CONVERSION KIT

Setup and Operation
Service Manual

Big Buck® World™ Conversion Kit

Table of Contents

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.

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

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

Electronics

- o Electronics Tray
- o I/O board
- o   Watchdog board
- o Cables: VGA, Serial DB9, Audio, Watchdog power, Jamma Harness
- o Six #8 x ¾" wood screws (for restraint bracket and electronics tray)
- o AC adapter cable
- o Game PC
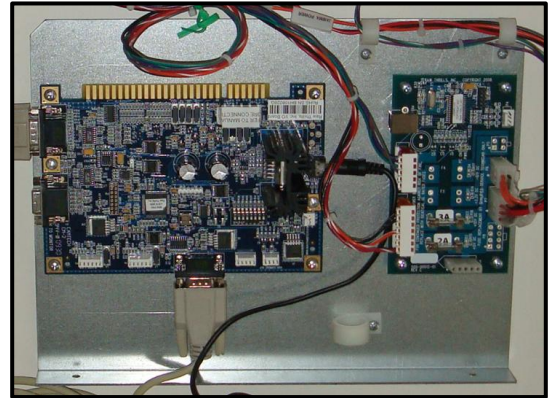- o Four wood cleats
- o PC restraint bracket
- o USB dongle (taped to PC)

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

Front and Side Panel Components

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

Figure 3: PC Restraint Bracket

Artwork

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

Figure 4: USB Dongle

Templates – see pg 46

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

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

1. 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.
2. Drill large center hole for left (green) button with 1" hole saw.
3. Drill two locating holes for left button with 3/16" bit.
4. Repeat steps 2-3 for right (orange) button.
5. Remove green button from lamp/switch assembly.
   Do not remove any wires from assembly.
6. Remove plastic nut from button.
7. Place button in left button hole.
   Align nibs on underside of button with locator holes to hold it in place.
8. From underneath the control panel, hand tighten plastic nut while holding button down.
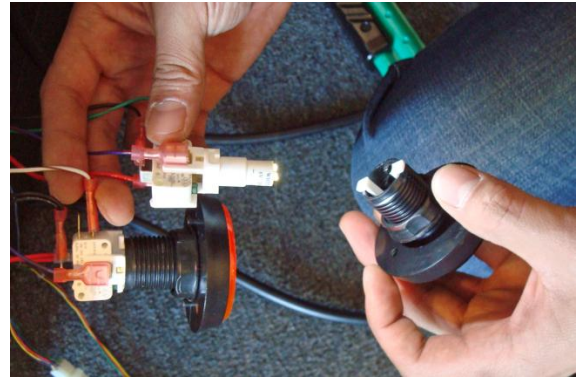9. Repeat steps 5-8 with orange button.

Figure 6: Removing button from assembly

Install Guns

1. 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.
2. Drill center hole for left cable using 1.5" hole saw.
3. Drill three bolt holes with .25" bit.
4. Insert green gun connector cable through center hole.
   Ensure gun colors match start button colors.
   Ensure green is on the left.
5. Align triangular plate with bolt holes.
6. Insert three 10-24 x 1.25" carriage bolts through each triangular plate.
7. Inside cabinet, fasten a 10-24 keps nut over each bolt.
   Rest gun on floor for now.
8. Repeat steps 2-7 for the orange gun.
9. If necessary, repeat steps 2-7 for cover plate to conceal existing hole in front panel.

Figure 7: Gun cable mount

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.
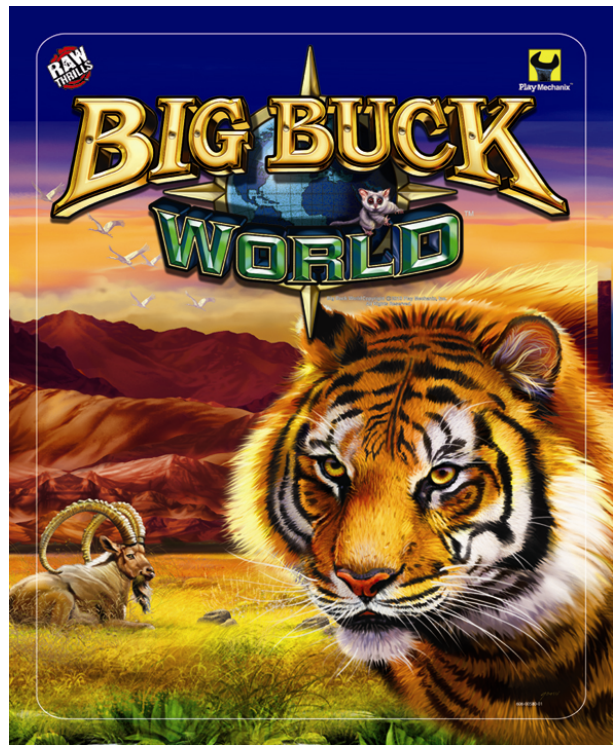4. Repeat steps 1-3 on right side panel.


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.
   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.

Figure 10: Mounted Gun Hook
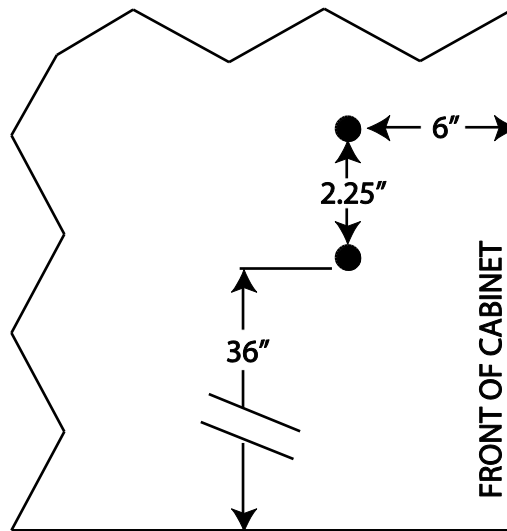
DRAWING NOT TO SCALE

