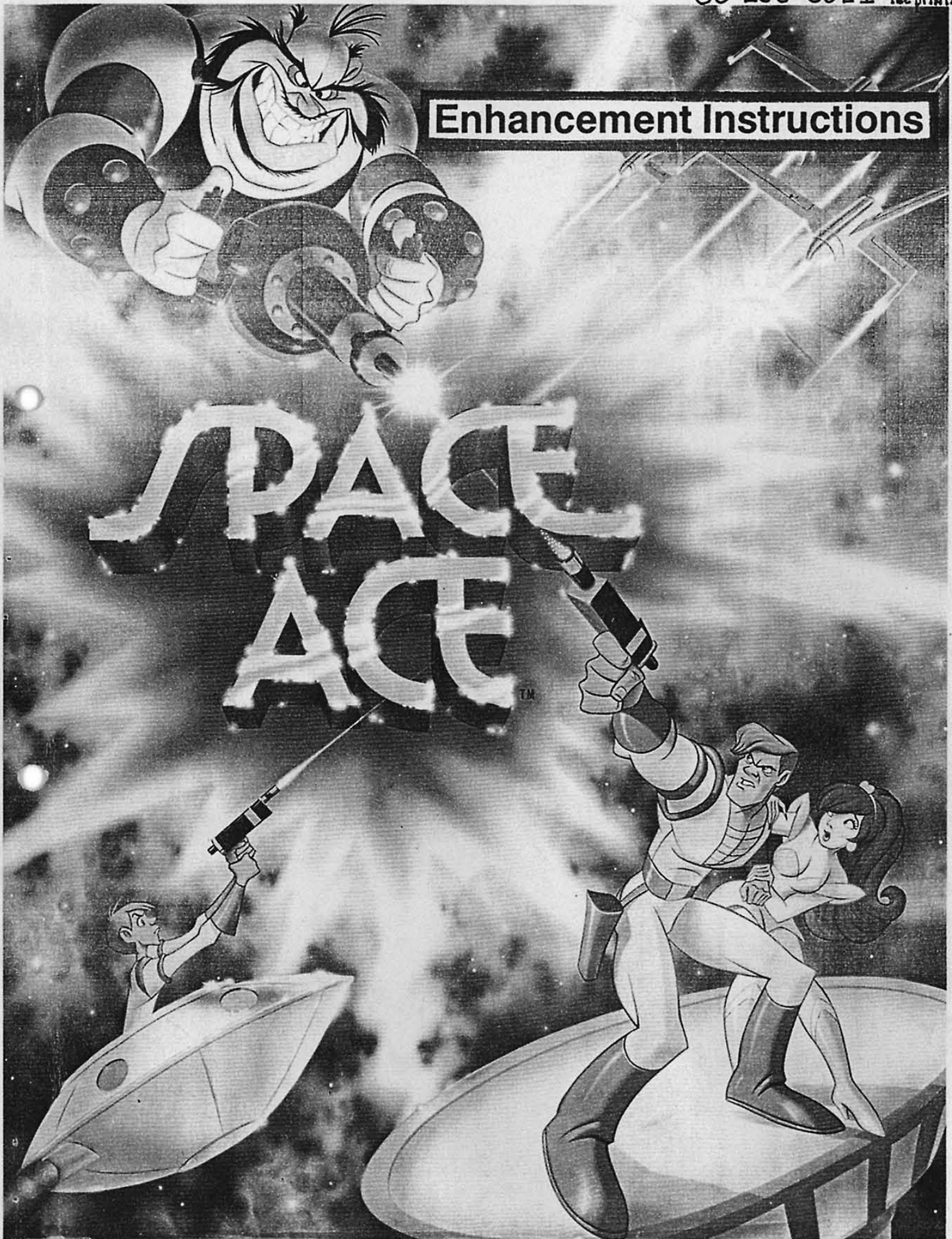


Enhancement Instructions

SPACE ACE™




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 **062-52155**

TABLE OF CONTENTS

INTRODUCTION..... 1
Enhancement Kit Inventory..... 2
Enhancement Procedure..... 4
Replace Attraction Glass..... 4
Replace Control Panel..... 4
Modify The Printed Circuit Board..... 6
Install Laser Disc..... 9
Install The Decals..... 10
Perform Self-Test..... 11

