

42" DELUXE GAME

Operation and Service Manual

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OPERATION

Before operating game, read this manual. Failure to properly install and operate this game could result in malfunction or accident. Operate the game in accordance with the manual.

TRANSPORTING

The cabinet is very heavy. Because the monitor is high, the cabinet is also very top-heavy. Use appropriate care when moving or transporting cabinet. It contains fragile glass and electronic components. Avoid rough handling.

PROXIMITY TO NEON LIGHTS

Locating the cabinet near neon lights may reduce the ability of the IR sensors to accurately track the guns. It is recommended that the cabinet be placed far away from neon lights or that any nearby neon lights be turned off.

HANDLING COMPONENTS

Many components are extremely sensitive to handling, environmental and Electrostatic Discharge (ESD) events—especially the computer. Do not handle it roughly. Before servicing, call your distributor and inquire about the PC warranty. Use proper ESD procedures when servicing. Protect components from harmful environmental conditions, such as extreme temperatures, excessive moisture or other damaging effects.

DISCONNECT POWER

Always turn the power off and unplug the unit before servicing or making adjustments unless otherwise instructed. Installing or repairing components while power is on can damage the components and void the warranty.

GROUNDING

Avoid electrical shock. Do not plug in AC power until you have inspected and properly grounded the unit. Only plug into a grounded, three-wire outlet. Do not use a "cheater" plug or cut off the ground pin on the line cord.

ELECTRICAL SHOCKS

There is no isolation transformer in the cabinet. Disconnect AC power before servicing. However, be aware that lethal voltages can remain in the electronic components even when AC power is disconnected. Use extreme caution when servicing. Verify that there is a working ground connection. If the unit sustains water damage, cease using it immediately and unplug AC power.

MONITOR

Extremely high voltages exist in the video monitor at all times. These high voltages exist even when the monitor is off and the AC line cord is disconnected. These voltages are extremely lethal and will cause death. The monitor contains no user serviceable parts. Do not attempt to service the monitor.

POWER SELECTOR

Before installing game, ensure the voltage on the PC is set properly. There is a 115/230 VAC selector switch that must be set for the correct voltage for your site. Verify the fluorescent lamp rating. The rating must match the line voltage at the installation site.

Safety Service Manual

POWER CORD

If the power cord is damaged or lost, replace it with an identical cord as supplied by the manufacturer or an authorized service agent.

CONNECTORS

Ensure all connectors mate properly. If connectors do not slip in easily, do not force them. Connectors are often keyed and only connect one way. Check for correct orientation.

COMPUTER

The computer contains sensitive components, including a hard drive. Do not handle it roughly. Call your distributor before servicing its internal components. Ask about warranty information as it relates to the PC.

Do not turn the PC power switch on or off. It should remain permanently in the ON position.

Cycle AC power on or off with the cabinet power switch.

A dongle has been inserted into one of the USB ports. This is required for game play.

Do not remove the dongle except for troubleshooting purposes.

FLUORESCENT TUBES

A dropped fluorescent tube may break and implode. Shattered glass from the implosion can travel long distances and cause bodily injury. Use proper procedures when handling broken materials, as these items can contain hazardous material such as mercury or lead.

WATER JETS

Do not install or operate game within operating perimeter of a water jet. Do not clean equipment using water jet.

HAZARD TO EPILEPTICS

A small portion of the population has an epileptic condition that may cause seizures. Affected persons experience seizure while watching some television pictures or playing certain video games. People who have not had seizures may still have an undetected epileptic condition. If anyone in your family has experienced epilepsy symptoms (seizures or loss of awareness), consult your physical before using video games. While children play video games, a parent should observe. Be alert to the following symptoms: dizziness, altered vision, eye or muscle twitching, involuntary movements, loss of awareness, disorientation or convulsions. If you or your child experiences these symptoms, discontinue use immediately and consult your physician.

MANUAL

Keep this manual available and ready for use. If the game fails to function properly, turn off the machine and unplug the AC line cord. Contact your local distributor. Your warrantee, when applicable, lasts 60 days from your purchase date. You may not reproduce this document or any of its contents without written authorization from Raw Thrills, Inc. or Play Mechanix™ Inc.

SPECIFICATIONS

For reasons such as performance, this product's specifications may change without notice. Federal patent, copyright and other intellectual property laws protect the content, devices and design of the game and its equipment.

Product Specifications

Electrical Power

Domestic, international users and Japan

120 VAC @ 60 Hz, 5 amps 240 VAC @ 50 Hz, 2.5 amps 100 VAC @ 50 Hz, 5 amps

DC Power Fuse Guide

+5 VDC 2 amp Slow Blow +12 VDC 7 amp Slow Blow

Temperature

32° F to 100° F

(0° C to 38° C)

Humidity

Must not exceed 95% relative humidity

Dimensions

height: 83" (2.1 meters)

width: 43" (1.1 meters)

depth: 70" (1.8 meters)

Carton Weight

585 lbs. (265.4 kg)

Service Manual Setup

Setup

- 1. Place the shipping crate on a flat stable surface.
- 2. Cut the banding straps and remove the cardboard lid.
- 3. Lift off the large cardboard container surrounding the cabinet and any shipping cleats.
- 4. With at least two people and a dolly, remove the cabinet from the shipping pallet.
- 5. Remove the visor bracket, in bubble wrap, from the base of the monitor and set it aside.
- 6. Remove the coin door key from the coin return chute.
- 7. Open the top coin door.
- 8. Locate the key for the back door and the cash box.
- 9. Open the cash box and remove the plastic tube.
- 10. Remove the items inside the tube. These include this service manual, an AC line cord, a bag of screws and tools and a warranty card.
- 11. Using a wheeled cart and at least one assistant, transport the cabinet to a suitable playing area.

PROXIMITY TO NEON LIGHTS

Locating the cabinet near neon lights may reduce the ability of the IR sensors to accurately track the guns. Place the cabinet far away from neon lights or turn off any nearby neon lights.

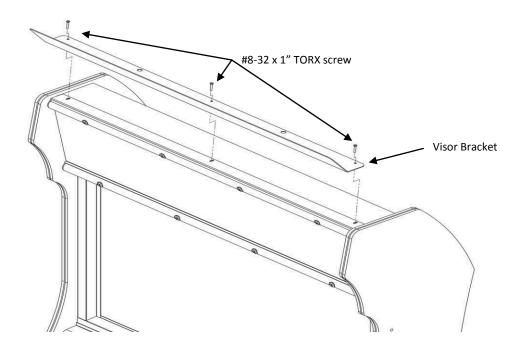
- 12. Remove packing material from the guns.
- 13. Ensure the game cabinet is level and stable.

With at least one assistant, adjust the leg levelers.

14. Check the AC line cord for visible signs of damage.

Pay particular attention to the plug and line cord insulation.

