

MIDWAY

JANUARY 1996
16-40064-101



KILLER INSTINCT 2
DEDICATED GAME
OPERATION MANUAL

Operation & Adjustments • Testing & Problem Diagnosis
Parts Information • Wiring Diagrams

DECLARATION OF CONFORMITY

MIDWAY MANUFACTURING CO., INC.

3401 N. CALIFORNIA AVE.
CHICAGO, IL 60618
U.S.A.

WE, HEREBY DECLARE UNDER SOLE RESPONSIBILITY THAT
THE MODEL: "KILLER INSTINCT 2" 40264, 40464, 41064, 41464,
42064 (VIDEO)
TO WHICH THIS DECLARATION RELATES IS IN CONFORMITY WITH THE
FOLLOWING EUROPEAN PRODUCT SAFETY DIRECTIVES:


ELECTROMAGNETIC COMPATIBILITY DIRECTIVE
(89/336/EEC AND AMENDMENTS 91/C162/08, 92/31/EEC, 93/68/EEC

AS IS VERIFIED BY COMPLIANCE WITH THE FOLLOWING STANDARDS:

EN5014: 1993	EN61000-4-2: 1995
IEC 801-3: 1984 (EN61000-4-3)	EN61000-4-4: 1995
EN61000-4-5: 1995	

Date issued:

MANUFACTURE'S SIGNATURE



DON HASSLER

V.P. MANUFACTURING

HARD DRIVE HANDLING GUIDELINES

Hard drives are especially sensitive to rough handling and electrostatic discharge (ESD). To avoid these hazards, adhere to the following guidelines:

ELECTROSTATIC DISCHARGE (ESD)

- Keep the end of the drive cable in an anti-static bag until you are ready to install it in your system.
- Do not put any other objects inside the anti-static bag with the end of the drive cable.

HANDLING

- Do not put anything on top of the drive - especially another drive.
- Do not drop a disk drive. Some drives can be damaged by being dropped from an inch above a hard surface.
- Be sure to handle the hard drive with care when setting it down. Do not set the drive on its edge.

INSTALLING

- When installing the drive, remove the cable from the anti-static bag.
- Turn off the power before connecting the drive to the system.
- Do not connect the drive to the CPU board, or disconnect the drive from the CPU board, while power is on.
- **BE VERY CAREFUL TO ALIGN THE DRIVE CABLE CORRECTLY WITH THE CPU CONNECTOR.** Installing a the hard drive cable incorrectly will ruin the drive!

STORING, PACKING, AND TRANSPORTING DRIVES

- If you are using the single pack carton, do not pack more than one drive per carton.
- Pack the end of the drive cable in an anti-static bag. Then, put the hard drive in an approved shipping container.
- Do not throw, drop, puncture, or walk on shipping boxes.

Note. You should use the same degree of care when handling a drive that may be defective that you use when handling a new, working drive.

KILLER INSTINCT 2

Information current at time of release.

Fill out and mail in game Registration card. Be sure to include the game serial number. For your records, write the game serial number in the manual.

MIDWAY Manufacturing Company reserves the rights to make modifications and improvements to its products. The specifications and parts identified in this manual are subject to change without notice.

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Killer Instinct 2™

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NOTES

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KILLER INSTINCT 2

SECTION
ONE

OPERATION

SAFETY NOTICES

The following safety instructions apply to all game operators and service personnel. Specific warnings and cautions will be found throughout this manual where they apply. We recommend that you read this page before preparing your game for play.



CAUTION

HARD DRIVE. The end of the hard drive cable must be packed in an anti-static bag. The disk drive assembly must be packed in an approved shipping container (p/n 08-7981) in order to be sent in for repair or replacement.

TRANSPORTING GAME: This game contains fragile electronic devices. Do not move this game with power on. Transport this game securely. Avoid rough handling.

ISOLATION TRANSFORMER. This video game system does not utilize an isolation transformer. No isolation exists between the cabinet AC system and the external AC line.

AC POWER CONNECTION. Verify the slide switch on the power supply is set for 110VAC or 220VAC according to local line voltage. Verify that the fan and fluorescent lamp assembly are correct for local line voltage.

PROPERLY GROUND THE GAME. To avoid electrical shocks, do not plug in the game until it has been inspected and properly grounded. MIDWAY games should only be plugged into a grounded 3-wire outlet.

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.

USE THE PROPER FUSE To avoid electrical shock, replacement fuse must match the original fuse in fuse type, voltage rating, and current rating.

HANDLE FLUORESCENT TUBE AND CRT WITH CARE. If you drop a fluorescent tube or CRT and it breaks, it will implode! Shattered glass can fly eight feet or more from the implosion.

ATTENTION

PROPERLY ATTACH ALL CONNECTORS. *Be sure that the connectors on each printed circuit board (PCB) are properly connected. If they do not slip on easily, do not force them. A reversed connector may damage your game and void the warranty. All connectors are keyed to fit specific pins on each board.*

EPILEPSY WARNING

A very small portion of the population has a condition which may cause them to experience epileptic seizures or have momentary loss of consciousness when viewing certain kinds of flashing lights or patterns that are present in our daily environment. These persons may experience seizures while watching some kinds of television pictures or playing certain video games. People who have not had any previous seizures may nonetheless have an undetected epileptic condition.

If you or anyone in your family has experienced symptoms linked to an epileptic condition (e.g. seizures or loss of awareness), immediately consult your physician before using any video games.

We recommend that parents observe their children while they play video games. If you or your child experience the following symptoms: dizziness, altered vision, eye or muscle twitching, involuntary movements, loss of awareness, disorientation, or convulsions. **DISCONTINUE USE IMMEDIATELY** and consult your physician.

SETUP PROCEDURE

INSTALLATION & INSPECTION

Game Location Requirements	<u>Power</u> 120VAC @ 60Hz 3.0 Amps 220VAC @ 50Hz 2.0 Amps	<u>Temperature</u> 32°F to 100°F (0°C to 38°C)	<u>Humidity</u> Not to exceed 95% relative
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Cabinet Statistics	<u>Shipping Dimensions</u> Width 27" - Depth 41" - Height 73"	<u>Shipping Weight</u> Approximately 385 Lbs
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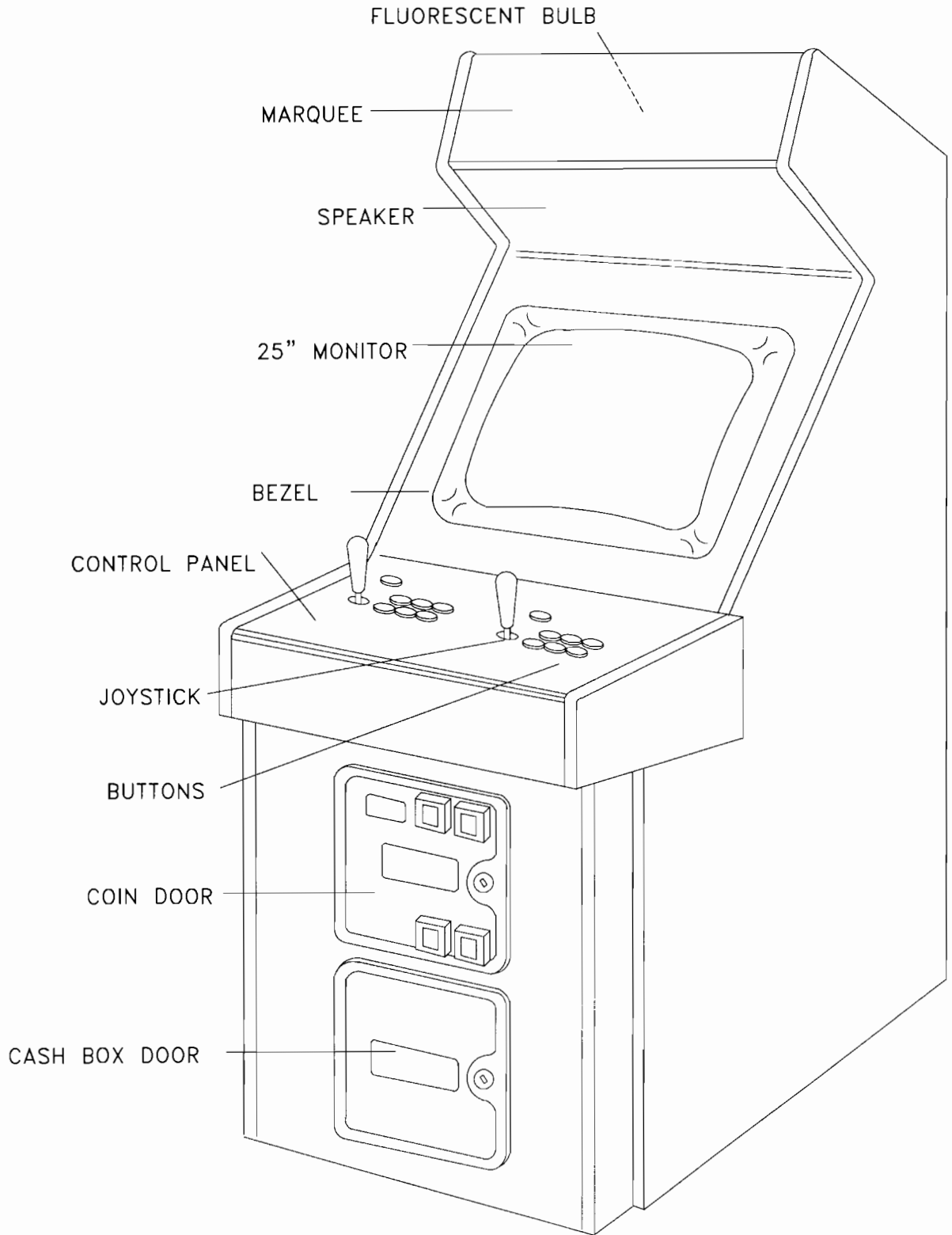
1. Remove all items from the shipping containers and set them aside. Inspect the exterior of the cabinet and the control panel for any damage.
2. The coin door keys are attached to one of the joysticks. Unlock and open the coin door and the cash box door. Remove the spare parts stored in the cash box and remove the rear door keys located on a key hook inside the coin door.
3. Remove the screws holding the rear door then unlock and remove the door. Inspect the cabinet interior for any signs of damage. Check all major assemblies to assure that they are mounted securely.
4. Refer to the Cabinet Wiring Diagram (Section 3), and check to see that all cable connectors are correctly secured. *Do not force connectors.* Watch for damaged connectors and avoid making reversed connections.
5. If a padlock is desired, turn the rear door hasp so that it protrudes from the hole in the back of the cabinet. Remove the two nuts inside the cabinet, at the top and middle of the rear door opening. Then slide the hasp off of the bolts. Turn the hasp, slide it back on the bolts and replace the nuts.
6. Next, locate the four leg levelers among the spare parts in the cash box. There are four threaded holes on the bottom of the cabinet; one in each corner. Place one leg leveler (with its hex nut) in each of the threaded holes. Lower each leg leveler until the cabinet is stable and level.

!! WARNING !!

The cabinet is top heavy.

