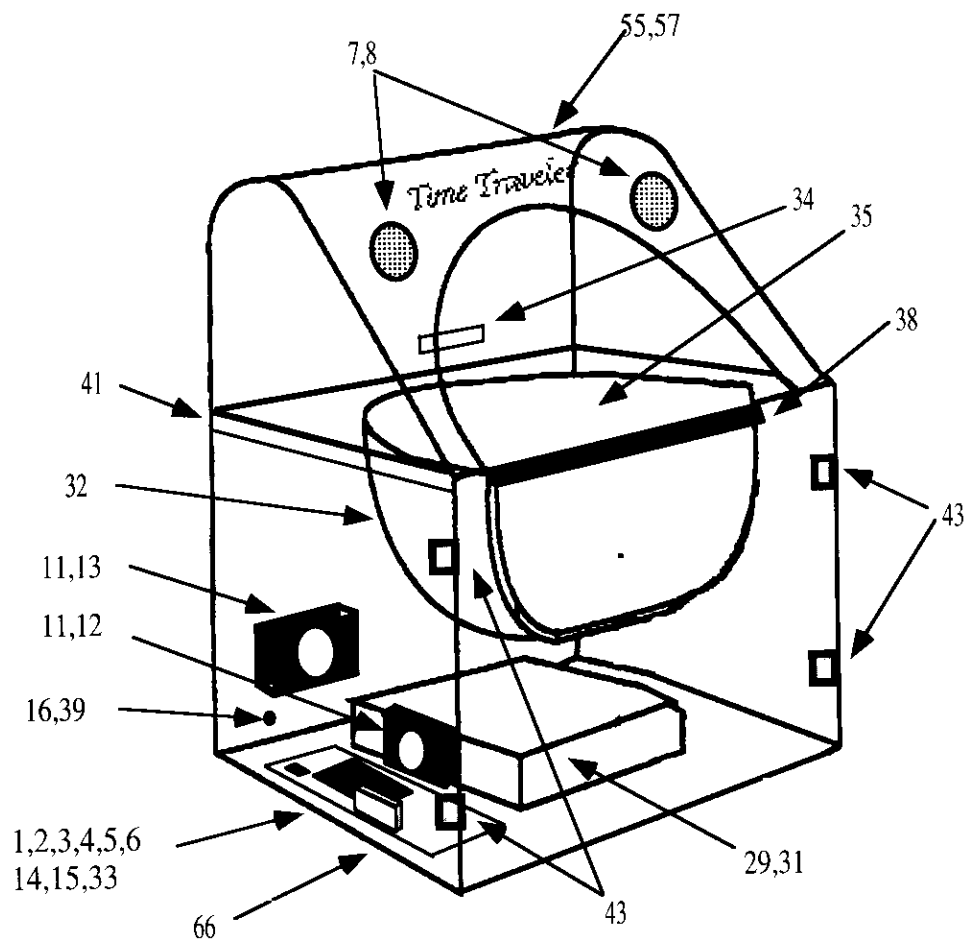
<u>NUMBER OF COINS PER CREDIT</u>		<u>SW11-8</u>	<u>SW11-7</u>	
	1	ON	ON	
	2	OFF	ON	
	3.....	ON	OFF	
	4	OFF	OFF	
 <u>NUMBER OF LIVES PER CREDIT</u>		 <u>SW11-6</u>	 <u>SW11-5</u>	
	2	ON	ON	
	3.....	OFF	ON	
	4	ON	OFF	
	5	OFF	OFF	
 <u>MAX REVERSAL CUBES ALLOWED</u>		 <u>SW12-8</u>		
	6.....	ON		
	36	OFF		
 <u>COST OF REVERSAL CUBES</u>		 <u>SW12-7</u>	 <u>SW12-6</u>	 <u>SW12-5</u>
	1 COIN FOR 1 CUBE	ON	ON	ON
	2 COINS FOR 1 CUBE	OFF	ON	ON
	1 COIN FOR 2 CUBES.....	ON	OFF	ON
	2 COINS FOR 3 CUBES	OFF	ON	OFF
	1 COIN FOR 3 CUBES	ON	ON	OFF
	1 COIN FOR 1 OR 2 COINS FOR 3	OFF	OFF	OFF
 <u>GAME PLAY TEST MODE</u>		 <u>SW12-4</u>		
	NORMAL GAME PLAY.....	ON		
	SELECT EPISODES WITH JSTK	OFF		
 <u>OPTIONS FOR THE DEVIL</u>		 <u>SW12-3</u>	 <u>SW12-2</u>	
	DEVIL CAN TAKE AWAY LIVES.....	ON	ON	
	DEVIL WILL NEVER TAKE LIVES	OFF	ON	
	DEVIL NOT IN GAME AT ALL ON	OFF		
 <u>FREE PLAY MODE</u>		 <u>SW13-8</u>		
	PAY TO PLAY.....	OFF		
	PLAY FOR FREE	ON		
 <u>ATTRACT MODE AUDIO</u>		 <u>SW13-7</u>		
	SOUND ALWAYS ON.....	OFF		
	SOUND ALWAYS OFF	ON		
 <u>GAME PLAY DIFFICULTY LEVEL</u>		 <u>SW13-6</u>	 <u>SW13-5</u>	
	MEDIUM.....	OFF	OFF	
	EASY	ON	OFF	
	DIFFICULT	OFF	ON	
	MOST DIFFICULT	ON	ON	
 <u>LASER DISK PLAYER SELECTION</u>		 <u>SW13-4</u>		
	PIONEER MODEL LDV-4200	OFF		
	SONY MODEL LDP-1450.....	ON		
 <u>BILL TO COIN MULTIPLIER</u>		 <u>SW13-3</u>	 <u>SW13-2</u>	 <u>SW13-1</u>
	1	ON	ON	ON
	2	OFF	ON	ON
	4.....	OFF	OFF	ON
	8	OFF	OFF	OFF
	10	OFF	ON	OFF