- 15. Check for shipping damage to the following:
 - Gun assembly: Left and right guns, gun holders, and cable
 - Cabinet glass: Marquee and monitor
 - Cabinet back door
 - Cabinet coin door
 - Cabinet and gun decals
- 16. Unwrap the visor bracket and locate three security TORX screws and the wrench from the coin box plastic tube.
- 17. Align the three holes in the visor bracket with the three holes at the top front of the cabinet. See next page for illustration.
- 18. Insert a TORX screw into each hole and hand tighten.
- 19. Tighten all three screws with the TORX wrench.



Visor Installation

- 20. Verify the voltage in the nearest AC outlet.
- 21. Verify the AC outlet ground connection is present and working.
- 22. Open the back door of the cabinet.
- 23. Near the AC power transformer, verify the voltage selector switch is set for the correct AC voltage.
- 24. Remove the marquee.
- 25. Verify the fluorescent fixture in the marquee is set for the correct voltage.
- 26. Plug the line cord into the AC outlet.
- 27. Replace the back door.
- 28. Turn the power switch to ON.
- 29. Verify that the cooling fan located on the bottom back of the VGM is working.

 If not, turn off AC power and disconnect line cord. Refer to the diagnostic section of this manual.
- 30. Check that no component is excessively hot or emitting foul odors.

 If not, turn off AC power and disconnect line cord. Refer to the diagnostic section of this manual.
- 31. Once software loads, you will be asked to calibrate the guns.

 If not, enter the service menu by pressing the TEST button located on the bracket inside the top coin door.

Service Manual Setup

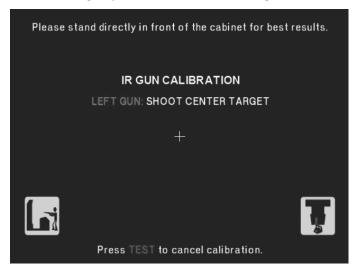
First Gun Calibration

1. If the calibration screen is not already visible, press the TEST button inside the coin door to enter the Diagnostic System.

- 2. From the Main Menu, use a gun pump to highlight Gun Calibration.
- 3. Press a Start button to enter calibration.
- 4. Pull the trigger on the left gun to indicate that it is Player 1.



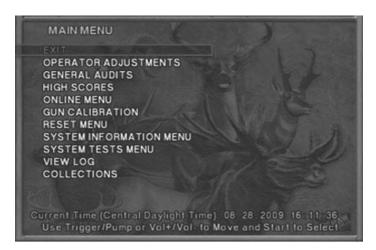
5. Stand directly in front of the gun pedestal and aim the left gun at the "+" sign and shoot.



- 6. Follow on-screen instructions on the gun tracking screen. The dot indicates the spot where the gun is aimed. Verify accuracy by pointing at different areas of the screen.
- 7. Accept calibration by pressing the left Start button.



- 8. Repeat steps 5-7 for right gun.
- 9. Press Start button when finished.
- 10. From Main Menu, squeeze a gun trigger to cycle through choices until you reach System Tests.
- 11. Press a Start button to select System Tests.



- 12. Squeeze the trigger to highlight the Gun Sensor Test.
- 13. Press the Start button to select the Gun Sensor Test.

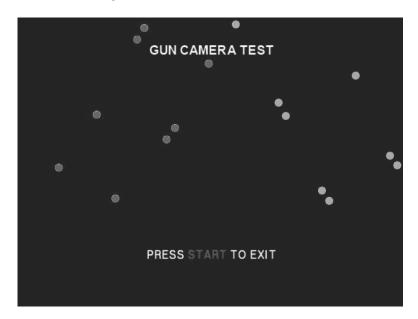
Service Manual Setup



14. Sweep the gun from left to right and back again and watch the squares on screen to ensure they all turn green.

If any squares remain red as the gun passes them, that particular IR sensor may be dirty or damaged.

- 15. Press the Start button to return to the System Tests menu.
- 16. Squeeze the trigger to highlight Gun Camera Test.
- 17. Press the Start button to begin the test.



- 18. You may use one or both guns for this test. Each gun controls a dual-track of colored dots. As you tilt each gun, the orientation of the tracks rotates, as the sensors perceive the change in angle. Note whether any of the dots disappear or flicker when near the center of the screen. This may indicate a dirty or poorly functioning camera inside the gun.
- 19. Press the Start button to return to the System Tests menu
- 20. Squeeze the trigger to highlight the Gun Electronics Test.

21. Press the Start button to begin the test.



22. Squeeze the trigger to see additional test results.

```
GUN ELECTRONICS TEST
Hold Test or Trigger for more Info
Press Trigger and Pump to Calibrate
Player 1 Gun Connected OK!
Player 1 Gun Electronics OK!
     Sensor Processor OK!
     Sensor Connected OK!
     Sensor Configured OK!
     Sensor Data Integrity OK! FRAME: 150 GLITCH: 0
Player 1 Gun Calibrated OK!
Player 2 Gun Connected OK!
Player 2 Gun Electronics OK!
     Sensor Processor OK!
    Sensor Connected OK!
     Sensor Configured OK!
     Sensor Data Integrity OK! FRAME: 150 GLITCH: 0
Player 2 Gun Calibrated OK!
```

- 23. Ensure the guns pass all tests.
- 24. Press the Start button to conclude the test and return to the System Tests menu.
- 25. Press the Start button again to return to the Main Menu.
- 26. Using the Diagnostic system, described later in this manual, run other diagnostics and make desired adjustments.

Service Manual Setup

Other Tests

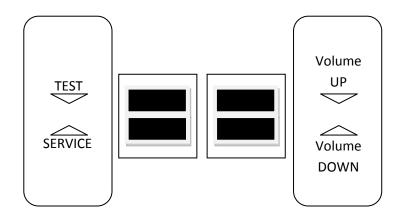
See the Diagnostic Section for further information.

- 1. Enter the SWITCH TEST menu and verify all switches function.
- 2. Enter the SCREEN TEST menu and verify that video is acceptable.
- 3. Enter the SOUND TEST menu and verify the audio works and is not distorted.
- 4. Enter the COIN METER TEST menu and verify the operation of the coin meter.
- 5. Enter the START BUTTON LAMPS menu and verify that the lamps of the buttons work correctly.
- 6. Enter the WATCHDOG TEST menu, which re-boots the game.
- 7. Upon a successful re-boot, you are ready to make adjustments to pricing, volume and other functions found in the Diagnostic Section.

Adjustments, Audits and Diagnostics

Diagnostic Menu System

The Service Button Panel should have four buttons, three of which can navigate the menu system. But it is easiest to navigate with a Start button and trigger/ pump.



- Service Panel TEST button enters diagnostic system.
- Either Start button or
 TEST button selects the highlighted option.
- Service Panel VOL button or
 Squeezing either trigger moves down through menu or setting choices.
- Service Panel VOL + button or
 Pumping either gun moves up through menu or setting choices.
- Highlight and select Exit to return to previous screen.

An on-screen message acknowledges changes or when you exit a selection without making a change.