LIST OF ILLUSTRATIONS

Figure 1. Attraction Panel and Control Panel Replacement..... 3
Figure 2. Removing Ic's From a Socket..... 5
Figure 3. PCB Components Affected By Enhancement..... 7
Figure 4. Cabinet Assembly. Laser Player..... 8

INTRODUCTION

The following instructions will help you change a Dragons Lair into a Space Ace game.

These modifications include changing the Control Panel, changing the Attraction Panel, changing certain Printed Circuit Board (PCB) Components, changing the Laser Disc, and posting decals.

SUPPORTING DOCUMENTATION

These instructions are designed to be used with the following documentation:

- . TM-256 Dragons Lair Operators Manual
- . SP-256 Dragons Lair Schematic Package
- . TM-256-03 Space Ace Operators Manual

ENHANCEMENT KIT INVENTORY

Before you start to modify the game, check the contents of the Enhancement Kit.
If any item is missing, contact your Atari Distributor.

ENHANCEMENT KIT CONTENTS.Table 1 A041732-01.

<u>PART NO:</u>	<u>QUANTITY:</u>	<u>DESCRIPTION/LOCATION.</u>
041741-01	1 ea.	EPROM (U33)
041742-01	1 ea.	EPROM (U45)
041743-01	1 ea.	EPROM (U46)
041744-01	1 ea.	EPROM (U47)
041745-01	1 ea.	EPROM (U48)
041746-01	1 ea.	EPROM (U49)
041740-01	1 ea.	LASER DISC SPACE ACE
A041733-01	1 ea.	CONTROL PANEL ASSY.
A041734-01	1 ea.	ATTRACTION PANEL ASSY.
TM-256-03	1 ea.	OPERATOR'S MANUAL, SPACE ACE
CO-256-05 EI.	1 ea.	ENHANCEMENT INSTRUCTIONS, SPACE ACE
041735-01	2 ea.	SIDE PANEL DECAL