**Figure 11: Drilling Locations
for gun rack bracket holes**

Big Buck® World™ Conversion Kit
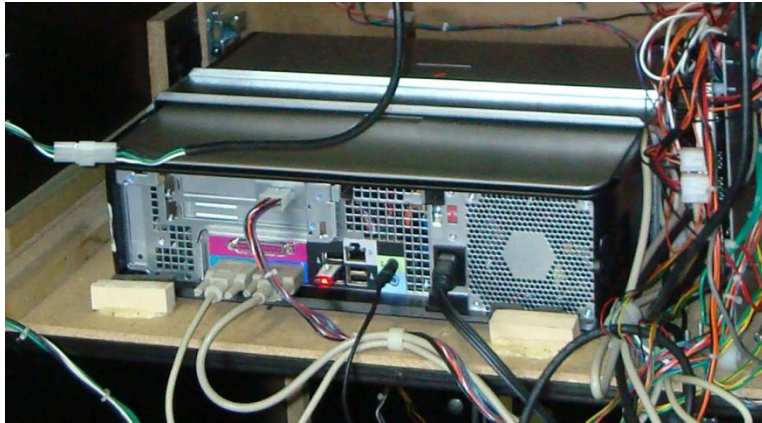
Install PC

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 ¾" 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 ¾" 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 ¼" 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 ¾" 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.
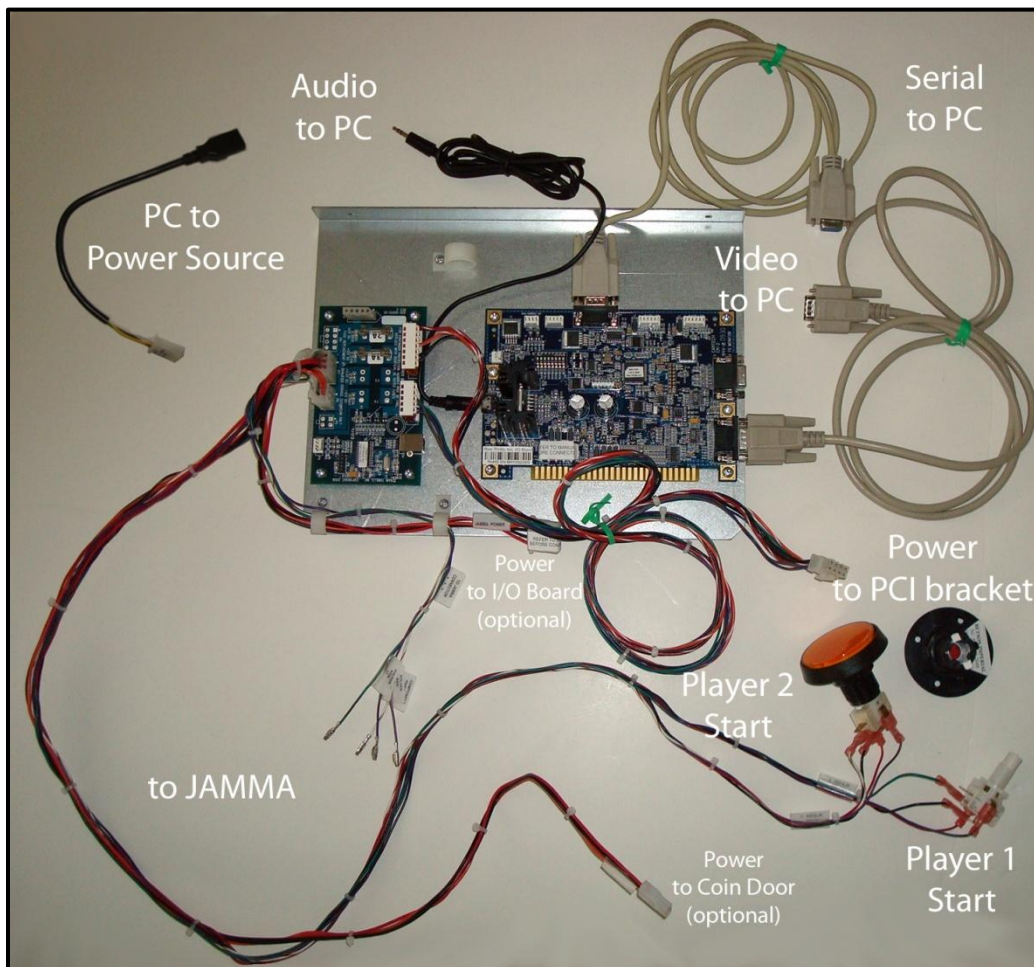

Figure 13: Electronics Tray and attached cables with Player 1 start button disconnected

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.

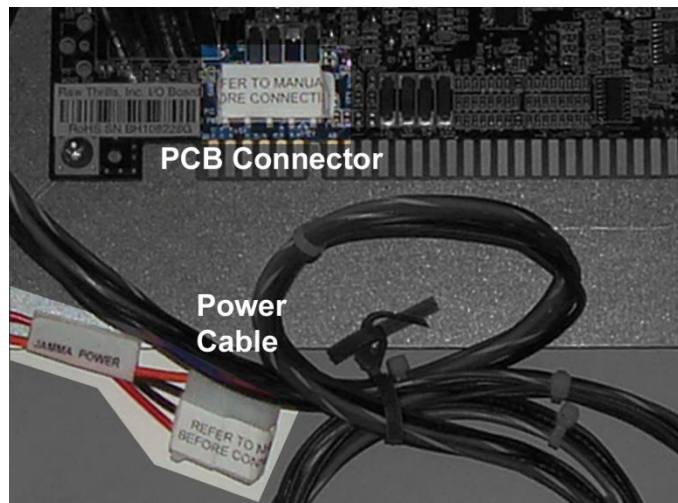6. Plug JAMMA power cable into PCB connector on I/O board.

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.

Big Buck® World™ is a trademark of Play Mechanix™ Inc. All rights reserved.

