

# FIREFOX

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## *Illustrated Parts Lists*



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# FIREFOX

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## Notice Regarding Non-ATARI Parts

### ▲ — WARNING — ▲

Use of non-ATARI parts or modifications of any ATARI® game circuitry may adversely affect the safety of your game, and may cause injury to you and your players.

You may void the game warranty (printed on the inside back cover of this manual) if you do any of the following:

- Substitute non-ATARI parts in the game.
- Modify or alter any circuits in the game by using kits or parts *not* supplied by Atari.

### NOTE

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. 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 Federal Communications Commission (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 or modification to this equipment 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. If you suspect interference from an ATARI® game at your location, check the following:

- All green ground wires in the game are properly connected as shown in the game wiring diagram.
- The power cord is properly plugged into a grounded three-wire outlet.
- The game printed-circuit boards (PCB) are properly installed within the Electromagnetic Interference (EMI) cage.
- The EMI Shield PCB is properly installed and connected in series with the game PCB harness.
- All filter capacitors required on the EMI Shield PCB are properly soldered in place.

If you are still unable to solve the interference problem, please contact ATARI Customer Service. See the inside front cover of this manual for service in your area.

# Illustrated Parts Lists

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### NOTE

For set up, self-test, maintenance, and trouble-shooting information, refer to TM-253-01.



# Safety Summary

The following safety precautions apply to all game operators and service personnel. Specific warnings and cautions will be found throughout this manual where they apply.

## ▲ WARNINGS ▲

**Properly Ground the Game.** Players may receive an electrical shock if this game is not properly grounded! To avoid electrical shock, do not plug in the game until it has been inspected and properly grounded. This game should only be plugged into a grounded 3-wire outlet. If you have only a 2-wire outlet, we recommend you hire a licensed electrician to install a grounded outlet. Players may receive an electrical shock if the control panel is not properly grounded! After servicing any parts on the control panel, check that the grounding clip is firmly secured to the metal tab on the inside of the control panel. Only then should you lock up the game.

**AC Power Connection.** Before connecting the game to the AC power source, verify that the proper voltage-selection plug is installed on the game's power supply.

**Disconnect Power During Repairs.** To avoid electrical shock, disconnect the game from the AC power source before removing or repairing any part of the game. When removing or repairing the video display, extra precautions must be taken to avoid electrical shock because high voltages may exist within the display circuitry and cathode-ray tube (CRT) even after power has been disconnected. Do not touch internal parts of the display with your hands or with metal objects! Always discharge the high voltage from the CRT before servicing this area of the game. To discharge the CRT: Attach one end of a large, well-insulated, 18-gauge jumper wire to ground. Momentarily touch the free end of the grounded jumper to the CRT anode by sliding it under the anode cap. Wait two minutes and discharge the anode again.

**Use Only ATARI Parts.** To maintain the safety integrity of your ATARI game, do not use non-ATARI parts when repairing the game. Use of non-ATARI parts or other modifications to the game circuitry may adversely affect the safety of your game, and injure you or your players.

**Handle Fluorescent Tube and CRT With Care.** If you drop a fluorescent tube or CRT and it breaks, it may implode! Shattered glass can fly six feet or more from the implosion.

**Use the Proper Fuses.** To avoid electrical shock, use replacement fuses which are specified in the parts list for this game. Replacement fuses must match those replaced in fuse type, voltage rating, and current rating. In addition, the fuse cover must be in place during game operation.

## CAUTION

**Properly Attach All Connectors.** Make sure that the connectors on each printed-circuit board (PCB) are properly plugged in. Note that they are keyed to fit only one way. If they do not slip on easily, do not force them. A reversed connector may damage your game and void the warranty.

**Handle the Laser-Disc Player With Care.** Servicing of the laser-disc player should be performed only by a qualified technician who is familiar with laser devices.

# Illustrated Parts Lists

This chapter provides information you need to order parts that are common to both FIREFOX games. Refer to Chapter 6 for upright cabinet parts lists, and Chapter 7 for sit-down cabinet parts lists.

Common hardware (screws, nuts, washers, etc.) has been deleted from most of the parts lists. However, a parts list is included for the hardware to mount the printed-circuit boards (PCBs) to the cabinet.

The PCB parts lists are arranged in alphabetical order by component. Each component subsection is arranged alphanumerically by reference designator.

Other parts lists are arranged alphanumerically by Atari part number. In these parts lists, all A-prefix numbers appear first. Following these are numbers in sequence evaluated up to the hyphen, namely 00- through 99-, then 000598- through approximately 201000-.

When ordering parts, please give the part number, part name, number of this manual, and serial number of your game. This will aid in filling your order rapidly and correctly. We hope the results will be less downtime and more profit from your game.

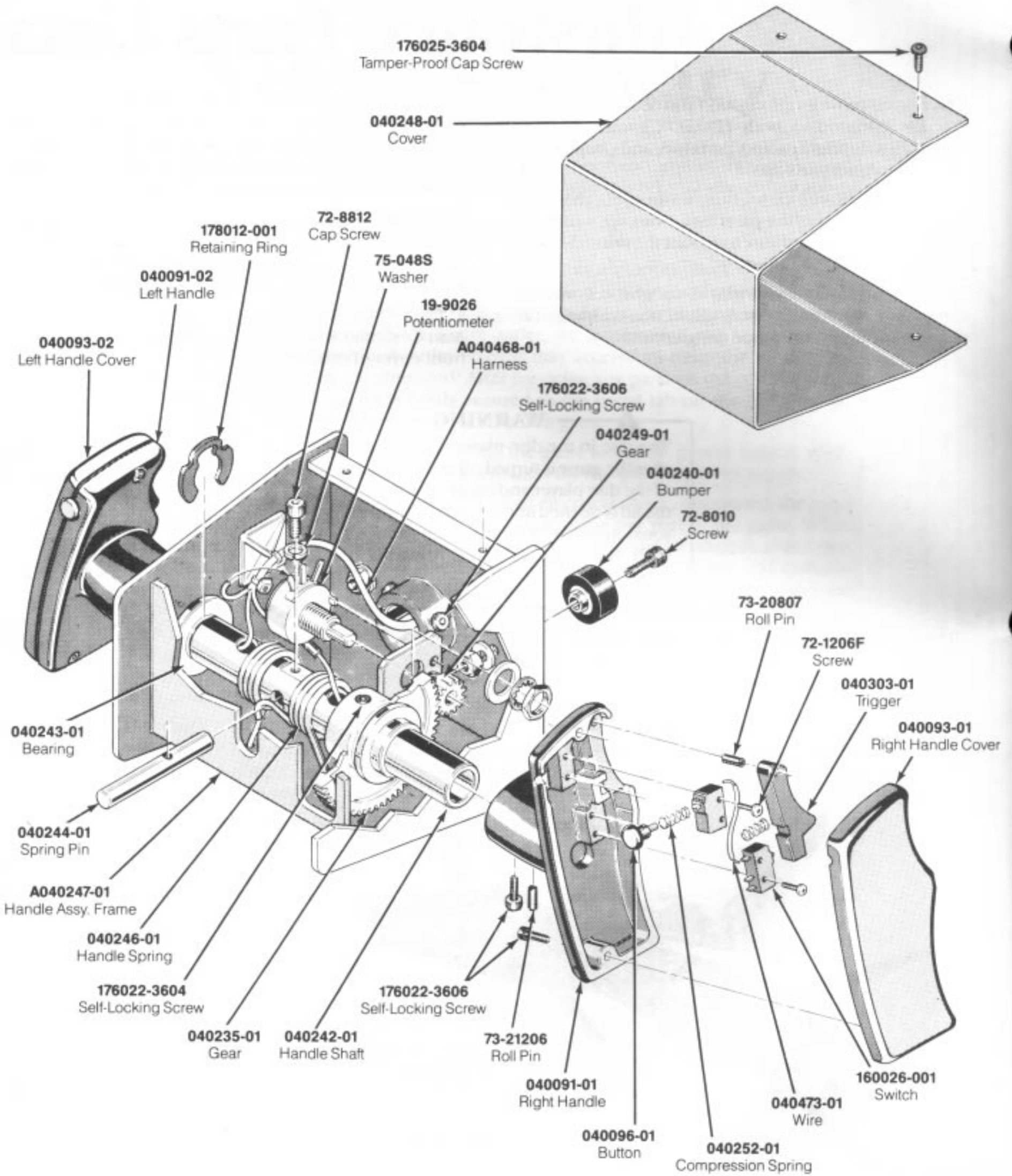
Atari Customer Service numbers are listed on the inside front cover of this manual.

## ⚠ WARNING ⚠

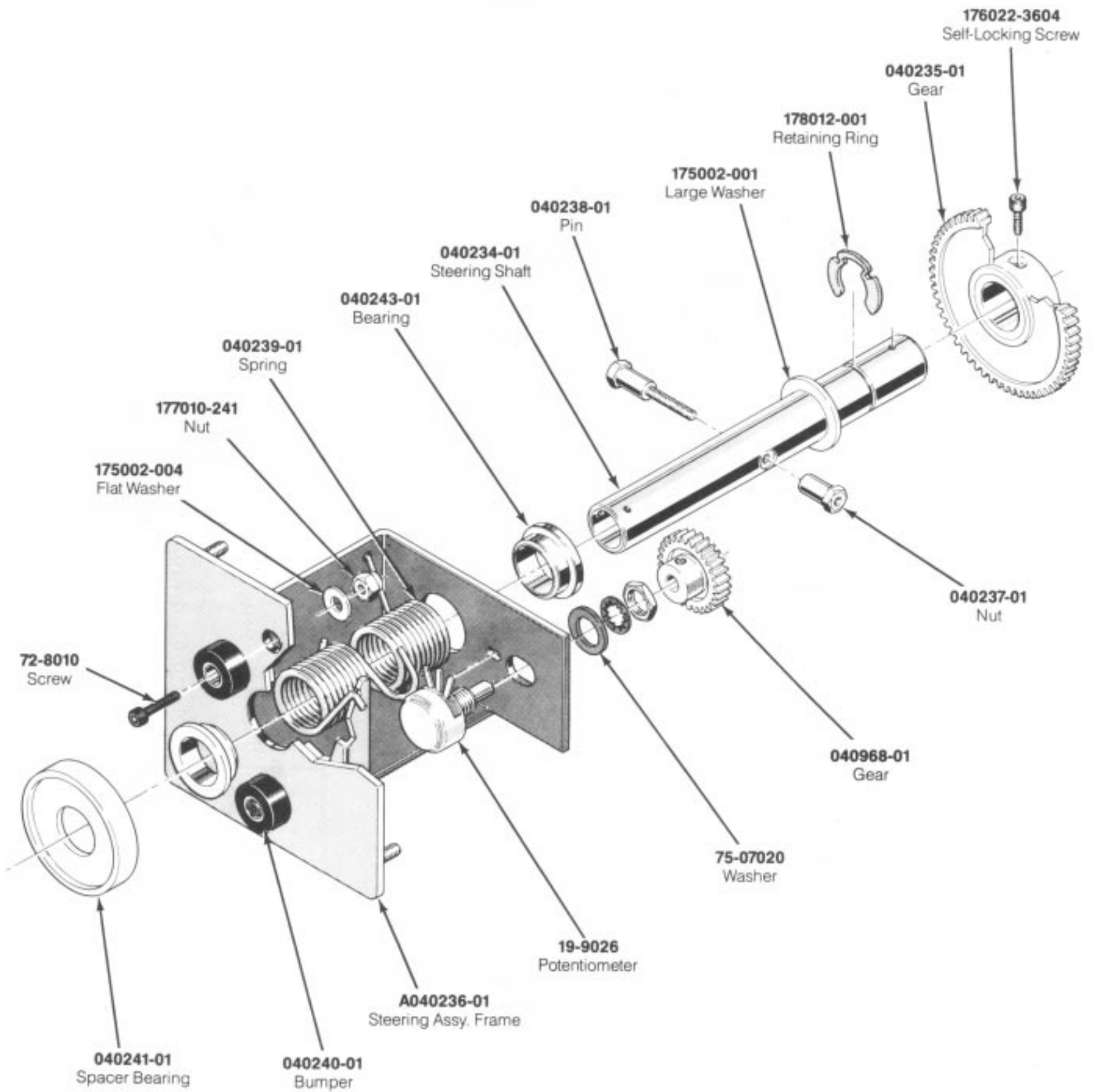
The disc in the disc-player continues to spin after the game is turned off and could spin out of the disc player and cause personal injury if the lid is opened immediately. To prevent personal injury, ALWAYS turn the game off and **wait for at least three minutes** before opening the lid.







**Figure 5-1 Flight Control Assembly  
A040233-02 G**

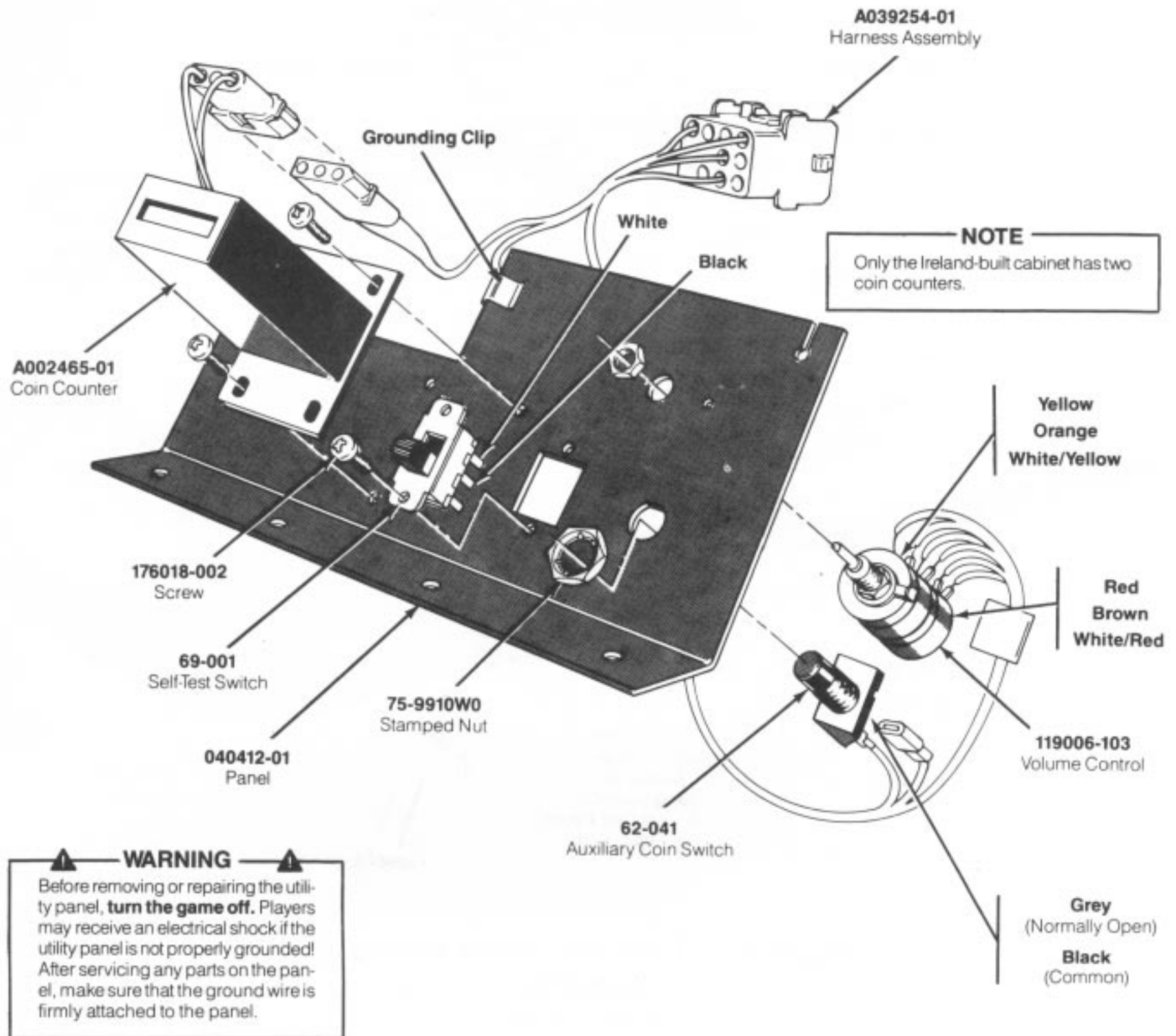


See Chapter 3 for lubrication information.

**Figure 5-1 Flight Control Assembly, continued**  
**A040233-02 G**

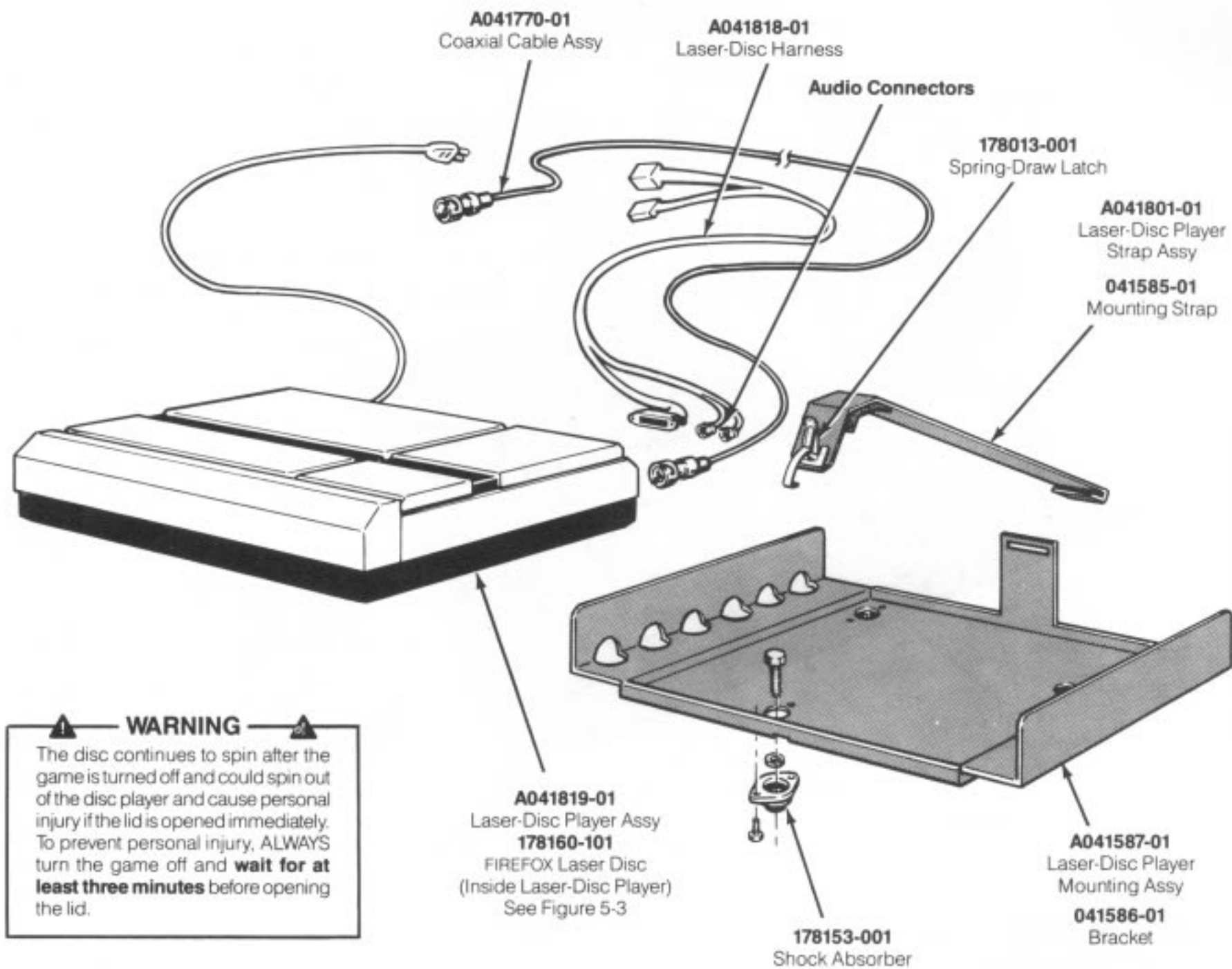
## Flight Control Assembly Parts List

Part No.	Description
A040236-01	Steering Assembly Frame—includes:
040243-01	Modified Bearing
040555-01	Steering Frame Weldment
72-L2S510	# $\frac{1}{4}$ -20 $\times$ $\frac{3}{8}$ -Inch Long Self-Clinching Stud
A040247-01	Handle Assembly Frame—includes:
040243-01	Modified Bearing
040556-01	Frame Handle Weldment
A040468-01	Flight Control Harness Assembly
19-9026	5 k $\Omega$ Potentiometer
72-1206F	#2-56 $\times$ $\frac{3}{8}$ -Inch Cross-Recessed Pan-Head Machine Screw
72-8010	#10-32 $\times$ $\frac{3}{8}$ -Inch Socket-Head Cap Screw
72-8812	#8-32 $\times$ $\frac{1}{4}$ -Inch Socket-Head Cap Screw
73-20807	$\frac{3}{8}$ -Inch Diameter $\times$ $\frac{7}{16}$ -Inch Long Spring Roll Pin
73-21206	Roll Pin
75-040S	#10 Split-Lock Washer (not shown)
75-048S	#8 Split-Lock Washer
75-07020	0.390-Inch I. D. Flat Washer
040091-01	Right Handle
040091-02	Left Handle
040093-01	Right Handle Cover
040093-02	Left Handle Cover
040096-01	Button
040234-01	Steering Shaft
040235-01	60-Tooth Spur Gear
040237-01	Anchor Nut
040238-01	Anchor Pin
040239-01	Steering Torsion Spring
040240-01	Stop Bumper
040241-01	Spacer Bearing
040242-01	Handle Shaft
040244-01	Spring Handle Pin
040246-01	Handle Torsion Spring
040248-01	Cover
040249-01	14-Tooth Spur Gear
040252-01	Compression Spring
040303-01	Trigger
040473-01	Jumper Wire
040968-01	28-Tooth Spur Gear
160026-001	SPDT Snap Switch
175002-001	0.750-Inch I. D. Large Washer
175002-004	#10 Flat Washer
176008-106	#10-32 $\times$ $\frac{3}{8}$ -Inch Self-Locking Socket-Head Cap Screw (not shown)
176022-3604	#6-32 $\times$ $\frac{1}{4}$ -Inch Self-Locking Socket-Head Cap Screw
176022-3606	#6-32 $\times$ $\frac{3}{8}$ -Inch Tamper-Proof Socket-Head Cap Screw
176025-3604	#6-32 $\times$ $\frac{1}{4}$ -Inch Tamper-Proof, Self-Locking, Button-Head Cap Screw
176026-3610	#6-32 $\times$ $\frac{3}{8}$ -Inch Tamper-Proof Socket-Head Cap Screw
177010-241	#10-32 Nylock Hex Nut
178012-001	Retaining Ring for .750-Inch Diameter Shaft



**Figure 5-2 Utility Panel Assembly  
A040413-01 B  
Parts List**

Part No.	Description
A002465-01	Coin Counter
A039254-01	Volume Control Harness Assembly (includes grounding clip)
62-041	SPDT Pushbutton Auxiliary Coin Switch with Black Cap
69-001	DPDT Self-Test Switch
040412-01	Component Panel
75-9910W0	1/8-32 Stamped Nut
119006-103	Dual Volume Control
176018-002	#6-32 x 1/2-Inch Thread-Forming Machine Screw

