



CONVERSION KIT
Setup and Operation
Service Manual



Big Buck® World™ Conversion Kit

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Safety

Who Should Use this Manual

This manual and the conversion process are intended for skilled technicians, qualified to work with AC voltage and knowledgeable about safety procedures common with electrical devices, delicate components, power tools and heavy equipment. The instructions in this manual illustrate a conversion from a game that may be different than yours. Use your judgment to determine how best to modify your conversion for your own situation. Please take the time to read through this manual carefully, paying close attention to the safety warnings. Failure to follow instructions may result in property damage, injury or death.

Important Safety Warnings

TRANSPORTING

Use appropriate care when moving or transporting your game.

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.

POWER SELECTOR SWITCH

Set the 115/230 VAC selector switch on the PC for the correct line voltage on the installation site.

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.

CONNECTOR LABELS

Do not remove labels on kit components unless specifically instructed. In the event the kit is transferred to another cabinet, important warnings on connectors must remain in place to prevent injury or damage to game.

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.

After the first time you turn the computer power switch to ON, leave it permanently on. Always turn off AC power from the cabinet switch.

Big Buck® World™ Conversion Kit

Preparation

Verify Cabinet Suitability

The best candidate cabinets have the following features:

- Monitor screen is perpendicular to the ground (to ensure proper gun function).
- Monitor is 27" (CGA, EGA or VGA are acceptable).
- Cabinet is structurally sound.
- Clear protective panel protects marquee art.
- Game is completely functional—especially the monitor, speakers, coin and bill mechanisms.
Components that do not work before the conversion will likely not work after the conversion.
- JAMMA voltages are normal if:
5V reads between 4.9 and 5.1
12V reads between 11.8 and 12.2.



Figure 1: Possible cabinet for conversion

Prepare Cabinet

1. Unplug AC power from wall or floor.
2. Remove old PC, circuit boards, hard drives, old guns, joysticks, buttons and other components **except** those on the list below, which are required in the converted game.
If any items below are missing, install them before proceeding.
 - Power to the marquee lights,
 - Power to the coin and bill acceptors,
 - Power to the monitor,
 - Power to the speakers,
 - A functional JAMMA harness
3. If you intend to use an existing card reader in the future, you may keep it in place.
4. Remove loose debris, old manuals, keys, spare parts, etc. and exposed wiring from the cabinet.

Obtain Materials and Tools

For this conversion, you will need the following

- Clear protective panel (like Plexiglas) the size of the control panel board
- Wood glue
- Power drill
- Utility knife
- Tape measure
- 1" and 1.5" hole saws
- ¼" and 3/16" drill bits

Examine the Bill of Materials

Ensure all items on the Bill of Materials are present and in good condition.

Note that the appearance of some components may differ from the photographs in this manual.

Software and Manual

- Conversion manual (which you are now reading)
- 2 DVDs – Big Buck® World™ Restore discs

Electronics

- Electronics Tray
- I/O board
- Watchdog board
- Cables: VGA, Serial DB9, Audio, Watchdog power, Jamma Harness
- Six #8 x ¼" wood screws (for restraint bracket and electronics tray)
- AC adapter cable
- Game PC
- Four wood cleats
- PC restraint bracket
- USB dongle (taped to PC)

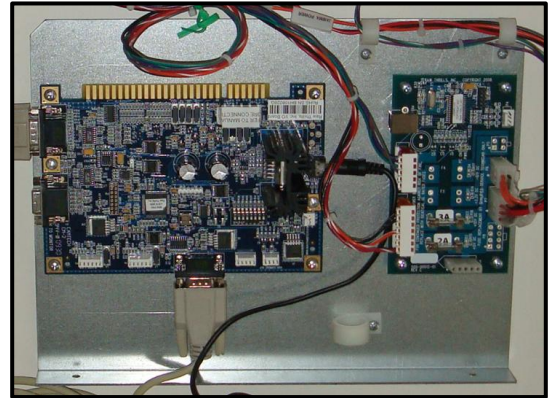


Figure 2: Electronics Tray
I/O Board on left and Watchdog Board on right

Front and Side Panel Components

- Orange gun with cable and mounting plate
- Green gun with cable and mounting plate
- Four gun hook brackets
- 17 10-24 x 1.25" carriage bolts (for gun cables, hooks and cover plate)
- 17 10-24 keps nuts (for gun cables, hooks and cover plate)
- Triangular cover plate



Figure 3: PC Restraint Bracket



Figure 4: USB Dongle

Artwork

- Left cabinet side art decal
- Right cabinet side art decal
- Control panel overlay
- Marquee graphic

Templates – see pg 46

- Gun hook mounting
- Gun cable mounting
- Start button hole

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Installation

Installation Overview

1. Install Start Buttons
2. Install Guns
3. Install Marquee Art
4. Install Side Art
5. Install Gun Hooks
6. Install PC
7. Install Electronics Page
8. Connect Cables
9. Confirm DIP Switch settings
10. First Calibration

Install Start Buttons

Modify Control Panel



Figure 5: New Control Panel Artwork

1. Remove clear protective panels, buttons, guns, gun racks, joysticks, decals and artwork, etc. to create a flat, plain wooden control panel.
*It may be necessary to fill holes in panel before drilling for start buttons.
Do not fill screw holes that originally held overlay. Retain those screws.
Clean wood with a damp cloth and let dry so the decal can stick well.*
2. Using old overlay as a template, trim new clear protective overlay to the same size.
3. Trim control panel artwork to the size of the new overlay.
Make sure text will be centered on the control panel board.
4. Remove backing from decal and apply decal to control panel.
5. With a knife or awl, cut holes in the new artwork for the screws that held original overlay.
6. Hold new clear overlay in position and drill pilot holes where screws will go.
7. Mount new overlay with original screws.

Mount Buttons

- Using Start button template (in back of this book), mark locations for new Start buttons.
Leave about 10" between the centers of the two buttons and avoid blocking words.
- Drill large center hole for left (green) button with 1" hole saw.
- Drill two locating holes for left button with 3/16" bit.
- Repeat steps 2-3 for right (orange) button.
- Remove green button from lamp/switch assembly.
Do not remove any wires from assembly.
- Remove plastic nut from button.
- Place button in left button hole.
Align nibs on underside of button with locator holes to hold it in place.
- From underneath the control panel, hand tighten plastic nut while holding button down.
- Repeat steps 5-8 with orange button.

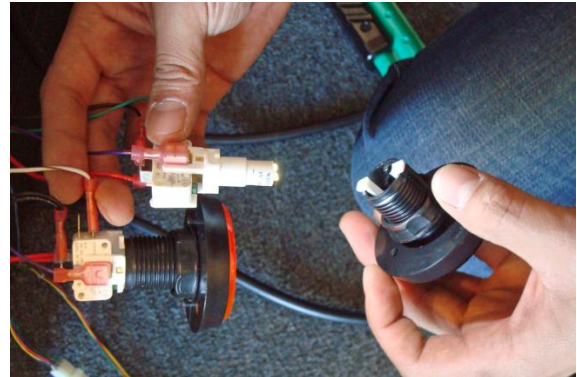


Figure 6: Removing button from assembly

Install Guns

- Hold gun cable mount template (in back of this manual) to front panel to identify hole locations.
Ensure that coin door can open without hitting the plates or cables.
Locate both plates the same height above ground.
- Drill center hole for left cable using 1.5" hole saw.
- Drill three bolt holes with .25" bit.
- Insert green gun connector cable through center hole.
Ensure gun colors match start button colors.
Ensure green is on the left.
- Align triangular plate with bolt holes.
- Insert three 10-24 x 1.25" carriage bolts through each triangular plate.
- Inside cabinet, fasten a 10-24 keps nut over each bolt.
Rest gun on floor for now.
- Repeat steps 2-7 for the orange gun.
- If necessary, repeat steps 2-7 for cover plate to conceal existing hole in front panel.



Figure 7: Gun cable mount

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Install Marquee Artwork

1. Remove screws, brackets and any hardware necessary to access existing marquee graphic.
2. Remove existing clear protective panel and marquee graphic.
3. Trim Big Buck® World™ marquee graphic to fit behind protective panel.
4. Insert new marquee graphic with clear protective panel.
5. Refasten original hardware.



Figure 8: New Marquee Artwork

Install Cabinet Side Artwork

1. Clean left side panel with damp cloth and create a flat, smooth surface.
2. Remove backing from left side panel decal.
3. Apply decal to left side panel.
Ensure decal is parallel to cabinet edges and centered horizontally.
Note position of decal so you can match the other side.
4. Repeat steps 1-3 on right side panel.

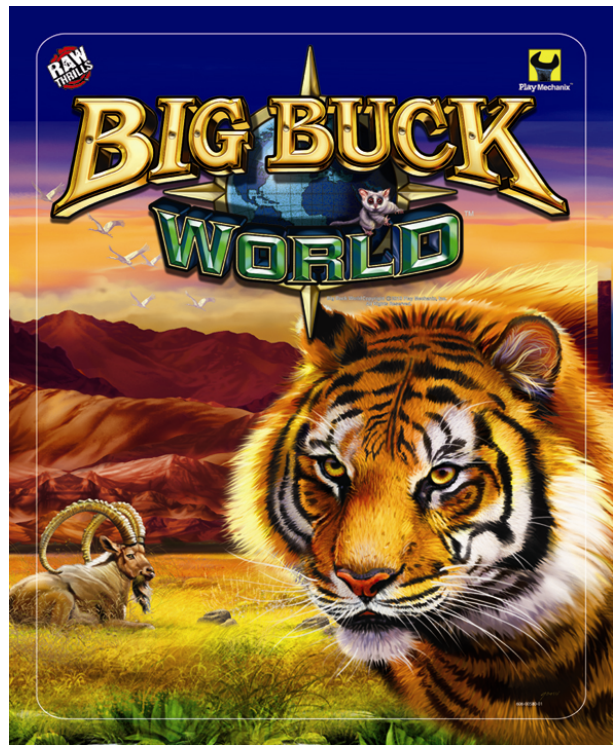


Figure 9: New Cabinet Side Artwork

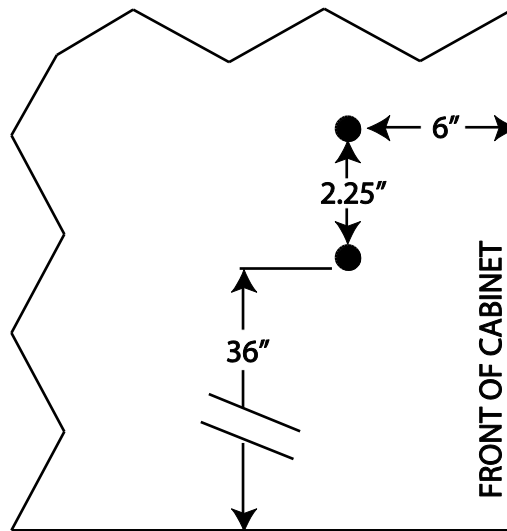
Install Gun Hooks

1. Identify location of gun hooks on one side of cabinet.
Hooks should be 3 feet from the floor and allow guns to rest clear of artwork or obstructions.
2. Hold gun hook template (in back of this book) up to side panel, centered horizontally.
3. Drill two holes using .25" drill bit. (See illustration below).
4. Holding bracket in place, insert two 10-24 x 1.25" carriage bolts through bracket into side panel.
5. Inside cabinet, fasten a 10-24 keps nut over each carriage bolt.
6. Repeat steps 2-5 for second bracket.
7. Hang the gun on the gun hooks.
8. Repeat steps 1-7 on other side.



Figure 10: Mounted Gun Hook

Important: Ensure that the Gun Hooks are same height on both sides of the cabinet and that the mounting bolts don't interfere with any internal cabinet components. Front hook placement is shown below, but the other hook should be about 6" from the rear of the cabinet.



DRAWING NOT TO SCALE

Figure 11: Drilling Locations for gun rack bracket holes

Big Buck® World™ Conversion Kit

Install PC

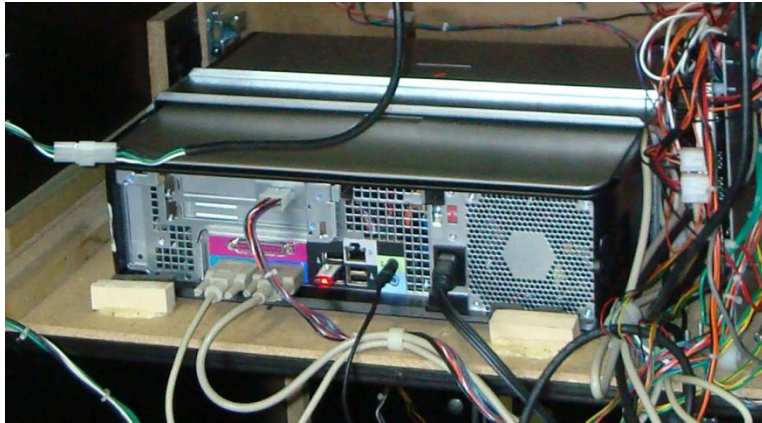


Figure 12: PC on shelf with cleats and restraint bracket

1. Identify a stable position in the cabinet to place the game PC that meets the following conditions:
 - It will rest on a solid, horizontal board at least $\frac{3}{4}$ " thick;
 - There is enough vertical clearance to accommodate the PC plus a few inches access for a screwdriver or power drill;
 - The DVD-ROM drive tray faces the front of the cabinet and can fully extend unobstructed;
 - There is clear access to plug cables into the rear of the PC.
2. Place the PC on the horizontal board facing the front of the cabinet.
3. Position the metal restraint bracket over the PC with legs on right and left side of PC.
4. Hold the bracket steady and drill four pilot holes through the bracket feet.
5. Insert four #8 x $\frac{3}{4}$ " wood screws into the holes on the bracket feet.
Do not tighten screws yet.
6. Push down on the bracket and slide it so the screw heads will be held in place by the thin ends of the keyhole slots.
7. Tighten the screws and ensure the PC is well restrained left to right.
8. Place two cleats in front and two behind PC so they are flush against the case.
9. Using wood glue, affix cleats to board and clamp in place until glue dries.

Install Electronics Tray

1. Identify a suitable location for the electronics tray so holes rest on a stable horizontal board at least $\frac{1}{4}$ " thick.
Cabling should hang clear of obstructions.
Start button cables should reach control panel.
JAMMA harness should be able to plug into I/O board easily with suitable vertical clearance.
PC DVD-ROM drive should open without obstruction.
2. Drill pilot holes into wood through holes in foot of tray.
3. Affix tray to the board with two #8 x $\frac{3}{4}$ " wood screws through pre-drilled pilot holes.

Connect Cables

CONNECTOR CAUTION

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.

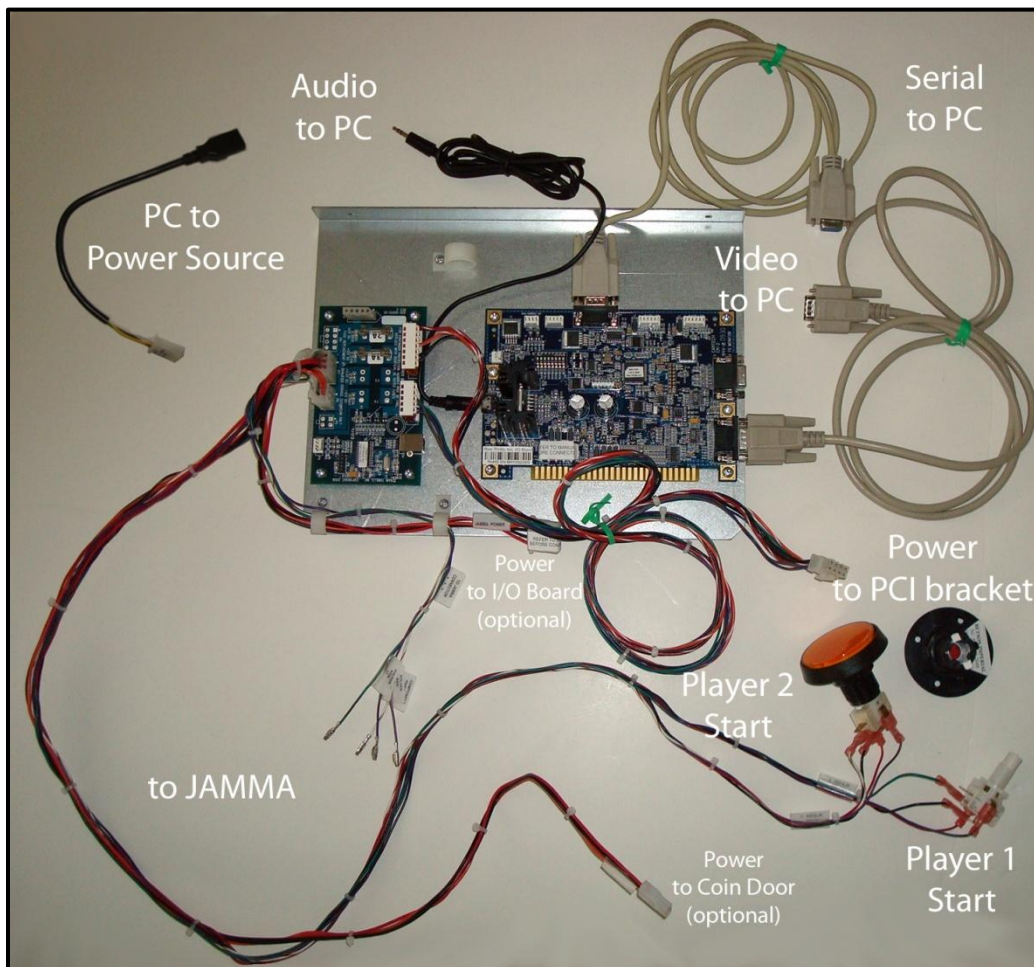


Figure 13: Electronics Tray and attached cables with Player 1 start button disconnected

Attach Start Buttons

1. Attach Player 1 Start switch/lamp assembly into green button on control panel.
Push and twist assembly to lock.
2. Attach Player 2 Start switch/lamp assembly into orange button on control panel.
Push and twist assembly to lock.

ELECTRICAL WIRING

Ensure all connections are properly insulated and grounded. These instructions are intended for personnel with experience working with AC power. Injury and death or equipment damage can result from poor safety habits.

Big Buck® World™ Conversion Kit

JAMMA Harness

1. Ensure these four locations in JAMMA housing are empty:
pin 17 solder and component sides, pins 8 and 9 solder side.

If populated, remove pins with pin extractor tool.

Note: Do not leave dangling or exposed wires, which could cause a short.

Insulate wires with electrical tape.

2. Populate JAMMA housing with four pins as labeled.
3. Determine whether JAMMA receives AC power.

WARNING: JAMMA I/O POWER

If the JAMMA harness is receiving power from an existing power supply via pins 1-6, do not plug connector labeled "JAMMA Power" into the I/O board and do not remove connector label so it will remain for future reference.

4. If JAMMA housing has pins in positions 1-6, then harness already receives AC power. Skip steps 5-6 and proceed to step 7.
5. If positions 1-6 are empty, remove labels from 4-pin JAMMA power cable connector as well as corresponding PCB connector on I/O board.
6. Plug JAMMA power cable into PCB connector on I/O board.

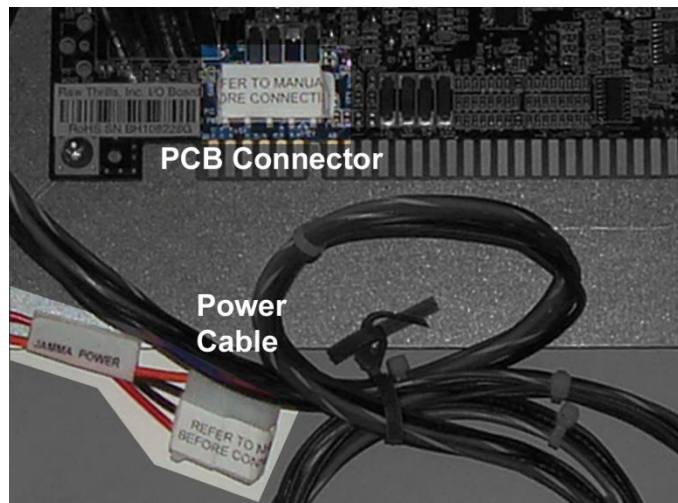


Figure 14: Connect JAMMA power cable to I/O board only if pins 1-6 are empty

7. If there is already a power connection to the coin door, skip step 9.
8. If there is no power to coin door, connect the Aux. Power cable to existing mating connector.
9. Connect JAMMA housing onto I/O board.

PC Cables

The only deviation from standard PC ports (AC power, USB, video and serial) is the addition of an eight-pin power connector expansion card.

1. Attach electronics tray connectors to the following PC ports:
 - I/O to Serial
 - I/O to Video
 - I/O to Audio
 - Watchdog to 8-pin PCI bracket
2. Insert the game dongle into one of the USB ports.
3. Connect IEC plug of AC adapter cable into PC.
4. Safely and appropriately connect remaining end of AC adapter cable to power source.

ELECTRICAL WIRING

Ensure all connections are properly insulated and grounded. These instructions are intended for personnel with experience working with AC power. Injury and death or equipment damage can result from poor safety habits.

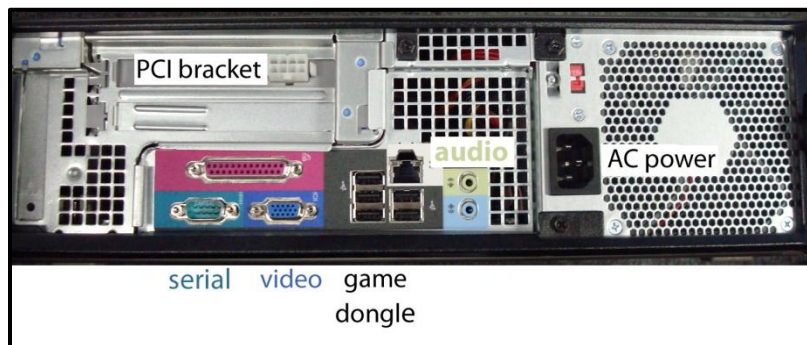


Figure 15: Ports in rear of PC

Gun Cables

1. Connect the left (green) gun cable to the Player 1 connector on the I/O board.
2. Connect the right (orange) gun cable to the Player 2 connector on the I/O board.
3. Place each gun in its corresponding pair of hooks.

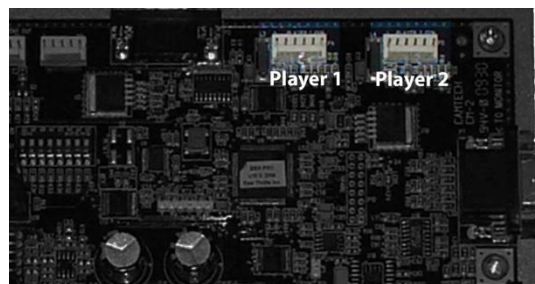


Figure 16: I/O Board - Gun Connectors

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Confirm Monitor DIP Switches

If using a VGA monitor, set all DIP switches to OFF. Otherwise, please see chart below.

JAMMA I/O DIP SWITCH SETTING:

8	Watchdog Defeat (Important: Always set to OFF for normal operation)
7	OFF
6	OFF
5	VSYNC POLARITY
4	HSYNC POLARITY
3	DIPSW3 (Display resolution; see below)
2	DIPSW2 (Display resolution; see below)
1	DIPSW1 (Display resolution; see below)

Display Resolution DIP Switch Settings:

DIPSW1	DIPSW2	DIPSW3	Display Resolution
off	Off	Off	VGA (640x480)
on	Off	Off	MEDRes (EGA 400x256)*
off	On	Off	MEDRes (EGA 400x256)*
on	on	On	STDRes (CGA 320x240)

* Some MEDRes (EGA) monitors handle white flash timing differently. To test for this, enter the Gun Calibration function. If trigger is pulled but white flash doesn't cover the entire screen, try the other MEDRes (EGA) dipswitch setting. Reboot your machine after making changes so that new dipswitch settings will take effect

First Calibration

1. Connect I.E.C. AC plug into back of cabinet.
2. Turn cabinet power switch on.
3. Upon first startup and reboot, the game enters calibration mode.
4. Remove left gun from the hooks and hold the muzzle about three feet from the monitor.
5. Follow the on screen instructions to shoot the target.
6. Once satisfied with the calibration, press the START button corresponding with the gun color.
7. Replace the gun into its hooks.
8. Repeat steps 1-3 with the right gun.

Adjustments, Audits and Diagnostics

Basic Display Adjustments

HIGH VOLTAGE

Monitor assemblies carry dangerously high voltage. Neither PlayMechanix™ Inc. nor Raw Thrills™ Inc. recommend you perform any service on the monitor, as it contains no user serviceable parts.

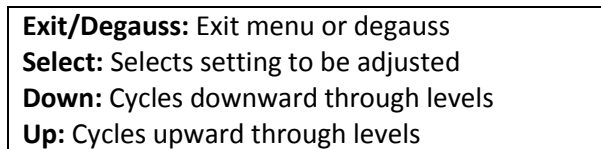
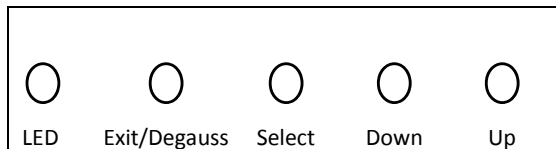
The I/O board relies on signals detected from the display to operate. Display quality is critical to ensure the guns operate correctly and reliably. Weekly gun calibration is also important.

Display settings differ between manufacturers or models from the same manufacturer. Factors like display age may affect quality. This is a reference. Actual settings may not be practical in some cases.

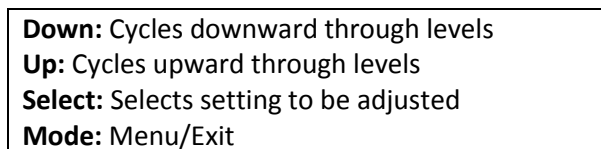
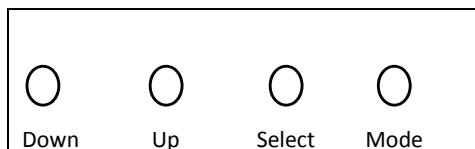
Setting	Adjustment
Brightness	Function: Background brightness or black level Set Level: Black background should appear dark, not gray.
Contrast	Function: Definition/sharpness of character against background Set Level: Outer edges of character or text should not be distorted.
H-Position	Function: Horizontal Position. Side-to-side centering Set Level: Picture should be centered from side to side.
H-Size	Function: Horizontal Size. Side-to-side dimension Set Level: Picture should be full from side to side.
V-Position	Function: Vertical Position. Up/down centering Set Level: Picture should be centered up and down.
V-Size	Function: Vertical Size. Up/down dimension Set Level: Picture should be full from top to bottom.
Pin Cushion	Function: Degree of straightness along both vertical sides of the picture. Set Level: Both sides of the picture should be straight without curvature.
Degauss	Function: De-magnetizes the picture tube when activated. This eliminates picture discoloration caused by magnetic disturbance around the picture tube.

Digital displays are adjusted with a button-type remote board. Below are functional diagrams for common 27" digital displays.

Kortec Remote



Wells Gardner



Big Buck® World™ Conversion Kit

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 is a brief description of the menu choice function. A complete description of all menu functions is available [here](#).

Menu Screens and Descriptions

Main Menu



For clarity, all subsequent menu screens depicted do not include: header, footer or background image.
 For clarity, all subsequent menu screens depicted do not include: 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.

Big Buck® World™ Conversion Kit

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.



Settings, Defaults and Choices

Setting	Description	Default	Choices
Violence	Changes visual effect of shot animals. <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> FULL NAME 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



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¢.



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.

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Main Menu
Operator Adjustments Menu
Player Cost Menu

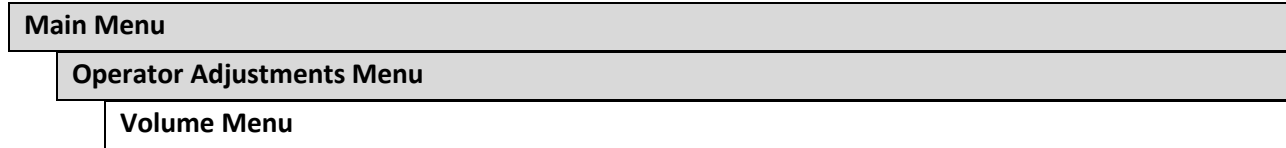
PLAYER COST			
TYPE	-OPER FEE-	COINUP FEE	- - TOTAL
EXIT			
TREK	\$1.00	\$0.00	\$1.00
ADVENTURE	\$2.50	\$0.00	\$2.50
BONUS ONLY	\$1.00	\$0.00	\$1.00
TROPHY CLUB TREK	\$1.00	\$0.50	\$1.50
TROPHY CLUB ADV.	\$2.50	\$0.50	\$3.00
TROPHY BONUS ONLY	\$1.00	\$0.50	\$1.50
PLAYER CARD	\$0.25	\$2.75	\$3.00

Settings, Defaults and Choices

Setting	Description	Operator Fee Default	Choices
Trek	A <i>trek</i> 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 <i>bonus only</i> 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 Only	This is the online version of bonus only.	\$1.00	\$0.00 - \$63.75 in \$0.25 increments 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.



