

ROMSTAR

AquaAttack™

OPERATING MANUAL

ROMSTAR, INC.

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S P E C I F I C A T I O N S

POWER SUPPLY	120 VAC (60Hz)
POWER CONSUMPTION	250 WATTS
TV MONITOR	19"/24" COLOR RASTER
DIMENSIONS	26 1/4"W x 37"D x 72"H

T A B L E O F C O N T E N T S

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* WARNING *

THIS GAME MUST BE PROPERLY GROUNDED. FAILURE TO DO SO
MAY RESULT IN DESTRUCTION TO THE ELECTRONIC COMPONENTS.

* ATTENTION *

THE COPYRIGHTED VIDEO GAME THAT ACCOMPANIES THIS MANUAL
CARRIES WITH IT A ROYALTY FREE, NON-EXCLUSIVE LICENSE
FROM THE COPYRIGHT OWNER TO THE OWNER OF THE VIDEO GAME
TO PUBLICLY PERFORM THE COPYRIGHTED VIDEO GAME IN THE
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PUBLIC PERFORMANCE LICENSE ATTACHES AND APPLIES ONLY TO
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PANIES THIS MANUAL. THIS PUBLIC PERFORMANCE LICENSE MAY
ONLY BE TRANSFERRED TO THE SUBSEQUENT OWNER(S) OF THE
PHYSICAL EMBODIMENT OF THE VIDEO GAME THAT ACCOMPANIES
THIS MANUAL.

I. GAME INSPECTION

Aqua-Jack has been thoroughly tested and readied for operation at the factory and should not require any special set-up procedure. However, it is suggested that upon receiving your game you examine the following to further insure the game is in proper working condition:

CHECK:

- [] Plug-in connectors are firmly seated.
- [] All player control connections are complete.
- [] No loose components on the printed circuit boards.
- [] Fuses are installed firmly in holders.
- [] Coin mechanisms are operating properly.
- [] No loose foreign objects in cabinet (screws, components, etc.) which may cause shorting and result in damage to the game.

If problems do occur or technical assistance is required, please call our Customer Service Department at 213/539-2744.

II. POWER REQUIREMENTS

The game is shipped ready for operation at 120VAC, 60Hz with a power consumption of approximately 250 watts.

C A U T I O N

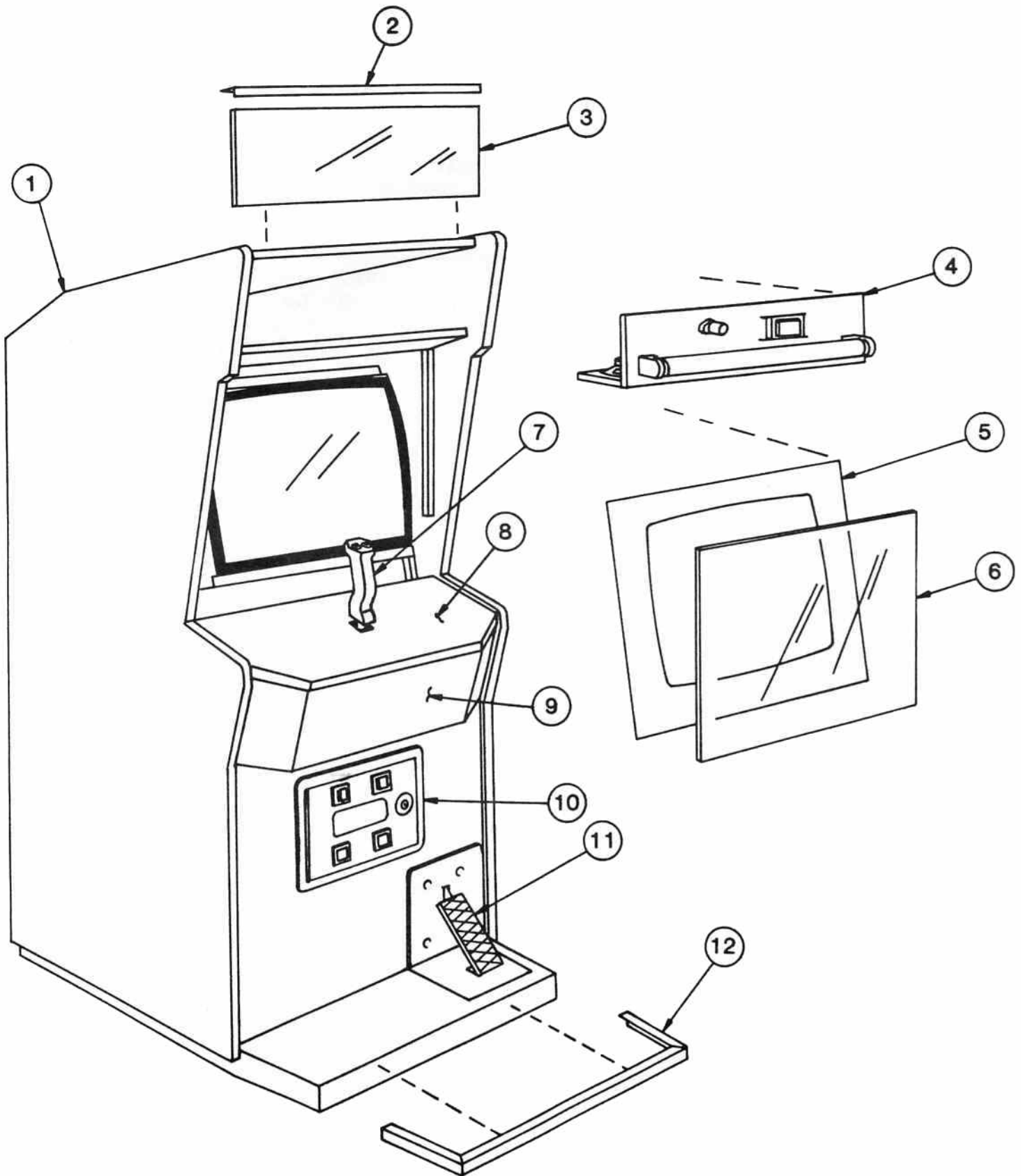
FOR SAFE OPERATION IT IS STRONGLY RECOMMENDED THE CABINET BE PROPERLY GROUNDED. THIS GAME IS EQUIPPED WITH A THREE CONDUCTOR POWER CABLE. THE THIRD PRONG (round in shape) WILL AUTOMATICALLY GROUND THE GAME WHEN PLUGGED INTO A PROPERLY GROUNDED THREE PRONG RECEPTACLE. IF IT BECOMES NECESSARY TO USE AN ADAPTER, THE GROUNDING LUG OR WIRE ON THE ADAPTER MUST BE PROPERLY GROUNDED TO ASSURE SAFE OPERATION.