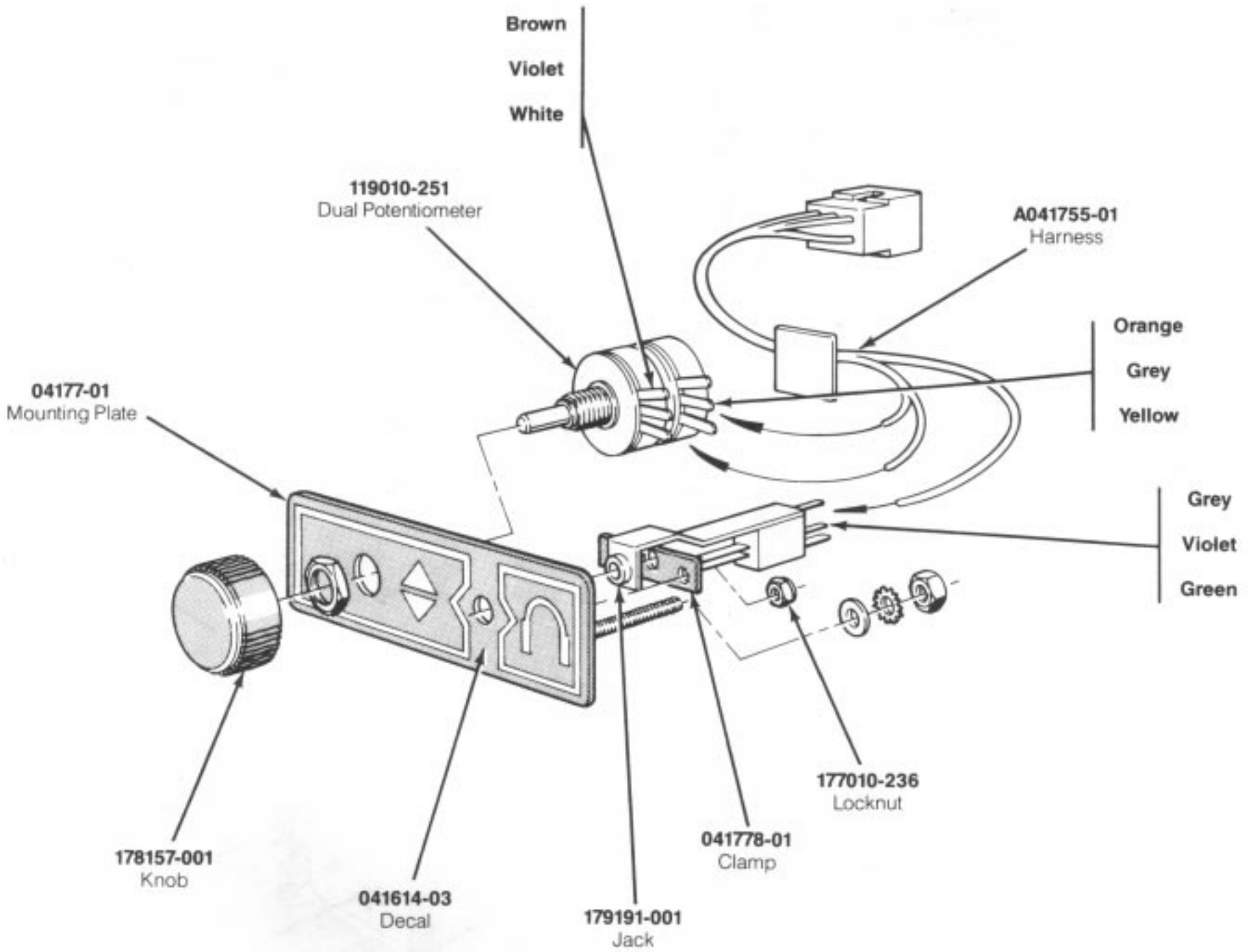


**WARNING**  
 The disc continues to spin after the game is turned off and could spin out of the disc player and cause personal injury if the lid is opened immediately. To prevent personal injury, ALWAYS turn the game off and **wait for at least three minutes** before opening the lid.

**Figure 5-3 Laser-Disc Player Mounting Parts List**

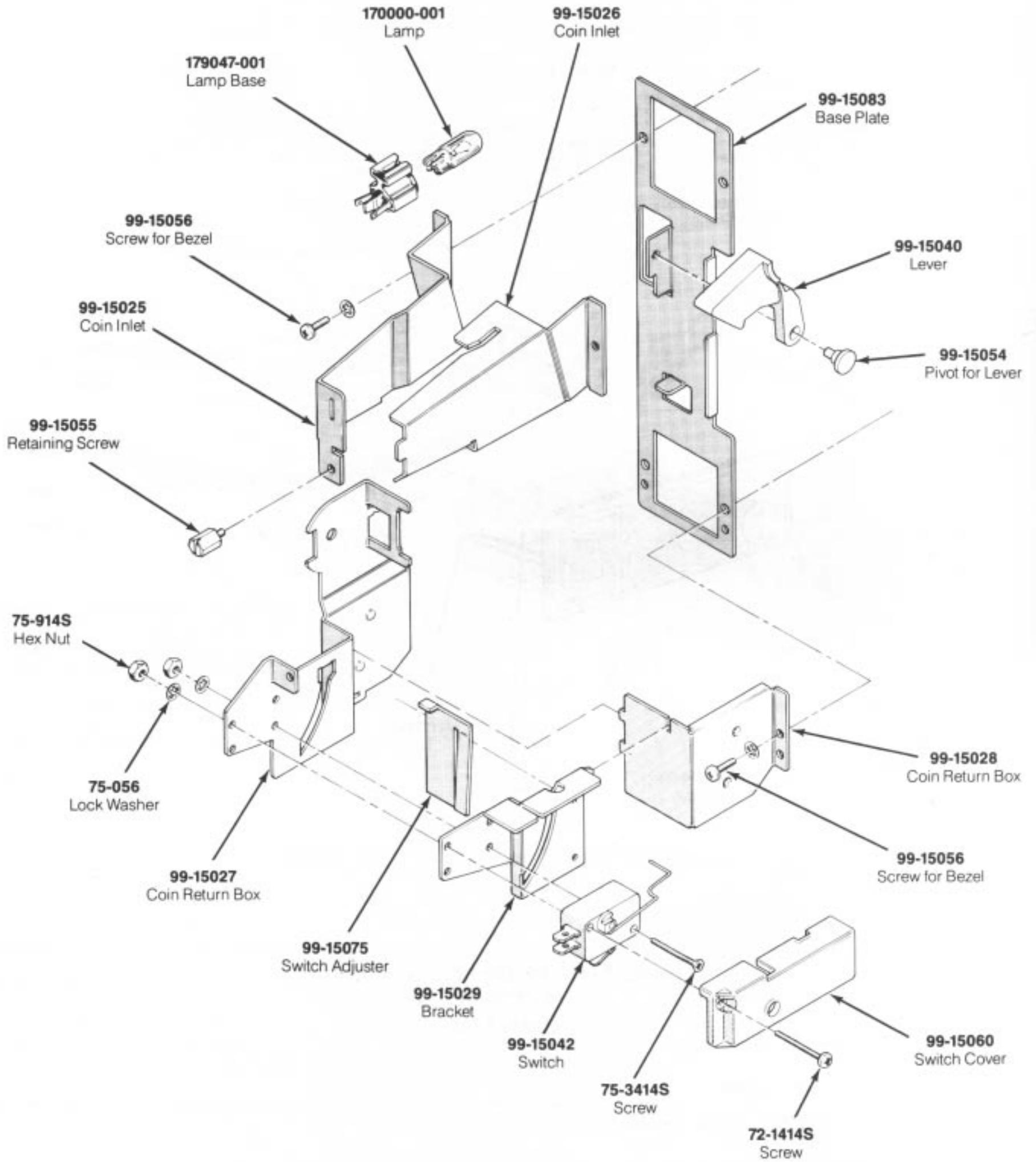
Part No.	Description
A041587-01	Laser-Disc Player Mounting Assembly—consists of
041586-01	Laser-Disc Player Mounting Bracket
178153-001	Shock Absorber Isolator
A041770-01	Coaxial Cable Assembly (connects to Demodulator PCB, protrudes through EMI Shield PCB, and attaches to Laser-Disc Player)
A041801-01	Laser-Disc Player Strap Assembly—consists of
78-6901202	Vinyl Foam Single-Coated Adhesive Tape ¼-Inch Wide x ⅛-Inch Thick—5 ¼ inches required—not shown
041585-01	Mounting Strap
178013-001	Spring-Draw Latch
A041819-01	Laser-Disc Player Assembly—consists of
A041818-01	Laser-Disc Harness
171059-001	Laser-Disc Player
178160-101	FIREFOX Laser Disc





**Figure 5-4 Audio Jack Assembly  
A041776-01 A  
Parts List**

Part No.	Description
A041755-01	Harness (includes connector)
041614-03	Decal for Audio Jack Plate
041777-01	Audio Jack Mounting Plate
041778-01	Audio Jack Clamp
119010-251	250 Ω Dual Potentiometer
177010-236	#6-32 Polymer Hex Locknut
178157-001	Volume Control Knob
179191-001	3.5 mm Jack



**Figure 5-5 Coin Controls, Inc. Coin Door Assembly  
171034-xxx A**

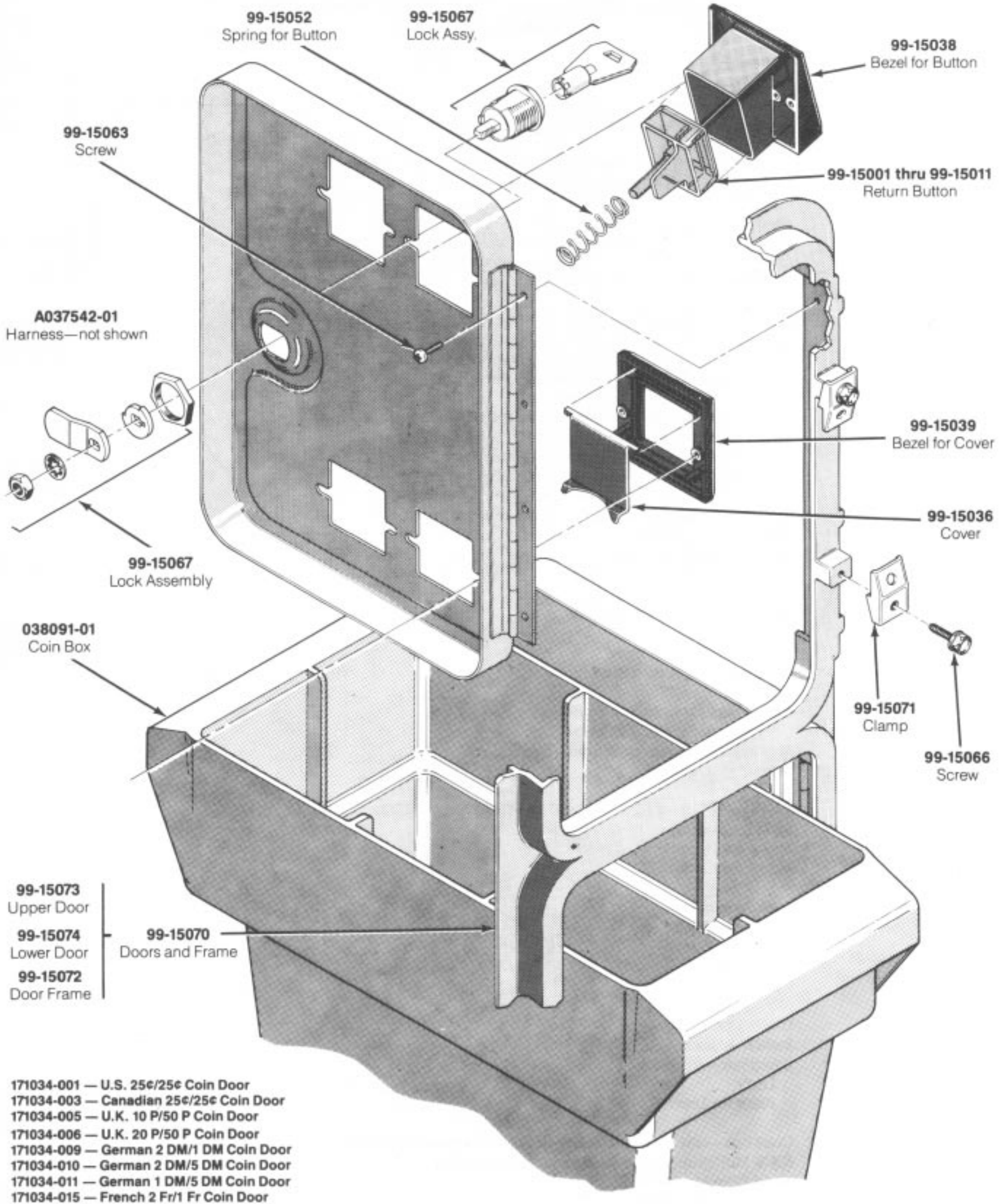
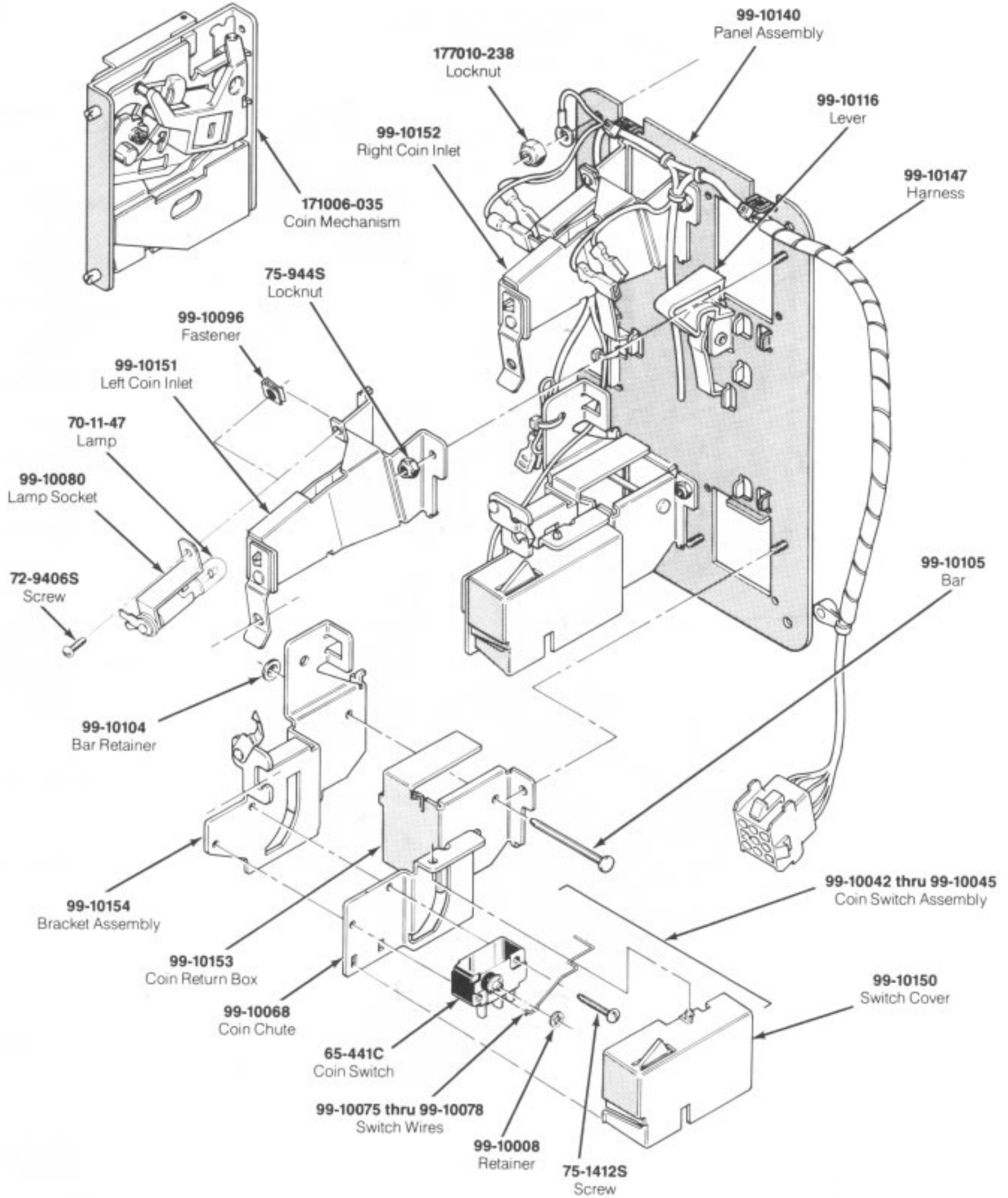


Figure 5-5 Coin Controls, Inc. Coin Door Assembly, continued  
 171034-xxx A

## Coin Controls, Inc. Coin Door Assembly Parts List

Part No.	Description
A036597-01	Harness Assembly (Ireland-built cabinet only)
A037542-01	Harness Assembly
72-1414S	#4-40 × $\frac{7}{8}$ -Inch Cross-Recessed Pan-Head Steel Machine Screw
75-056	#6 Internal-Tooth Zinc-Plated Steel Lock Washer
75-914S	#4-40 Steel Machine Hex Nut
75-3414S	#4-40 × $\frac{7}{8}$ -Inch 82° Cross-Recessed Flat-Head Steel Machine Screw
99-15001	Coin Return Button with U.S. 25-Cent Price Plate
99-15002	Coin Return Button with U.S. \$1 Price Plate
99-15003	Coin Return Button with German 1 DM Price Plate
99-15004	Coin Return Button with German 2 DM Price Plate
99-15005	Coin Return Button with German 5 DM Price Plate
99-15006	Coin Return Button with Belgian 5 Fr Price Plate
99-15007	Coin Return Button with French 1 Fr Price Plate
99-15008	Coin Return Button with Japanese 100 Yen Price Plate
99-15009	Coin Return Button with British 10 Pence Price Plate
99-15010	Coin Return Button with Australian 20-Cent Price Plate
99-15011	Coin Return Button with Italian 100 Lire Price Plate
99-15025	Left Half of Coin Inlet
99-15026	Right Half of Coin Inlet
99-15027	Side Plate of Coin Return Box
99-15028	Base Plate of Coin Return Box
99-15029	Switch Bracket
99-15036	Metal Coin Return Cover
99-15038	Bezel for Coin Return Button
99-15039	Metal Bezel for Coin Return Button
99-15042	Coin Switch for U.S. 25 Cents
99-15052	Spring for Coin Return Button
99-15055	Retaining Screw
99-15056	#4-40 × $\frac{7}{8}$ -Inch Cross-Recessed Pan-Head Steel Machine Screw
99-15060	Switch Cover
99-15063	Screw for Hinge
99-15066	Screw for Clamp
99-15067	Lock Assembly
99-15070	Doors and Frame
99-15071	Clamp for Frame
99-15072	Door Frame
99-15073	Upper Door
99-15074	Lower Door
99-15075	Switch Adjuster
99-15083	Base Plate—includes:
99-15040	Lever
99-15054	Pivot for Lever
038091-01	Coin Box—not included in assembly (Acceptable substitute is part no. A037491-01)
170000-001	6.3 V Miniature Wedge-Base Incandescent Lamp
171006-035	Metal Coin Mechanism
171050-001	Dual Entry Face Plate
179047-001	Lamp Base