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 Volume	Determines the lowest setting possible for both Game and Attract Volumes	4	0 – 32
Attract Sounds	This determines how often the game’s “advertising” sounds will be heard.	Occasionally	Off/Occasionally/Always

Big Buck® World™ Conversion Kit

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.

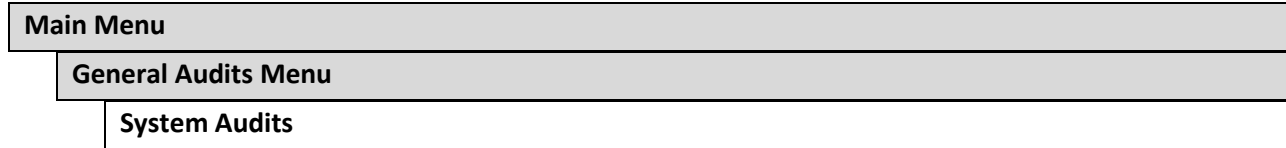
GENERAL AUDITS
EXIT
GAME AUDITS
SYSTEM AUDITS
GAME PURCHASE AUDITS
ADVENTURE PURCHASE AUDITS
BONUS ONLY AUDITS
COIN AUDITS

Main Menu

General Audits Menu

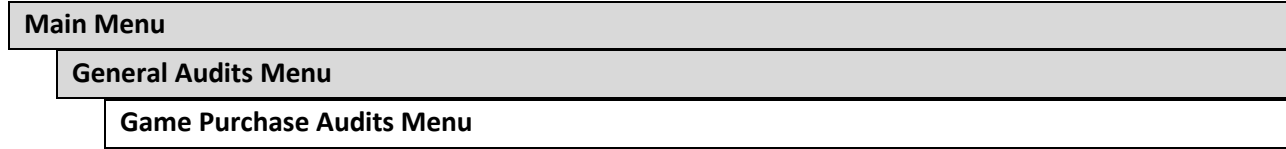
Game Audits

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



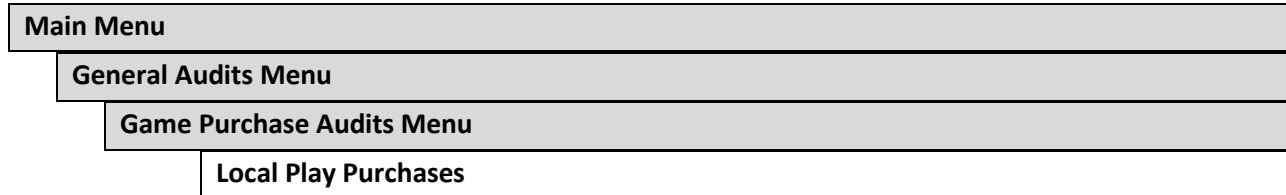
```

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
  
```



```

GAME PURCHASE AUDITS
EXIT
LOCAL PLAY PURCHASES
ONLINE PLAY PURCHASES
  
```



```

LOCAL GAME PURCHASE AUDITS
EXIT
TREKS PURCHASED           0
ADVENTURES PURCHASED     0
BONUS ONLY PURCHASED     0
SHOOTOUT TREKS PURCHASED 0
SHOOTOUT ADV. PURCHASED  0
SHOOTOUT BONUS ONLY PURCHASED 0
TEAMPLAY TREKS PURCHASED 0
TEAMPLAY ADV. PURCHASED  0
TEAMPLAY BONUS ONLY PURCHASED 0
  
```

Big Buck® World™ Conversion Kit

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	0
TR. CLUB S.O. ADV. PURCHASED	0
TR. CLUB S.O. BONUS ONLY PURCH.	0
TR. CLUB T.P. TREKS PURCHASED	0
TR. CLUB T.P. ADV. PURCHASED	0
TR. CLUB T.P. BONUS ONLY PURCH.	0
TOURNAMENTS PURCHASED	0
NATIONAL TOURNAMENTS PURCHASED	0
PLAYER CARDS PURCHASED	0

Main Menu

General Audits Menu

Adventure Purchase Audits Menu

ADVENTURE PURCHASE AUDITS

EXIT

ADV PURCHASE AUDITS: PRO TURN-BASED
ADV PURCHASE AUDITS: PRO SHOOTOUT
ADV PURCHASE AUDITS: SAF. TURN-BASED
ADV PURCHASE AUDITS: SAFARI SHOOTOUT

Main Menu
General Audits Menu
Adventure Purchase Audits Menu
Pro Turn-Based Adventure Purchase Audits

ADVENTURE PURCHASE AUDITS: TURN-BASED				
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
Pro Shootout Adventure Purchase Audits

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

Big Buck® World™ Conversion Kit

Main Menu

General Audits Menu

Adventure Purchase Audits Menu

Safari Turn-Based Adventure Purchase Audits

ADVENTURE PURCHASE AUDITS				
ADVENTURE	WHOLE	TREK 1	TREK 2	TREK 3
EXIT				
SABLE	0	0	0	0
KUDU	0	0	0	0
WILDEBEEST	0	0	0	0
GEMSBOK	0	0	0	0
AFRICAN BUFFALO	0	0	0	0
IBEX	0	0	0	0
RUSA DEER	0	0	0	0
BLACK BUCK	0	0	0	0

Main Menu

General Audits Menu

Adventure Purchase Audits Menu

Pro Shootout Adventure Purchase Audits

ADVENTURE PURCHASE AUDITS				
ADVENTURE	WHOLE	TREK 1	TREK 2	TREK 3
EXIT				
SABLE SHOOTOUT	0	0	0	0
KUDU SHOOTOUT	0	0	0	0
WILDEBEST SHOOTOUT	0	0	0	0
GEMSBOK SHOOTOUT	0	0	0	0
AFR BUFFALO SHOOTOUT	0	0	0	0
IBEX SHOOTOUT	0	0	0	0
RUSA DEER SHOOTOUT	0	0	0	0
BLACK BUCK SHOOTOUT	0	0	0	0

Main Menu
General Audits Menu
Bonus Only Audits Menu

Squeezing the trigger or pull pump to change pages.

BONUS ONLY AUDITS			
BONUS NAME	PLAYED	BONUS NAME	PLAYED
EXIT		page 1 of 3	
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

BONUS ONLY AUDITS			
BONUS NAME	PLAYED	BONUS NAME	PLAYED
EXIT		page 2 of 3	
LUMBERJACK BONUS	0	MONKEY DROP	0
LEMMING BONUS	0	WATERFALL	0
CORN POPPER BONUS	0	SHRUNKEN HEAD	0
PUMPKIN BONUS	0	FROG HOP BONUS	0
OFF THE RAILS BONUS	0	OSTRICH BONUS	0
BARNSTORM BONUS	0	TARANTULA BONUS	0
FISH IN BARREL BONUS	0	PINWHEEL BONUS	0
MOUNT BUCKMORE	0	MEER KAT BONUS	0
CHICKEN & EGG BONUS	0	DRUM BEAT BONUS	0

BONUS ONLY AUDITS			
BONUS NAME	PLAYED	BONUS NAME	PLAYED
EXIT		page 3 of 3	
BOOBY TRAP BONUS	0	KANGAROO BONUS	0
HYENA BONUS	0	STEW POT BONUS	0
TURTLE TOSS BONUS	0	SNAKE CHARM BONUS	0
CHAMELEON BONUS	0	CROC BLOCK BONUS	0
ANT BONUS	0	ELEPHANT BONUS	0
PYGMY BIRD BONUS	0	CLOTHESLINE BONUS	0
BAT CAVE BONUS	0		
BOOMERANG BONUS	0		
CRAB WALK BONUS	0		

Big Buck® World™ Conversion Kit

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

EXIT
HIGH SCORES: PRO TURN-BASED
HIGH SCORES: PRO SHOOTOUT
HIGH SCORES: SAF. TURN-BASED
HIGH SCORES: SAFARI SHOOTOUT

Main Menu

High Scores Menu

High Scores: Pro Turn-Based Menu

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

Main Menu

High Scores Menu

High Scores: Pro Shootout Menu

HIGH SCORES: PRO 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

High Scores: Saf. Turn-Based Menu

HIGH SCORES: SAF. TURN-BASED
EXIT
SABLE ADVENTURE
KUDU ADVENTURE
WILDEBEEST ADVENTURE
GEMSBOK ADVENTURE
AFRICAN BUFFALO ADVENTURE
IBEX ADVENTURE
RUSA DEER ADVENTURE
BLACK BUCK ADVENTURE
PERFECT STREAK
PERFECT SITES

Main Menu

High Scores Menu

High Scores: Safari Turn-Based Menu

HIGH SCORES: SAFARI TURN-BASED
EXIT
SABLE SHOOTOUT
KUDU SHOOTOUT
WILDEBEEST SHOOTOUT
GEMSBOK SHOOTOUT
AFRICAN BUFFALO SHOOTOUT
IBEX SHOOTOUT
RUSA DEER SHOOTOUT
BLACK BUCK SHOOTOUT

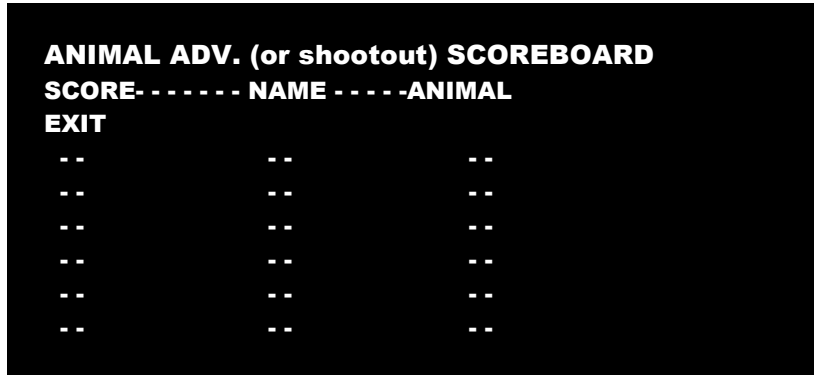
Big Buck® World™ Conversion Kit

Main Menu

High Scores Menu

Animal Scoreboard

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



Main Menu

Online Menu

These menus cover all online interaction with CoinUp®. See CoinUp® Operation section for details.

Main Menu

Gun Calibration Menu

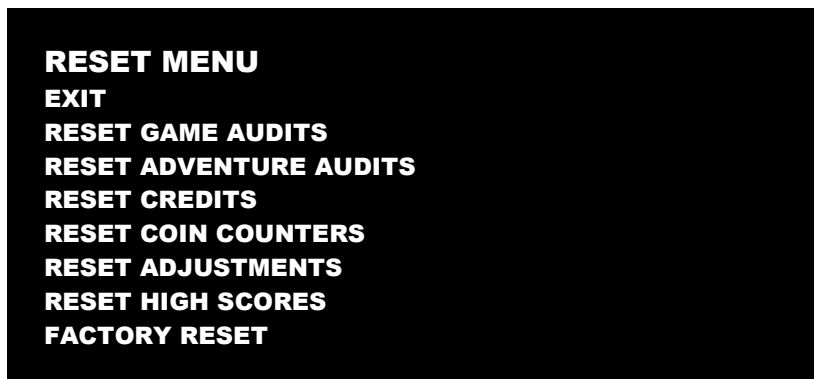
This is the same procedure described earlier in the **First Calibration** section.

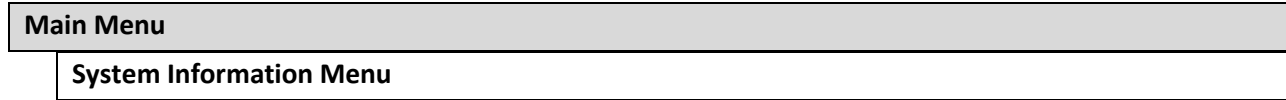
Main Menu

Reset Menu

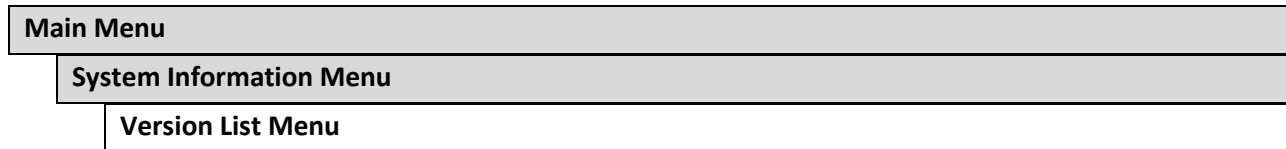
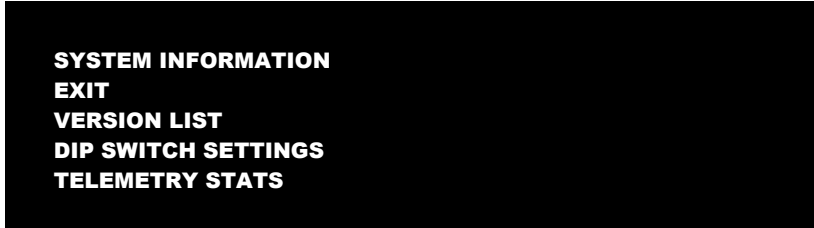
In addition to resetting individual counters and audits, this menu erases most of your changes. *Factory Reset* clears all audit data and restores most defaults. The following data, however, is not cleared:

- Calibration
- Registration
- Game activation
- Lifetime coin count





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



This checks the game's hardware and software versions.



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



Big Buck® World™ Conversion Kit

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

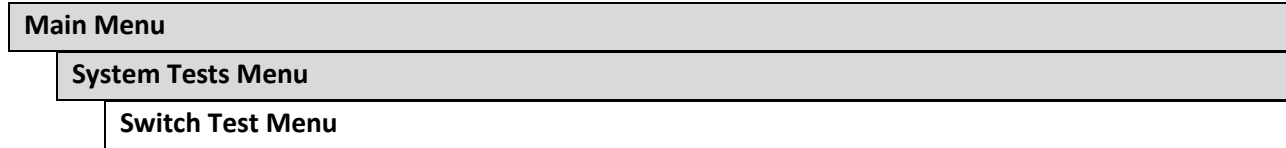
Main Menu

System Tests Menu

These tests check the functioning of peripherals.

SYSTEM TESTS

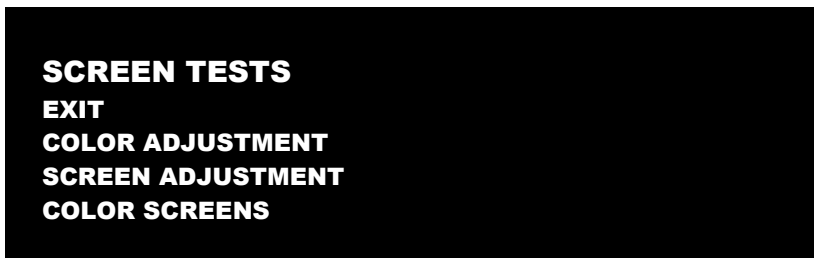
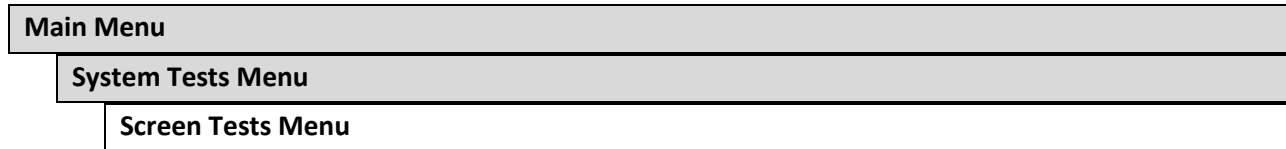
- SWITCH TEST
- SCREEN TESTS
- SOUND TEST
- FILE TEST
- COIN METER TEST
- START BUTTON LAMPS
- WATCHDOG TEST
- GUN TRACKING TEST
- ETHERNET PORT TEST
- CARD TEST



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



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.



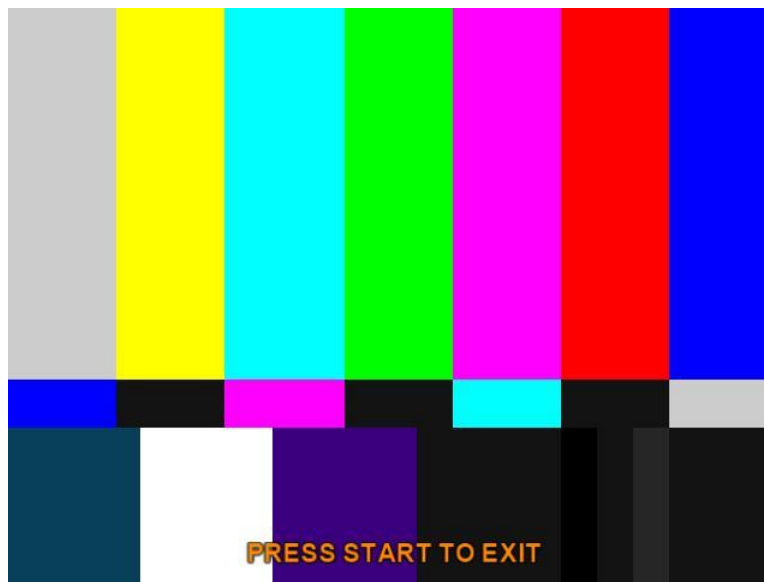
Big Buck® World™ Conversion Kit

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)





This crosshatch screen helps adjust width, 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

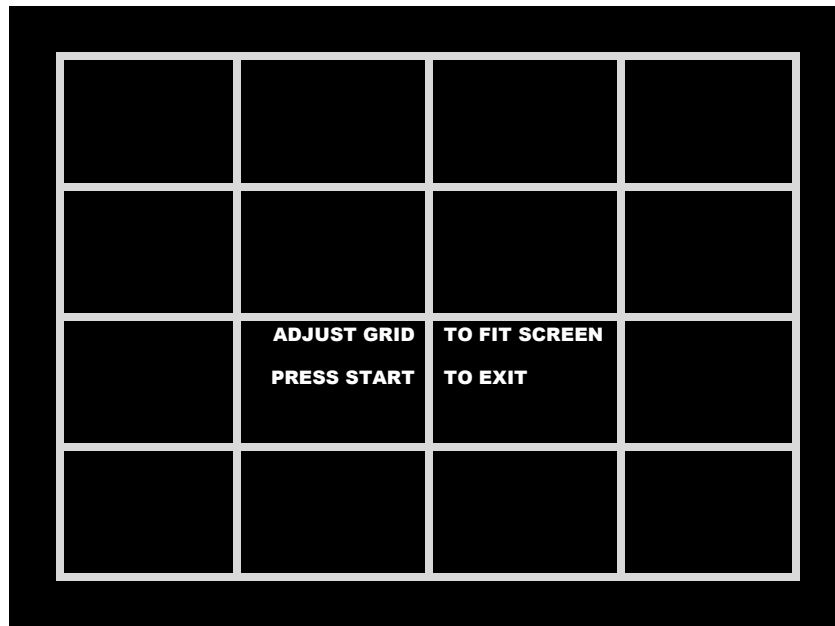
All lines in the crosshatch pattern must be white. Else, there is a convergence or purity problem. Slight color tinges at the extreme edges of the screen are okay.

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.



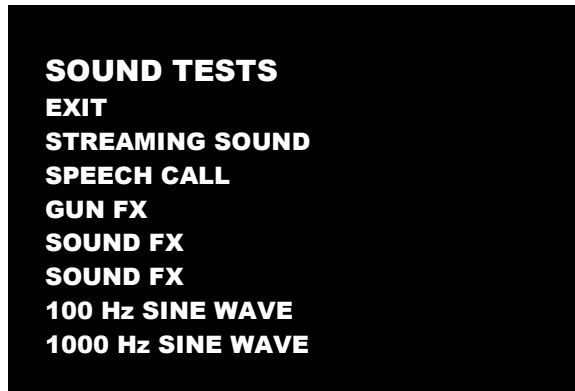
Big Buck® World™ Conversion Kit

Main Menu
System Tests Menu
Screen Tests Menu
Color Screens

These are 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

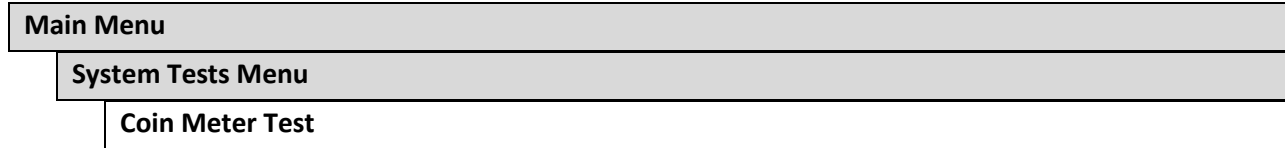
This checks sound volume and quality. Missing sounds indicated digital flaws. Distorted sounds suggest analog flaws. Lack of sound suggests disconnected or bad cables or speakers.



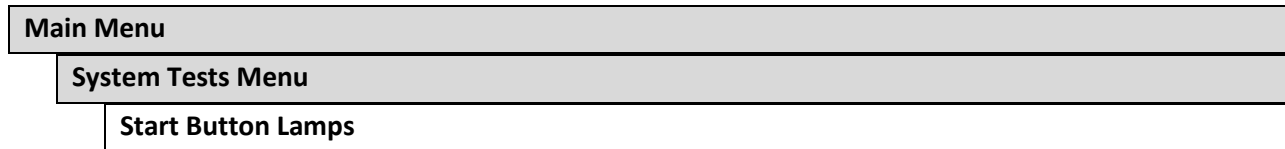
- STREAMING SOUND is a sample of the game music.
- SPEECH CALL includes talking commentary.
- GUN FX is the shotgun blast.
- The first Sound FX is a whistle.
- The second Sound FX is a guitar riff.
- 100 and 1000 Hz Sine Waves generate specific frequency sounds. Cancel these sounds by selecting another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

Main Menu
System Tests Menu
File Tests

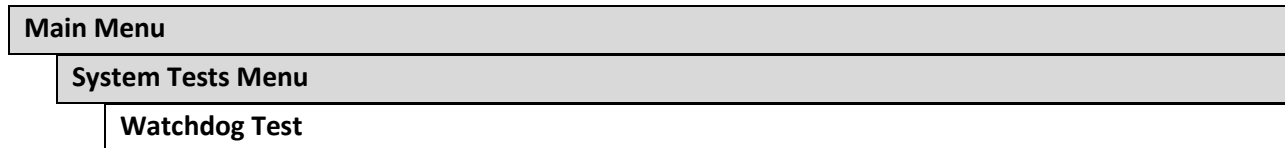
This tests the integrity of the contents of the hard drive, searching for corrupt or missing game files. Damaged or missing files register as failed and are listed. The only solution to this problem is to restore the system from the DVD-ROM, as described in the Restore the Hard Drive section.



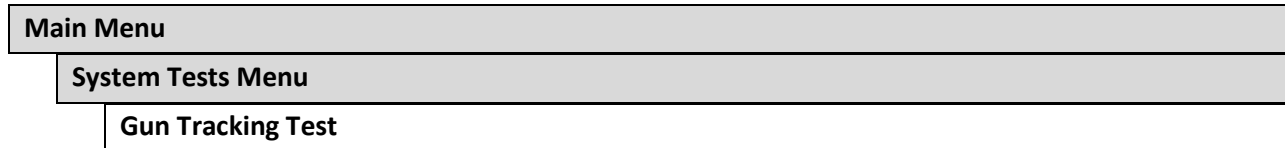
In this test, the System Tests Menu is the bottom-level menu. Watch the mechanical coin meter, which should increment by one count. If it does, it has passed the test. If it does not, it may not be receiving a pulse from the game. See Troubleshooting for more details.



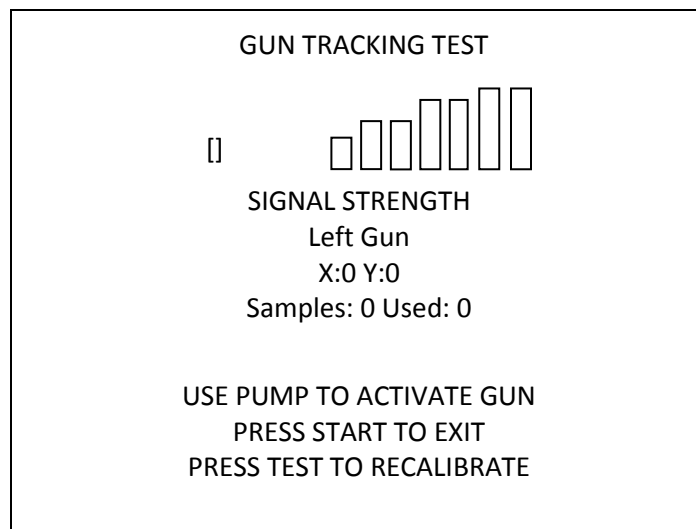
This test checks for burned-out Start button lamps by alternately blinking the LEDs.



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.



This test tracks the gun with a square and indicates the strength of the signal with color intensity on a bar graph. It also shows the x/y coordinates of where the gun is aiming. Squeeze the trigger to show how many samples are being taken,



Big Buck® World™ Conversion Kit

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           NEVER  
GROSS COLLECTIONS             $0.00  
COINUP FEES                   $0.00  
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 ADVERTISEMENTDOWNLOADS	\$0.00
COINUP ADVERTISEMENT DOWNLOADS	\$0.00
COMMUNICATIONS CHARGE	\$0.00
UPGRADE CHARGE	\$0.00
TOTAL COINUP FEES	\$0.00

Big Buck® World™ Conversion Kit

Maintenance

Hard Drive Recovery Procedure

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.

1. With game and PC on, insert recovery DVD, marked as Disc 1, into DVD-ROM drive tray.
2. Close tray and Turn cabinet AC power switch to OFF.
3. Wait 30 seconds, then turn AC power switch to ON.
4. When PC boots up, recovery begins automatically.
If recovery fails to begin, check that disc is seated properly in DVD-ROM drive tray.
5. Initial software loading may take several minutes. Check progress periodically.
Do not interrupt power or reset the game during recovery.
6. At some point, the game will eject *Disc 1* and prompt you to insert *Disc 2*.
Swap discs and close the tray. *Do not interrupt power or reset the game.*
Restore will continue automatically after a few moments.
7. When software has finished loading, a message indicates that restore is complete.
When instructed to remove *Disc 2*, open DVD-ROM drive tray and remove disk.
8. Turn cabinet power switch off.
9. After 30 seconds, turn cabinet power switch on.
10. Game will reboot and enter calibration mode.
11. Re-calibrate guns.
12. Settings will now be factory defaults – make changes as desired.

BIOS Settings

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.

BIOS Adjustment Procedure

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 adjustments found on the next page.
6. Follow instructions on screen to save and exit.
7. PC will reset and load the game.