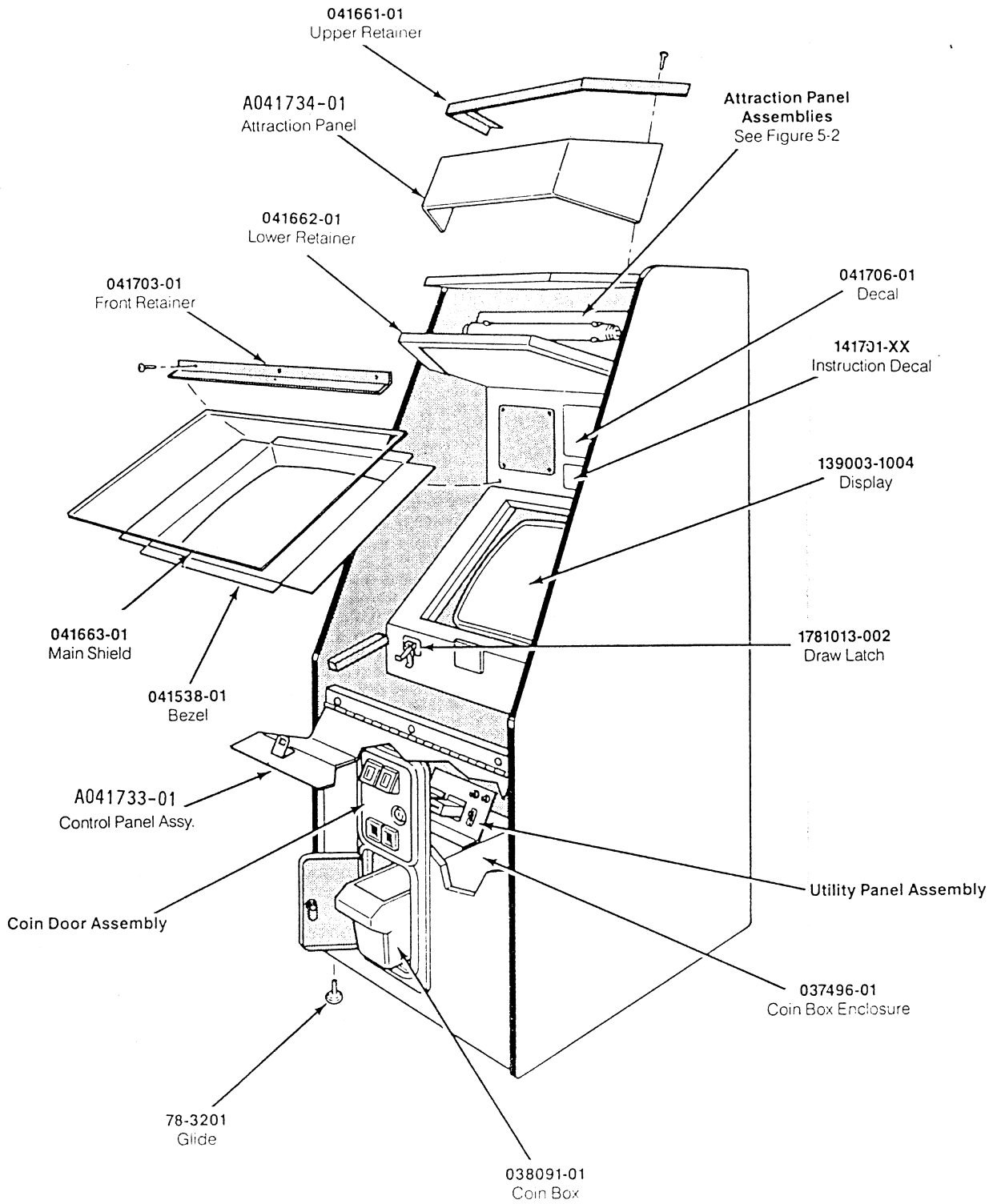


FIGURE 1. ATTRACTION PANEL AND CONTROL PANEL REPLACEMENT.

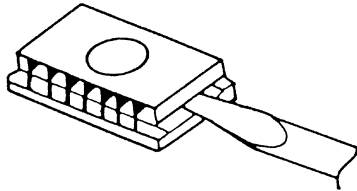
ENHANCEMENT PROCEDUREREPLACE ATTRACTION GLASS

1. Use 1/8" Square Drive to remove the three screws (See Fig.1) that fasten the top retainer to the cabinet. Remove the retainer.
2. Loosen the three screws that fasten Bottom Retainer to the Cabinet. Remove Attraction Panel.
3. Replace with Space Ace Attraction Panel A041734-01. Tighten screws on Bottom Retainer and replace Upper Retainer.

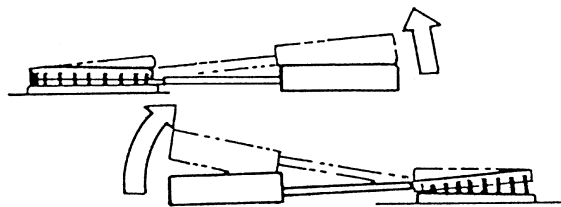
REPLACE CONTROL PANEL

1. Unlock and open Coin Door. Reach up through the opening to the top of the Control Panel and release the two spring - draw latches.
2. Close the Coin Door.
3. Lift the Control Panel at the top edge and tilt it toward you. Disconnect the 9 Pos. Molex Control Panel Connector.
4. Use 7/16" Socket Wrench to remove three bolts at hinge of Control Panel.
5. Replace with Space Ace Control Panel Assy. A041733-01.
6. Reconnect Control Panel Harness Assy. to Main Harness Assy.

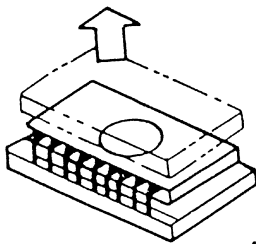
1. Insert screwdriver tip under body of IC.