**Figure 5-6 Coin Acceptors, Inc. Coin Door Assembly  
171027-001 A**



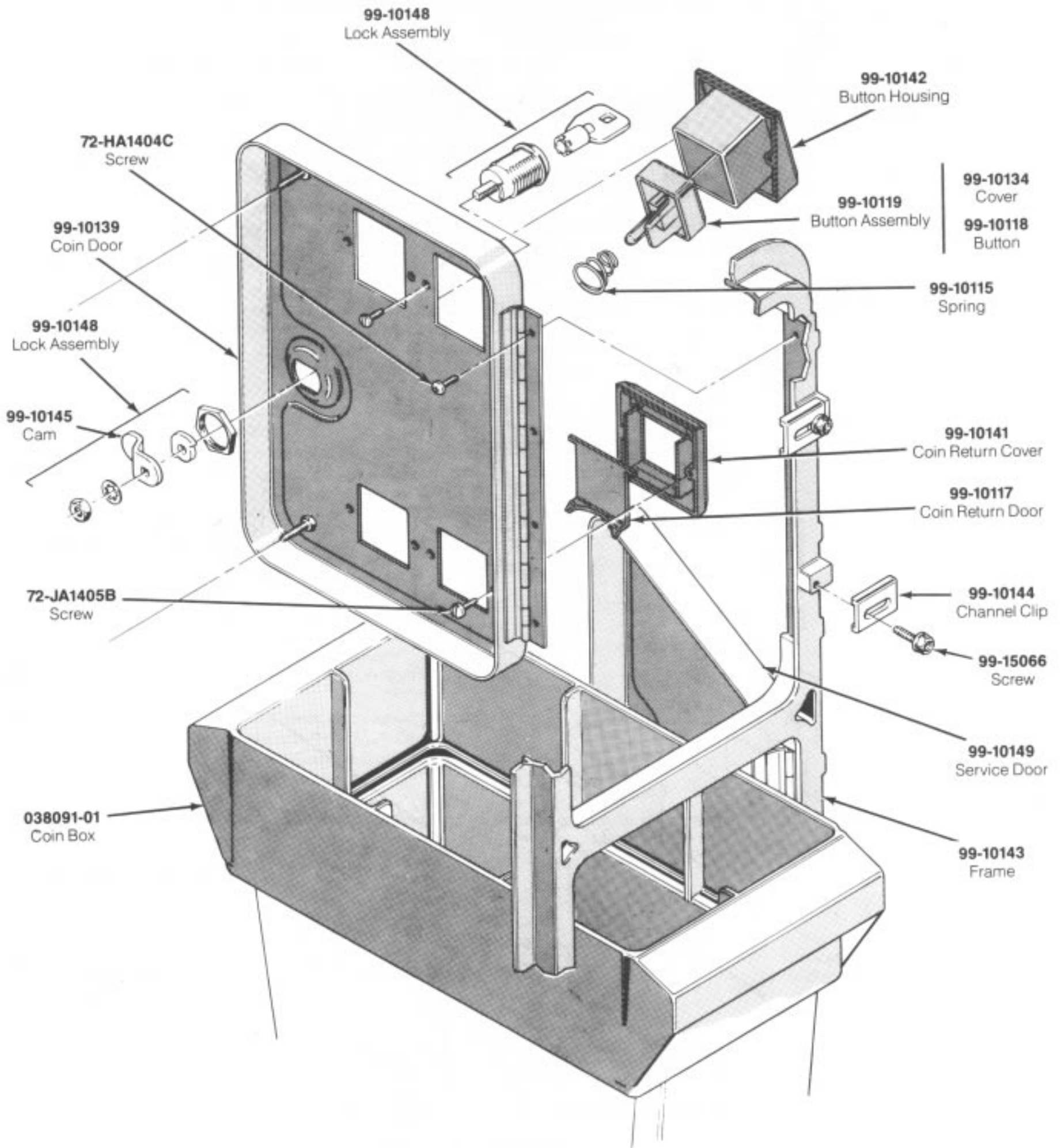


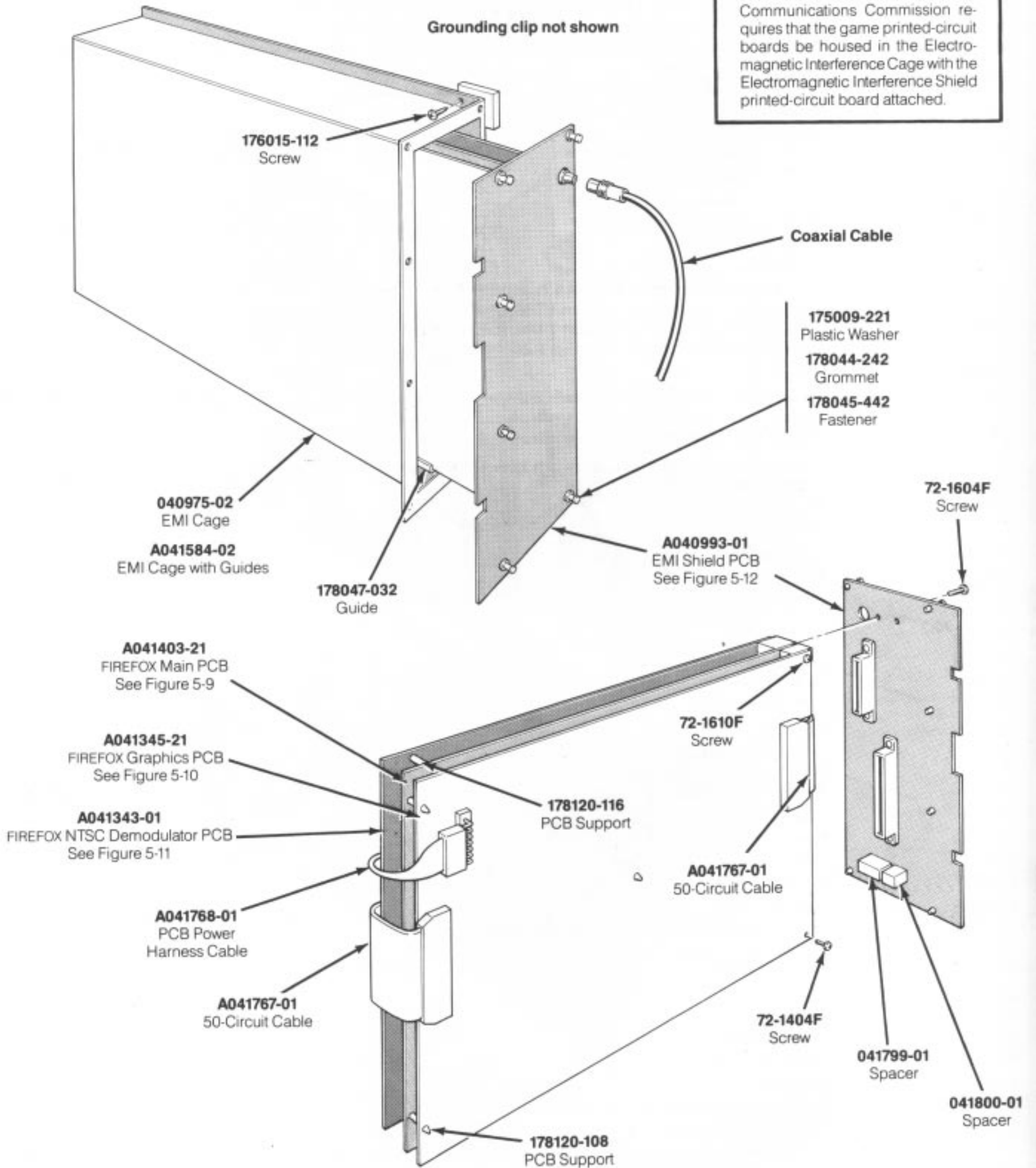
Figure 5-6 Coin Acceptors, Inc. Coin Door Assembly, continued  
171027-001 A

## Coin Acceptors, Inc. Coin Door Assembly Parts List

Part No.	Description
65-441C	Coin Switch
70-11-47	Miniature Bayonet Lamp
72-9406S	#4-40 × $\frac{3}{8}$ -Inch Truss-Head Screw
72-HA1404C	#4-40 × $\frac{1}{4}$ -Inch Pan-Head Screw
72-JA1405B	#4-40 × .31-Inch Pan-Head Screw
75-1412S	#4-40 × $\frac{3}{4}$ -Inch Pan-Head Screw
75-944S	#4-40 Locknut
99-10008	Retainer
99-10042	Coin Switch Assembly for Belgian 5 Fr and U.S. \$.25
99-10043	Coin Switch Assembly for German 1 DM, Japanese 100 Yen, Swiss 1 Fr
99-10044	Coin Switch Assembly for German 2 DM, Italian 100 L, U.S. \$1.00
99-10045	Coin Switch Assembly for Australian \$.20, German 5 DM, British 10 P
99-10068	Coin Return Chute
99-10075	Switch Wire (included in coin switch assembly 99-10043)
99-10076	Switch Wire (included in coin switch assembly 99-10042)
99-10077	Switch Wire (included in coin switch assembly 99-10044)
99-10078	Switch Wire (included in coin switch assembly 99-10045)
99-10080	Lamp Socket
99-10081	Key Holder
99-10096	Fastener
99-10104	Bar Retainer
99-10105	Bar
99-10115	Spring
99-10116	Plastic Coin Return Lever
99-10117	Steel Coin Return Door
99-10118	Amber Coin Return Button
99-10119	Amber Coin Button for U.S. \$.25
99-10134	Coin Button Cover
99-10139	Coin Door
99-10140	Coin Door Inner-Panel Assembly
99-10141	Die-Cast Coin Return Cover
99-10142	Die-Cast Button Housing
99-10143	Coin Door Frame
99-10144	Channel Clip
99-10145	Cam
99-10147	Harness
99-10148	Lock Assembly
99-10149	Service Door
99-10150	Switch Cover
99-10151	Left Coin Inlet
99-10152	Right Coin Inlet
99-10153	Coin Return Box
99-10154	Bracket Assembly
99-15066	Screw for Clamp
038091-01	Coin Box
171006-035	Metal Coin Mechanism for U.S. +.25
177010-238	#8-32 Hex Locknut

**NOTE**

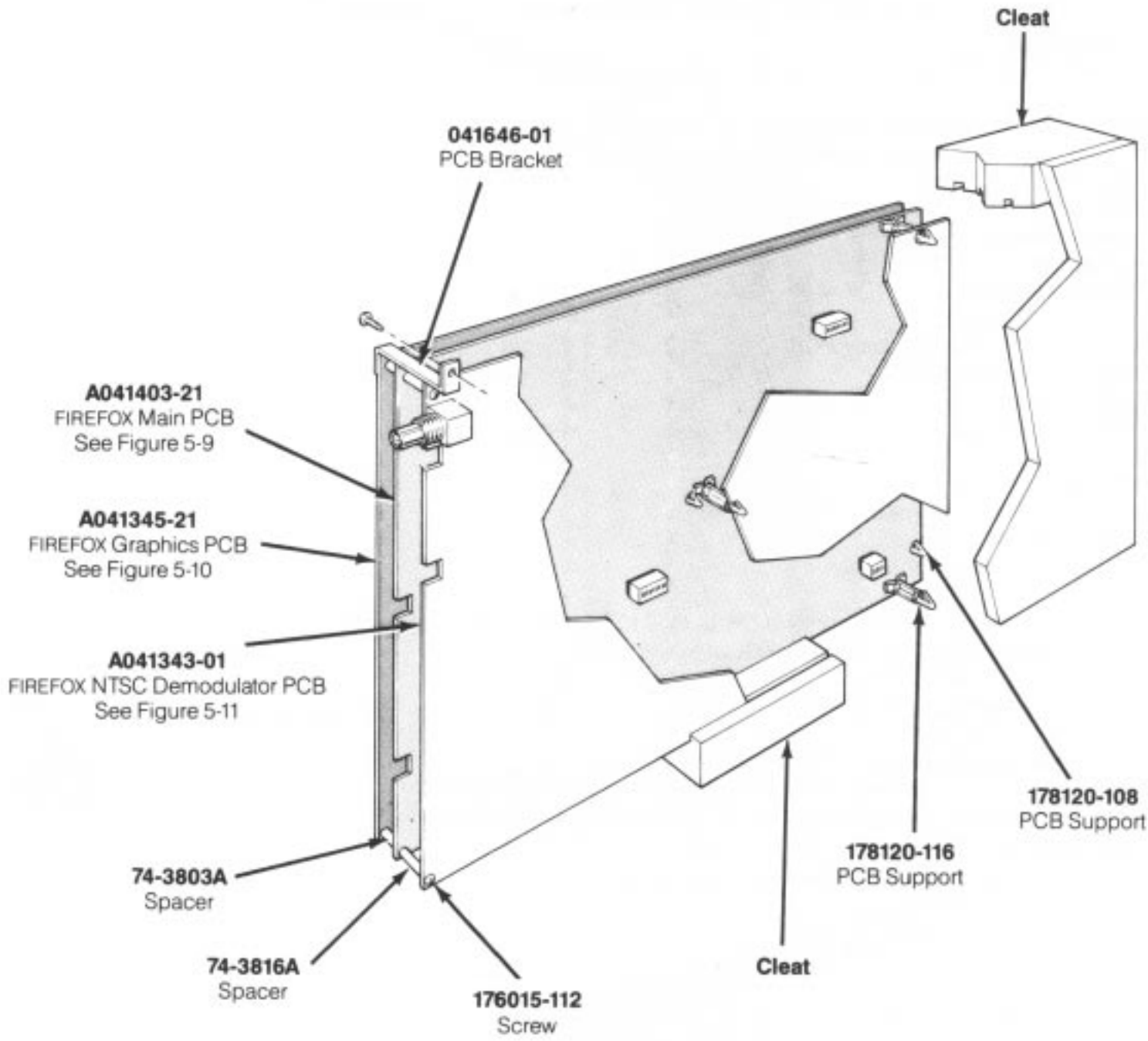
Within the United States, the Federal Communications Commission requires that the game printed-circuit boards be housed in the Electromagnetic Interference Cage with the Electromagnetic Interference Shield printed-circuit board attached.



**Figure 5-7 PCB Mounting Hardware—US**

## PCB Mounting Hardware—US Parts List

Part No.	Description
A040993-01	EMI Shield PCB Assembly—includes
72-1404F	#4-40 × ¼-Inch Cross-Recessed Steel Screw
041799-01	Spacer
041800-01	Spacer
175009-221	Plastic Washer
178044-242	Grommet
178045-442	Snap-In Fastener
A041343-01	FIREFOX NTSC Demodulator PCB
A041345-21	FIREFOX Graphics PCB
A041403-21	FIREFOX Main PCB
A041584-02	EMI Cage with Guides
040975-02	EMI Cage
178047-032	16-Inch Snap-In PCB Guide (six required)
A041767-01	50-Circuit Ribbon Cable
A041768-01	PCB Power Harness Cable
A041768-02	PCB Power Harness Cable (connects Main PCB to Demodulator PCB) (not shown)
72-1604F	#6-32 × ¼-Inch Cross-Recessed Pan-Head Screw
72-1610F	#6-32 × ⅜-Inch Cross-Recessed Pan-Head Screw
175004-708	#8 Flat Fiber Washer (not shown)
176015-112	#10 × ¼-Inch Cross-Recessed Pan-Head Screw
178120-108	⅜-Inch PCB Support (located between the Graphics and the Main PCB)
178120-116	1-Inch PCB Support (located between the Main and the Demodulator PCB)
178149-607	Nylon Standoff (not shown)



**Figure 5-8 PCB Mounting Hardware—Ireland  
Parts List**

Part No.	Description
A041343-01	FIREFOX Demodulator PCB
A041345-21	FIREFOX Graphics PCB
A041403-21	FIREFOX Main PCB
74-3803A	3/4-Inch Aluminum Spacer
74-3816A	1-Inch Aluminum Spacer
041646-01	PCB Bracket
178120-108	3/8-Inch PCB Support (located between the Graphics and the Main PCB)
178120-116	1-Inch PCB Support (located between the Main and the Demodulator PCB)
176015-112	#10 x 3/4-Inch Cross-Recessed Pan-Head Screw



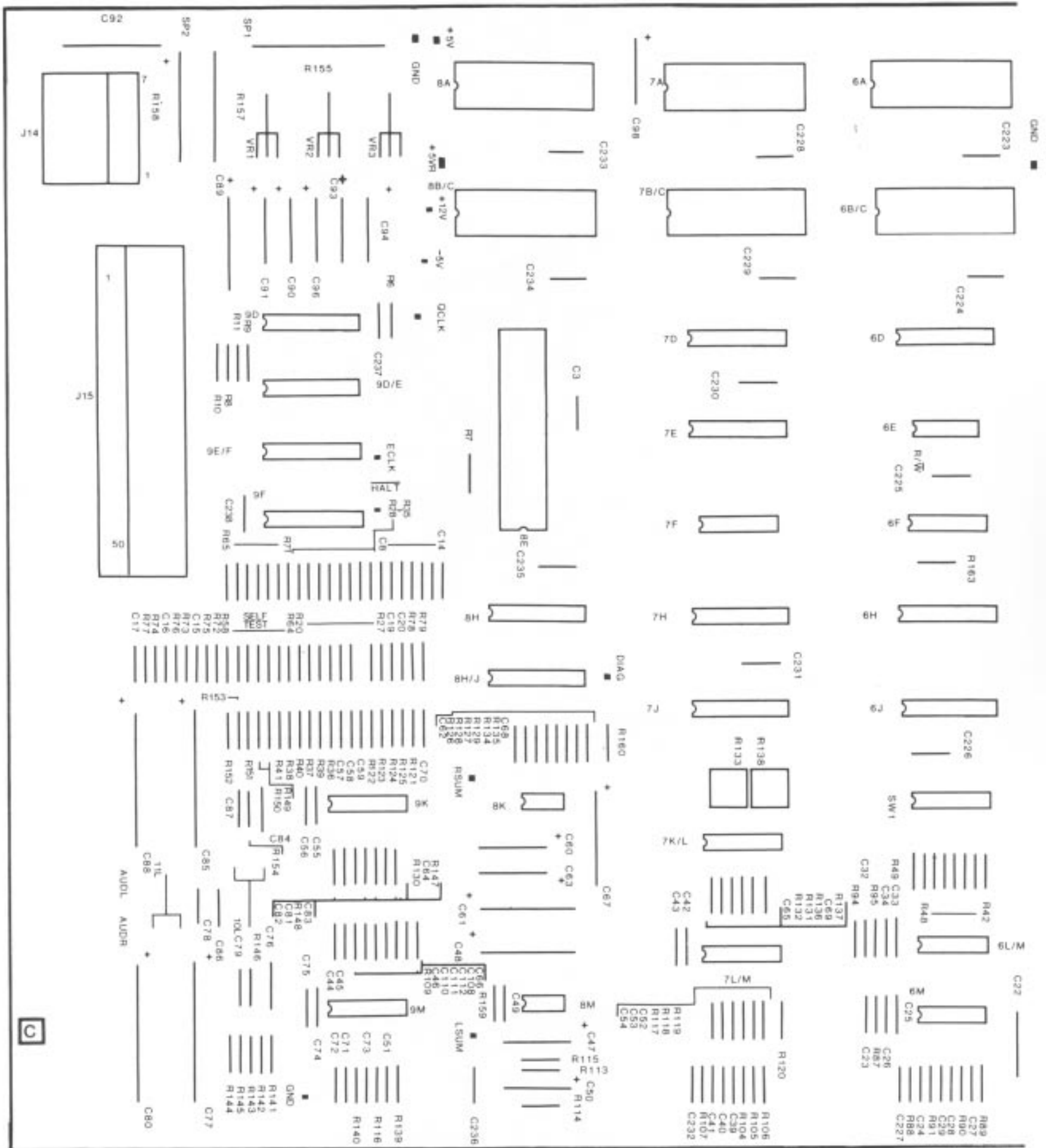
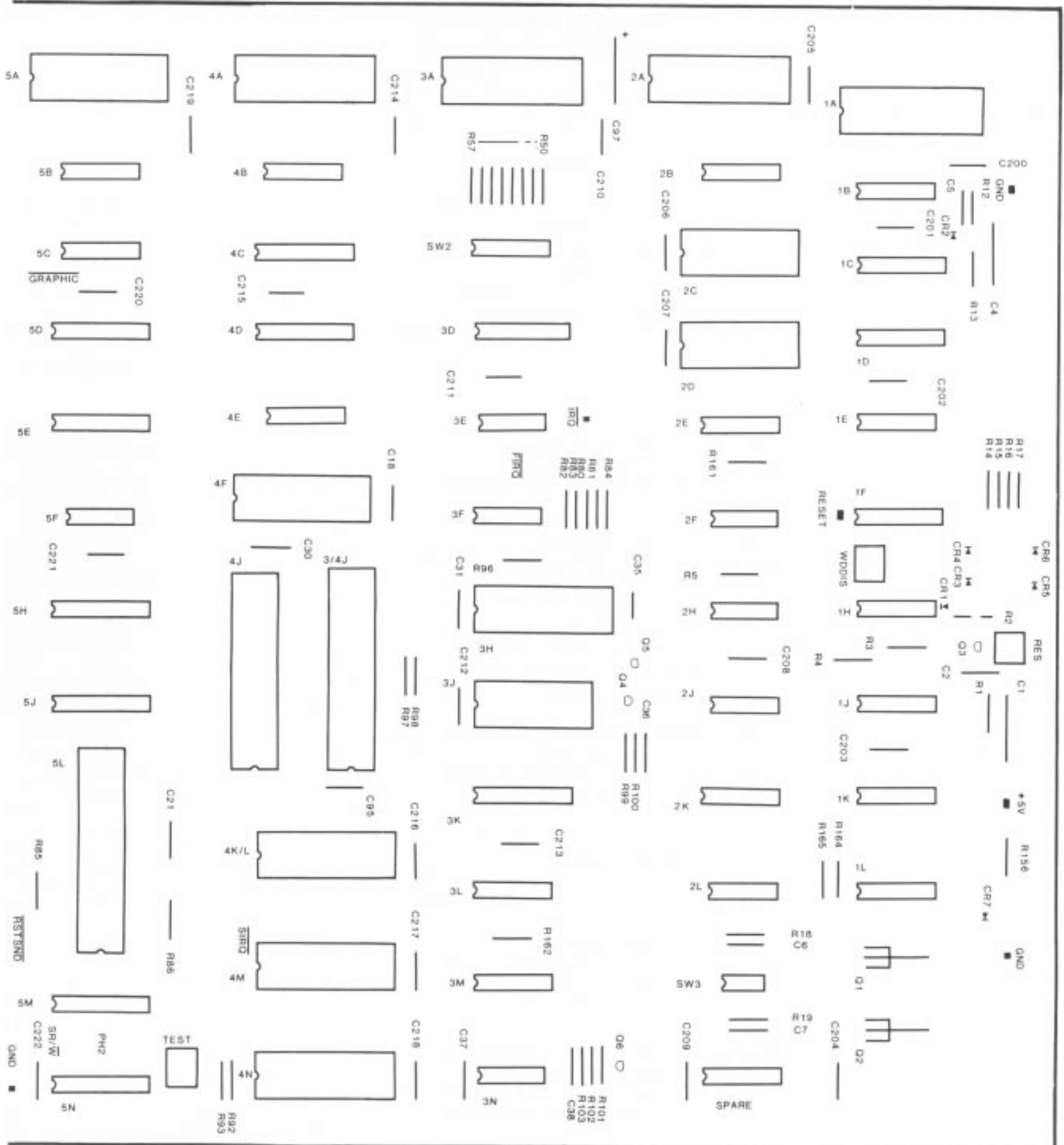


Figure 5-9 Main PCB Assembly  
A041403-21 D



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**Figure 5-9 Main PCB Assembly, continued**  
**A041403-21 D**

## Main PCB Assembly Parts List

Designator	Description	Part No.
<b>Capacitors</b>		
C1	10 $\mu$ F, 35 V, Aluminum Electrolytic Axial-Lead Capacitor	24-350106
C2, C3	0.1 $\mu$ F, +80% -20%, 50 V Ceramic Capacitor	122002-104
C4	4.7 $\mu$ F, 50 V, Aluminum Electrolytic Axial-Lead Capacitor	24-500475
C5-C21	0.1 $\mu$ F, +80% -20%, 50 V Ceramic Capacitor	122002-104
C22	10 $\mu$ F, 35 V, Aluminum Electrolytic Axial-Lead Capacitor	24-350106
C23	0.1 $\mu$ F, +80% -20%, 50 V Ceramic Capacitor	122002-104
C24	0.001 $\mu$ F, 50 V Ceramic Capacitor	122002-102
C25, C26	0.1 $\mu$ F, +80% -20%, 50 V Ceramic Capacitor	122002-104
C27-C29	0.001 $\mu$ F, 50 V Ceramic Capacitor	122002-102
C30-C43	0.1 $\mu$ F, +80% -20%, 50 V Ceramic Capacitor	122002-104
C44-C46	0.0027 $\mu$ F, $\pm$ 10%, 50 V Ceramic Axial-Lead Capacitor	122015-272
C47	0.47 $\mu$ F, 50 V Aluminum Electrolytic Axial-Lead Capacitor	124001-474
C48	100 $\mu$ F, 35 V, Aluminum Electrolytic Axial-Lead Capacitor	24-350107
C49	0.1 $\mu$ F, +80% -20%, 50 V Ceramic Capacitor	122002-104
C50	10 $\mu$ F, 35 V, Aluminum Electrolytic Axial-Lead Capacitor	24-350106
C51-C56	0.1 $\mu$ F, +80% -20%, 50 V Ceramic Capacitor	122002-104
C57-C59	0.0027 $\mu$ F, $\pm$ 10%, 50 V Ceramic Axial-Lead Capacitor	122015-272
C60	0.47 $\mu$ F, 50 V Aluminum Electrolytic Axial-Lead Capacitor	124001-474
C61	100 $\mu$ F, 35 V, Aluminum Electrolytic Axial-Lead Capacitor	24-350107
C62	0.1 $\mu$ F, +80% -20%, 50 V Ceramic Capacitor	122002-104
C63	10 $\mu$ F, 35 V, Aluminum Electrolytic Axial-Lead Capacitor	24-350106
C64-C66	0.1 $\mu$ F, +80% -20%, 50 V Ceramic Capacitor	122002-104
C67	100 $\mu$ F, 35 V, Aluminum Electrolytic Axial-Lead Capacitor	24-350107
C68-C70	0.1 $\mu$ F, +80% -20%, 50 V Ceramic Capacitor	122002-104
C71-C73	0.0027 $\mu$ F, $\pm$ 10%, 50 V Ceramic Axial-Lead Capacitor	122015-272
C74, C75	0.1 $\mu$ F, +80% -20%, 50 V Ceramic Capacitor	122002-104
C76	0.22 $\mu$ F, -20%, 25 V Ceramic Axial-Lead Capacitor	122004-224
C77	470 $\mu$ F, 25 V, Aluminum Electrolytic Axial-Lead Capacitor	24-250477
C78, C79	0.1 $\mu$ F, +80% -20%, 50 V Ceramic Capacitor	122002-104
C80	470 $\mu$ F, 25 V, Aluminum Electrolytic Axial-Lead Capacitor	24-250477
C81-C83	0.0027 $\mu$ F, $\pm$ 10%, 50 V Ceramic Axial-Lead Capacitor	122015-272
C84	0.22 $\mu$ F, -20%, 25 V Ceramic Axial-Lead Capacitor	122004-224
C85	470 $\mu$ F, 25 V, Aluminum Electrolytic Axial-Lead Capacitor	24-250477
C86, C87	0.1 $\mu$ F, +80% -20%, 50 V Ceramic Capacitor	122002-104
C88	470 $\mu$ F, 25 V, Aluminum Electrolytic Axial-Lead Capacitor	24-250477
C89	100 $\mu$ F, 35 V, Aluminum Electrolytic Axial-Lead Capacitor	24-350107
C90, C91	10 $\mu$ F, 35 V, Aluminum Electrolytic Axial-Lead Capacitor	24-350106
C92	100 $\mu$ F, 35 V, Aluminum Electrolytic Axial-Lead Capacitor	24-350107
C93, C94	10 $\mu$ F, 35 V, Aluminum Electrolytic Axial-Lead Capacitor	24-350106
C95	0.1 $\mu$ F, +80% -20%, 50 V Ceramic Capacitor	122002-104
C96	10 $\mu$ F, 35 V, Aluminum Electrolytic Axial-Lead Capacitor	24-350106
C97, C98	4.7 $\mu$ F, 50 V, Aluminum Electrolytic Axial-Lead Capacitor	24-500475
C200-C239	0.1 $\mu$ F, +80% -20%, 50 V Ceramic Capacitor	122002-104