BIOS Adjustments Table for Dell Computers

Level	Item	Value
System	Boot Sequence	<ol style="list-style-type: none"> 1. CD/DVD/CD-RW Drive 2. USB-ZIP 3. USB Device 4. Hard Drive 5. USB-FDD 6. USB-CDROM 7. NIC 8. Diskette Drive
Drives	Diskette Drive	USB
Drives	Drive 0:	SATA-0: On
Drives	Drive 1:	SATA-1: On
Drives	Smart Reporting	Off
Onboard Devices	Integrated NIC	On
Onboard Devices	Integrated Audio	On
Onboard Devices	USB Controller	On
Onboard Devices	Rear Triple USB	On
Onboard Devices	Rear Dual USB	On
Onboard Devices	Front USB	On
Onboard Devices	LPT Port Mode	EPP
Onboard Devices	LPT Port Address	378H
Onboard Devices	Serial Port #1	COM1
Video	Primary Video	Onboard/Card
Video	Video Memory Size	16MB
Performance	HDD Acoustic Mode	Bypass
Security	Admin Password	None
Security	System Password	None
Security	Drive 0 Password	None
Security	Drive 1 Password	None
Security	Password Changes	Unlocked
Security	Chassis Intrusion	Off
Power Management	AC Recovery	On
Power Management	Auto Power On	Off
Power Management	Low Power Mode	Off
Power Management	Remote Wake-Up	Off
Power Management	Cool and Quiet	Off
Power Management	Suspend Mode	S3
Maintenance	ASF Mode	Off
Maintenance	Fastboot	On
Post Behavior	Numlock Key	On
Post Behavior	Post Hotkeys	Setup & Boot Menu
Post Behavior	Keyboard Errors	Do Not Report

Big Buck® World™ Conversion Kit

Wiring and Parts

JAMMA I/O Board Connector Table

JAMMA Edge Connector Component Side			JAMMA Edge Connector Solder Side		
Function	Wire Color	Pin	Pin	Wire Color	Function
Ground	Black	1	A	Black	Ground
Ground	Black	2	B	Black	Ground
5 Volts	Red	3	C	Red	5 Volts
5 Volts	Red	4	D	Red	5 Volts
		5	E		
12 Volts	Orange	6	F	Orange	12 Volts
12 Volts	Orange	7	H	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	M	Brown Black	Speaker (-)
		12	N		
		13	P		
		14	R	Violet White	Service
Test	Blue	15	S		
Coin 1	Gray Brown	16	T	Gray Blue	Coin 2
P1 Start	White Brown	17	U	Green Brown	P2 Start
		18	V		
		19	W		
		20	X		
		21	Y		
		22	Z		
		23	a		
Volume (+)	Orange Red	24	b	Orange Green	Volume (-)
DBV	Gray Orange	25	c		
		26	d		
Ground	Black	27	e	Black	Ground
Ground	Black	28	f	Black	Ground

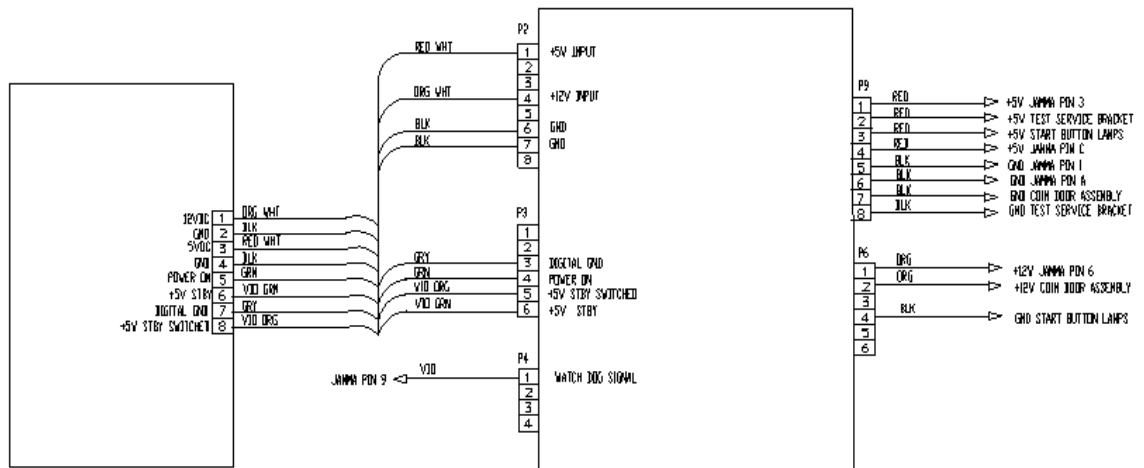
Gun I/O Board Connector Table

Player 1			P4	P5	Player2	
Function	Wire Color	Pin	Pin	Wire Color	Function	
5 Volts	Red	1	1	Red	5 Volts	
Trigger	Yellow	2	2	Yellow	Trigger	
Sensor	Green	3	3	Green	Sensor	
Pump	Violet	4	4	Violet	Pump	
Ground	Blue	5	5	Blue	Ground	
Ground	Black	6	6	Black	Ground	

PC to Watchdog Board Wiring Diagram

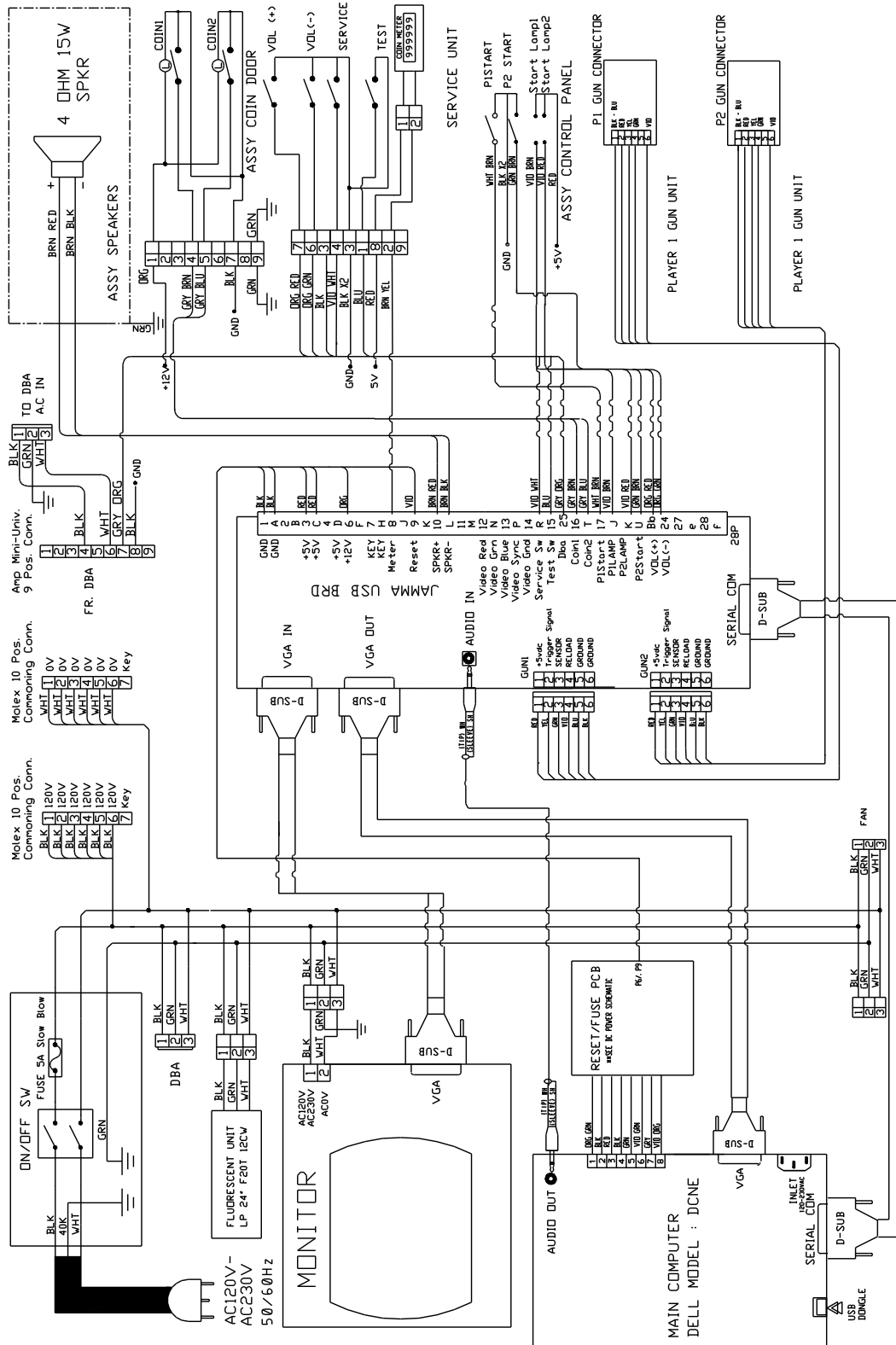
DELL OPTIPLEX 740 PC

FUSE/WATCHDOG PCB

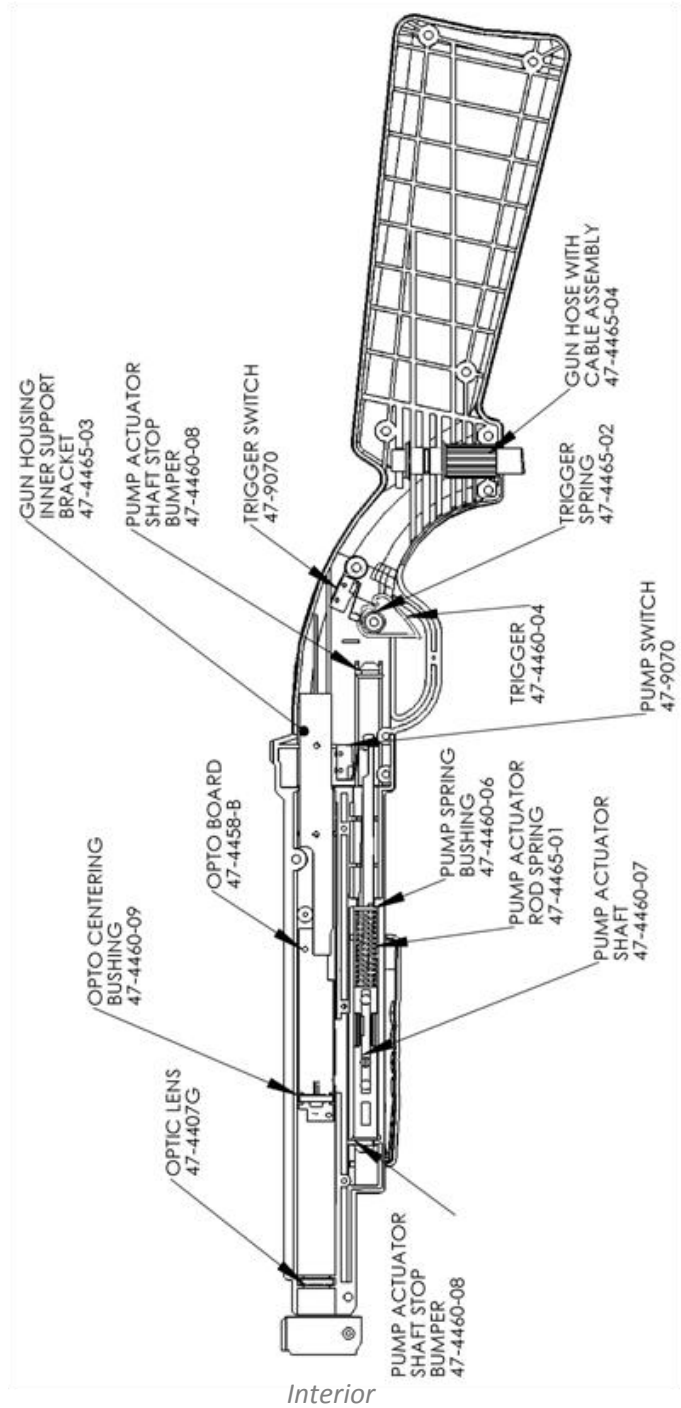
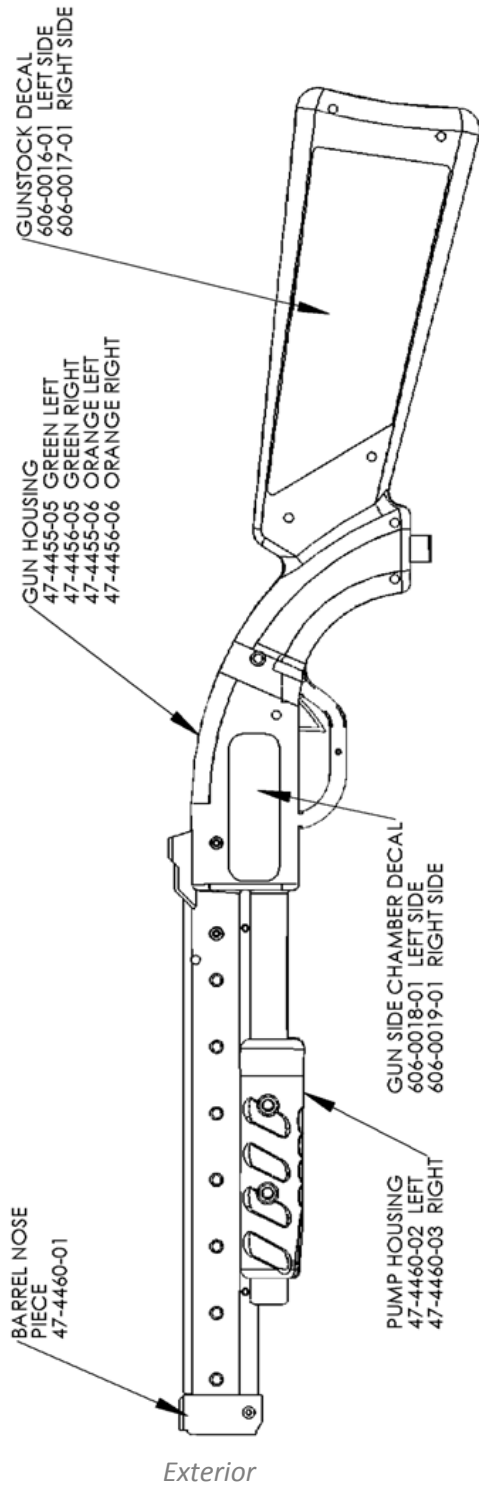


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Cabinet Wiring Diagram

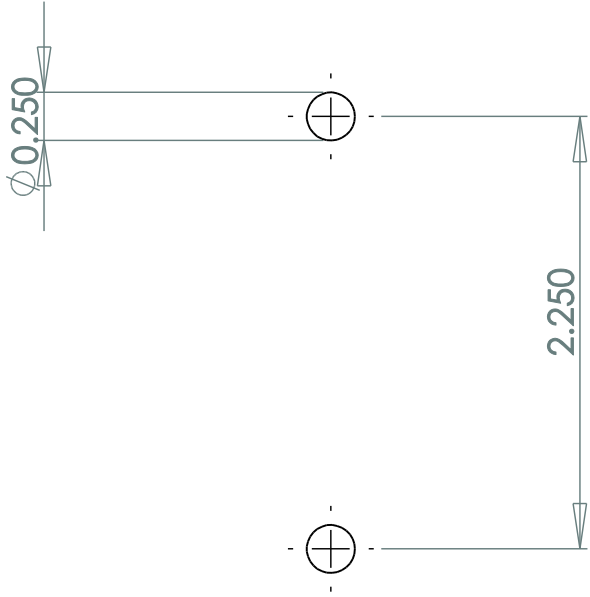


Gun Parts

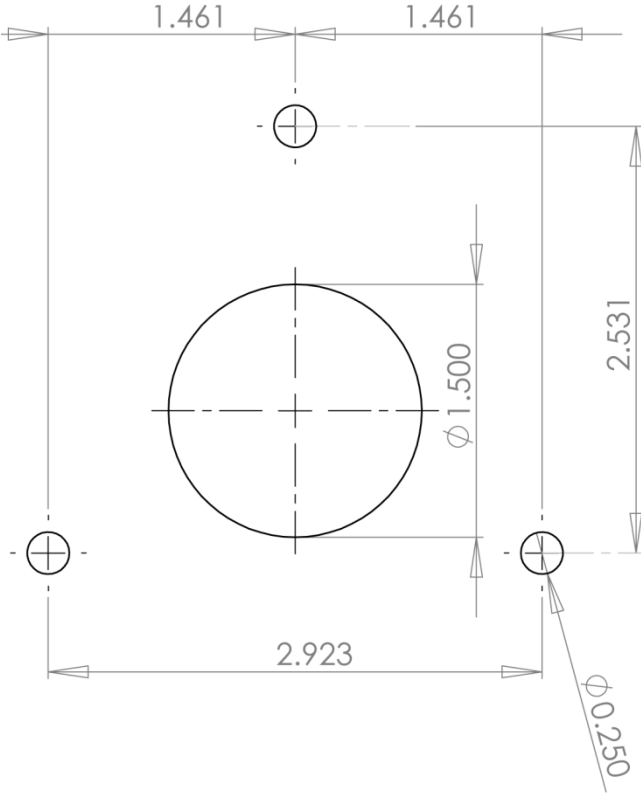


Drilling and Mounting Templates

Gun Hook (should be 6" from front of cabinet)

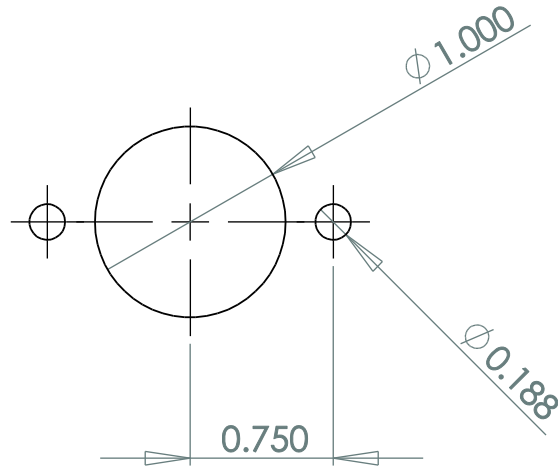


Gun Cable and Cover Plate Mount (see reference illustration for positions on front panel)



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Start Button (see reference illustration for positions on control panel)



Troubleshooting

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

General Troubleshooting

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 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.
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 video cable to monitor.
No sound	Bad Connection	Check connection to speakers.
Game does not load	Hard drive failure	Recover hard drive. See procedure on pg 40
Hard drive test reports "bad" or "missing" files.		
Game fails to finish loading.		
After resetting, game still reports an error.		
Game suggests inserting a boot DVD.		
Erratic game mode or attract mode.		
<p style="text-align: center;">WARNING! Data Files Corrupted. (Game Operation May Become Unstable.) Use "Test" Switch to Enter Test Mode and Run "File Test." Press Start To Continue.</p>		

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Message	Possible Cause	Solution
Guns won't register, or function poorly	Bad calibration	Calibrate guns.
	Dirty/damaged lens	Clean gun lens.
	Gun disconnected	Check connections.
	Bad I/O board	Replace with known working board.
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
<i>No Signal</i>	Video or power cables 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.
<i>Dongle Not Present</i>	Dongle missing or disconnected	Find dongle and reseal in USB port
	Faulty USB port	Insert dongle in different USB port
<i>Connect I/O Board or I/O Board Missing</i>	USB cable disconnected	Check USB connection from PC to I/O board
	No power to JAMMA I/O board	Check for proper voltage (+5V, +12V) at JAMMA connector
<i>Watchdog Disabled or Watchdog Failed</i>	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 disconnected	Connect 2-pin reset connector from Reset PCB to motherboard reset pin input
	Violet or black wire from Reset PCB disconnected or faulty	Check reset wire connection to JAMMA connector.

Connection to CoinUp® Troubleshooting

Problem	Possible Cause	Solution
Game has IP address and screen says <i>Server Ping Success</i> but Test Connection screen reports Database Ping failure or File Server Ping failure.	Firewall is blocking communication with server.	Read firewall documentation. Ensure configuration allows ICMP Echo. If router has built-in firewall, check router configuration. Enable communication on ports 7786 and 7787.
	Database or File Server is down	Wait 30 minutes and revisit Test Connection screen. If still reporting failure, call CoinUp® service.

Ethernet Connection Troubleshooting

Problem	Possible Cause	Solution
Game cannot connect to CoinUp® server. No IP address appears under Test Connections menu	No broadband internet service	Contact a local ISP to setup either cable modem or DSL service.
	Wrong router configuration	Configure router for DHCP (Dynamic Host Configuration Protocol).
	Disconnected Ethernet cable	Check that Ethernet cables are tightly connected at both ends. An audible click confirms tightness. Reboot game. In Diagnostic mode, select Online Menu then select Connection Menu then Test Connection. Confirm that IP address appears. The phrase eth0 must follow IP address.
	Faulty Ethernet cable	Test cable by connecting it from another PC into router or wall jack. Replace cable if faulty.
	Faulty Ethernet wall jack.	Plug Ethernet cable into a different jack.
	Broadband service is down.	Contact ISP.
	Faulty router	Plug Ethernet cable into different jacks in router. Plug Ethernet cable directly into DSL or cable modem instead of router. Replace router if faulty
	Faulty network card	Call CoinUp® service

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Cellular Connection Troubleshooting

Problem	Possible Cause	Solution
<p>Game cannot connect to CoinUp® server</p> <p>No IP address appears under Test Connections menu</p>	Poor connection between cell modem and PC.	<p>Check that USB connections at cell modem and PC are tight. Turn off cabinet AC power. Wait 30 seconds and reboot game.</p> <p>If still no connection, enter Diagnostics system and go to Connection Menu. Select Cell Modem Details.</p> <p>If message is <i>No Modem Found</i> or <i>Collecting Data</i>, call CoinUp® service.</p>
	Faulty cell modem	<p>Ensure PWR LED on cell modem glows green, which means PC is providing modem with power. If no power, swap with working modem. Check modem for obvious damage (dents, burns, smoke damage, broken connectors)</p> <p>If modem seems fine, call CoinUp® service.</p>
<p>Cell modem connection is good and IP address appears at Test Connection screen. Under Cell Modem Details, signal is weak or nonexistent.</p>	Poor antenna location	Turn off game and move it near window or exterior wall.
	Faulty connection	Check connections between cell modem and antenna. If cable is frayed, broken or looks dried-up, replace it. Replace antenna if it appears damaged.

Wi-Fi Connection Troubleshooting

Problem	Possible Cause	Solution
Wi-Fi Details status is <i>Not Connected</i> and Adapter is <i>Not Found</i> .	A supported USB Wi-Fi adapter is not connected.	Connect a supported Wi-Fi adapter. Turn cabinet AC power off for a minute and reboot.
	Faulty network card	Call CoinUp® service
Wi-Fi Details status is <i>Not Connected</i> , but a supported adapter is connected.	Wi-Fi network information was not saved.	Configure game to connect to Wi-Fi network at Wi-Fi Setup Menu.
Wi-Fi Details status remains <i>Locating Access Point ...</i> for more than 5 minutes.	Weak signal or interference causing delay in locating access point.	Restart cabinet AC power.
	Wireless access point or router is off or disconnected.	Ensure access point has power. Ensure it is connected to router. Restart access point. Ensure router has power and is connected to cable/DSL modem.
	Network information entered in Wi-Fi Setup does not match information stored in the wireless access point or router.	Re-enter network information. Configure game to connect to network in Wi-Fi Setup Menu. Ensure encryption type, encryption key, SSID and broadcast channel match what is stored in wireless access point or router.
Wi-Fi Details status remains <i>Obtaining IP Address...</i> for more than 5 minutes.	Weak signal or interference delaying negotiation of IP address with router.	Restart cabinet AC power.
	Wireless access point or router is off or disconnected.	Ensure access point has power. Ensure it is connected to router. Ensure router has power and is connected to cable/DSL modem.
Game has an IP address, but Test Connection menu shows that Server, Database and Fileserver pings all report failures.	Server information is outdated.	In Diagnostics Menu, select Online Menu, then select Online Debug Menu then View Online Debug Details then Server Details and finally Refresh Server Info. After refresh, new host names and IP addresses of CoinUp® servers are displayed.

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CoinUp®

Operation Overview

Having your game connected to CoinUp® allows easy access to software updates and permits game health and earnings to be monitored via coinup.com. There are three ways to connect to CoinUp®: through an Ethernet cable, a cellular modem, or a Wi-Fi connection.

Preparation

1. Open a bank debit account.
2. Complete CoinUp® Operator Registration Packet.
 - Fill out the CoinUp® *Authorization Agreement for Automated Payments*.
 - Read and sign the CoinUp® *Participating Operator Agreement*.
 - Read and sign the CoinUp® *Operator Registration Form*.
3. To become an authorized operator, fax the forms to (630) 348-2099 or mail them to:
Play Mechanix™
800 Roosevelt Road, Suite D-103
Glen Ellyn, IL 60137
Authorization occurs in just a few days. Login information will be sent via email.
4. (Optional) To purchase a cellular modem, read and sign the *Cell Modem Service Agreement* in the Forms section of this manual. Fax the completed form to (630) 348-2099.
5. (Optional) To install Wi-Fi, purchase a supported Wi-Fi adapter to connect via wireless network.

Unit Registration

Following installation, after reboot, you will be prompted to register the game. Use the gun to navigate through this process.

1. If you skip registration, you can do it later via the diagnostic menu by selecting the Online Menu, then selecting Game Registration Menu, then Game Register.
2. Login manually by entering your operator ID number and PIN.
3. Once logged in, follow the on-screen prompt to add or select a location and complete registration. See Game Registration section for more detailed steps to complete this process.

Access CoinUp® Operator Center

The CoinUp® Operator Center tracks the performance of your games. For example, you can compare performance of different machines at the same location, or even across locations. To access CoinUp® and view your pages, follow the steps below. From there, the site provides guidance. You follow easy prompts and navigate to the statistic, accounting, bookkeeping or performance data that you need.

1. Access the CoinUp® Web site at www.coinup.com.
2. Enter the account e-mail address and password to login.
3. (Optional) To change login information, use the Profile tab.
4. Select locations or products to view.

FCC Compliance You are solely responsible for FCC compliance on installations.

Network Installation

Installation Process Overview

1. Install the Internet Connection
2. Install software from game restore DVD, if needed.
3. Register the game.

DAMAGE POSSIBLE Be extra careful when drilling into the cabinet. Be sure not to drill into cabinet components. Drill only into empty space.

Install Ethernet Cable (option 1)

1. Set up DSL or cable modem service through an ISP.
2. Turn off AC power.
3. Unplug the power cord.
4. Center punch a hole for the Ethernet cable.
5. Using a 5/8-inch drill bit, drill a cable hole.
6. Run the Ethernet cable to the cabinet.
7. Route the Ethernet cable through the cabinet hole.
8. Open the back door.
9. Inside the cabinet, dress the Ethernet cable away from other cables and metallic parts.
10. Locate the RJ45 Ethernet jack on the back of the PC.
11. Connect the Ethernet cable to the RJ45 jack on the PC.
12. Close the back door.
13. Plug in power cord.
14. Turn on AC power.

Install Cell Modem (option 2)

1. Set aside the modem, Velcro® strips and extender cable.
2. Turn off AC power.
3. Unplug power cord.
4. Open the back door.
5. Remove the adhesive protection from one side of the Velcro® strips.
Keep the Velcro® strips together.
6. Locate a clear and accessible space for the modem near the PC.
7. Lift the modem and stick one side of the strips to the shelf beneath the modem location.
8. Remove the adhesive protection from the free side of the Velcro® strips.
9. Press the modem to the sticky side of the Velcro® strips.
Ensure that the modem bonds solidly.
10. In the kit, find the modem extender cable.
11. Connect the modem cable to a USB port on the PC.
12. Connect the other end of the modem cable to the cell modem.
13. (Optional) Install Cell Modem Antenna (see below)

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14. Close the back door.
15. Plug in power cord.
16. Turn on AC power.

Install Cell Modem Antenna

A cell modem antenna is optional. However, an antenna will help ensure the best possible connection. Note that the cable is part of the antenna and these instructions cover mounting the antenna to the cabinet roof. However, other locations may provide better reception, such as a wall, near a window, etc.

Antenna Location Guidelines

- Keep the antenna vertical.
- Mount the antenna as high as possible.
- Avoid mounting an antenna near power lines.
- Avoid areas where people could trip on a cable.
- Don't tempt vandals: If possible, keep the antenna out of plain sight.

DO NOT USE ADHESIVE. Only use Velcro® strips for mounting antenna. Do not use the factory-applied, permanent adhesive backing. Doing so may damage the antenna and the cabinet when removing the antenna during a cabinet relocation. The warranty does not cover this sort of damage.

Antenna Installation

1. Set aside the antenna and the Velcro® strips from the kit.
2. Turn off AC power.
3. Unplug power cord.
4. Open the back door.
5. In a clear space, center punch the antenna cable hole.
6. Using a 5/8-inch hole bit, drill the hole for the antenna cable.
Avoid implosion. Read the warning above.
7. Slide the antenna coaxial cable down the cable hole and into the cabinet.
8. Remove the protective strip from one side of the Velcro® strips.
Keep the hook and loop Velcro® strips together.
9. Mount the sticky side of the Velcro® strips to the bottom of the antenna.
You can apply the Velcro® sticky side to the adhesive on the antenna base. Do not let the antenna adhesive come into contact with the cabinet. The Velcro® must separate the antenna adhesive and the cabinet.
10. Remove the adhesive protection from the free side of the Velcro® strip.
11. Mount the free side of the Velcro® strip to the roof.
12. Dress the antenna coaxial cable away from other cables and metallic parts.
13. Connect the antenna cable plug to the jack on the modem.
14. Close the back door.
15. Plug in power cord.
16. Turn on AC power.

Install Wi-Fi Adapter (option 3)

ADAPTER MODEL	Supported Networks	Encryption Type / Compatible?							
		Disabled None	WEP	WPA-Personal + TKIP encryption	WPA-Personal + AES encryption	WPA2-Personal (AES encryption)	WPA2-Mixed (TKIP & AES)	WPA Enterprise	RADIUS
Linksys WUSB54G (version 4)	802.11b/g	YES	YES	YES	YES	NO	NO	NO	NO
Rosewill RNX-G1 RNX-G1W	802.11b/g	YES	YES	YES	YES	YES	YES	NO	NO
Netgear WG111 (version 2)	802.11b/g	YES	YES	YES	YES	YES	YES	NO	NO
D-Link DWA-140 (version 81)	802.11b/g	YES	YES	YES	YES	YES	YES	NO	NO
Belkin F5D8053 (version 3000)	802.11b/g/n	YES	YES	YES	YES	YES	YES	NO	NO
Linksys WUSB600N (version 1.0)	802.11b/g/n	YES	YES	YES	YES	YES	YES	NO	NO

Supported Wi-Fi Adapter Compatibility Chart

Obtain Supported Adapter

- Obtain one of the supported USB Wi-Fi adapters listed in the chart above.
Be sure the listed model and version number matches or the device will not work.
- Play Mechanix™ carries a small stock of Rosewill devices.
To purchase one directly, contact Dave at dsnipes@playmechanix.com or 630-942-1070 x131.
Adapters costs \$30.00 plus shipping. This one-time fee will be added to your CoinUp® invoice.