At the bottom of each screen there is a brief description of the menu option's function. A complete description is available here for all menu functions.

Menu Screens and Descriptions

Main Menu



For clarity, all subsequent menu screens in this manual will not include the header, footer or background image.

Main Menu

Operator Adjustments Menu

This menu controls gameplay, coinage and sound adjustments.



You can improve collections by customize performance with game adjustments. Each variable on an adjustment menu changes an aspect of game play or appearance. Optimizing these settings can maintain player interest and improve earnings. Monitor the effects of adjustments by comparing audit information and earnings before and after changes.

Main Menu

Operator Adjustments Menu

Game Adjustments Menu

This controls elements of the player experience and the time the game contacts the CoinUp® server to check for software updates.

GAME ADJUSTMENTS
EXIT
VIOLENCE NORMAL
BIG BUCK GIRLS ON
SKILL LEVEL NORMAL
INITIALS TYPE INITIALS ONLY
GAME UPDATE HOUR 4:00 AM-5:00 AM

Settings, Defaults and Choices

Setting	Description	Default	Choices
Violence	 Changes visual effect of shot animals. NORMAL. Some blood appears on shot animals. Red star appears on kills. NO BLOOD. No blood appears on shot animal. In No Blood Mode, small blue star replaces red star on kills. 	Normal	No Blood / Normal
Big Buck Girls	 This setting allows operator to permit or eliminate images of Big Buck Girls. ON: Big Buck Girls appear in Attract and Gameplay modes OFF: No Big Buck Girls appear. 	On	On / Off
Skill Level	 Adjusts game difficulty by changing how shotgun reloads after each trigger pull. EASY. After each trigger pull, shotgun reloads itself without pumping. To fire another shot, pull trigger again. NORMAL. After each trigger pull, reload by pumping. 	Normal	Normal / Easy
Initials Type	 Adjusts how players can enter their names. FULL NAME. Players user two screens. The first name screen allows up to 13 characters. The last name screen allows up to 15 characters. INITIALS. Players can enter up to three characters. Warning: changing to Initials Only clears high score tables. 	Initials Only	Full Name / Initials Only
Game Update Hour	The 60-minute period during which tournament-enabled games contact the server to check for software updates.	4-5 AM	24 hours

Main Menu

Operator Adjustments Menu

Coin Settings Menu

This menu does **not** set game price, but specifies how much game credit is given for money added to the machine. The smallest accepted coin is a quarter, the typical setting for both coin values in the U.S. The DBV value is also a multiple of 25¢.

COIN SETTINGS EXIT **FREEPLAY** OFF **CURRENCY TYPE** Dollar **COIN 1 VALUE** \$0.25 **COIN 2 VALUE** \$0.25 **COIN 3 VALUE/DBV PULSE** \$0.25 **MAXIMUM CREDITS** \$500.00 **BONUS AWARD** \$0.00 **UNITS FOR BONUS** \$0.00

Settings, Defaults and Choices

Setting	Description	Default	Choices
Freeplay	Players can start games without money by pressing START. Use this for promotions, non-commercial applications or to test the machine.	Off	On / Off
Currency Type	Changing currency type resets coin door values. The denomination symbol changes on screen with each currency.	Dollar	Yen, Won, Ruble, Real, Peso, Krona, Guilder, Franc, Can. Dollar, Coins, Euro, NZ Dollar, Rand, Pound, Aus. Dollar
Coin 1 Value	Lets you set coin slot pricing.	\$0.25	\$0.25 - \$63.75 in \$.25 increments
Coin 2 Value	Lets you set coin slot pricing.	\$0.25	\$0.25 - \$63.75 in \$.25 increments
Coin 3 Value / DBV Pulse	The bill validator (DBV) translates bills into electronic pulses. Every \$1 bill results in four pulses; each \$5 bill is 20 pulses; \$10 bill is 40 pulses, etc. This setting determines how much game credit is awarded per pulse. With default setting of \$0.25, every \$1 bill will award \$1 in game credit. Set to \$0.50, every \$1 bill will award \$2 in game credit.	\$0.25	\$0.25 - \$63.75 in \$.25 increments
Maximum Credits	The highest number of unplayed credits allowed.	\$500.00	\$125 - \$500 in \$.25 increments
Bonus Award	The amount of credit awarded per bonus unit (see below).	\$0.00	\$0.00 - \$63.75 in \$.25 increments
Units for Bonus	The value a player must enter to get bonus credit.	\$0.00	\$0.00 - \$50.00 in \$.25 increments

Bonus Award/Units for Bonus example.

To give players \$1.25 in credit for every dollar put in the DBV, set Bonus award to \$.25 and Units for Bonus to \$1.

Main Menu

Operator Adjustments Menu

Player Cost Menu

PLAYER COST			
TYPE(OPER FEE	COINUP FEE	· TOTAL
TREK	\$1.00	\$0.00	\$1.00
ADVENTURE	\$2.50	\$0.00	\$2.50
BONUS ONLY	\$1.00	\$0.00	\$1.00
TROPHY CLUB TREK	\$1.00	\$0.50	\$1.50
TROPHY CLUB ADV.	\$2.50	\$0.50	\$3.00
TROPHY BONUS ONLY	\$1.00	\$0.50	\$1.50
PLAYER CARD	\$0.25	\$2.75	\$3.00

Settings, Defaults and Choices

Setting	Description	Operator Fee Default	Choices
Trek	A trek lets players hunt at five sites and one bonus game.	\$1.00	\$0.00 - \$63.75 in \$0.25 increments
Adventure	An <i>adventure</i> is three treks (15 sites and three bonus games).	\$2.50	\$0.00 - \$63.75 in \$0.25 increments
Bonus Only	A bonus only is four bonus games.	\$1.00	\$0.00 - \$63.75 in \$0.25 increments
Trophy Club Trek	This is the online version of a trek (tracks player stats).	\$1.00	\$0.00 - \$63.75 in \$0.25 increments Only Operator Fee can be modified.
Trophy Club Adv.	This is the online version of an adventure (tracks player stats).	\$2.50	\$0.00 - \$63.75 in \$0.25 increments Only Operator Fee can be modified.
Trophy Bonus	This is the online version of bonus	\$1.00	\$0.00 - \$63.75 in \$0.25 increments
Only	only.		Only Operator Fee can be modified.
Player Card	The card holds player login information.	\$0.25	Cannot be modified

FEE ADJUSTMENT

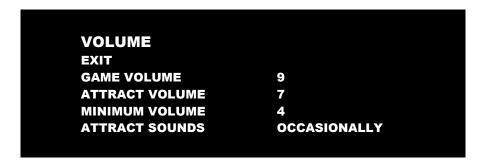
Note that CoinUp® fee cannot be adjusted by the operator.

Main Menu

Operator Adjustments Menu

Volume Menu

Rather than requiring a manual dial or up/down buttons, all volume adjustments can be made digitally with this menu. However, during Attract Mode, pressing the Service Panel Vol + and Vol – buttons only adjust Attract Mode volume.



