BIG BUCK SAFARI
SUPER DELUXE

Operation and Service manual

Table of Contents

Safety

OPERATION

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

TRANSPORTING

The screen assembly, base and gun pedestal are very heavy. Use appropriate care when moving or transporting components and avoid rough handling.

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 LAMP

Set the 115/230 VAC selector switch on the power supply for the correct line voltage on the installation site. Verify that the lamps are also rated for the proper line voltage.

CONNECTORS

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

COMPUTER

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

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

A dongle has been inserted into one of the USB ports. This is required for game play. Do not remove the dongle except for troubleshooting purposes.

FLUORESCENT TUBES

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

POWER CORD

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

POWER SELECTOR

Before installing game, ensure the AC line voltage is set properly. On the computer, there is a 115/230 VAC selector switch. Set it for the correct voltage for your site. Verify the fluorescent lamp rating. The rating must match the line voltage at the installation site.

INSTALLING SCREWS AND BOLTS

Be careful when aligning and fastening bolts during assembly. If you encounter resistance, do not force the bolt. Doing so may strip the threading from the bolt or damage the other component. Properly aligned bolts should screw in smoothly.

WATER JETS

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

HAZARD TO EPILEPTICS

A small portion of the population has an epileptic condition that may cause seizures. Affected persons experience seizure while watching some television pictures or playing certain video games. People who have not had seizures may still have an undetected epileptic condition. If anyone in your family has experienced epilepsy symptoms (seizures or loss of awareness), consult your physical before using video games. While children play video games, a parent should observe. Be alert to the following symptoms: dizziness, altered vision, eye or muscle twitching, involuntary movements, loss of awareness, disorientation or convulsions. If you or your child experiences these symptoms, discontinue use immediately and consult your physician.
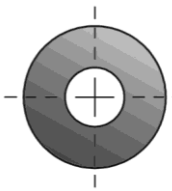
MANUAL
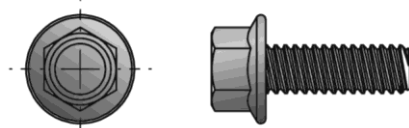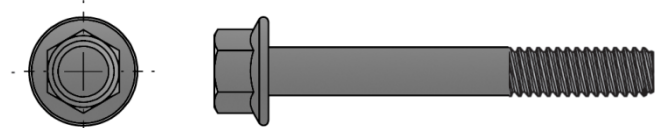
Keep this manual available and ready for use. If the game fails to function properly, turn off the machine and unplug the AC line cord. Contact your local distributor. Your warrantee, when applicable, lasts 60 days from your purchase date. You may not reproduce this document or any of its contents without written authorization from Raw Thrills, Inc. or Play Mechanix, Inc.

SPECIFICATIONS

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

Product Specifications

Electrical Power

Domestic, international users and Japan

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

DC Power Fuse Guide

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

Temperature

32 degrees F to 100 degrees F

(0 degrees C to 38 degrees C)

Humidity

Must not exceed 95% relative humidity

Dimensions

Screen assembly: height: 94”
width: 97.5”
depth: 18.5”

Screen marquee: height: 16”

Gun pedestal/outriggers: height: 37.25”
width: 76”
depth: 31”

Carton Weight

About 1,000 lbs.

Hardware

Use this page to identify screws, bolts and nuts used in the setup. A circled letter appears next to each item and is used in the installation instructions. When in doubt, hold the item up to its corresponding measurement to verify.

❶ ¼-20 black washer   22 pcs.

❷ ¼-20 nylon insert nut   4 pcs.

❸ ¼-20 x ¾" black bolt   30 pcs.

❹ ¼-20 x 2" black bolt   4 pcs.

❺ ¼-20 x 2 ½ black bolt   8 pcs.

❻ ¼-20 x 3" black bolt   14 pcs.

❼ ¼-20 x 1.25" black torx screw   12 pcs.

Setup

Unpack Carton

1. Move shipping carton near assembly site.
2. Remove banding straps and open carton.
3. Remove boxes from the top of the carton.
4. Remove corrugated sides and corners from container.
5. Unpack remaining boxes. Set hardware bag aside.
6. Remove all contents from boxes and inspect.
7. For this assembly, you will need
   - An assistant,
   - Two six-foot ladders,
   - A Phillips head screwdriver,
   - A 3/8 socket wrench,
   - A 7/16 socket wrench,
   - A T-25 security torx screwdriver (included in kit)
   - A level

Locate Screen base

1. Identify a site for the game that:
   - Has a grounded AC outlet,
   - Has about 10 horizontal feet of unobstructed wall space with no windows,
     Light may shine through behind the screen or cast shadows.
   - Has about 20 feet of open space from the wall,
   - Has at least nine feet ceiling clearance, in order to raise the front screen frame assembly cleanly over the screen base,
   - Is moderately dark,
   - Is away from neon lights (which impair the IR sensors) and
   - Has a relatively flat floor
2. Position the screen base about 3 feet from the wall so that the 12 infrared (IR) sensors face away from the wall.
3. Remove the screws holding the access door on the left (when facing wall) rear of the screen base.
4. Remove the access door and set aside.
5. Place a level on top of the screen base.
6. Adjust the six leg levelers beneath the screen base until it is level front to back as well as left to right.
   Turn the knobs at the base of the levelers to raise and lower the screen base.
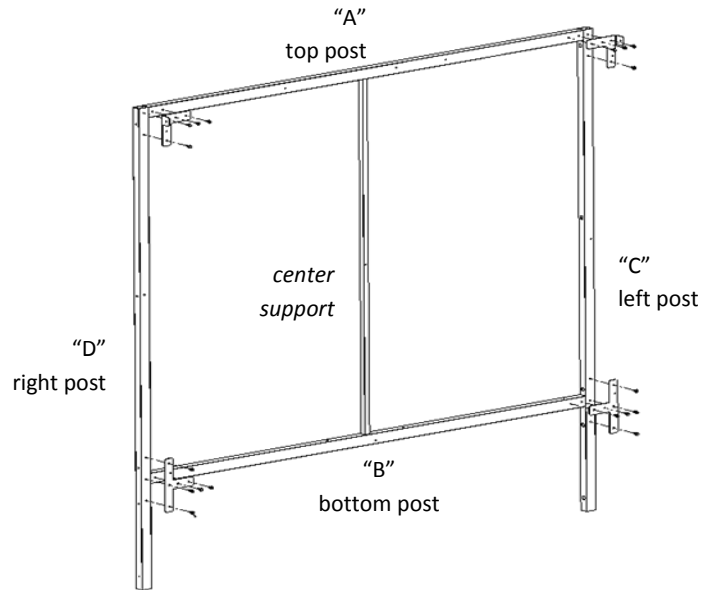
Figure 1: Arrange front screen frame posts on floor and fasten with corner brackets, T-brackets and bolts. Note that during final assembly, orientation will be reversed. In this image, the right post ("D") is on the left side.

Arrange Front Screen Frame Posts

1. On the floor in front of the screen base, arrange and identify the front screen frame posts:
   - Top (stamped "A"),
   - Bottom ("B"),
     This post has four holes to accommodate bolts fastening it into the screen base.
   - Left ("C"),
   - Right ("D")
     The left and right posts each have two holes just near the top.
   - Center support
     The top and bottom posts each have a square hole to accommodate this post.
2. Turn the four black posts so that the sides with the female snaps (which will hold the screen in place) face the floor.
   Note that the center support post has no snaps or holes.
3. Orient the posts so the female snaps will be on the outside of the finished frame assembly.
   Snaps on the left and right posts form a straight line with snaps on the top and bottom posts.
4. Turn all the posts so the snaps face the floor.
5. Insert the center support post into the top and bottom posts.
6. Abut the left and right posts to the top and bottom posts.
   On the floor, the right and left posts are reversed. D is on the left and C is on the right.
   Refer to Figure 1.

Assemble Front Screen Frame

1. Align holes of "A" corner bracket with holes in top and right posts.
   The perpendicular wing should point up. See Figure 1A.
2. Insert four ❸ bolts through "A" corner bracket into posts. Do not tighten.
3. Repeat steps 1-2 for corner "B" bracket and top and left posts.

"A" corner bracket

"D" right post

❸
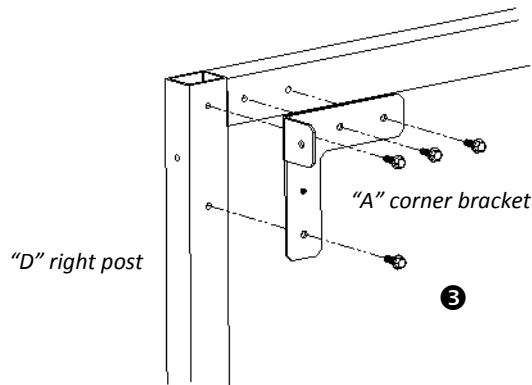
Figure 1A: Close-up of right and top posts and "A" corner bracket. Align holes in brackets with holes in posts and fasten bolts. Note orientation of perpendicular flap on the right of the assembly.

4. Align T bracket with right and bottom posts.
5. Insert five ❸ bolts through T bracket. Do not tighten.
6. Repeat steps 4-5 with left and bottom posts.
7. Tighten all bolts.
8. Align hole in a cross joiner with hole in perpendicular flap of an "A" corner bracket.
9. Affix one ❸ bolt through the corner bracket flap into the cross joiner. Tighten bolt.
   See Figure 2.
10. Repeat steps 8-9 with remaining cross joiner into a "B" corner bracket.

Assemble Front Screen Frame Assembly into Screen base

1. With an assistant, carefully insert the left and right posts of the front screen frame assembly into holes on top of screen base.
   Snaps face away from the wall; cross joiners point to the wall. See Figure 2.