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.
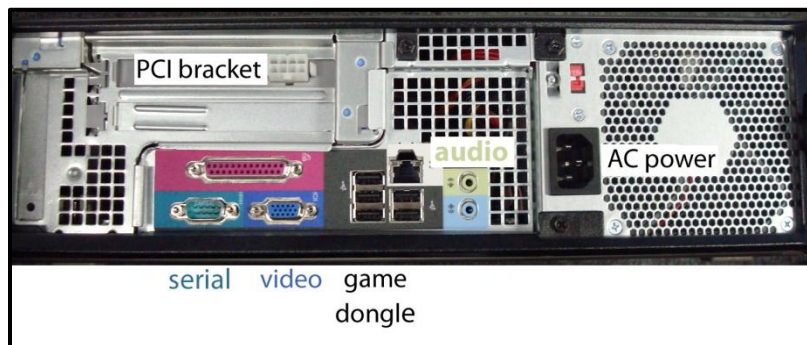

Figure 15: Ports in rear of PC

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.
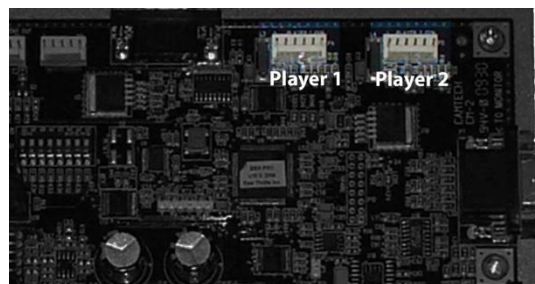3. Place each gun in its corresponding pair of hooks.

Figure 16: I/O Board - Gun Connectors

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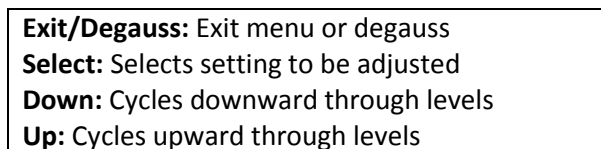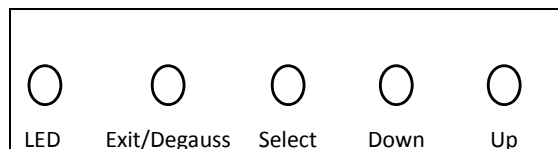
The I/O board relies on signals detected from the display to operate. Display quality is critical to ensure the guns operate correctly and reliably. Weekly gun calibration is also important.

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.
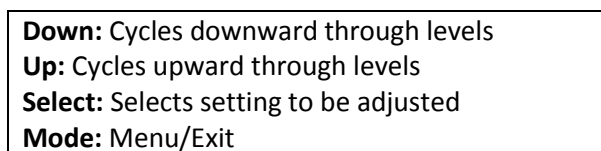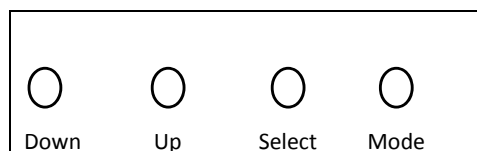
Setting	Adjustment
Brightness	**Function:** Background brightness or black level
	Set Level: Black background should appear dark, not gray.
Contrast	**Function:** Definition/sharpness of character against background
	Set Level: Outer edges of character or text should not be distorted.
H-Position	**Function:** 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

○	○	○	○	○
LED	Exit/Degauss	Select	Down	Up

Exit/Degauss: Exit menu or degauss
Select: Selects setting to be adjusted
Down: Cycles downward through levels
Up: Cycles upward through levels

Wells Gardner

○	○	○	○
Down	Up	Select	Mode

Down: Cycles downward through levels
Up: Cycles upward through levels
Select: Selects setting to be adjusted
Mode: Menu/Exit

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.

Main Menu
Operator Adjustments Menu
Game Adjustments Menu

This controls elements of the player experience and the time the game contacts the CoinUp® server to check for software updates.
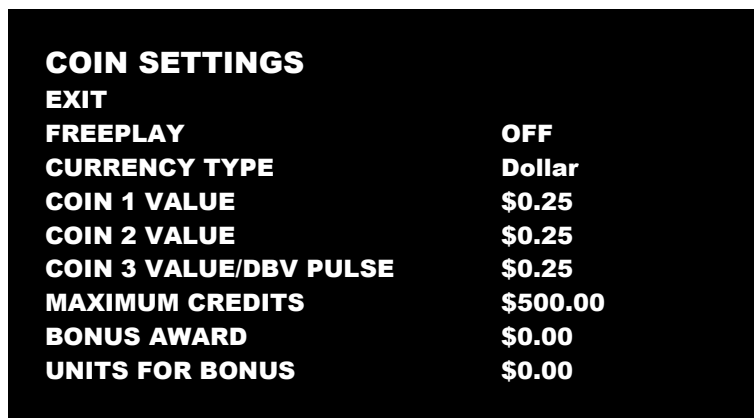
```
GAME ADJUSTMENTS
EXIT
VIOLENCE                NORMAL
BIG BUCK GIRLS          ON
SKILL LEVEL             NORMAL
INITIALS TYPE           INITIALS ONLY
GAME UPDATE HOUR        4:00 AM-5:00 AM
```

Settings, Defaults and Choices

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

Main Menu
Operator Adjustments Menu
Coin Settings Menu

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

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

Settings, Defaults and Choices

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

Bonus Award/Units for Bonus Example

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

Main Menu
Operator Adjustments Menu
Player Cost Menu

```
PLAYER COST
TYPE- - - - - - - - - - - -   -OPER FEE- - COINUP FEE - - TOTAL
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 *trek* lets players hunt at five sites and one bonus game.	$1.00	$0.00 - $63.75 in $0.25 increments
Adventure	An *adventure* is three treks (15 sites and three bonus games).	$2.50	$0.00 - $63.75 in $0.25 increments
Bonus Only	A *bonus only* is four bonus games.	$1.00	$0.00 - $63.75 in $0.25 increments
Trophy Club Trek	This is the online version of a trek (tracks player stats).	$1.00	$0.00 - $63.75 in $0.25 increments Only Operator Fee can be modified.
Trophy Club Adv.	This is the online version of an adventure (tracks player stats).	$2.50	$0.00 - $63.75 in $0.25 increments Only Operator Fee can be modified.
Trophy Bonus 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.

Main Menu

	Operator Adjustments Menu

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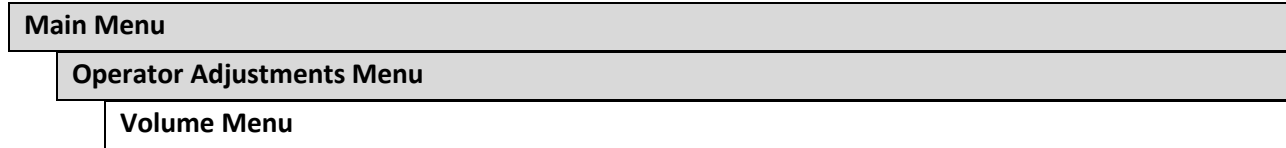
Rather than requiring a manual dial or up/down buttons, all volume adjustments can be made digitally with this menu. However, during Attract Mode, pressing the Service Panel Vol + and Vol – buttons only adjust Attract Mode volume.