Settings, Defaults and Choices

Setting	Description	Default	Choices
Game Volume	This affects sound only while game is played.	9	0-32
Attract Volume	This can be silenced or turned up as an advertisement to draw in players.	7	0 – 32
Minimum	Determines the lowest setting possible for both	4	0-32
Volume	Game and Attract Volumes		
Attract Sounds	This determines how often the game's	Occasionally	Off/Occasionally/Always
	"advertising" sounds will be heard.		

Main Menu

General Audits Menu

Audit screens help assess game performance, find intermittent problems, decide whether to adjust game difficulty and free game award and help maximize game earnings.

GENERAL AUDITS
EXIT
GAME AUDITS
SYSTEM AUDITS
GAME PURCHASE AUDITS
ADVENTURE PURCHASE AUDITS
BONUS ONLY AUDITS
COIN AUDITS

Main Menu

General Audits Menu

Game Audits

GAME AUDITS	
EXIT	
1 PLAYER GAMES	0
2 PLAYER GAMES	0
3 PLAYER GAMES	0
4 PLAYER GAMES	0
SHOOTOUT GAMES	0
PLAYER STARTS	0
GAMES ENDED	0
GAME WINS	0
CONTINUES	0
CONTINUES OFFERED	0
SHOOTOUT CHALLENGES	0

Main Menu

General Audits Menu

System Audits

SYSTEM AUDITS EXIT PLAY TIME 0 yr 0 dy—0:00:00 UP TIME 0 yr 0 dy—0:00:00 WATCHDOGS 0 EXCEPTIONS 0 BAD TRAPS 0

Main Menu

General Audits Menu

Game Purchase Audits Menu

GAME PURCHASE AUDITS

EXIT

LOCAL PLAY PURCHASES
ONLINE PLAY PURCHASES
0

Main Menu

General Audits Menu

Game Purchase Audits Menu

Local Play Purchases

LOCAL GAME PURCHASE AUDITS

ΒXΙΤ

TREKS PURCHASED 0
ADVENTURES PURCHASED 0
BONUS ONLY PURCHASED 0
SHOOTOUT TREKS PURCHASED 0
SHOOTOUT ADV. PURCHASED 0
SHOOTOUT BONUS ONLY PURCHASED 0

Main Menu

General Audits Menu

Game Purchase Audits Menu

Online Game Purchase Audits

ONLINE GAME PURCHASE AUDITS EXIT TROPHY CLUB TREKS PURCHASED 0 TROPHY CLUB ADV. PURCHASED 0 TR. CLUB BONUS ONLY PURCHASED 0 TR. CLUB S.O. TREKS PURCHASED TR. CLUB S.O. ADV. PURCHASED 0 TR. CLUB S.O. BONUS ONLY PURCH. 0 **TOURNAMENTS PURCHASED** 0 **NATIONAL TOURNAMENTS PURCHASED** 0 **PLAYER CARDS PURCHASED**

Main Menu

General Audits Menu

Adventure Purchase Audits Menu

ADVENTURE PURCHASE AUDITS
ADV PURCHASE AUDITS: TURN-BASED
ADV PURCHASE AUDITS: SHOOTOUT

Main Menu

General Audits Menu

Adventure Purchase Audits Menu

Turn-Based Adventure Purchase Audits

ADVENTURE	WHOLE	TREK 1	TREK 2	TREK 3
EXIT				
WHITETAIL	0	0	0	0
ELK	0	0	0	0
ANTELOPE	0	0	0	0
BIGHORN	0	0	0	0
MOOSE	0	0	0	0
CARIBOU	0	0	0	0
MULE DEER	0	0	0	0
BISON	0	0	0	0
MTN GOAT	0	0	0	0

Main Menu

General Audits Menu

Adventure Purchase Audits Menu

Shootout Adventure Purchase Audits

ADVENTURE	WHOLE	TREK 1	TREK 2	TREK 3
EXIT				
WHITETAIL SHOOTOUT	0	0	0	0
ELK SHOOTOUT	0	0	0	0
ANTELOPE SHOOTOUT	0	0	0	0
BIGHORN SHOOTOUT	0	0	0	0
MOOSE SHOOTOUT	0	0	0	0
CARIBOU SHOOTOUT	0	0	0	0
MULE DEER SHOOTOUT	0	0	0	0
BISON SHOOTOUT	0	0	0	0
MTN GOAT SHOOTOUT	0	0	0	0

Main Menu

General Audits Menu

Bonus Only Audits Menu

BONUS ONLY AUDITS BONUS NAME EXIT	PLAYED	BONUS NAME page 1 of 2	PLAYED
DUCK HUNT	0	DOVE HUNT	0
MOONSHINE BONUS	0	BOARS GONE WILD	0
PIE IN THE SKY	0	MUG SHOT BONUS	0
PHEASANT HUNT	0	TURKEY HUNT	0
LOGYARD BONUS	0	CLOCKWORK BONUS	0
MARS NEEDS CATTLE	0	FROG FLIPPIN' BONUS	0
QUAIL HUNT	0	GOOSE HUNT BONUS	0
WINDMILL MANIA	0	BARREL BONUS	0
GOPHER GARDEN	0	METEORITE BONUS	0

Squeezing the trigger reveals the second page.

BONUS ONLY AUDITS BONUS NAME	PLAYED	BONUS NAME	PLAYED
EXIT		page 2	of 2
LUMBERJACK BONUS	0		
LEMMING BONUS	0		
CORN POPPER BONUS	0		
PUMPKIN BONUS	0		
OFF THE RAILS BONUS	0		
BARNSTORM BONUS	0		
FISH IN BARREL BONUS	0		
MOUNT BUCKMORE	0		
CHICKEN & EGG BONUS	0		

Main Menu

General Audits Menu

Coin Audits Menu

COIN AUDITS
EXIT
TOTAL COIN 1 \$0.00
TOTAL COIN 2 \$0.00
TOTAL COIN 3 DBV \$0.00
BONUS COINS \$0.00
LIFETIME COIN COUNT \$0.00
SERVICE CREDITS \$0.00

Main Menu

High Scores Menu

High Scores: Turn-Based Menu

HIGH SCORES: TURN-BASED
EXIT
WHITETAIL ADVENTURE
ELK ADVENTURE
ANTELOPE ADVENTURE
BIG HORN SHEEP ADVENTURE
MOOSE ADVENTURE
CARIBOU ADVENTURE
MULE DEER ADVENTURE
BISON ADVENTURE
BISON ADVENTURE
MTN GOAT ADVENTURE
PERFECT STREAK
PERFECT SITES

Main Menu

High Scores Menu

High Scores: Shootout Menu

HIGH SCORES: SHOOTOUT
EXIT
WHITETAIL SHOOTOUT
ELK SHOOTOUT
ANTELOPE SHOOTOUT
BIG HORN SHEEP SHOOTOUT
MOOSE SHOOTOUT
CARIBOU SHOOTOUT
MULE DEER SHOOTOUT
BISON SHOOTOUT
MTN GOAT SHOOTOUT

Main Menu

High Scores Menu

Animal Scoreboard

The high scores for a particular game are displayed in this format.