2. Lift the left post slightly to align the top holes on the side of the screen base with the top hole in the left post.

3. Affix one ❻ bolt with ❶ washers through screen base into the left post.

4. Repeat steps 2-3 for right post. Do not tighten bolts.

5. Insert four ❻ bolts with through holes of bottom post into screen base.

6. Tighten all bolts.
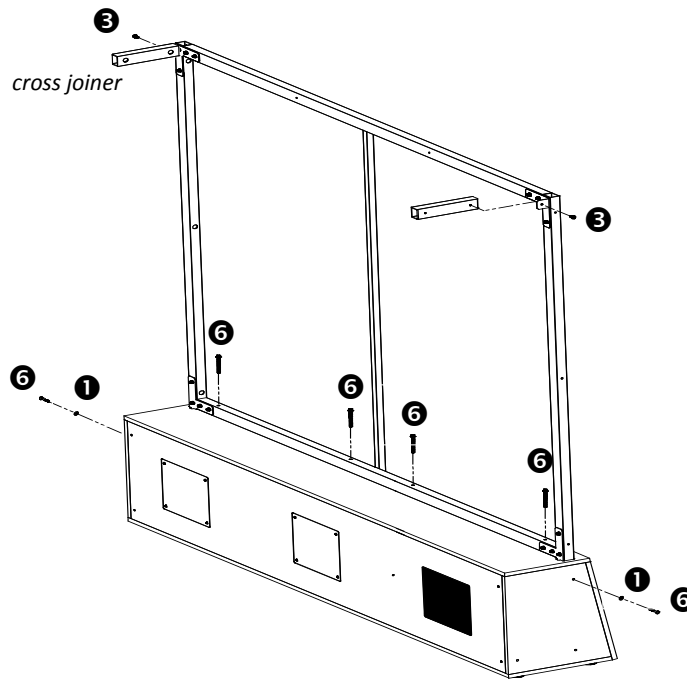
Figure 2: Rear of screen base assembly with front screen frame assembly inserted into screen base. Left access door has been removed.

Assemble Rear Screen Frame

1. Identify the three rear screen frame posts:
   - The top post, marked "G," has four evenly spaced holes.
   - The left ("E") and right ("F") posts have two holes at the top and one near the bottom.
2. Lay out three posts of rear screen frame on the ground according to Figure 3.
   When laid out properly, the bolt holes on the left and right posts face outward.
3. Align holes of remaining "A" corner bracket with holes of top and left posts.
   See Figure 1A.
4. Insert four ❸ bolts through the "A" bracket into posts. Do not tighten.
5. Repeat steps 3-4 for the remaining "B" corner bracket and top and right posts.
6. Tighten all bolts.
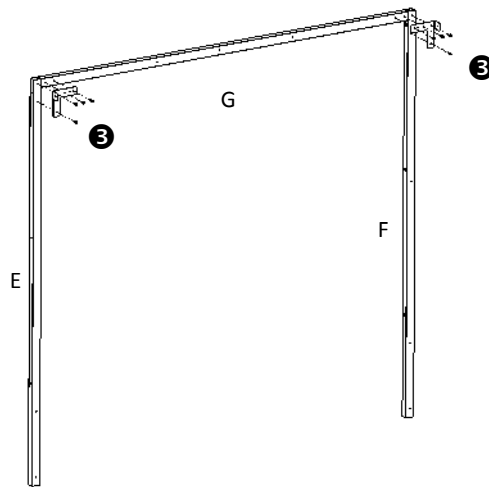
Figure 3: Rear screen frame assembly and corner brackets.

Attach Rear and Front Screen Frames

1. Align holes at bottom of rear screen frame assembly posts with holes in rear of screen base.

   The perpendicular flaps on the rear screen frame assembly should be very near the cross joiners.
   See Figure 4.

2. Affix two ❻ bolts through each post into the screen base. Do not tighten bolts.

3. Align hole on left cross joiner with hole on "A" corner bracket on rear screen frame.

4. Insert ❸ bolt through flap into cross joiner. Do not tighten.

5. Repeat steps 3-4 through "B" corner bracket.

6. Tighten all bolts.
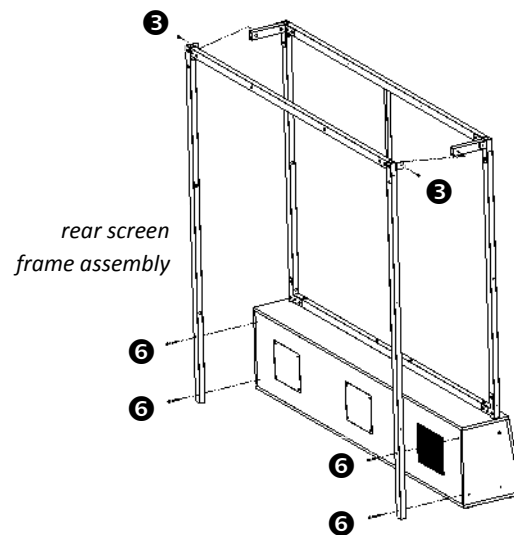
Figure 4: Rear view of rear screen frame assembly connecting to rear of screen base and front screen frame assembly (via cross joiners).

Connect Screen Base Cables

1. *Move the left floor support near the left side of the screen base.*
   See Figure 7.
2. Gently pull out the two cables from the left floor support so they reach inside the screen base.
3. Connect the 3-pin switched AC power cable from the left floor support with its mate inside the screen base.
4. Connect the pair of 2-pin, 5V IR LED power cables with their mates inside the screen base.
5. Move marquee near the left side of the screen base.
6. *Run the marquee power cable around the back of the screen frame assembly and rest of the bulk of the cable on the left side of the screen base.*
7. Connect the marquee power cable to its mate inside the screen base.
8. Move the right floor support near the right side of the screen base.
9. Plug the AC power cord from the right floor support into a grounded outlet.
10. Carefully walk the screen base backwards until it is between two and four inches from the wall and is perpendicular to the wall.
11. Using a level, adjust the screen base leg levelers again to ensure it is level.
    Keep screen base as low to the ground as possible, which will make centering the projector image easier later on.

Assemble Screen Frame Panels

1. Align holes of left side panel with holes on left of screen frame assembly.
2. Affix six ❼ screws with ❶ washers through left side panel into screen frame assembly. Tighten screws.
3. Repeat steps 1-2 for right side panel.
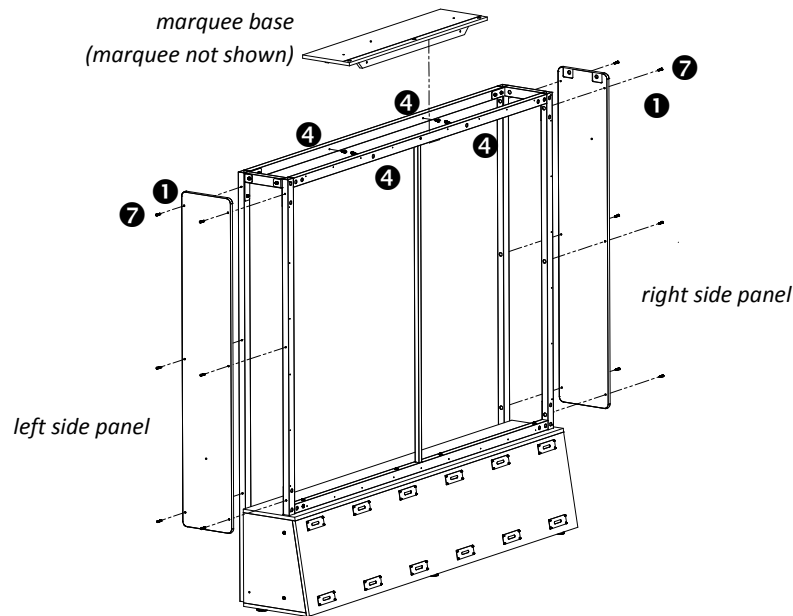
Figure 5: Front view of screen base. Attach left and right panels, marquee.

Assemble Marquee to Screen Frame Assembly

USE CAUTION CLIMBING LADDERS

The marquee assembly is heavy, bulky and fragile. Use extreme caution when you and a partner lift it to the top of the screen frame assembly while climbing ladders or step stools. Ensure ladders are stable and located on solid, flat ground.

1. Lift marquee assembly atop screen frame assembly and rest marquee roughly in center of screen frame assembly so that artwork faces forward.
   Take care not to snag the connected power cable.
2. Align holes in marquee front bracket with holes in front of top post.
3. Affix two ❹ bolts from inside the screen frame assembly through marquee front bracket into front top post. Do not tighten bolts.
4. Repeat steps 2-3 with rear top post. Tighten all bolts.

Affix Screen to Screen Frame Assembly

1. Unfold screen so that male snaps face the wall and the label is in the bottom left corner.
2. Starting at top corners, snap screen onto front of screen frame assembly.
   Use ladders as needed. Screen material stretches to fit frame.

Attach Floor Supports to Screen base

1. Align holes on left floor support flange with holes on left side of screen base.
   See Figure 7.
2. Insert two ❻ bolts with ❶ washers through flange into screen base.
   Do not tighten bolts.
3. Repeat steps 1-2 for right floor support.
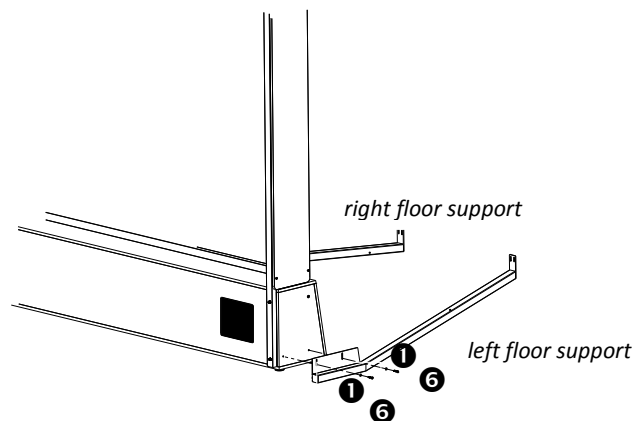
Figure 7: Close-up of left floor support attaching to left side of screen base. Cables not shown.