Wi-Fi Installation

Warning: Do NOT install software that came with adapter. The game already runs appropriate software.

1. Turn off cabinet AC power.
2. Unplug power cord.
3. Open the back door.
4. Mount Wi-Fi adapter inside cabinet as high as possible using Velcro®.
*If necessary, use a USB extension cable to connect adapter to PC.
Most supported adapters come with a USB extension cable.*
5. Connect cable to a USB port on the PC.
6. Close back door.
7. Plug in power cord.
8. Turn on AC power.
9. Complete Wi-Fi software setup.
Game will not connect properly to CoinUp® until setup is successfully completed.

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Wi-Fi Software Setup

WARNING Do **not** install software that comes with the adapter. Game already runs Wi-Fi software.

Prepare for Setup

1. Log into wireless access point or router.
2. Write down Wi-Fi network information on a sheet of paper:
 - SSID (network name)
 - Broadcast Channel
 - Encryption Type (WEP 64-bit, WEP 128-bit, WEP 256-bit, WPA-PSK + TKIP encryption, WPA-PSK + AES encryption, WPA2)
 - Encryption Key (Different encryption types require different keys. See below for examples)

Encryption Type	Key Details	Example
WEP (64-bit)	10 hexadecimal characters	5E2C6D4E24
WEP (128-bit)	26 hexadecimal characters	326C2D335A5A48386B5D763954
WEP (256-bit)	58 hexadecimal characters	373A786E625676266E7156345741 312F4433427C48536E7A695E7C3E75
WPA-PSK (AES) WPA-PSK (TKIP) WPA2 (AES + TKIP)	ASCII pass phrase between 8-63 characters long. (upper case letters, lower case letters, numbers and symbols are allowed.)	\$3CurE_pA\$sPhRa\$e

Encryption Key Examples

Network SSID

1. Enter Diagnostics mode.
2. Select Online Menu, then select Wi-Fi Menu and select Wi-Fi Setup.
3. Select Scan Networks to look for nearby Wi-Fi networks.
*Depending on settings, networks may not broadcast their SSID. These networks are displayed as ****HIDDEN****. To use a hidden network, select it, and enter the SSID manually when prompted.*
4. Scroll through the detailed list to locate your network.
5. If network does not appear in list, Exit to previous menu and select Enter Manually, then enter SSID, encryption type, key and broadcast channel.
6. Select Use this Network to continue.

Encryption Type

1. From the list of encryption types, scroll through and highlight the appropriate type.
2. Select Use This Encryption to Continue

Encryption Key

If the encryption type is disabled/open, skip this section, because there is no key.

1. At the Enter WPA Key screen, enter access point or router WPA Key (from information gathered during preparation earlier)
2. Select yellow < and > symbols to switch between letters, numbers and symbols.
3. On the letters page, select UPPER or lower to change case of letters
4. Select OK to continue.

Broadcast Channel

This section applies only if the SSID was entered manually.

1. Scroll through the list to highlight the appropriate channel.
2. If you are unsure of the correct broadcast channel, select Auto
3. Select use This Channel to continue.

Confirm Settings

1. Note the SSID, Encryption Type, Encryption Key and Channel on the confirmation screen.
2. If the information is incorrect, select Start Over to return to the Wi-Fi menu.
3. If the information is correct, select Save Settings to store the information.
The game automatically reboots.

Wi-Fi Details Status Messages

After reboot, the game attempts to connect to the wireless network using saved information. To view connection status, enter the Diagnostics system and select Online Menu -- Wi-Fi Menu -- Wi-Fi Details. Below are the possible status messages. See Troubleshooting for further instructions.

Connected

The game has located wireless access point or router and successfully obtained an IP Address.
The game is online and ready to be registered with CoinUp®.

Not Connected

The game is neither connected to a Wi-Fi network nor attempting to connect. Either no Wi-Fi adapter is connected to the PC, or Wi-Fi Setup procedure was not completed.

1. If Adapter status is Not Found, ensure a supported Wi-Fi adapter is connected.
2. If Adapter status shows the name of the adapter, ensure SSID status is also correct.

Locating Access Point...

A Wi-Fi adapter is connected to the PC and network information was saved. The game is trying to find an access point broadcasting a network with the saved information.

If game remains in this status more than five minutes, either the network information entered was incorrect, or the game cannot communicate with the access point.

1. Reboot game and return to Wi-Fi Details again.
2. If another five minutes pass with the same status, run Wi-Fi Setup again.
3. Check network signal strength by scanning for available networks in Wi-Fi Setup.
4. If signal is weak, unplug AC power and move cabinet closer to the access point.

Obtaining IP Address

The game has found a wireless access point or router and is acquiring an IP Address.

1. If this status displays for more than 5 minutes, reboot game.
2. Recheck status after reboot.

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Game Registration

After the reboot following CoinUp® installation, you will be prompted to register your location. You can also register by entering the Diagnostic menu, selecting Online Menu, then Game Registration Menu and Game Register.

1. Press the START button to login manually. Enter ID and pin when prompted.
2. The Select A Location screen appears, downloading locations from CoinUp® automatically.
3. Scroll through the list to highlight the appropriate location.
4. Select Use This Location to continue.
5. If the location is not on the list, select Add New Location to continue.
6. When adding a new location, select each letter and then click OK to confirm.
7. After location is chosen, a confirmation screen is displayed.
8. The game checks for updates and messages, then enters Attract mode.

Checking the Connection

Cell Users

1. Enter Diagnostic mode by pressing the TEST service button.
2. Select Online Menu—Connection Details—Cell Modem Details.
3. Note the signal strength, which appears as a fraction with a 5 in the denominator.
A strong signal is 5/5; a weak signal is 1/5 or 2/5.
4. If strength is below 3/5, reposition the cell antenna and recheck signal strength.

Wi-Fi Users

1. Enter Diagnostic mode by pressing the TEST service button.
2. Select Online Menu, then select Wi-Fi Menu and Wi-Fi Details
3. Note the signal strength. More green bars are better.
4. Note the link quality. A higher percent is better.
5. If either link quality or signal strength is low, try repositioning the adapter.

All Users

1. Enter Diagnostic mode by pressing the TEST service button.
2. Select Online Menu then select Test Connection.
3. Watch as the game confirms that:
 - It can obtain a valid IP address.
 - It can contact the CoinUp® server.
 - It can access the CoinUp® database.
 - It can access the CoinUp® file server.
4. The right side of the screen reports test results: SUCCESS or FAILURE.
The only acceptable result is four SUCCESS indications.
If any test results in FAILURE, see the Troubleshooting chapter or call your distributor.

Online Operation

1. Ensure game remains connected to the Wi-Fi, cellular, or Ethernet network.
2. The hard drive stores data about the game location. If the hard drive is removed from the PC, important data will be lost. Do not swap or replace drives without authorization from CoinUp®.
3. Keep game location data accurate. Before moving a game, have the PC communicate with the server, then unregister the game. Re-register the game with updated information at the new location.

Collection Procedure

The CoinUp® server tracks various book-keeping statistics including collections. To see them, log on to the CoinUp® Operator Center page at www.coinup.com and go to the Reports section.

1. During a normal collection, enter the Diagnostics system and select Collections.
2. Review the entire report. The system calculates Gross Collection from the last time the report screen was cleared. This figure and the actual collection should agree.
3. Select Send Collections Message.
4. After sending the collections, coin related audits are automatically reset.
This allows coin audits to accurately reflect earnings since the last collection. If you don't send collections, the next collection won't match the figures on the Collections screen and you will not be able to view your collections on www.coinup.com.
If you wish to reset the other game audits, go to Reset Menu and select Reset Game Audits.
5. Split collection with location as usual. CoinUp® debits your account for its portion.

Accounting Guidelines

After the close of each billing cycle, the monthly CoinUp® billing statement, itemizing the costs of online services, is viewable through the operator account at www.coinup.com.

The statement shows the approximate date of the automatic debit, allowing time to deposit appropriate funds. The automatic debit charges the bank account submitted on your debit account form.

CoinUp® honors company checks but must receive them three or more business days before the debit date. Late or delinquent deposits may exclude a game from access to online features and incur late fees.

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CoinUp® Fee Schedule

Pricing is subject to change without notice

For certain online features, CoinUp® collects a small portion of game revenue at a fixed rate that operators cannot adjust. This portion is included in the player cost for any online play. The location portion of most game features can be adjusted through www.coinup.com under the Game Machines section, or at the game, by entering the Diagnostic menu system and selecting Operator Adjustments then selecting Player Cost. Make adjustments to each game.

Service	Operator	CoinUp®	Total	Who Pays	Note
Basic Play					
Trek	\$1.00	\$0.00	\$1.00	Player, at game	Operator portion is adjustable
Adventure	\$2.50	\$0.00	\$2.50	Player, at game	Operator portion is adjustable
Trophy Club™					
Trek	\$1.00	\$0.50	\$1.50	Player, at game	Operator portion is adjustable
Adventure	\$2.50	\$0.50	\$3.00	Player, at game	Operator portion is adjustable
Custom Contest					
5 sites + bonus	\$1.00	\$0.50	\$1.50	Player, at game	Operator portion is adjustable
10 sites + 2 bonuses	\$2.00	\$0.50	\$2.50	Player, at game	Operator portion is adjustable
15 sites + 3 bonuses	\$3.00	\$0.50	\$3.50	Player, at game	Operator portion is adjustable
CoinUp® Sponsored Content					
5 sites + bonus	\$1.50	\$1.50	\$3.00	Player, at game	Operator portion NOT adjustable
10 sites + 2 bonuses	\$2.50	\$1.50	\$4.00	Player, at game	Operator portion NOT adjustable
15 sites + 3 bonuses	\$3.50	\$1.50	\$5.00	Player, at game	Operator portion NOT adjustable
Player Card	\$0.25	\$2.75	\$3.00	Player, at game	Operator portion NOT adjustable
Monthly Cell Service					
Per unit (if applicable)	N/A	\$27.00	\$27.00	Operator	Taxes and fees from cell provider

Operator discount is based on monthly CoinUp® fees per unit.

Monthly Fee per Unit	Discount
\$0-\$250	5.00%
\$251-\$500	6.00%
\$500 and above	7.00%

Note that discounts are not applicable to the monthly cellular service charges.

Forms

The *Participating Operator Agreement* and all the forms needed to setup a CoinUp® account can be found in your CoinUp® Registration Packet. These forms can also be found online at coinup.com. Included here is the optional *Cell Modem Service Agreement* for those operators who wish to connect to CoinUp® using a Cell Modem.

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Cell#	IMEI	L.O.S	Operator ID#
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Rev. C1

CoinUp® Cellular Terms of Service Agreement

This agreement is made between Play Mechanix™, Inc. (“PM”, “we”, “us”, or “ours”) and the Operator (“Operator”, “you”, or “your”) and covers the usage and fees associated with a cellular modem device (“Equipment”) that you order from us connected to one of your games allowing it to communicate with the CoinUp® online network (“Service”). This agreement must be signed and returned to us before we will activate a new line of service. PLEASE READ THIS AGREEMENT CAREFULLY BEFORE ORDERING CELLULAR SERVICE FOR YOUR CoinUp® CONNECTED GAME AND SIGNING THIS AGREEMENT.

Provision of Services

Upon ordering the cellular modem, Play Mechanix™, Inc. will in turn order a line of cellular service (“Service”) for the cellular modem. Play Mechanix™, Inc. provides cellular service from one or more cellular providers of service throughout the United States (“Cellular Provider”). We do this to gain volume pricing for you and thereby lower the price of the Service. All costs charged to Play Mechanix™, Inc. for your line of cellular service are passed through directly to you. Ordering the Service from us is not the only option for you. You may obtain cellular service independently to connect your game. In this case, you will be responsible for all service fees and commitments. Please contact Play Mechanix™, Inc. before ordering your own cellular modem to ensure that you purchase a modem device that will be compatible with the game.

Service Commitment and Early Termination Fee

By ordering this Service the Operator agrees to the following:

To pay the monthly fee associated with each line of service which will be billed to your CoinUp® account. To keep the Service for at least a period of one year from the date of ordering (“Service Commitment”). After the initial one year term you may terminate the service at anytime with 30 days notice. If you wish to terminate the Service prior to the initial one year term, you agree to pay us an Early Termination Fee of \$175. The Early Termination Fee is not a penalty but rather the exact fee we will be charged by the cellular provider. AFTER YOUR SERVICE COMMITMENT THIS AGREEMENT SHALL RENEW ON A MONTH-TO-MONTH BASIS UNTIL EITHER PARTY GIVES NOTICE OF TERMINATION TO THE OTHER.

30-Day Cancellation Period

You may terminate this agreement within thirty (30) days after activating without paying The Early Termination Fee. You will pay for service fees and charges incurred through the termination date. Also you may have to return the cellular modem purchased with this agreement. If you terminate after the 30th day but before the expiration of the Service Commitment, you will pay PM the Early Termination Fee associated with the line of service terminated. Either party may termination this agreement at any time after your Service Commitment ends with thirty (30) days notice to the other party. We may terminate this agreement at any time without notice if Cellular Provider ceases to provide service in your area. We may interrupt or terminate your service without notice for any conduct that we believe violates this agreement, or if you fail to make available funds to pay for service when due, or if we have reasonable cause to believe that your Equipment is being used for an unlawful purpose or in a way that may adversely affect the Cellular Provider’s service.

Charges and Disputes

You are responsible for paying all charges for or resulting from services provided under this agreement. Your monthly service charges will be billed through your CoinUp® account. Play Mechanix™, Inc. passes through charges directly from the Cellular Provider. If you believe that there is an error in the amount charged to your account for cellular service you may contact Play Mechanix™, Inc. to provide proof of charges from the Cellular Provider for your service. You agree that Play Mechanix™, Inc. will handle all negotiation of rate fees and billing

with the Cellular Provider. Play Mechanix™, Inc. agrees to use its best efforts to resolve any and all billing disputes with the Cellular Provider. Play Mechanix™, Inc. will in its sole discretion determine if a billing error has occurred.

Billing and Payment

Billing takes place through your CoinUp® operator account. All methods of payment and late fees described in your CoinUp® Operator Agreement shall apply.

Changes to Terms and Rates

The Cellular Provider may from time to time change the rates charged for the Service. Generally, if the Cellular Provider raises the rate for Service they will allow us to discontinue the Service without fee or penalty. If Play Mechanix™, Inc. receives notice of a rate increase from the Cellular Provider associated with your Service we agree to notify you and allow you the same option given to us. If the Cellular Provider lowers the rate for Service, the new rate will automatically take effect for you on the same date that it takes effect for us.

Data Connection Limitations

Play Mechanix™, Inc. limits the capabilities of the Equipment so that it is only allowed to make data connections to CoinUp® servers. You agree not to use the Cellular Service provided by us for any other purpose than connecting your Game to the CoinUp® network. If Play Mechanix™, Inc. finds that you are using the Cellular Service for any other such purpose including but not limited to, web browsing, voice calls, and text messaging then we may immediately terminate the Cellular Service in which case you will pay all fees charged to this line of Service including the Early Termination Fee if we terminate this Service before the expiration of the Service Commitment.

Service Limitations and Limitation of Liability

Service may be interrupted, delayed, or otherwise limited for a variety of reasons, including environmental conditions, unavailability of radio frequency channels, system capacity, priority access by National Security and Emergency Preparedness personnel in the event of disaster or emergency, coordination with other systems, equipment modifications and repairs, and problems with the facilities of interconnecting carriers. WE DO NOT GUARANTEE YOU UNINTERRUPTED SERVICE OR COVERAGE. Play Mechanix™, INC. MAKES NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SUITABILITY, OR PERFORMANCE REGARDING ANY SERVICES OR GOODS, AND IN NO EVENT SHALL PM BE LIABLE, WHETHER OR NOT DUE TO ITS OWN NEGLIGENCE, for any: (a) act or omission of a third party; (b) mistakes, omissions, interruptions, errors, failures to transmit, delays, or defects in the service provided by or through us; or (c) damage or injury caused by suspension or termination of service by PM. To the full extent allowed by law, you hereby release, indemnify and hold PM and its officers, directors, employees and agents harmless from and against any and all claims of any person or entity for damages of any nature arising in any way from or relating to, directly or indirectly, service provided by PM or any person's use thereof, INCLUDING CLAIMS ARISING IN WHOLE OR IN PART FROM THE ALLEGED NEGLIGENCE OF PM, or any violation by you of this Agreement. This obligation shall survive termination of your service with PM. PM is not liable to you for changes in operation, equipment, or technology that cause your Equipment or software to be rendered obsolete or require modification. SOME STATES DO NOT ALLOW DISCLAIMERS OF IMPLIED WARRANTIES OR LIMITS ON REMEDIES FOR BREACH. THEREFORE, THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THIS AGREEMENT GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

Miscellaneous

This agreement, the signature sheet, terms of service for products and services not otherwise described herein that are posted on applicable PM web sites, and any documents expressly referred to herein or therein, make up the complete agreement between you and PM. If any provision of the agreement is found to be unenforceable by a court or agency of competent jurisdiction, the remaining provisions will remain in full force and effect. PM may assign this agreement, but you may not assign this agreement without our prior written consent. The law of the state of your billing address shall govern this agreement except to the extent that such law is preempted by or inconsistent with applicable federal law.

Big Buck® World™ Conversion Kit

Signatures

Play Mechanix™, Inc.

Operator Legal Name:

By:

By:

Name/Title:

Name/Title:

Date:

Date:

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, warranty or repair. Betson can be reached at (800) 524-2343 Fax (201) 438-4837 www.betson.com

CoinUp® Service

PlayMechanix™ www.playmechanix.com

800 Roosevelt Road, Suite D-103

Glen Ellyn, IL 60137

(866) 646-1975 fax (630) 942-1073

Betson Enterprises Headquarters

303 Paterson Plank Rd.

Carlstadt, NJ 07072

(800) 524-2343 or (201) 438-1300

fax (201) 438-4837



27" DEDICATED GAME

Setup and Operation
Service Manual



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Safety

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.

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.

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.

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.

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

DC Power Fuse Guide

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

Temperature

32 degrees F to 100 degrees F

(0 degrees C to 38 degrees C)

Humidity

Must not exceed 95% relative humidity

Cabinet Dimensions

Height: 79" (2.01 meters)

Width: 29" (0.74 meters)

Depth: 29 3/4" (0.76 meters)

Cabinet Weight

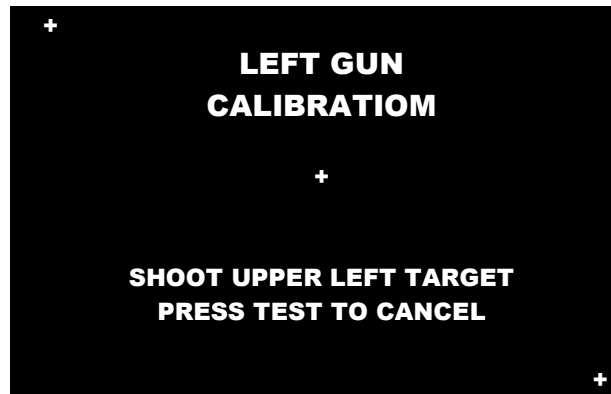
375 lbs. (170.09 kg)

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 coin door key from the coin return chute.
6. Open the top coin door.
7. Locate the key for the back door and the cash box.
8. Open the cash box and remove the plastic tube.
9. Remove the items inside the tube. These include this service manual, AC line cord, bag of tools and a warranty card.
10. Using a wheeled cart and at least one assistant, transport the cabinet to a suitable playing area.
11. Remove packing material from the guns.
12. Ensure the game cabinet is level and stable.
With at least one assistant, adjust the leg levelers.
13. Check the AC line cord for visible signs of damage.
Pay particular attention to the plug and line cord insulation.
14. 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
15. Verify the voltage in the nearest AC outlet.
16. Verify the AC outlet ground connection is present and working.
17. Open the back door of the cabinet.
18. Near the AC power transformer, verify the voltage selector switch is set for the correct AC voltage.
19. Remove the marquee.
20. Verify the fluorescent fixture in the marquee is set for the correct voltage.
21. Plug the line cord into the AC outlet.
22. Replace the back door.
23. Turn the power switch to ON.
24. 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.
25. 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.
26. 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.

First Calibration

Upon first startup and reboots, the game enters calibration mode. Note that weekly gun recalibration helps maintain gun performance, improve player enjoyment and enhance revenue.



1. Remove left gun from the rack and hold the muzzle about three feet from the monitor. Follow the on screen instructions to shoot the target.
2. Once satisfied with the calibration, press the START button corresponding with the gun color.
3. Replace the gun into its rack.
4. Repeat steps 1-3 with the right gun.

Verify Functionality

See the Diagnostic Section for further information.

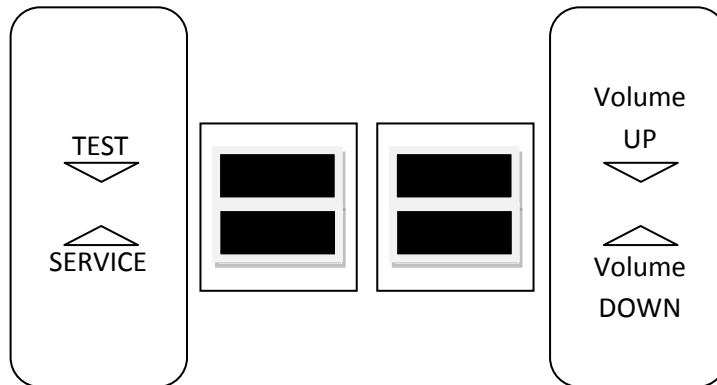
1. Enter the SWITCH TEST menu and verify all switches function.
2. Enter the SCREEN TEST menu and verify that video is acceptable.
3. Enter the SOUND TEST menu and verify the audio works and is not distorted.
4. Enter the COIN METER TEST menu and verify the operation of the coin meter.
5. Enter the START 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.

Diagnostic Menu System

Diagnostic Menu Interface

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 depicted do not include: header, footer or background image.

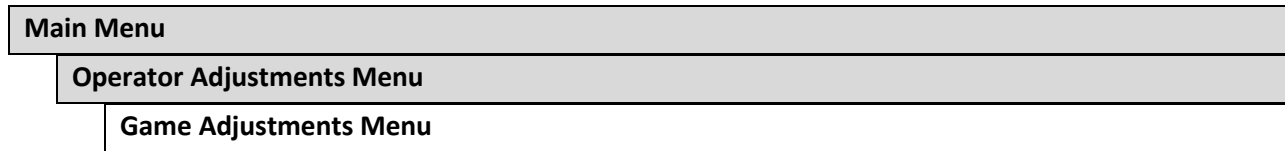
Main Menu

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.

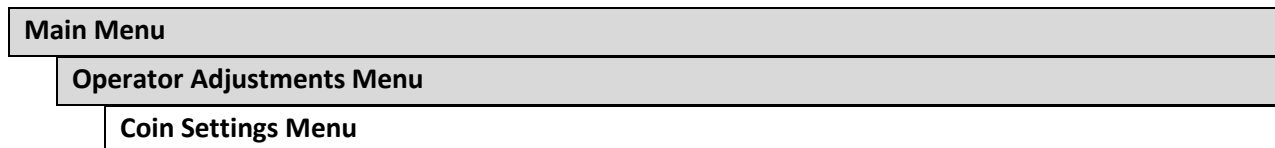


This controls elements of the player experience and the time the game contacts the CoinUp® server to check for software updates.

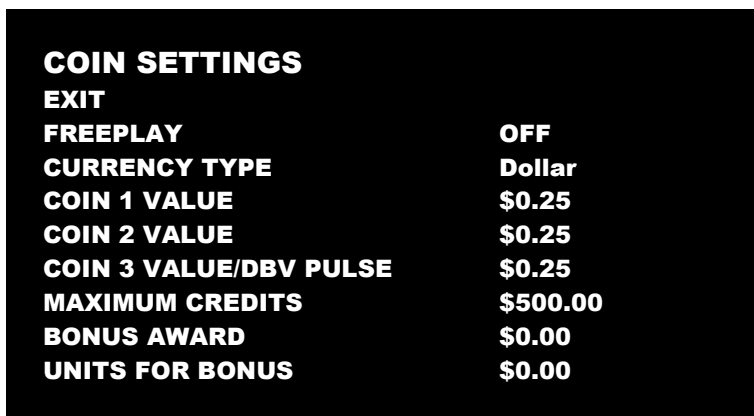


Settings, Defaults and Choices

Setting	Description	Default	Choices
Violence	Changes visual effect of shot animals. <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> FULL NAME. 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



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¢.



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

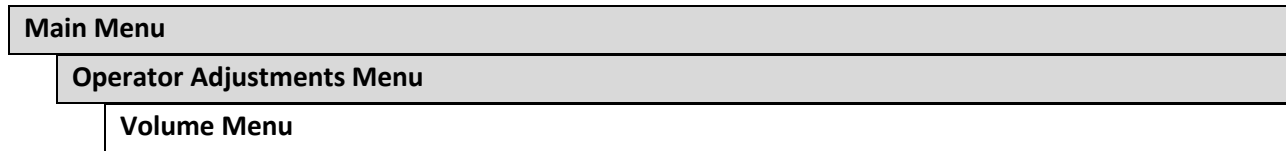
PLAYER COST			
TYPE-----	-OPER FEE-	COINUP FEE -	TOTAL
EXIT			
TREK	\$1.00	\$0.00	\$1.00
ADVENTURE	\$2.50	\$0.00	\$2.50
BONUS ONLY	\$1.00	\$0.00	\$1.00
TROPHY CLUB TREK	\$1.00	\$0.50	\$1.50
TROPHY CLUB ADV.	\$2.50	\$0.50	\$3.00
TROPHY BONUS ONLY	\$1.00	\$0.50	\$1.50
PLAYER CARD	\$0.25	\$2.75	\$3.00

Settings, Defaults and Choices

Setting	Description	Operator Fee Default	Choices
Trek	A <i>trek</i> 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 <i>bonus only</i> 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 Only	This is the online version of bonus only.	\$1.00	\$0.00 - \$63.75 in \$0.25 increments 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.