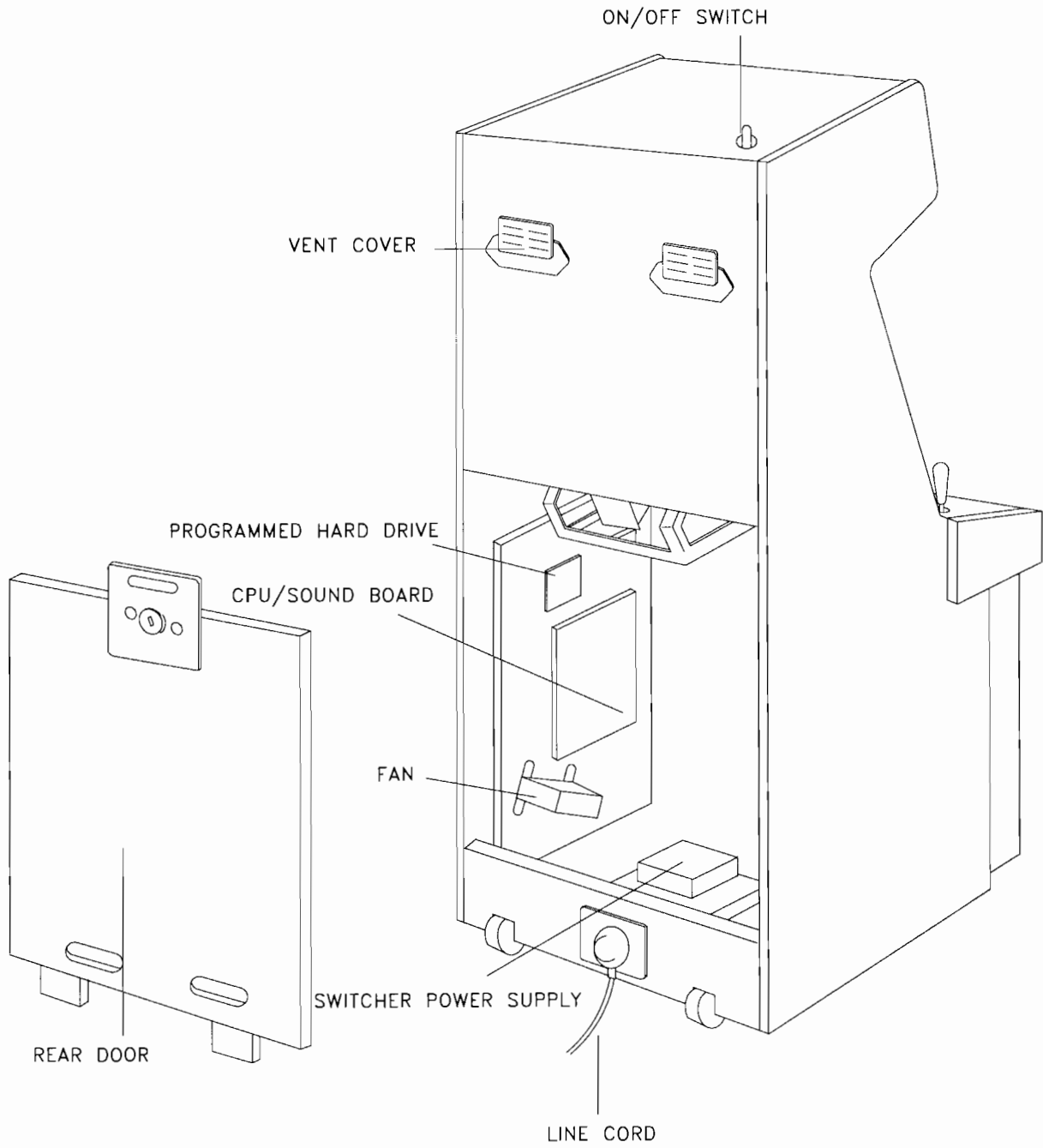
7. To attach the line cord, remove the four Phillips-head screws that mount the line cord cover plate to the rear of the cabinet. Match the prongs on the plug with the holes in the receptacle and push the line cord securely into place. Be sure the cord aligns with the indentation of the plate, (indentation should point toward the bottom of the cabinet). Remount the line cord cover plate.
8. Replace the rear door and screw (lock) it securely. NOTICE: Tamper proof screws and wrench are included in the spare parts bag. These screws are optional and may be used to secure the rear door panel. The T20 wrench is used for the installation of these screws. Close and lock the front coin and cash box doors.
9. Plug the game into a grounded (3-terminal) AC wall outlet. Switch ON the game, using the ON/OFF switch located on the upper left rear of the cabinet.

CABINET ASSEMBLY
Front View



CABINET ASSEMBLY

Rear View



SERVICING

◆ Servicing the Control Panel

Switch off power to the game and open the coin door. The control panel is held in place by two latches (located inside the cabinet) which provide constant pressure on the strikes. To release the latches, reach through the coin door opening toward the right and left sides of the cabinet. *Do not reach straight back through the coin door or you could damage the monitor control board.* Lift the latch handle and unhook the wire fasteners. Grip the joysticks and carefully tilt the control panel back on its hinge.

To return the control panel to its normal position, carefully lean it forward until it rests on the cabinet. Be careful not to let the control panel slam down onto the cabinet, or to pinch any wires. Always re-clasp the latches.

◆ Removal of the Viewing Glass

Switch off power to the game and open the control panel. Remove the five hex-head screws and the black metal strip at the bottom of the viewing glass. Carefully, slide the glass from the side grooves and lift it clear of the cabinet.

◆ Removal of the Monitor Bezel

Switch off power to the game. Open the control panel and remove the viewing glass. Lift the bezel off of the monitor.

◆ Monitor Replacement

We recommend that you read the SAFETY NOTICES section thoroughly before beginning this procedure.

Switch off power to the game. Remove the viewing glass and the monitor bezel. Completely disconnect the monitor from all of its cabling. Remove the four flange nuts securing the monitor's mounting flanges to its mounting panel. Pull the monitor carefully from the cabinet.



CAUTION

The monitor does not require an isolation transformer. However, when servicing the monitor on a test bench, YOU MUST ISOLATE THE MONITOR FROM LINE VOLTAGE WITH AN ISOLATION TRANSFORMER.

THE MONITOR IS HEAVY. BE SURE IT IS FIRMLY SUPPORTED IF IT MUST BE REMOVED FROM THE CABINET.

◆ Hard Drive Replacement **REMEMBER: HARD DRIVES ARE FRAGILE**

Use an anti-static bag and approved shipping container (p/n 08-7981) to return the hard drive to your distributor.

Switch off power to the game and open the rear door. Unplug the ribbon cable from the CPU board. Unscrew the four hex head screws from the spacers and set them aside. Remove the spacers from the enclosure and set them aside. Remove the hard drive and enclosure assembly, (see Hard Drive Handling Guidelines in the front of this manual). Place the spacers - one in each four corner holes - in the new hard drive enclosure. Place the enclosure assembly, with the ribbon cable facing the front of the game, on the wood chassis. Line up the holes in the spacers with the screw holes in the wood and use the hex head screws to fasten the assembly in place. Carefully plug the ribbon cable into the CPU board.

◆ Removal of the Marquee

Switch off power to the game. Remove the hex-head screws from the black marquee retaining strip located on top of the header. Remove the strip and carefully lift the marquee and the marquee glass from the top of the header. Store the marquee carefully to prevent damage.

◆ Removal of the Fluorescent Light Assembly

Switch off power to the game. Remove the marquee glass and the marquee. The fluorescent bulb is now accessible for replacement. Remove the plastic lamp locks. Grasp the bulb, give it a quarter turn, and remove it from its socket. Carefully, place a new bulb into the socket, and turn to reinstall.

To remove the entire light fixture, disconnect the fluorescent light assembly from its power cable. Remove the screws that hold the assembly to the cabinet then lift out the assembly.

!! WARNING !!

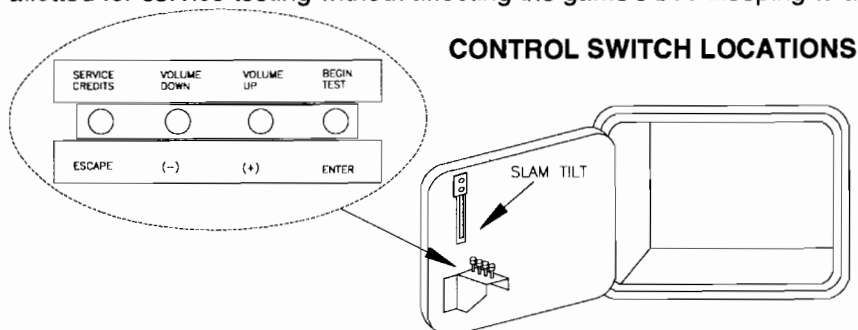
If you drop a fluorescent tube and it breaks, it will implode! Use care in handling.

◆ Removal of the Speakers

Switch off power to the game. Remove the marquee and the marquee glass. The speakers come out from the front of the cabinet. Be sure to disconnect the cabling and remove the nuts on the mounting screws before attempting to remove the speakers from the enclosure. Carefully, reinstall the seals upon completing any task in the speaker enclosure.

◆ Volume Control, Begin Test Switch, and Service Credit Switch

Open the coin door. The game's volume control and diagnostic push-button switches are located on a small bracket on the coin door. The volume is controlled by the two center buttons. Press the Volume Up or the Volume Down button until the desired sound level is reached. The Begin Test switch, on the right, activates the game's menu system. The Service Credit switch, on the left, allows credits to be allotted for service testing without affecting the game's bookkeeping total.



GAME FEATURES

STARTING UP

Switch on power to the game. The game runs through a start-up routine.

Insert the desired amount of coins, bills or tokens. Select which player receives the credit by pressing the appropriate Start button.

NOTE

When an error is detected during the Start-up tests, game start-up does not progress, and an error message appears on the screen.

PLAYER CONTROLS

◆ **Start Button**

Each player has a Start button. The Start buttons allow one or two players to begin or continue play.

◆ **Joysticks**

Each player has a joystick which he uses to control an on-screen character. The player can make the on-screen character move, jump or duck.

◆ **High Attack**

An attack that originates above the waist, such as a punch.

◆ **Low Attack**

An attack that originates below the waist, such as a kick.

◆ **Quick**

A "quick" attack is a short range, short duration attack that inflicts little damage to an opponent.

◆ **Medium**

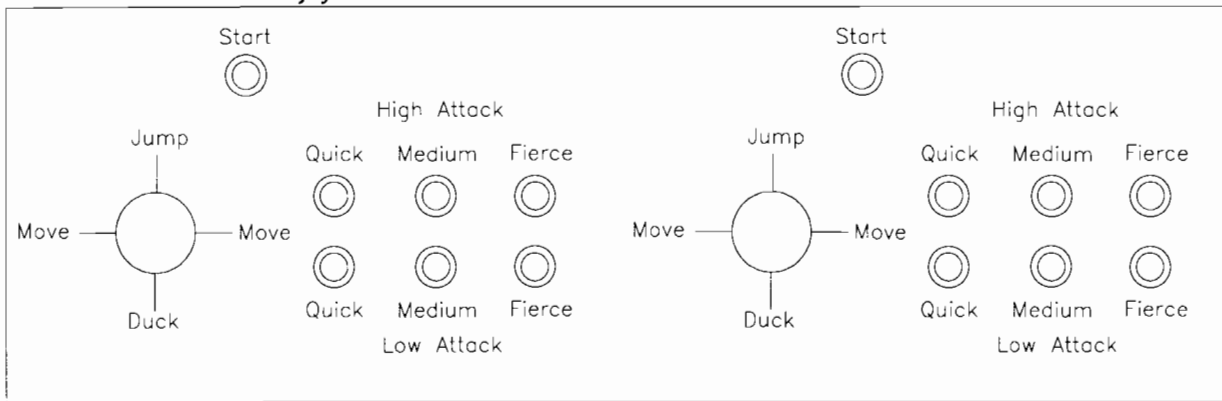
A "medium" attack is a moderate range, moderate duration attack that inflicts some damage to an opponent.

◆ **Fierce**

A "fierce" attack is a long range, long duration attack that inflicts much damage to an opponent.

NOTE

Use joystick and button combinations to discover secret moves.



CONTROL PANEL

GAME OPERATION

The **KILLER INSTINCT 2** game Control switches are located on a bracket, inside the coin door.

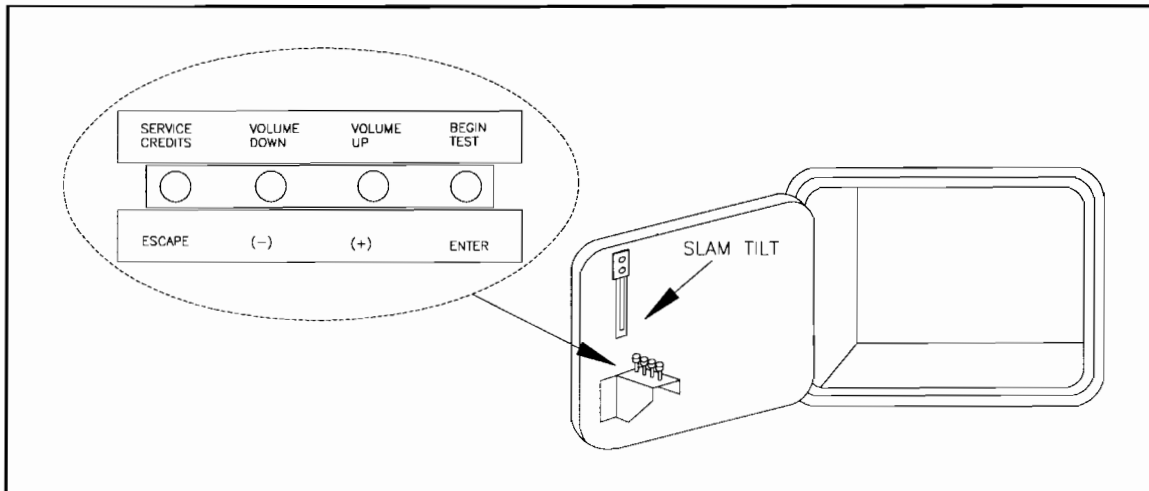
CONTROL SWITCHES

- ◆ **Slam Tilt Switch**
The **Slam Tilt** switch prevents pounding for free games.
- ◆ **Volume Down/Volume Up Buttons**
The **Volume Down** and **Volume Up** push-button switches increase or decrease the volume level of the music and speech. The volume level can be adjusted during the Attract Mode or during menu system operation. For greater profits, set your game's volume level at a nice loud setting.
- ◆ **Begin Test Button**
The **Begin Test** push-button switch enters the game's menu system. Press the Begin Test switch to access any of the menu system functions.
- ◆ **Service Credit Button**
The **Service Credit** push-button switch is a special feature switch that allots credit without affecting the game's bookkeeping total.