Open Gun Pedestal Coin Door

1. Remove the coin door key from the coin return chute.
2. Open the coin door.
   Note the position of the Service Button Panel.
3. Locate the keys for the projector access door and lower access door on the inside of the coin door. Remove the projector remote control from the cash box.

Projector Remote Control

Attach Floor Supports to Gun Pedestal

1. Insert pedestal lower access door key into lock.
2. Unlock and open pedestal lower access door.
3. Insert projector access door key into projector access door lock.
4. Unlock and open projector access door.
5. Move gun pedestal near front flanges of floor supports.
6. Position gun pedestal so that posts on gun pedestal mounting plate protrude through holes on front flanges of floor supports. *See Figure 8.*
7. Fasten a ❷ nut and a ❶ washer over each post.
   Do not tighten nuts.
8. *Adjust the six leg levelers in gun pedestal to raise the wheels just above the floor to keep the pedestal stable.*
   Leveling does not need to be perfect yet.
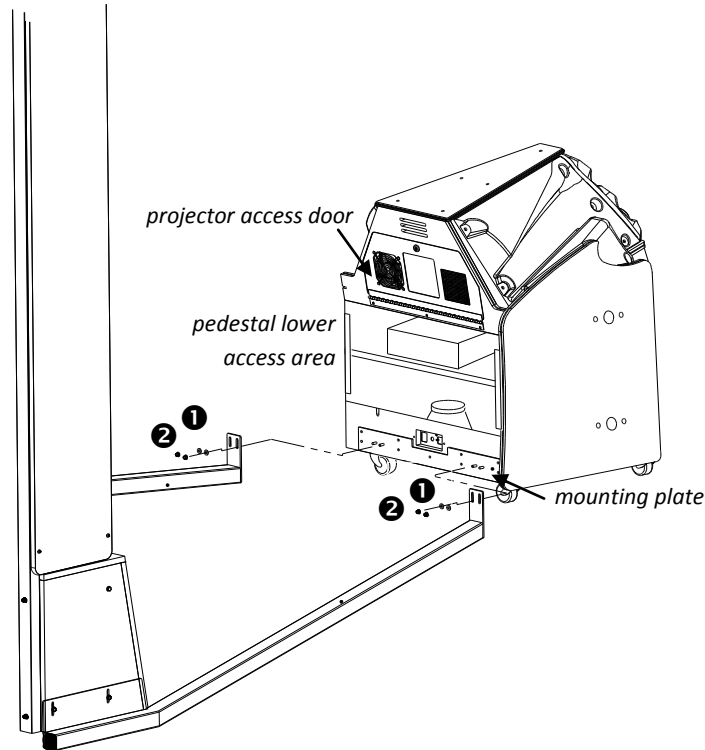
Figure 8: Floor supports attaching to gun pedestal, with lower access door removed.

Connect Floor Support Cables to Gun Pedestal Cables

1. Connect the 2-pin 5V IR cables from the left floor support to its mate inside the gun pedestal.
2. Connect the 2-pin AC plug from the left floor support to its mate inside the gun pedestal.
3. Repeat steps 1-2 for right floor support.

Connect Outrigger Cables to Gun Pedestal Cables

1. Remove six screws from rear door of left outrigger.
2. Remove outrigger rear door and set aside.
3. Move the left outrigger six inches away from the left side of the gun pedestal.
4. Run the outrigger speaker connector (2-pin) and the fluorescent power connector (4-pin) through the lower hole in the left outrigger into the gun pedestal.
5. Mate the speaker connector to the nearest 2-pin connector in the gun pedestal.
6. Mate the power connector to the nearest 4-pin connector in the gun pedestal.
   warning: do not force cables!
7. Repeat steps 1-6 for right outrigger.

Access the Screen Adjustment Grid

1. Plug the AC cable at the front end of the right floor support into the I.E.C. outlet in the rear of the gun pedestal.
2. Check that the voltage switch is set properly.
3. Turn cabinet AC switch on rear of gun pedestal to ON.
4. Make sure all marquee and outrigger fluorescent lights are on and projector is on.
   See Troubleshooting if anything fails.
5. Darken as many lights in the room as possible.
6. Press the TEST button on the Service Button Panel to access the Diagnostic Menu System.
7. Use the left gun pump to highlight the System Tests Menu.
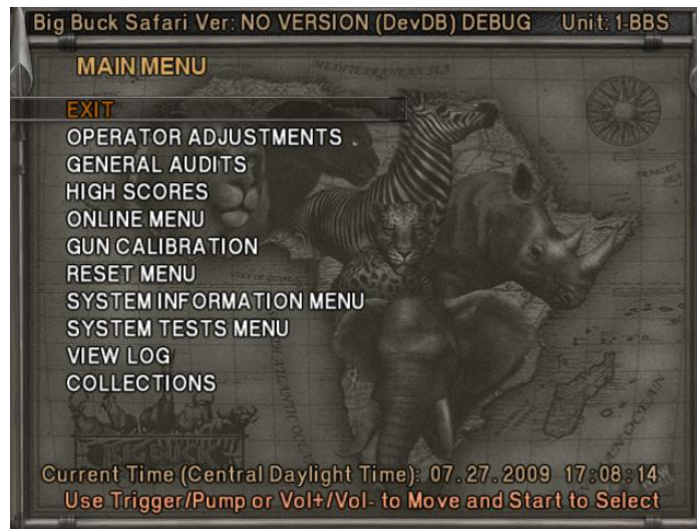
8. Press the left Start button to select System Tests Menu.
9. Pump the gun to highlight Screen Tests.
10. Press the Start button to select Screen Tests.
11. Pump the gun to highlight Screen Adjustment.
12. Press the Start button to select Screen Adjustment.
    The following grid appears.
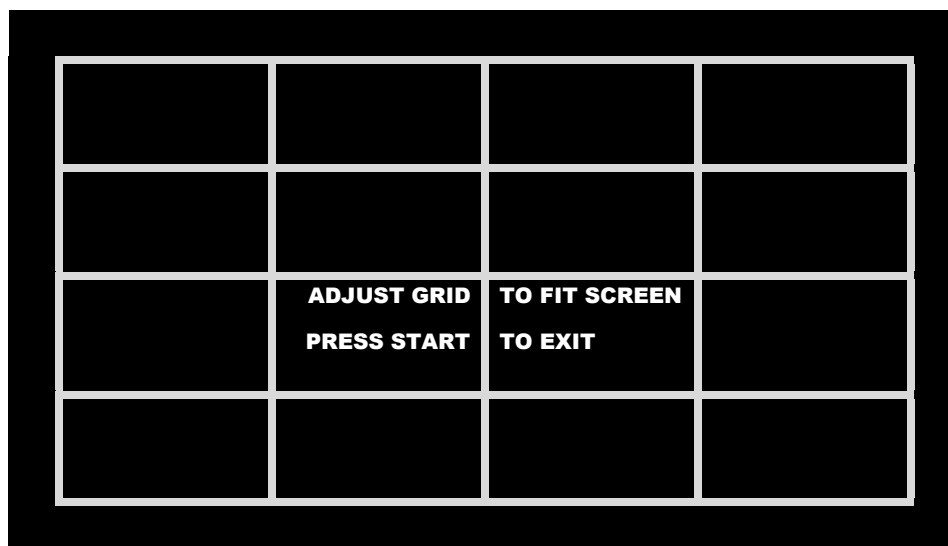
Level the Projector

1. Adjust focus control (front ring near lens) on projector to sharpen screen image. See Figure 9.
2. Raise or lower the gun pedestal leg levelers to center the grid on the screen.
   Grid lines should be parallel to the screen borders all around.
   Gun pedestal wheels should not touch the ground.
3. Adjust the zoom control (rear ring) to enlarge the image on screen as much as possible without touching the screen edges.
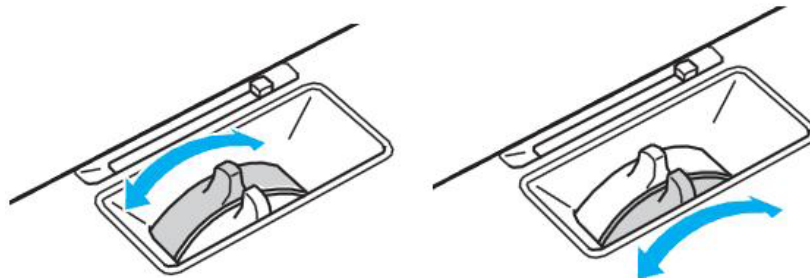
Figure 9: Left: Projector Focus dial   Right: Projector Zoom Dial

4. If necessary, make horizontal adjustments to the projector by loosening the screws that hold the projector support tray to the gun pedestal shelf and moving the tray left or right.
5. Tighten screws when finished.
6. Make further, minor vertical adjustments by loosening the red thumbscrews on the projector support tray and lowering or raising the tray.
7. Tighten thumbscrews when finished.
8. While observing screen, close projector access door.
   When door is closed, image should remain crisp and unobstructed.
9. If image is shadowed at the top or bottom of the screen, open the projector access door and repeat steps 1-7 until image is unobstructed.
10. Close and lock projector access door.
11. Press the Start button to exit the Screen Adjustment Menu.
12. Turn cabinet AC switch to OFF.
13. Tighten bolts at front and rear flanges of floor supports into base and pedestal.
    Take care not to tilt base or pedestal.