2. Gently pry IC upward.



3. Insert screwdriver tip under other side of body and gently pry upward.



4. Lift IC out of socket.

Figure 2 Removing ICs from a Socket

MODIFY THE PRINTED CIRCUIT BOARD

To avoid damage to the Printed Circuit Board, remove it from the game before you attempt any modifications. Perform modifications only with the Printed Circuit Board on a clean work surface.

CAUTION

Disconnect the disc controller interface cable from the connector J2 on the Main PCB and connect the static prevention plug (attached to the end of the interface cable) to the player interface cable connector. This will prevent damaging the static-sensitivity devices in the player.

1. Using the method shown in Figure 2, remove the integrated circuits allocations U33, U45, U46, U47, U48, U49 from their sockets.
2. Using the information given in Table 1. Remove each specified IC from the Enhancement Kit and install it in the proper socket.
3. Install the Printed Circuit Board in the Game.



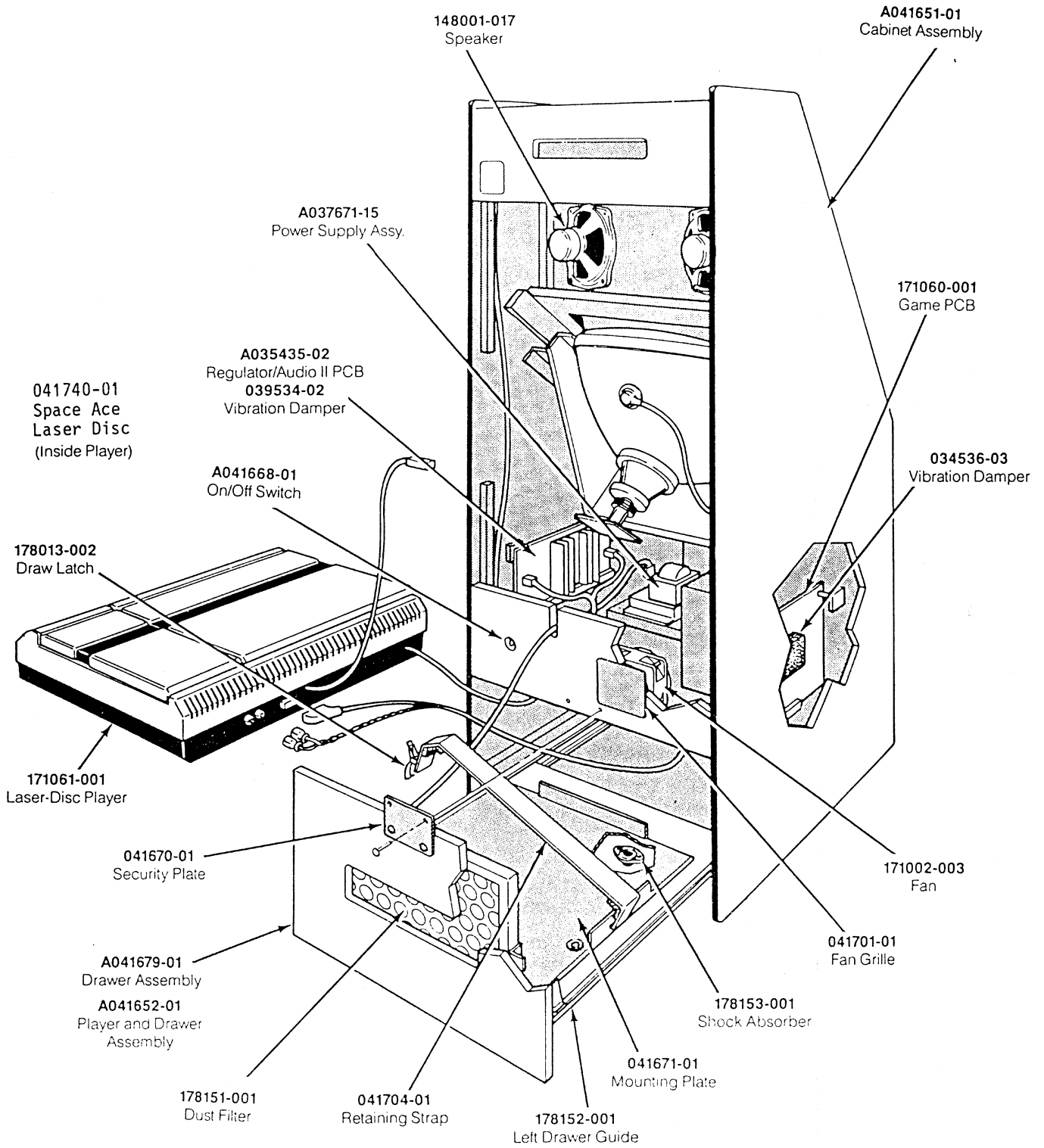


FIGURE 4 CABINET ASSEMBLY
A041732-01

INSTALL LASER DISC

1. Remove power from the game.
2. Remove the rear access panel from the game cabinet.
3. Use an 8 mm. socket to remove the two wing nuts and washers from the inside of the drawer security plate. Save the hardware for reassembly.
4. Gently slide the player drawer open.
5. Release the draw latch on the player retaining strap and remove the strap.
6. Apply power to the game.
7. Press the OPEN pushbutton on the front of the player. Wait about 10 seconds and the lid will open automatically.
8. Remove power from the game.

CAUTION

Handle the laser disc only by its edges or between the centre hole and one edge. Do not touch the playing surface of the Disc.

9. Carefully remove the Dragons Lair disc from the player and place it in the envelope provided with the game. Store the disc in a cool, dark place.
10. With playing (Grooved) surface facing downwards, insert Space Ace Laser Disc and press it gently onto centre spindle.
11. Close the lid on Player.
12. Replace the Retaining Strap.
13. Gently close and secure the Player Drawer.

INSTALL THE DECALS