These buttons can be used instead of the control panel buttons when operating the Menu System. The Up and Down buttons move the cursor, and the Enter and Escape buttons open and close the menus.

NOTE

The coin door must be open for the control switches to work.



CONTROL SWITCH LOCATIONS

MENU SYSTEM OPERATION

OPERATION

All game audits, adjustments and diagnostics are options of the Main Menu. Each option, in turn, has its own menu that lists several choices which you may act upon as desired.

Press the Begin Test switch on the coin door to open the Main Menu (shown below). Game adjustments, bookkeeping and diagnostics are all accessible from this menu.

Use any joystick to move the cursor up and down the menu screen. Notice that the options are highlighted in sequence. Press any action button (Quick, Medium, Fierce), on the control panel to open a highlighted option.

NOTE

Only highlighted options can be opened.

KILLER INSTINCT 2™ - MAIN MENU

**SELECT WITH ANY JOYSTICK
ACTIVATE WITH ANY ACTION BUTTON**

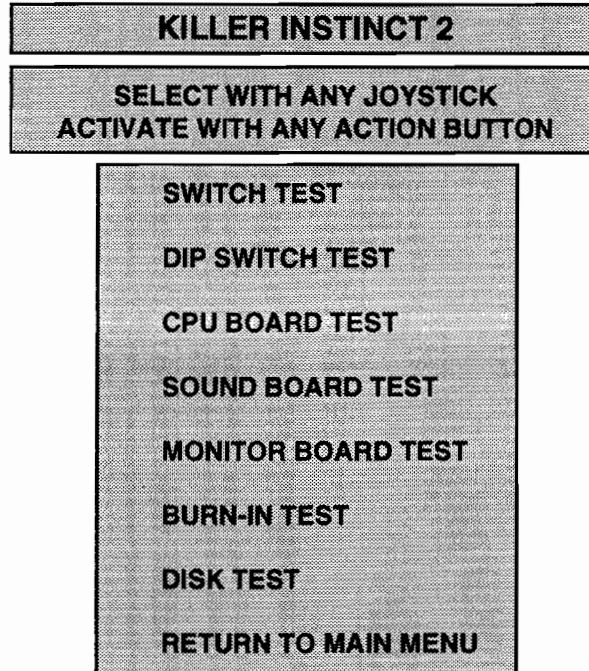
DIAGNOSTIC TESTS
COIN BOOKKEEPING
GAME AUDITS
GAME ADJUSTMENTS
UTILITIES
VOLUME ADJUST
EXIT TO GAME OVER

To exit the Main Menu and return to the Attract Mode, use any joystick to select EXIT TO GAME OVER and press any action button.

DIAGNOSTIC TESTS

Use any joystick to select the Diagnostic Menu and any action button to open it. Then, use any joystick to move the cursor up and down the menu and any action button to open a highlighted option.

To exit the Diagnostic Menu, use any joystick to select RETURN TO MAIN MENU and press any action button.

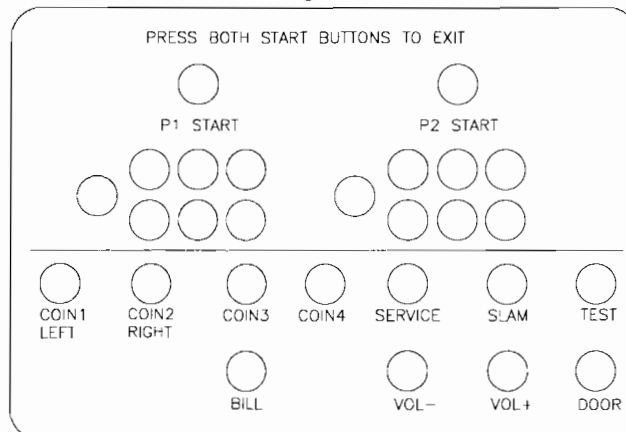


Switch Test

The Switch Test allows the operator to test the switches on the control panel and in the coin door.

Use any joystick to highlight the Switch Test and any action button to begin the test. During the Switch Test the top of the screen shows the control panel switches while the bottom of the screen shows the coin door switches. Press a control panel or coin door switch and the switch location on the screen lights. Release the switch and the screen returns to normal.

To exit the Switch Test, press both Start buttons together.



SWITCH TEST SCREEN

DIP Switch Test

The DIP Switch Test allows the operator to check or change the position of the DIP Switches on the CPU.

Use any joystick to select the DIP Switch Test. Press any action button to access the DIP Switch Setting Tables. The screen displays the current settings. To change a setting, slide the switch to the desired position. Check the screen to verify the new setting. *In some cases, setting a function to OFF actually enables the function. For example, setting Coinage to Off enables DIP Switch Coinage.*

Press any button to return to the Diagnostic Menu.

DIP Switch 1 Setting Table

	SW. 1	SW. 2	SW. 3	SW. 4	SW. 5	SW. 6	SW. 7	SW. 8
Blood Level								
High Blood Level	Off*	Off*						
Med. Blood Level	On	Off						
Low Blood Level	Off	On						
No Blood	On	On						
Attract Sounds								
Attract Sounds On			Off*					
No Attract Sounds			On					
Finishing Moves								
Finishing Moves				Off*				
No Finishing Moves				On				
Violence Warning								
Display Violence Warning					Off*			
No Violence Warning					On			
Not Used								
						Off*	Off*	Off*
						On	On	On

DIP Switch 2 Setting Table

	SW. 1	SW. 2	SW. 3	SW. 4	SW. 5	SW. 6	SW. 7	SW. 8
Coinage								
DIP Switch	Off*							
CMOS	On							
Coin Settings								
USA 1 Ger. 1 Fr. 1		Off*	Off*	Off*				
USA 2 Ger. 2 Fr. 2		On	Off	Off				
USA 3 Ger. 3 Fr. 3		Off	On	Off				
USA 4 Ger. 4 Fr. 4		On	On	Off				
USA ECA Ger. ECA Fr. ECA		Off	Off	On				
USA 9 Ger. 5 Fr. 11		On	Off	On				
USA 10 N/U Fr. 12		Off	On	On				
Free Play Free Play Free Play		On	On	On				
Country								
USA					Off*	Off*		
Germany					On	Off		
France					Off	On		
Not Used					On	On		
1 Counter							Off*	
2 Counters							On	
Game Mode								Off*
Test Mode								On

*Indicates factory setting.

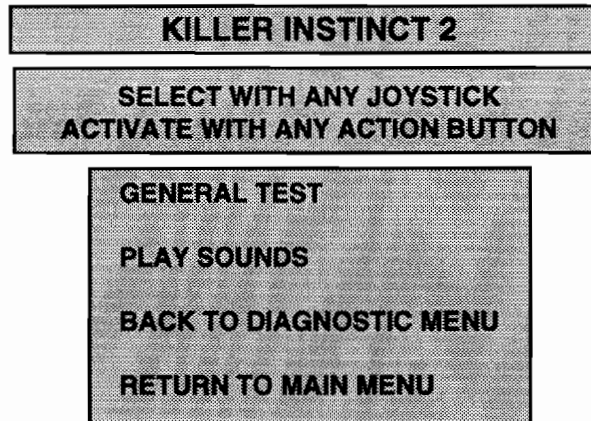
CPU Test

The CPU Board Test allows the operator to check the RAMS and the ROMS. Select the CPU Board Test with any joystick. Press any action button to start the test. A "rug" pattern appears on the screen. When the "rug" pattern ends, either *Test O.K.* or *Test Failed* appears on the screen. The game returns to the Diagnostic Menu automatically.

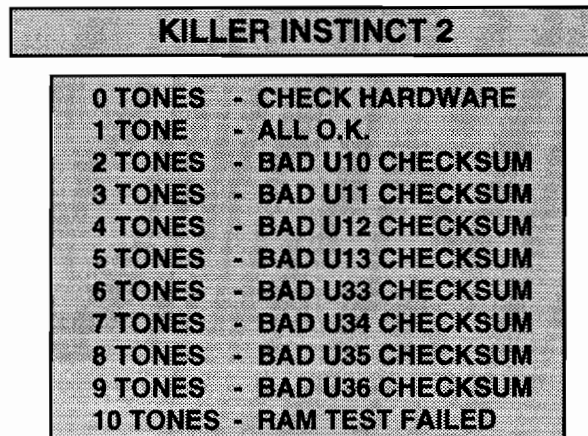
Sound Test

This test allows the operator to listen to some of the sounds this game is capable of producing.

Use any joystick to select the test, then press any action button to open the menu. The screen displays two test options. Use any joystick to select an option and any action button to begin the test.



GENERAL TEST analyzes the sound circuitry. The screen shows a list of error codes. A successful test causes a single "tone" to sound. Detection of a fault causes a series of tones or no tone at all to sound. Press any action button to return to the Sound Test Menu.



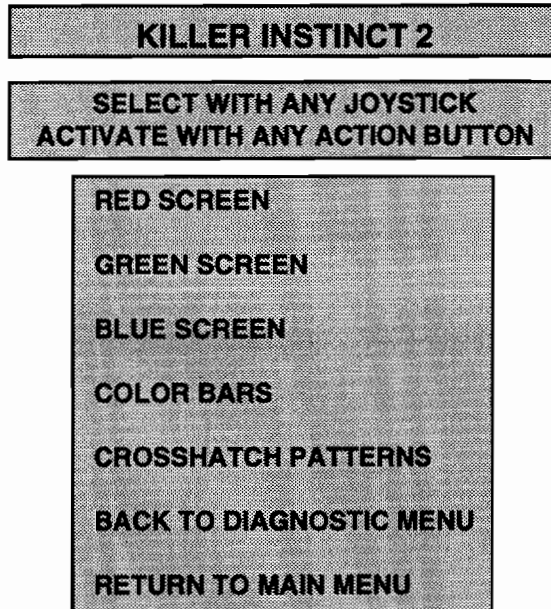
PLAY SOUNDS tests synthesized and digitized sounds from the CPU/Sound board. Advance to the next sound with any action button. Use any joystick to end the test.

Select RETURN TO MAIN MENU or BACK TO DIAGNOSTIC MENU and press any action button.

Monitor Patterns

The Monitor Patterns Test provides a menu for testing the monitor.

Select the test with any joystick. Press any action button to open the test menu. Once the menu is open, use any joystick to select an option, and any button to begin it. Press any action button again to return to the Monitor Patterns Menu.



The **RED, GREEN** and **BLUE SCREEN** tests fill the screen with either red, green or blue. Press any action button to return to the Monitor Patterns Menu.

The **COLOR BARS** test fills the screen with 15 shades of colors to help with red, green and blue level adjustments. Each color should appear sharp and clear. Press any action button to return to the Monitor Patterns Menu.

The **CROSSHATCH PATTERNS** test fills the screen with a grid and a series of dots. The grid and the dots should be clear. The dots should be round. Press any action button to return to the Monitor Patterns Menu.

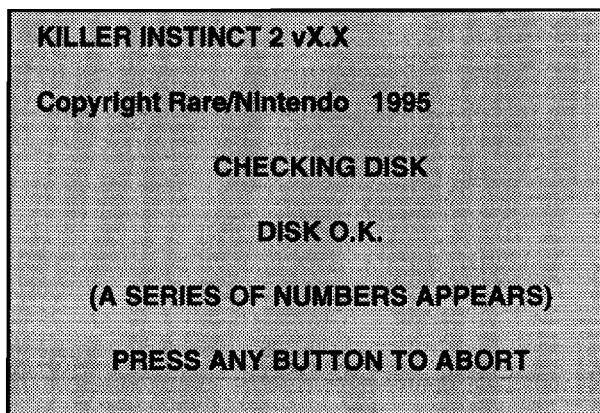
If any of the tests show a need for adjustment, use the proper knobs on the Monitor Controls board.

To exit this test, use any joystick to select **RETURN TO MAIN MENU** or **BACK TO DIAGNOSTIC MENU**, then press any action button.

Check Disk

This test checks the hard disk drive.