red thumbscrew ———
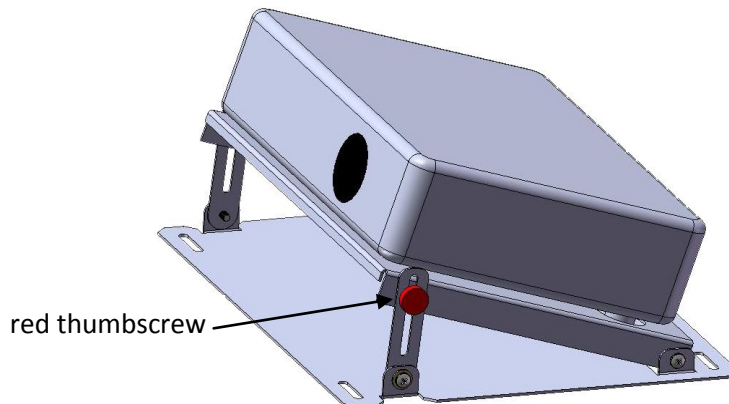
Figure 10: Projector on support tray

Attach Outriggers

1. Align holes of right panel of left outrigger with holes on left panel of gun pedestal.
2. Fasten four ❺ bolts and ❶ washers through the inside wall of the outrigger into gun pedestal.
3. Replace left outrigger door.
4. Fasten six screws to hold door to outrigger.
5. Repeat steps 1-4 for right outrigger.
6. Close and lock gun pedestal lower access door.
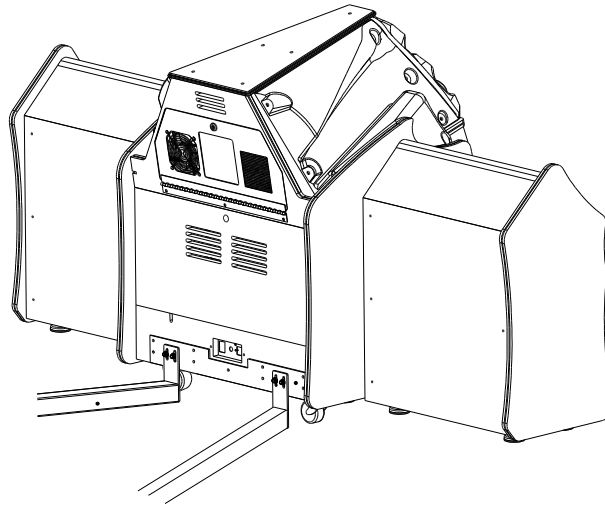
Figure 9: Outriggers attached to gun pedestal with all doors replaced.

Make Final Adjustments

1. Turn cabinet AC switch to ON.
2. If necessary, repeat Screen Adjustment as described previously to ensure grid is still parallel to screen after attaching outriggers.
3. Press the Menu button on the projector remote control.
   Refer to projector manual for details on adjusting the projector and using the remote.
4. Scroll to the Settings menu.
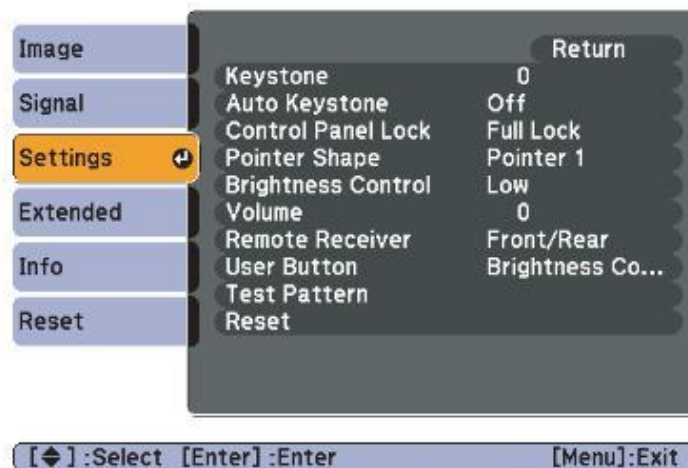
5. Highlight and adjust keystone to correct any trapezoidal shape to the screen.

6. Scroll to the Extended menu.

Image			Return
	Display		
Signal	Closed Caption		
	User's Logo		
Settings	Projection	Front	
	Operation		
Extended	Link 21L	Off	
	Projector ID	Off	
Info	Multi-screen		
	Language	English	
Reset	Reset		

([◆]:Select [Enter] :Enter   [Menu]:Exit)
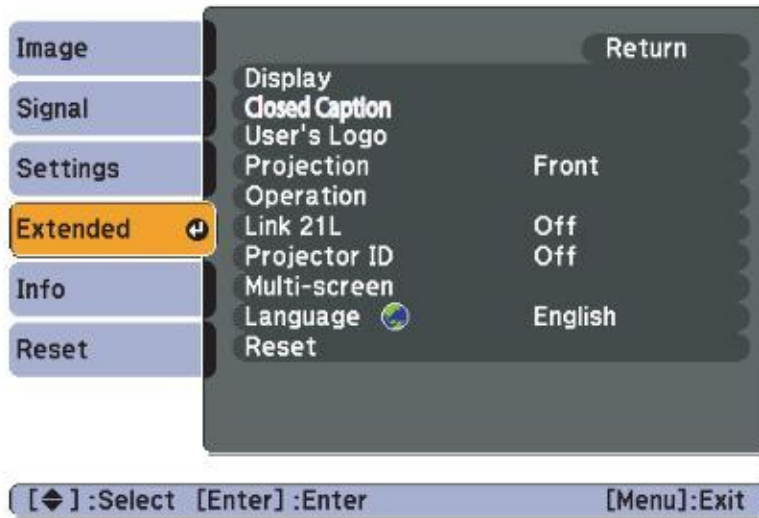
7. Verify that the Link21L setting is ON.
8. Scroll to the Reset menu.

Image		Return
	Reset All	
Signal	Reset Lamp Hours	
Settings		
Extended		
Network		
Info		
Reset		

([◆]:Select [Enter]:Enter   [Menu]:Exit)

9. Highlight and execute Reset Lamp Hours.
   Execute the Reset Lamp Hours function every time the projector bulb is replaced.
10. Exit the Projector menu system.

Calibrate Guns

1. Press the TEST button inside the coin door to enter the Diagnostic System.
2. From the Main Menu, use a gun pump to highlight Gun Calibration.
3. Press a Start button to enter calibration.

> Please stand directly in front of the cabinet for best results.
>
> **IR GUN CALIBRATION**
> PLEASE PULL THE TRIGGER ON THE LEFT GUN
> TO VALIDATE THE PLAYER GUN ORDER.
>
> Press TEST to cancel calibration.
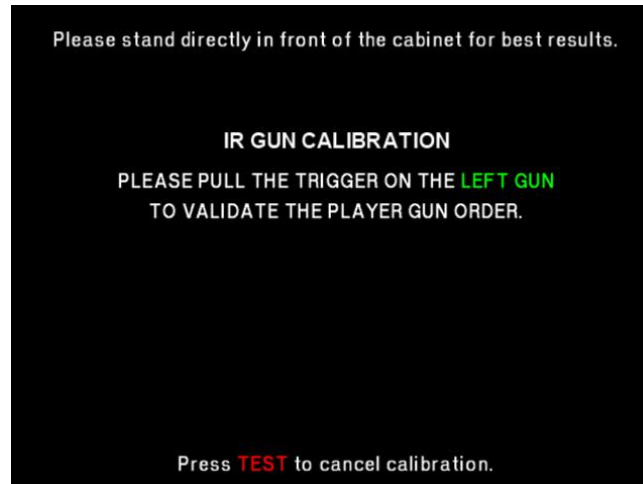
4. Stand directly in front of the gun pedestal and aim the left gun at the "+" sign and shoot.

> Please stand directly in front of the cabinet for best results.
>
> **IR GUN CALIBRATION**
> LEFT GUN: SHOOT CENTER TARGET
>
> +
>
> Press TEST to cancel calibration.

5. Follow on-screen instructions on the gun tracking screen. The dot indicates the spot where the gun is aimed. Verify accuracy by pointing at different areas of the screen.
6. Accept calibration by pressing the left Start button.
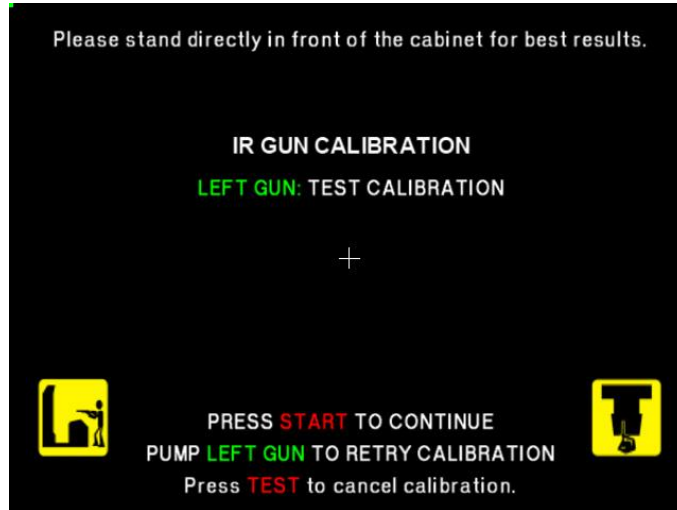
7. Repeat steps 5-9 for right gun.
8. Press Start button when finished.
9. From Main Menu, squeeze a gun trigger to cycle through choices until you reach System Tests.
10. Press a Start button to select System Tests.