(continued on next page)

## Main PCB Assembly Parts List, continued

Designator	Description	Part No.
<b>Diodes</b>		
CR1, CR2	Type-1N4001, 50 V Rectifier Diode	31-1N4001
CR3-CR7	Type-MV5053, Red, Light-Emitting Diode	38-MV5053
<b>Integrated Circuits</b>		
1A	Programmed EPROM Integrated Circuit	136026-108
1B	Type-74S260 Integrated Circuit	37-74S260
1C	Non-Volatile RAM Integrated Circuit	137288-001
1D	Non-Volatile RAM Integrated Circuit	137288-001
1E	Type-74LS02 Integrated Circuit	37-74LS02
1F	Type-74LS259 Integrated Circuit	37-74LS259
1H	Type-74LS14 Integrated Circuit	37-74LS14
1J	Type-7407 Integrated Circuit	37-7407
1K	Type-74LS393 Integrated Circuit	37-74LS393
1L	Type-74LS393 Integrated Circuit	37-74LS393
2A	Programmed EPROM Integrated Circuit	136026-107
2B	Type-74LS139 Integrated Circuit	37-74LS139
2C	Static RAM Integrated Circuit	137211-001
2D	Static RAM Integrated Circuit	137211-001
2E	Type-74LS138 Integrated Circuit	137177-001
2F	Type-74LS74 Integrated Circuit	37-74LS74
2H	Type-74LS00 Integrated Circuit	37-74LS00
2J	Type-74LS00 Integrated Circuit	37-74LS00
2K	Type-74LS139 Integrated Circuit	37-74LS139
2L	Type-74LS02 Integrated Circuit	37-74LS02
3/4J	Custom Integrated Circuit	137324-1221
3A	Programmed EPROM Integrated Circuit	136026-106
3D-7D	Type-74LS244 Integrated Circuit	37-74LS244
3E	Type-74LS74 Integrated Circuit	37-74LS74
3F	Type-74LS04 Integrated Circuit	37-74LS04
3H	Custom Integrated Circuit	137308-001
3J	Static RAM Integrated Circuit	137211-001
3K	Type-74LS245 Integrated Circuit	37-74LS245
3L	Type-74LS138 Integrated Circuit	137177-001
3M	Type-74LS163A Integrated Circuit	37-74LS163A
3N	Type-74C04 Integrated Circuit	137309-001
4A	Programmed EPROM Integrated Circuit	136026-105
4B	Type-74LS138 Integrated Circuit	137177-001
4C	Type-74LS244 Integrated Circuit	37-74LS244
4E	Type-74LS138 Integrated Circuit	137177-001
4F	Analog/Digital Converter Integrated Circuit	137243-001
4J	Type-6532A Integrated Circuit	90-6018
4K/L	Programmed EPROM Integrated Circuit	136026-112
4M	Programmed EPROM Integrated Circuit	136026-113
4N	Programmed EPROM Integrated Circuit	136026-114

(continued on next page)

### Main PCB Assembly Parts List, continued

Designator	Description	Part No.
5A	Programmed EPROM Integrated Circuit	136026-104
5B	Type-74LS138 Integrated Circuit	137177-001
5C	Type-74S00 Integrated Circuit	37-74S00
5E	Type-74LS374 Integrated Circuit	13-74LS374
5F	Type-74LS74 Integrated Circuit	37-74LS74
5H, 6H	Type-74LS374 Integrated Circuit	13-74LS374
5J	Type-74LS374 Integrated Circuit	13-74LS374
5L	Type-6502A Integrated Circuit	90-6013
5M	Type-74LS244 Integrated Circuit	37-74LS244
5N	Type-74LS244 Integrated Circuit	37-74LS244
6A	Programmed EPROM Integrated Circuit	136026-103
6B/C	Programmed EPROM Integrated Circuit	136026-111
6E	Type-74LS04 Integrated Circuit	37-74LS04
6F	Type-74LS138 Integrated Circuit	137177-001
6J, 7J	Type-74LS244 Integrated Circuit	37-74LS244
6L/M	Quad Op-Amp Integrated Circuit	37-347
6M	Quad Op-Amp Integrated Circuit	37-347
7A	Programmed EPROM Integrated Circuit	136026-102
7B/C	Programmed EPROM Integrated Circuit	136026-110
7E	Type-74LS244 Integrated Circuit	37-74LS244
7F	Type-74LS259 Integrated Circuit	37-74LS259
7H, 8H	Type-74LS244 Integrated Circuit	37-74LS244
7L/M	Quad Op-Amp Integrated Circuit	37-347
8A	Programmed EPROM Integrated Circuit	136026-101
8B/C	Programmed EPROM Integrated Circuit	136026-109
8E	Microprocessor Integrated Circuit	137249-120
8H/J	Type-74LS244 Integrated Circuit	37-74LS244
8K	Analog Delay Line Integrated Circuit	137310-001
8M	Analog Delay Line Integrated Circuit	137310-001
9D	Type-74LS244 Integrated Circuit	37-74LS244
9D/E	Type-74LS245 Integrated Circuit	37-74LS245
9E/F	Type-74LS244 Integrated Circuit	37-74LS244
9F	Type-74LS244 Integrated Circuit	37-74LS244
9K	Quad Op-Amp Integrated Circuit	37-347
9M	Quad Op-Amp Integrated Circuit	37-347
10L	Type-2002 Integrated Circuit	137151-002
11L	Type-2002 Integrated Circuit	137151-002
VR1	Type-7812 Integrated Circuit	37-7812
VR2	Type-7805 Integrated Circuit	37-7805
VR3	Type-7905 Integrated Circuit	37-7905
<b>Resistors</b>		
R1	1 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-102
R2, R3	470 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-471
R4	4.7 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-472
R5	10 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-103

(continued on next page)



### Main PCB Assembly Parts List, continued

Designator	Description	Part No.
R6, R7	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R8, R9	220 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-221
R10, R11	330 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-331
R12	22 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-223
R13	10 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-103
R14-R17	330 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-331
R18, R19	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R20-R27	220 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-221
R28-R35	330 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-331
R36-R38	220 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-221
R39-R41	330 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-331
R42-R57	10 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-103
R58-R64	470 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-471
R65-R71	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R72-R74	470 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-471
R75-R77	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R78, R79	100 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-101
R80-R84	4.7 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-472
R85, R86	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R87	100 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-104
R88-R91	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R92, R93	10 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-103
R94	1.8 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-182
R95	100 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-104
R96, R97	10 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-103
R98	3.3 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-332
R99	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R100	3.3 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-332
R101	10 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-103
R102	3.3 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-332
R103	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R104, R105	47 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-473
R106	6.8 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-682
R107-R109	12 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-123
R110	47 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-473
R111	22 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-223
R112	47 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-473
R113	68 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-683
R114	12 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-123
R115	1.5 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-152
R116	470 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-474
R117, R118	47 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-473
R119	15 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-153
R120-R122	12 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-123
R123	47 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-473
R124	22 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-223

(continued on next page)

### Main PCB Assembly Parts List, continued

Designator	Description	Part No.
R125	47 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-473
R126	100 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-101
R127	68 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-683
R128	12 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-123
R129	1.5 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-152
R130	470 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-474
R131	100 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-104
R132	4.7 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-472
R133	10 k $\Omega$ Horizontal Trimming Potentiometer	119002-103
R134	10 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-103
R135	2.7 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-272
R136	100 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-104
R137	4.7 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-472
R138	10 k $\Omega$ Horizontal Trimming Potentiometer	119002-103
R139, R140	12 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-123
R141	10 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-103
R142	22 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-223
R143	1 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-102
R144	10 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-100
R145	220 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-221
R146	1 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-010
R147, R148	12 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-123
R149	10 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-103
R150	22 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-223
R151	1 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-102
R152	10 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-100
R153	220 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-221
R154	1 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-010
R155	62 $\Omega$ , $\pm 5\%$ , 5 W Resistor	116001-620
R156	150 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-151
R157, R158	220 $\Omega$ , $\pm 5\%$ , 3 W Resistor	110022-221
R159	100 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-101
R160	10 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-103
R161-R163	1 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-102
R165	330 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-331

#### Sockets

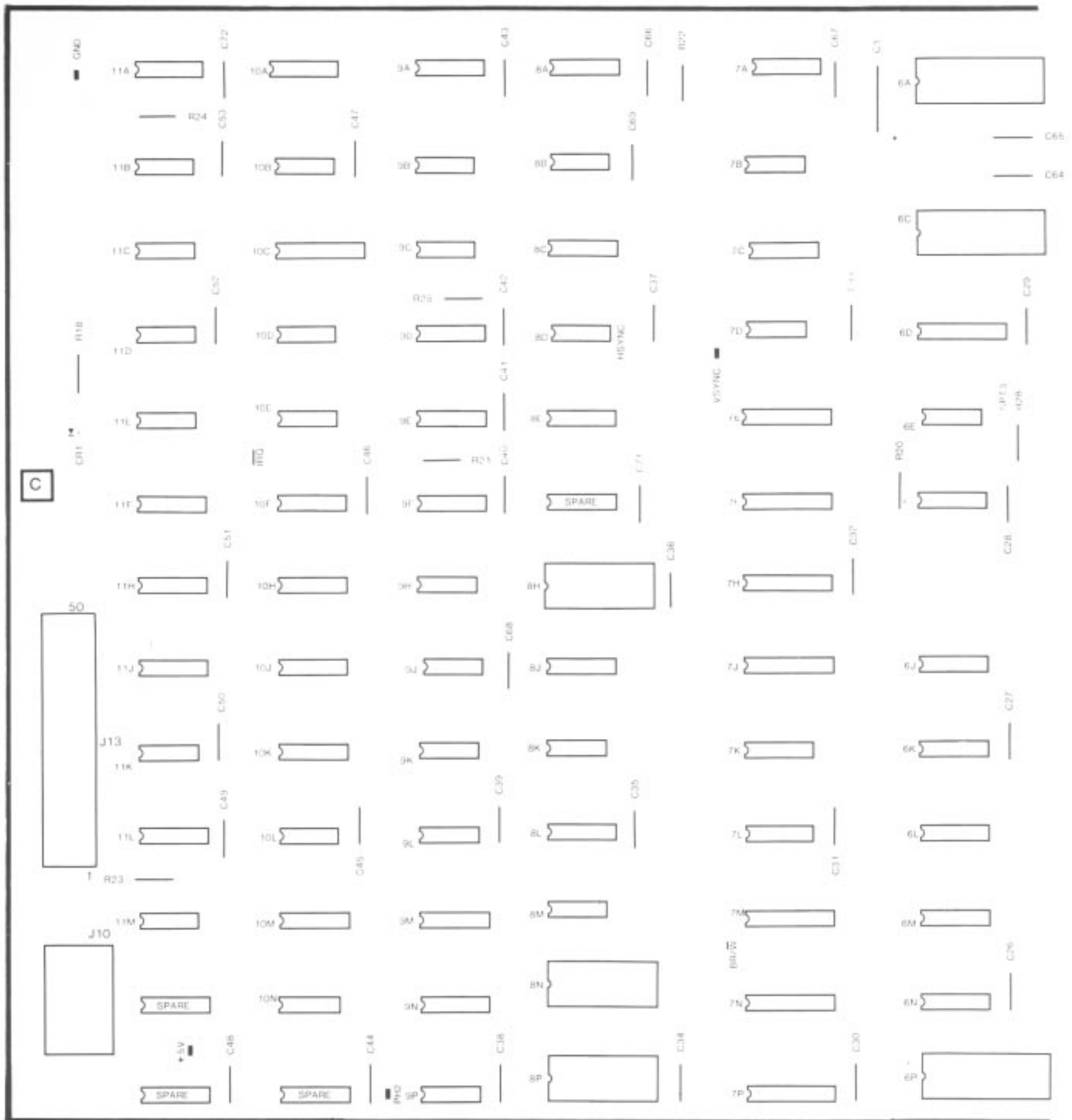
1A-8A	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
1C	18-Contact, Medium-Insertion-Force IC Socket	79-42C18
1D	18-Contact, Medium-Insertion-Force IC Socket	79-42C18
2C	24-Contact, Medium-Insertion-Force IC Socket	79-42C24
2D	24-Contact, Medium-Insertion-Force IC Socket	79-42C24
3/4J	40-Contact, Medium-Insertion-Force IC Socket	79-42C40
3H	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
3J	24-Contact, Medium-Insertion-Force IC Socket	79-42C24

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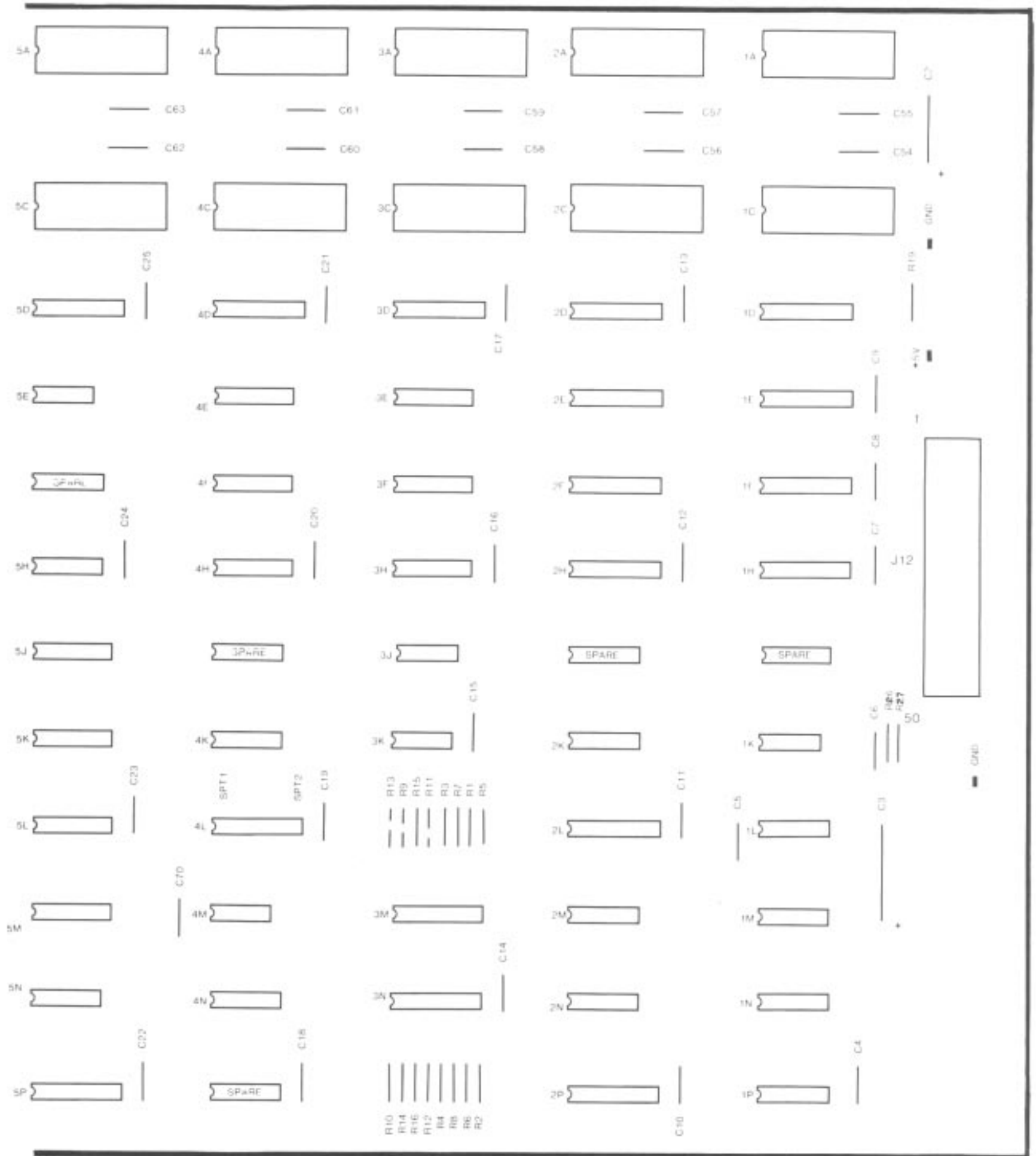
### Main PCB Assembly Parts List, continued

Designator	Description	Part No.
4F	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
4J	40-Contact, Medium-Insertion-Force IC Socket	79-42C40
4K/L	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
4M	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
4N	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
5L	40-Contact, Medium-Insertion-Force IC Socket	79-42C40
6B/C	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
7B/C	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
8B/C	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
8E	40-Contact, Medium-Insertion-Force IC Socket	79-42C40
<b>Transistors</b>		
Q1, Q2	Type-2N6044 Transistor	34-2N6044
Q3	Type-2N3904 Transistor	34-2N3904
Q4	Type-2N3906 Transistor	34-2N3906
Q5	Type-2N3904 Transistor	34-2N3904
Q6	Type-2N3906 Transistor	34-2N3906
<b>Miscellaneous</b>		
SW1, SW2	8-Toggle DIP Switch (Acceptable substitute is part no. 66-118P1T)	160031-008
SW3	4-Toggle DIP Switch	66-114P1T
	7-Circuit Header Connector	179165-007
	Nylon Snap-In Fastener	81-4302
	Test Point (Acceptable substitute is part no. 020670-001)	179051-002
	50-Circuit, 4-Wall Header, Right-Angle Connector	179186-001

Note: See Cabinet-Mounted Assemblies Parts List for part number of 50-circuit ribbon cable assembly.



**Figure 5-10 Graphics PCB Assembly  
A041345-21 D**



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**Figure 5-10 Graphics PCB Assembly, continued**  
**A041345-01 D**



## Graphics PCB Assembly Parts List

Designator	Description	Part No.
<b>Capacitors</b>		
C1, C2	4.7 $\mu$ F, 35 V, Aluminum Electrolytic Axial-Lead Capacitor	124000-475
C3	100 $\mu$ F, 50 V, Aluminum Electrolytic Axial-Lead Capacitor	124001-107
C4-C72	0.1 $\mu$ F, +80% -20%, 50 V Ceramic Capacitor	122002-104
<b>Integrated Circuits</b>		
1D-6D	Type-74LS299 Integrated Circuit	137180-001
1E	Type-74S374 Integrated Circuit	137206-001
1F	Type-74S374 Integrated Circuit	137206-001
1H	Type-74S374 Integrated Circuit	137206-001
1K	Type-74S04 Integrated Circuit	37-74S04
1L	Type-74LS153 Integrated Circuit	37-74LS153
1M	Type-74LS153 Integrated Circuit	37-74LS153
1N	Type-74LS153 Integrated Circuit	37-74LS153
1P	Type-74LS153 Integrated Circuit	37-74LS153
2E	Type-74LS245 Integrated Circuit	37-74LS245
2F	Type-74LS245 Integrated Circuit	37-74LS245
2H	Type-74LS245 Integrated Circuit	37-74LS245
2K	Type-74S157 Integrated Circuit	37-74S157
2L	Type-74LS240 Integrated Circuit	137251-001
2M	Type-74LS158 Integrated Circuit	137203-001
2N	Type-74LS158 Integrated Circuit	137203-001
2P	Type-74LS374 Integrated Circuit	37-74LS374
3E	Static RAM Integrated Circuit	137199-001
3F	Static RAM Integrated Circuit	137199-001
3H	Static RAM Integrated Circuit	137199-001
3J	Type-74LS74 Integrated Circuit	37-74LS74
3K	Type-74S260 Integrated Circuit	37-74S260
3M	Type-74S374 Integrated Circuit	137206-001
3N	Type-74S374 Integrated Circuit	137206-001
4E	Static RAM Integrated Circuit	137199-001
4F	Static RAM Integrated Circuit	137199-001
4H	Static RAM Integrated Circuit	137199-001
4K	Type-74S157 Integrated Circuit	37-74S157
4L	Type-74LS240 Integrated Circuit	137251-001
4M	Type-74S08 Integrated Circuit	37-74S08
4N	Type-74LS175 Integrated Circuit	37-74LS175
5E	Type-74LS32 Integrated Circuit	37-74LS32
5H	Type-74S161 Integrated Circuit	137287-001
5J	Static RAM Integrated Circuit	137199-002
5K	Static RAM Integrated Circuit	137199-002
5L	Static RAM Integrated Circuit	137199-002
5M	Static RAM Integrated Circuit	137199-002
5N	Type-74LS157 Integrated Circuit	37-74LS157
5P	Type-74S374 Integrated Circuit	137206-001
6E	Type-74S32 Integrated Circuit	37-74S32
6F	Type-74S175 Integrated Circuit	37-74S175