III. GAME INSTALLATION

The following precautions should be followed when installing the game:

- * Handle the game with care so as not to damage the fragile picture tube.
- * Do NOT install the game in direct sunlight or near a heat source. Doing so might cause the internal temperature of the game to exceed it's maximum operating temperature and could result in damage to the game's components.
- * Do NOT install the game in excessively dusty or damp environments.

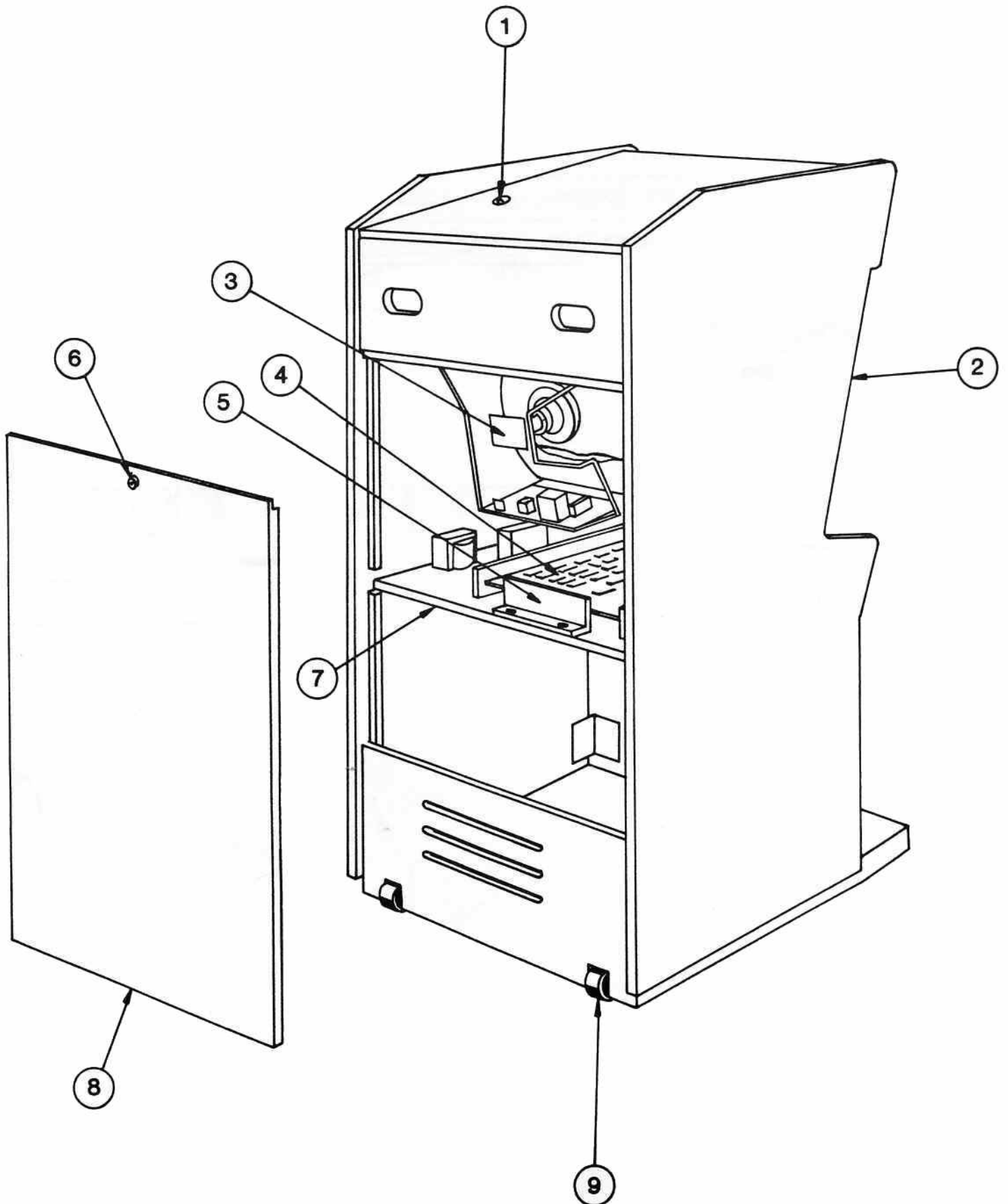
CABINET FRONT VIEW



CABINET FRONT
PARTS LIST

KEY	DESCRIPTION	REF NO.	PART NO.
1	UPRIGHT CABINET		185-197000
2	MARQUEE GLASS MOUNTING BRACKET		185-101021
3	GAME TITLE MARQUEE W/ARTWORK		185-108001
4	FLOURESCENT LAMP ASSEMBLY		185-104010
5	MONITOR FRAME W/ARTWORK		185-108002
6	MONITOR VIEWING GLASS PANEL		185-101001
7	CONTROL GRIP ASSEMBLY		185-818000
8	CONTROL PANEL (WOOD ONLY)		
9	SERVICE ACCESS DRAWER		
10	COIN DOOR ASSEMBLY		185-103001
11	ACCELERATOR PEDAL ASSEMBLY		185-110000
12	STEP TRIM		185-101026

CABINET REAR VIEW



CABINET REAR
PARTS LIST

KEY	DESCRIPTION	REF NO.	PART NO.
1	ON/OFF SWITCH		185-806003
2	UPRIGHT CABINET		185-197000
3	COLOR MONITOR		185-801019
4	MAIN LOGIC PCB		185-998000
5	PCB BRACKET		
6	REAR DOOR LOCK		
7	SERVICE ACCESS DRAWER		
8	REAR SERVICE DOOR		

IV. GAME INSTRUCTIONS

AQUA-JACK is a shooting/maneuvering game in which the player advances down-river in a hovercraft and launches an attack behind enemy lines. His goal is to rescue the hostages held at enemy headquarters by an evil alien commander who has managed to brainwash all humans in his command.