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

Big Buck Safari Super Deluxe
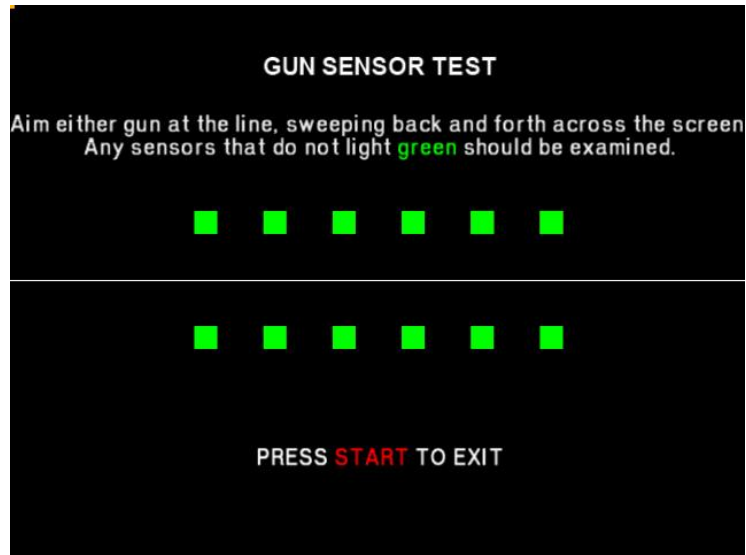
13. Sweep the gun from left to right and back again and watch the squares on screen to ensure they all turn green.
    If any squares remain red as the gun passes them, that particular IR sensor may be dirty or damaged.
14. Press the Start button to return to the System Tests menu.
15. Squeeze the trigger to highlight Gun Camera Test.
16. Press the Start button to begin the test.
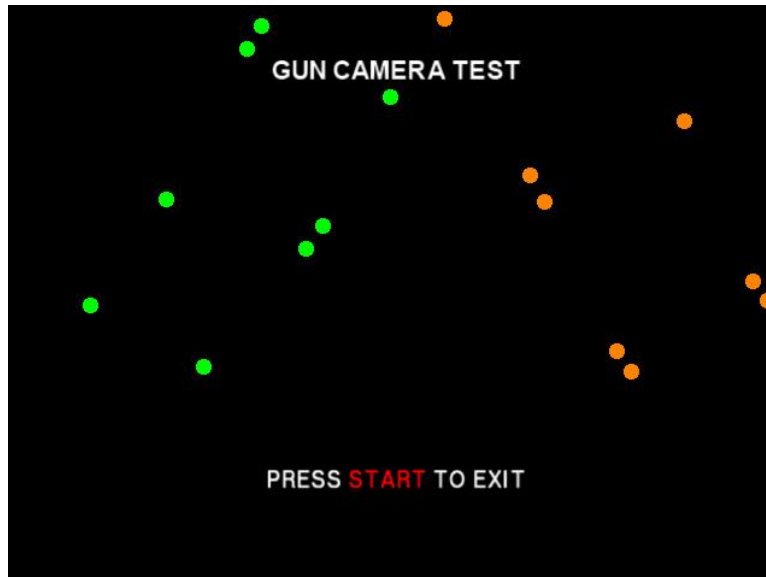
17. You may use one or both guns for this test. Each gun controls a dual-track of colored dots. As you tilt each gun, the orientation of the tracks rotates, as the sensors perceive the change in angle. Note whether any of the dots disappear or flicker when near the center of the screen. This may indicate a dirty or poorly functioning camera inside the gun.
18. Press the Start button to return to the System Tests menu
19. Squeeze the trigger to highlight the Gun Electronics Test.

20. Press the Start button to begin the test.

21. Squeeze the trigger to see additional test results.

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

Adjustments, Audits and Diagnostics

Diagnostic Menu System

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

Service Panel TEST button	enters diagnostic system.
Either Start button or TEST button	selects the highlighted option.
Service Panel VOL - button or Squeezing either trigger	moves down through menu or setting choices.
Service Panel VOL + button or Pumping either gun	moves up through menu or setting choices.

Highlight and select Exit to return to previous screen.

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

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

Menu Screens and Descriptions

Main Menu

For clarity, subsequent menu screens will exclude the header, footer and background image.

Main Menu
Operator Adjustments Menu

This menu controls gameplay, coinage and sound adjustments.

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

Big Buck Safari Super Deluxe

Main Menu
Operator Adjustments Menu
Game Adjustments Menu

This controls elements of the player experience and the time the game contacts the tournament server.

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

Settings, Defaults and Choices

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

Main Menu

	Operator Adjustments Menu
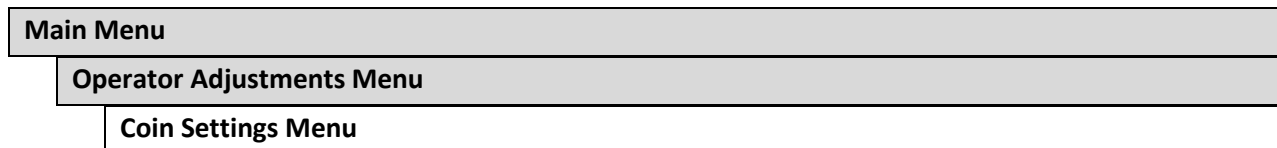
		Coin Settings Menu

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
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                    $3.00          $0.00          $3.00
ADVENTURE               $8.00          $0.00          $8.00
BONUS ONLY              $3.00          $0.00          $3.00
TROPHY CLUB TREK        $3.00          $0.50          $3.50
TROPHY CLUB ADV.        $8.00          $0.50          $8.50
TROPHY BONUS ONLY       $3.00          $0.50          $3.50
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.	$3.00	$0.00 - $63.75 in $0.25 increments
Adventure	An *adventure* is three treks (15 sites and three bonus games).	$8.00	$0.00 - $63.75 in $0.25 increments
Bonus Only	A *bonus only* is four bonus games.	$3.00	$0.00 - $63.75 in $0.25 increments
Trophy Club Trek	This is the online version of a trek (tracks player stats).	$3.00	$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).	$8.00	$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.	$3.00	$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

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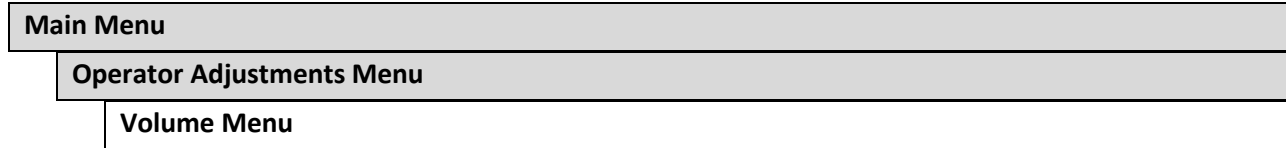
Rather than requiring a manual dial or up/down buttons, all volume adjustments can be made digitally with this menu. However, during Attract Mode, pressing the Service Panel Vol + and Vol – buttons only adjust Attract Mode volume.

```
VOLUME
EXIT
GAME VOLUME            9
ATTRACT VOLUME         7
MINIMUM VOLUME         4
ATTRACT SOUNDS         OCCASIONALLY
```
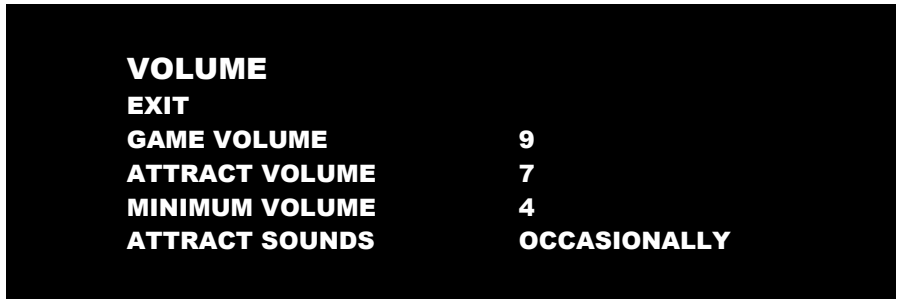
Settings, Defaults and Choices

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

Main Menu

> **General Audits Menu**

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

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

Main Menu

> **General Audits Menu**

>> **Game Audits**

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

Main Menu

    General Audits Menu
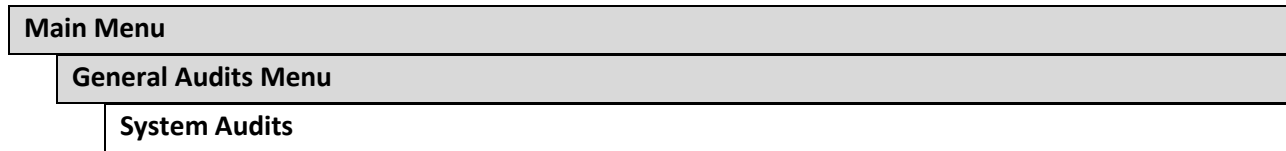
        System Audits

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

Main Menu

    General Audits Menu

        Game Purchase Audits Menu

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

Main Menu

    General Audits Menu

        Game Purchase Audits Menu

            Local Play Purchases
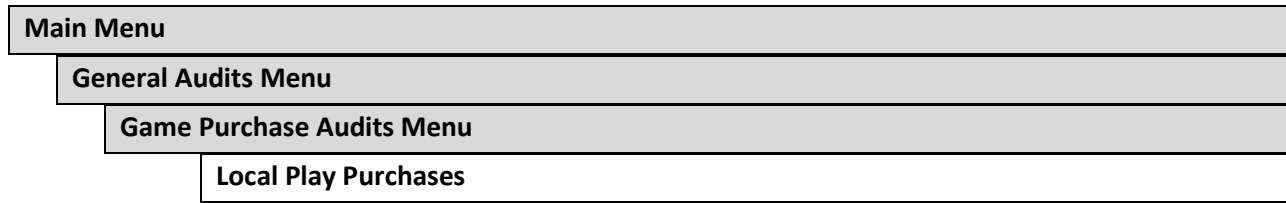
```
LOCAL GAME PURCHASE AUDITS
EXIT
TREKS PURCHASED           0
ADVENTURES PURCHASED      0
BONUS ONLY PURCHASED      0
SHOOTOUT TREK             0
SHOOTOUT ADVENTURE        0
SHOOTOUT BONUS ONLY       0
```