Use either joystick to select the test, then press any button to activate it. Press any button to return to the Diagnostic Menu.



CHECK DISK SCREEN

Burn-in Test

The Burn-in Test continually repeats the CPU Board Test. Use this test to find intermittent CPU Board problems. *The Audit Table specifies the number of Burn-in cycles that have been successfully completed.*

Use any joystick to select the test, then press any action button to activate it. When the Burn-in Test detects an error the test stops and an error message is displayed on the screen.

To exit this test, switch the game off, then on again.

COIN BOOKKEEPING

The Coin Bookkeeping Table records the coin box totals and the game play counters.

Use any joystick to select the Coin Bookkeeping Menu, then press any action button to open it.

KILLER INSTINCT 2	
LEFT SLOT COINS	0
RIGHT SLOT COINS	0
THIRD SLOT COINS	0
FOURTH SLOT COINS	0
BILLS	0
SERVICE CREDITS	0
BONUS CREDITS	0
PAID CREDITS	0
TOTAL CREDITS	
RETURN TO MAIN MENU	

To exit Coin Bookkeeping, use any joystick to select RETURN TO MAIN MENU and press any action button.

GAME AUDITS

Use any joystick to select the Game Audits Menu, then press any action button to open it. Page through the available audits by selecting NEXT AUDIT PAGE or LAST AUDIT PAGE. Select RETURN TO MAIN MENU and press any action button to exit Game Audits.

Game audits cannot be set. They can only be cleared.

KILLER INSTINCT 2	
1 PLAYER GAMES	0
2 PLAYER GAMES	0
FREE PLAY GAMES	0
TOTAL GAMES	0
1 PLAYER CONTINUES	0
2 PLAYER CONTINUES	0
TOTAL GAME TIME	0:0:00
TOTAL TIME ON	0:0:00
AVERAGE 1P GAME TIME (sec)	0:0:00
AVERAGE 2P GAME TIME (sec)	0:0:00
NUMBER GAME INTERRUPTS	0
COMPLETED GAMES	0
NO. SUCCESSFUL BURN-IN LOOPS	0

NEXT AUDIT PAGE
RETURN TO MAIN MENU

GENERAL STATS					
	1P	WINS	2P	WINS	TOTAL
FULGORE	0	0%	0	0%	0
COMBO	0	0%	0	0%	0
ORCHID	0	0%	0	0%	0
JAGO	0	0%	0	0%	0
GLACIUS	0	0%	0	0%	0
TUSK	0	0%	0	0%	0
SPINAL	0	0%	0	0%	0
KIM WU	0	0%	0	0%	0
SABREWULF0	0	0%	0	0%	0
MAYA	0	0%	0	0%	0
GARGOS	0	0%	0	0%	0

NEXT AUDIT PAGE
PREVIOUS AUDIT PAGE
RETURN TO MAIN MENU

Game Audits Continued...

FULGORE STATS				
OPPONENT	1P		2P	
	GAMES	WINS	GAMES	WINS
FULGORE	0	0%	0	0%
COMBO	0	0%	0	0%
ORCHID	0	0%	0	0%
JAGO	0	0%	0	0%
GLACIUS	0	0%	0	0%
TUSK	0	0%	0	0%
SPINAL	0	0%	0	0%
KIM WU	0	0%	0	0%
SABREWULF	0	0%	0	0%
MAYA	0	0%	0	0%
GARGOS	0	0%	0	0%

NEXT AUDIT PAGE
PREVIOUS AUDIT PAGE
RETURN TO MAIN MENU

COMBO STATS				
OPPONENT	1P		2P	
	GAMES	WINS	GAMES	WINS
FULGORE	0	0%	0	0%
COMBO	0	0%	0	0%
ORCHID	0	0%	0	0%
JAGO	0	0%	0	0%
GLACIUS	0	0%	0	0%
TUSK	0	0%	0	0%
SPINAL	0	0%	0	0%
KIM WU	0	0%	0	0%
SABREWULF	0	0%	0	0%
MAYA	0	0%	0	0%
GARGOS	0	0%	0	0%

NEXT AUDIT PAGE
PREVIOUS AUDIT PAGE
RETURN TO MAIN MENU

ORCHID STATS				
OPPONENT	1P		2P	
	GAMES	WINS	GAMES	WINS
FULGORE	0	0%	0	0%
COMBO	0	0%	0	0%
ORCHID	0	0%	0	0%
JAGO	0	0%	0	0%
GLACIUS	0	0%	0	0%
TUSK	0	0%	0	0%
SPINAL	0	0%	0	0%
KIM WU	0	0%	0	0%
SABREWULF	0	0%	0	0%
MAYA	0	0%	0	0%
GARGOS	0	0%	0	0%

NEXT AUDIT PAGE
PREVIOUS AUDIT PAGE
RETURN TO MAIN MENU

Game Audits Continued...

JAGO STATS				
OPPONENT	1P		2P	
	GAMES	WINS	GAMES	WINS
FULGORE	0	0%	0	0%
COMBO	0	0%	0	0%
ORCHID	0	0%	0	0%
JAGO	0	0%	0	0%
GLACIUS	0	0%	0	0%
TUSK	0	0%	0	0%
SPINAL	0	0%	0	0%
KIM WU	0	0%	0	0%
SABREWOLF	0	0%	0	0%
MAYA	0	0%	0	0%
GARGOS	0	0%	0	0%

NEXT AUDIT PAGE
 PREVIOUS AUDIT PAGE
 RETURN TO MAIN MENU

GLACIUS STATS				
OPPONENT	1P		2P	
	GAMES	WINS	GAMES	WINS
FULGORE	0	0%	0	0%
COMBO	0	0%	0	0%
ORCHID	0	0%	0	0%
JAGO	0	0%	0	0%
GLACIUS	0	0%	0	0%
TUSK	0	0%	0	0%
SPINAL	0	0%	0	0%
KIM WU	0	0%	0	0%
SABREWOLF	0	0%	0	0%
MAYA	0	0%	0	0%
GARGOS	0	0%	0	0%

NEXT AUDIT PAGE
 PREVIOUS AUDIT PAGE
 RETURN TO MAIN MENU

TUSK STATS				
OPPONENT	1P		2P	
	GAMES	WINS	GAMES	WINS
FULGORE	0	0%	0	0%
COMBO	0	0%	0	0%
ORCHID	0	0%	0	0%
JAGO	0	0%	0	0%
GLACIUS	0	0%	0	0%
TUSK	0	0%	0	0%
SPINAL	0	0%	0	0%
KIM WU	0	0%	0	0%
SABREWOLF	0	0%	0	0%
MAYA	0	0%	0	0%
GARGOS	0	0%	0	0%

NEXT AUDIT PAGE
 PREVIOUS AUDIT PAGE
 RETURN TO MAIN MENU

Game Audits Continued...

SPINAL STATS				
OPPONENT	1P		2P	
	GAMES	WINS	GAMES	WINS
FULGORE	0	0%	0	0%
COMBO	0	0%	0	0%
ORCHID	0	0%	0	0%
JAGO	0	0%	0	0%
GLACIUS	0	0%	0	0%
TUSK	0	0%	0	0%
SPINAL	0	0%	0	0%
KIM WU	0	0%	0	0%
SABREWULF	0	0%	0	0%
MAYA	0	0%	0	0%
GARGOS	0	0%	0	0%

NEXT AUDIT PAGE
 PREVIOUS AUDIT PAGE
 RETURN TO MAIN MENU

KIM WU STATS				
OPPONENT	1P		2P	
	GAMES	WINS	GAMES	WINS
FULGORE	0	0%	0	0%
COMBO	0	0%	0	0%
ORCHID	0	0%	0	0%
JAGO	0	0%	0	0%
GLACIUS	0	0%	0	0%
TUSK	0	0%	0	0%
SPINAL	0	0%	0	0%
KIM WU	0	0%	0	0%
SABREWULF	0	0%	0	0%
MAYA	0	0%	0	0%
GARGOS	0	0%	0	0%

NEXT AUDIT PAGE
 PREVIOUS AUDIT PAGE
 RETURN TO MAIN MENU

SABREWULF STATS				
OPPONENT	1P		2P	
	GAMES	WINS	GAMES	WINS
FULGORE	0	0%	0	0%
COMBO	0	0%	0	0%
ORCHID	0	0%	0	0%
JAGO	0	0%	0	0%
GLACIUS	0	0%	0	0%
TUSK	0	0%	0	0%
SPINAL	0	0%	0	0%
KIM WU	0	0%	0	0%
SABREWULF	0	0%	0	0%
MAYA	0	0%	0	0%
GARGOS	0	0%	0	0%

NEXT AUDIT PAGE
 PREVIOUS AUDIT PAGE
 RETURN TO MAIN MENU

Game Audits Continued...

MAYA STATS				
OPPONENT	1P		2P	
	GAMES	WINS	GAMES	WINS
FULGORE	0	0%	0	0%
COMBO	0	0%	0	0%
ORCHID	0	0%	0	0%
JAGO	0	0%	0	0%
GLACIUS	0	0%	0	0%
TUSK	0	0%	0	0%
SPINAL	0	0%	0	0%
KIM WU	0	0%	0	0%
SABREWULF	0	0%	0	0%
MAYA	0	0%	0	0%
GARGOS	0	0%	0	0%

NEXT AUDIT PAGE
PREVIOUS AUDIT PAGE
RETURN TO MAIN MENU

GARGOS STATS				
OPPONENT	1P		2P	
	GAMES	WINS	GAMES	WINS
FULGORE	0	0%	0	0%
COMBO	0	0%	0	0%
ORCHID	0	0%	0	0%
JAGO	0	0%	0	0%
GLACIUS	0	0%	0	0%
TUSK	0	0%	0	0%
SPINAL	0	0%	0	0%
KIM WU	0	0%	0	0%
SABREWULF	0	0%	0	0%
MAYA	0	0%	0	0%
GARGOS	0	0%	0	0%

NEXT AUDIT PAGE
PREVIOUS AUDIT PAGE
RETURN TO MAIN MENU

GAME ADJUSTMENTS

The Game Adjustments allow the operator to customize the game.

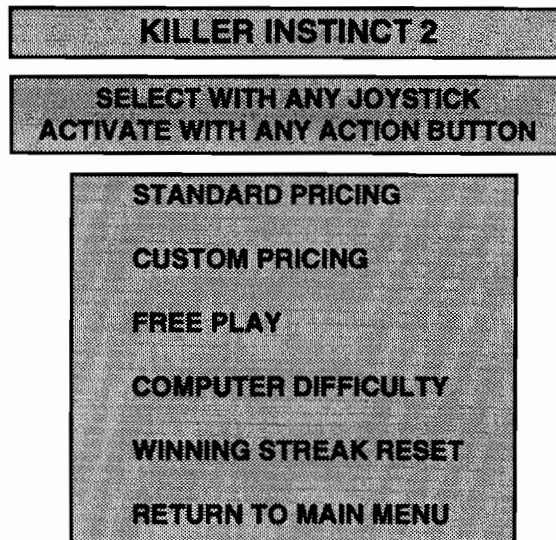
Use any joystick to select the Game Adjustments Menu. Press any action button to open the menu.

The Game Adjustments Menu offers several options. Each option has several choices. Use any joystick to select an option, then press any action button to open the option. The next menu screen provides a setting value. Use any joystick to change the setting value and press any action button to lock it in.

To exit the Adjustments Menu, use any joystick to select RETURN TO MAIN MENU, and press any action button.

NOTE

Adjustment values set by DIP SWITCH, override adjustment values set by the menu system.



Game Adjustments

Standard Pricing

Standard pricing allow the operator to choose any of the "standard" selections from the Standard Pricing Table. See page 1-24

Modify the setting value with either joystick. Press any button to lock in the new value and return to the Adjustments Menu.

Custom Pricing

Custom pricing allows the operator to install pricing other than that of the Standard Pricing Table. Custom pricing also allows the operator to select the maximum amount of credits per game, the amount of credits required to start a game, and the amount of credits required to continue a game. To use Custom Pricing, the Coinage DIP Switch must be set to ON (CMOS). See page 1-25

Modify the setting value with either joystick. Press any button to lock in a new value and return to the Adjustment Menu.

Game Adjustments Continued...