```
VOLUME
EXIT
GAME VOLUME          9
ATTRACT VOLUME       7
MINIMUM VOLUME       4
ATTRACT SOUNDS       OCCASIONALLY
```

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**
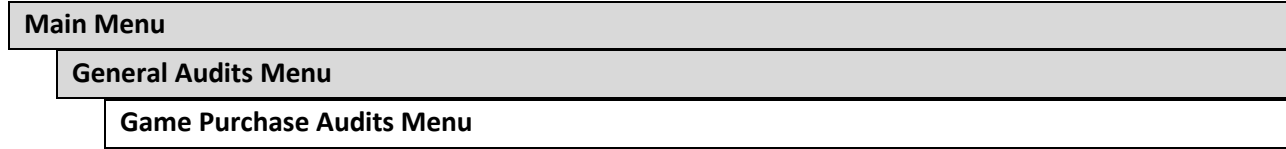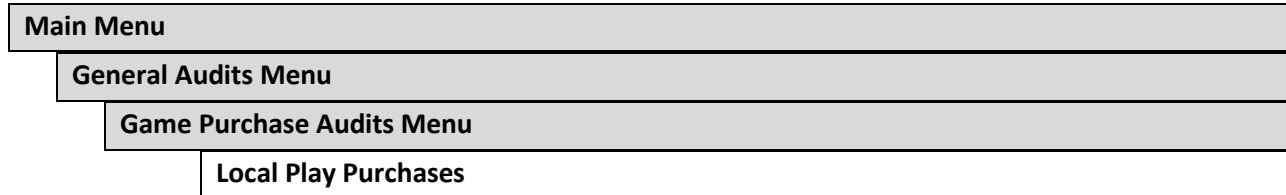
>> **Game Audits**

```
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
```

Main Menu

    General Audits Menu
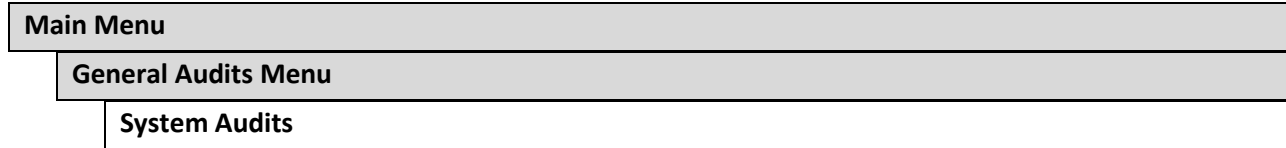
        System Audits

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

Main Menu

    General Audits Menu

        Game Purchase Audits Menu

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

Main Menu

    General Audits Menu

        Game Purchase Audits Menu

            Local 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
```

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
```

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.

```
ANIMAL ADV. (or shootout) SCOREBOARD
SCORE- - - - - - - NAME - - - - -ANIMAL
EXIT
 - -            - -              - -
 - -            - -              - -
 - -            - -              - -
 - -            - -              - -
 - -            - -              - -
 - -            - -              - -
```
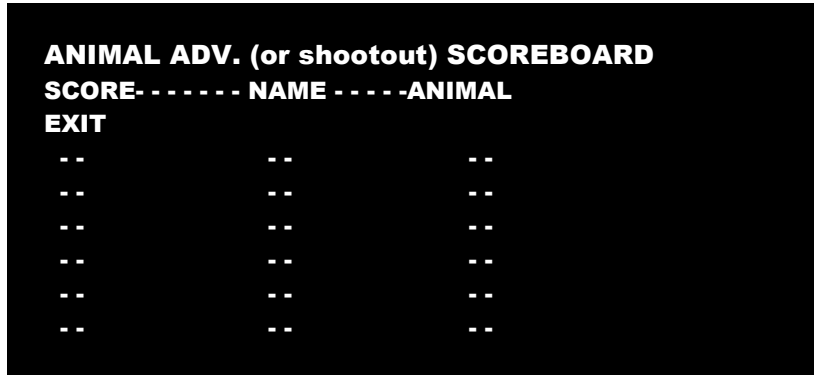
Main Menu

	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

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

Main Menu

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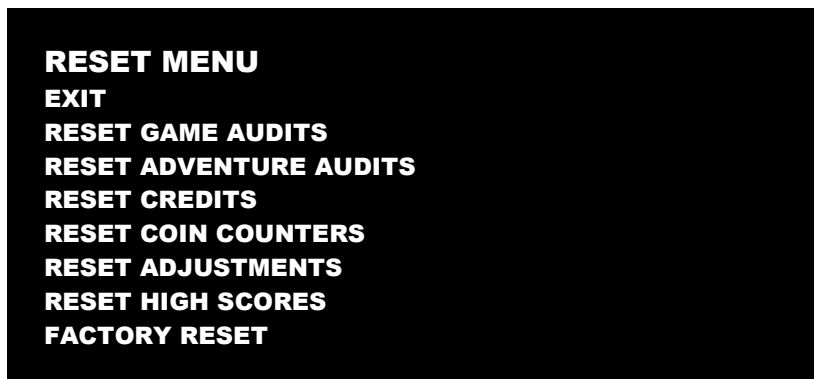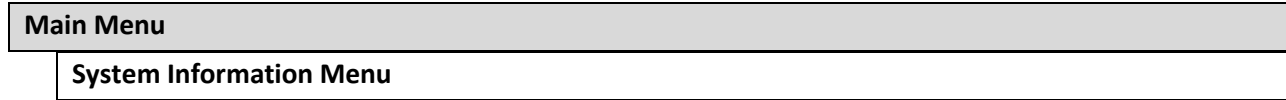
These tests verify system version and check the functioning of peripherals.