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
TC SHOOTOUT  TREK PURCHASED          0
TC SHOOTOUT ADV. PURCHASED           0
TC SHOOTOUT BONUS ONLY PURCHASED     0
TOURNAMENTS PURCHASED                0
NATIONAL TOURNAMENTS PURCHASED       0
PLAYER CARDS PURCHASED               0
```

Main Menu

	General Audits Menu

		Adventure Purchase Audits Menu

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

Main Menu

	General Audits Menu

		Adventure Purchase Audits Menu

			Turn-Based Adventure Purchase Audits

```
ADVENTURE PURCHASE AUDITS: TURN-BASED
```

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

Main Menu

General Audits Menu

Adventure Purchase Audits Menu

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
WILDEBEEST SHOOTOUT	0	0	0	0
GEMSBOK SHOOTOUT	0	0	0	0
AFRICAN BUFFALO SHOOTOUT	0	0	0	0

Main Menu

General Audits Menu

Bonus Only Audits Menu

BONUS ONLY AUDITS			
BONUS NAME	PLAYED	BONUS NAME	PLAYED
EXIT			
MONKEY DROP	0	DRUM BEAT	0
WATERFALL	0	BOOBY TRAP	0
SHRUNKEN HEAD	0	HYENA	0
FROG HOP	0	TURTLE CROSS	0
OSTRICH	0	CHAMELEON	0
TARANTULA	0	ANT	0
PINWHEEL	0	PYGMY BIRD	0
MEERKAT	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

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Main Menu

> **High Scores Menu**

>> **High Scores: Turn-Based Menu**

```
HIGH SCORES: TURN-BASED
EXIT
SABLE ADVENTURE
KUDU ADVENTURE
WILDEBEEST ADVENTURE
GEMSBOK ADVENTURE
AFRICAN BUFFALO ADVENTURE
PERFECT STREAK
PERFECT SITES
```

Main Menu

> **High Scores Menu**

>> **High Scores: Shootout Menu**

```
HIGH SCORES: SHOOTOUT
EXIT
SABLE SHOOTOUT
KUDU SHOOTOUT
WILDBEEST SHOOTOUT
GEMSBOK SHOOTOUT
AFRICAN BUFFALO SHOOTOUT
```

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

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

Main Menu
Gun Calibration Menu

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

Main Menu
Reset Menu

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

- Calibration
- Registration
- Game activation
- Lifetime coin count

RESET MENU
EXIT
RESET GAME AUDITS
RESET ADVENTURE AUDITS
RESET CREDITS
RESET COIN COUNTERS
RESET ADJUSTMENTS
RESET HIGH SCORES
FACTORY RESET
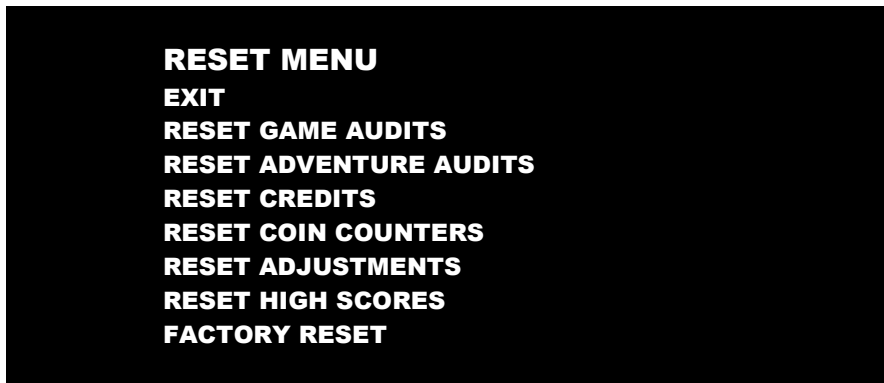
Main Menu
System Information Menu

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

SYSTEM INFORMATION
EXIT
VERSION LIST
DIP SWITCH SETTINGS
TELEMETRY DATA
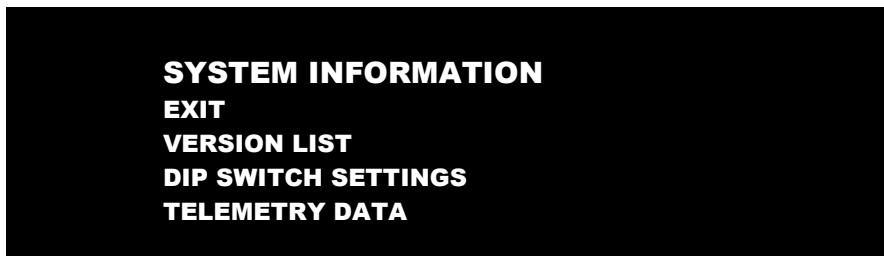
Big Buck Safari Super Deluxe

Main Menu
System Information Menu
Version List Menu

This checks the game's hardware and software versions.

```
VERSIONS
EXIT
SOUND                1.9.3
JAMMA                25q.H00.F00 D
PMNET                00.00.00
SOFTWARE             01.02.13.US D PRJ
LINUX KERNEL         N/A
PROCESSOR            N/A
BIOS                 N/A
PLAYER 1 GUN         3
PLAYER 2 GUN         3
```

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         GUN SCAN CGA
DIPSWITCH 3    OFF         HSYNC/VSYNC POLARITY
DIPSWITCH 4    OFF         UNUSED
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 SENSOR TEST
GUN CAMERA TEST
GUN ELECTROINCS 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
```
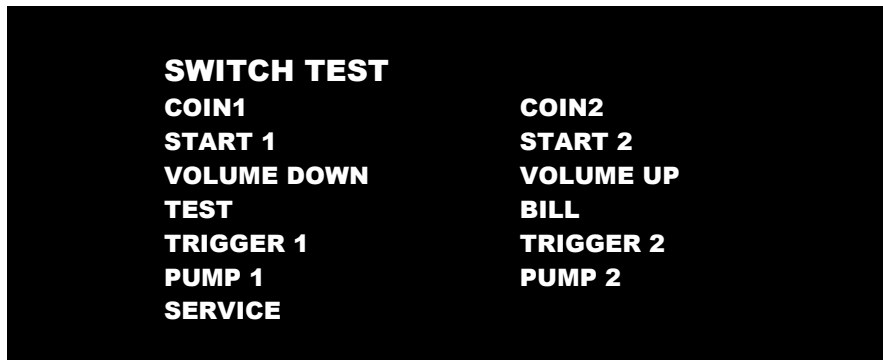
The Switch Test menu has a unique exit procedure because it checks the switches normally used for navigation. To exit to the main menu, simultaneously press a Start button and squeeze a trigger.

Main Menu

	System Tests Menu

		Screen Tests Menu

```
SCREEN TESTS
EXIT
COLOR ADJUSTMENT
SCREEN ADJUSTMENT
COLOR SCREENS
```

Main Menu
System Tests Menu
Screen Tests Menu
Color Adjustment
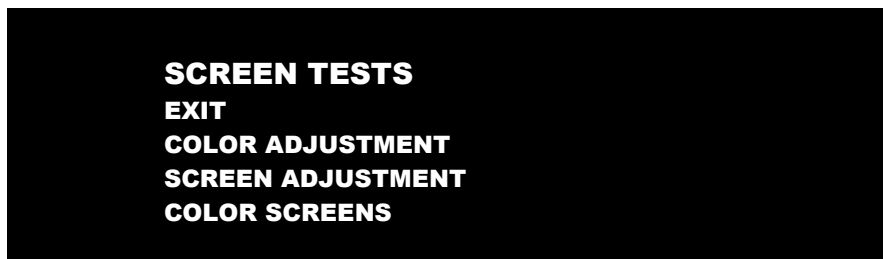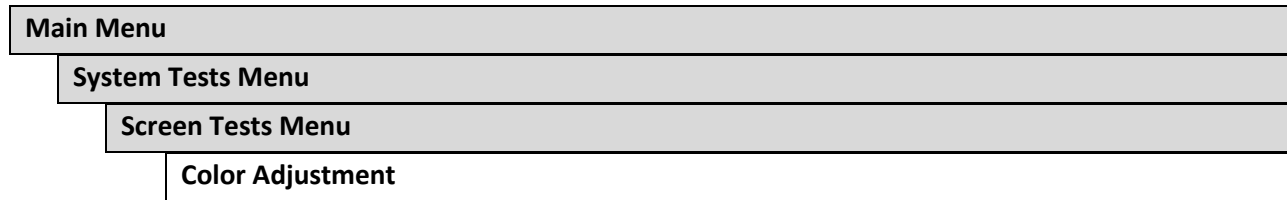
This color bar screen of gray, yellow, cyan, green, magenta, red and blue helps identify missing colors. Missing color bars may indicate bad video RAM in the PC, or a problem with the projector. Consult the projector manual for information on how to correct problems.

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)

Gray	Yellow	Cyan	Green	Magenta	Red	Blue

Main Menu
System Tests Menu
Screen Tests Menu
Screen Adjustment Menu

This crosshatch screen helps adjust width and height, static convergence and purity, brightness and focus. This test is the best way to align the projector image with the screen assembly.
See projector manual for information on making adjustments.

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.