Free Play

This option selects free play. The setting choices for this adjustment are:

- No
- Yes
- Factory Setting: No

Computer Difficulty

This option determines how tough the computer opponents are. The setting choices for this adjustment are:

- (1) Extra Easy
- (2) Easy
- (3) Medium
- (4) Hard
- (5) Extra Hard
- Factory Setting: Medium

Winning Streak

This option determines the number of games that must be played before the high scores automatically reset to factory settings. The setting choices for this adjustment are:

- No Reset
- 5000 games
- 10,000 games
- 15,000 games
- Factory Setting: No Reset

STANDARD PRICING TABLE

Name	Setting - Coin/Credit	Coin 1	Coin 2	Coin 3	Coin 4	Bills
USA 1	1/25¢ (2 to Start, 2 to Continue)	25¢	25¢			\$1.00
USA 2	1/25¢ (2 to Start, 1 to Continue)	25¢	25¢			\$1.00
USA 3	1/25¢ (1 to Start, 1 to Continue)	25¢	25¢			\$1.00
USA 4	1/50¢, 3/\$1.00 (1 to Start, 1 to Continue)	25¢	25¢			\$1.00
USA 5	1/50¢, 4/\$1.00 (2 to Start, 1 to Continue)	25¢	25¢			\$1.00
USA 6	1/50¢ (1 to Start, 1 to Continue)	25¢	25¢			\$1.00
USA 7	1/50¢, 3/\$1.00 (1 to Start, 1 to Continue)	25¢	25¢			\$1.00
USA 8	1/50¢, 4/\$1.00 (1 to Start, 1 to Continue)	25¢	25¢			\$1.00
USA 9	1/25¢ (3 to Start, 2 to Continue)	25¢	25¢			\$1.00
USA 10	1/25¢ (3 to Start, 3 to Continue)	25¢	25¢			\$1.00
USA ECA	1/25¢, 4/\$1.00 (2 to Start, 2 to Continue)	\$1.00	25¢	10¢	5¢	\$1.00
German 1	1/1DM, 6/5DM	1DM	5DM	2DM		
German 2	1/1DM, 7/5DM	1DM	5DM	2DM		
German 3	1/1DM, 8/5DM	1DM	5DM	2DM		
German 4	1/1DM, 5/5DM	1DM	5DM	2DM		
German 5	1/1DM, 6/5DM	1DM	5DM	2DM		
German ECA	1/1DM, 2/2DM, 6/5DM	5DM	2DM	1DM		
France 1	2/5F, 5/10F	5F	10F			
France 2	2/5F, 4/10F	5F	10F			
France 3	1/5F, 3/10F	5F	10F			
France 4	1/5F, 2/10F	5F	10F			
France 5	2/5F, 5/10F, 11/2 x 10F	5F	10F			
France 6	2/5F, 4/10F, 9/2 x 10F	5F	10F			
France 7	1/5F, 3/10F, 7/2 x 10F	5F	10F			
France 8	1/5F, 2/10F, 5/2 x 10F	5F	10F			
France 9	1/3 x 1F, 2/5F	1F	5F			
France 10	1/2 x 1F, 3/5F	1F	5F			
France 11	1/3 x 1F, 2/5F, 5/2 x 5F	1F	5F			
France 12	1/2 x 1F, 3/5F, 7/2 x 5F	1F	5F			
France ECA	1/3 x 1F, 2/5F, 5/2 x 5F	1F	5F	10F		
Canada	1/2 x 25¢, 3/\$1.00	25¢	\$1.00			\$1.00
Swiss 1	1/1F, 6/5F	1F	5F			
Swiss 2	1/1F, 7/5F	1F	5F			
Swiss 3	1/1F, 8/5F	1F	5F			
Italy	1/500 lire	500 lire	500 lire			
UK 1	1/20P, 3/50P	20P	50P			
UK 2	2/20P, 5/50P	20P	50P		10P	
UK ECA	1/20P, 3/50P 7/£1	£1	50P	20P	10P	
UK Elec w/CCU	1/30P, 2/50P, 4/£1	£1	50P	20P	10P	
Spain 1	1/100 peseta, 6/500 peseta	100 peseta	500 peseta			
Spain 2	1/100 peseta, 5/500 peseta	100 peseta	500 peseta			
Australia 1	1/3 x 20¢, 2/\$1.00	20¢	\$1.00			
Australia 2	1/5 x 20¢, 1/\$1.00	20¢	\$1.00			
Japan 1	1/100 yen	100 yen	100 yen			
Japan 2	2/100 yen	100 yen	100 yen			
Austria 1	1/5 schilling, 2/10 schilling	5 schilling	10 schilling			
Austria 2	1/2 x 5 schilling, 3/2 x 10 schilling	5 schilling	10 schilling			
Belgium 1	1/20F	20F	20F			
Belgium 2	3/20F	20F	20F			
Belgium 3	2/20F	20F	20F			
Belgium ECA	1/20F	50F	20F	5F		
Sweden	1/3 x 1 krona, 2/5 krona	1 krona	5 krona			
New Zealand 1	1/3 x 20¢	20¢	20¢			
New Zealand 2	1/2 x 20¢	20¢	20¢			
Netherlands	1/1 HFI, 3/2.5 HFI	1 HFI	2.5 HFI			
Finland	1/1 markka	1 markka	1 markka			
Norway	1/2 x 1 krone, 3/5 x 1 krone	1 krone	1 krone			
Denmark	1/2 x 1 krone, 3/5 krone, 7/2 x 5 krone	1 krone	5 krone			
Antilles	1/25¢, 4/1 guilder	25¢	1 guilder			
Hungary	1/2 x 10 forint, 3/2 x 20 forint	10 forint	20 forint			

CUSTOM PRICING

KILLER INSTINCT 2

**SELECT WITH ANY JOYSTICK
ACTIVATE WITH ANY ACTION BUTTON**

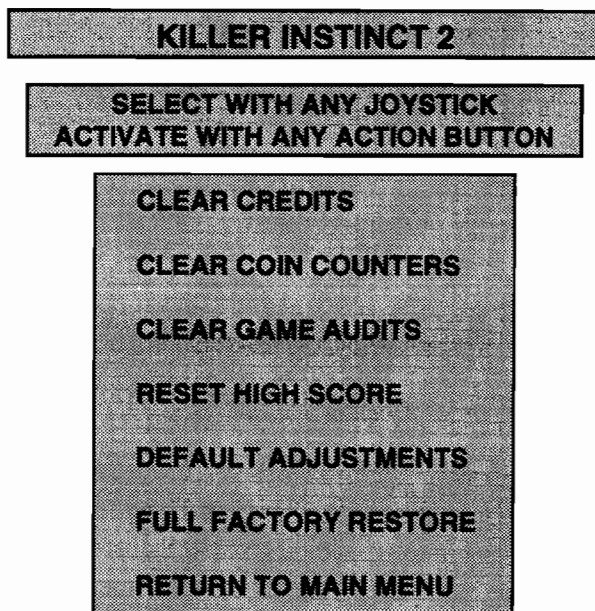
**(1) LEFT CHUTE UNITS
(1) RIGHT CHUTE UNITS
(1) THIRD CHUTE UNITS
(1) FOURTH CHUTE UNITS
(2) BILLS
(3) UNITS/CREDITS
(4) UNITS/BONUS
(5) MINIMUM UNITS REQUIRED
(6) CREDITS TO START
(7) CREDITS TO CONTINUE
(8) MAXIMUM CREDIT
RETURN TO ADJ. MENU**

1. Coins inserted accumulate units. This adjustment specifies the number of units given for each coin in the fourth chute (see "Units/Credit").
2. Coins inserted accumulate units. This adjustment specifies the number of units given for each bill validated (see "Units/Credits").
3. This is the number of coin units required to buy one credit.
4. There is one bonus credit awarded after this many coin units have accumulated.
5. This is the minimum number of units required before any credits are awarded.
6. Each player needs this many credits to begin a game.
7. Each player needs this many credits to continue a game.
8. This is the limit for the credit counter. Additional coins inserted will be lost (factory setting: 50).

UTILITIES

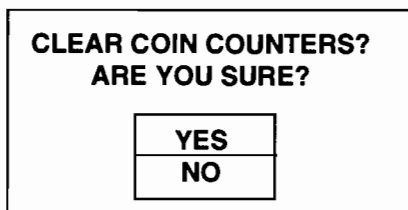
The Utilities Menu allows the operator to clear the game's bookkeeping memory.

Use any joystick to select the Utilities Menu, then press any action button. Use any joystick to select a utility. Press any action button to activate the selection.



Once the selection is made, a dialogue box appears, and the operator can choose to reset the utility.

For example:



Use any joystick to choose a setting value. Press any action button to lock in the new setting value.

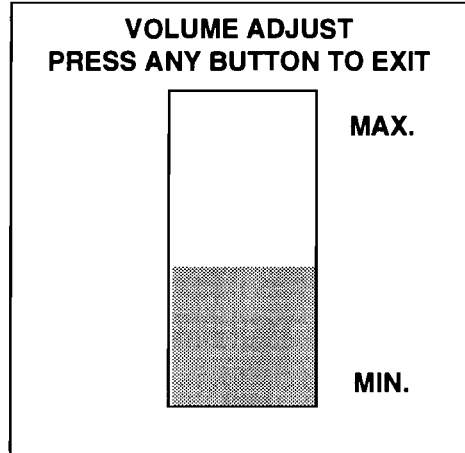
To exit the Utilities Menu, use any joystick to select RETURN TO MAIN MENU, then press any action button.

VOLUME ADJUST

The Volume Adjust feature allows the operator to determine the sound and music level of the game.

The volume level can be adjusted from either the Attract Mode or the Menu System. Press the Volume Up button to raise the volume level and the Volume Down button to lower the volume level. Any joystick can also be used to raise or lower the volume level. The current volume level is shown with a red bar.

Press any action button to return to the Main Menu.



USE JOYSTICK OR VOLUME BUTTONS TO ADJUST VOLUME.

TROUBLESHOOTING

PROBLEM

- 1) No picture or distorted picture.
- 2) Turn game On and nothing happens.
- 3) No sound.
- 4) No general illumination.
- 5) Press Start button and nothing happens.
- 6) No credit given for number of coins inserted.
- 7) Too many credits for number of coins inserted.
- 8) Game stays in test mode.

POSSIBLE SOLUTION

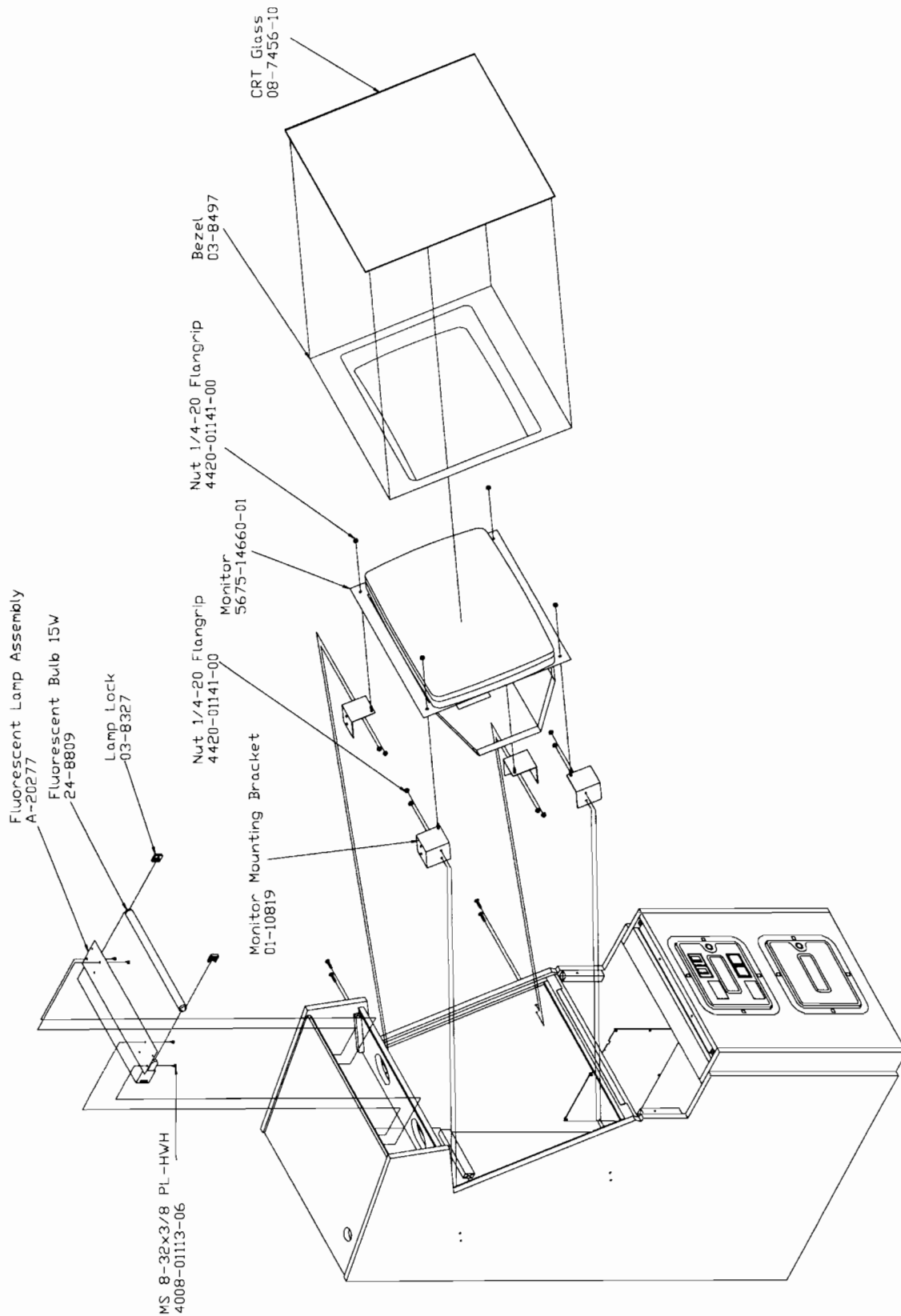
- 1) Check for faulty video board or monitor. Check for disconnected video signal cable.
- 2) Check line fuse. Check for +5Vdc at pins C, D, 3 and 4 of the JAMMA connector.
- 3) Check the speaker and the speaker connection to pin L and 10 on the JAMMA connector. Check volume control setting. Check for +12Vdc at pins F and 6 on the JAMMA connector. Check for -5Vdc at pins E and 5 on the JAMMA connector.
- 4) Check -5V at pins E and 5 on JAMMA cable. Use pin "e" as ground reference.
- 5) Check for open wires between the button and the CPU board. Check for contamination on CPU board pins or the Start button switch blade contacts. Check for proper ground.
- 6) Check DIP switch coin settings. Check for contamination on the coin switch contacts. Check for an open wire between Coin Switch 1 and pin 16 on the JAMMA connector or Coin Switch 2 and pin T of the JAMMA connector.
- 7) Check the game pricing settings. Check for a short between pins T & 16 on the JAMMA connector.
- 8) Check that the switch #8 of DIP switch bank #2 is set to off.