```
SYSTEM INFORMATION
EXIT
VERSION LIST
DIP SWITCH SETTINGS
TELEMETRY STATS
```

Main Menu

	System Information Menu

		Version List Menu
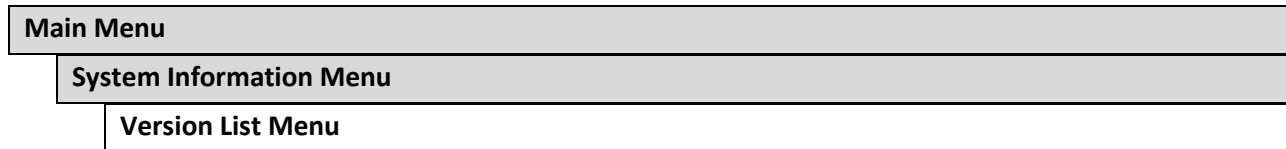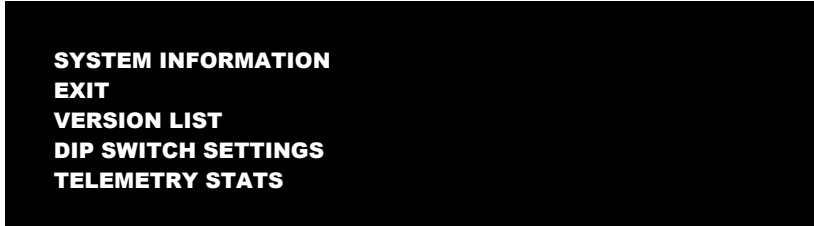
This checks the game's hardware and software versions.

```
VERSIONS
EXIT
SOUND           1.9.3
JAMMA           25q.H00.F00 D
PMNET           00.00.00
SOFTWARE        01.00.00.US
LINUX KERNEL    N/A
PROCESSOR       N/A
BIOS            N/A
```

Main Menu

	System Information Menu

		DIP Switch Test Menu

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

```
DIP SWITCH SETTINGS

DIPSWITCH 1     OFF    RESOLUTION
DIPSWITCH 2     OFF    RESOLUTION
DIPSWITCH 3     OFF    GUN SCAN CGA
DIPSWITCH 4     OFF    HSYNC/VSYNC POLARITY
DIPSWITCH 5     OFF    UNUSED
DIPSWITCH 6     OFF    UNUSED
DIPSWITCH 7     OFF    UNUSED
DIPSWITCH 8     OFF    UNUSED


PRESS START TO EXIT
```

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
```

Main Menu

	System Tests Menu
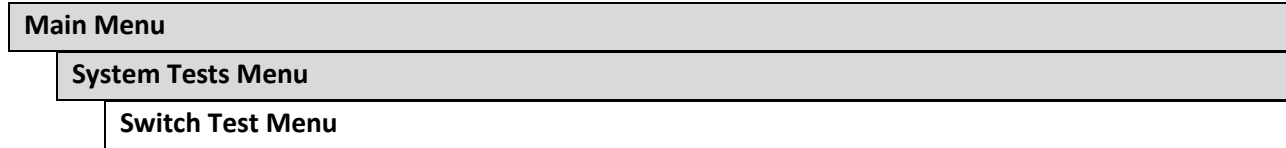
		Switch Test Menu

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

```
SWITCH TEST
COIN1              COIN2
START 1            START 2
VOLUME DOWN        VOLUME UP
TEST               BILL
TRIGGER 1          TRIGGER 2
PUMP 1             PUMP 2
SERVICE
```

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

Main Menu

	System Tests Menu

		Screen Tests Menu

```
SCREEN TESTS
EXIT
COLOR ADJUSTMENT
SCREEN ADJUSTMENT
COLOR SCREENS
```
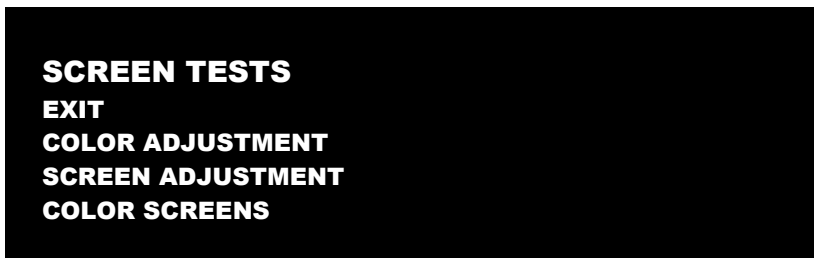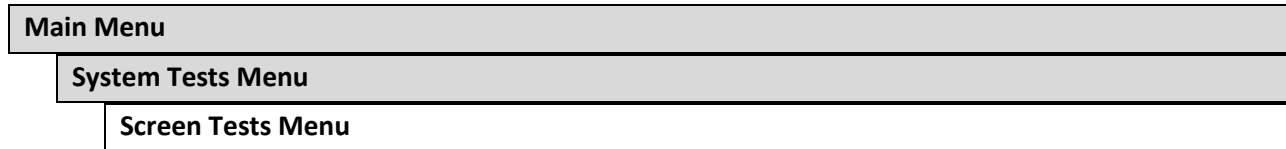
Big Buck® World™ Conversion Kit

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)

PRESS START TO EXIT

Big Buck® World™ is a trademark of Play Mechanix™ Inc.