Hologram Time Traveler Parts List

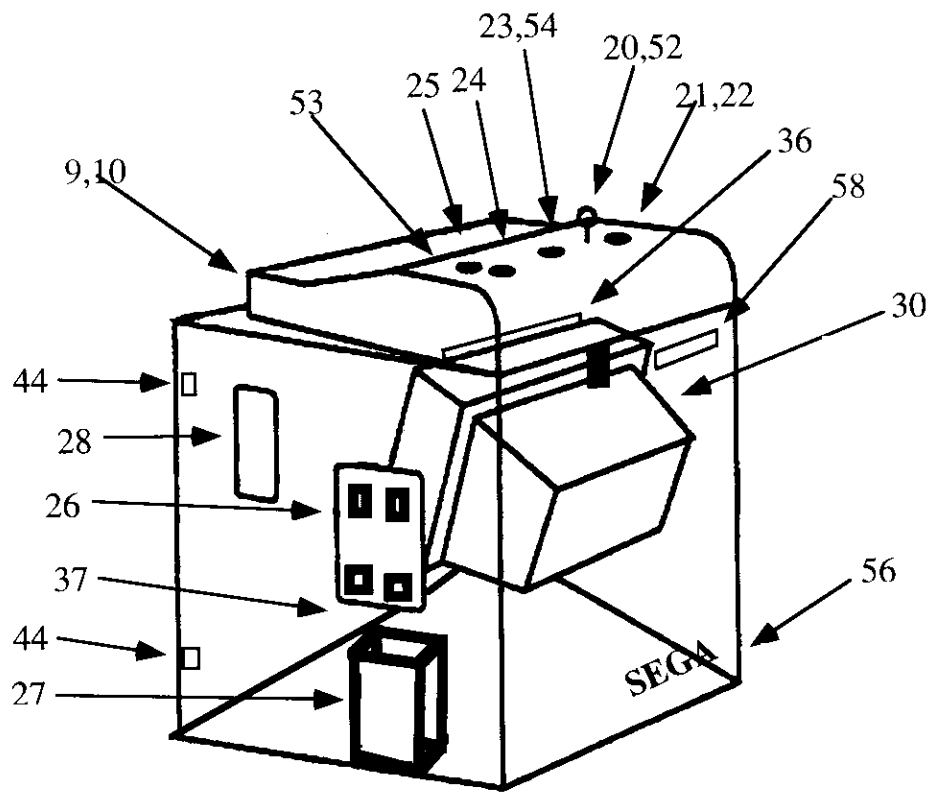
1	400-001	Power Supply, 5V 11A, 12V 2A	1
2	514-001	Fuse, 4 Amp (Slo Blow)	1
3	514-100	Fuseholder, 1P	1
4	601-000	Fuse Cover	1
5	601-001	RFI Line Filter, 5 Amp	1
6	117-001	Terminal Block, 5P	1
7	130-001	Speaker, 5-1/4" Round	2
8	131-001	Grill, Speaker 5-1/4" Mount	2
9	HTT-001	Assy, Black Light	1
10	HTT-002	Cover, Black Light Assy.	1
11	260-001	Fan - 105 CFM	2
12	261-001	Filter, 65ppi (Fan)	1
13	261-002	Filter, 45ppi (Fan)	1
14	600-001	Power Cord, 10 ft.	1
15	280-001	Bushing, Strain Relief	1
16	509-001	Power Switch, Toggle On/Off	1
17	509-002	Switch, Pushbutton Momentary	1
18	220-001	Volume Control, 5K	2
19	601-002	Knob, 1/4" Shaft	2
20	509-003	Joystick, 8 Way	1
21	509-004	Switch, Pushbutton - Red	1
22	HTT-022	ID Tag, CP Button - ATTACK	1
23	HTT-003	Switch, Back-lit (Square) - Blue	1
24	509-005	Switch, Pushbutton - (1P Start)	1
25	509-006	Switch, Pushbutton - (2P Start)	1
26	220-002	Assy, Coin Door (Double Entry)	1
27	HTT-004	Assy, Cash Box W/Lid	1
28	HTT-005	Plate, Bill Acceptor	1
29	200-001	Laser Disc Player	1
30	200-002	TV Monitor, Trinitron 19"	1
31	HTT-006	Laser Disc, Time Traveler	1
32	HTT-007	Optics, Spherical Mirror	1
33	839-001	Assy, PCB Logic	1
34	839-002	Assy, PCB Display	1
35	HTT-008	Glass, Stage Floor (w/Silkscreen)	1