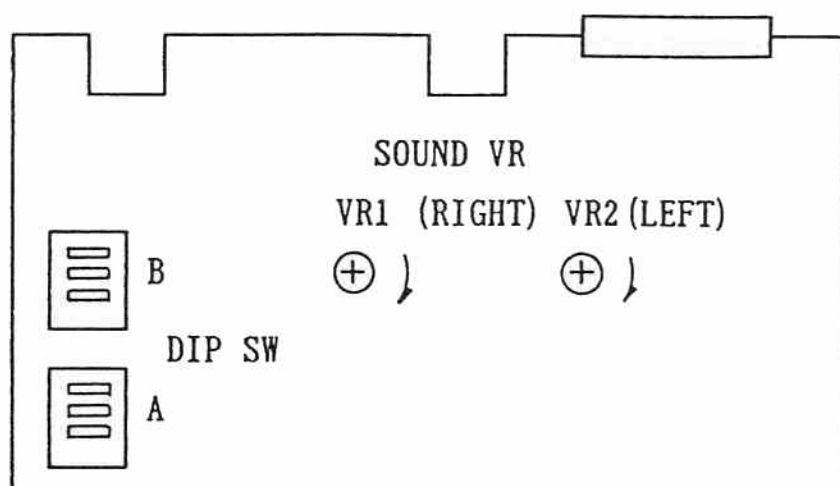
The player uses a control grip to maneuver the hovercraft and aim, a trigger to shoot and two thumb buttons for launching missiles and jumping clear of floating mines and enemy fire. A unique sighting system allows the player to sight a target, lock-on and destroy it, all without impeding the player's control of the vehicle. Each stage grows progressively more difficult and ends when the player successfully destroys an enemy blockade, a feat which gains him access into the next stage. Eight completely unique stages comprise the game, each featuring varied terrain and different enemy activity. The eighth and last stage is nothing short of spectacular as the player comes face to face with the extraterrestrial villain responsible for the attack.

Breathtaking graphics and an action-packed storyline unfold in accelerating progression, assuring total player involvement.

And Romstar's Continue Play feature keeps the player in the action.

- * TO AIM: Use the control grip to position the sight over the enemy target. When the sight is locked on its target, the word FIRE will appear and an audible command to fire will be heard.
- * Pull TRIGGER to fire vulcan gun.
- * Press MISSILE button to launch a missile. (Limited supply)
- * Press JUMP button to jump over floating mines and other obstacles.
- * When each stage is cleared, a map is displayed showing your progress and destination.

V. GAME PCB ADJUSTMENTS



VI. SELF-TEST MODE

A. TO ENTER THE SELF-TEST MODE

1. Turn power OFF.
2. Locate Dip Switch Bank A on the main logic PCB and slide switch #3 to the ON position.
3. Turn power ON.