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 Volume	Determines the lowest setting possible for both Game and Attract Volumes	4	0 – 32
Attract Sounds	This determines how often the game’s “advertising” sounds will be heard.	Occasionally	Off/Occasionally/Always

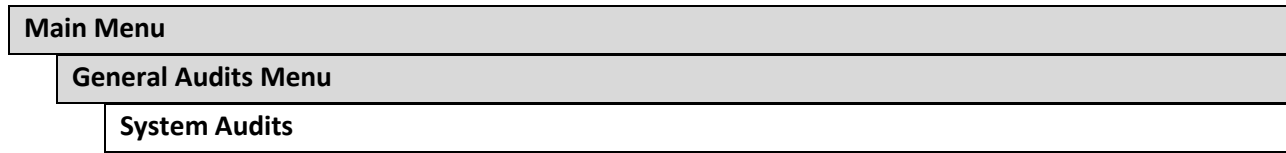
Main Menu
General Audits Menu

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

<p>GENERAL AUDITS EXIT GAME AUDITS SYSTEM AUDITS GAME PURCHASE AUDITS ADVENTURE PURCHASE AUDITS BONUS ONLY AUDITS COIN AUDITS</p>
--

Main Menu
General Audits Menu
Game Audits

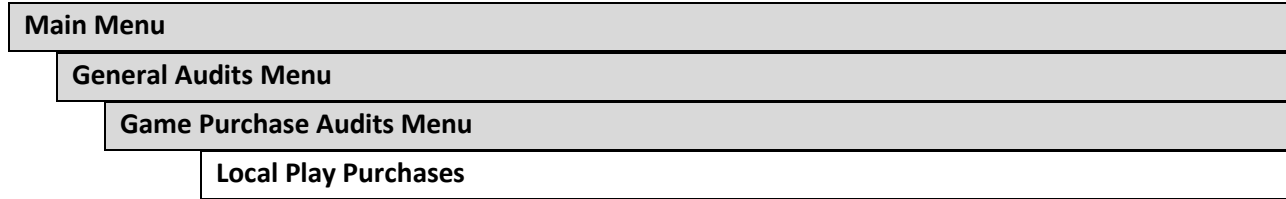
<p>GAME AUDITS EXIT 1 PLAYER GAMES 0 2 PLAYER GAMES 0 3 PLAYER GAMES 0 4 PLAYER GAMES 0 SHOOTOUT GAMES 0 PLAYER STARTS 0 GAMES ENDED 0 GAME WINS 0 CONTINUES 0 CONTINUES OFFERED 0 SHOOTOUT CHALLENGES 0</p>



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



GAME PURCHASE AUDITS
EXIT
LOCAL PLAY PURCHASES
ONLINE PLAY PURCHASES



LOCAL GAME PURCHASE AUDITS
EXIT
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	0
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	0

Main Menu
General Audits Menu
Adventure Purchase Audits Menu

ADVENTURE PURCHASE AUDITS	
EXIT	
ADV PURCHASE AUDITS: PRO TURN-BASED	
ADV PURCHASE AUDITS: PRO SHOOTOUT	
ADV PURCHASE AUDITS: SAF. TURN-BASED	
ADV PURCHASE AUDITS: SAFARI SHOOTOUT	

Main Menu
General Audits Menu
Adventure Purchase Audits Menu
Pro Turn-Based Adventure Purchase Audits

ADVENTURE PURCHASE AUDITS: TURN-BASED				
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
Pro Shootout Adventure Purchase Audits

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
Adventure Purchase Audits Menu
Safari Turn-Based Adventure Purchase Audits

ADVENTURE PURCHASE AUDITS				
ADVENTURE	WHOLE	TREK 1	TREK 2	TREK 3
EXIT				
SABLE	0	0	0	0
KUDU	0	0	0	0
WILDEBEEST	0	0	0	0
GEMSBOK	0	0	0	0
AFRICAN BUFFALO	0	0	0	0
IBEX	0	0	0	0
RUSA DEER	0	0	0	0
BLACK BUCK	0	0	0	0

Main Menu
General Audits Menu
Adventure Purchase Audits Menu
Pro Shootout Adventure Purchase Audits

ADVENTURE PURCHASE AUDITS				
ADVENTURE	WHOLE	TREK 1	TREK 2	TREK 3
EXIT				
SABLE SHOOTOUT	0	0	0	0
KUDU SHOOTOUT	0	0	0	0
WILDEBEST SHOOTOUT	0	0	0	0
GEMSBOK SHOOTOUT	0	0	0	0
AFR BUFFALO SHOOTOUT	0	0	0	0
IBEX SHOOTOUT	0	0	0	0
RUSA DEER SHOOTOUT	0	0	0	0
BLACK BUCK SHOOTOUT	0	0	0	0

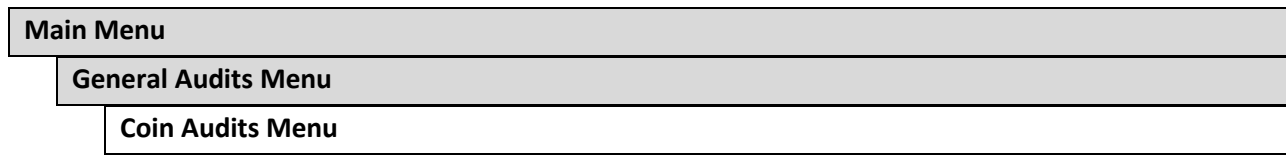
Main Menu
General Audits Menu
Bonus Only Audits Menu

Squeezing the trigger or pull pump to change pages.

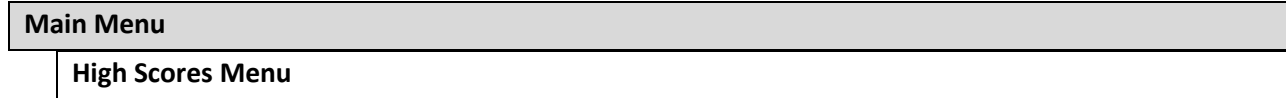
BONUS ONLY AUDITS			
BONUS NAME	PLAYED	BONUS NAME	PLAYED
EXIT		page 1 of 3	
DUCK HUNT	0	DOVE HUNT	0
MOONSHINE BONUS	0	BOARS GONE WILD	0
PIE IN THE SKY	0	MUG SHOT BONUS	0
PHEASANT HUNT	0	TURKEY HUNT	0
LOGYARD BONUS	0	CLOCKWORK BONUS	0
MARS NEEDS CATTLE	0	FROG FLIPPIN' BONUS	0
QUAIL HUNT	0	GOOSE HUNT BONUS	0
WINDMILL MANIA	0	BARREL BONUS	0
GOPHER GARDEN	0	METEORITE BONUS	0

BONUS ONLY AUDITS			
BONUS NAME	PLAYED	BONUS NAME	PLAYED
EXIT		page 2 of 3	
LUMBERJACK BONUS	0	MONKEY DROP	0
LEMMING BONUS	0	WATERFALL	0
CORN POPPER BONUS	0	SHRUNKEN HEAD	0
PUMPKIN BONUS	0	FROG HOP BONUS	0
OFF THE RAILS BONUS	0	OSTRICH BONUS	0
BARNSTORM BONUS	0	TARANTULA BONUS	0
FISH IN BARREL BONUS	0	PINWHEEL BONUS	0
MOUNT BUCKMORE	0	MEER KAT BONUS	0
CHICKEN & EGG BONUS	0	DRUM BEAT BONUS	0

BONUS ONLY AUDITS			
BONUS NAME	PLAYED	BONUS NAME	PLAYED
EXIT		page 3 of 3	
BOOBY TRAP BONUS	0	KANGAROO BONUS	0
HYENA BONUS	0	STEW POT BONUS	0
TURTLE TOSS BONUS	0	SNAKE CHARM BONUS	0
CHAMELEON BONUS	0	CROC BLOCK BONUS	0
ANT BONUS	0	ELEPHANT BONUS	0
PYGMY BIRD BONUS	0	CLOTHESLINE BONUS	0
BAT CAVE BONUS	0		
BOOMERANG BONUS	0		
CRAB WALK BONUS	0		

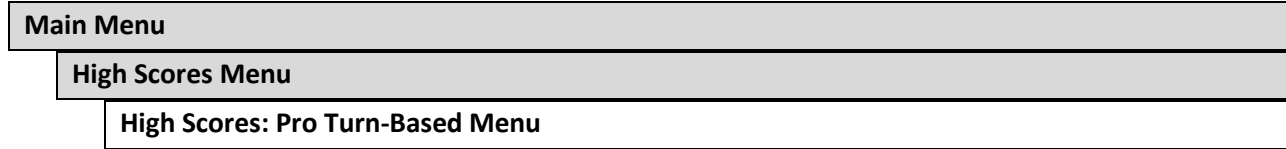


COIN AUDITS
EXIT
TOTAL COIN 1 **\$0.00**
TOTAL COIN 2 **\$0.00**
TOTAL COIN 3 DBV **\$0.00**
BONUS COINS **\$0.00**
LIFETIME COIN COUNT **\$0.00**
SERVICE CREDITS **\$0.00**



HIGH SCORES

EXIT
HIGH SCORES: PRO TURN-BASED
HIGH SCORES: PRO SHOOTOUT
HIGH SCORES: SAF. TURN-BASED
HIGH SCORES: SAFARI SHOOTOUT



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

Main Menu

High Scores Menu

High Scores: Pro Shootout Menu

HIGH SCORES: PRO 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

High Scores: Saf. Turn-Based Menu

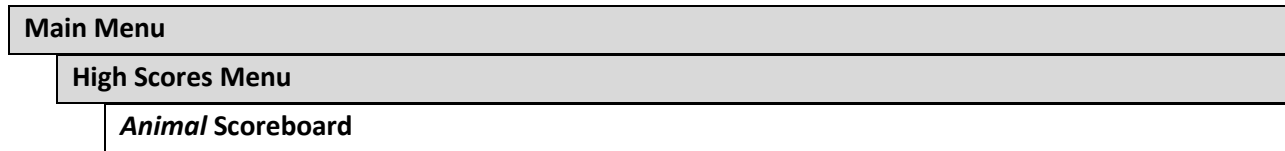
HIGH SCORES: SAF. TURN-BASED
EXIT
SABLE ADVENTURE
KUDU ADVENTURE
WILDEBEEST ADVENTURE
GEMSBOK ADVENTURE
AFRICAN BUFFALO ADVENTURE
IBEX ADVENTURE
RUSA DEER ADVENTURE
BLACK BUCK ADVENTURE
PERFECT STREAK
PERFECT SITES

Main Menu

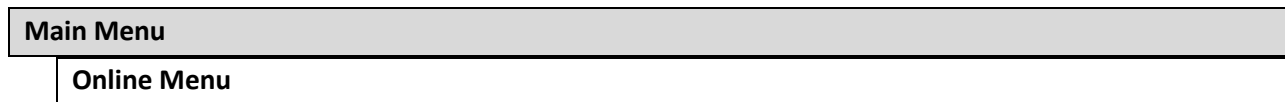
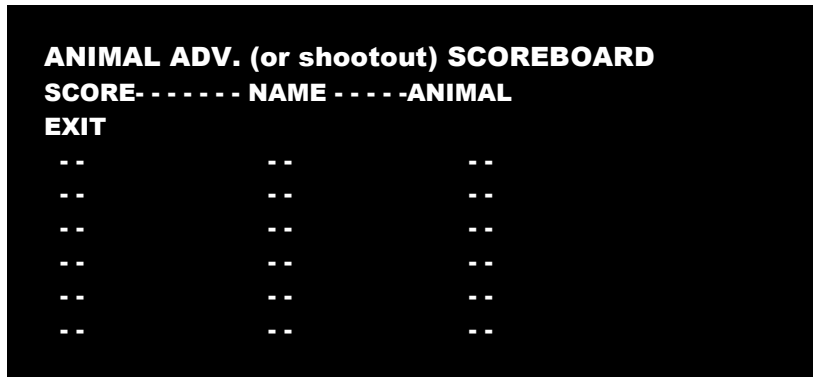
High Scores Menu

High Scores: Safari Turn-Based Menu

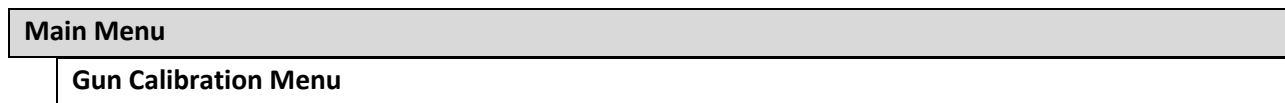
HIGH SCORES: SAFARI TURN-BASED
EXIT
SABLE SHOOTOUT
KUDU SHOOTOUT
WILDEBEEST SHOOTOUT
GEMSBOK SHOOTOUT
AFRICAN BUFFALO SHOOTOUT
IBEX SHOOTOUT
RUSA DEER SHOOTOUT
BLACK BUCK SHOOTOUT



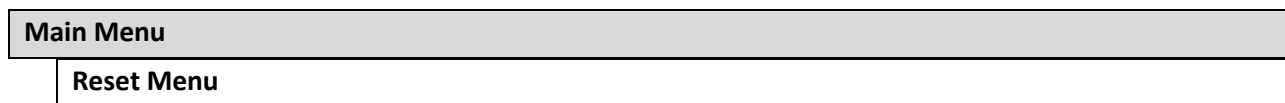
The high scores for a particular game are displayed in this format.



These menus cover all online interaction with CoinUp®. See pg 47 for more details regarding CoinUp®.

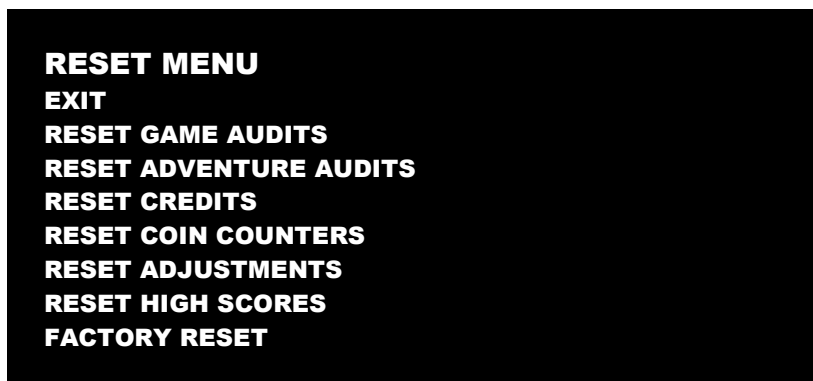


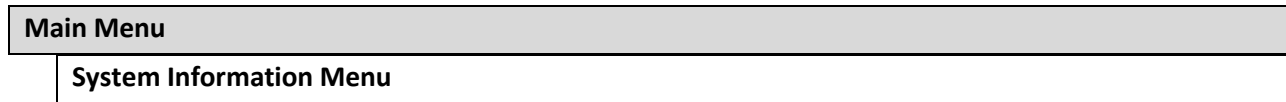
This is the same procedure described earlier in the **First Calibration** section.



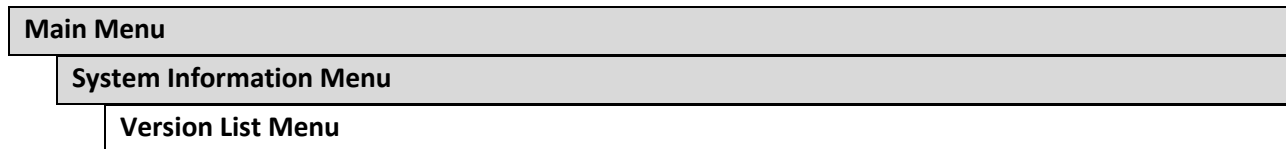
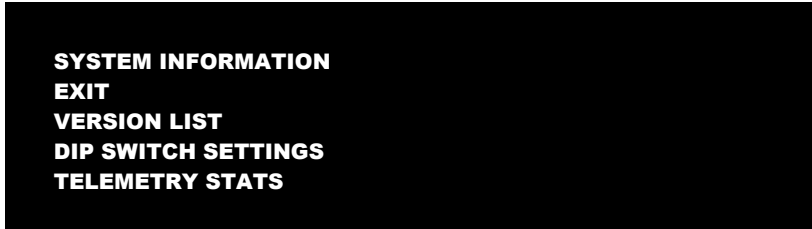
In addition to resetting individual counters and audits, this menu erases most of your changes. *Factory Reset* clears all audit data and restores most defaults. The following data, however, is not cleared:

- Calibration
- Registration
- Game activation
- Lifetime coin count

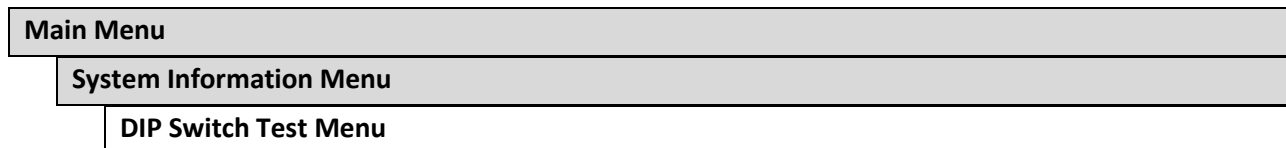




These tests verify system version and check the functioning of peripherals.



This checks the game's hardware and software versions.



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



Main Menu
System Information Menu
Telemetry Stats

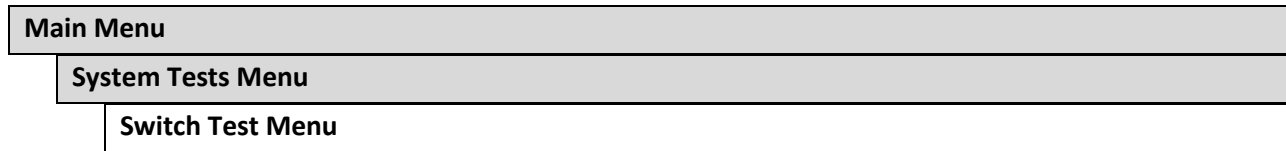
These tests check thermal qualities and electrical conductivity.

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.

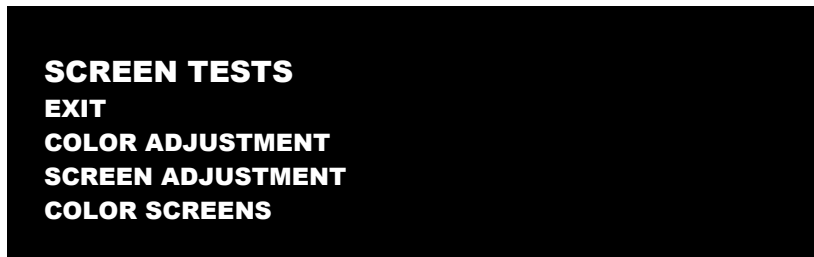
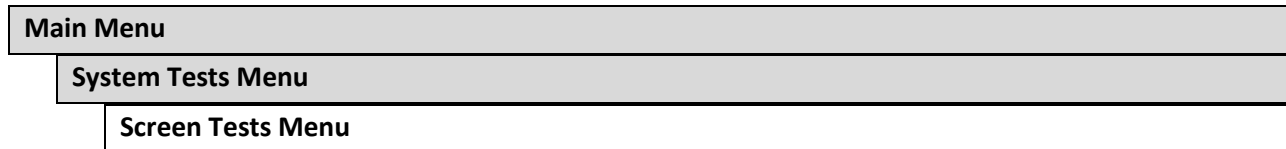
SYSTEM TESTS
SWITCH TEST
SCREEN TESTS
SOUND TEST
FILE TEST
COIN METER TEST
START BUTTON LAMPS
WATCHDOG TEST
GUN TRACKING TEST
ETHERNET PORT TEST
CARD TEST

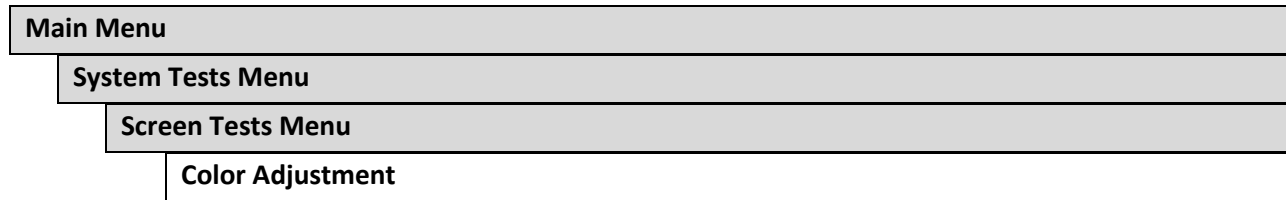


This checks input switch performance. The activated switch is highlighted on screen and the system generates a “switch active” alert sound.



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.

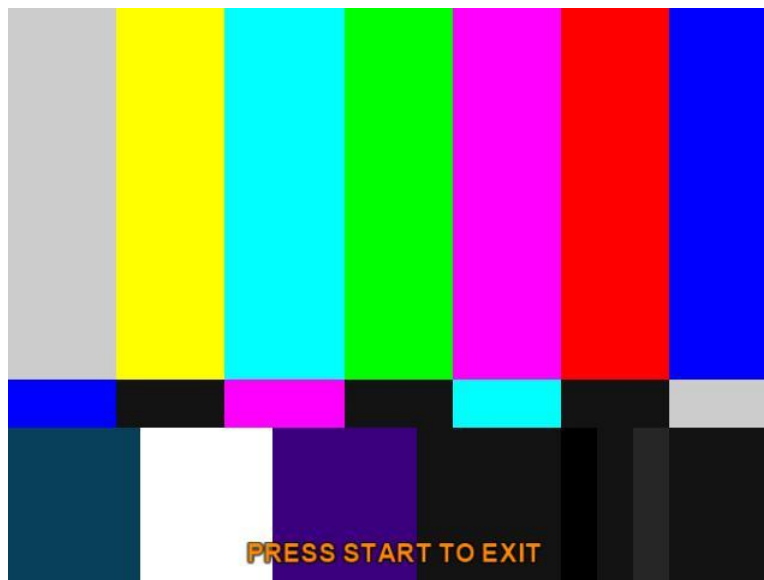


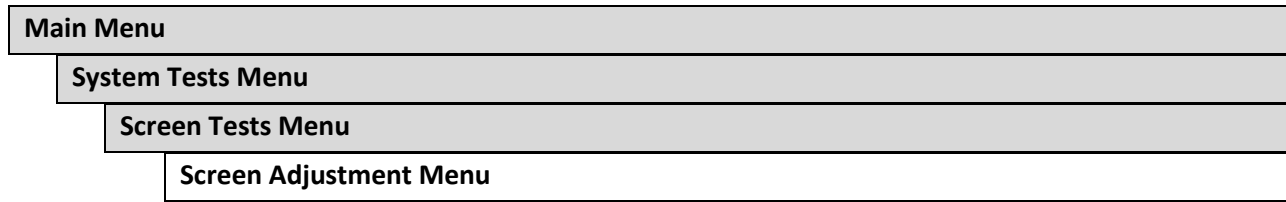


This color bar screen of gray, yellow, cyan, green, magenta, red and blue helps identify missing colors. Missing color bars may indicate bad video RAM in the PC, or a problem with the monitor.

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)





This crosshatch screen helps adjust width, 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

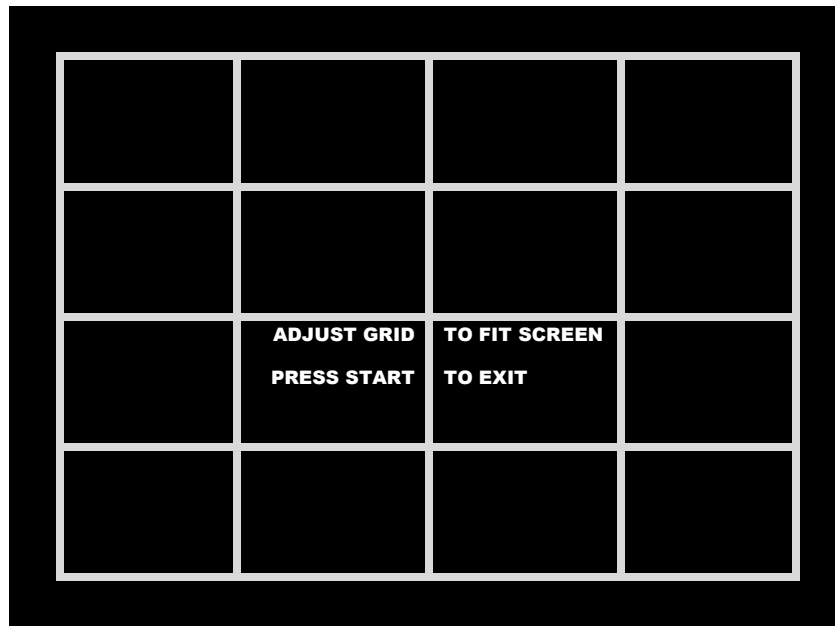
All lines in the crosshatch pattern must be white. Else, there is a convergence or purity problem. Slight color tinges at the extreme edges of the screen are okay.

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.

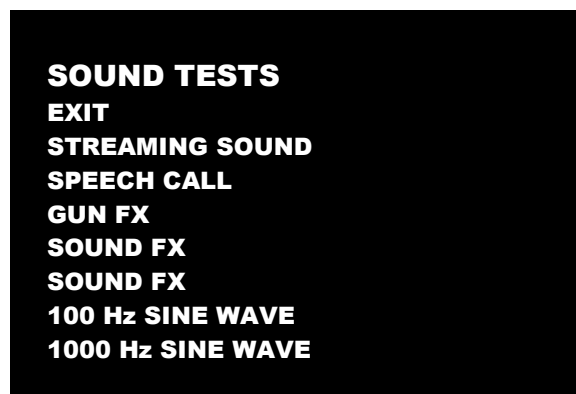


Main Menu
System Tests Menu
Screen Tests Menu
Color Screens

These are 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

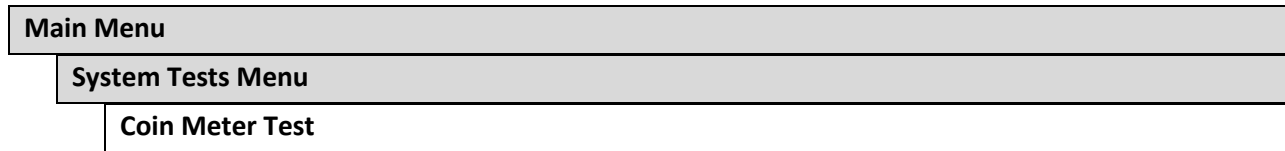
This checks sound volume and quality. Missing sounds indicated digital flaws. Distorted sounds suggest analog flaws. Lack of sound suggests disconnected or bad cables or speakers.



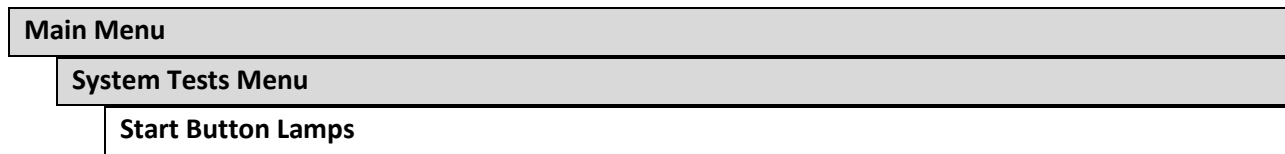
- STREAMING SOUND is a sample of the game music.
- SPEECH CALL includes talking commentary.
- GUN FX is the shotgun blast.
- The first Sound FX is a whistle.
- The second Sound FX is a guitar riff.
- 100 and 1000 Hz Sine Waves generate specific frequency sounds. Cancel these sounds by selecting another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

Main Menu
System Tests Menu
File Tests

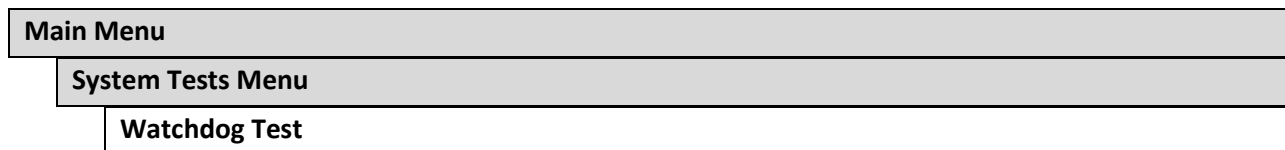
This tests the integrity of the contents of the hard drive, searching for corrupt or missing game files. Damaged or missing files register as failed and are listed. The only solution to this problem is to restore the system from the DVD-ROM, as described in the Restore the Hard Drive section.



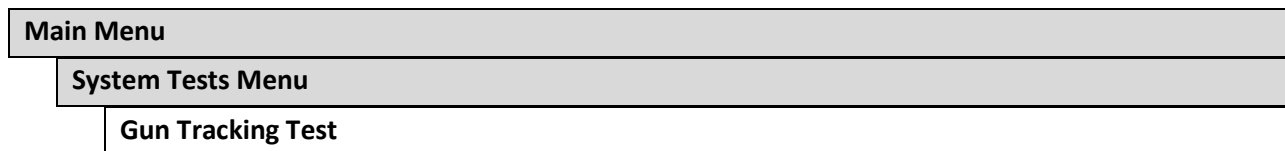
In this test, the System Tests Menu is the bottom-level menu. Watch the mechanical coin meter, which should increment by one count. If it does, it has passed the test. If it does not, it may not be receiving a pulse from the game. See Troubleshooting for more details.



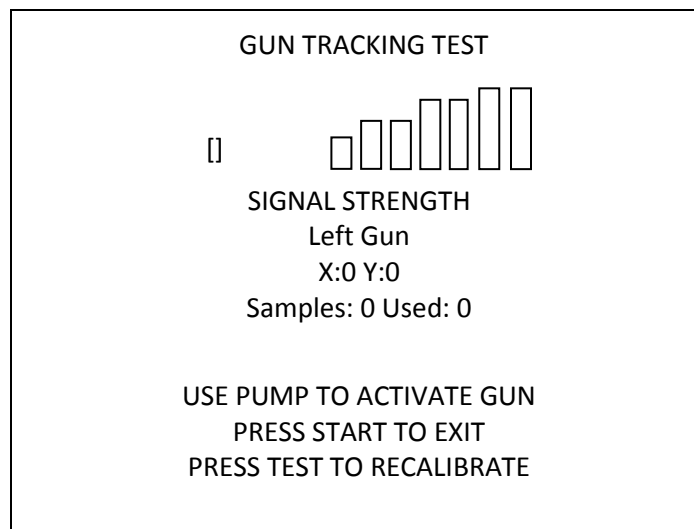
This test checks for burned-out Start button lamps by alternately blinking the LEDs.



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.