Hologram Time Traveler Parts List (Continued)

36	HTT-009	Monitor Retainer	1
37	HTT-010	Brackets, Monitor	2
38	HTT-011	Front Glass Retainer	1
39	HTT-012	Bracket, Power Switch	1
40	HTT-013	Bracket, Service Switch	1
41	HTT-014	Side Trim (Left/Right)	2
42	601-003	Leg Levelers	8
43	008-001	Clamp, Catch	5
44	008-002	Clamp, Keeper Plate	5
45	Not Used		
46	*HTT-016	Block, Square (Blue)	1
47	*HTT-017	Block, Round	1
48	*HTT-018	Block, Long	1
49	*HTT-019	Block, Tall	1
50	*HTT-020	Block, Triangle A	1
51	*HTT-021	Block, Triangle B	1
52	HTT-023	Graphics, Joystick Label	1
53	HTT-024	Graphics, Instruction Label	1
54	HTT-032	Graphics, Reversal Cube Label	1
55	HTT-025	Graphics, Label - Time Traveler	1
56	HTT-026	Graphics, Sega Logo (Large)	1
57	HTT-027	Graphics, Sega Logo (Small)	1
58	HTT-028	Graphics, Hologram Nameplate	1
59	420-001	Owners Manual, Time Traveler	1
60	HTT-030	Assy, Cabinet	1
61	HTT-031	Wire Harness, Hologram System	1
* HTT-033	Block Set containing		
	1ea	HTT-016	Blocks are available in sets only. They are identified individually to facilitate in proper placement on the glass stage
	1ea	HTT-017	
	1ea	HTT-018	
	1ea	HTT-019	
	1ea	HTT-020	
	1ea	HTT-021	