The game will automatically conduct a test of its rom and ram memory and indicate if a problem is found.

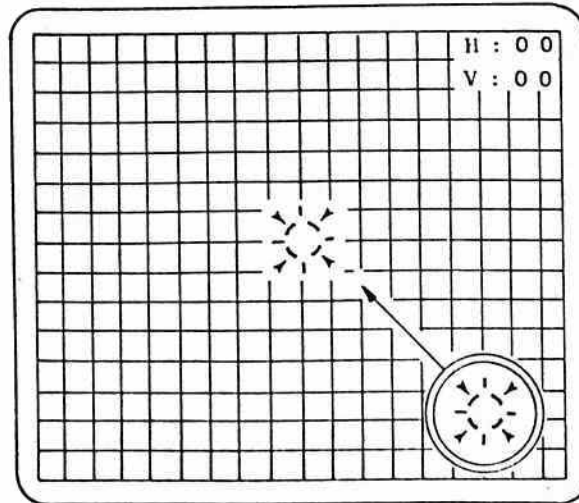
- | | |
|----------------------------------|---|
| * ROM/RAM & COLOR MONITOR TEST - | This screen is the first to appear in the self-test mode. |
| * CONTROL GRIP ADJUSTMENT - | Pull the TRIGGER one time to enter this test. |
| * SWITCH/FUNCTION TEST MODE - | Pull the TRIGGER two times to enter this test. |

B. ROM/RAM & COLOR MONITOR TEST

1. During the first stage of this test, the game conducts a self-test of its ROM and RAM memory and indicates if a problem is found.
2. During the second stage of this test, the screen displays a color bar and crosshatch pattern to assist in adjusting the color monitor.

C. CONTROL GRIP ADJUSTMENT PROCEDURE

1. Open the coin door. Locate the two latches under the service access drawer. Unlock the drawer and slide out. Locate the two adjustment knobs for control grip horizontal and vertical. (See illustration on page 11 for location.)



2. Allow the control grip to rest in the neutral (center) position.
3. Rotate both adjustment controls until the moving cursor is positioned directly over the stationary cursor in the center of the screen.
4. Once adjusted, move the control grip out of the center position and then let go. The cursor should return to the approximate center position when released.
5. Check your adjustments by moving the control grip and confirming the cursor travel is approximately equal in all directions.

D. SWITCH/FUNCTION TEST MODE

1. Press each game control switch to test. While depressed, the corresponding display for that switch will change from OFF to ON. This indicates the switch is operating properly. (See illustration.)

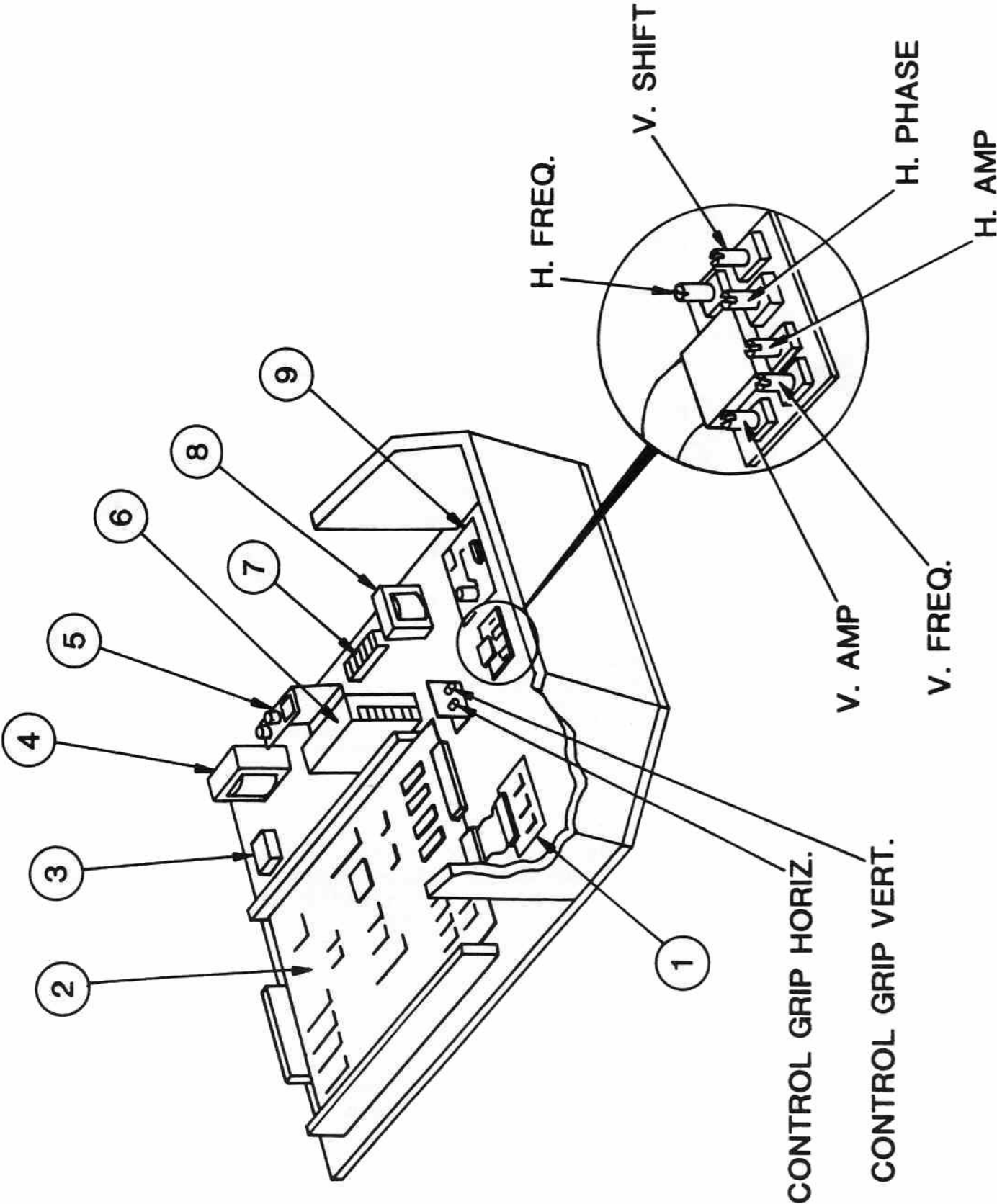
TEST MODE											
COIN A : OFF					COIN B : OFF						
SERVICE : OFF											
TILT : OFF					U : 00						
VULCAN : OFF											
MISSILE : OFF					L : 00		+		R : 00		
JUMP : OFF											
ACCEL : OFF					D : 00						
		8 7 6 5 4 3 2 1									
DIP - SW		A H H H H H L H L								L : ON	
		B H H H H H H H H								H : OFF	
SOUND CODE : 00											
RAM OK											
ROM OK											