ADJUST GRID TO FIT SCREEN

PRESS START TO EXIT

Main Menu

	System Tests Menu

		Screen Tests Menu
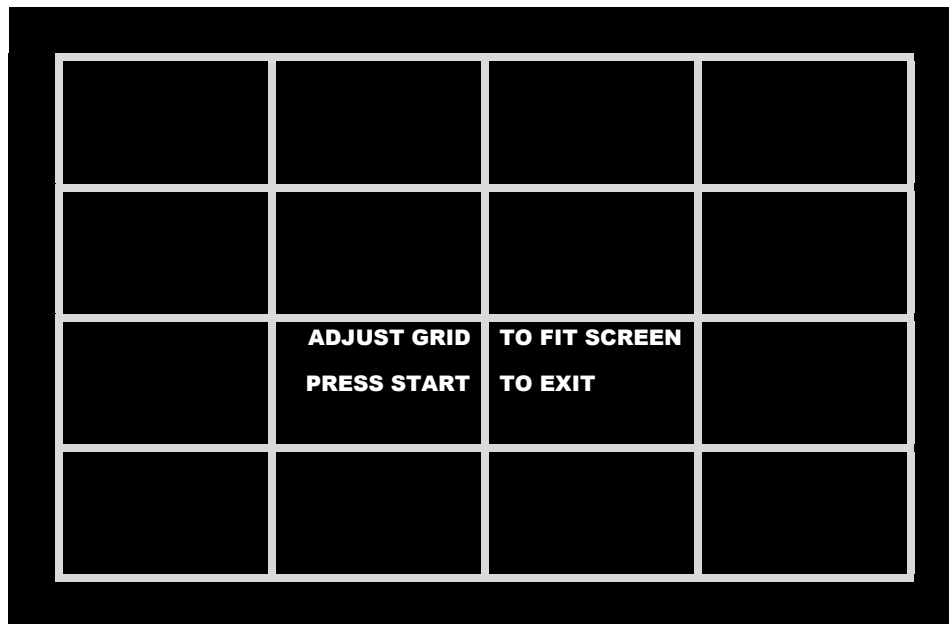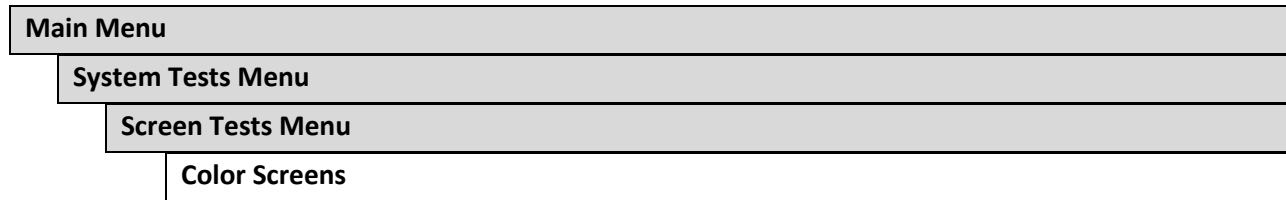
			Color Screens

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

Main Menu

	System Tests Menu

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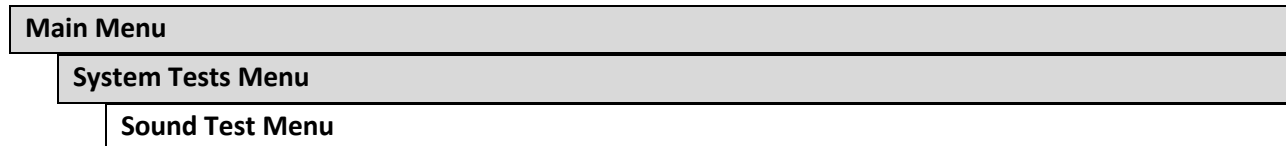
This checks sound volume and quality. Missing sounds indicated digital flaws. Distorted sounds suggest analog flaws. Lack of sound suggests disconnected or bad cables or speakers.

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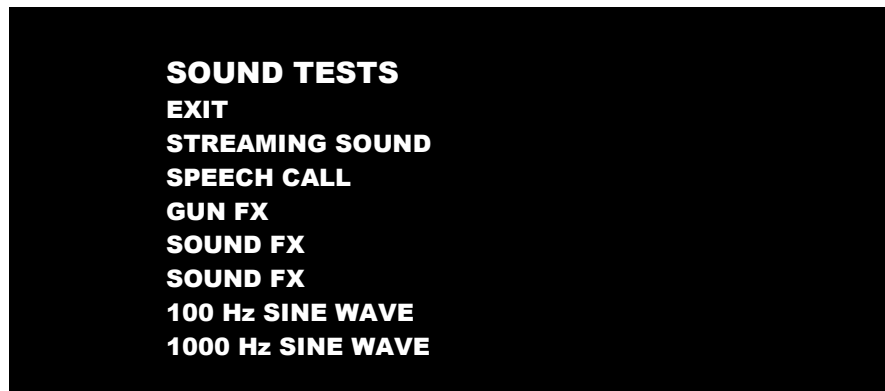
- STREAMING SOUND is a sample of the game music.
- SPEECH CALL includes talking commentary.
- GUN FX is the shotgun blast.
- The first Sound FX is a whistle.
- The second Sound FX is a guitar riff.
- 100 and 1000 Hz Sine Waves generate specific frequency sounds. Cancel these sounds by selecting another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

Main Menu

	System Tests Menu

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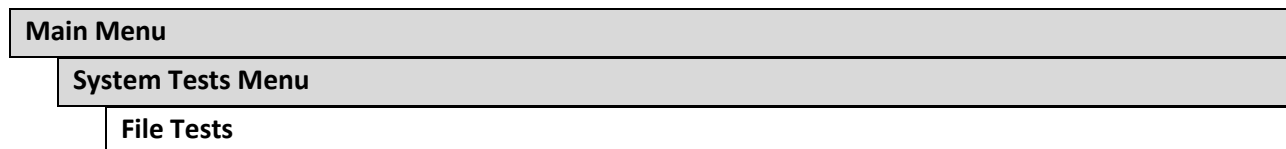
This tests the integrity of the contents of the hard drive, searching for corrupt or missing game files. Damaged or missing files register as failed and are listed. The only solution to this problem is to restore the system from the DVD-ROM, as described in the Restore the Hard Drive section.

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

Main Menu

	System Tests Menu

		Watchdog Test

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

Main Menu

	System Tests Menu

		Gun Sensor Test

See Gun Calibration instructions in Setup section.

Main Menu

	System Tests Menu

		Gun Camera Test

See Gun Calibration instructions in Setup section.

Main Menu

	System Tests Menu

		Gun Electronics Test

See Gun Calibration instructions in Setup section.

Main Menu

	System Tests Menu

		Ethernet Port Test

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

Main Menu

	System Tests Menu

		Card Test

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

```
CARD TEST
EXIT
PLEASE INSERT CARD
CARD FOUND:        Card Type
NAME:              Cardholder Name
```
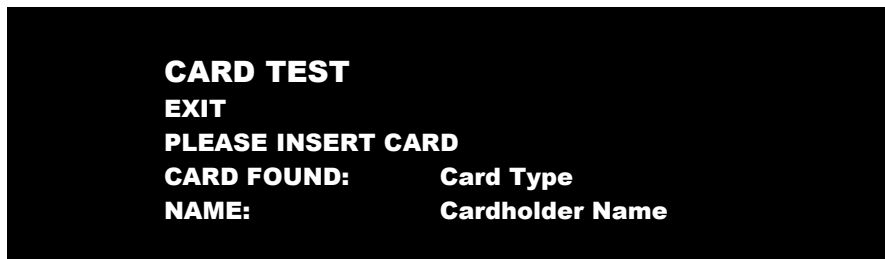
Main Menu

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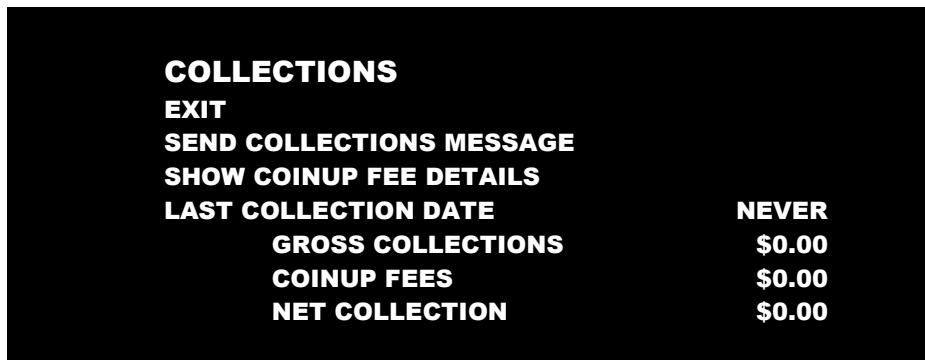
Send Collections Message contacts the server and delivers the latest collections information.