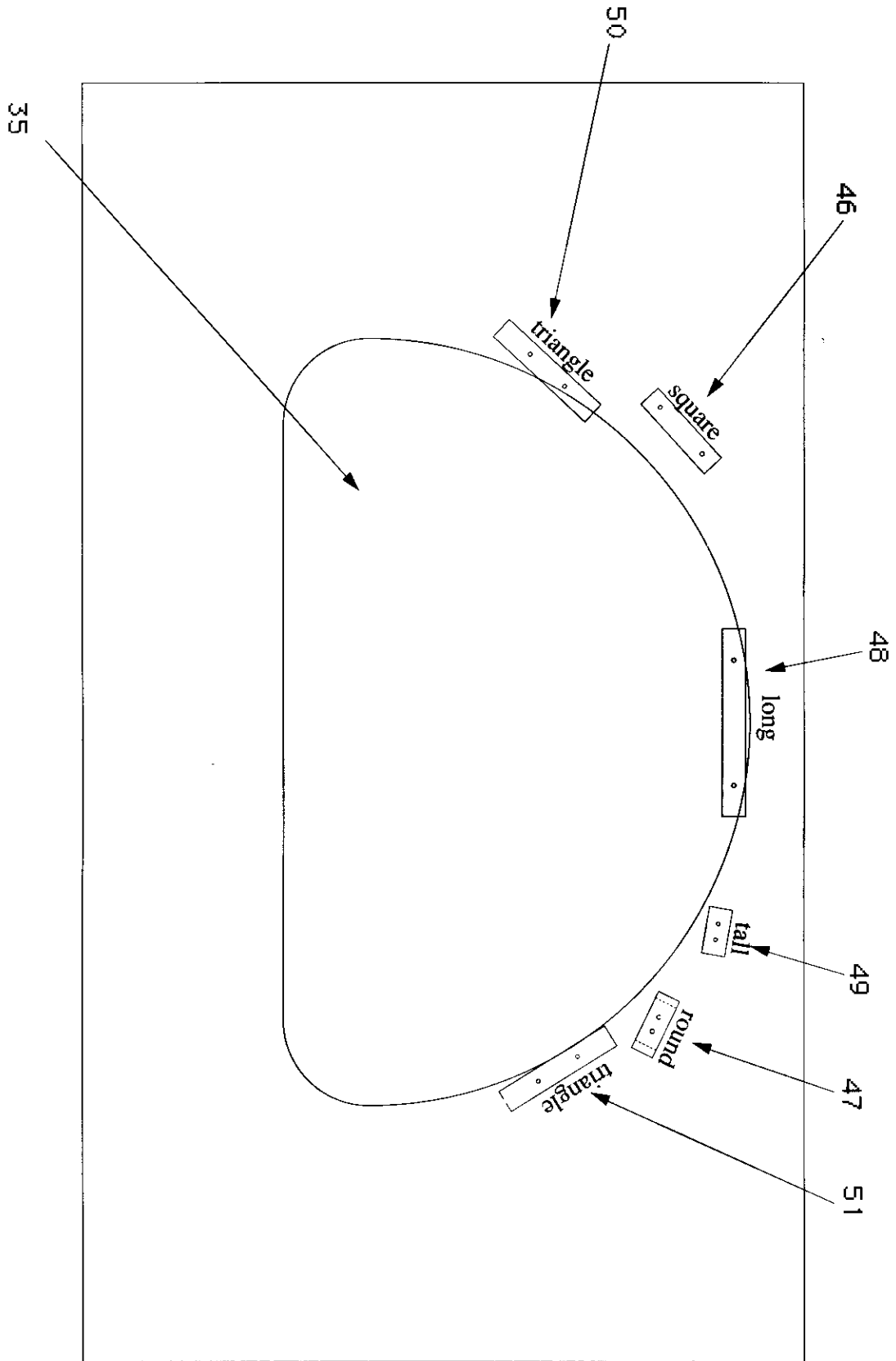


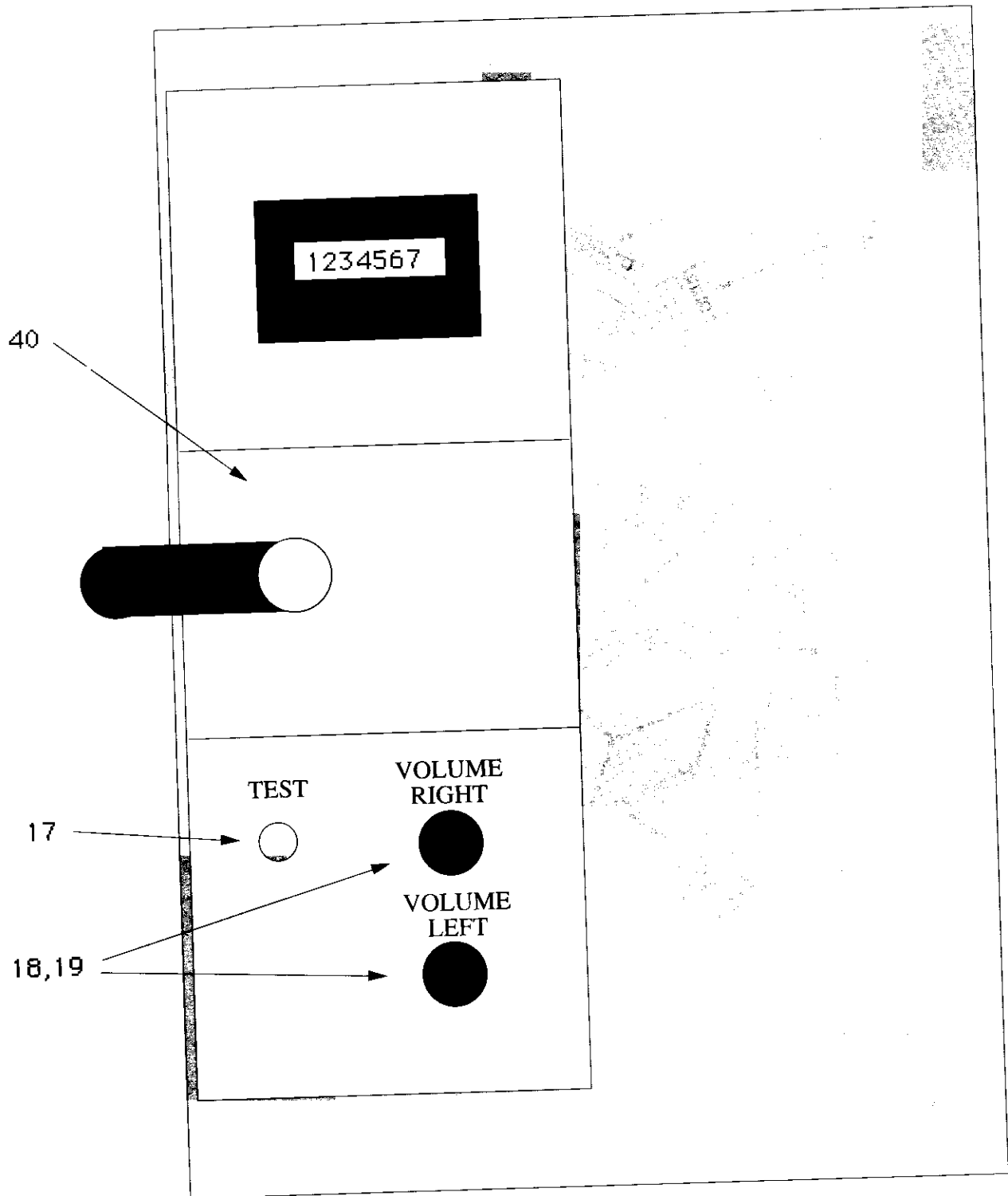
Hologram Rear Cabinet