Main Menu

Online Menu

See the CoinUp® manual for a full explanation of these menu functions.

Main Menu

Gun Calibration Menu

This is the same procedure described earlier in the **First Calibration** section.

Main Menu

Reset Menu

In addition to resetting individual counters and audits, this menu erases most of your changes. *Factory Reset* clears all audit data and restores most defaults. The following data, however, is not cleared:

- Calibration
- Registration
- Game activation
- Lifetime coin count

RESET MENU
EXIT
RESET GAME AUDITS
RESET ADVENTURE AUDITS
RESET CREDITS
RESET COIN COUNTERS
RESET ADJUSTMENTS
RESET HIGH SCORES
FACTORY RESET

Main Menu

System Information Menu

These tests verify system version and check the functioning of peripherals.

SYSTEM INFORMATION
EXIT
VERSION LIST
DIP SWITCH SETTINGS
TELEMETRY STATS

Main Menu

System Information Menu

Version List Menu

This checks the game's hardware and software versions.

 VERSIONS

 EXIT

 SOUND
 1.9.3

 JAMMA
 25q.H00.F00 D

 PMNET
 00.00.00

 SOFTWARE
 01.02.13.US D PRJ

 LINUX KERNEL
 N/A

 PROCESSOR
 N/A

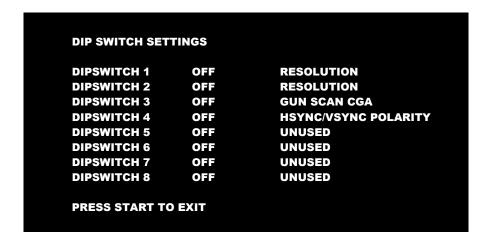
 BIOS
 N/A

Main Menu

System Information Menu

DIP Switch Test Menu

This checks the DIP Switch settings on the I/O Board



Main Menu

System Information Menu

Telemetry Stats

These tests check thermal qualities and electrical conductivity.

TELEMETRY DATA	
EXIT	
SYSTEM TEMPERATURE	N/A
CORE TEMP1	23C
CORE TEMP2	26c
TEMPERATURE STATE	N/A
CPU FAN SPEED	N/A
CASE FAN SPEED	N/A
+3.3V:	N/A
+5.0V:	N/A
+12V:	N/A
-5.0V:	N/A
-12.0v	N/A

Main Menu

System Tests Menu

These tests check the functioning of peripherals.

SYSTEM TESTS
SWITCH TEST
SCREEN TESTS
SOUND TEST
FILE TEST
COIN METER TEST
START BUTTON LAMPS
WATCHDOG TEST
GUN SENSOR TEST
GUN CAMERA TEST
GUN ELECTROINCS TEST
ETHERNET PORT TEST
CARD TETS

Main Menu

System Tests Menu

Switch Test Menu

This checks input switch performance. The activated switch is highlighted on screen and the system generates a "switch active" alert sound.

SWITCH TEST

COIN1 COIN2

START 1 START 2

VOLUME DOWN VOLUME UP

TEST BILL

TRIGGER 1 TRIGGER 2

PUMP 1 PUMP 2

SERVICE

The Switch Test menu has a unique exit procedure because it checks the switches normally used for navigation. To exit to the main menu, simultaneously press a Start button and squeeze a trigger.

Main Menu

System Tests Menu

Screen Tests Menu

SCREEN TESTS
EXIT
COLOR ADJUSTMENT
SCREEN ADJUSTMENT
COLOR SCREENS

Main Menu System Tests Menu Screen Tests Menu Color Adjustment

This color bar screen of gray, yellow, cyan, green, magenta, red and blue helps identify missing colors. Missing color bars may indicate bad video RAM in the PC, or a problem with the monitor.

Color bars can also help

- Peak the brightness and black levels
- Balance red, green and blue drives
- Check purity problems (color contamination)
- Compensate for barrel or pincushion distortion
- Adjust size controls
- Test for video noise sources (such as bad cables)



Main Menu						
	System Tests Menu					
	Screen Tests Menu		een Tests Menu			
			Screen Adjustment Menu	1		

This crosshatch screen helps adjust width and height, static convergence and purity, brightness and focus.

Width and Height

Adjust height and width of the crosshatch pattern until the grid fills the screen. Keep all the lines visible, though. If part of the grid goes off the screen, then the game image will, too.

Static Convergence and Purity

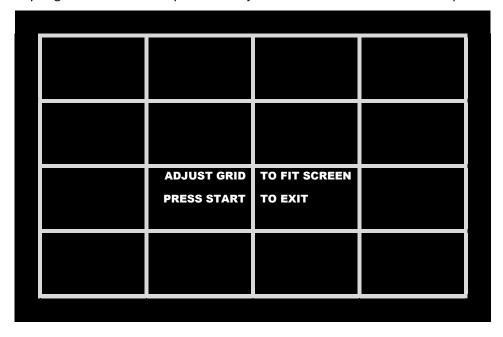
All lines in the crosshatch pattern must be white. Else, there is a convergence or purity problem. Slight color tinges at the extreme edges of the screen are okay.

Brightness

Ensure the bars are a fairly strong white.

Focus

Bars with fuzzy edges indicate a focus problem. Adjust the focus control for best sharpness.



Main Menu

System Tests Menu

Screen Tests Menu

Color Screens

These are solid, one-color images that help adjust color drive controls for proper intensity. The screens are black, white, red, green and blue. Press the Start button to cycle through the screens. The white screen helps adjust brightness and color output balance.

Main Menu

System Tests Menu

Sound Test Menu

This checks sound volume and quality. Missing sounds indicated digital flaws. Distorted sounds suggest analog flaws. Lack of sound suggests disconnected or bad cables or speakers.

SOUND TESTS EXIT STREAMING SOUND SPEECH CALL GUN FX SOUND FX SOUND FX 100 Hz SINE WAVE

- STREAMING SOUND is a sample of the game music.
- SPEECH CALL includes talking commentary.
- GUN FX is the shotgun blast.
- The first Sound FX is a whistle.
- The second Sound FX is a guitar riff.
- 100 and 1000 Hz Sine Waves generate specific frequency sounds. Cancel these sounds by selecting another test.

Main Menu

System Tests Menu

File Tests

This tests the integrity of the contents of the hard drive, searching for corrupt or missing game files. Damaged or missing files register as failed and are listed. The only solution to this problem is to restore the system from the DVD-ROM, as described in the Restore the Hard Drive section.

Main Menu

System Tests Menu

Coin Meter Test

In this test, the System Tests Menu is the bottom-level menu. Watch the mechanical coin meter, which should increment by one count. If it does, it has passed the test. If it does not, it may not be receiving a pulse from the game. See Troubleshooting for more details.