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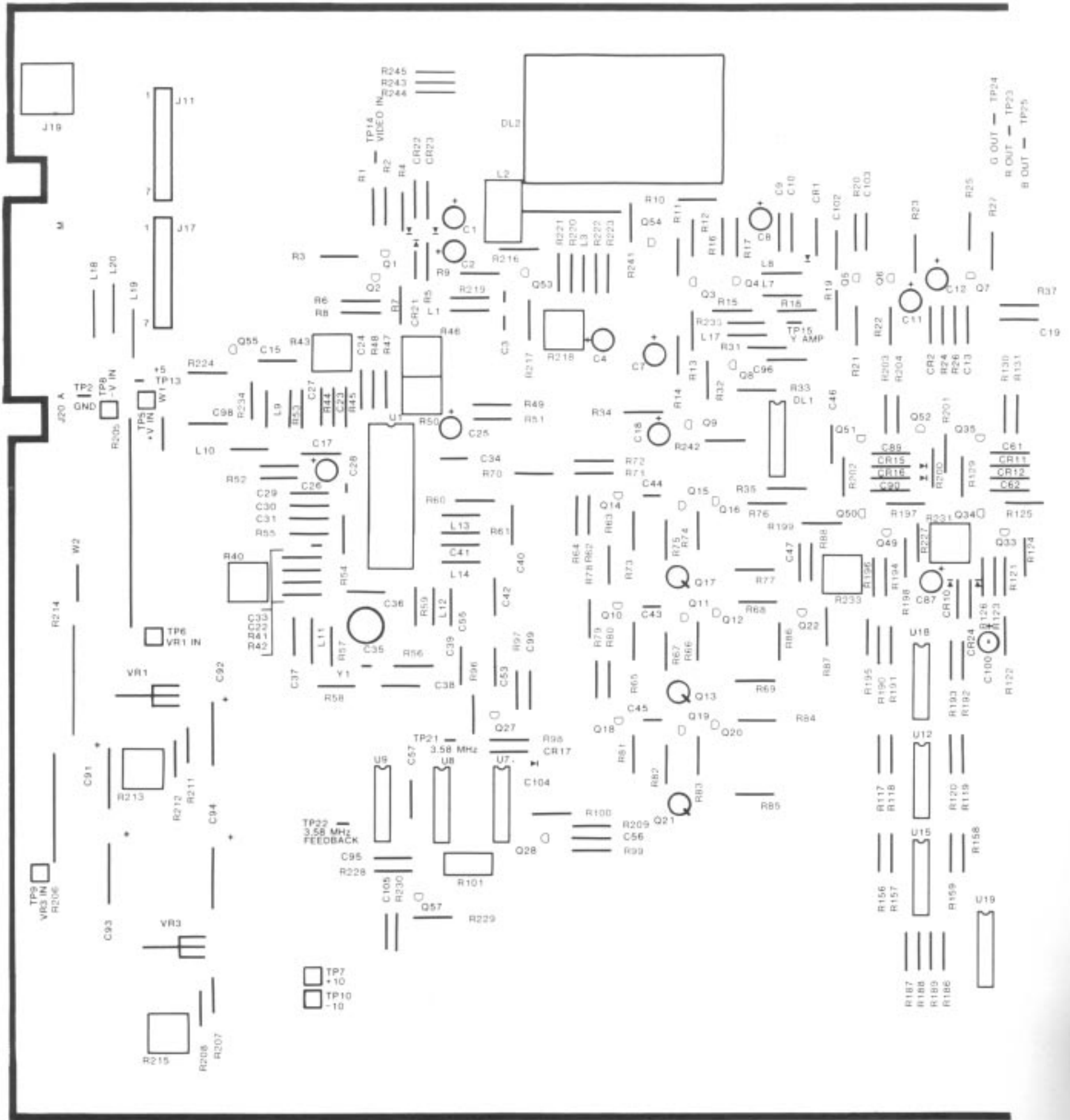
### Graphics PCB Assembly Parts List, continued

Designator	Description	Part No.
6J	Type-74S161 Integrated Circuit	137287-001
6K	Type-74S161 Integrated Circuit	137287-001
6L	Type-74S161 Integrated Circuit	137287-001
6M	Type-74S161 Integrated Circuit	137287-001
6N	Type-74S161 Integrated Circuit	137287-001
7A	Type-74LS163 Integrated Circuit	137274-001
7B	Type-74LS86 Integrated Circuit	37-74LS86
7C	Type-74LS174 Integrated Circuit	37-74LS174
7D	Type-74LS08 Integrated Circuit	37-74LS08
7E	Type-74LS374 Integrated Circuit	37-74LS374
7F	Type-74LS374 Integrated Circuit	37-74LS374
7H	Type-74LS374 Integrated Circuit	37-74LS374
7J	Type-74LS374 Integrated Circuit	37-74LS374
7K	Type-74S283 Integrated Circuit	137204-001
7L	Type-74S283 Integrated Circuit	137204-001
7M	Type-74LS245 Integrated Circuit	37-74LS245
7N	Type-74LS245 Integrated Circuit	37-74LS245
7P	Type-74S374 Integrated Circuit	137206-001
8A	Type-74LS163 Integrated Circuit	137274-001
8B	Type-74S74 Integrated Circuit	37-74S74
8C	Type-74LS109 Integrated Circuit	37-74LS109
8D	Type-7414 Integrated Circuit	37-7414
8E	Type-74LS74 Integrated Circuit	37-74LS74
8J	Type-74LS138 Integrated Circuit	137177-001
8K	Type-74LS20 Integrated Circuit	37-74LS20
8L	Type-74LS157 Integrated Circuit	37-74LS157
8M	Type-74LS32 Integrated Circuit	37-74LS32
9A	Type-74LS163 Integrated Circuit	137274-001
9B	Type-74S04 Integrated Circuit	37-74S04
9C	Type-74LS10 Integrated Circuit	37-74LS10
9D	Type-74LS163A Integrated Circuit	37-74LS163A
9E	Type-74S163 Integrated Circuit	137274-001
9F	Type-74LS163A Integrated Circuit	37-74LS163A
9H	Type-74LS86 Integrated Circuit	37-74LS86
9J	Type-74LS00 Integrated Circuit	37-74LS00
9K	Type-74LS08 Integrated Circuit	37-74LS08
9L	Type-74LS10 Integrated Circuit	37-74LS10
9M	Type-74LS157 Integrated Circuit	37-74LS157
9N	Type-74LS109 Integrated Circuit	37-74LS109
9P	Type-74S74 Integrated Circuit	37-74S74
10A	Type-74LS163 Integrated Circuit	137274-001
10B	Type-74LS11 Integrated Circuit	137149-001
10C	Type-74LS273 Integrated Circuit	37-74LS273
10D	Type-74S02 Integrated Circuit	37-74S02
10E	Type-74S00 Integrated Circuit	37-74S00
10F	Type-74S161 Integrated Circuit	137287-001

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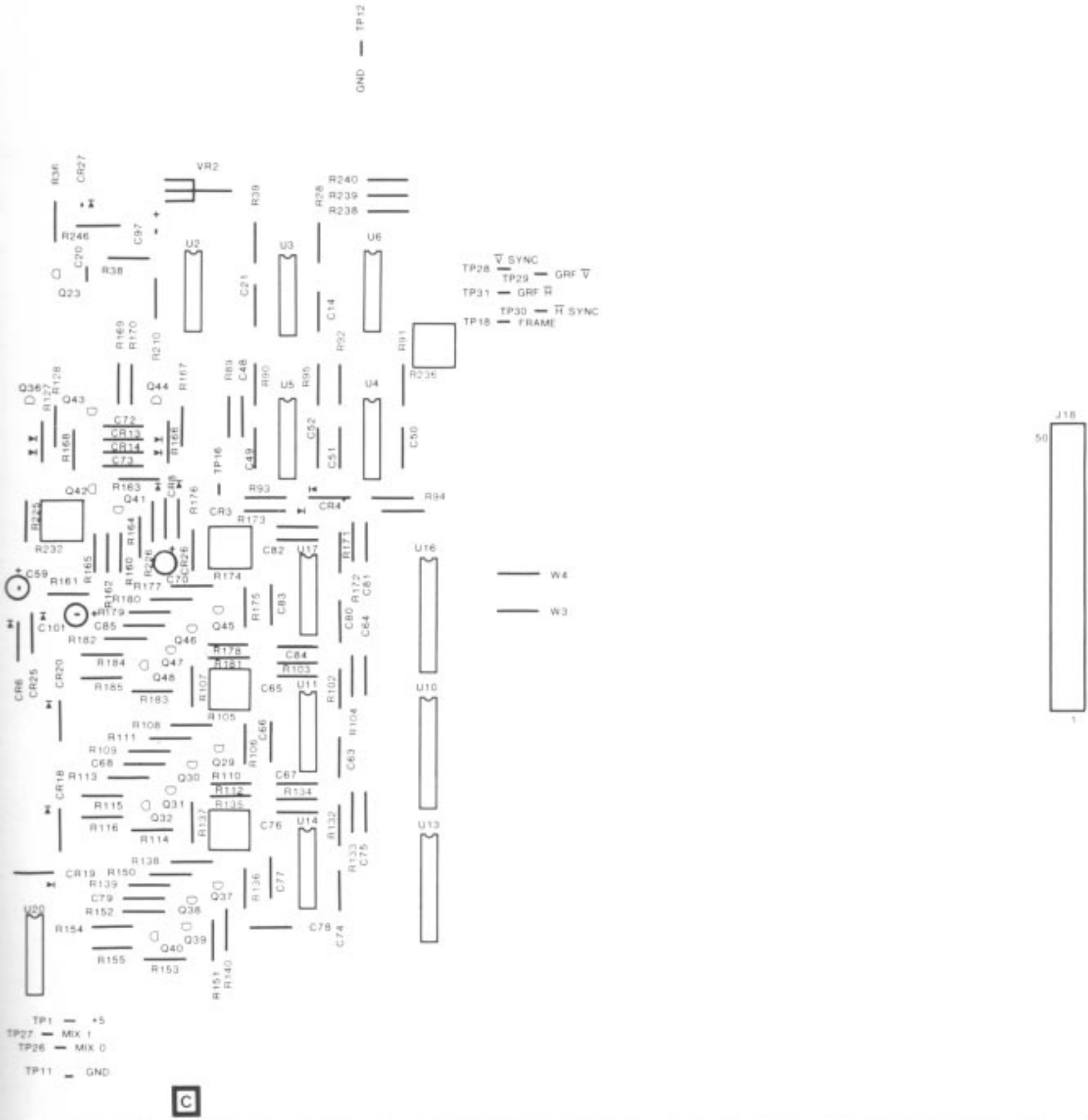
## Graphics PCB Assembly Parts List, continued

Designator	Description	Part No.
10H	Type-74S139 Integrated Circuit	37-74S139
10J	Type-74LS157 Integrated Circuit	37-74LS157
10K	Type-74LS157 Integrated Circuit	37-74LS157
10L	Type-74LS32 Integrated Circuit	37-74LS32
10M	Type-74LS157 Integrated Circuit	37-74LS157
10N	Type-74LS04 Integrated Circuit	37-74LS04
11A	Type-74LS163 Integrated Circuit	137274-001
11B	Type-74LS74 Integrated Circuit	37-74LS74
11C	Type-74LS00 Integrated Circuit	37-74LS00
11D	Type-74S08 Integrated Circuit	37-74S08
11E	Type-74LS74 Integrated Circuit	37-74LS74
11F	Type-74LS157 Integrated Circuit	37-74LS157
11H	Type-74S161 Integrated Circuit	137287-001
11J	Type-74LS157 Integrated Circuit	37-74LS157
11K	Type-74S04 Integrated Circuit	37-74S04
11L	Type-74S161 Integrated Circuit	137287-001
11M	Type-74LS74 Integrated Circuit	37-74LS74
<b>Resistors</b>		
R1-R16	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R18	150 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-151
R19-R25	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R27	150 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-151
R28	0 $\Omega$ Resistor	110005-001
<b>Sockets</b>		
1A	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
1C	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
2A	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
2C	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
3A	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
3C	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
4A	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
4C	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
5A	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
5C	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
6A	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
6C	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
6P	28-Contact, Medium-Insertion-Force IC Socket	79-42C28
8H	24-Contact, Medium-Insertion-Force IC Socket	79-42C24
8N	24-Contact, Medium-Insertion-Force IC Socket	79-42C24
8P	24-Contact, Medium-Insertion-Force IC Socket	79-42C24
<b>Miscellaneous</b>		
CRI	Type-MV5053, Red Light-Emitting Diode	38-MV5053
J10	2-Circuit, Right-Angle Connector Header	179165-002
J10	4-Circuit, Right-Angle Connector Header	179165-004
J12, J13	50-Pin, Right-Angle Ribbon	179186-001
	Test Point (Acceptable substitute is part no. 020670-001)	179051-002



\*National Television Service Committee

Figure 5-11 NTSC\* Demodulator PCB Assembly  
A041343-01 E



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**Figure 5-11 NTSC\* Demodulator PCB Assembly, continued**  
**A041343-01 E**



## NTSC Demodulator PCB Assembly Parts List

Designator	Description	Part No.
<b>Capacitors</b>		
C1	100 $\mu$ F, 10 V, Aluminum Electrolytic Radial-Lead Capacitor	123013-107
C2	100 $\mu$ F, 10 V, Aluminum Electrolytic Radial-Lead Capacitor	123013-107
C3	1000 pF, $\pm 5\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-102
C4	1.0 $\mu$ F, 50 V, Aluminum Electrolytic Radial-Lead Capacitor	123001-105
C7, C8	100 $\mu$ F, 10 V, Aluminum Electrolytic Radial-Lead Capacitor	123013-107
C9	270 pF, $\pm 10\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-271
C10	330 pF, $\pm 5\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-331
C11, C12	0.22 $\mu$ F, 100 V Polyester Radial-Lead Capacitor	21-101224
C13	3300 pF, $\pm 10\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-332
C14	1000 pF, $\pm 5\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-102
C15	51 pF, $\pm 10\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-510
C17	220 pF, $\pm 5\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-221
C18	10 $\mu$ F, 50 V, Aluminum Electrolytic Radial-Lead Capacitor	123001-106
C19	100 pF, $\pm 5\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-101
C20	0.022 $\mu$ F, 100 V, Polyester Radial-Lead Capacitor	21-101223
C21	470 pF, 100 V, NPO Axial-Lead Ceramic Capacitor	122016-471
C22-C24	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Axial-Lead Ceramic Capacitor	122005-103
C25, C26	1.0 $\mu$ F, 50 V, Aluminum Electrolytic Radial-Lead Capacitor	123001-105
C27	270 pF, $\pm 10\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-271
C28	1.0 $\mu$ F, $\pm 10\%$ , 50 V Minimum, Radial-Lead Ceramic Capacitor	121015-105
C29-C31	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Axial-Lead Ceramic Capacitor	122005-103
C32	1.0 $\mu$ F, $\pm 10\%$ , 50 V Minimum, Radial-Lead Ceramic Capacitor	121015-105
C33	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Axial-Lead Ceramic Capacitor	122005-103
C34	0.47 $\mu$ F, 100 V, Polyester Radial-Lead Capacitor	21-401474
C35	5.5-40 pF, PC Mount, Variable Ceramic Disc Capacitor	121026-001
C37	100 pF, $\pm 5\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-101
C38	150 pF, $\pm 5\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-151
C39	75 pF, $\pm 10\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-750
C40	120 pF, $\pm 10\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-121
C41	330 pF, $\pm 5\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-331
C42	1000 pF, $\pm 5\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-102
C43-C45	0.1 $\mu$ F, 100 V Polyester Radial-Lead Capacitor	21-101104
C46	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Axial-Lead Ceramic Capacitor	122005-103
C47, C48	220 pF, $\pm 5\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-221
C49	470 pF, 100 V, NPO Axial-Lead Ceramic Capacitor	122016-471
C50	220 pF, $\pm 5\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-221
C51	1000 pF, $\pm 5\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-102
C52	180 pF, $\pm 10\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-181
C53	220 pF, $\pm 5\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-221
C56	0.05 $\mu$ F, +80% -20%, 25 V Ceramic Capacitor	121002-503
C57	10 pF, $\pm 5\%$ , 100 V, NPO Axial-Lead Ceramic Capacitor	122016-100
C59	100 $\mu$ F, 10 V, Aluminum Electrolytic Radial-Lead Capacitor	123013-107
C61, C62	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Axial-Lead Ceramic Capacitor	122005-103
C63, C64	0.1 $\mu$ F, $\pm 10\%$ , 25 V Ceramic Capacitor	122006-104

(continued on next page)

## NTSC Demodulator PCB Assembly Parts List, continued

Designator	Description	Part No.
C65	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Axial-Lead Ceramic Capacitor	122005-103
C66	0.1 $\mu$ F, $\pm$ 10%, 25 V Ceramic Capacitor	122006-104
C67	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Axial-Lead Ceramic Capacitor	122005-103
C68	15 pF, $\pm$ 5%, 100 V, NPO Axial-Lead Ceramic Capacitor	122016-150
C70	100 $\mu$ F, 10 V, Aluminum Electrolytic Radial-Lead Capacitor	123013-107
C72, C73	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Axial-Lead Ceramic Capacitor	122005-103
C74, C75	0.1 $\mu$ F, $\pm$ 10%, 25 V Ceramic Capacitor	122006-104
C76	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Axial-Lead Ceramic Capacitor	122005-103
C77	0.1 $\mu$ F, $\pm$ 10%, 25 V Ceramic Capacitor	122006-104
C78	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Axial-Lead Ceramic Capacitor	122005-103
C79	15 pF, $\pm$ 5%, 100 V, NPO Axial-Lead Ceramic Capacitor	122016-150
C80, C81	0.1 $\mu$ F, $\pm$ 10%, 25 V Ceramic Capacitor	122006-104
C82	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Axial-Lead Ceramic Capacitor	122005-103
C83	0.1 $\mu$ F, $\pm$ 10%, 25 V Ceramic Capacitor	122006-104
C84	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Axial-Lead Ceramic Capacitor	122005-103
C85	15 pF, $\pm$ 5%, 100 V, NPO Axial-Lead Ceramic Capacitor	122016-150
C87	100 $\mu$ F, 10 V, Aluminum Electrolytic Radial-Lead Capacitor	123013-107
C89	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Axial-Lead Ceramic Capacitor	122005-103
C90	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Axial-Lead Ceramic Capacitor	122005-103
C91-C94	10 $\mu$ F, 35 V, Aluminum Electrolytic Radial-Lead Capacitor	24-350106
C95	220 pF, 100 V, NPO Axial-Lead Ceramic Capacitor	122016-221
C96	47 pF, $\pm$ 5%, 100 V, NPO Axial-Lead Ceramic Capacitor	122016-470
C97	100 $\mu$ F, 10 V, Aluminum Electrolytic Radial-Lead Capacitor	123013-107
C99	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Axial-Lead Ceramic Capacitor	122005-103
CI00, CI01	10 $\mu$ F, 50 V, Aluminum Electrolytic Radial-Lead Capacitor	123001-106
CI02	10 pF, $\pm$ 5%, 100 V, NPO Axial-Lead Ceramic Capacitor	122016-100
CI03, CI04	0.1 $\mu$ F, 25 V, NPO Axial-Lead Ceramic Capacitor	122006-104
CI05	220 pF, 100 V, NPO Axial-Lead Ceramic Capacitor	122016-221
<b>Diodes</b>		
CR1	Type-1N752A, 5.6 V Diode	32-1N752A
CR2-CR4	Type-1N914, 10 mA, 100 V Switching Diode	31-1N914
CR6	Type-1N914, 10 mA, 100 V Switching Diode	31-1N914
CR8	Type-1N914, 10 mA, 100 V Switching Diode	31-1N914
CR10-CR22	Type-1N914, 10 mA, 100 V Switching Diode	31-1N914
CR26	Type-1N914, 10 mA, 100 V Switching Diode	31-1N914
CR27	Type-38MV5053 Light-Emitting Diode	38-MV5053
<b>Inductors</b>		
L1	15 $\mu$ H Miniature Fixed Axial-Lead Inductor	141016-004
L2	8.5-11.5 $\mu$ H Variable Inductor	141017-001
L3	18 $\mu$ H Miniature Fixed Axial-Lead Inductor	141016-005
L7	33 $\mu$ H Miniature Fixed Axial-Lead Inductor	141016-007
L8	68 $\mu$ H Miniature Fixed Axial-Lead Inductor	141016-008
L9	15 $\mu$ H Miniature Fixed Axial-Lead Inductor	141016-004

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## NTSC Demodulator PCB Assembly Parts List, continued

Designator	Description	Part No.
L10	5.6 $\mu$ H Miniature Fixed Axial-Lead Inductor	141016-001
L11	27 $\mu$ H Miniature Fixed Axial-Lead Inductor	141016-006
L12	15 $\mu$ H Miniature Fixed Axial-Lead Inductor	141016-004
L13	18 $\mu$ H Miniature Fixed Axial-Lead Inductor	141016-005
L14	5.6 $\mu$ H Miniature Fixed Axial-Lead Inductor	141016-001
L17	5.6 $\mu$ H Miniature Fixed Axial-Lead Inductor	141016-001
L18-L20	1.0 $\mu$ H Peaking Coil Inductor	141007-001
<b>Integrated Circuits</b>		
DL1	500 ns Delay Line Integrated Circuit	137359-001
DL2	NTSC Delay Line Integrated Circuit	137365-001
U1	TV Chroma/Luminance Processor Integrated Circuit	137353-001
U2	Type-74LS08 Integrated Circuit	37-74LS08
U3-U5	CMOS Dual Monostable Multivibrator Integrated Circuit	137354-001
U6	Type-74LS04 Integrated Circuit	37-74LS04
U7	ECL Phase-Frequency Detector Integrated Circuit	137355-001
U8	ECL Voltage-Controlled Multi-Vibrator Integrated Circuit	137356-001
U9	Type-74LS74 Integrated Circuit	37-74LS74
U11	8-Bit D-A Converter Integrated Circuit	137159-001
U10	Type-74LS273 Octal Flip-Flop Integrated Circuit	37-74LS273
U12	Type-4066 Integrated Circuit	37-4066
U13	Type-74LS273 Octal Flip-Flop Integrated Circuit	37-74LS273
U14	8-Bit D-A Converter Integrated Circuit	137159-001
U15	Type-4066 Integrated Circuit	37-4066
U16	Type-74LS273 Octal Flip-Flop Integrated Circuit	37-74LS273
U17	8-Bit D-A Converter Integrated Circuit	137159-001
U18	Type-4066 Integrated Circuit	37-4066
U19	Type-7406 Integrated Circuit	37-7406
U20	Type-7407 Integrated Circuit	37-7407
VR1	TO-220, 15 W, Voltage Regulator Integrated Circuit	137233-001
VR2	Type-7805 Integrated Circuit	37-7805
VR3	TO-220, 15 W, Voltage Regulator Integrated Circuit	137232-001
<b>Resistors</b>		
R1	75 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-750
R2	47 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-470
R3	2 k $\Omega$ $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-202
R4	240 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-241
R5	910 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-911
R6, R7	560 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-561
R8	1.2 k $\Omega$ $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-122
R9	1 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-102
R10	2.7 k $\Omega$ $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-272
R11	47 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-470
R12	2 k $\Omega$ $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-202
R13	270 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-271

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### NTSC Demodulator PCB Assembly Parts List, continued

Designator	Description	Part No.
R14	2.7 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-272
R15	1.8 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-182
R16	1.5 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-152
R17	150 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-151
R18	510 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-511
R19	3.9 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-392
R20	1.5 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-152
R21	510 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-511
R22	3.3 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-332
R23	82 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-823
R24	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R25	220 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-224
R26	1.2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-122
R27	1.8 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-182
R28	270 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-274
R31	47 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-470
R32	5.1 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-512
R33	470 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-471
R34	2.4 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-242
R35	510 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-511
R36	3.3 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-332
R37	15 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-153
R38	100 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-101
R39	110 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-114
R40	100 k $\Omega$ , Horizontal Trimming Potentiometer	119002-104
R41	33 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-333
R42	330 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-334
R43	100 k $\Omega$ , Horizontal Trimming Potentiometer	119002-104
R44	33 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-333
R45	330 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-334
R46	5 k $\Omega$ , Horizontal Trimming Potentiometer	119002-502
R47	8.2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-822
R48	22 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-223
R49	15 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-153
R50	10 k $\Omega$ , Horizontal Trimming Potentiometer	119002-103
R51	12 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-123
R52	510 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-511
R53	10 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-103
R54	220 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-224
R55	12 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-123
R56	5.1 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-512
R57	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R58	330 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-331
R59	3.3 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-332
R60	10 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-100
R61	270 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-271