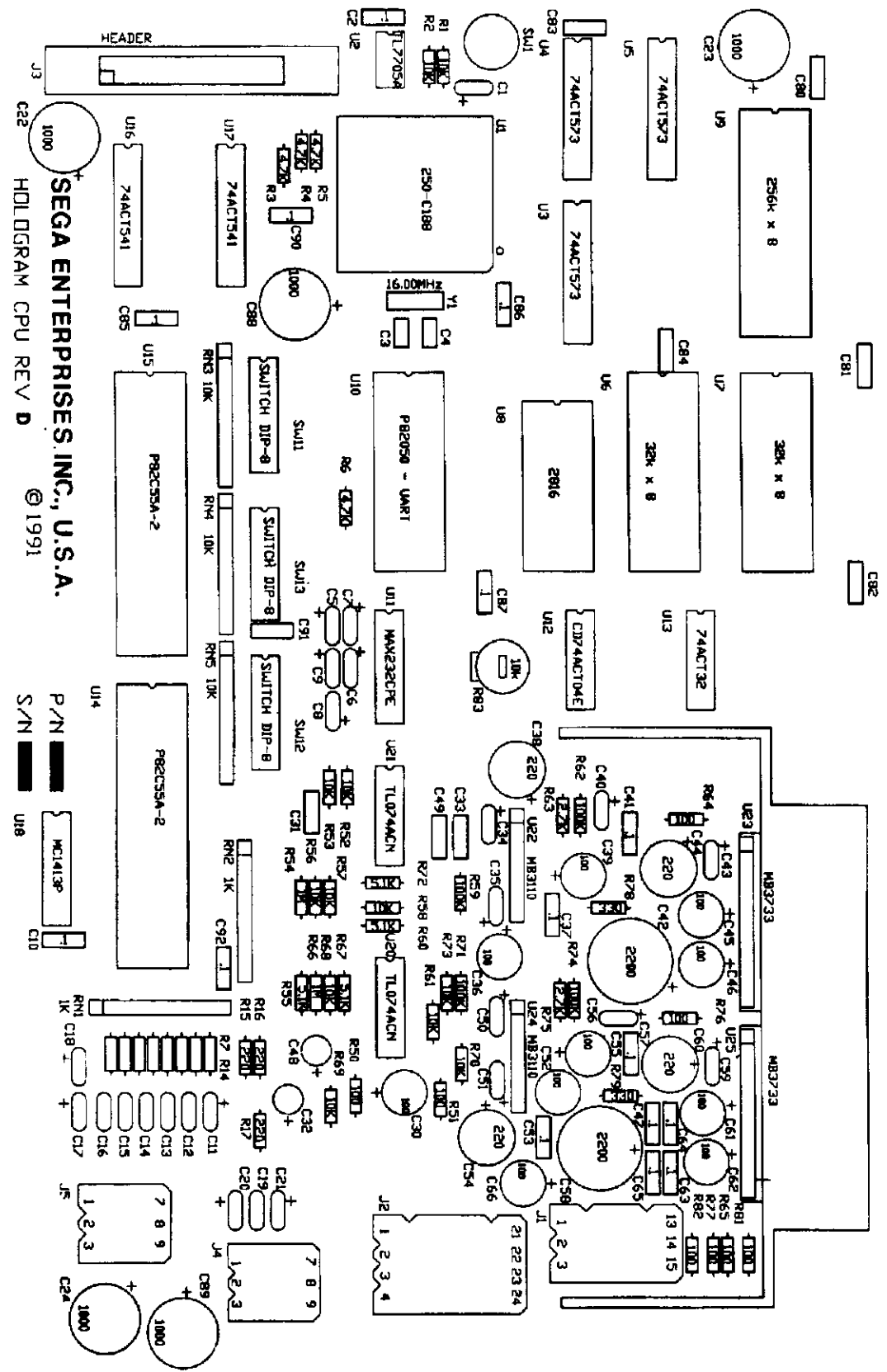
Hologram Front Cabinet

Class Stage
27





Service Switch Assembly

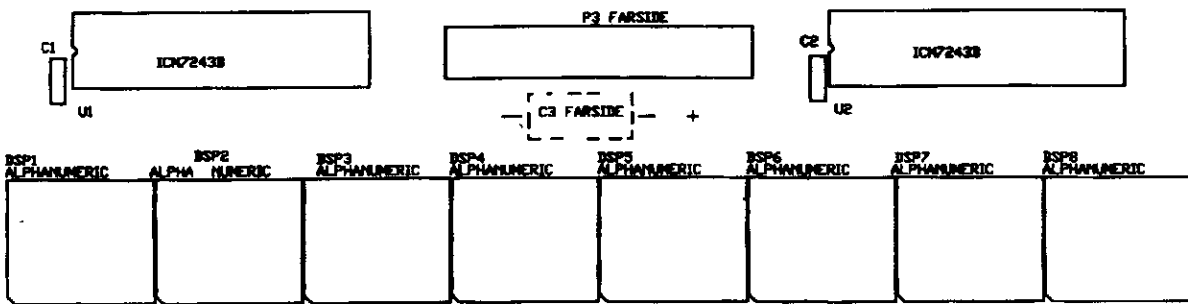