This test tracks the gun with a square and indicates the strength of the signal with color intensity on a bar graph. It also shows the x/y coordinates of where the gun is aiming. Squeeze the trigger to show how many samples are being taken,

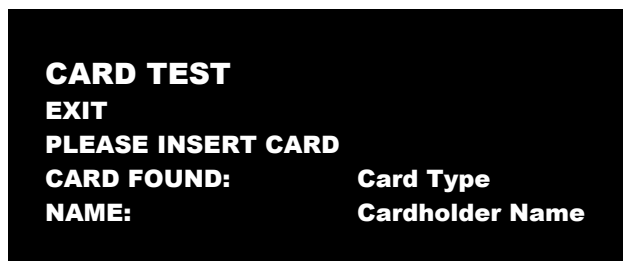


Main Menu
System Tests Menu
Ethernet Port Test

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

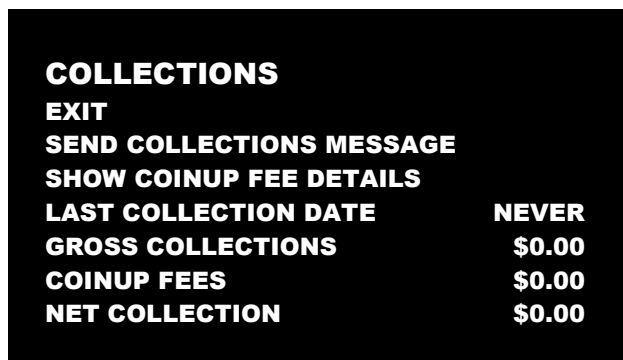
Insert a valid card to reveal the card type (player or operator) and the cardholder's name.



Main Menu
View Log Menu

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

Main Menu
Collections



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 ADVERTISEMENTDOWNLOADS	\$0.00
COINUP ADVERTISEMENT DOWNLOADS	\$0.00
COMMUNICATIONS CHARGE	\$0.00
UPGRADE CHARGE	\$0.00
TOTAL COINUP FEES	\$0.00

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 first of two restore DVDs (labeled *Disc 1*) 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 1* is inserted correctly and is not damaged.

10. Initial software loading may take several minutes. Check progress periodically.
Do not interrupt power or reset the game during recovery.
11. At some point, the game will eject *Disc 1* and prompt you to insert *Disc 2*.
Swap discs and close the tray. *Do not interrupt power or reset the game. Restore will continue automatically after a few moments.*
12. If recovery does not continue, check to ensure *Disc 2* is inserted correctly and is not damaged.
13. When software has finished loading, a message indicates that restore is complete.
When instructed to remove *Disc 2*, open DVD-ROM drive tray and remove disk.
14. Turn cabinet power switch off.
15. After 30 seconds, turn cabinet power switch on.
16. Game will reboot and enter calibration mode.
17. Re-calibrate guns.
18. Settings will now be factory defaults – make changes as desired.

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 Features > 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.

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® World™ uses sensitive electronic optical technology which detects 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 that you 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.

Wiring

Jamma I/O Connector Board Table

JAMMA Edge Connector Component Side			JAMMA Edge Connector Solder Side		
Function	Wire Color	Pin	Pin	Wire Color	Function
Ground	Black	1	A	Black	Ground
Ground	Black	2	B	Black	Ground
5 Volts	Red	3	C	Red	5 Volts
5 Volts	Red	4	D	Red	5 Volts
		5	E		
12 Volts	Orange	6	F	Orange	12 Volts
12 Volts	Orange	7	H	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	M	Brown Black	Speaker (-)
		12	N		
		13	P		
		14	R	Violet White	Service
Test	Blue	15	S		
Coin 1	Gray Brown	16	T	Gray Blue	Coin 2
P1 Start	White Brown	17	U	Green Brown	P2 Start
		18	V		
		19	W		
		20	X		
		21	Y		
		22	Z		
		23	a		
Volume (+)	Orange Red	24	b	Orange Green	Volume (-)
DBV	Gray Orange	25	c		
		26	d		
Ground	Black	27	e	Black	Ground
Ground	Black	28	f	Black	Ground

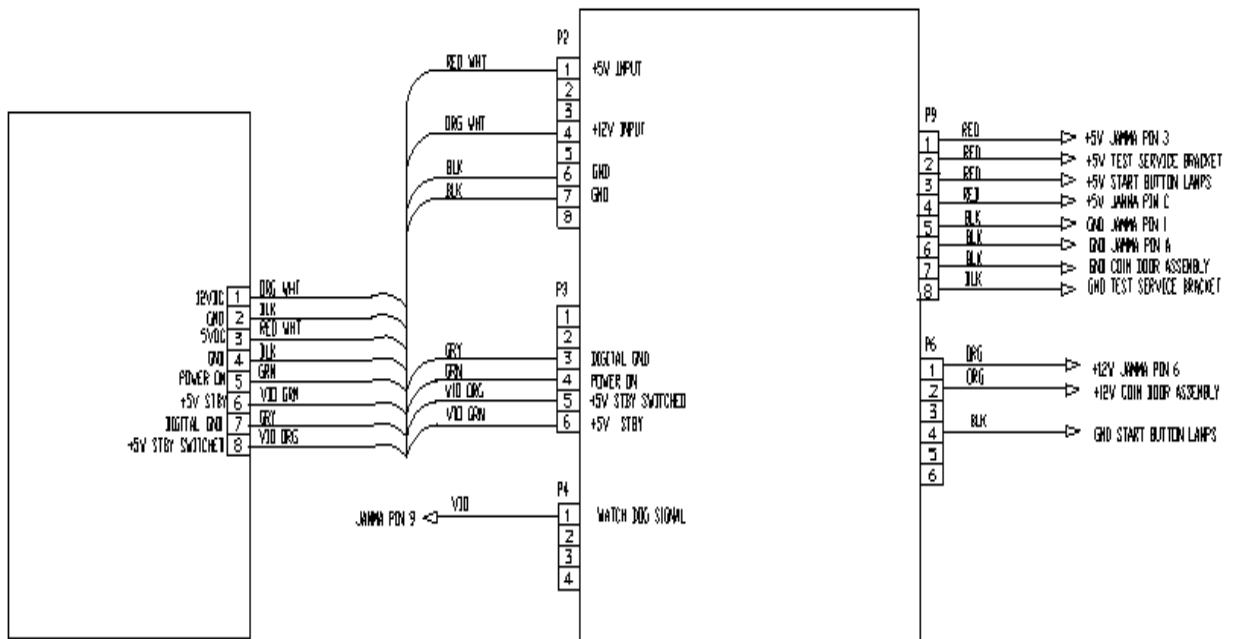
Gun I/O Board Connection Table

Player 1			P4	P5	Player2	
Function	Wire Color	Pin	Pin	Pin	Wire Color	Function
5 Volts	Red	1	1	1	Red	5 Volts
Trigger	Yellow	2	2	2	Yellow	Trigger
Sensor	Green	3	3	3	Green	Sensor
Pump	Violet	4	4	4	Violet	Pump
Ground	Blue	5	5	5	Blue	Ground
Ground	Black	6	6	6	Black	Ground

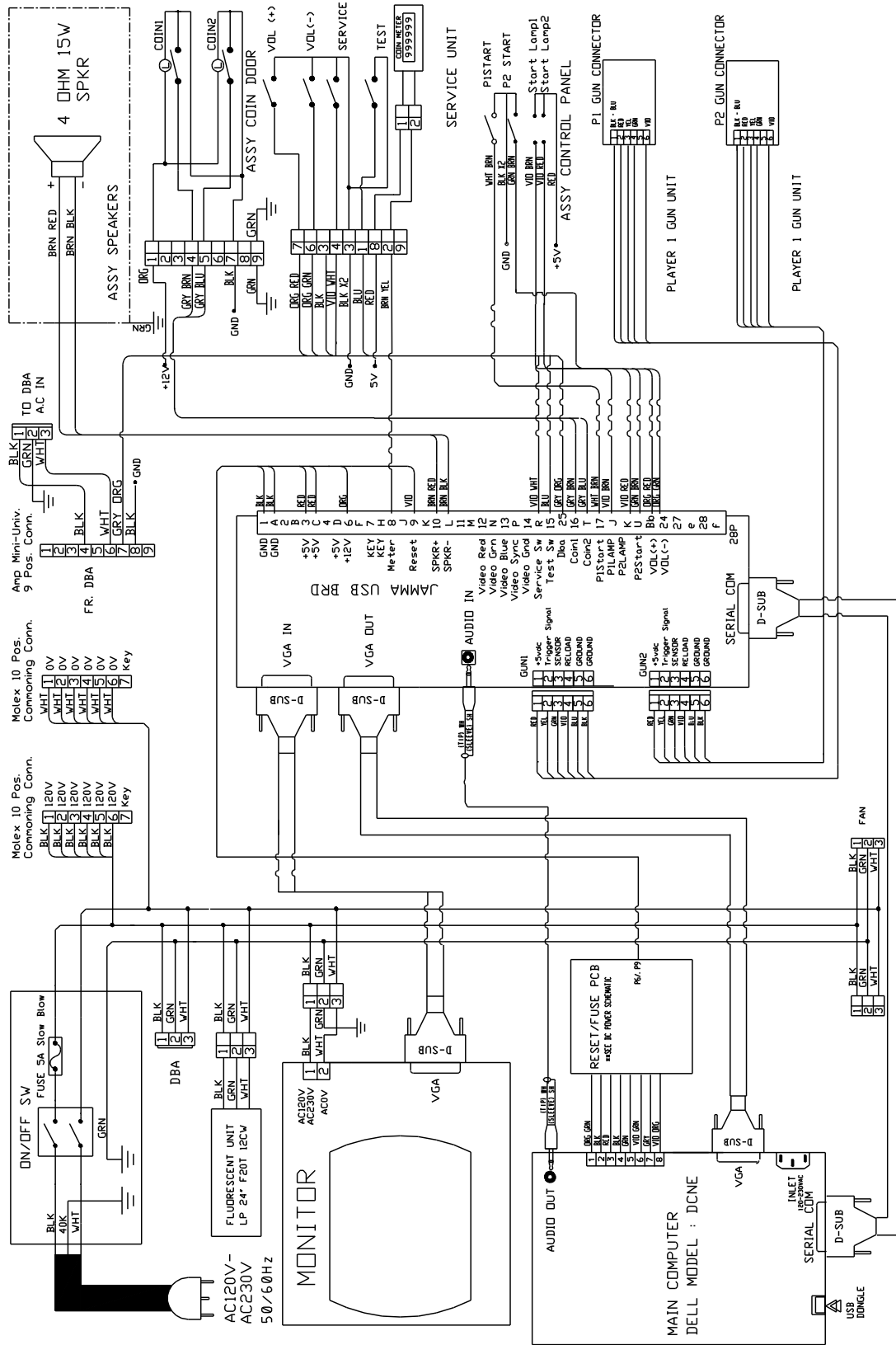
PC to Watchdog Board Wiring Diagram

DELL OPTIPLEX 740 PC

FUSE/WATCHDOG PCB

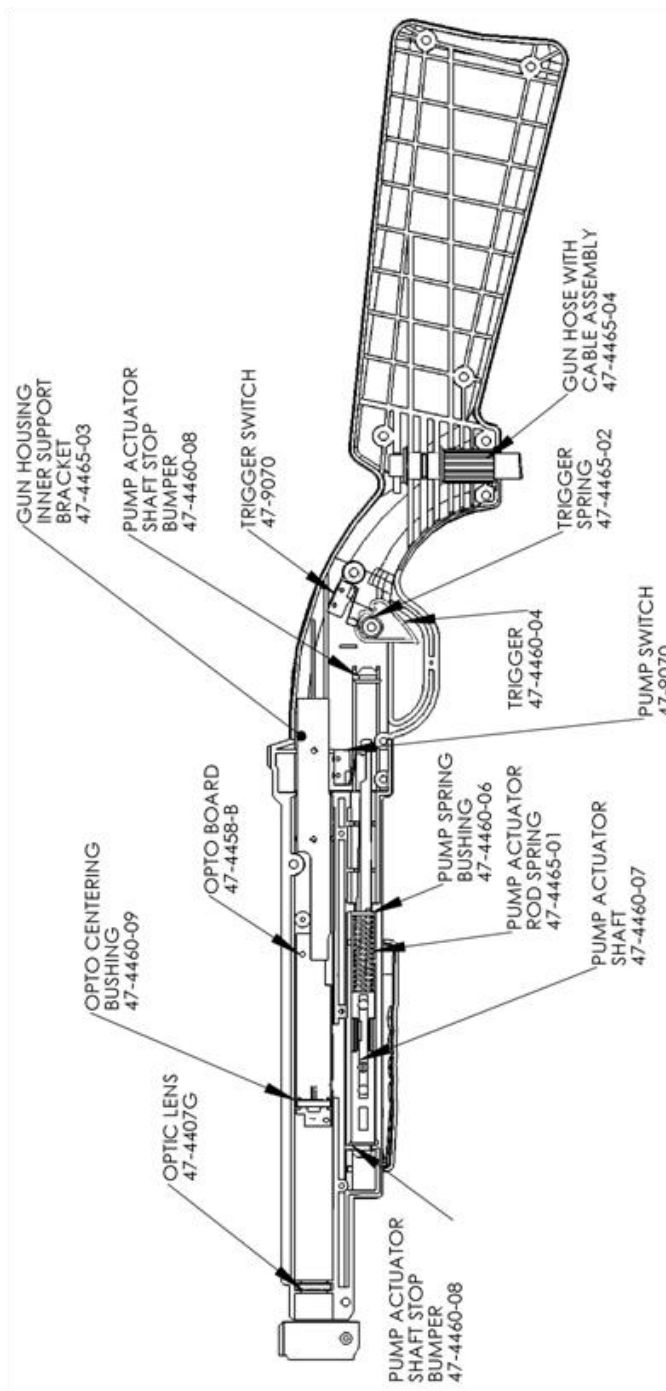
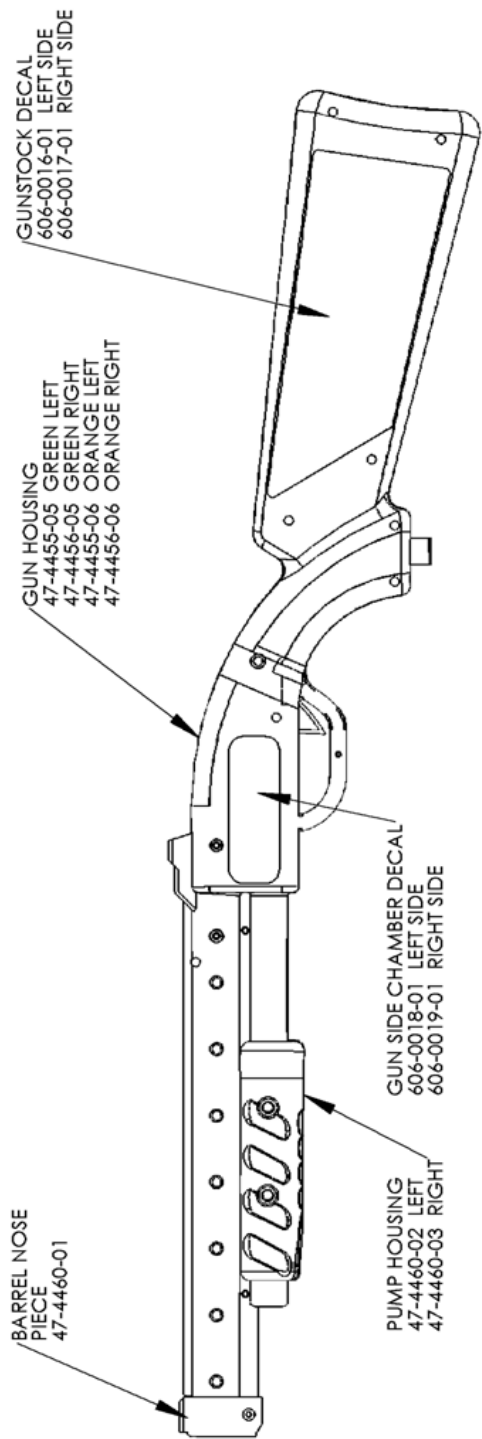


Cabinet Wiring Diagram

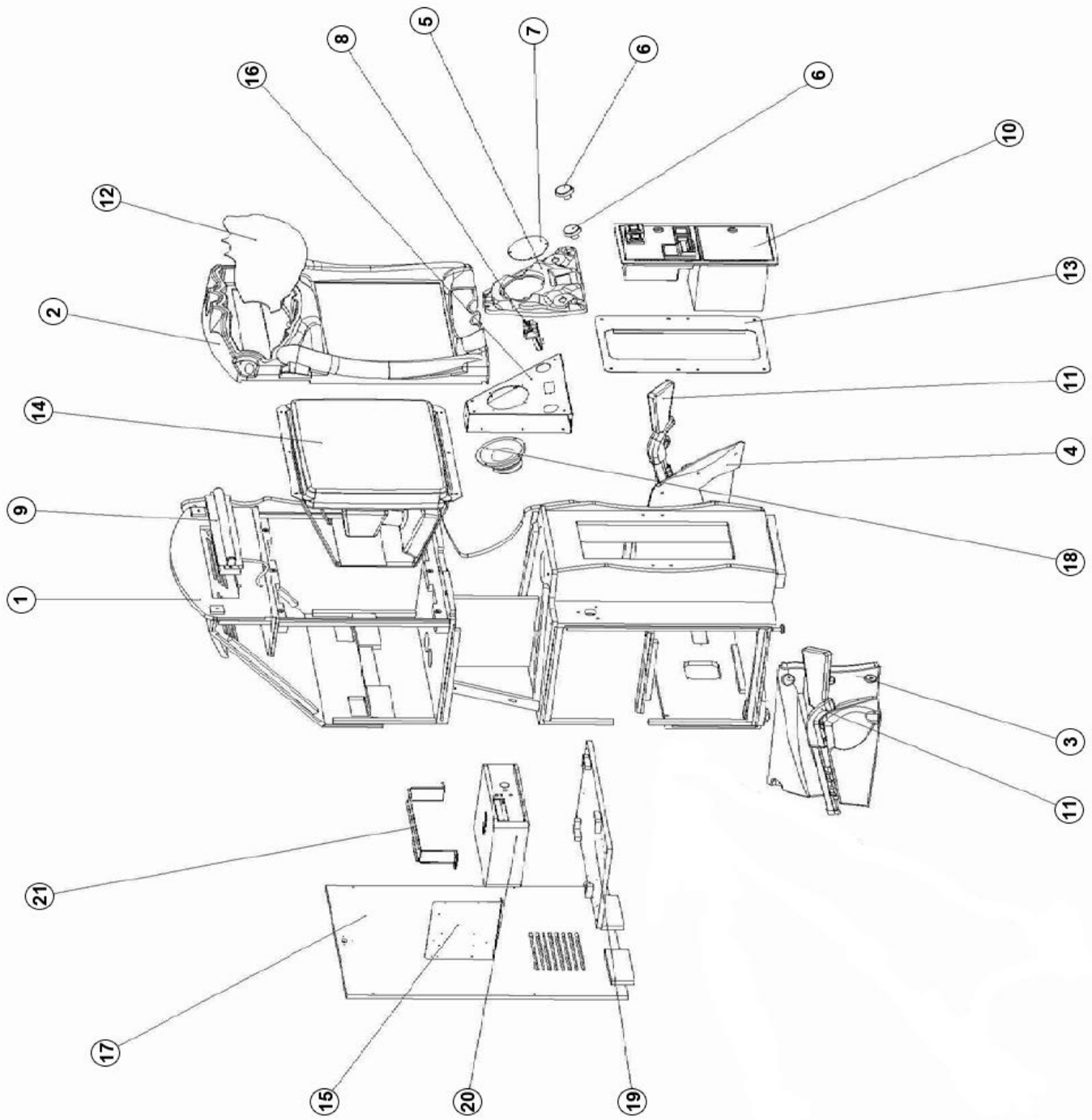


Parts

Gun Parts Diagram



Cabinet Parts Diagram



Cabinet Parts List

Item	Part No.	Description	Qty.
1	601-00012-01	Cabinet	1
2	603-00053-01	Monitor Bezel	1
3	603-00024-01	Left Gun Holster	1
4	603-00023-01	Right Gun Holster	1
5	603-00018-01	Vacuum Form Control Panel	1
6	702-00008-01/702-00008-01	Orange/Green Button Assembly	1 each
7	600-00018-01	Speaker Grille	1
8	813-00005-01	Card Reader	1
9	812-00002-01	18" fluorescent light	1
10	800-00005-00	Mid Width O/U Door Assembly	1
11	8120-00003-00/820-00002-00	Green/Orange Shotgun	1 each
12	600-00017-01	Marquee Plexiglas	1
13	602-00018-00	Coin Door Adapter	1
14	809-00002-00	27" Flat VGA Display	1
15	500-00001-01	I/O Board	1
16	603-00054-01	Control Panel/Speaker Bezel	1
17	601-00012-01	Back Door	1
18	807-00002-00	6.5" Woofer Speaker	1
19	601-00012-01	Personal Computer (PC) Shelf	1
20	650-00001-01	PC	1
21	2-1-16-00-00-06	PC Mounting Bracket	1

Troubleshooting

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

General Troubleshooting

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 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.
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 video cable to monitor.
No sound	Bad Connection	Check connection to speakers.
Game does not load	Hard drive failure	Recover hard drive. See procedure at end of this chapter.
Hard drive test reports "bad" or "missing" files.		
Game fails to finish loading.		
After resetting, game still reports an error.		
Game suggests inserting a boot DVD.		
Erratic game mode or attract mode.		
<p style="text-align: center;">WARNING! Data Files Corrupted. (Game Operation May Become Unstable.) Use "Test" Switch to Enter Test Mode and Run "File Test." Press Start To Continue.</p>		

Message	Possible Cause	Solution
Guns won't register, or function poorly	Bad calibration	Calibrate guns.
	Dirty/damaged lens	Clean gun lens.
	Gun disconnected	Check connections.
	Bad I/O board	Replace with known working board.
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
<i>No Signal</i>	Video or power cables 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.
<i>Dongle Not Present</i>	Dongle missing or disconnected	Find dongle and reseat in USB port
	Faulty USB port	Insert dongle in different USB port
<i>Connect I/O Board or I/O Board Missing</i>	USB cable disconnected	Check USB connection from PC to I/O board
	No power to JAMMA I/O board	Check for proper voltage (+5V, +12V) at JAMMA connector
<i>Watchdog Disabled or Watchdog Failed</i>	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 disconnected	Connect 2-pin reset connector from Reset PCB to motherboard reset pin input
	Violet or black wire from Reset PCB disconnected or faulty	Check reset wire connection to JAMMA connector.

CoinUp® Troubleshooting

Problem	Possible Cause	Solution
Game has IP address and screen says <i>Server Ping Success</i> but Test Connection screen reports Database Ping failure or File Server Ping failure.	Firewall is blocking communication with server.	Read firewall documentation. Ensure configuration allows ICMP Echo. If router has built-in firewall, check router configuration. Enable communication on ports 7786 and 7787.
	Database or File Server is down	Wait 30 minutes and revisit Test Connection screen. If still reporting failure, call CoinUp® service.

Ethernet Connection Troubleshooting

Problem	Possible Cause	Solution
Game cannot connect to CoinUp® server. No IP address appears under Test Connections menu	No broadband internet service	Contact a local ISP to setup either cable modem or DSL service.
	Wrong router configuration	Configure router for DHCP (Dynamic Host Configuration Protocol).
	Disconnected Ethernet cable	Check that Ethernet cables are tightly connected at both ends. An audible click confirms tightness. Reboot game. In Diagnostic mode, select Online Menu then select Connection Menu then Test Connection. Confirm that IP address appears. The phrase eth0 must follow IP address.
	Faulty Ethernet cable	Test cable by connecting it from another PC into router or wall jack. Replace cable if faulty.
	Faulty Ethernet wall jack.	Plug Ethernet cable into a different jack.
	Broadband service is down.	Contact ISP.
	Faulty router	Plug Ethernet cable into different jacks in router. Plug Ethernet cable directly into DSL or cable modem instead of router. Replace router if faulty
	Faulty network card	Call CoinUp® service

Cellular Connection Troubleshooting

Problem	Possible Cause	Solution
<p>Game cannot connect to CoinUp® server</p> <p>No IP address appears under Test Connections menu</p>	<p>Poor connection between cell modem and PC.</p>	<p>Check that USB connections at cell modem and PC are tight. Turn off cabinet AC power. Wait 30 seconds and reboot game.</p> <p>If still no connection, enter Diagnostics system and go to Connection Menu. Select Cell Modem Details.</p> <p>If message is <i>No Modem Found</i> or <i>Collecting Data</i>, call CoinUp® service.</p>
	<p>Faulty cell modem</p>	<p>Ensure PWR LED on cell modem glows green, which means PC is providing modem with power. If no power, swap with working modem. Check modem for obvious damage (dents, burns, smoke damage, broken connectors)</p> <p>If modem seems fine, call CoinUp® service.</p>
<p>Cell modem connection is good and IP address appears at Test Connection screen. Under Cell Modem Details, signal is weak or nonexistent.</p>	<p>Poor antenna location</p>	<p>Turn off game and move it near window or exterior wall.</p>
	<p>Faulty connection</p>	<p>Check connections between cell modem and antenna. If cable is frayed, broken or looks dried-up, replace it. Replace antenna if it appears damaged.</p>

Wi-Fi Connection Troubleshooting

Problem	Possible Cause	Solution
Wi-Fi Details status is <i>Not Connected</i> and Adapter is <i>Not Found</i> .	A supported USB Wi-Fi adapter is not connected.	Connect a supported Wi-Fi adapter. Turn cabinet AC power off for a minute and reboot.
	Faulty network card	Call CoinUp® service
Wi-Fi Details status is <i>Not Connected</i> , but a supported adapter is connected.	Wi-Fi network information was not saved.	Configure game to connect to Wi-Fi network at Wi-Fi Setup Menu.
Wi-Fi Details status remains <i>Locating Access Point ...</i> for more than 5 minutes.	Weak signal or interference causing delay in locating access point.	Restart cabinet AC power.
	Wireless access point or router is off or disconnected.	Ensure access point has power. Ensure it is connected to router. Restart access point. Ensure router has power and is connected to cable/DSL modem.
	Network information entered in Wi-Fi Setup does not match information stored in the wireless access point or router.	Re-enter network information. Configure game to connect to network in Wi-Fi Setup Menu. Ensure encryption type, encryption key, SSID and broadcast channel match what is stored in wireless access point or router.
Wi-Fi Details status remains <i>Obtaining IP Address...</i> for more than 5 minutes.	Weak signal or interference delaying negotiation of IP address with router.	Restart cabinet AC power.
	Wireless access point or router is off or disconnected.	Ensure access point has power. Ensure it is connected to router. Ensure router has power and is connected to cable/DSL modem.
Game has an IP address, but Test Connection menu shows that Server, Database and Fileserver pings all report failures.	Server information is outdated.	In Diagnostics Menu, select Online Menu, then select Online Debug Menu then View Online Debug Details then Server Details and finally Refresh Server Info. After refresh, new host names and IP addresses of CoinUp® servers are displayed.

CoinUp®

Operation Overview

Having your game connected to CoinUp® allows easy access to software updates and permits game health and earnings to be monitored via coinup.com. There are three ways to connect to CoinUp®: through an Ethernet cable, a cellular modem, or a Wi-Fi connection.

Preparation

1. Open a bank debit account.
2. Complete CoinUp® Operator Registration Packet.
 - Fill out the CoinUp® *Authorization Agreement for Automated Payments*.
 - Read and sign the CoinUp® *Participating Operator Agreement*.
 - Read and sign the CoinUp® *Operator Registration Form*.
3. To become an authorized operator, fax the forms to (630) 348-2099 or mail them to:
Play Mechanix™
800 Roosevelt Road, Suite D-103
Glen Ellyn, IL 60137
Authorization occurs in just a few days. Login information will be sent via email.
4. (Optional) To purchase a cellular modem, read and sign the *Cell Modem Service Agreement* in the Forms section of this manual. Fax the completed form to (630) 348-2099.
5. (Optional) To install Wi-Fi, purchase a supported Wi-Fi adapter to connect via wireless network.

Unit Registration

Following installation, after reboot, you will be prompted to register the game. Use the gun to navigate through this process.

1. If you skip registration, you can do it later via the diagnostic menu by selecting the Online Menu, then selecting Game Registration Menu, then Game Register.
2. Login manually by entering your operator ID number and PIN.
3. Once logged in, follow the on-screen prompt to add or select a location and complete registration. See Game Registration section for more detailed steps to complete this process.

Access CoinUp® Operator Center

The CoinUp® Operator Center tracks the performance of your games. For example, you can compare performance of different machines at the same location, or even across locations. To access CoinUp® and view your pages, follow the steps below. From there, the site provides guidance. You follow easy prompts and navigate to the statistic, accounting, bookkeeping or performance data that you need.

1. Access the CoinUp® Web site at www.coinup.com.
2. Enter the account e-mail address and password to login.
3. (Optional) To change login information, use the Profile tab.
4. Select locations or products to view.

FCC Compliance You are solely responsible for FCC compliance on installations.

Network Installation

Installation Process Overview

1. Install the Internet Connection
2. Install software from game restore DVD, if needed.
3. Register the game.

DAMAGE POSSIBLE Be extra careful when drilling into the cabinet. Be sure not to drill into cabinet components. Drill only into empty space.