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### NTSC Demodulator PCB Assembly Parts List, continued

Designator	Description	Part No.
R62	3 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-302
R63	47 $\Omega$ , $\pm$ 5%, ¼ W Resistor	110000-470
R64	2 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-202
R65	3.9 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-392
R66	39 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-393
R67	47 $\Omega$ , $\pm$ 5%, ¼ W Resistor	110000-470
R68	4.7 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-472
R69	2.2 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-222
R70	3 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-302
R71	47 $\Omega$ , $\pm$ 5%, ¼ W Resistor	110000-470
R72	2 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-202
R73	3.9 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-392
R74	39 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-393
R75	47 $\Omega$ , $\pm$ 5%, ¼ W Resistor	110000-470
R76	4.7 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-472
R77	2.2 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-222
R78	3 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-302
R79	2 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-202
R80	47 $\Omega$ , $\pm$ 5%, ¼ W Resistor	110000-470
R81	3.9 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-392
R82	47 $\Omega$ , $\pm$ 5%, ¼ W Resistor	110000-470
R83	39 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-393
R84	4.7 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-472
R85, R86	2.2 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-222
R87	10 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-103
R88	5.1 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-512
R89	10 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-103
R90	110 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-114
R91	10 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-103
R92	270 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-274
R93	330 $\Omega$ , $\pm$ 5%, ¼ W Resistor	110000-331
R94	1 k $\Omega$ , $\pm$ 5%, ¼ W Resistor	110000-102
R95	15 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-153
R96	100 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-104
R97	68 $\Omega$ , $\pm$ 5%, ¼ W Resistor	110000-680
R98	2.2 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-222
R99	120 $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-121
R100	1 k $\Omega$ , $\pm$ 5%, ¼ W Resistor	110000-102
R101	1.0 k $\Omega$ , ½ W Vertical Trimming Potentiometer	119001-102
R102	3.9 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-392
R103	1.2 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-122
R104	5.1 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-512
R105	10 k $\Omega$ , Horizontal Trimming Potentiometer	119002-103
R106	47 $\Omega$ , $\pm$ 5%, ¼ W Resistor	110000-470
R107	18 k $\Omega$ $\pm$ 5%, ¼ W Resistor	110000-183
R108, R109	510 $\Omega$ , $\pm$ 5%, ¼ W Resistor	110000-511

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### NTSC Demodulator PCB Assembly Parts List, continued

Designator	Description	Part No.
R110	3 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-302
R111	100 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-101
R112	47 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-470
R113	220 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-221
R114	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R115	150 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-151
R116	47 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-470
R117	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R118	2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-202
R119	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R120	2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-202
R121	47 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-470
R122, R123	1.2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-122
R124	270 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-271
R125	1.2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-122
R126	240 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-241
R127	2.7 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-272
R128, R129	8.2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-822
R130, R131	10 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-100
R132	3.9 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-392
R133	5.1 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-512
R134	1.2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-122
R135	10 k $\Omega$ , Horizontal Trimming Potentiometer	119002-103
R136	47 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-470
R137	18 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-183
R138, R139	510 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-511
R140	3 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-302
R150	100 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-101
R151	47 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-470
R152	220 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-221
R153	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R154	150 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-151
R155	47 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-470
R156	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R157	2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-202
R158	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R159	2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-202
R160	47 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-470
R161-R163	1.2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-122
R164	270 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-271
R165	240 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-241
R166	2.7 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-272
R167, R168	8.2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-822
R169, R170	10 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-100
R171	3.9 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-392
R172	5.1 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-512

(continued on next page)

### NTSC Demodulator PCB Assembly Parts List, continued

Designator	Description	Part No.
R173	1.2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-122
R174	10 k $\Omega$ , Horizontal Trimming Potentiometer	119002-103
R175	47 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-470
R176	18 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-183
R177	510 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-511
R178	3 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-302
R179	510 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-511
R180	100 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-101
R181	47 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-470
R182	220 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-221
R183	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R184	150 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-151
R185	47 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-470
R186-R190	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R191	2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-202
R192	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R193	2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-202
R194	47 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-470
R195-R197	1.2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-122
R198	270 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-271
R199	240 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-241
R200	2.7 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-272
R201, R202	8.2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-822
R203, R204	10 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-100
R205	15 $\Omega$ , $\pm$ 5%, 10 W Wirewound Resistor	116000-150
R206	47 $\Omega$ , $\pm$ 5%, 5 W Wirewound Resistor	116007-470
R207	120 $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-121
R208	820 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-821
R209	1 k $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-102
R210	3.9 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-392
R211	240 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-241
R212	130 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-132
R213	500 $\Omega$ , Horizontal Trimming Potentiometer	119002-501
R214	15 $\Omega$ , $\pm$ 5%, 5 W Flame-Proof Wirewound Resistor	116007-150
R215	200 $\Omega$ , Horizontal Trimming Potentiometer	119002-201
R216	560 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-561
R218	510 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-511
R219-R223	560 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-561
R224	2.2 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-222
R225-R227	910 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-911
R228	5.1 k $\Omega$ $\pm$ 5%, 1/4 W Resistor	110000-512
R229	220 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-221
R230	150 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-151
R231-R233	500 $\Omega$ , Horizontal Trimming Potentiometer	119002-501
R234	270 $\Omega$ , $\pm$ 5%, 1/4 W Resistor	110000-271

(continued on next page)

## NTSC Demodulator PCB Assembly Parts List, continued

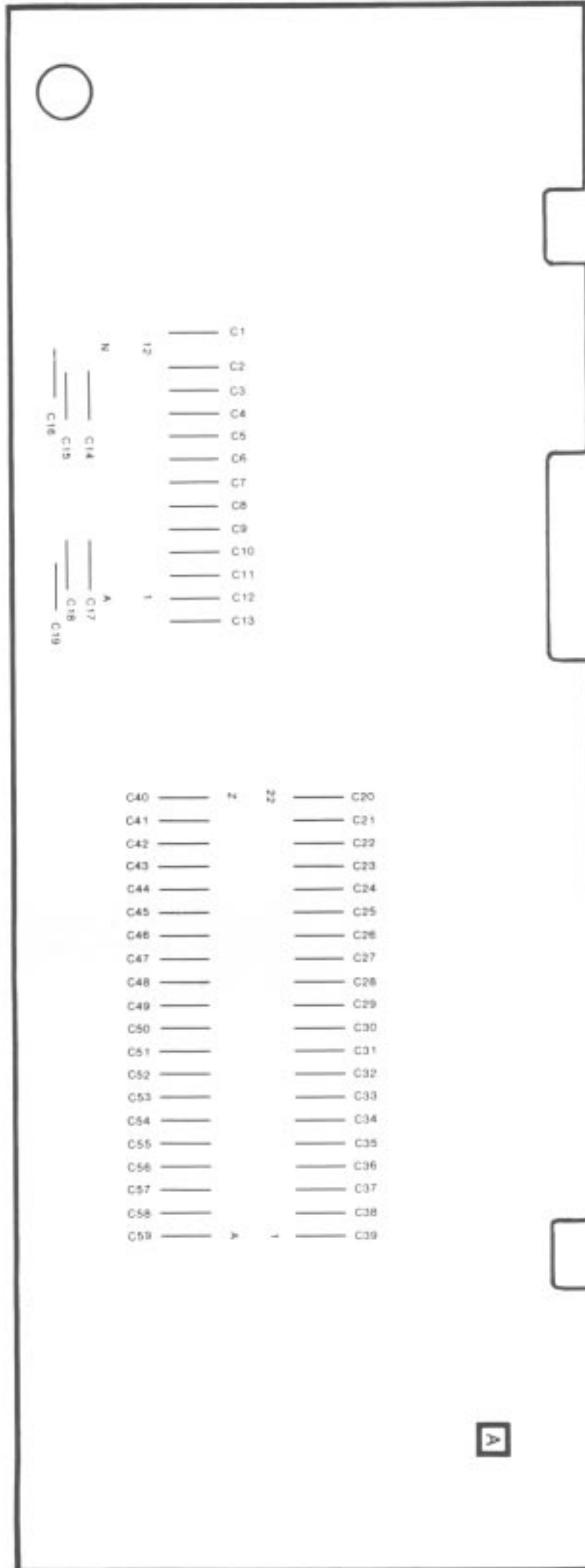
Designator	Description	Part No.
R235	560 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-561
R236	5 k $\Omega$ , Horizontal Trimming Potentiometer	119002-502
R237	47 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-470
R239, R240	1 k $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-102
R241, R242	47 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-470
R243-R245	100 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-101
R246	150 $\Omega$ , $\pm 5\%$ , $\frac{1}{4}$ W Resistor	110000-151
TP1	0 $\Omega$ (Dummy) Resistor	110005-001
W1	0 $\Omega$ (Dummy) Resistor	110005-001
W3, W4	0 $\Omega$ (Dummy) Resistor	110005-001
<b>Transistors</b>		
Q1	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q2	Type-2N3906, 40 V, 1 W, PNP Transistor	33-2N3906
Q3	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q4	Type-2N3906, 40 V, 1 W, PNP Transistor	33-2N3906
Q5, Q6	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q7	25 V, 200 mA, NPN Transistor	133024-001
Q8-Q10	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q11	Type-2N3906, 40 V, 1 W, PNP Transistor	33-2N3906
Q12	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q13	Type-2N3823 N-Channel, VHF FET Transistor	133023-001
Q14	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q15	Type-2N3906, 40 V, 1 W, PNP Transistor	33-2N3906
Q16	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q17	Type-2N3823 N-Channel, VHF FET Transistor	133023-001
Q18	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q19	Type-2N3906, 40 V, 1 W, PNP Transistor	33-2N3906
Q20	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q21	Type-2N3823 N-Channel, VHF FET Transistor	133023-001
Q22	Type-2N3906, 40 V, 1 W, PNP Transistor	33-2N3906
Q23	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q27	25 V, 100 mA NPN Transistor	133025-001
Q28	Type-2N3906, 40 V, 1 W, PNP Transistor	33-2N3906
Q29, Q30	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q31	Type-2N3906, 40 V, 1 W, PNP Transistor	33-2N3906
Q32, Q33	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q34	Type-2N3906, 40 V, 1 W, PNP Transistor	33-2N3906
Q35	Type-2N3643, 60 V, 300 mW, NPN Transistor	34-2N3643
Q36	Type-2N3644 PNP Transistor	34-2N3644
Q37, Q38	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q39	Type-2N3906, 40 V, 1 W, PNP Transistor	33-2N3906
Q40, Q41	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q42	Type-2N3906, 40 V, 1 W, PNP Transistor	33-2N3906

(continued on next page)

### NTSC Demodulator PCB Assembly Parts List, continued

Designator	Description	Part No.
Q43	Type-2N3643, 60 V, 300 mW, NPN Transistor	34-2N3643
Q44	Type-2N3644 PNP Transistor	34-2N3644
Q45, Q46	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q47	Type-2N3906, 40 V, 1 W, PNP Transistor	33-2N3906
Q48, Q49	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q50	Type-2N3906, 40 V, 1 W, PNP Transistor	33-2N3906
Q51	Type-2N3643, 60 V, 300 mW, NPN Transistor	34-2N3643
Q52	Type-2N3644 PNP Transistor	34-2N3644
Q53	Type-2N3563 NPN Transistor	133027-001
Q54	Type-2N3906, 40 V, 1 W, PNP Transistor	33-2N3906
Q55	Type-2N3904, 60 V, 350 mW, NPN Switching Transistor	34-2N3904
Q57	25 V, 100 mA NPN Transistor	133025-001
<b>Miscellaneous</b>		
DL2	14-Circuit PC Mount, Receptacle Connector	179193-014
J11	7-Circuit, Right-Angle Connector Header	179165-007
J17	7-Circuit, Right-Angle Connector Header	179165-007
J18	50-Circuit, Right-Angle, 4-Wall Header Connector	179186-001
J19	#2-56x Self-Tapping Screw	72-6204S
J19	Right-Angle, PC Mount, BNC Receptacle Connector	179013-002
Y1	3.5795 MHz, HC-18/U Crystal	144007-01
TP1, TP2	Test Point (Acceptable substitute is part no. 020670-01)	179051-002
TP11-TP16	Test Point (Acceptable substitute is part no. 020670-01)	179051-002
TP18	Test Point (Acceptable substitute is part no. 020670-01)	179051-002
TP21-TP31	Test Point (Acceptable substitute is part no. 020670-01)	179051-002
	Snap-In Fastener	81-4302
	Standoff	178050-008

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**Figure 5-12 EMI Shield PCB Assembly  
 A040993-01 B**



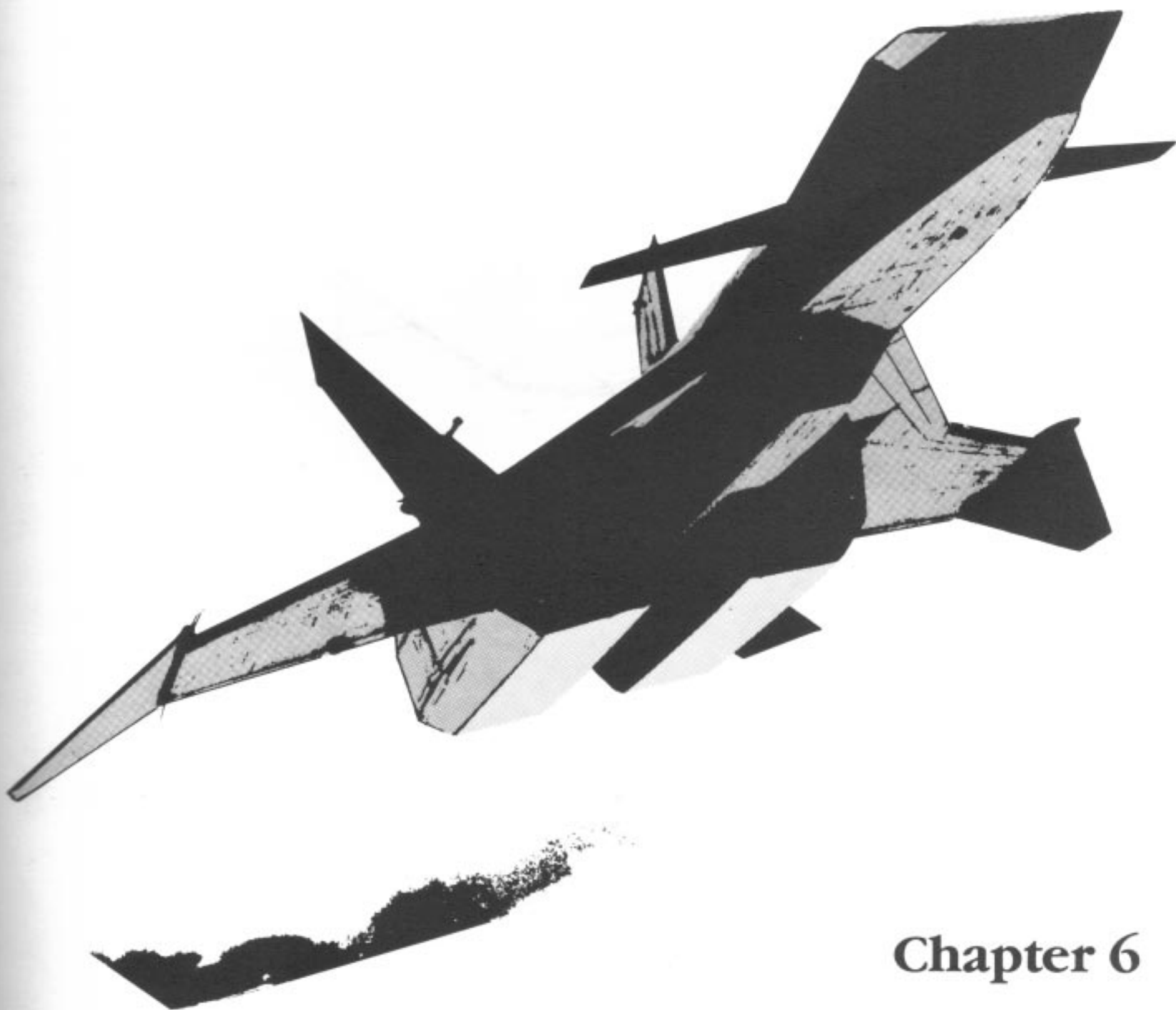
### EMI Shield PCB Assembly Parts List

Designator	Description	Part No.
<b>Capacitors</b>		
C1	1000 pF, $\pm 5\%$ , 100 V, NPO, Ceramic Axial-Lead Capacitor (Acceptable substitute is part no. 122002-102)	122016-102
C2-C12	0.1 $\mu$ F, +80% -20%, 50 V, Ceramic Capacitor	122002-104
C13	100 pF, 100 V, Ceramic Axial-Lead Capacitor	122016-101
C14	0.1 $\mu$ F, +80% -20%, 50 V, Ceramic Capacitor	122002-104
C15, C16	1000 pF, $\pm 5\%$ , 100 V, NPO, Ceramic Axial-Lead Capacitor (Acceptable substitute is part no. 122002-102)	122016-102
C17, C18	100 pF, 100 V, Ceramic Axial-Lead Capacitor	122016-101
C19, C20	0.1 $\mu$ F, +80% -20%, 50 V, Ceramic Capacitor	122002-104
C21, C22	1000 pF, $\pm 5\%$ , 100 V, NPO, Ceramic Axial-Lead Capacitor (Acceptable substitute is part no. 122002-102)	122016-102
C23-C26	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Ceramic Axial-Lead Capacitor	122005-103
C27, C28	1000 pF, $\pm 5\%$ , 100 V, NPO, Ceramic Axial-Lead Capacitor (Acceptable substitute is part no. 122002-102)	122016-102
C29, C30	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Ceramic Axial-Lead Capacitor	122005-103
C31-C34	1000 pF, $\pm 5\%$ , 100 V, NPO, Ceramic Axial-Lead Capacitor (Acceptable substitute is part no. 122002-102)	122016-102
C35	0.1 $\mu$ F, +80% -20%, 50 V, Ceramic Capacitor	122002-104
C36	1000 pF, $\pm 5\%$ , 100 V, NPO, Ceramic Axial-Lead Capacitor (Acceptable substitute is part no. 122002-102)	122016-102
C37, C38	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Ceramic Axial-Lead Capacitor	122005-103
C39, C40	0.1 $\mu$ F, +80% -20%, 50 V, Ceramic Capacitor	122002-104
C41, C42	1000 pF, $\pm 5\%$ , 100 V, NPO, Ceramic Axial-Lead Capacitor (Acceptable substitute is part no. 122002-102)	122016-102
C43-C46	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Ceramic Axial-Lead Capacitor	122005-103
C47, C48	1000 pF, $\pm 5\%$ , 100 V, NPO, Ceramic Axial-Lead Capacitor (Acceptable substitute is part no. 122002-102)	122016-102
C49-C51	0.01 $\mu$ F, +80% -20%, 25 V Minimum, Ceramic Axial-Lead Capacitor	122005-103
C52, C53	1000 pF, $\pm 5\%$ , 100 V, NPO, Ceramic Axial-Lead Capacitor (Acceptable substitute is part no. 122002-102)	122016-102
C54, C55	0.1 $\mu$ F, +80% -20%, 50 V, Ceramic Capacitor	122002-104
C56-C58	1000 pF, $\pm 5\%$ , 100 V, NPO, Ceramic Axial-Lead Capacitor (Acceptable substitute is part no. 122002-102)	122016-102
C59	0.1 $\mu$ F, +80% -20%, 50 V, Ceramic Capacitor	122002-104
<b>Connectors</b>		
J16	44-Pin Edge Connector (Acceptable substitute is part no. 179046-044)	179073-044
J20	24-Pin Edge Connector	179073-024
<b>Miscellaneous</b>		
	Spacer	041799-01
	Spacer	041800-01
	#4-40 $\times$ $\frac{1}{4}$ Cross-Recessed Pan-Head Screw	72-1404F
	$\frac{1}{4}$ -Inch Grommet	178044-242
	$\frac{1}{4}$ -Inch White Plunger	178045-442
	Flat Nylon Washer	175009-221

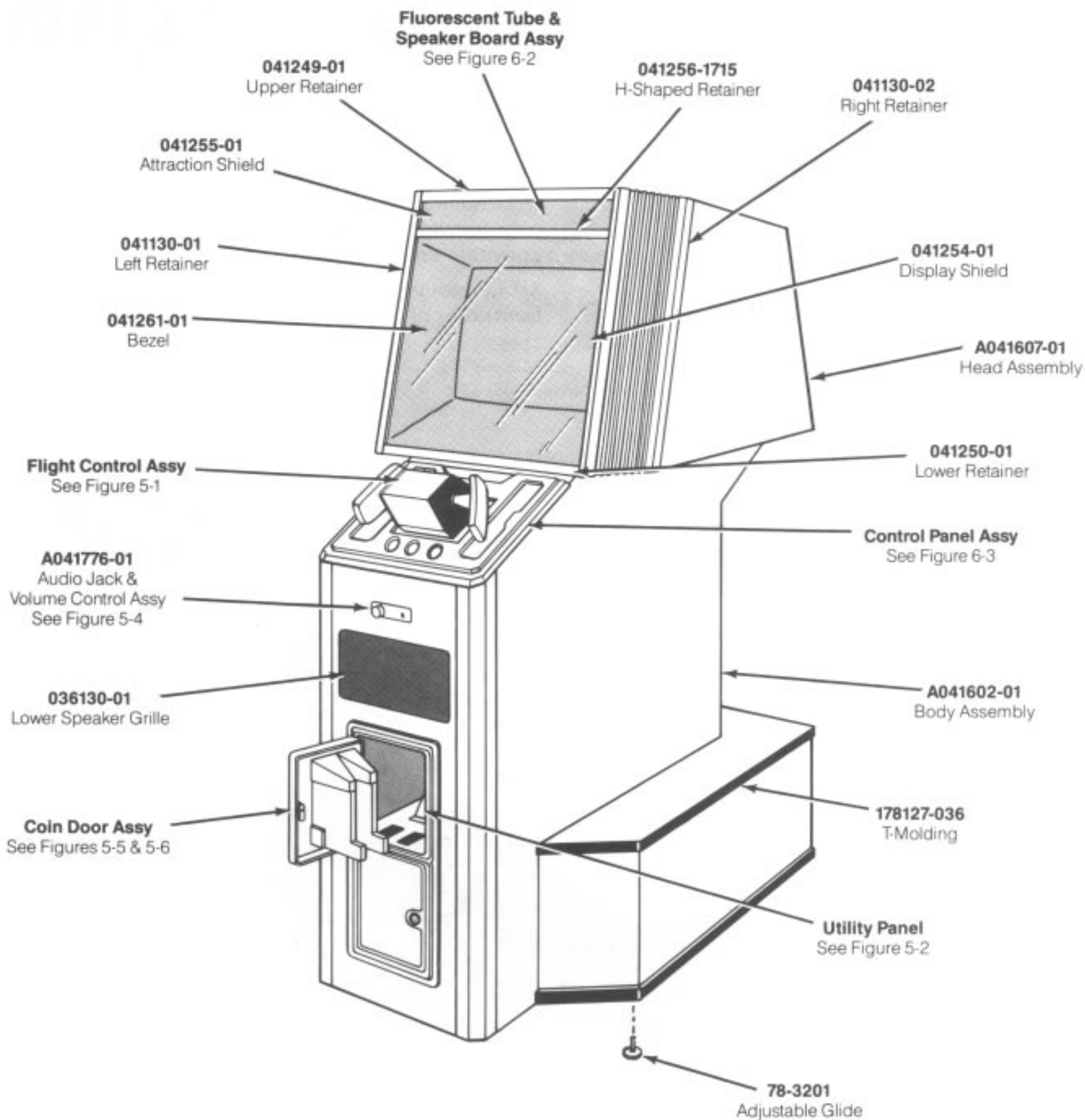
# Upright Illustrated Parts Lists

This chapter provides information you need to order parts for your Upright game. When ordering parts, please give the part number, part name, number of this manual, and serial number of your game. This will aid in filling your order rapidly and correctly. We hope the results will be less downtime and more profit from your game.