2. To test the game sounds, move the control grip to the right or left until the desired sound address appears next to the **SOUND CODE** display. Then press the MISSILE button to activate that sound.

E. TO EXIT THE SELF-TEST MODE

1. Turn Power OFF.
2. Locate Dip Switch Bank A on the main logic PCB and return switch #3 to the OFF position.
3. Turn Power ON.

SERVICE ACCESS DRAWER AND POWERHOUSE ASSEMBLY



POWERHOUSE ASSEMBLY DRAWER
PARTS LIST

KEY	DESCRIPTION	REF NO.	PART NO.
1	D/A CONVERTOR		
2	MAIN LOGIC PCB		185-998000
3	10 AMP LINE FILTER		185-802010
4	ISOLATION TRANSFORMER		185-802005
5	FUSE AND SERVICE OUTLET ASSEMBLY		
	FUSE		185-802003
	FUSE HOLDER		185-802004
	SERVICE OUTLET		185-802009
	Z BRACKET		185-806006
6	10 AMP REGULATED POWER SUPPLY		
7	TERMINAL BLOCK		
8	AUXILARY TRANSFORMER		
9	AUXILARY POWER SUPPLY PCB		

DIP SWITCH SETTINGS

The following option switch settings were designed to allow the customizing of AQUA-JACK's various game features to suit different environments. If used wisely, the flexibility they offer can maximize game performance and increase potential earnings.

DIP SWITCH A

FUNCTION	SETTING	1	2	3	4	5	6	7	8
GAME STYLE	COCKTAIL *UPRIGHT	OFF ON							
NONE	MUST REMAIN IN "OFF" POSITION		OFF						
TEST MODE	*NORMAL TEST			OFF ON					
ATTRACT SOUNDS	*ENABLED DISABLED				OFF ON				
PLAY PRICING	*1 CO = 1 PL 2 CO = 1 PL 3 CO = 1 PL 4 CO = 1 PL					OFF ON OFF ON	OFF OFF ON ON		
CONTINUE PRICING	*SAME PRICING 1 CO = CONT 2 CO = CONT 3 CO = CONT							OFF ON OFF ON	OFF OFF ON ON

* = FACTORY RECOMMENDED SETTINGS.