KILLER INSTINCT 2

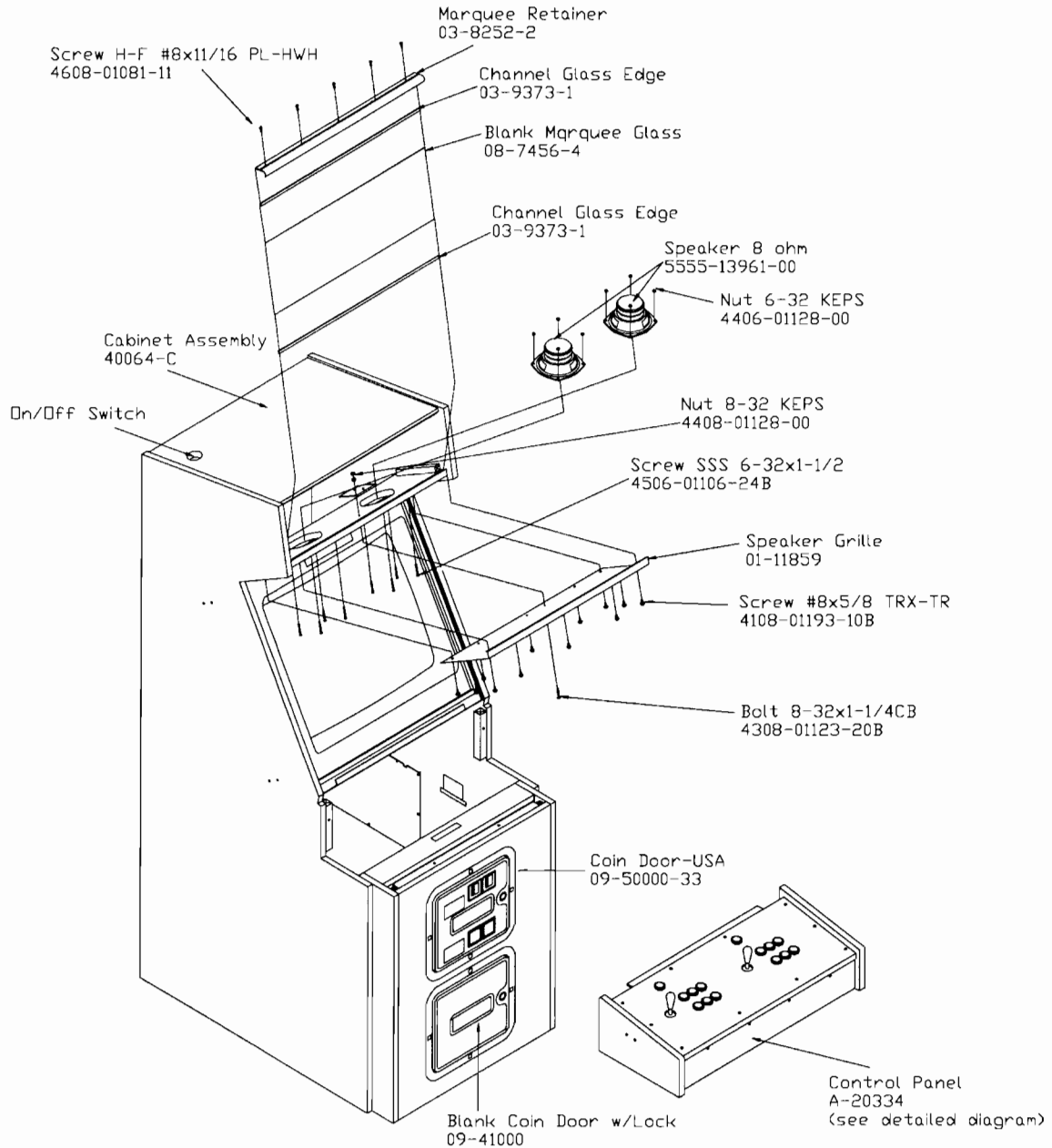
**SECTION
TWO**

PARTS

CABINET FRONT - VIEW 1

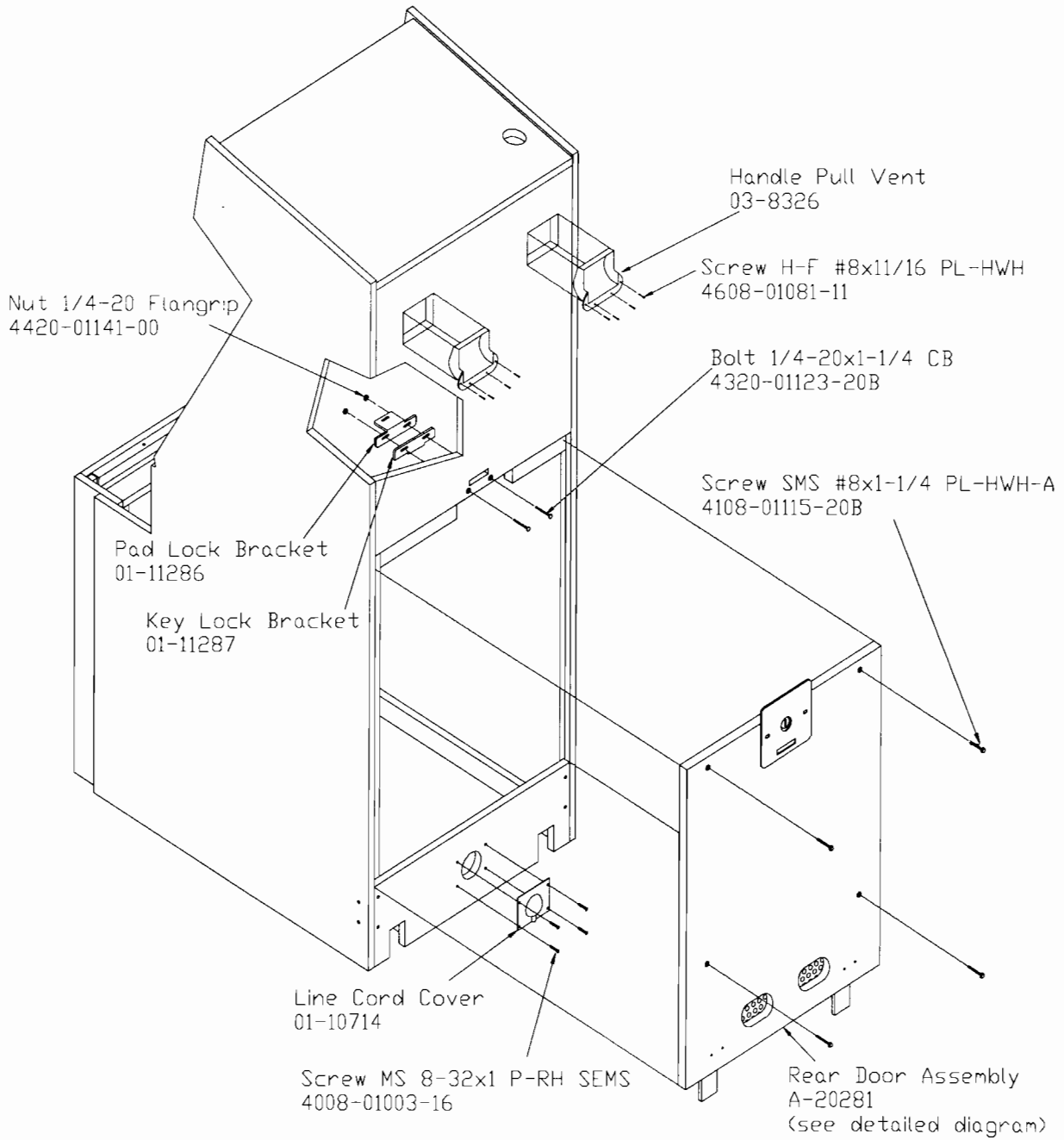


CABINET FRONT - VIEW 2

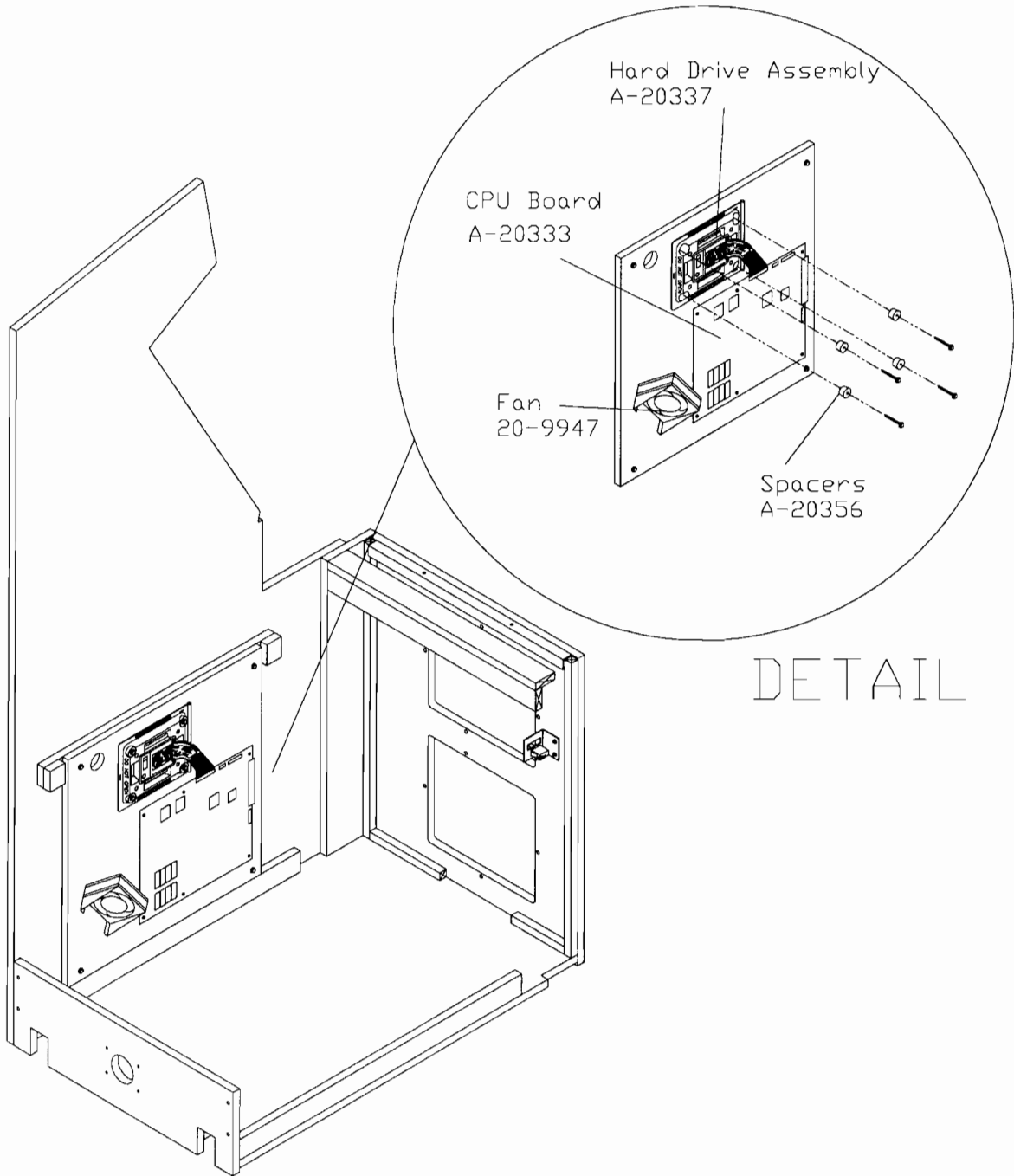


- Not Shown:
 Glass Retainer Brkt. 01-13943
 Leg Adjuster 08-7377
 DVB Installation Inst. 16-9637
 Manual 16-40064-101
 Caster Wheel 20-9627
 Screened Marquee 31-2380
 Player Moves Card 31-2381-1
 Helpful Hints Card 31-2381-2
 MS #8-32x2 PPH Sems 4008-01105-32