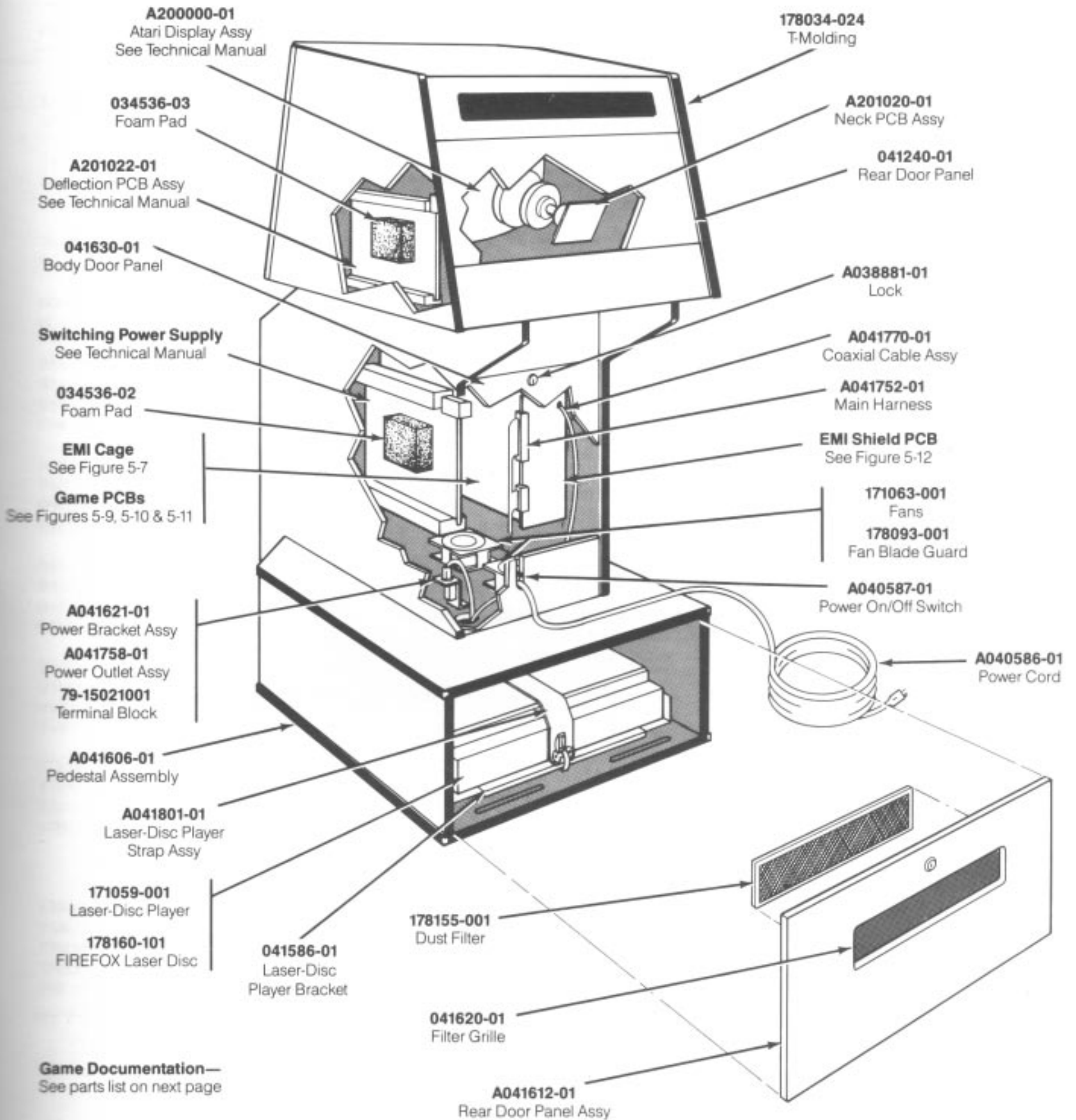
Atari Customer Service numbers are listed on the inside front cover of this manual.



**Chapter 6**



**Figure 6-1 Cabinet-Mounted Assemblies  
A041600-xx B**



**Figure 6-1 Cabinet-Mounted Assemblies, continued**  
**A041600-xx B**

## Cabinet-Mounted Assemblies Parts List

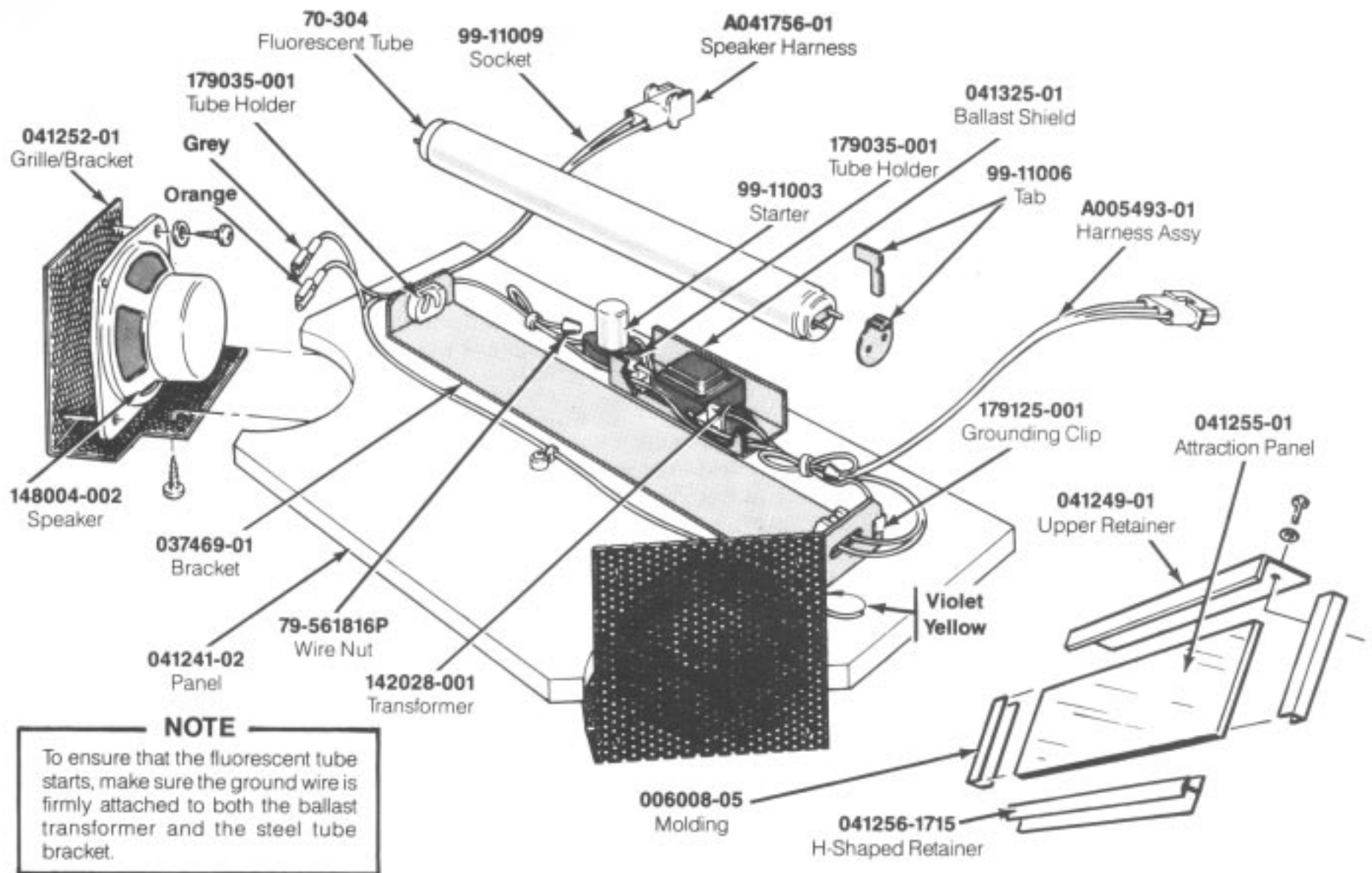
Part No.	Description
A040586-01	Strain-Relief Power Cord (U.S. and Canada)
A038074-07	Switching Power Supply (see technical manual TM-238)
A040587-01	Power On/Off Switch, Harness, and Mounting Plate Assembly
A041587-01	Laser-Disc Player Mounting Assembly—consists of
72-HA4806S	#8-32 × 0.38-Inch Cross-Recessed Screw (not shown)
041586-01	Laser-Disc Player Mounting Bracket
178153-001	Shock Absorber Isolator (not shown)
A041601-01	Cabinet Assembly—consists of
A041602-01	Body Assembly
A041606-01	Pedestal Assembly
A041607-01	Head Assembly
A041612-01	Rear Door Panel Assembly for Pedestal— consists of
A038881-01	Lock (Acceptable substitute is part no. A038881-03)
041635-02	Rear Door Panel
041620-01	Filter Grille
A041621-01	Power Bracket Assembly—consists of
A041758-01	Power Outlet Assembly
72-HA460S	#6-32 × $\frac{3}{8}$ -Inch Cross-Recessed Thread-Forming Screw (not shown)
79-15021001	2-Position Terminal Block
041622-01	Power Bracket
A041752-01	Main Harness
A041753-01	Power Harness (not shown)
A041767-01	50-Circuit Ribbon Cable Assembly (not shown)—consists of
150023-050	50-Circuit Flat Ribbon Cable (not shown)
179192-050	50-Circuit Ribbon Connector (not shown)
A041769-01	Display Filter Assembly (not shown)—use only on ATARI & Electrohome Displays—consists of
140000-002	11 $\mu$ H, 2A, Line Filter (not shown)
78-2D1096	1½-Inch PVC Clear Tubing (not shown)
179053-000	18-22 AWG Socket Terminal (not shown)
179055-000	18-22 AWG Pin Terminal (not shown)
179056-002	2-Circuit Receptacle Connector (not shown)
179162-002	2-Circuit Plug Connector (not shown)
A041770-01	Coaxial Cable Assembly (connects to Video PCB, protrudes through EMI Shield PCB, and attaches to Laser-Disc Player)
A041801-01	Laser-Disc Player Strap Assembly—consists of
72-1104F	#10-24 × 0.25-Inch Cross-Recessed Pan-Head Screw (not shown)
78-6901202	Vinyl Foam Single-Coated Adhesive Tape $\frac{3}{4}$ -Inch Wide × $\frac{1}{8}$ -Inch Thick—6 inches required (not shown)
041585-01	Mounting Strap
178013-001	Tension Latch
A200001-01	ATARI 19-Inch Color Raster-Scan Cathode-Ray Tube (CRT) Assembly—consists of
A201020-01	Neck PCB Assembly
A201022-01	Deflection PCB Assembly
201092-01	CRT Assembly (not shown)
A201024-01	Color Raster Harness Assembly (not shown)

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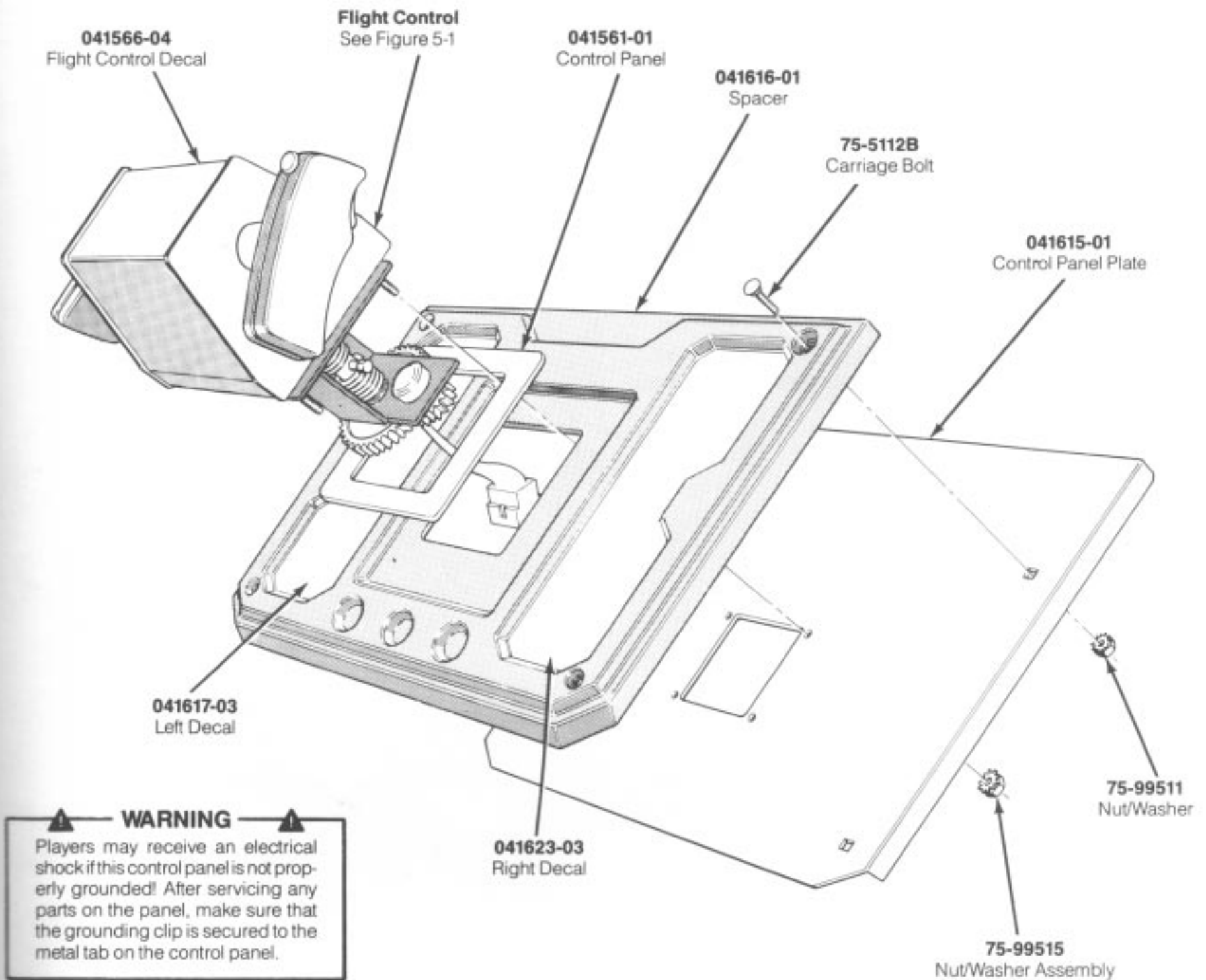
### Cabinet-Mounted Assemblies Parts List, continued

Part No.	Description
<i>The following six items are technical information supplements to this game:</i>	
TM-238	Switching Power Supply Technical Manual
SP-253	FIREFOX Schematic Package
ST-253	FIREFOX (Upright) Label with Self-Test Procedure and Option Switch Settings
TM-253-01	FIREFOX Operators Manual
TM-253-02	FIREFOX Illustrated Parts Lists
TM-254	ATARI 19-Inch and 25-Inch Color Raster Display Manual
78-3201	Adjustable Glide
78-6900402	Vinyl Foam Single-Coated Adhesive Tape ¼-Inch Wide × ⅛-Inch Thick (36 inches required; used along top and bottom edge of display shield—not shown)
006008-04	Display Shield Extruded Plastic Molding (not shown)
009992-01	On/Off Switch Cover (not shown)
034536-02	½-Inch Thick Foam Pad (located between the Power Supply PCB and the cabinet wall)
034536-03	1.12-Inch Thick Foam Pad (located between the Deflection PCB and the cabinet wall)
036130-01	Lower Speaker Grille
038091-01	Molded Coin Box (not shown)
038870-01	Coin Box Enclosure (not shown)
041130-01	Left Retainer (Metal Extrusion)
041130-02	Right Retainer (Metal Extrusion)
041240-01	Rear Door Panel for Head Assembly
041250-01	Display Shield Lower Retainer
041251-01	Ventilation Grille (located in floor of head assembly) (not shown)
041254-01	Display Shield
041255-01	Attraction Panel
041261-01	Video Display Bezel
041630-01	Rear Door Panel for Body Assembly (includes lock)
041618-02	Semi-Rigid Attraction Film with Graphics (not shown)
148004-002	5-Inch, 4-Ω, 6-Ounce Shielded High-Fidelity Speaker (located below control panel—not shown)
171059-001	Laser-Disc Player
171063-001	110 V, 60 Hz Exhaust Fan
178013-001	Spring-Draw Latch (not shown)
178034-024	¾-Inch Black Plastic T-Molding (21 inches required on front of pedestal base; 168 inches required on the side panels of the head assembly; 104 inches required on the side panels of the body assembly; 94 inches required on the front panel of the body assembly)
178093-001	Guard for Fan Blade
178127-036	2 ¼-Inch Black Plastic T-Molding (68 inches required on the pedestal)
178155-001	¼-Inch Thick, 5 Ply Dust Filter (located on rear door panel of pedestal)
179125-001	Grounding Clip on Main Harness (not shown)
201018-01	19-Inch CRT Bracket (not shown)



**Figure 6-2 Attraction Panel, Fluorescent Tube, and Speaker Assembly  
A041610-01 A  
Parts List**

Part No.	Description
A005493-01	Fluorescent Tube Harness Assembly
A037540-01	Ground Wire with Ring Lug
A041756-01	Speaker Harness Assembly
70-304	18-Inch, 15-Watt, Cool White Fluorescent Tube
79-561816P	Spring-Connector Wire Nut for 16- to 18-Gauge Wires
99-11003	Fluorescent Tube Starter
99-11006	Fluorescent Tube Locking Tab (consists of two pieces)
99-11009	Starter Socket
006008-05	Attraction Glass Extruded Plastic Molding
037469-01	Steel Tube Bracket
041241-02	Wood Mounting Panel
041249-01	Attraction Shield Upper Retainer
041252-01	Speaker Mounting Grille/Bracket
041255-01	Attraction Panel
041256-1715	H-Shaped Retainer for Attraction Glass and Display Shield
041325-01	Ballast Shield
142028-001	60 Hz, 118 V, Ballast Transformer
148004-002	5-Inch Diameter, 5 W, 4 Ω, Shielded Speaker
179035-001	2-Pin Fluorescent Tube Holder
179125-001	Grounding Clip (Acceptable substitute is part no. 179174-010)



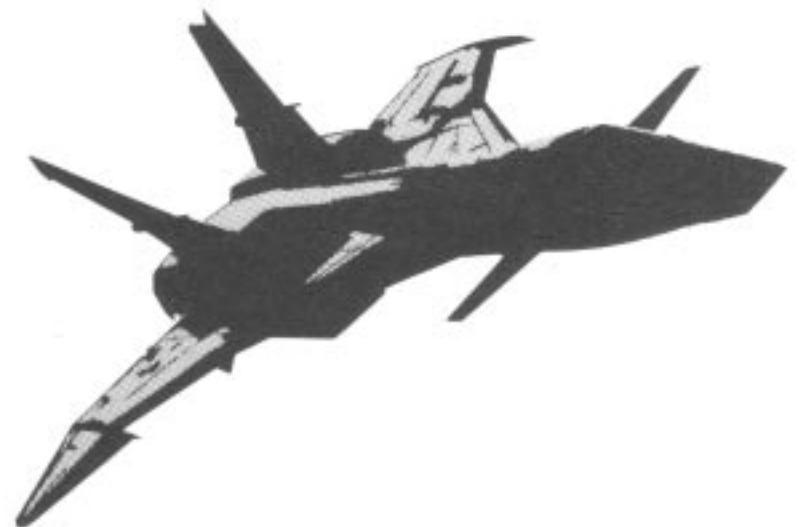
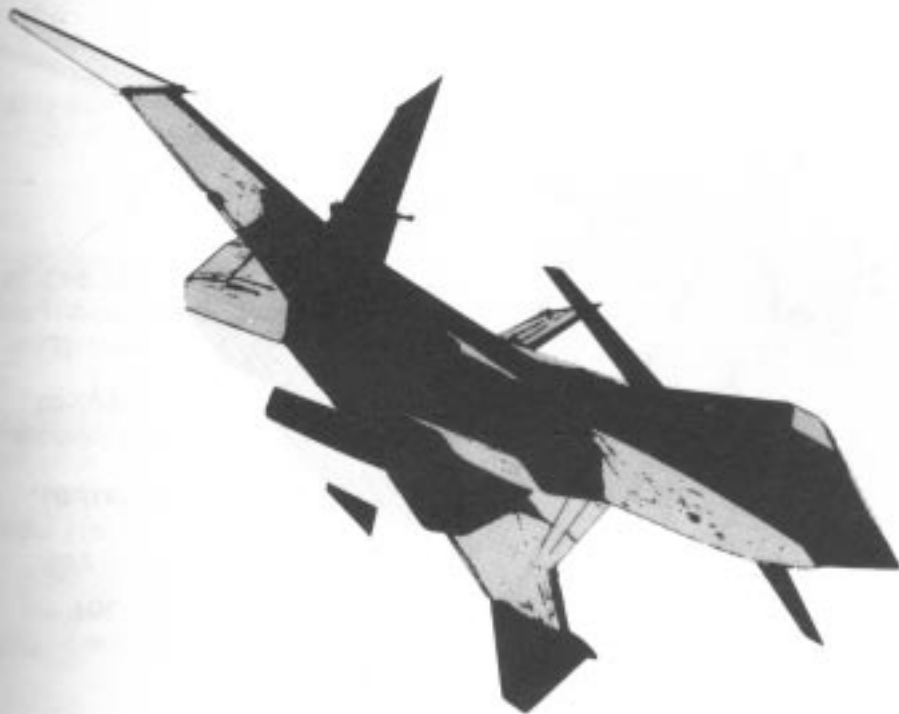
**Figure 6-3 Control Panel Assembly  
A041611-01 A  
Parts List**