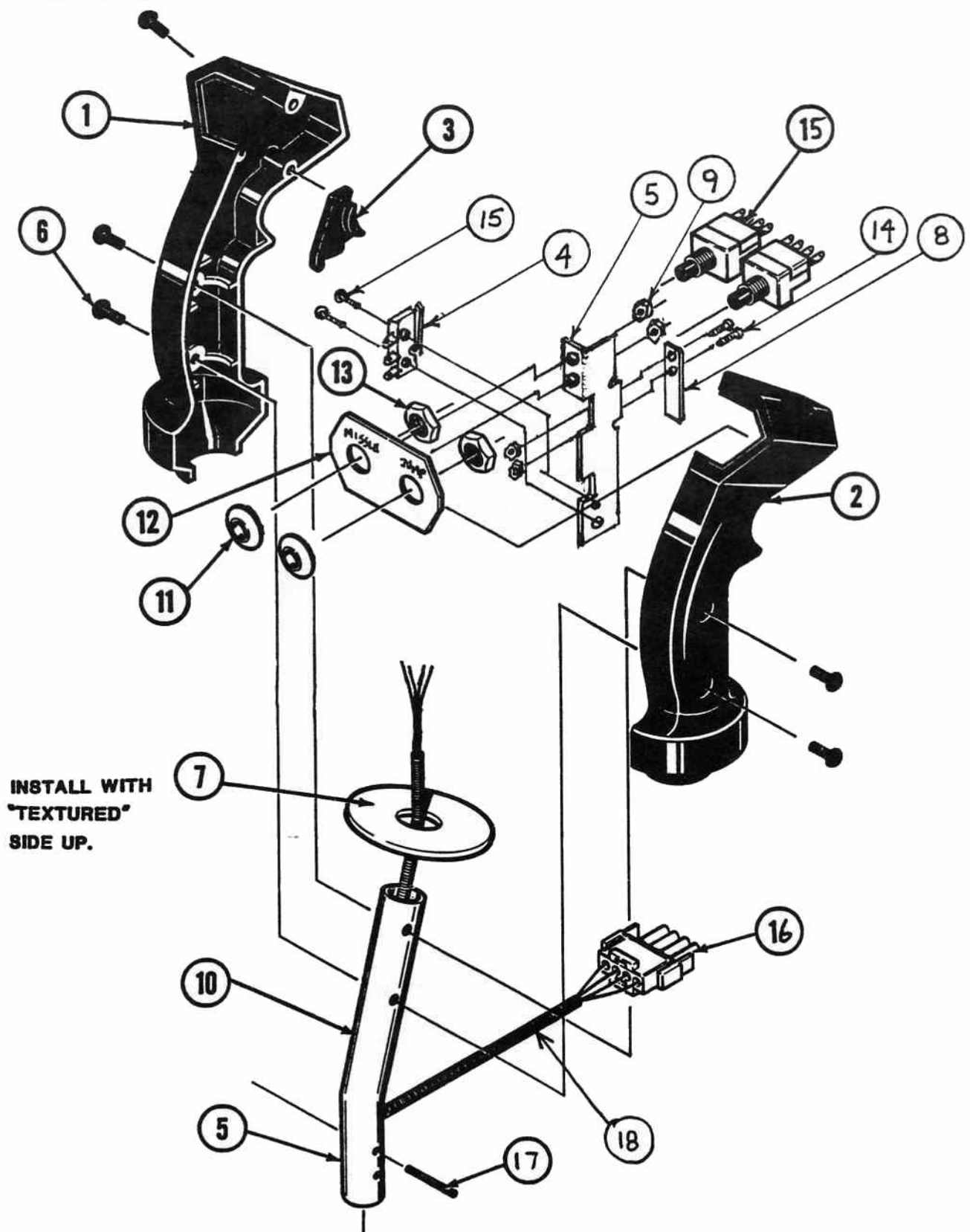
CONTINUE PRICING - THIS SWITCH ALLOWS YOU TO PRICE THE "CONTINUED" GAME DIFFERENTLY THAN THE INITIAL GAME. AN EXAMPLE WOULD BE AN OPERATOR WHO ALLOWED HIS PLAYERS TO CONTINUE AT A DISCOUNTED RATE.
 EXAMPLE: PLAY PRICING IS SET AT (2 COINS = 1 PLAY) AND THE CONTINUE PRICING AT (1 COIN = 1 PLAY). THE PLAYER PAYS THE FULL AMOUNT (2 COINS) TO BEGIN PLAYING, THEN PAYS ONLY HALF AS MUCH (1 COIN) TO CONTINUE HIS GAME. WHEN THE CONTINUE PRICING IS SET AT "SAME PRICING", THE CONTINUED GAME IS PRICED THE SAME AS THE INITIAL GAME.

DIP SWITCH B

FUNCTION	SETTING	1	2	3	4	5	6	7	8
DIFFICULTY LEVEL	*B - MEDIUM A - EASY C - HARD D - HARDEST	OFF ON OFF ON	OFF OFF ON ON						
EXTENDED PLAY	* 50,000 PTS 80,000 PTS 100,000 PTS 30,000 PTS			OFF ON OFF ON	OFF OFF ON ON				
NUMBER OF BASES	* 3 2 1 5					OFF ON OFF ON	OFF OFF ON ON		
NONE	MUST REMAIN IN "OFF" POSITION							OFF	
ENDLESS PLAY	*NORMAL ENDLESS								OFF ON

* = FACTORY RECOMMENDED SETTINGS.