Main Menu

System Tests Menu

Start Button Lamps

This tests for burned-out Start button lamps by alternately blinking the LEDs.

Main Menu

System Tests Menu

Watchdog Test

This tests the Watchdog circuit, which protects the game against screen freezes (infinite loops). After a countdown, the game resets. To exit before the reset, press either Start or Volume button, squeeze a trigger or pump a gun. If the test succeeds, the game resets normally. If the test fails, the reset process loops or ends abnormally. See the Troubleshooting Chapter to diagnose and correct this problem.

Main Menu

System Tests Menu

Gun Sensor Test

See Gun Calibration instructions in Setup section.

Main Menu

System Tests Menu

Gun Camera Test

See Gun Calibration instructions in Setup section.

Main Menu

System Tests Menu

Gun Electronics Test

See Gun Calibration instructions in Setup section.

Main Menu

System Tests Menu

Ethernet Port Test

If Ethernet is used, this test sends attempts to send data packets to the server and reports on how many were received and how many were dropped. Note that running this test requires a loopback adapter.

Main Menu

System Tests Menu

Card Test

Insert a valid card to reveal the card type (player or operator) and the cardholder's name.

CARD TEST

EXIT

PLEASE INSERT CARD

CARD FOUND: Card Type

NAME: Cardholder Name

Main Menu

View Log Menu

This lists history of significant events or errors in file system.

Main Menu

Collections

COLLECTIONS

EXIT

SEND COLLECTIONS MESSAGE

SHOW COINUP FEE DETAILS

LAST COLLECTION DATE

GROSS COLLECTIONS

COINUP FEES

NET COLLECTION

\$0.00

Send Collections Message contacts the server and delivers the latest collections information.

Main Menu

Collections Menu

CoinUp Fee Details

COINUP FEE DETAILS	
EXIT	
LAST COLLECTION DATE	2009-07-30 11:21:45
TROPHY CLUB PLAY	\$0.00
CUSTOM CONTEST PLAY	\$0.00
COINUP CONTEST PLAY	\$0.00
PLAYER CARD PURCHASES	\$0.00
CUSTOM CONTEST DOWNLOADS	\$0.00
COINUP CONTEST DOWNLOADS	\$0.00
CUSTOM ADVERTISEMENTDOWN	LOADS \$0.00
COINUP ADVERTISEMENT DOWN	LOADS \$0.00
COMMUNICATIONS CHARGE	\$0.00
UPGRADE CHARGE	\$0.00
TOTAL COINUP FEES	\$0.00

Service Manual Maintenance

Maintenance

Hard Drive Recovery

Symptoms requiring hard drive recovery include

- File Test reports bad or missing files.
- Game fails to finish loading during startup.
- After resetting the AC power, an error is reported.
- You are prompted to insert a boot DVD.
- Erratic Game or Attract Mode.
- The following screen:



To identify corrupt files, press Test, choose System Test Menu and run the File Test.

The only way to repair corrupt files is to recover the hard drive, as detailed below.

COMPUTER

The computer contains sensitive components, including a hard drive. Do not handle roughly. Call your distributor before servicing its internal components. Ask about warranty information as it relates to the PC.

Do not use the PC on/off switch. Turn AC power on or off with the cabinet power switch.

- 1. With game and PC on, verify that the I/O board has power. If not, see Troubleshooting.
- 2. Open the Coin door.
- 3. Open the PC DVD-ROM tray by pressing the Open/Close button on the drive bay.
- 4. Insert the recovery DVD into the tray.
- 5. Close the tray by pressing the Open/Close button again.
- 6. Turn cabinet power switch to OFF. Wait 30 seconds.
- 7. Turn cabinet power switch to ON.
- 8. Recovery begins automatically when PC boots up.

- 9. If recovery does not begin, check to ensure disc is inserted correctly and is not damaged.
- 10. After 30-40 minutes, check game progress.

 Do not interrupt power or reset the game during recovery.
- 11. A message indicates that recovery is complete. When instructed to remove disk, open DVD-ROM drive tray and remove disk.
- 12. Turn cabinet power switch off.
- 13. After 30 seconds, turn cabinet power switch on.
- 14. Game will reboot and enter calibration mode.
- 15. Re-calibrate guns.

BIOS Settings/Power Management

NOTICE

The PC ships with correct BIOS settings. Making changes to the BIOS different from the description below may adversely affect game functions.

This BIOS setting lets the PC automatically power up. With the setting enabled, the PC reboots when it detects AC power. This eliminates the need to manually turn the PC back on after power disruption.

Do **not** use the PC on/off switch. Turn AC power on or off with the cabinet power switch.

- 1. Turn cabinet power switch off.
- 2. Open rear of cabinet.
- 3. Connect a USB keyboard to the PC.
- 4. While holding the Delete key on the keyboard down, turn cabinet power switch on.
- 5. When the BIOS menu screen appears, make the following adjustments.

Feature	Set to
Standard CMOS Feaures > Drive A	[none]
Standard CMOS Features > HALT ON	[No Errors]
Advanced BIOS Features > Boot Sequence	1 st CD-ROM 2 nd Hard Disk
Advanced BIOS Features > APIC Mode	Disabled
Advanced Chipset Features > Frame Buffer	[16M]
Advanced Chipset Features > PMU > CPU Frequency	[200.0]
Power Management Setup > PWRON After PWR-Fail	[On]

- 6. Follow instructions on screen to save and exit.
- 7. PC will reset and load the game.

Service Manual Maintenance

Monitor Adjustments

MONITOR

Extremely high voltages exist in the video monitor at all times. These high voltages exist even when the monitor is off and the AC line cord is disconnected. These voltages are extremely lethal and will cause death. The monitor contains no user serviceable parts. Do not attempt to service the monitor.

Big Buck Hunter™ Pro uses sensitive electronic optical technology. These optics detect the position of the guns during game play. It is critical that the monitor is adjusted and maintained. Proper contrast and brightness settings will improve gun performance. As the monitor ages, it is important to review and adjust its settings. The monitor face should be free of dirt and dust. Reliable gun operation depends on display quality.

Familiarize yourself with the settings. Settings differ slightly between manufacturers and even between displays of the same manufacturer. Display adjustments can compensate, to some extent, for display aging. The information below serves as a reference.

Setting	Adjustment
Brightness	Function: Background brightness or black level. Set Level: Black background should appear dark and not gray.
Contrast	Function: Definition or sharpness of character against background. Set Level: Outer edges of character or text should not distort.
H-Position	Function: Horizontal position. Side-to-side centering. Set Level: From side to side, picture should center properly.
H-Size	Function: Horizontal Size. Side-to-side dimension. Set Level: From side to side, picture should fill CRT frame.
V-Position	Function: Vertical Position. Up and down centering. Set Level: Picture should center in up and down direction.
V-Size	Function: Vertical Size. Up and down dimension. Set Level: From top to bottom, picture should fill CRT frame.
Pin Cushion	Function: Linearity along vertical sides of picture. Set Level: Both sides of picture should be straight, without bowing.
Degauss	Function: Degaussing eliminates picture distortion.