Main Menu

System Tests Menu

Screen Tests Menu

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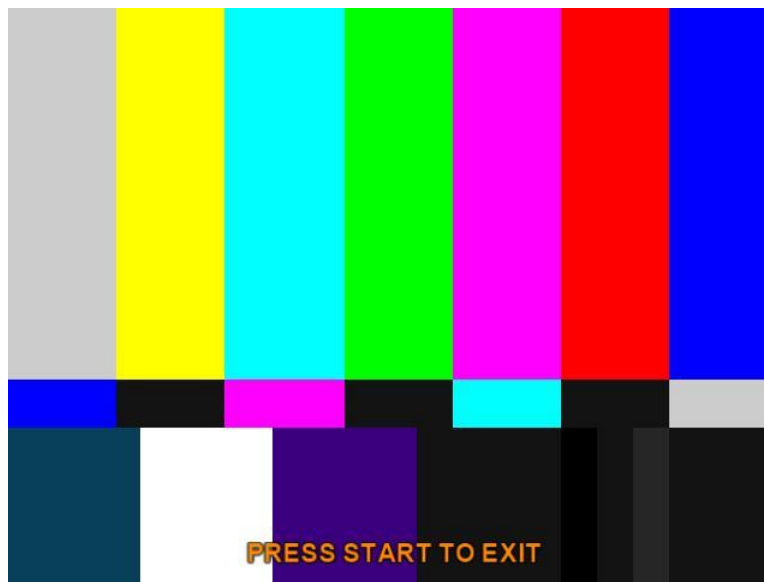
This crosshatch screen helps adjust width, height, static convergence and purity, brightness and focus.

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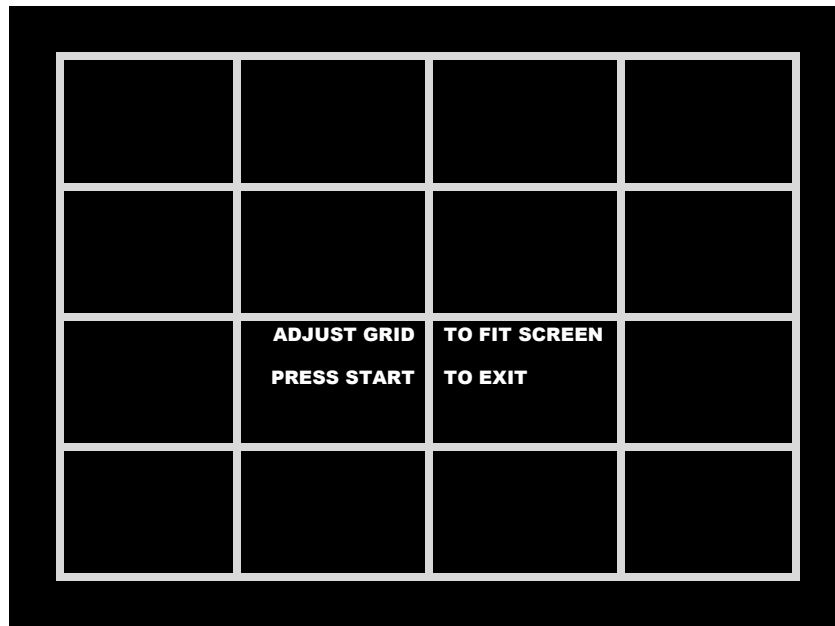 Bars with fuzzy edges indicate a focus problem. Adjust the focus control for best sharpness.

Big Buck® World™ Conversion Kit

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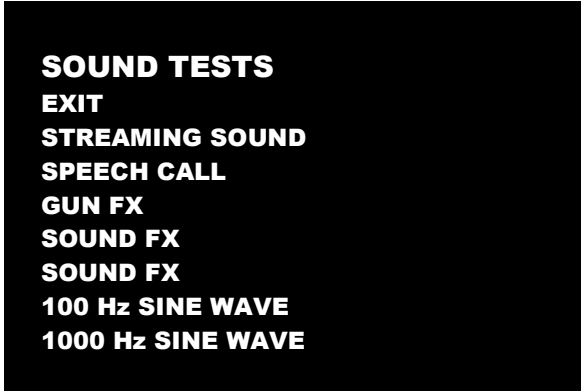
These are one-color images that help adjust color drive controls for proper intensity. The screens are black, white, red, green and blue. Press the Start button to cycle through the screens. The white screen helps adjust brightness and color output balance.

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.

```
SOUND TESTS
EXIT
STREAMING SOUND
SPEECH CALL
GUN FX
SOUND FX
SOUND FX
100 Hz SINE WAVE
1000 Hz SINE WAVE
```

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

Main Menu
System Tests Menu
File Tests

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

Main Menu

	System Tests Menu
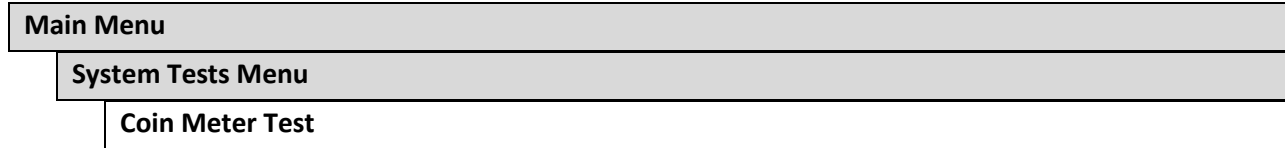
		Coin Meter Test

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

Main Menu

	System Tests Menu

		Start Button Lamps

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

Main Menu

	System Tests Menu

		Watchdog Test

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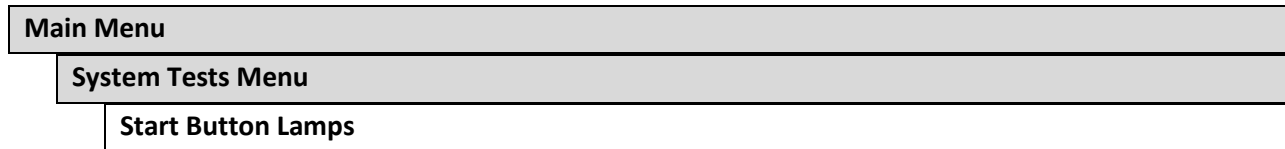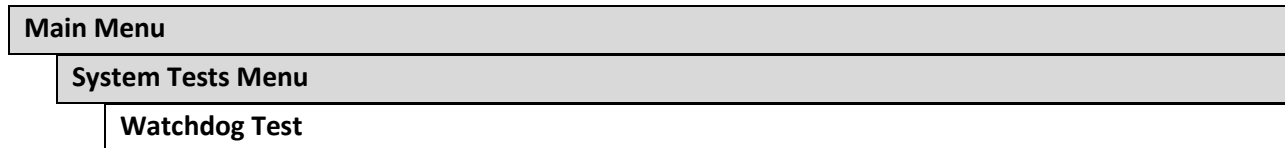ally. If the test fails, the reset process loops or ends abnormally. See the Troubleshooting Chapter to diagnose and correct this problem.