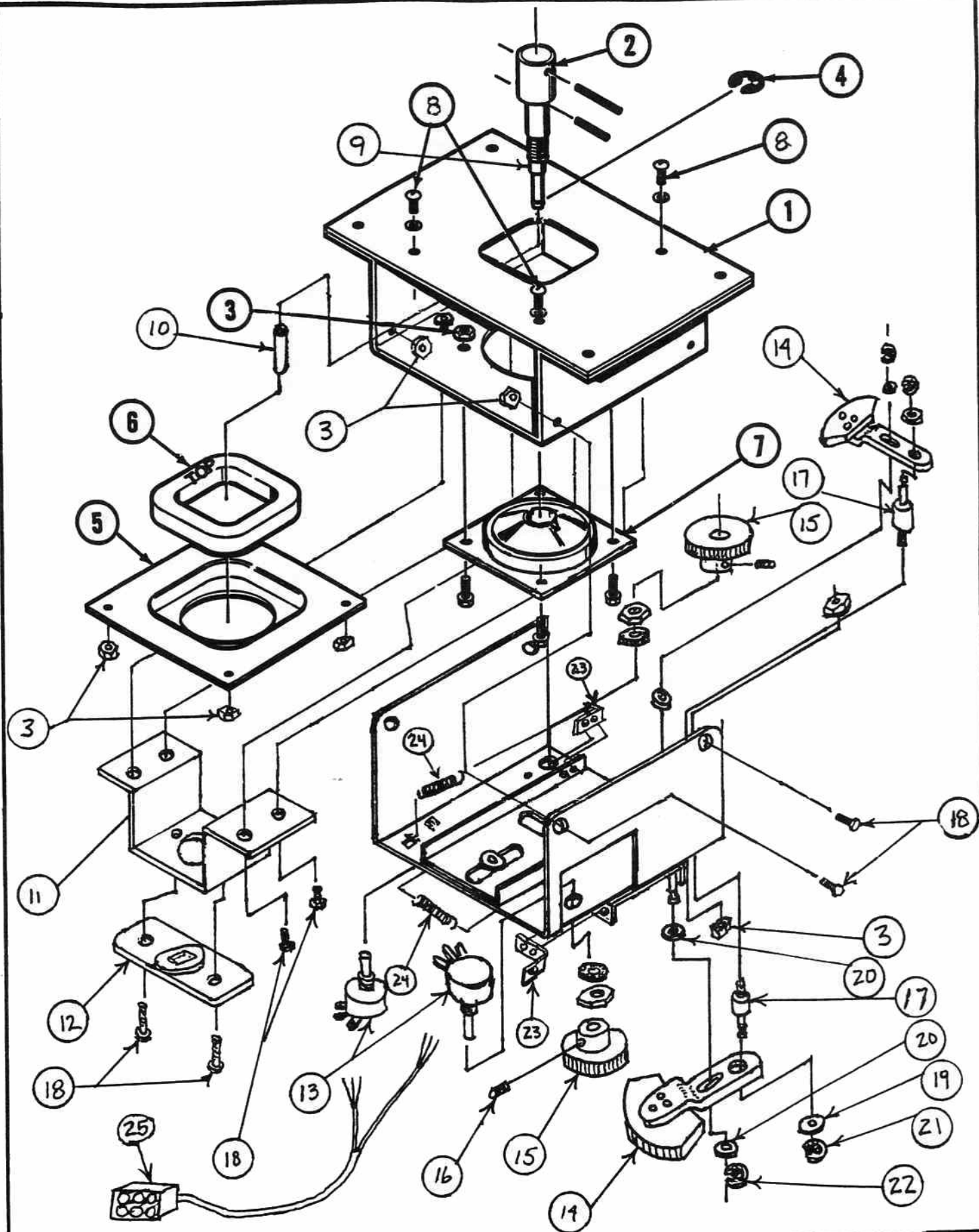
CONTROL GRIP UPPER ASSEMBLY



CONTROL GRIP UPPER ASSEMBLY
PARTS LIST

KEY	DESCRIPTION	REF NO.	PART NO.
	CONTROL GRIP ASSEMBLY		185-818000
1	GRIP LEFT SIDE (RED)	96252701	185-818001
2	GRIP RIGHT SIDE (RED)	96252601	185-818002
3	TRIGGER BLACK NYLON	96252801	185-818003
4	SWITCH W/ACTUATOR	95411700	185-818004
5	TRIGGER SWITCH BRACKET	50901001	185-818005
6	SCREW, #10-32 x 3/8 BUTTONHEAD TAMPER PR	96251601	185-818006
7	SLIDE BLACK PLASTIC DISK	96256000	185-818007
8	BLADE, TRIGGER RETURN SPRING	50903901	185-818008
9	#4-40 FLEX NUT	43001000	185-818009
10	TUBE, HANDLE	96254000	185-818010
11	BEZEL, THUMB SWITCH	96254100	185-818011
12	BACKPLATE	50902001	185-818012
13	NUT (INCL. W/THUMB SWITCH)		
14	#4-40 x 1/2" PH. PAN HEAD	42002300	185-818013
15	THUMB SWITCH	50002000	185-818014
16	HARNESS	96229900	185-818015
17	ROLLPIN 1/8" DIA. x 7/8"	43001200	185-818016
18	SPRING	50905000	185-818017