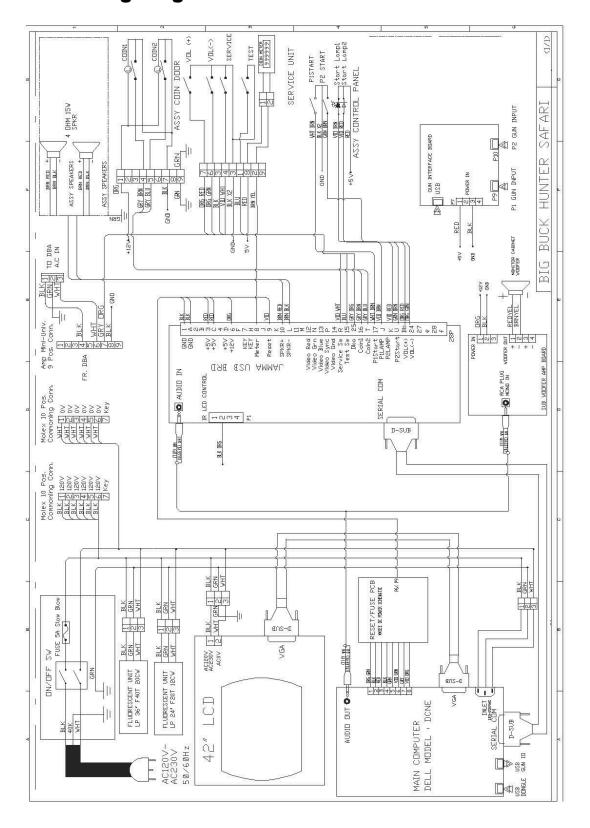


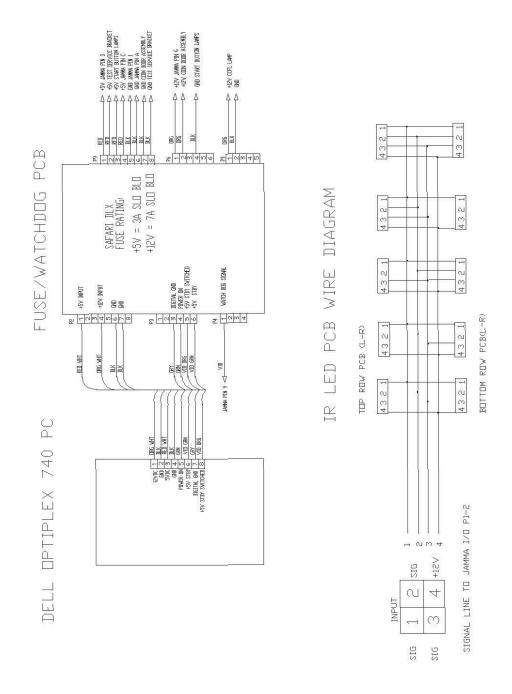
I/O Board Connector Table

_								
	JAMMA Edge Connector					JAMMA Edge Connector		
	Component Side					Solder Si	de	
	Function	Wire Color	Pin		Pin	Wire Color	Function	
F	Ground	Black	1		Α	Black	Ground	
	Ground	Black	2		В	Black	Ground	
	5 Volts	Red	3		С	Red	5 Volts	
	5 Volts	Red	4		D	Red	5 Volts	
			5		Е			
	12 Volts	Orange	6		F	Orange	12 Volts	
	12 Volts	Orange	7		Н	Orange	12 Volts	
	Coin Meter	Brown Yellow	8		J	Violet Brown	P1 Lamp	
	Reset	Violet	9		K	Violet Red	P2 Lamp	
			10		L			
	Speaker (+)	Brown Red	11		М	Brown Black	Speaker (-)	
			12		N			
			13		Р			
			14		R	Violet White	Service	
	Test	Blue	15		S			
	Coin 1	Gray Brown	16		Т	Gray Blue	Coin 2	
	P1 Start	White Brown	17		U	Green Brown	P2 Start	
			18		V			
			19		W			
			20		Х			
			21		Υ			
			22		Ζ			
			23		а			
	Volume (+)	Orange Red	24		b	Orange Green	Volume (-)	
	DBV	Gray Orange	25		С			
			26		d			
	Ground	Black	27		е	Black	Ground	
	Ground	Black	28		f	Black	Ground	

Service Manual Wiring

Cabinet Wiring Diagram





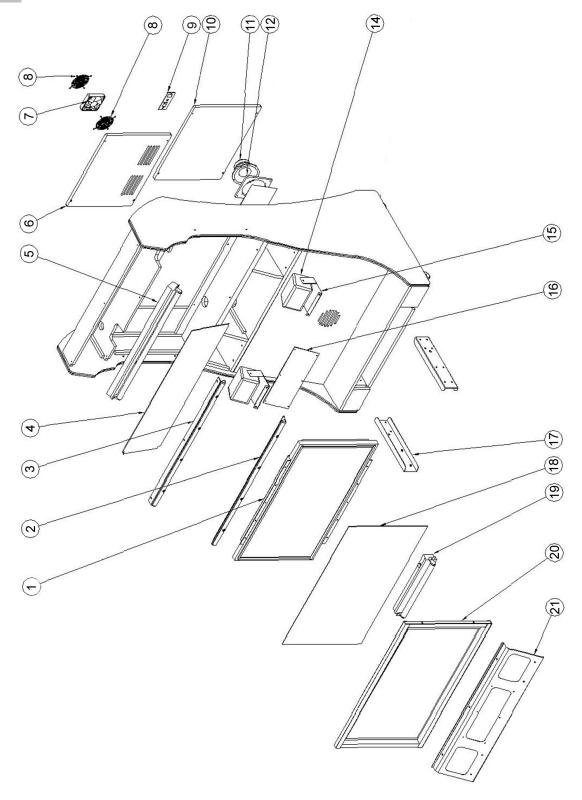
Troubleshooting

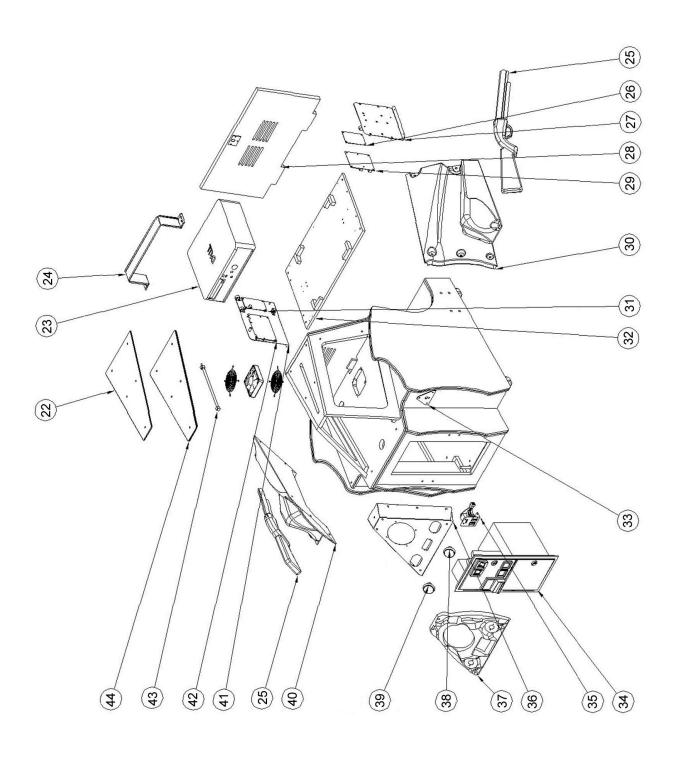
Warning: Review safety chapter before making any adjustments to game.