Main Menu

	System Tests Menu

		Gun Tracking Test

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,

```
                       GUN TRACKING TEST



            []          □□□□□□□

                      SIGNAL STRENGTH
                         Left Gun
                         X:0 Y:0
                      Samples: 0 Used: 0


                 USE PUMP TO ACTIVATE GUN
                   PRESS START TO EXIT
                 PRESS TEST TO RECALIBRATE
```
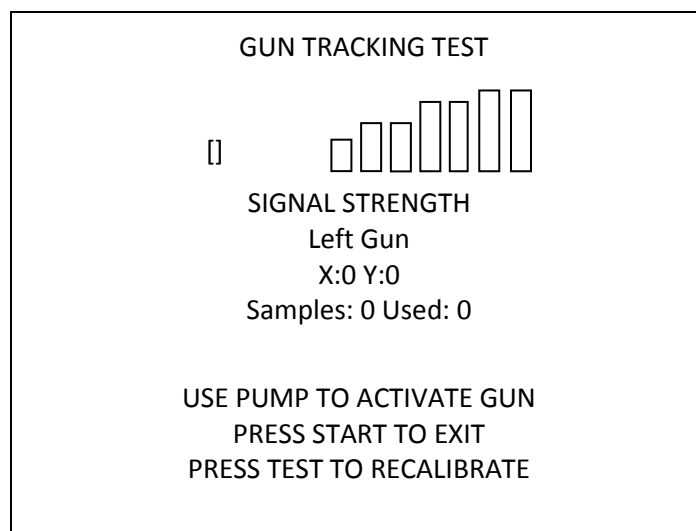
Big Buck® World™ Conversion Kit