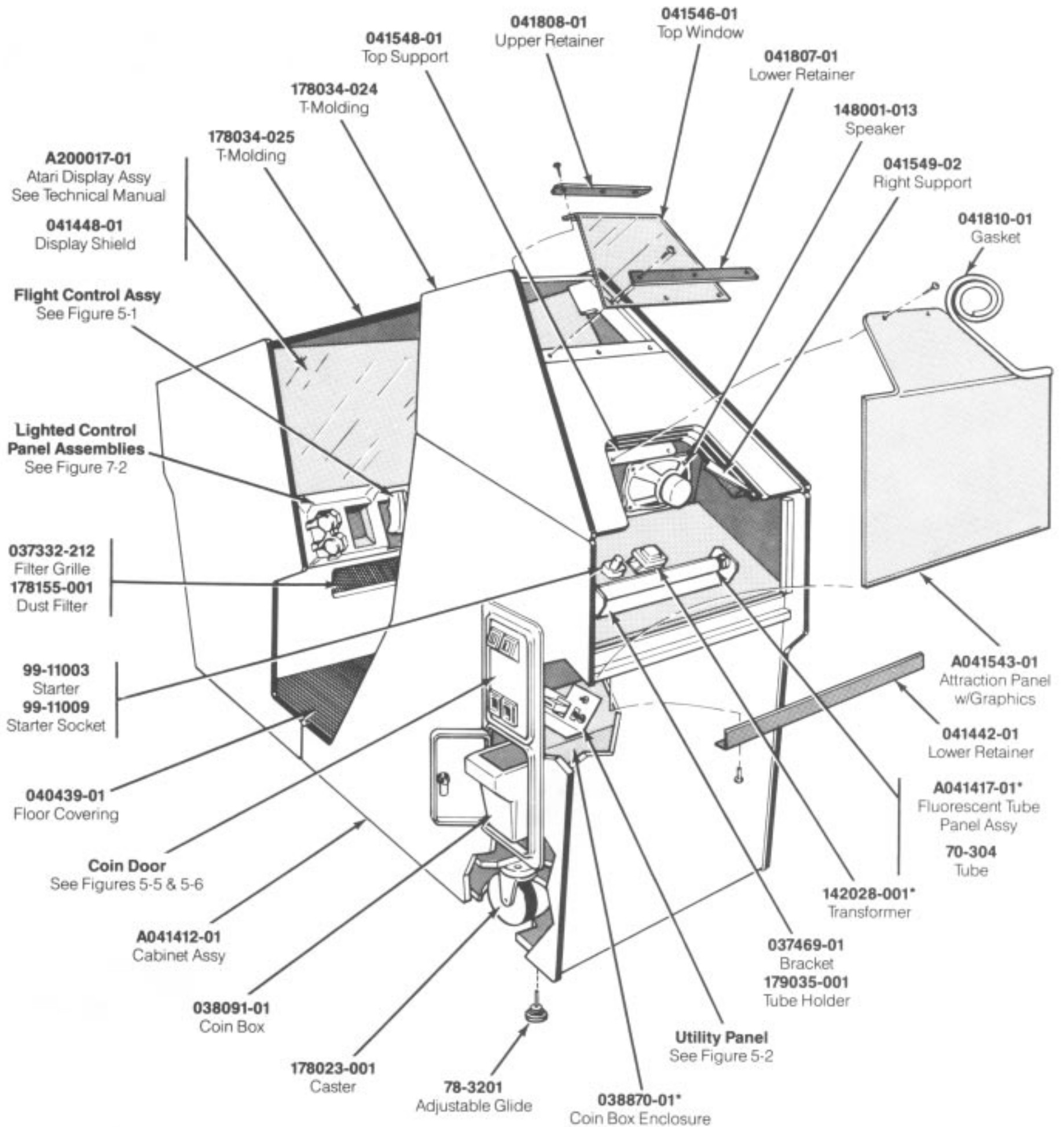
Part No.	Description
A040233-01	Flight Control
75-5112B	#10-24 × 0.75-Inch Carriage Bolt
75-99511	Nut/Washer Assembly
75-99515	#¼ × 20 Nut/Washer Assembly
041561-01	Control Panel
041566-04	Flight Control Decal
041615-01	Control Panel Plate
041616-01	Spacer for Flight Control
041617-03	Left Decal for Control Panel Plate
041623-03	Right Decal for Control Panel Plate

# Sit-Down Illustrated Parts Lists

This chapter provides information you need to order parts for your Sit-Down game. When ordering parts, please give the part number, part name, number of this manual, and serial number of your game. This will aid in filling your order rapidly and correctly. We hope the results will be less downtime and more profit from your game.

Atari Customer Service numbers are listed on the inside front cover of this manual.



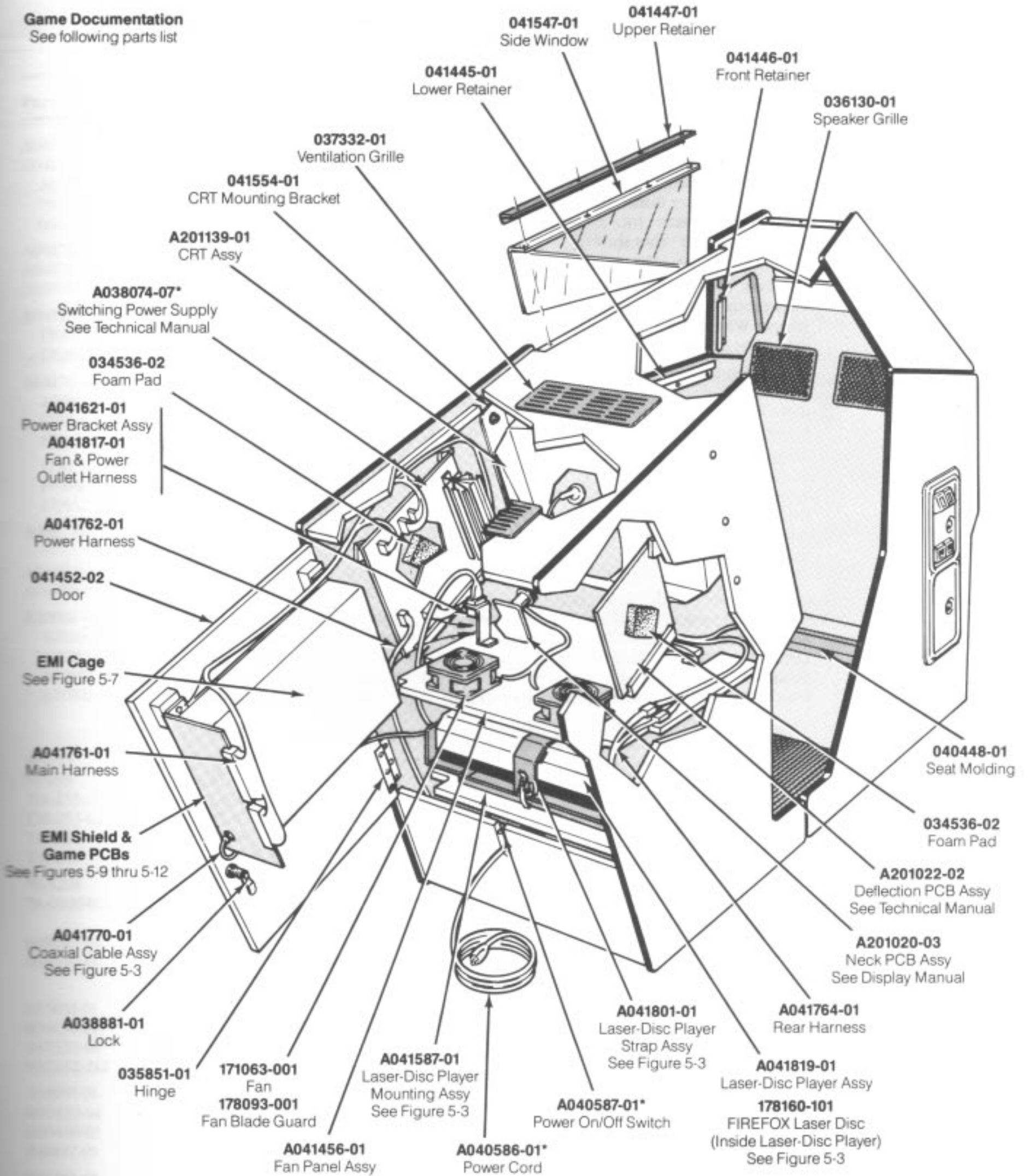


\* See following parts list for different Ireland part no.

**Figure 7-1 Cabinet-Mounted Assemblies**  
**US-Built A041411-01 A**  
**Ireland-Built A041411-03 A**



**Game Documentation**  
See following parts list



**Figure 7-1 Cabinet-Mounted Assemblies, continued**  
US-Built A041411-01 A  
Ireland-Built A041411-03 A



## Cabinet-Mounted Assemblies Parts List

Part No.	Description
<b>For US-Built Games</b>	
A038074-07	Switching Power Supply (see TM-261)
A040587-01	Power On/Off Switch, Harness and Mounting Plate Assembly—consists of
A040586-01	Strain-Relief Power Cord (U.S. and Canada)
61-162A	DPST Toggle Switch (not shown)
78-2112P	Strain-Relief Plate (not shown)
040036-01	On-Off/Power Cord Mounting Plate (not shown)
A041417-01	Fluorescent Tube Panel Assembly—consists of
A005493-01	Fluorescent Tube Harness Assembly (not shown)
A037540-01	Jumper Wire with Grounding Clip (not shown)
037469-01	Steel Tube Bracket
041416-01	Wood Mounting Panel
142028-001	60 Hz, 118 V Ballast Transformer
179035-001	2-Pin Fluorescent Tube Holder
179125-001	Grounding Clip (Acceptable substitute is part no. 179074-010—not shown)
70-304	18-Inch, 15-Watt, Cool White Fluorescent Tube
99-11003	Fluorescent Tube Starter
99-11006	Fluorescent Tube Locking Tab (consists of two pieces—not shown)
99-11009	Starter Socket
038870-01	Coin Box Enclosure
<b>For Ireland-Built Games</b>	
A038074-17	Switching Power Supply (see TM-261)
A040587-04	Power On/Off Switch, Harness and Mounting Plate Assembly—consists of
A040586-04	Strain-Relief Power Cord (England/Ireland)
61-162A	DPST Toggle Switch (not shown)
78-2111P	Strain-Relief Plate (not shown)
040036-03	On-Off/Power Cord Mounting Plate (not shown)
A041417-02	Fluorescent Tube Panel Assembly—consists of
A005493-01	Fluorescent Tube Harness Assembly (not shown)
A037540-01	Jumper Wire with Grounding Clip (not shown)
035835-01	Y-Lead Connector (not shown)
041416-01	Wood Mounting Panel
142028-002	50 Hz, 118 V, Ballast Transformer
179125-001	Grounding Clip (Not shown—acceptable substitute is part no. 179074-010)
70-304	18-Inch, 15-Watt, Cool White Fluorescent Tube
99-11003	Fluorescent Tube Starter
99-11006	Fluorescent Tube Locking Tab (consists of two pieces—not shown)
99-11009	Starter Socket
99-11012	Clamp (not shown)
038781-01	Coin Box Enclosure
<b>For US- and Ireland-Built Games</b>	
A038881-01	Lock (Acceptable substitute is part no. A038881-03)
A041412-01	Cabinet Assembly
A041456-01	Fan Panel Assembly—consists of
A041817-01	Fan & Power Outlet Harness
041453-01	Panel
171063-001	110 V, 60 Hz Exhaust Fan
178093-001	Guard for Fan Blade
A041543-01	Attraction Panel with Graphics Assembly—consists of
041542-01	Attraction Panel
041557-01	Decal (not shown)

(continued on next page)

## Cabinet-Mounted Assemblies Parts List, continued

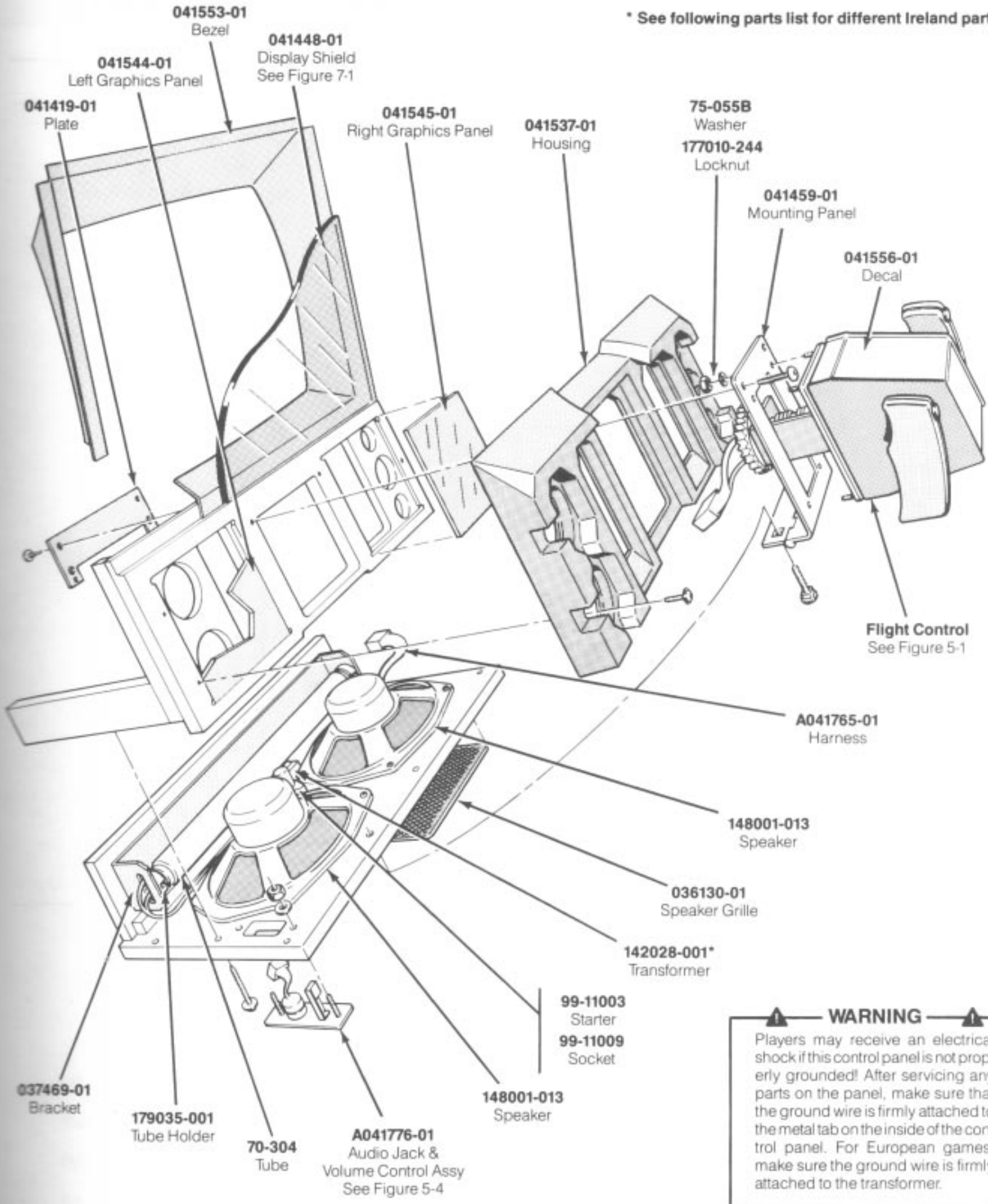
Part No.	Description
A041587-01	Laser-Disc Player Mounting Assembly
A041621-01	Power Bracket Assembly—consists of
A041758-01	Power Outlet Assembly (not shown)
79-15021001	2-Position Terminal Block (not shown)
041622-01	Power Bracket (not shown)
A041761-01	Main Harness
A041762-01	Power Harness
A041764-01	Rear Harness
A041767-01	50-Circuit Ribbon Cable Assembly (not shown)—consists of
150023-050	50-Circuit Flat Ribbon Cable
179192-050	50-Circuit Ribbon Connector
A041769-01	Monitor Filter Assembly (not shown)—use only with ATARI & Electrohome Displays—consists of
A201058-01	47 $\mu$ H Inductor Coil
178066-910	#10 Insulating Tubing
179053-000	18–22 AWG Socket Terminal
179055-000	18–22 AWG Pin Terminal
179056-002	2-Circuit Receptacle Connector
179162-002	2-Circuit Plug Connector
A041770-01	Coaxial Cable Assembly (connects to Video PCB, protrudes through EMI Shield PCB, and attaches to Laser-Disc Player)
A041801-01	Laser-Disc Player Strap Assembly
A041819-01	Laser-Disc Player Assembly
A200017-01	ATARI 25-Inch Color Raster-Scan Cathode-Ray Tube (CRT) Assembly—consists of
A201022-02	Deflection PCB Assembly
A201139-01	CRT Assembly
A201024-01	Color Raster Harness Assembly (not shown)
A201020-03	Neck PCB Assembly
<i>The following five items are technical information supplements to this game:</i>	
SP-253	FIREFOX Schematic Package
ST-253	FIREFOX Label with Self-Test Procedure and Option Switch Settings
TM-253-01	FIREFOX Operators Manual, Volume 1
TM-253-02	FIREFOX Illustrated Parts Lists, Volume 2
TM-254	ATARI 19-Inch and 25-Inch Color Raster Display Manual
TM-261	Switching Power Supply Service Manual
78-3201	Adjustable Glide
78-6900402	Vinyl Foam Single-Coated Adhesive Tape $\frac{1}{4}$ -Inch Wide $\times$ $\frac{1}{8}$ -Inch Thick (Not shown—75 inches required; used along top edge of attraction panel, under the side window upper retainers, and under top window retainers)
009992-01	On/Off Switch Cover (not shown)
034536-02	$\frac{1}{2}$ -Inch-Thick Foam Pad (located between the Power Supply PCB and the cabinet wall; and between the Deflection PCB and the cabinet wall)
035851-01	Door Hinge
036130-01	Speaker Grille (two located on backrest above seat)
037332-01	Ventilation Grille (two located on top panel)
037332-212	Filter Grille (located on kick panel)
038091-01	Molded Coin Box
040439-01	Floor Covering
040448-01	Black Aluminum Cap Molding for Seat
041442-01	Lower Retainer for Attraction Panel
041443-01	Left Canopy Bracket (not shown)
041444-01	Right Canopy Bracket (not shown)
041445-01	Lower Retainer for Side Window
041446-01	Front Retainer for Side Window

(continued on next page)

### Cabinet-Mounted Assemblies Parts List, continued

Part No.	Description
041447-01	Upper Retainer for Side Window
041448-01	Display Shield
041452-02	Access Door (includes lock)
041546-01	Top Window
041547-01	Side Window
041548-01	Top Support for Attraction Panel
041549-01	Left Support for Attraction Panel (not shown)
041549-02	Right Support for Attraction Panel
041553-01	Display Bezel (not shown)
041554-01	25-Inch CRT Mounting Bracket
041644-01	Window Decal for Arcade Operator Window (Not shown—shipped inside coin box)
041806-01	Laservideo™ Game Sign for Top of Cabinet (shipped inside coin box—not shown)
041807-01	Lower Retainer for Top Window
041808-01	Upper Retainer for Top Window
041810-01	Rubber Gasket for Attraction Panel
148001-013	6 × 9-Inch Oval, 4-Ohm, 6-Ounce Shielded High-Fidelity Speaker (located behind backrest of seat)
178023-001	4-Inch Diameter Rigid Caster
178034-024	¾-Inch Black Plastic T-Molding (5.7 feet required on right side of canopy panel; 1.9 feet required on the bottom cleat of the canopy; 3.4 feet required on the top cleat of the canopy; 3 feet required on the center cleat of the canopy; 8.1 feet required on the left side of the canopy panel; 17 feet required on the right side of the seat panel; 13 feet required on the left side of the seat panel; 16 feet required on the left side of the console panel; 16 feet required on the right side of the console panel)
178034-025	2 <sup>5</sup> / <sub>32</sub> -Inch Black Plastic T-Molding (4.1 feet required on the top panel)
178126-001	# <sup>3</sup> / <sub>32</sub> Tamper-Proof Hex Key (not shown)
178126-002	# <sup>5</sup> / <sub>32</sub> Tamper-Proof Hex Key (not shown)
178155-001	5-Ply Dust Filter (not shown—for laser-disc player area)
178160-101	FIREFOX Laser Disc (not shown—inside disc player)
179125-001	Grounding Clip on Main Harness (not shown)

\* See following parts list for different Ireland part no.



**WARNING**

Players may receive an electrical shock if this control panel is not properly grounded! After servicing any parts on the panel, make sure that the ground wire is firmly attached to the metal tab on the inside of the control panel. For European games, make sure the ground wire is firmly attached to the transformer.

Figure 7-2 Lighted Control Panel Assemblies

## Lighted Control Panel Assemblies Parts List

Part No.	Description
<b>US-Built Game</b>	
037469-01	Steel Tube Bracket
179035-001	2-Pin Fluorescent Tube Holder
142028-001	60 Hz, 118 V Ballast Transformer
<b>Ireland-Built Game</b>	
99-11012	1 $\frac{3}{16}$ -Inch Clamp (not shown)
035835-01	Y-Lead Connector (not shown)
142028-002	50 Hz, 118 V Ballast Transformer
<b>US- &amp; Ireland-Built Game</b>	
A037540-01	Ground Wire with Grounding Clip (not shown)
A041541-01	Control Panel Assembly—consists of
A040233-02	Flight Control
75-055B	$\frac{1}{4}$ -Inch Internal-Tooth Lock Washer
041459-01	Flight Control Mounting Panel
041556-01	Flight Control Decal
177010-244	# $\frac{1}{4}$ × 20 Polymer Hex Locknut
A041552-02	Graphics Panel Assembly—consists of
041449-01	Graphics Panel (not shown)
041544-01	Left Graphics Panel with Decal
041545-01	Right Graphics Panel with Decal
A041765-01	Fluorescent Light and Speaker Harness
70-304	18-Inch, 15-Watt, Cool White Fluorescent Tube
79-561816P	Spring-Connector Wire Nut for 16- to 18-Gauge Wires (not shown)
99-11003	Fluorescent Tube Starter
99-11006	Fluorescent Tube Locking Tab (not shown—consists of two pieces)
99-11009	Starter Socket
036130-01	Speaker Grille
041419-01	Fastening Plate
041537-01	Molded Plastic Control Panel Housing
041553-01	Display Bezel
148001-013	6- × 9-Inch Oval, 4-Ohm, 6-Ounce, Shielded High-Fidelity Speaker
175002-002	Flat Washer (not shown—used on Stereo Jack & Volume Control Assembly)
177010-244	# $\frac{1}{4}$ -20 Polymer Hex Locknut (used to secure Flight Control to Control Panel)
179125-001	Grounding Clip (Acceptable substitute is part no. 179074-010—not shown)

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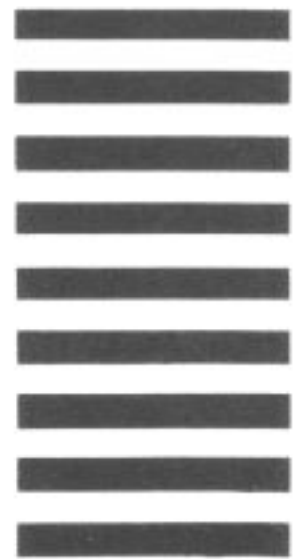
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