Problem	Possible Cause	Solution
Game will not power up	Game not plugged in.	Plug game into outlet.
	Game not turned on.	Turn on main power switch.
	Game fuse is blown.	Check and replace fuse.
	No power to receptacle.	Test outlet and plug game into
	no power to receptacie.	powered outlet.
	PC not turned on.	Turn PC power switch on. Ensure
		IEC cable tightly plugged in. Trace
		cable back to source to ensure
		continuity.
	PC BIOS set incorrectly.	See BIOS Settings chapter.
	I	[C
Scrambled or scrolling display	Sync Polarity incorrect.	Change DIPswitch settings for
		HSYNC and VSYNC.
NO VIDEO message	Video cables not plugged in properly	Reattach and tighten power and
NO VIDEO Message	video cables not plugged in property	video cable to monitor.
		video casic to momeor.
No sound	Bad Connection	Check connection to speakers.
Game does not load		
Hard drive test reports "bad" or		
"missing" files.		
Game fails to finish loading.	Hard drive failure	Recover hard drive.
A.C		
After resetting, game still reports an		See procedure at end of this
Game suggests inserting a boot		chapter.
DVD.		
Erratic game mode or attract mode.		
WARNING!		
Data Files Corrupted.		
(Game Operation May Become		
Unstable.)		
Use "Test" Switch to Enter Test		
Mode		
and Run "File Test."		
Press Start To Continue.		

Message	Possible Cause	Solution
Guns won't register, or function	Bad calibration	Calibrate guns.
poorly		
	Dirty/damaged lens	Clean gun lens.
	Gun disconnected	Check USB connections.
	Faulty USB port.	Swap gun to another USB port to test.
	Display out of adjustment	Enter display diagnostics menu and repair.
	Bad calibration	Calibrate guns.
	Left gun misidentified as 2 nd player.	Calibrate guns, making sure to validate left gun as first player in first step.
Game resets	Bad file.	Run File Test. Restore hard drive.
Coin meter does not click during Test	No pulse to meter	Check all wiring from meter to I/O board
	Faulty meter	Replace coin meter
Exits Test Mode every 3 seconds	Test button stuck in ON position	Slide or toggle button off after Test Menu appears
Г.,	T	Tar. i i i i
No Signal	Video or power cable not secure.	Check and secure cable.
	PC not turned on.	Turn PC power switch on. Ensure IEC cable tightly plugged in. Trace cable back to source to ensure continuity.
	Sync Polarity incorrect.	Change DIPswitch settings for HSYNC and VSYNC.
Dongle Not Present	Dongle missing or disconnected	Find dongle and reseat in USB port
	Faulty USB port	Insert dongle in different USB port
Connect I/O Board or I/O Board Missing	USB cable disconnected	Check USB connection from PC to I/O board
1/0 Board Wissing	No power to JAMMA I/O board	Check for proper voltage (+5V, +12V) at JAMMA connector
		, , , , , , , , , , , , , , , , , , , ,
Watchdog Disabled or Watchdog Failed	Watchdog defeated by JAMMA I/O DIP switch	Set DIP switch 8 to OFF
	No power to Reset PCB	Connect power to Reset PCB
	Reset input to motherboard	Connect 2-pin reset connector from
	disconnected	Reset PCB to motherboard reset pin input
	Violet or black wire from Reset PCB	Check reset wire connection to
	disconnected or faulty	JAMMA connector.

Parts





Service Manual Parts

Part Numbers

Item	Part No.	Description		
1	809-00004-01	42" LCD display		
2	600-00067-02	Bottom opto bracket		
3	600-00066-02	Top opto bracket		
4	606-00069-01	Marquee		
5	812-00008-01	36" fluorescent assembly - 120V		
6	601-00025-01	upper back door		
7	820-00001-00	Fan, 120vac,19/15W		
8	800-00001-00	120mm wire fan guard		
9	600-00076-01	AC inlet power plate (standard)		
10	601-00026-01	Lower back door		
11	807-00002-02	Woofer speaker, 6.5in 4 ohms		
12	600-00075-01	Sub woofer panel		
14	30-112	Speakerbox		
15	600-00069-01	3-way speaker mounting bracket		
16	606-00071-01	Marquee bottom		
17	600-00030-01	Pedestal mounting channel		
18	600-00073-01	42" LCD display glass (tempered)		
19	812-00002-02	CE marquee light		
20	600-00072-01	42" LCD display channel sides		
21	600-00070-01	42" LCD display mounting bracket		
22	606-00070-03	Pedestal top panel		
23	850-00001-01	Dell optiplex 740		
24	600-00056-01	CPU mounting bracket		
25	820-00006-01/820-00007-01	Orange/green gun		
26	500-00003-02	Subwoofer amp PCB		
27	600-00074-01	Dell PC shelf PCB mtg. plate (widget & amp)		
28	601-00028-01	Pedestal back door		
29	500-00018-02	Gun processing board		
30	603-00016-01	Right gun rack		
31	500-00012-01	Watchdog board		
32	601-00035-01	Safari deluxe PC shelf		
33	47-4450-XX	Mounting plate		
34	800-00005-01	Coin door assembly mid width		
35	810-00053-01	Test service button assembly		
36	602-00010-00	Front bezel		
37	603-00028-01	Control panel cover		
38	702-00008-01	Orange round button assembly		
39	702-00007-01	Green round button assembly		
40	603-00017-01	Left gun rack		
41	600-00068-02	Groundplane		
42	500-00001-02	I/O board		
43	702-00017-00	CCFL 3.0X 300MM white glass tube (acrylic tube 4 pin connector)		
44	606-00073-01	Top panel edge		

Not pictured

Contact Information

For an authorized distributor near you, check the Raw Thrills website at www.rawthrills.com

Contact Betson Enterprise Headquarters or your local Betson office for sales, technical information, warrantee or repair. Betson can be reached at (800) 524-2343 Fax (201) 438-4837 www.betson.com

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