CABINET REAR VIEW

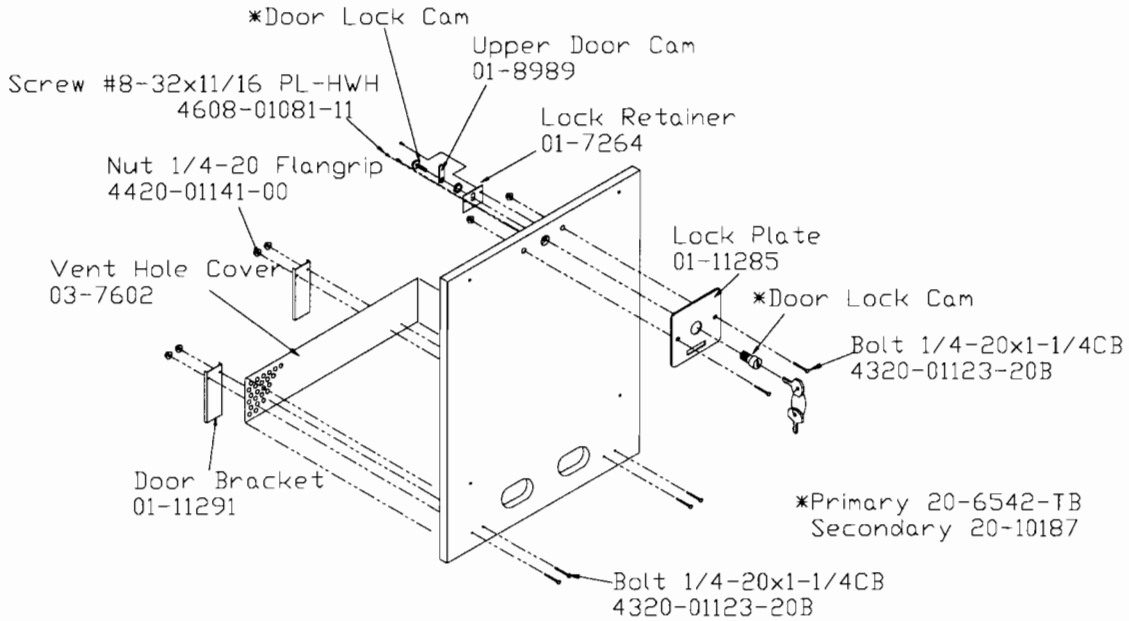


CABINET CUT-AWAY VIEW

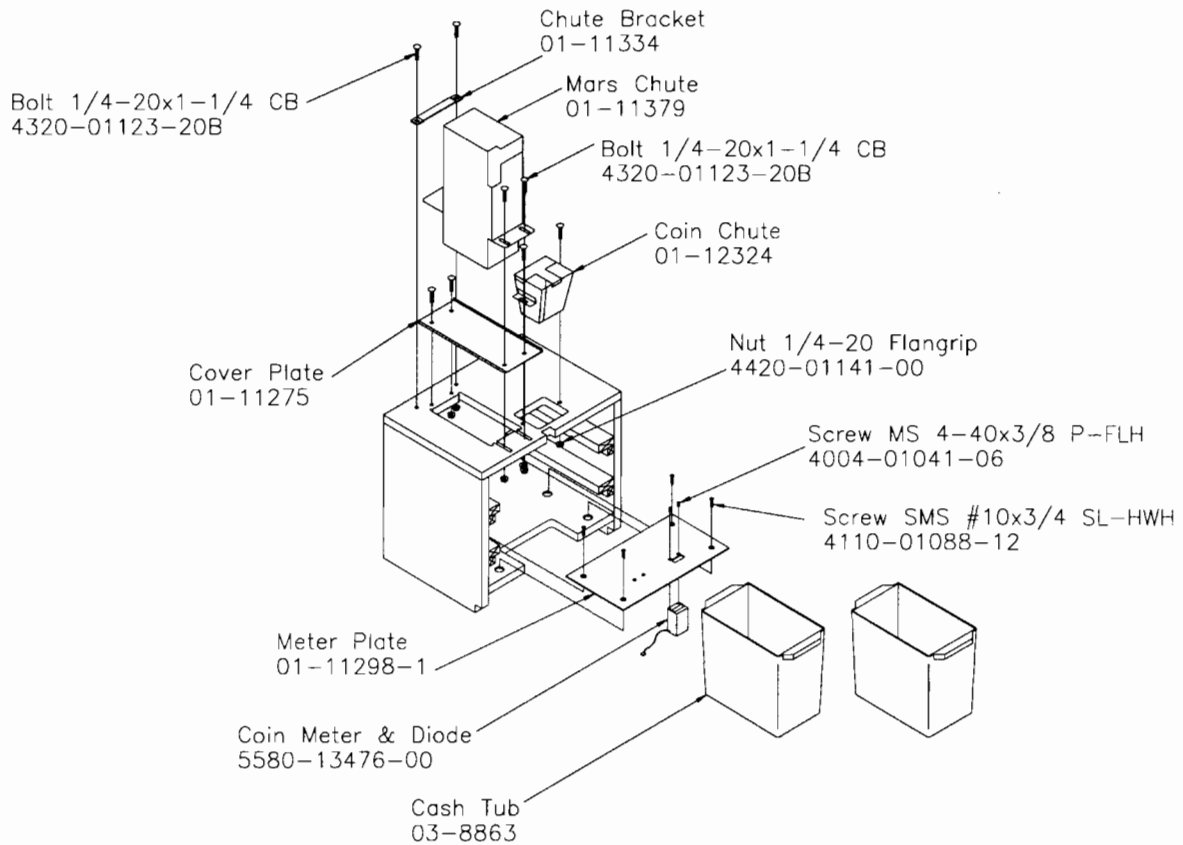


REAR DOOR PARTS

Complete Rear Door Assembly A-20281

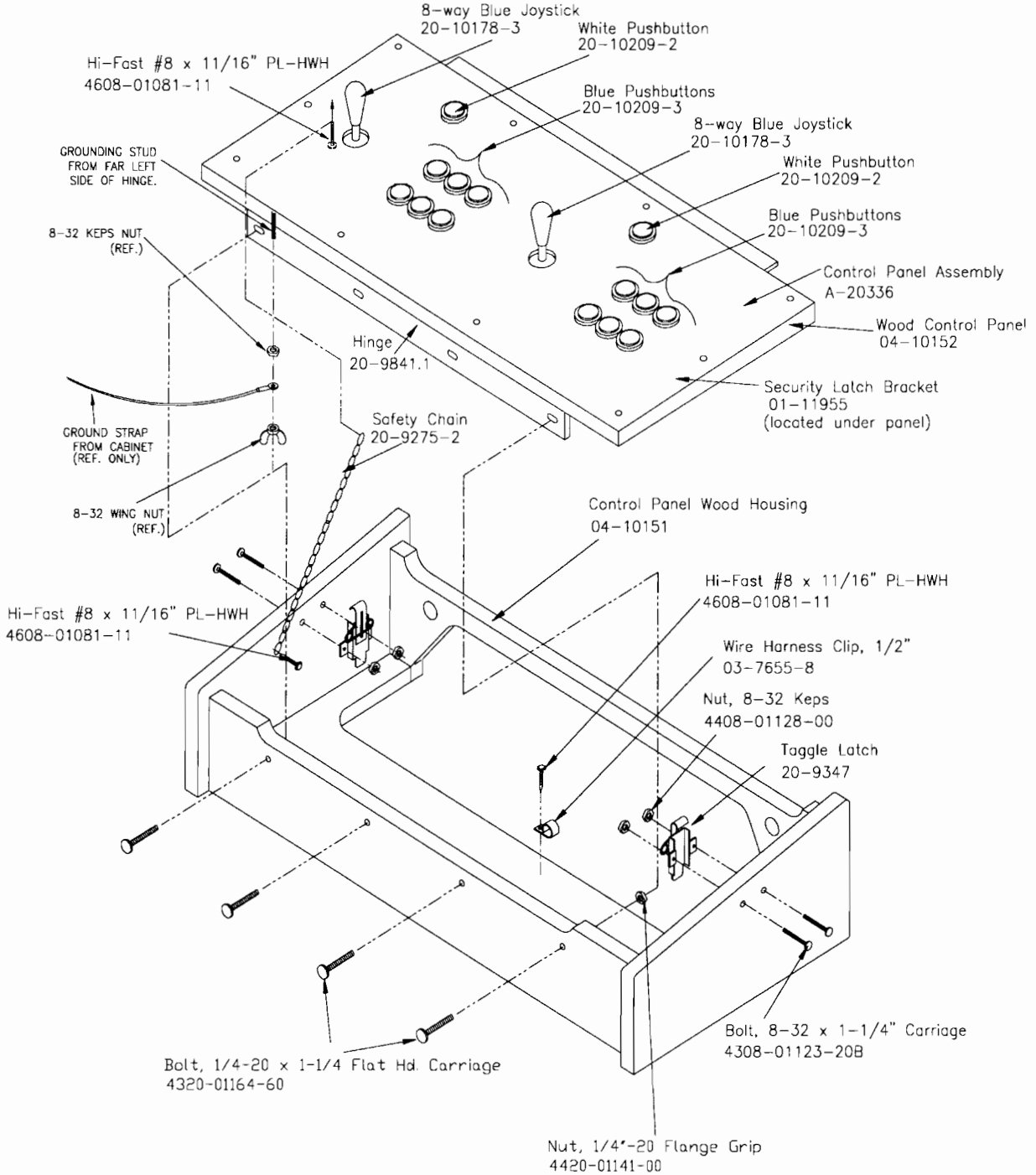


COIN DOOR PARTS



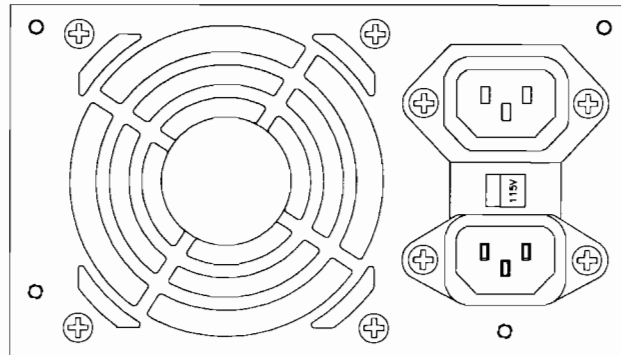
CONTROL PANEL & HOUSING PARTS

Complete Control Panel & Housing Assembly A-20334



Not Shown:
 Control Panel Plate A-19587
 Control Panel Cable H-19597
 Clear Overlay 03-9304
 Screened Overlay 31-2379

POWER SUPPLY 20-10167

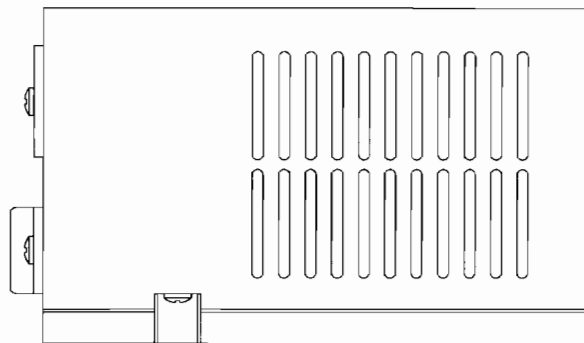
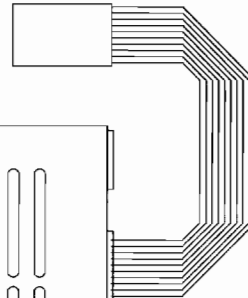
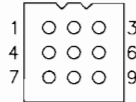


REAR VIEW

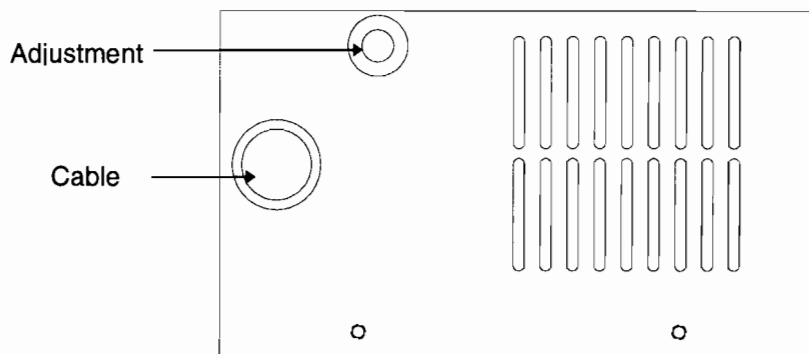
Connector Pin Designation

Pin #	Function	Wire Color
1, 2, 3	+5VDC	Red
4, 5, 6	Ground	Black
7	-5VDC	Yellow*
8	+12VDC	Orange*
9	-12VDC	Blue*

***Note:** Many computer grade power supplies use yellow for +12V, blue for -5V, and white for -12V. This is acceptable as long as the pinout is correct.