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
```

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.

Big Buck® World™ is a trademark of Play Mechanix™ Inc.   All rights reserved.

BIOS Adjustments Table for Dell Computers

Level	Item	Value
System	Boot Sequence	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
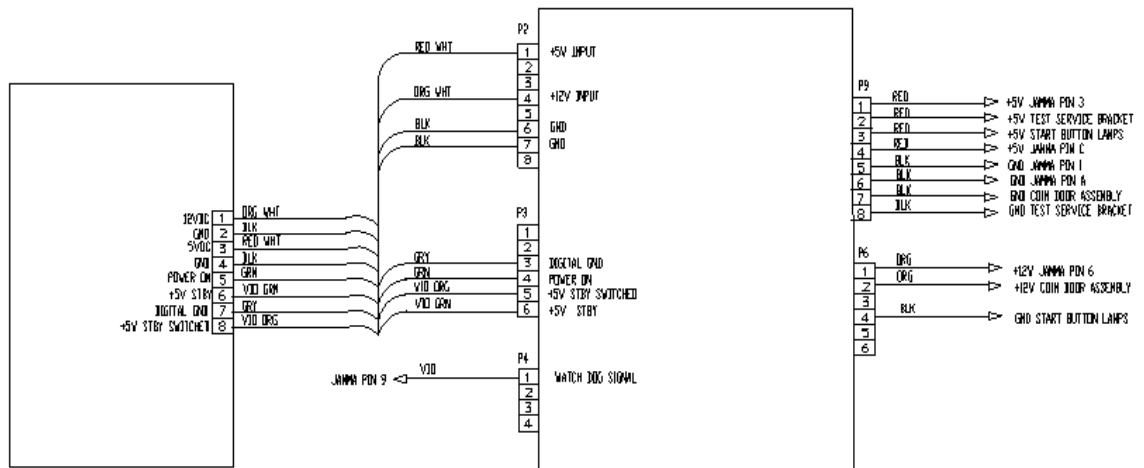
Big Buck® World™ Conversion Kit

Cabinet Wiring Diagram

Big Buck® World™ is a trademark of Play Mechanix™ Inc.   All rights reserved.

Gun Parts

GUNSTOCK DECAL
606-0016-01 LEFT SIDE
606-0017-01 RIGHT SIDE

GUN HOUSING
47-4455-05 GREEN LEFT
47-4456-05 GREEN RIGHT
47-4455-06 ORANGE LEFT
47-4456-06 ORANGE RIGHT

GUN SIDE CHAMBER DECAL
606-0018-01 LEFT SIDE
606-0019-01 RIGHT SIDE

PUMP HOUSING
47-4460-02 LEFT
47-4460-03 RIGHT

BARREL NOSE
PIECE
47-4460-01

Exterior

GUN HOUSING
INNER SUPPORT
BRACKET
47-4465-03

PUMP ACTUATOR
SHAFT STOP
BUMPER
47-4460-08

TRIGGER SWITCH
47-9070

GUN HOSE WITH
CABLE ASSEMBLY
47-4465-04

TRIGGER
SPRING
47-4465-02

TRIGGER
47-4460-04

PUMP SWITCH
47-9070

OPTO CENTERING
BUSHING
47-4460-09

OPTO BOARD
47-4458-B

PUMP SPRING
BUSHING
47-4460-06

PUMP ACTUATOR
ROD SPRING
47-4465-01

PUMP ACTUATOR
SHAFT
47-4460-07

OPTIC LENS
47-4407G

PUMP ACTUATOR
SHAFT STOP
BUMPER
47-4460-08

Interior

Drilling and Mounting Templates

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

$\varnothing 0.250$

2.250
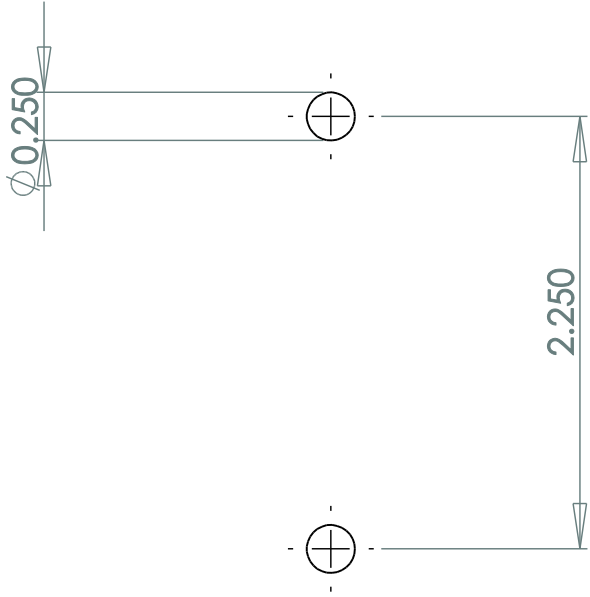
Gun Cable and Cover Plate Mount (see reference illustration for positions on front panel)
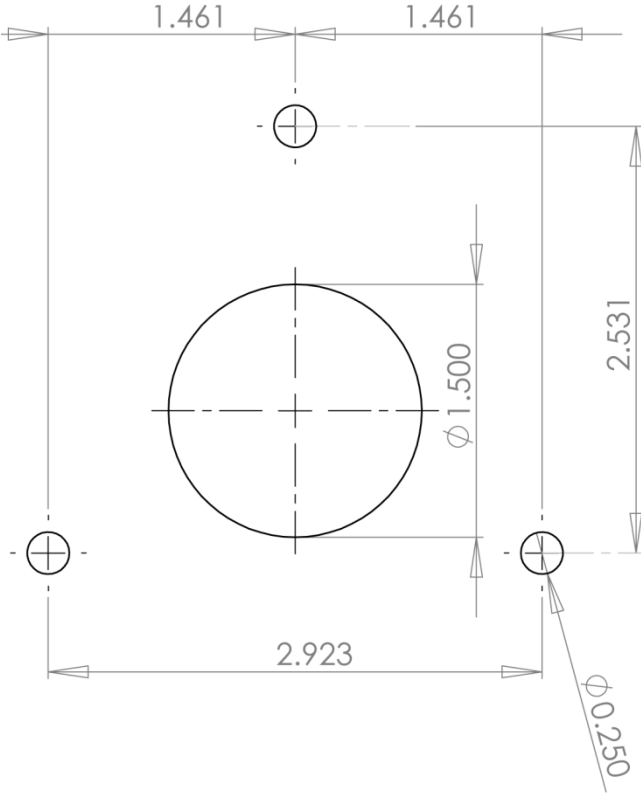
Start Button (see reference illustration for positions on control panel)

⌀1.000

⌀0.188

0.750
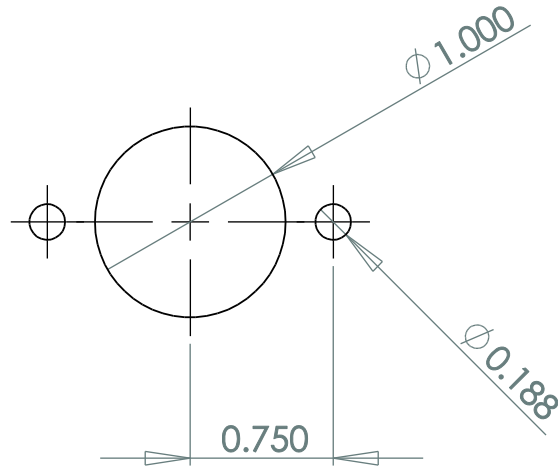
Troubleshooting

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.
Hard drive test reports "bad" or "missing" files.		
Game fails to finish loading.		See procedure on pg 40
After resetting, game still reports an error.		
Game suggests inserting a boot DVD.		
Erratic game mode or attract mode.		
WARNING! Data Files Corrupted. (Game Operation May Become Unstable.) Use "Test" Switch to Enter Test Mode and Run "File Test." Press Start To Continue.		

Big Buck® World™ Conversion Kit

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
No Signal	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.
Dongle Not Present	Dongle missing or disconnected	Find dongle and reseat in USB port
	Faulty USB port	Insert dongle in different USB port
Connect I/O Board or *I/O Board Missing*	USB cable disconnected	Check USB connection from PC to I/O board
	No power to JAMMA I/O board	Check for proper voltage (+5V, +12V) at JAMMA connector
Watchdog Disabled or *Watchdog Failed*	Watchdog defeated by JAMMA I/O DIP switch	Set DIP switch 8 to OFF
	No power to Reset PCB	Connect power to Reset PCB
	Reset input to motherboard 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.

Big Buck® World™ is a trademark of Play Mechanix™ Inc.   All rights reserved.

Connection to CoinUp® Troubleshooting

Problem	Possible Cause	Solution
Game has IP address and screen says *Server Ping Success* 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

Big Buck® World™ Conversion Kit

Cellular Connection 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 reboot game. If still no connection, enter Diagnostics system and go to Connection Menu. Select Cell Modem Details. If message is *No Modem Found* or *Collecting Data,* 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.

Problem	Possible Cause	Solution
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.

Big Buck® World™ is a trademark of Play Mechanix™ Inc.   All rights reserved.

Wi-Fi Connection Troubleshooting

Problem	Possible Cause	Solution
Wi-Fi Details status is *Not Connected* and Adapter is *Not Found.*	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 *Not Connected,* 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 *Locating Access Point ...* 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 *Obtaining IP Address...* 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.

Big Buck® World™ is a trademark of Play Mechanix™ Inc.   All rights reserved.

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.

Big Buck® World™ Conversion Kit

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.

Big Buck® World™ is a trademark of Play Mechanix™ Inc. All rights reserved.

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.

Big Buck® World™ Conversion Kit

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.

Big Buck® World™ Conversion Kit

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.

Big Buck® World™ is a trademark of Play Mechanix™ Inc.   All rights reserved.

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

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
(800) 524-2343 or (201) 438-1300
fax (201) 438-4837