Install Ethernet Cable (option 1)

1. Set up DSL or cable modem service through an ISP.
2. Turn off AC power.
3. Unplug the power cord.
4. Center punch a hole for the Ethernet cable.
5. Using a 5/8-inch drill bit, drill a cable hole.
6. Run the Ethernet cable to the cabinet.
7. Route the Ethernet cable through the cabinet hole.
8. Open the back door.
9. Inside the cabinet, dress the Ethernet cable away from other cables and metallic parts.
10. Locate the RJ45 Ethernet jack on the back of the PC.
11. Connect the Ethernet cable to the RJ45 jack on the PC.
12. Close the back door.
13. Plug in power cord.
14. Turn on AC power.

Install Cell Modem (option 2)

1. Set aside the modem, Velcro® strips and extender cable.
2. Turn off AC power.
3. Unplug power cord.
4. Open the back door.
5. Remove the adhesive protection from one side of the Velcro® strips.
Keep the Velcro® strips together.
6. Locate a clear and accessible space for the modem near the PC.
7. Lift the modem and stick one side of the strips to the shelf beneath the modem location.
8. Remove the adhesive protection from the free side of the Velcro® strips.
9. Press the modem to the sticky side of the Velcro® strips.
Ensure that the modem bonds solidly.
10. In the kit, find the modem extender cable.
11. Connect the modem cable to a USB port on the PC.
12. Connect the other end of the modem cable to the cell modem.
13. (Optional) Install Cell Modem Antenna (see below)

14. Close the back door.
15. Plug in power cord.
16. Turn on AC power.

Install Cell Modem Antenna

A cell modem antenna is optional. However, an antenna will help ensure the best possible connection. Note that the cable is part of the antenna and these instructions cover mounting the antenna to the cabinet roof. However, other locations may provide better reception, such as a wall, near a window, etc.

Antenna Location Guidelines

- Keep the antenna vertical.
- Mount the antenna as high as possible.
- Avoid mounting an antenna near power lines.
- Avoid areas where people could trip on a cable.
- Don't tempt vandals: If possible, keep the antenna out of plain sight.

DO NOT USE ADHESIVE Only use Velcro® strips for mounting antenna. Do not use the factory-applied, permanent adhesive backing. Doing so may damage the antenna and the cabinet when removing the antenna during a cabinet relocation. The warranty does not cover this sort of damage.

Antenna Installation

1. Set aside the antenna and the Velcro® strips from the kit.
2. Turn off AC power.
3. Unplug power cord.
4. Open the back door.
5. In a clear space, center punch the antenna cable hole.
6. Using a 5/8-inch hole bit, drill the hole for the antenna cable.
Avoid implosion. Read the warning above.
7. Slide the antenna coaxial cable down the cable hole and into the cabinet.
8. Remove the protective strip from one side of the Velcro® strips.
Keep the hook and loop Velcro® strips together.
9. Mount the sticky side of the Velcro® strips to the bottom of the antenna.
You can apply the Velcro® sticky side to the adhesive on the antenna base. Do not let the antenna adhesive come into contact with the cabinet. The Velcro® must separate the antenna adhesive and the cabinet.
10. Remove the adhesive protection from the free side of the Velcro® strip.
11. Mount the free side of the Velcro® strip to the roof.
12. Dress the antenna coaxial cable away from other cables and metallic parts.
13. Connect the antenna cable plug to the jack on the modem.
14. Close the back door.
15. Plug in power cord.
16. Turn on AC power.

Install Wi-Fi Adapter (option 3)

ADAPTER MODEL	Supported Networks	Encryption Type / Compatible?							
		Disabled None	WEP	WPA-Personal + TKIP encryption	WPA-Personal + AES encryption	WPA2-Personal (AES encryption)	WPA2-Mixed (TKIP & AES)	WPA Enterprise	RADIUS
Linksys WUSB54G (version 4)	802.11b/g	YES	YES	YES	YES	NO	NO	NO	NO
Rosewill RNX-G1 RNX-G1W	802.11b/g	YES	YES	YES	YES	YES	YES	NO	NO
Netgear WG111 (version 2)	802.11b/g	YES	YES	YES	YES	YES	YES	NO	NO
D-Link DWA-140 (version 81)	802.11b/g	YES	YES	YES	YES	YES	YES	NO	NO
Belkin F5D8053 (version 3000)	802.11b/g/n	YES	YES	YES	YES	YES	YES	NO	NO
Linksys WUSB600N (version 1.0)	802.11b/g/n	YES	YES	YES	YES	YES	YES	NO	NO

Supported Wi-Fi Adapter Compatibility Chart

Obtain Supported Adapter

- Obtain one of the supported USB Wi-Fi adapters listed in the chart above. **Be sure the listed model and version number matches or the device will not work.**
- Play Mechanix™ carries a small stock of Rosewill devices. To purchase one directly, contact Dave at dsnipes@playmechanix.com or 630-942-1070 x131. Adapters costs \$30.00 plus shipping. This one-time fee will be added to your CoinUp® invoice.

Wi-Fi Installation

Warning: Do NOT install software that came with adapter. The game already runs appropriate software.

1. Turn off cabinet AC power.
2. Unplug power cord.
3. Open the back door.
4. Mount Wi-Fi adapter inside cabinet as high as possible using Velcro®. *If necessary, use a USB extension cable to connect adapter to PC. Most supported adapters come with a USB extension cable.*
5. Connect cable to a USB port on the PC.
6. Close back door.
7. Plug in power cord.
8. Turn on AC power.
9. Complete Wi-Fi software setup. *Game will not connect properly to CoinUp® until setup is successfully completed.*

Wi-Fi Software Setup

WARNING Do **not** install software that comes with the adapter. Game already runs Wi-Fi software.

Prepare for Setup

1. Log into wireless access point or router.
2. Write down Wi-Fi network information on a sheet of paper:
 - SSID (network name)
 - Broadcast Channel
 - Encryption Type (WEP 64-bit, WEP 128-bit, WEP 256-bit, WPA-PSK + TKIP encryption, WPA-PSK + AES encryption, WPA2)
 - Encryption Key (Different encryption types require different keys. See below for examples)

Encryption Type	Key Details	Example
WEP (64-bit)	10 hexadecimal characters	5E2C6D4E24
WEP (128-bit)	26 hexadecimal characters	326C2D335A5A48386B5D763954
WEP (256-bit)	58 hexadecimal characters	373A786E625676266E7156345741 312F4433427C48536E7A695E7C3E75
WPA-PSK (AES) WPA-PSK (TKIP) WPA2 (AES + TKIP)	ASCII pass phrase between 8-63 characters long. (upper case letters, lower case letters, numbers and symbols are allowed.)	\$3CurE_pA\$sPhRa\$e

Encryption Key Examples

Network SSID

1. Enter Diagnostics mode.
2. Select Online Menu, then select Wi-Fi Menu and select Wi-Fi Setup.
3. Select Scan Networks to look for nearby Wi-Fi networks.
*Depending on settings, networks may not broadcast their SSID. These networks are displayed as ****HIDDEN****. To use a hidden network, select it, and enter the SSID manually when prompted.*
4. Scroll through the detailed list to locate your network.
5. If network does not appear in list, Exit to previous menu and select Enter Manually, then enter SSID, encryption type, key and broadcast channel.
6. Select Use this Network to continue.

Encryption Type

1. From the list of encryption types, scroll through and highlight the appropriate type.
2. Select Use This Encryption to Continue

Encryption Key

If the encryption type is disabled/open, skip this section, because there is no key.

1. At the Enter WPA Key screen, enter access point or router WPA Key (from information gathered during preparation earlier)
2. Select yellow < and > symbols to switch between letters, numbers and symbols.
3. On the letters page, select UPPER or lower to change case of letters
4. Select OK to continue.

Broadcast Channel

This section applies only if the SSID was entered manually.

1. Scroll through the list to highlight the appropriate channel.
2. If you are unsure of the correct broadcast channel, select Auto
3. Select use This Channel to continue.

Confirm Settings

1. Note the SSID, Encryption Type, Encryption Key and Channel on the confirmation screen.
2. If the information is incorrect, select Start Over to return to the Wi-Fi menu.
3. If the information is correct, select Save Settings to store the information.
The game automatically reboots.

Wi-Fi Details Status Messages

After reboot, the game attempts to connect to the wireless network using saved information. To view connection status, enter the Diagnostics system and select Online Menu -- Wi-Fi Menu -- Wi-Fi Details. Below are the possible status messages. See Troubleshooting for further instructions.

Connected

The game has located wireless access point or router and successfully obtained an IP Address.
The game is online and ready to be registered with CoinUp®.

Not Connected

The game is neither connected to a Wi-Fi network nor attempting to connect. Either no Wi-Fi adapter is connected to the PC, or Wi-Fi Setup procedure was not completed.

1. If Adapter status is Not Found, ensure a supported Wi-Fi adapter is connected.
2. If Adapter status shows the name of the adapter, ensure SSID status is also correct.

Locating Access Point...

A Wi-Fi adapter is connected to the PC and network information was saved. The game is trying to find an access point broadcasting a network with the saved information.

If game remains in this status more than five minutes, either the network information entered was incorrect, or the game cannot communicate with the access point.

1. Reboot game and return to Wi-Fi Details again.
2. If another five minutes pass with the same status, run Wi-Fi Setup again.
3. Check network signal strength by scanning for available networks in Wi-Fi Setup.
4. If signal is weak, unplug AC power and move cabinet closer to the access point.

Obtaining IP Address

The game has found a wireless access point or router and is acquiring an IP Address.

1. If this status displays for more than 5 minutes, reboot game.
2. Recheck status after reboot.

Game Registration

After the reboot following CoinUp® installation, you will be prompted to register your location. You can also register by entering the Diagnostic menu, selecting Online Menu, then Game Registration Menu and Game Register.

1. Press the START button to login manually. Enter ID and pin when prompted.
2. The Select A Location screen appears, downloading locations from CoinUp® automatically.
3. Scroll through the list to highlight the appropriate location.
4. Select Use This Location to continue.
5. If the location is not on the list, select Add New Location to continue.
6. When adding a new location, select each letter and then click OK to confirm.
7. After location is chosen, a confirmation screen is displayed.
8. The game checks for updates and messages, then enters Attract mode.

Checking the Connection

Cell Users

1. Enter Diagnostic mode by pressing the TEST service button.
2. Select Online Menu—Connection Details—Cell Modem Details.
3. Note the signal strength, which appears as a fraction with a 5 in the denominator.
A strong signal is 5/5; a weak signal is 1/5 or 2/5.
4. If strength is below 3/5, reposition the cell antenna and recheck signal strength.

Wi-Fi Users

1. Enter Diagnostic mode by pressing the TEST service button.
2. Select Online Menu, then select Wi-Fi Menu and Wi-Fi Details
3. Note the signal strength. More green bars are better.
4. Note the link quality. A higher percent is better.
5. If either link quality or signal strength is low, try repositioning the adapter.

All Users

1. Enter Diagnostic mode by pressing the TEST service button.
2. Select Online Menu then select Test Connection.
3. Watch as the game confirms that:
 - It can obtain a valid IP address.
 - It can contact the CoinUp® server.
 - It can access the CoinUp® database.
 - It can access the CoinUp® file server.
4. The right side of the screen reports test results: SUCCESS or FAILURE.
The only acceptable result is four SUCCESS indications.
If any test results in FAILURE, see the Troubleshooting chapter or call your distributor.

Online Operation

1. Ensure game remains connected to the Wi-Fi, cellular, or Ethernet network.
2. The hard drive stores data about the game location. If the hard drive is removed from the PC, important data will be lost. Do not swap or replace drives without authorization from CoinUp® management.
3. Keep game location data accurate. Before moving a game, have the PC communicate with the server, then unregister the game. Re-register the game with updated information at the new location.

Collection Procedure

The CoinUp® server tracks various book-keeping statistics including collections. To see them, log on to the CoinUp® Operator Center page at www.coinup.com and go to the Reports section.

1. During a normal collection, enter the Diagnostics system and select Collections.
2. Review the entire report.
The system calculates Gross Collection from the last time the report screen was cleared. This figure and the actual collection should agree.
3. Select Send Collections Message.
4. After sending the collections, coin related audits are automatically reset.
This allows coin audits to accurately reflect earnings since the last collection. If you don't send collections, the next collection won't match the figures on the Collections screen and you will not be able to view your collections on www.coinup.com.
If you wish to reset the other game audits, go to Reset Menu and select Reset Game Audits.
5. Split collection with location as usual.
CoinUp® debits your account for its portion.

CoinUp® Fee Schedule

Pricing is subject to change without notice

For certain online features, CoinUp® collects a small portion of game revenue at a fixed rate that operators cannot adjust. This portion is included in the player cost for any online play. The location portion of most game features can be adjusted through www.coinup.com under the Game Machines section, or at the game, by entering the Diagnostic menu system and selecting Operator Adjustments then selecting Player Cost. Make adjustments to each game.

Service	Operator	CoinUp®	Total	Who Pays	Note
Basic Play					
Start Cost	\$1.00	\$0.00	\$1.00	Player, at game	Operator portion is adjustable
Continue Cost	\$1.00	\$0.00	\$1.00	Player, at game	Operator portion is adjustable
Trophy Club™					
Start Cost	\$1.00	\$0.50	\$1.50	Player, at game	Operator portion is adjustable
Continue Cost	\$1.00	\$0.50	\$1.50	Player, at game	Operator portion is adjustable
Advertisement Download					
Per unit, per ad	N/A	\$0.00	\$0.00	Operator	N/A
Monthly Cell Service					
Per unit (if applicable)	N/A	\$27.00	\$27.00	Operator	Taxes and fees from cell provider

Operator discount is based on monthly CoinUp® fees per unit.

Monthly Fee per Unit	Discount
\$0-\$250	5.00%
\$251-\$500	6.00%
\$500 and above	7.00%

Note that discounts are not applicable to the monthly cellular service charges.

Accounting Guidelines

After the close of each billing cycle, the monthly CoinUp® billing statement, itemizing the costs of online services, is viewable through the operator account at www.coinup.com.

The statement shows the approximate date of the automatic debit, allowing time to deposit appropriate funds. The automatic debit charges the bank account submitted on your debit account form.

CoinUp® honors company checks but must receive them three or more business days before the debit date. Late or delinquent deposits may exclude a game from access to online features and incur late fees.

Forms

The *Participating Operator Agreement* and all the forms needed to setup a CoinUp® account can be found in your CoinUp® Registration Packet. These forms can also be found online at coinup.com. Included here is the optional *Cell Modem Service Agreement* for those operators who wish to connect to CoinUp® using a Cell Modem.

Cell#	IMEI	L.O.S	Operator ID#
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Rev. C1

CoinUp® Cellular Terms of Service Agreement

This agreement is made between Play Mechanix™, Inc. ("PM", "we", "us", or "ours") and the Operator ("Operator", "you", or "your") and covers the usage and fees associated with a cellular modem device ("Equipment") that you order from us connected to one of your games allowing it to communicate with the CoinUp® online network ("Service"). This agreement must be signed and returned to us before we will activate a new line of service. PLEASE READ THIS AGREEMENT CAREFULLY BEFORE ORDERING CELLULAR SERVICE FOR YOUR CoinUp® CONNECTED GAME AND SIGNING THIS AGREEMENT.

Provision of Services

Upon ordering the cellular modem, Play Mechanix™, Inc. will in turn order a line of cellular service ("Service") for the cellular modem. Play Mechanix™, Inc. provides cellular service from one or more cellular providers of service throughout the United States ("Cellular Provider"). We do this to gain volume pricing for you and thereby lower the price of the Service. All costs charged to Play Mechanix™, Inc. for your line of cellular service are passed through directly to you. Ordering the Service from us is not the only option for you. You may obtain cellular service independently to connect your game. In this case, you will be responsible for all service fees and commitments. Please contact Play Mechanix™, Inc. before ordering your own cellular modem to ensure that you purchase a modem device that will be compatible with the game.

Service Commitment and Early Termination Fee

By ordering this Service the Operator agrees to the following:

To pay the monthly fee associated with each line of service which will be billed to your CoinUp® account. To keep the Service for at least a period of one year from the date of ordering ("Service Commitment"). After the initial one year term you may terminate the service at anytime with 30 days notice. If you wish to terminate the Service prior to the initial one year term, you agree to pay us an Early Termination Fee of \$175. The Early Termination Fee is not a penalty but rather the exact fee we will be charged by the cellular provider. AFTER YOUR SERVICE COMMITMENT THIS AGREEMENT SHALL RENEW ON A MONTH-TO-MONTH BASIS UNTIL EITHER PARTY GIVES NOTICE OF TERMINATION TO THE OTHER.

30-Day Cancellation Period

You may terminate this agreement within thirty (30) days after activating without paying The Early Termination Fee. You will pay for service fees and charges incurred through the termination date. Also you may have to return the cellular modem purchased with this agreement. If you terminate after the 30th day but before the expiration of the Service Commitment, you will pay PM the Early Termination Fee associated with the line of service terminated. Either party may termination this agreement at any time after your Service Commitment ends with thirty (30) days notice to the other party. We may terminate this agreement at any time without notice if Cellular Provider ceases to provide service in your area. We may interrupt or terminate your service without notice for any conduct that we believe violates this agreement, or if you fail to make available funds to pay for service when due, or if we have reasonable cause to believe that your Equipment is being used for an unlawful purpose or in a way that may adversely affect the Cellular Provider's service.

Charges and Disputes

You are responsible for paying all charges for or resulting from services provided under this agreement. Your monthly service charges will be billed through your CoinUp® account. Play Mechanix™, Inc. passes through charges directly from the Cellular Provider. If you believe that there is an error in the amount charged to your account for cellular service you may contact Play Mechanix™, Inc. to provide proof of charges from the Cellular

Provider for your service. You agree that Play Mechanix™, Inc. will handle all negotiation of rate fees and billing with the Cellular Provider. Play Mechanix™, Inc. agrees to use its best efforts to resolve any and all billing disputes with the Cellular Provider. Play Mechanix™, Inc. will in its sole discretion determine if a billing error has occurred.

Billing and Payment

Billing takes place through your CoinUp® operator account. All methods of payment and late fees described in your CoinUp® Operator Agreement shall apply.

Changes to Terms and Rates

The Cellular Provider may from time to time change the rates charged for the Service. Generally, if the Cellular Provider raises the rate for Service they will allow us to discontinue the Service without fee or penalty. If Play Mechanix™, Inc. receives notice of a rate increase from the Cellular Provider associated with your Service we agree to notify you and allow you the same option given to us. If the Cellular Provider lowers the rate for Service, the new rate will automatically take effect for you on the same date that it takes effect for us.

Data Connection Limitations

Play Mechanix™, Inc. limits the capabilities of the Equipment so that it is only allowed to make data connections to CoinUp® servers. You agree not to use the Cellular Service provided by us for any other purpose than connecting your Game to the CoinUp® network. If Play Mechanix™, Inc. finds that you are using the Cellular Service for any other such purpose including but not limited to, web browsing, voice calls, and text messaging then we may immediately terminate the Cellular Service in which case you will pay all fees charged to this line of Service including the Early Termination Fee if we terminate this Service before the expiration of the Service Commitment.

Service Limitations and Limitation of Liability

Service may be interrupted, delayed, or otherwise limited for a variety of reasons, including environmental conditions, unavailability of radio frequency channels, system capacity, priority access by National Security and Emergency Preparedness personnel in the event of disaster or emergency, coordination with other systems, equipment modifications and repairs, and problems with the facilities of interconnecting carriers. WE DO NOT GUARANTEE YOU UNINTERRUPTED SERVICE OR COVERAGE. Play Mechanix™, INC. MAKES NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SUITABILITY, OR PERFORMANCE REGARDING ANY SERVICES OR GOODS, AND IN NO EVENT SHALL PM BE LIABLE, WHETHER OR NOT DUE TO ITS OWN NEGLIGENCE, for any: (a) act or omission of a third party; (b) mistakes, omissions, interruptions, errors, failures to transmit, delays, or defects in the service provided by or through us; or (c) damage or injury caused by suspension or termination of service by PM. To the full extent allowed by law, you hereby release, indemnify and hold PM and its officers, directors, employees and agents harmless from and against any and all claims of any person or entity for damages of any nature arising in any way from or relating to, directly or indirectly, service provided by PM or any person's use thereof, INCLUDING CLAIMS ARISING IN WHOLE OR IN PART FROM THE ALLEGED NEGLIGENCE OF PM, or any violation by you of this Agreement. This obligation shall survive termination of your service with PM. PM is not liable to you for changes in operation, equipment, or technology that cause your Equipment or software to be rendered obsolete or require modification. SOME STATES DO NOT ALLOW DISCLAIMERS OF IMPLIED WARRANTIES OR LIMITS ON REMEDIES FOR BREACH. THEREFORE, THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THIS AGREEMENT GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

Miscellaneous

This agreement, the signature sheet, terms of service for products and services not otherwise described herein that are posted on applicable PM web sites, and any documents expressly referred to herein or therein, make up the complete agreement between you and PM. If any provision of the agreement is found to be unenforceable by a court or agency of competent jurisdiction, the remaining provisions will remain in full force and effect. PM may assign this agreement, but you may not assign this agreement without our prior written consent. The law of the state of your billing address shall govern this agreement except to the extent that such law is preempted by or inconsistent with applicable federal law.

Signatures

Play Mechanix™, Inc.

Operator Legal Name:

By:

By:

Name/Title:

Name/Title:

Date:

Date:

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, warranty or repair. Betson can be reached at (800) 524-2343 Fax (201) 438-4837 www.betson.com

CoinUp® Service

PlayMechanix™ www.playmechanix.com

800 Roosevelt Road, Suite D-103

Glen Ellyn, IL 60137

(866) 646-1975 fax (630) 942-1073

Betson Enterprises Headquarters

303 Paterson Plank Rd.

Carlstadt, NJ 07072

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fax (201) 438-4837



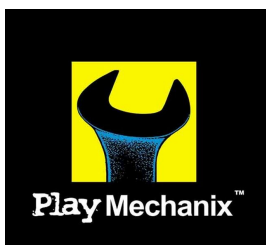
Update Installation Guide and CoinUp® Manual

For Big Buck Hunter® Pro, Big Buck® Safari™, & Big Buck Hunter® Pro Open Season™
Before beginning any modification, please refer to your game's Service Manual
for important safety precautions and instructions.

Big Buck® World™ combines both Big Buck® Safari™ and Big Buck Hunter® Pro Open Season™.
Additionally, update software includes new animals, new bonuses, and new online features.

Contents

- Two DVDs – BBW restore discs
- This manual
- New marquee art - one for each cabinet type
- BBW update dongle
- IDE Hard Drive preloaded with Big Buck® World™ software
- CoinUp® Operator Registration Packet



Service Manual

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Do not reproduce this document or any of its contents without express authorization of Play Mechanix™.

Any installation is solely your responsibility. Play Mechanix™, Raw Thrills™ and Betson assume no liability for poor assembly or damage to your property.

Big Buck[®] World[™] Update

Safety

Please read these important notes before starting installation. Information applies to both operators and service personnel.

Arcade video games contain glass and fragile electronic devices. **USE APPROPRIATE CARE DURING TRANSPORT** and avoid rough handling.

TURN OFF AC POWER AND UNPLUG CORD before servicing or adjusting the game. Servicing while power is on can be hazardous to your health, damage components and void your warranty.

GROUND GAMES. Avoid electrical shock. Do not plug AC power in until the game is carefully inspected and properly grounded. Only plug into a grounded, three-wire outlet. Do not use a “cheater” plug. Do not cut off the ground pin on the line cord.

HANDLE FLUORESCENT TUBE AND CRT WITH CARE. A dropped fluorescent tube or CRT can implode, shattering glass eight feet or more from the site of breakage.

ENSURE ALL CONNECTORS MATE PROPERLY. If connectors don't slip in easily, don't force them. Keyed connectors only connect one way. Check for correct orientation.

PLUG ALL POWER CORDS, DSL OR CABLE MODEM LINES INTO A SURGE PROTECTOR to help prevent damage to sensitive electronic components.

USE CARE WHEN HANDLING PC, which contains sensitive components, such as a hard drive. Call your distributor before servicing PC components and ask about the PC warranty.

Damage to the modem or any component of your game during installation or use is your responsibility. Play Mechanix[™], Raw Thrills[™] and Betson assume no liability for harm to your equipment, including damage from static, power surges, lightning strikes or any other cause.

IMPORTANT!

WARNING

**Before updating software,
if your game is already online,
you must unregister it
or you may lose online data!**

IMPORTANT!

Big Buck[®] World[™] Update

Update Installation

Marquee Installation

1. Turn the game off by pressing the cabinet power switch.
2. Remove the screws holding the clear Plexiglas marquee protector.
3. Remove the Plexiglas and old marquee artwork.
4. Select proper new artwork format for your cabinet.
5. Place the new artwork in position.
6. Reinstall the Plexiglas protector and fasten the screws.

BBW Dongle Installation

1. Connect the new BBW dongle, supplied in kit, to an open USB port on the PC.
If there are no available USB ports, contact Betson Service for a USB hub.
2. ***Important! Original dongles must remain installed in the computer!***

Software Installation

1. Insert *BBW restore disc 1* into DVD drive. Close drive and power down the game.
2. After 10 seconds, power up the game. Restore will take place shortly after power up. On-screen text tracks change as your hard drive is rewritten with the new software.
A warning that your drive is being rewritten is normal.
Do not interrupt power or reset the game during recovery.
3. When the game ejects Disc 1 and prompts to insert Disc 2, swap discs and close tray.
Do not interrupt power or reset the game. Restore process will continue automatically.
4. When the update is complete, follow on-screen instructions:
Drive configuration successful! Installation Completed Successfully!
Please Remove DVD and Reboot Machine.

Update Completion

If game was online before update:

1. When prompted, recalibrate guns according to instructions.
2. When prompted at "Previous Registration Found" – Shoot Yes to restore Registration.
3. ***If settings aren't restored or previous registration is not found, you must re-register your game, in order to benefit fully from the online experience.***
See pg 14 for complete registration instructions.

If game was never online before update:

1. When prompted by the machine, recalibrate guns according to instructions.
2. Register as a CoinUp[®] Operator. Consult CoinUp[®] section below for details.
3. Register your game with CoinUp[®]. See pg 14 for complete registration instructions.

Update Troubleshooting

Problem	Possible Cause	Solution
DVD Restore Fails	DVD drive is dirty	Purchase and use a DVD cleaning kit.
	Hard Drive Failure	Replace hard drive – see below. *Only on Microtel PCs with IDE drives
	DVD Drive Failure	Contact Betson service.

Problem	Possible Cause	Solution
<i>Insert Dongle</i> Screen	Missing World Dongle	Verify new world dongle is connected.
	Missing original dongle(s)	Verify old dongle(s) are connected.
	Faulty USB port	Connect dongle to a different USB port

Problem	Possible Cause	Solution
Prior Registration not found	No internet connection	Run test connection to verify failure. Consult CoinUp® manual to diagnose and repair.

Consult your original Big Buck® service manual for further troubleshooting.
Consult pg 16 for CoinUp® and online troubleshooting.

Hard Drive Replacement

***For Microtel PCs with IDE hard drives only**

Hard drive is preloaded with appropriate software.

1. Turn the game off by pressing the cabinet power switch.
2. Disconnect all cables from PC.
3. Remove PC from cabinet.
4. Remove PC case cover.
5. Locate the hard drive.
6. Disconnect power cable and IDE cable from the hard drive.
7. Remove old hard drive from PC.
8. Place new hard drive, included in the update kit, in the PC.
9. Reconnect power cable and IDE cable to new hard drive.
10. Replace PC case cover.
11. Return PC to cabinet.
12. Reconnect all cables to PC.
13. Turn game on by pressing the cabinet power switch.
14. Calibrate guns when prompted.
15. Register your game with CoinUp®. Consult CoinUp® manual for details.

Big Buck® World™ Update

CoinUp® Operation Overview

Preparation

1. Open a bank debit account.
2. Complete CoinUp® Operator Registration Packet.
 - Fill out the CoinUp® Authorization Agreement for Automated Payments.
 - Read and sign the CoinUp® Participating Operator Agreement.
 - Read and sign the CoinUp® Operator Registration Form.
3. To become an authorized operator, fax the forms 630-348-2099 or mail them to:
Play Mechanix™
800 Roosevelt Road, Suite D-103
Glen Ellyn, IL 60137
*Authorization occurs in just a few days. Login information will be sent via email.
Operator cards will arrive by mail within 4-6 weeks.*
5. *(Optional)* To purchase a cellular modem, read and sign the Cell Modem Service Agreement (see pg 20). Fax the completed form to 630-348-2099.
6. *(Optional)* Purchase a supported Wi-Fi adapter to connect via wireless network. See pg 11 for a list of supported adapters and network compatibilities. You may purchase the Rosewill USB WiFi device directly from Play Mechanix for \$30 plus shipping. Contact Dave at dsnipes@playmechanix.com or 630-942-1070 to place your order. This one-time fee will be added to your CoinUp® invoice.

Register Each Unit

Following installation, after reboot, you will be prompted to register the game. Use the gun to navigate through this process.