SIDE VIEW

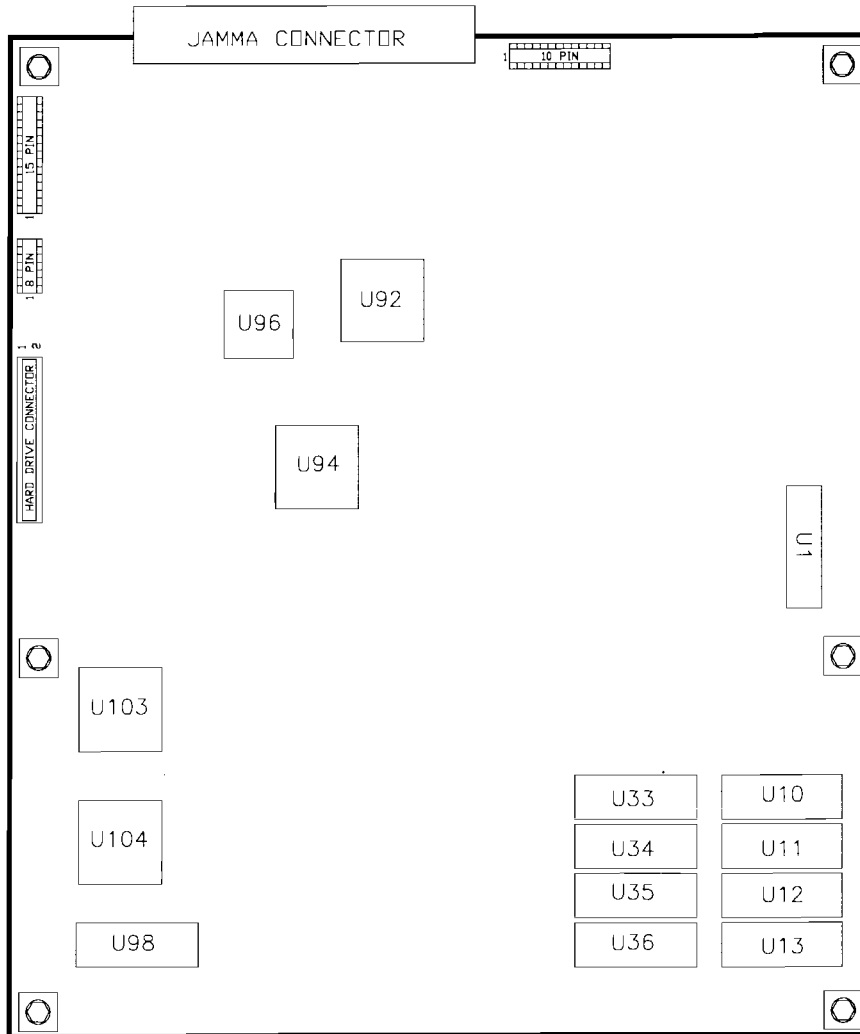


FRONT VIEW

KILLER INSTINCT 2 CPU FINAL ASSEMBLY

A-20333

<u>Designation</u>	<u>Part Number</u>	<u>Description</u>
U1	A-19802	Programmed 20v8 PAL
U103	A-19486	FPGA Assembly
U104	A-19487	FPGA Assembly
U92	A-19488	FPGA Assembly
U96	A-20351	FPGA Assembly
U98	A-5343-40064-1	EPROM Assembly
U10	A-5343-40064-2	EPROM Assembly
U11	A-5343-40064-3	EPROM Assembly
U12	A-5343-40064-4	EPROM Assembly
U13	A-5343-40064-5	EPROM Assembly
U33	A-5343-40064-6	EPROM Assembly
U34	A-5343-40064-7	EPROM Assembly
U35	A-5343-40064-8	EPROM Assembly
U36	A-5343-40064-9	EPROM Assembly
	5761-12461-08	Header, 8-pin
	5791-12461-10	Header, 10-pin
	5791-12461-15	Header, 15-pin
	5791-14457-00	Header, 44-pin



Other Parts Necessary to KILLER INSTINCT 2

Wood Chassis Panel	04-10157
Hard Drive Assembly	A-20337
Spacers	A-20356
Shipping Container	08-7981

Fan	20-9947
Fan Mounting Brackets	A-19806
Fan Grille	03-9223
Fan Guard	20-9420

AC Distribution Assembly	A-20278
AC Distribution Chassis	04-10103
Switcher Power Supply	20-10167
MS 4-40x3/8 P-FLH	4004-01041-06
MS 6-32x3/8 P-PH-S	4006-01003-06

Cables

Line Voltage Cable	A-20331
Dixie-Narco Cable	H-17019
Coin Door Cable	H118610
Control Panel Harness	H-19597
Speaker Cable	H-19599
Main Harness Cable	H-20338.1
IDC Cable	H-20353
Fan Cable	20-10235

NOTES

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NOTES

KILLER INSTINCT 2

**SECTION
THREE**

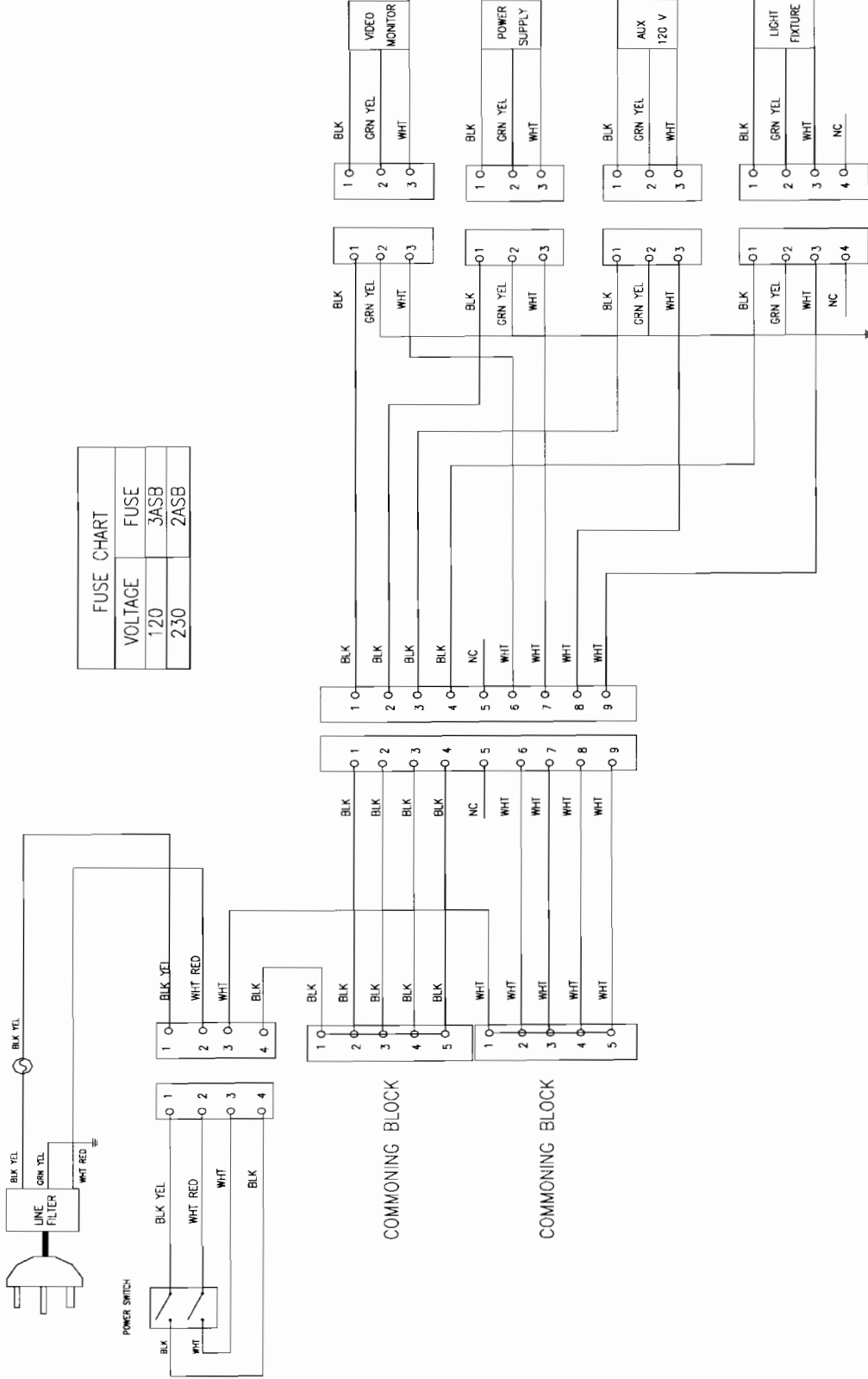
WIRING DIAGRAMS

JAMMA Chart

FUNCTION	WIRE COLOR	PIN	PIN	WIRE COLOR	FUNCTION
Ground	Black	A	1	Black	Ground
Ground	Black	B	2	Black	Ground
+5VDC	Red	C	3	Red	+5VDC
+5VDC	Red	D	4	Red	+5VDC
-5VDC	Yellow	E	5	Yellow	-5VDC
+12VDC	Orange	F	6	Orange	+12VDC
	Key	H	7	Key	
Coin Counter 2	Brown-Red	J	8	Brown	Coin Counter 1
	N/C	K	9	N/C	
Speaker-	Brown-Gray	L	10	Red-Gray	Speaker +
	N/C	M	11	N/C	
Video Green	Green	N	12	Red	Video Red
Video Sync	White	P	13	Brown	Video Blue
Service Credits	White-Gray	R	14	Shield	Video Ground
Slam Tilt	Black-Green	S	15	Black-Blue	Test
Coin 2	Black-Red	T	16	Black-Brown	Coin 1
2 Start	Violet-White	U	17	White	1 Start
2 Up	Violet-Black	V	18	White-Black	1 Up
2 Down	Violet-Brown	W	19	White-Brown	1 Down
2 Left	Violet-Red	X	20	White-Red	1 Left
2 Right	Violet-Orange	Y	21	White-Orange	1 Right
2 Quick/High	Violet-Yellow	Z	22	White-Yellow	1 Quick/High
2 Medium/High	Violet-Green	a	23	White-Green	1 Medium/High
2 Fierce/High	Violet-Blue	b	24	White-Blue	1 Fierce/High
Not Used	Violet	c	25	White-Violet	Not Used
	N/C	d	26	N/C	
	N/C	e	27	N/C	
Ground	Black	f	28	Black	Ground
SOLDER SIDE			COMPONENT SIDE		

POWER WIRING DIAGRAM

NOTE: FOR 220V OPERATION CHECK FUSE VALUE AND 120/220 SWITCH ON SWITCHING POWER SUPPLY ALSO VERIFY THE CORRECT FAN (120/220V), AND THE CORRECT FLUORESCENT LAMP (120V 60HZ OR 220V 50HZ).



CABINET WIRING DIAGRAM