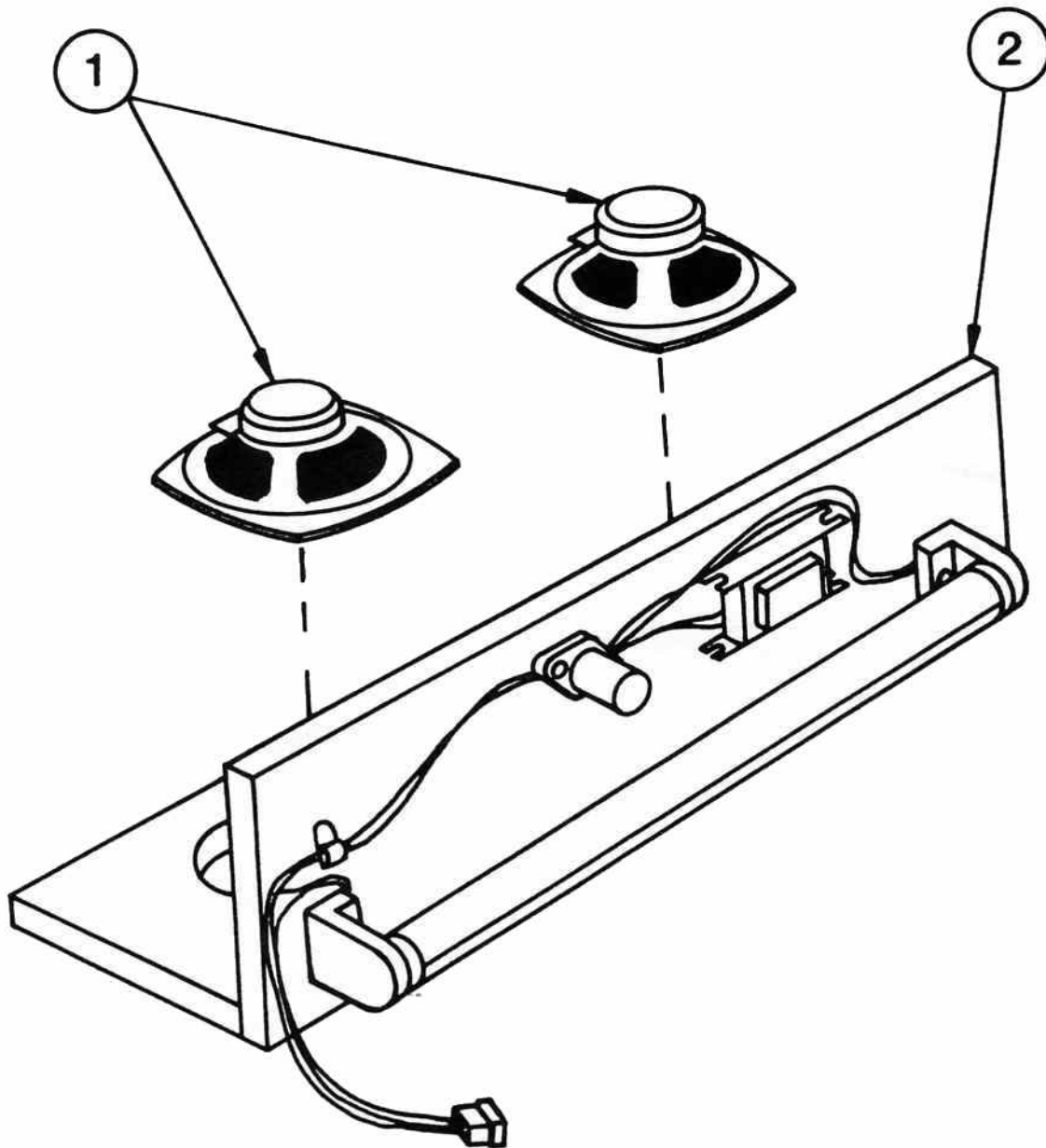
CONTROL GRIP LOWER ASSEMBLY



CONTROL GRIP LOWER ASSEMBLY
PARTS LIST

KEY	DESCRIPTION	REF NO.	PART NO.
1	CENTERING BRACKET	96451002	185-818018
2	ACTUATING PIN PART "A"	96452001	185-818019
3	NUT #10-32 SEMS	42009300	185-818020
4	E-RING	43000800	185-818021
5	BUMPER MOUNTING BRACKET	96453000	185-818022
6	BUMPER	96453500	185-818023
7	GROMMET	96455005	185-818024
8	SCREW 10-32 x 3/8 BUTTONHEAD TAMPER PRF	96251601	185-818025
9	ADAPTER PIN PART "B"	96451002	185-818026
10	SLEEVE	96454003	185-818027
11	DEAD STOP BRACKET	96459800	185-818028
12	DEAD STOP	96458000	185-818029
13	POTENTIOMETER 5K	50802709	185-818030
14	GEAR SEGMENT W/BRACKET	96459906	185-818031
15	PINION GEAR	96253100	185-818032
16	SCREW SET 3/32 x 3/16	43001100	185-818033
17	PIVOT POST	96452900	185-818034
18	SCREW #10-32 x 3/8" HEX HEAD	43000200	185-818035
19	WASHER #10	43000500	185-818036
20	WASHER #6	43000400	185-818037
21	E-RING	43000900	185-818038
22	E-RING	43000800	185-818039
23	BRACKET, SPRING HOLDING	96552000	185-818040
24	SPRING	50905001	185-818041
25	HARNESS	96229800	185-818042

FLUORESCENT LAMP & SPEAKER ASSEMBLY



KEY	DESCRIPTION	REF NO.	PART NO.
1	4 INCH SPEAKER		185-804002
2	FLOURESCENT LAMP ASSEMBLY		185-104010

NOTES