1. If skipped, registration can also be done in the diagnostic menu by going to Online Menu—Game Registration Menu—Game Register.
2. Login by entering your operator ID number and PIN.
3. Follow the on-screen prompt to add or select a location and complete registration. See page 14, Game Registration, for more detailed steps to complete this process.

Access CoinUp® Operator Center

The CoinUp® Operator Center tracks the performance of your entire tournament operation. For example, you can compare performance of different machines at the same location, or even across locations. To access CoinUp® and view your pages, follow the steps below. From there, the site provides guidance. You follow easy prompts and navigate to the statistic, accounting, bookkeeping or performance data that you need.

1. Access the CoinUp® Web site at www.coinup.com.
2. Login using email address and password.
4. *(Optional)* Change login information under the Profile section.
5. Select locations or products to view.

FCC COMPLIANCE. Proper installation of this kit does not guarantee compliance with FCC requirements. On installations, you are solely responsible for FCC compliance.

CoinUp® Installation

Installation Process

1. Install an Internet Connection
 - For Ethernet (see page 8)
 - For Cell Modem (see page 9)
 - For Wi-Fi (see page 11)
2. Update game software if needed. Consult game's Service Manual for details.
3. Register your game (see page 14)

Install Ethernet Cable

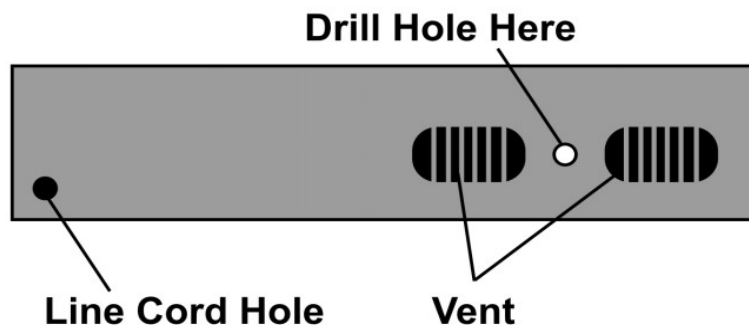
1. Set up DSL or cable modem service through an ISP.
2. Turn off AC power.
3. Unplug the power cord.
4. Center punch a hole for the Ethernet cable.

Locate the hole in the bottom-back panel below the 12.5" high door.

The hole location is midway between two vents on the right side of the panel.

Vertically space the hole some seven inches up from the bottom of the panel.

Horizontally space the hole some nine inches from the right side of the panel.

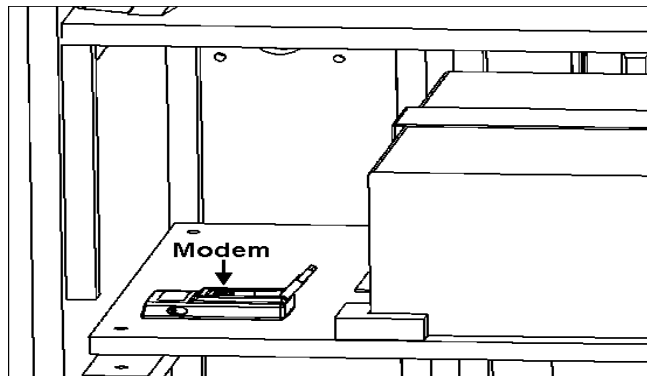


5. Using a 5/8-inch drill bit, drill the cable hole.
6. Run the Ethernet cable to the cabinet.
7. Route the Ethernet cable through the cabinet hole.
8. Open the back door.
9. Inside the cabinet, dress the Ethernet cable away from other cables and metallic parts.
10. Locate the RJ45 Ethernet jack on the back of the PC.
11. Connect the Ethernet cable to the RJ45 jack on the PC.
12. Close the back door.
13. Plug in power cord.
14. Turn on AC power.

Big Buck® World™ Update

Install Cell Modem

1. Set aside the modem, Velcro® strips and extender cable.
2. Turn off AC power.
3. Unplug power cord.
4. Open the back door.
5. Remove the adhesive protection from one side of the Velcro® strips.
Keep the Velcro® strips together.
6. Place them to the left of the PC on the shelf to identify the location.
7. Lift the modem and stick one side of the strips to the shelf beneath the modem location.
8. Remove the adhesive protection from the free side of the Velcro® strips.



9. Press the modem to the sticky side of the Velcro® strips.
Ensure that the modem bonds solidly.
10. In the kit, get find the modem extender cable.
11. Connect the modem cable to a USB port on the PC.
12. Connect the other end of the modem cable to the cell modem.
13. (Optional) Install Cell Modem Antenna (see below)
14. Close the back door.
15. Plug in power cord.
16. Turn on AC power.

Install Cell Modem Antenna

A cell modem antenna is optional. However, an antenna will help insure the best possible connection. Note that the antenna cable is part of the antenna and these instructions cover mounting it to the cabinet roof. However, other locations may provide better reception. A wall, near a window, etc.

Location Guidelines

- Keep the antenna vertical.
- Mount the antenna as high as possible.
- Avoid mounting an antenna near power lines.
- Avoid areas where people could trip on a cable.
- Don't tempt vandals: If possible, keep the antenna out of plain sight.
- With a CDMA cellphone, can check locations for best signal strength.

IMPLOSION POSSIBLE

Be extra careful when drilling into the cabinet roof. The CRT is only a few inches below the roof. If the CRT is nicked by a power tool, it may implode. An imploding CRT throws sharp glass shards up to eight feet. These glass shards can cause serious cuts or fatal injuries. Avoid this hazard by using a four-inch or shorter drill bit. Wear safety glasses.

USE VELCRO—NOT ADHESIVE

Only use Velcro® strips for mounting antenna. Do not use the factory-applied, permanent adhesive backing. Doing so may damage the antenna and the cabinet when removing the antenna during a cabinet relocation. The warranty does not cover this sort of damage.

1. Set aside the antenna and the Velcro® strips from the kit.
2. Turn off AC power.
3. Unplug power cord.
4. Open the back door.
5. On the slanted roof, center punch the antenna cable hole.
6. Using a 5/8-inch hole bit, drill the hole for the antenna cable.
Avoid implosion. Read the warning above.
7. Slide the antenna coaxial cable down the cable hole and into the cabinet.
8. Remove the protective strip from one side of the Velcro® strips.
Keep the hook and loop Velcro® strips together.
9. Mount the sticky side of the Velcro® strips to the bottom of the antenna.
You can apply the Velcro® sticky side to the adhesive on the antenna base. Do not let the antenna adhesive come into contact with the cabinet. The Velcro® must separate the antenna adhesive and the cabinet.
10. Remove the adhesive protection from the free side of the Velcro® strip.
11. Mount the free side of the Velcro® strip to the roof.
12. Dress the antenna coaxial cable away from other cables and metallic parts.
13. Connect the antenna cable plug to the jack on the modem.
14. Close the back door.
15. Plug in power cord and turn on AC power.

Big Buck® World™ Update

Install Wi-Fi Adapter

For Big Buck Hunter Pro, version 01.00.11 or later required..

For Big Buck Safari, version 01.02.12 or later required.

ADAPTER MODEL	Supported Networks	Encryption Type / Compatible?							
		Disabled None	WEP	WPA-Personal + TKIP encryption	WPA-Personal + AES encryption	WPA2-Personal (AES encryption)	WPA2-Mixed (TKIP & AES)	WPA Enterprise	RADIUS
Linksys WUSB54G (version 4)	802.11b/g	YES	YES	YES	YES	NO	NO	NO	NO
Rosewill RNX-G1 RNX-G1W	802.11b/g	YES	YES	YES	YES	YES	YES	NO	NO
Netgear WG111 (version 2)	802.11b/g	YES	YES	YES	YES	YES	YES	NO	NO
D-Link DWA-140 (version 81)	802.11b/g	YES	YES	YES	YES	YES	YES	NO	NO
Belkin F5D8053 (version 3000)	802.11b/g/n	YES	YES	YES	YES	YES	YES	NO	NO
Linksys WUSB600N (version 1.0)	802.11b/g/n	YES	YES	YES	YES	YES	YES	NO	NO

Supported Wi-Fi Adapter Compatibility Chart

Obtain Supported Adapter

1. Obtain one of the supported USB Wi-Fi adapters listed in the chart above.
Be sure the listed model and version number matches or the device will not work.
2. Play Mechanix™ carries a small stock of Rosewill devices.
To purchase one directly, contact Dave at dsnipes@playmechanix.com or 630-942-1070 x131.
Adapters costs \$30.00 plus shipping. This one-time fee will be added to your CoinUp® invoice.

Install Wi-Fi Adapter

Warning: Do NOT install software that came with adapter.

The game already runs appropriate software.

1. Turn off cabinet AC power.
2. Unplug power cord.
3. Open the back door.
4. Mount Wi-Fi adapter inside cabinet as high as possible using Velcro®.
*If necessary, use a USB extension cable to connect adapter to PC.
Most supported adapters come with one.*
5. Connect cable to a USB port on the PC.
6. Close back door.
7. Plug in power cord.
8. Turn on AC power.
9. Complete Wi-Fi software setup.
Game will not connect properly to CoinUp® until setup is successfully completed.

Wi-Fi Software Setup

The following procedure is required to configure your Wi-Fi adapter for communication with CoinUp®.

Do NOT install software that came with adapter.

Preparation

1. Log into wireless access point or router.
2. Write down Wi-Fi network information on a sheet of paper:
 - SSID (network name)
 - Broadcast Channel
 - Encryption Type (WEP 64-bit, WEP 128-bit, WEP 256-bit, WPA-PSK + TKIP encryption, WPA-PSK + AES encryption, WPA2)
 - Encryption Key (Different encryption types require different types of keys. See chart below for examples)

Encryption Type	Key Details	Example
WEP (64-bit)	10 hexadecimal characters	5E2C6D4E24
WEP (128-bit)	26 hexadecimal characters	326C2D335A5A48386B5D763954
WEP (256-bit)	58 hexadecimal characters	373A786E625676266E7156345741 312F4433427C48536E7A695E7C3E75
WPA-PSK (AES) WPA-PSK (TKIP) WPA2 (AES + TKIP)	ASCII pass phrase between 8-63 characters in length (Upper case letters, lower case letters, numbers and symbols allowed)	\$3CurE_pA\$sPhRa\$e

Network SSID

1. Enter Diagnostics mode.
2. Select Online Menu—Wi-Fi Menu—Wi-Fi Setup.
3. Select Scan Networks to look for nearby Wi-Fi networks.
*Depending on settings, networks may not broadcast their SSID. These networks are displayed as ***HIDDEN***
To use a hidden network, select it, then enter the SSID manually when prompted.*
4. Scroll through the detailed list to locate your network.
5. If network does not appear in list, Exit to previous menu and select Enter Manually, then enter SSID, encryption type, key and broadcast channel.
6. Select Use this Network to continue.

Encryption Type

1. From list of encryption types, scroll through and highlight appropriate type.
2. Select Use This Encryption to continue.

Big Buck[®] World[™] Update

Encryption Key

If Encryption Type is Disabled/Open, skip this section, as there is no key.

1. On Enter WPA Key screen, enter access point or router WPA Key
*Select yellow < and > symbols to switch between letters, numbers and symbols.
On the letters page, select UPPER or lower to change case of letters*
2. Select OK to continue.

Broadcast Channel

This applies only if SSID was entered manually.

1. Scroll through list to highlight appropriate channel.
2. If unsure of correct broadcast channel, select Auto.
3. Select Use This Channel to continue.

Confirm Settings

1. Note SSID, Encryption Type, Encryption Key and Channel on confirmation screen.
2. If information is incorrect, select Start Over to return to Wi-Fi Menu.
3. If information is correct, select Save Settings to store information.
The game automatically reboots.

Wi-Fi Details Status Messages

After reboot, game attempts to connect to wireless network using saved information. To see real-time connection status, enter Diagnostics Mode and select Online Menu—Wi-Fi Menu—Wi-Fi Details. Below are the possible status messages. See Troubleshooting for further instructions.

Connected

Game is online and ready to be registered with CoinUp[®].

Not Connected

The game is neither connected to a Wi-Fi network nor attempting to connect.

1. If Adapter status is Not Found, ensure a supported Wi-Fi adapter with correct version is connected.
2. If Adapter status shows the name of the adapter, ensure SSID status is also correct.

Locating Access Point...

The game is trying to find an access point broadcasting a network with the saved information. If game remains in this status more than 5 minutes, either the network information entered was incorrect, or the game cannot communicate with the access point.

1. Reboot game and return to Wi-Fi Details again.
2. If another 5 minutes pass with the same status, return to Wi-Fi Setup and re-enter network information.
3. Check network signal strength by scanning for available networks in Wi-Fi Setup.
4. If signal is weak, unplug AC power and move cabinet closer to the access point.

Obtaining IP Address

Game has found wireless access point or router and is acquiring an IP Address.

1. If this status displays for more than 5 minutes, reboot game.
2. Recheck status after reboot.

Game Registration

After the reboot following CoinUp® installation, the software will prompt you to register your location. Registration can also be found by entering Diagnostic mode, and going to Online Menu—Game Registration Menu—Game Register.

1. At the prompt, login with your CoinUp® id and pin.
2. The Select A Location screen appears
The game downloads your locations from the CoinUp® server database automatically.
3. Scroll through the list to highlight the appropriate location.
4. Select Use This Location to continue.
5. If the location is not on the list, select Add New Location to continue.
6. When adding a new location, select each letter and then click OK to confirm.
7. After location is chosen, a confirmation screen is displayed.
8. Finally, the game checks for updates and messages, then enters Attract mode.

Checking the Connection

Cell Users

1. Enter Diagnostic mode by pressing the TEST service button.
2. Select Online Menu—Connection Details—Cell Modem Details.
3. Note the signal strength, which appears as a fraction with a 5 in the denominator.
A strong signal is 5/5; a weak signal is 1/5 or 2/5.
4. If strength is below 3/5, reposition the cell antenna and recheck signal strength.

Wi-Fi Users

1. Enter Diagnostic mode by pressing the TEST service button.
2. Select Online Menu—Wi-Fi Menu—Wi-Fi Details
3. Note the signal strength. More green bars is better.
4. Note the link quality. A higher percent is better.
5. If either link quality or signal strength is low, try repositioning the adapter.

All Users

1. Enter Diagnostic mode by pressing the TEST service button.
2. Select Online Menu—Test Connection.
3. Watch as the game confirms that:
 - It can obtain a valid IP address.
 - It can contact the CoinUp® server.
 - It can access the CoinUp® database.
 - It can access the CoinUp® file server.
4. The right side of the screen reports test results: SUCCESS or FAILURE.
The only acceptable result is four SUCCESS indications.
If any test results in FAILURE, see the Troubleshooting chapter or call your distributor.

Verifying Online Play is Enabled

1. Enter Diagnostic mode.
2. Select Online Menu—Game Registration Menu—Current Registration Status
3. The *Online Permissions* field should indicate: **ALL ONLINE PLAY ENABLED.**

Big Buck® World™ Update

Online Operation

Collection Procedure

The CoinUp® server tracks various book keeping statistics including collections. To see them, log on to the CoinUp® Operator Center page at www.coinup.com and go to the Reports section.

1. During a normal collection, enter Diagnostics mode.
2. Select COLLECTIONS.
3. Review the entire report. The system calculates GROSS COLLECTION from the last time the report screen was cleared. This figure and the actual collection should agree.
4. Select SEND COLLECTIONS MESSAGE.

After sending the collections, coin related audits will automatically be reset. This allows the coin audits to accurately reflect earnings since the last collection. If you don't send collections, the next collection won't match the figures on the COLLECTIONS screen and you will not be able to view your collections on www.coinup.com.

If you wish to reset the other game audits, go to Reset Menu—Reset Game Audits.

6. Split collection with location as usual. *CoinUp® debits your account for its portion.*

Fee Schedule

Pricing is subject to change without notice.

For certain online features, CoinUp® collects a small portion of game revenue at a fixed rate that operators cannot adjust. This portion is included in the player cost for all online play. The operator's portion of most game features can be adjusted through www.coinup.com under the Game Machines section, or at the game, by entering Diagnostic Mode and going to Operator Adjustments—Player Cost. Make adjustments to each game.

General CoinUp® Fee Schedule

Service	Operator Portion	CoinUp® Fee	Who Pays
Basic Play	Adjustable	\$0.00	Player, at game
Online Play	Adjustable	\$0.50	Player, at game
CoinUp® Contest	\$2.50	\$1.50	Player, at game
Monthly Cell Service Per Unit	N/A	\$27.00	Operator *Taxes and fees from cell provider apply

Fees may vary depending on game type.

Accounting Guidelines

After the close of every billing cycle, the monthly CoinUp® billing statement is available. View it through the operator account at www.coinup.com.

The CoinUp® billing statement itemizes costs of online services. The statement shows the approximate date of the automatic debit, allowing time to deposit the appropriate funds. The automatic debit charges the bank account submitted on your debit account form.

CoinUp® honors company checks. CoinUp® must receive company checks three or more business days before the debit date.

Late or delinquent deposits may exclude your game from access to online features and incur late fees.

Troubleshooting

Connection to CoinUp® Troubleshooting

Problem	Possible Cause	Solution
Game has IP address and screen says <i>Server Ping Success</i> but Test Connection screen reports Database Ping failure or File Server Ping failure.	Firewall is blocking communication with server.	Read firewall documentation. Ensure configuration allows ICMP Echo. If router has built-in firewall, check router configuration. Enable communication on ports 7786 and 7787.
	Database or File Server is down	Wait 30 minutes and revisit Test Connection screen. If still reporting failure, call CoinUp® service (see pg Error: Reference source not found for contact info)

Cellular Troubleshooting

Problem	Possible Cause	Solution
Game cannot connect to CoinUp® server No IP address appears under Test Connections menu	Poor connection between cell modem and PC.	Check that USB connections at cell modem and PC are tight. Turn off cabinet AC power. Wait 30 seconds and restart game. If still not connect, enter diagnostics mode and go to Connection Menu. Select Cell Modem Details. If message is <i>No Modem Found</i> or <i>Collecting Data</i> call CoinUp® service.
	Faulty cell modem	Ensure PWR LED on cell modem glows green, which means PC is providing modem with power. If no power, swap with working modem. Check modem for obvious damage (dents, burns, smoke damage, broken connectors) If modem seems fine, call CoinUp® service. (see pg Error: Reference source not found for contact info)
Cell modem connection is good and IP address appears at Test Connection screen. Under Cell Modem Details, signal is weak or nonexistent.	Poor antenna location	Turn off game and move it near window or exterior wall.
	Faulty connection	Check connections between cell modem and antenna. If cable is frayed, broken or looks dried-up, replace it. Replace antenna if it appears damaged.

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Ethernet Troubleshooting

Problem	Possible Cause	Solution
Game cannot connect to CoinUp [®] server. No IP address appears under Test Connections menu	No broadband internet service	Contact a local ISP to setup either cable modem or DSL service.
	Wrong router configuration	Configure router for DHCP (Dynamic Host Configuration Protocol).
	Disconnected Ethernet cable	Check that Ethernet cables are tightly connected at both ends. An audible click confirms tightness. Restart game. In Diagnostic mode, selection Online Menu—Connection Menu—Test Connection. Confirm that IP address appears. The phrase eth0 must follow IP address.
	Faulty Ethernet cable	Test cable by connecting it from another PC into router or wall jack. Replace cable if faulty.
	Faulty Ethernet wall jack.	Plug Ethernet cable into a different jack.
	Broadband service is down.	Contact ISP.
	Faulty router	Plug Ethernet cable into different jacks in router. Plug Ethernet cable directly into DSL or cable modem instead of router. Replace router if faulty
	Faulty network card	Call CoinUp [®] service (see pg Error: Reference source not found for contact info)

Wi-Fi Troubleshooting

Problem	Possible Cause	Solution
Wi-Fi Details status is <i>Not Connected</i> and Adapter is <i>Not Found</i> .	A supported USB Wi-Fi adapter is not connected.	Connect a supported Wi-Fi adapter. Turn cabinet AC power off for a minute and restart.
	Operating system has lost communication with the adapter.	Unplug Wi-Fi adapter from PC. Wait one minute, then plug it in. Turn off cabinet AC power. Wait one minute and restart.
Wi-Fi Details status is <i>Not Connected</i> , but a supported adapter is connected.	Wi-Fi network information was not saved.	Configure game to connect to Wi-Fi network at Wi-Fi Setup Menu.
Wi-Fi Details status remains <i>Locating Access Point ...</i> for more than 5 minutes.	Weak signal or interference causing delay in locating access point.	Restart cabinet AC power.
	Wireless access point or router is off or disconnected.	Ensure access point has power. Ensure it is connected to router. Restart access point. Ensure router has power and is connected to cable/DSL modem.
	Network information entered in Wi-Fi Setup does not match information stored in the wireless access point or router.	Re-enter network information. Configure game to connect to network in Wi-Fi Setup Menu. Ensure encryption type, encryption key, SSID and broadcast channel match what is stored in wireless access point or router.
Wi-Fi Details status remains <i>Obtaining IP Address...</i> for more than 5 minutes.	Weak signal or interference delaying negotiation of IP address with router.	Restart cabinet AC power.
	Wireless access point or router is off or disconnected.	Ensure access point has power. Ensure it is connected to router. Ensure router has power and is connected to cable/DSL modem.
Game has an IP address, but Test Connection menu shows that Server, Database and Fileserver pings all report failures.	Server information is outdated.	In Diagnostics Menu, select Online Menu—Online Debug Menu—View Online Debug Details—Server Details—Refresh Server Info. After refresh, new host names and IP addresses of CoinUp® servers are displayed.

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Forms

The Participating Operator Agreement and all the forms needed to setup a CoinUp[®] account can be found in your CoinUp[®] Registration Packet. These forms can also be found online at coinup.com.

Included here is the optional *Cell Modem Service Agreement* for those operators who wish to connect to CoinUp[®] using a Cell Modem.

Cell#

IMEI

L.O.S

Operator ID#

Rev. C1

CoinUp® Cellular Terms of Service Agreement

This agreement is made between Play Mechanix™, Inc. (“PM”, “we”, “us”, or “ours”) and the Operator (“Operator”, “you”, or “your”) and covers the usage and fees associated with a cellular modem device (“Equipment”) that you order from us connected to one of your games allowing it to communicate with the CoinUp® online network (“Service”). This agreement must be signed and returned to us before we will activate a new line of service. PLEASE READ THIS AGREEMENT CAREFULLY BEFORE ORDERING CELLULAR SERVICE FOR YOUR CoinUp® CONNECTED GAME AND SIGNING THIS AGREEMENT.

Provision of Services

Upon ordering the cellular modem, Play Mechanix™, Inc. will in turn order a line of cellular service (“Service”) for the cellular modem. Play Mechanix™, Inc. provides cellular service from one or more cellular providers of service throughout the United States (“Cellular Provider”). We do this to gain volume pricing for you and thereby lower the price of the Service. All costs charged to Play Mechanix™, Inc. for your line of cellular service are passed through directly to you. Ordering the Service from us is not the only option for you. You may obtain cellular service independently to connect your game. In this case, you will be responsible for all service fees and commitments. Please contact Play Mechanix™, Inc. before ordering your own cellular modem to ensure that you purchase a modem device that will be compatible with the game.

Service Commitment and Early Termination Fee

1. By ordering this Service the Operator agrees to the following:
2. To pay the monthly fee associated with each line of service which will be billed to your CoinUp® account. To keep the Service for at least a period of one year from the date of ordering (“Service Commitment”). After the initial one year term you may terminate the service at anytime with 30 days notice. If you wish to terminate the Service prior to the initial one year term, you agree to pay us an Early Termination Fee of \$175. The Early Termination Fee is not a penalty but rather the exact fee we will be charged by the cellular provider. AFTER YOUR SERVICE COMMITMENT THIS AGREEMENT SHALL RENEW ON A MONTH-TO-MONTH BASIS UNTIL EITHER PARTY GIVES NOTICE OF TERMINATION TO THE OTHER.

30-Day Cancellation Period

You may terminate this agreement within thirty (30) days after activating without paying The Early Termination Fee. You will pay for service fees and charges incurred through the termination date. Also you may have to return the cellular modem purchased with this agreement. If you terminate after the 30th day but before the expiration of the Service Commitment, you will pay PM the Early Termination Fee associated with the line of service terminated. Either party may termination this agreement at any time after your Service Commitment ends with thirty (30) days notice to the other party. We may terminate this agreement at any time without notice if Cellular Provider ceases to provide service in your

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area. We may interrupt or terminate your service without notice for any conduct that we believe violates this agreement, or if you fail to make available funds to pay for service when due, or if we have reasonable cause to believe that your Equipment is being used for an unlawful purpose or in a way that may adversely affect the Cellular Provider's service.

Charges and Disputes

You are responsible for paying all charges for or resulting from services provided under this agreement. Your monthly service charges will be billed through your CoinUp[®] account. Play Mechanix[™], Inc. passes through charges directly from the Cellular Provider. If you believe that there is an error in the amount charged to your account for cellular service you may contact Play Mechanix[™], Inc. to provide proof of charges from the Cellular Provider for your service. You agree that Play Mechanix[™], Inc. will handle all negotiation of rate fees and billing with the Cellular Provider. Play Mechanix[™], Inc. agrees to use its best efforts to resolve any and all billing disputes with the Cellular Provider. Play Mechanix[™], Inc. will in its sole discretion determine if a billing error has occurred.

Billing and Payment

Billing takes place through your CoinUp[®] operator account. All methods of payment and late fees described in your CoinUp[®] Operator Agreement shall apply.

Changes to Terms and Rates

The Cellular Provider may from time to time change the rates charged for the Service. Generally, if the Cellular Provider raises the rate for Service they will allow us to discontinue the Service without fee or penalty. If Play Mechanix[™], Inc. receives notice of a rate increase from the Cellular Provider associated with your Service we agree to notify you and allow you the same option given to us. If the Cellular Provider lower the rate for Service, the new rate will automatically take effect for you on the same date that it takes effect for us.

Data Connection Limitations

Play Mechanix[™], Inc. limits the capabilities of the Equipment so that it is only allowed to make data connections to CoinUp[®] servers. You agree not to use the Cellular Service provided by us for any other purpose than connecting your Game to the CoinUp[®] network. If Play Mechanix[™], Inc. finds that you are using the Cellular Service for any other such purpose including but not limited to, web browsing, voice calls, and text messaging then we may immediately terminate the Cellular Service in which case you will pay all fees charged to this line of Service including the Early Termination Fee if we terminate this Service before the expiration of the Service Commitment.

Service Limitations and Limitation of Liability

Service may be interrupted, delayed, or otherwise limited for a variety of reasons, including environmental conditions, unavailability of radio frequency channels, system capacity, priority access by National Security and Emergency Preparedness personnel in the event of disaster or emergency, coordination with other systems, equipment modifications and repairs, and problems with the facilities of interconnecting carriers. WE DO NOT GUARANTEE YOU UNINTERRUPTED SERVICE OR COVERAGE. Play Mechanix[™], INC. MAKES NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR A

PARTICULAR PURPOSE, SUITABILITY, OR PERFORMANCE REGARDING ANY SERVICES OR GOODS, AND IN NO EVENT SHALL PM BE LIABLE, WHETHER OR NOT DUE TO ITS OWN NEGLIGENCE, for any: (a) act or omission of a third party; (b) mistakes, omissions, interruptions, errors, failures to transmit, delays, or defects in the service provided by or through us; or (c) damage or injury caused by suspension or termination of service by PM. To the full extent allowed by law, you hereby release, indemnify and hold PM and its officers, directors, employees and agents harmless from and against any and all claims of any person or entity for damages of any nature arising in any way from or relating to, directly or indirectly, service provided by PM or any person's use thereof, INCLUDING CLAIMS ARISING IN WHOLE OR IN PART FROM THE ALLEGED NEGLIGENCE OF PM, or any violation by you of this Agreement. This obligation shall survive termination of your service with PM. PM is not liable to you for changes in operation, equipment, or technology that cause your Equipment or software to be rendered obsolete or require modification. SOME STATES DO NOT ALLOW DISCLAIMERS OF IMPLIED WARRANTIES OR LIMITS ON REMEDIES FOR BREACH. THEREFORE, THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THIS AGREEMENT GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

Miscellaneous

This agreement, the signature sheet, terms of service for products and services not otherwise described herein that are posted on applicable PM web sites, and any documents expressly referred to herein or therein, make up the complete agreement between you and PM. If any provision of the agreement is found to be unenforceable by a court or agency of competent jurisdiction, the remaining provisions will remain in full force and effect. PM may assign this agreement, but you may not assign this agreement without our prior written consent. The law of the state of your billing address shall govern this agreement except to the extent that such law is preempted by or inconsistent with applicable federal law.

Signatures

Play Mechanix™, Inc.

Operator Legal Name:

By: _____

By: _____

Name/Title: _____

Name/Title: _____

Date: _____

Date: _____

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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, warranty or repair. Betson can be reached at (800) 524-2343 Fax (201) 438-4837 www.betson.com

CoinUp[®] Service

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