Due to the size of the Decals used on Space Ace there are no Special Procedures to be taken in their application. However, we recommend the following for both Left and Right Side Panel Decals.

REMOVE DRAGONS LAIR DECALS

1. The Left and Right Side Panel Decals are easily removed by beginning from the top and peeling off.
2. Remove Dragon's Lair Instruction Decal from front of game.
3. Thoroughly clean the side of the Cabinet to remove all dust.

INSTALL SPACE ACE DECALS

1. Remove backing paper from upper section of Space Ace Decal.
2. Line up Decal on Panel. The outline of the Dragons Lair Decal may still be slightly visible and the Space Ace Decal will fit directly on this.
3. With a soft, lint-free cloth, smooth the top section of Decal onto Panel, keeping Decal in line.
4. Slowly peel back remainder of backing paper, using cloth to smooth Decal onto Panel. An air bubble may exist around head of Monitor mounting bolt which protrudes from cabinet. To remove this bubble, a pinprick will suffice.

PERFORM SELF TEST

SELF-TEST PROCEDURE

The self-test diagnostic program provides data to show if the game's circuitry and controls are operating properly. Data is provided on the LED display, DS1, located on the game PCB near the option switches. No additional equipment is necessary.

NOTE

Open the Coin Door or remove the rear access panel to see the LED readout at DS1.

The self-test runs automatically when power is applied to the game, or after system reset. (The reset switch is the red switch on the game PCB at S1.) This program can also be started manually by setting the self-test switch on the utility panel to the on position.

If all the tests pass a "p" is displayed on DS1. If a test fails, a number from 1 to 5 will appear on DS1. Table 2-1 lists possible DS1 readouts and their meanings.

TABLE 2-1 Self-Test Error Messages

DS1 Readout	Meaning
P	All Tests Pass
1	CPU Test Failure
2	ROM Test Failure
3	RAM Test Failure
4	Display Memory Test Failure
5	CTC Test Failure

WARNING

To exit self-test on the Space Ace program, if self-test switch has been operated, it is necessary to power down the game after setting the self-test switch to off. Not doing so will put the game into standby mode permanently.