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 HOLDGRAM CPU REV D @ 1991

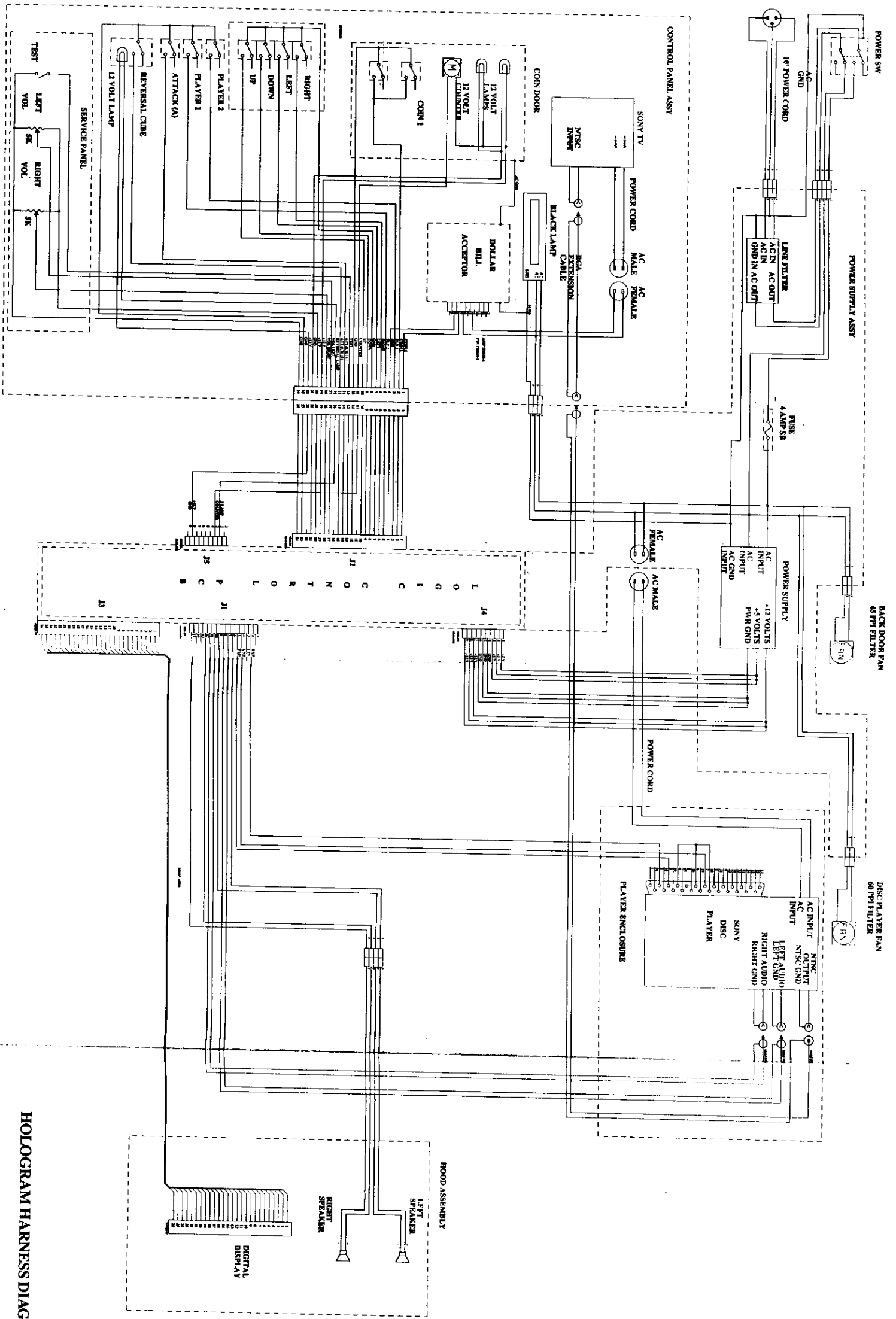
Layout of PCB

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Layout of Display PCB



HOLOGRAM HARNESS DIAGRAM