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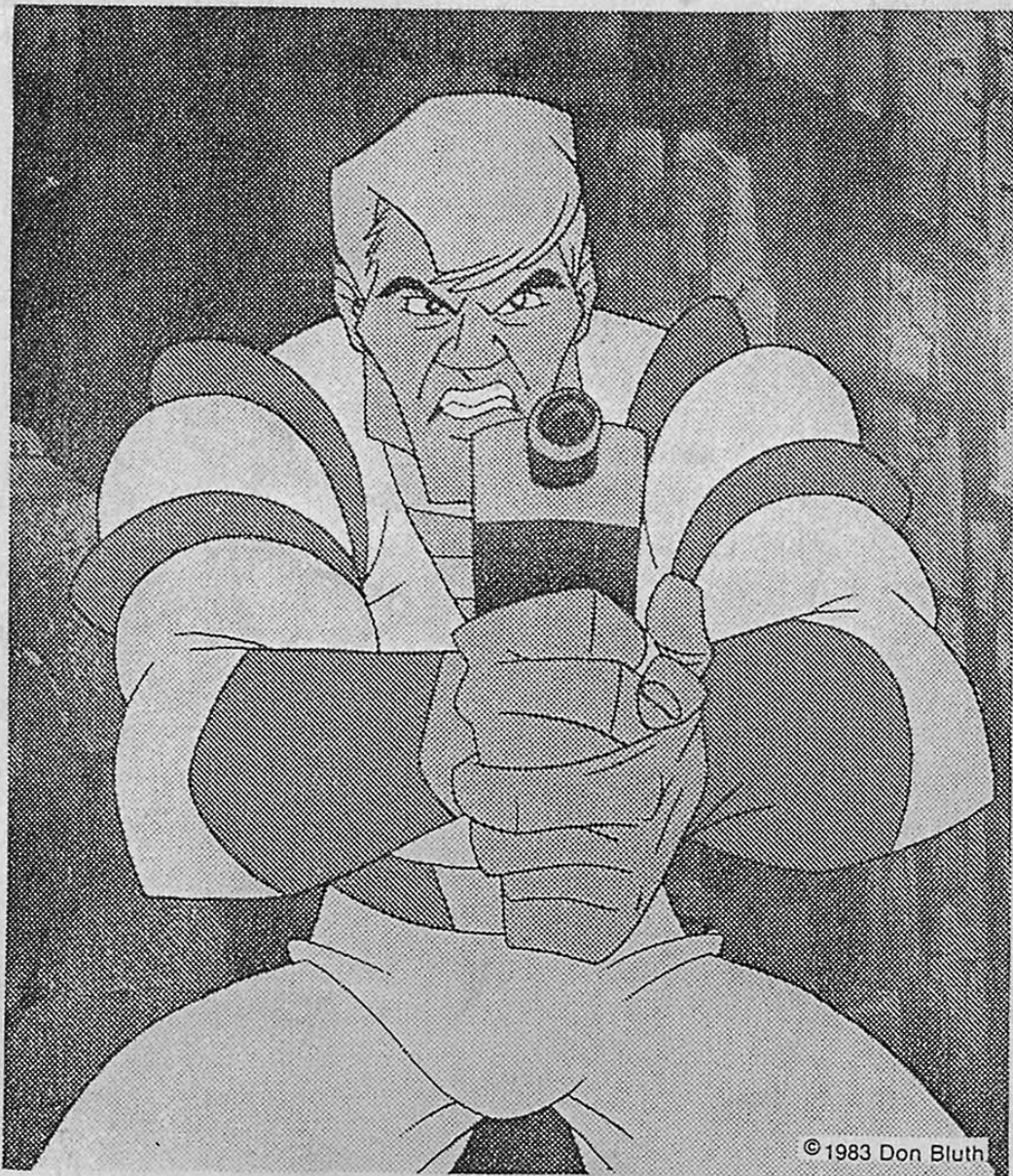
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