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
```

Network Connectivity

In order to receive software updates and for the purpose of revenue sharing, the game requires Internet access. The following information will help you get the game online.

There are three communications protocols available: Ethernet, Cell Modem or Wi-Fi.
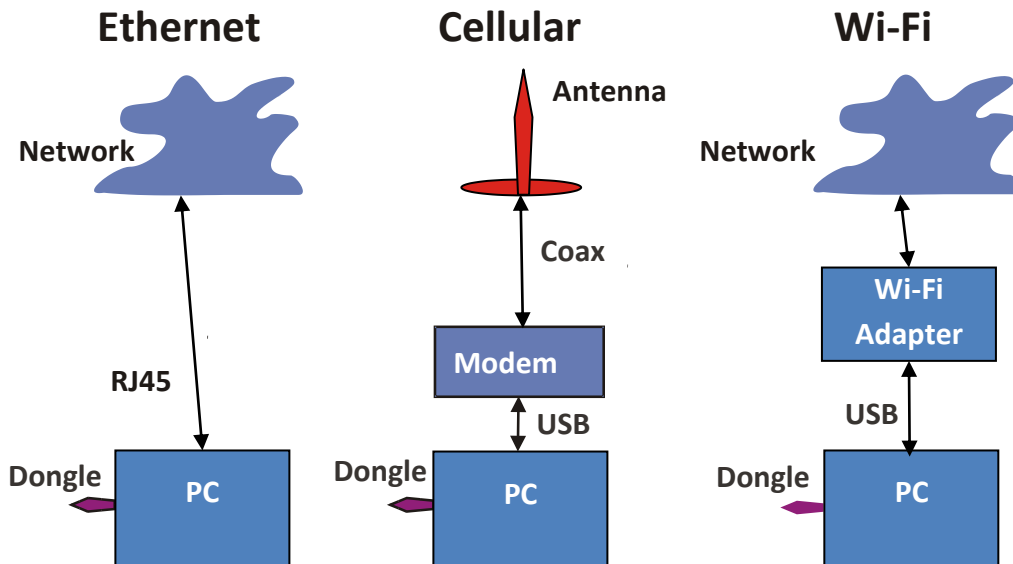
Ethernet Installation

1. Open a DSL account with an ISP.
2. Connect PC to the Ethernet cable from the DSL modem or router.
   Refer to modem or router manual for instructions.

Cell Modem Installation

The Cell Modem Adder kit is purchased separately and requires completed modem activation form.

1. Turn off AC power.
2. Mount modem inside the gun pedestal with Velcro® strips.
3. Connect cell modem to a USB port on the PC.
4. Connect the antenna cable to the modem.
5. Mount antenna on the projector shelf.
   Antenna should be near front of pedestal (player side), a safe distance from the projector.
6. Turn on AC power.
7. Install software from the kit DVD.

Big Buck Safari Super Deluxe

Wi-Fi Installation

1. Obtain one of the supported USB Wi-Fi adapters listed in the chart below.

Adapter Model	Supported Networks	Encryption Type/Compatible?							
		Disabled/ None	WEP	WPA-Personal and TKIP encryption	WPA-Personal and AES encryption	WPA2-Personal (AES encryption)	WPA 2-mixed (TKIP and AES encryption)	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 B1)	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 WU SB600N (version 1.0)	802.11b/g/n	Yes	Yes	Yes	Yes	Yes	Yes	No	No

2. Turn off AC power.

3. Mount Wi-Fi adapter inside pedestal high as possible using Velcro®.

4. Do NOT install software that came with adapter. The PC already runs appropriate software.

5. Connect cable to a USB port on the PC.

6. Turn on AC power.

7. Log into wireless access point or router.

   Contact your wi-fi network administrator for help logging into the access point or router.

8. Write down Wi-Fi network information on a sheet of paper:

- SSID (i.e. network name)

- Broadcast Channel

- Encryption Type (e.g. WEP 64-bit, WEP 128-bit, WEP 256-bit, WPA-PSK + TKIP encryption, WPA-PSK + AES encryption, WPA2)

- Encryption Key (Different encryption types require different types of keys.

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 passphrase between 8-63 characters in length (Upper case letters, lower case letters, numbers and symbols allowed)	$3CurE_pA$sPhRa$e

Wi-Fi Software Setup

Network

1.   Enter Diagnostics mode.
2.   Select Online Menu—Wi-Fi Menu—Wi-Fi Setup.
3.   Select Scan Networks to look for nearby Wi-Fi networks.

        *Depending on settings, network may not broadcast its SSID and are displayed as ***HIDDEN****

        To use a hidden network, select it, then enter the SSID manually when prompted.

SELECT AN AVAILABLE WI-FI NETWORK

AVAILABLE NETWORKS	NETWORK DETAILS
----	SSID
OHWC Network ad9675	**My wireless network**
OHWC Network ad9675	**Access Point MAC**
-------------HIDDEN-----------	**00 1E E5 F5 CD 68**
my wireless network	**Channel 6**
--	**Signal Strength**
--	.54 dBm
--	..ıllll
--	**Link Quality 82 percent**

PUMP TO SCROLL NETWORKS

Exit   Refresh   Use This Network
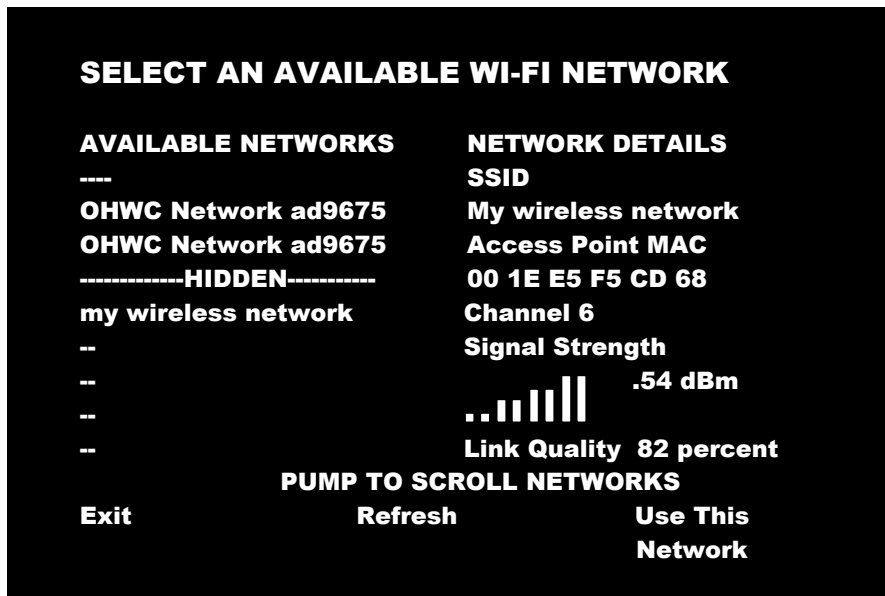
List of Available Networks

4.   Scroll through the detailed list to locate your networks.
5.   If network does not appear in list, Exit to previous menu and select Enter Manually, then enter SSID, encryption type, key and broadcast channel.
6.   Select Use this Network to continue.

Encryption Type

1. From list of encryption types, scroll through and highlight appropriate type.

```
SELECT THE ENCRYPTION TYPE

ENCRYPTION TYPES          DESCRIPTION
WEP (64-Bit)              WPA Security
WEP (128-Bit)            Pre-shared Key
WEP (256-Bit)            Using TKIP cipher
WPA PSK (AES)            Up to 63 digits long
WPA PSK (TKIP)
WPA2 (TKIP + AES)
--
--
Disabled / Open
--
            PUMP TO SCROLL ENCRYPTION TYPES
Cancel                           Use This
                                 Encryption
```

List of Encryption Types

2. Select Use This Encryption to continue.

Encryption Key:

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

1. On Enter WPA Key screen, enter access point or router WPA Key (from hand-written page).
   Select yellow < and > symbols to switch between letters, numbers and symbols.
   On the letters page, select UPPER or lower to change case of letters.

```
ENTER WPA KEY
            my wpa key
  !   ”   #   $   %   &   ’   (   )
  *   +   ,   -   .   /   :   ;   <
  =   >   ?   @   [   \   ]   ^   _
  ’   {   |   }   ⌇

        <                    >
   SPACE        OK        DELETE
```

WPA Key Selection Screen

2. Select OK to continue.

Broadcast Channel

This applies if SSID was entered manually.

1.   Scroll through list to highlight appropriate channel.

```
SELECT THE BROADCAST CHANNEL

CHANNELS                    NOTE
3                           If you are unsure which
4                           channel your network is
5                           broadcasting on you can
6                           try selecting "auto"
7
8
9
10
11
(more)    PUMP TO SCROLL CHANNELS
Cancel                              Use This
                                    Channel
```
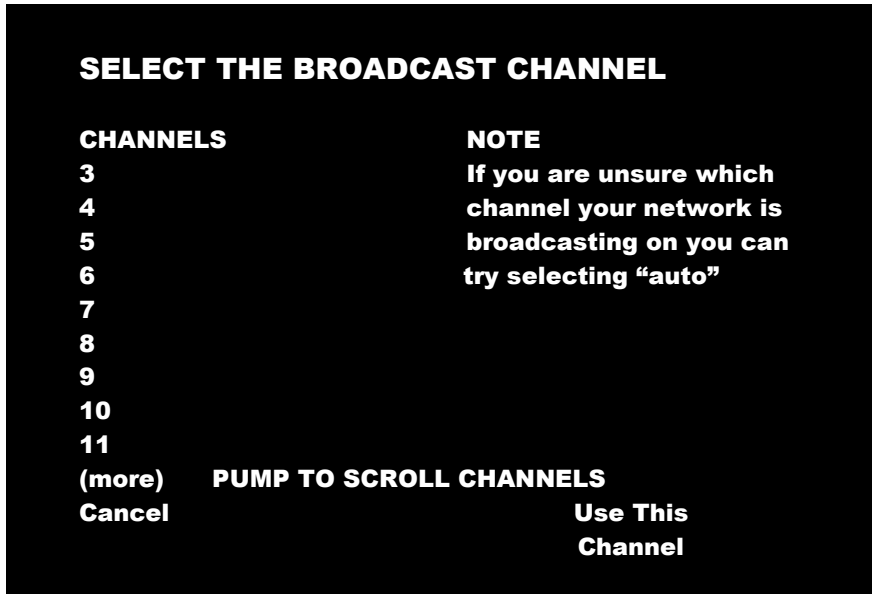
Broadcast Channel Selection Screen

2.   If unsure of correct broadcast channel, select Auto.
3.   Select Use This Channel to continue.

Confirm Settings

1.   Note SSID, Encryption Type, Encryption Key and Channel on confirmation screen.

```
CONFIRM WI-FI SETTINGS

SSID:   my wireless network
ENCRYPTION:   WPAPSK (TKIP)
KEY:    my wpa key
CHANNEL:    6

Start                   Save
Over                    Settings
```

Wi-Fi Confirmation Screen

2.   If information is incorrect, select Start Over to return to Wi-Fi Menu.
3.   If information is correct, select Save Settings to store information.

The game automatically reboots.

Wi-Fi Details Status Messages

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

Connected

Game has located wireless access point or router and successfully obtained an IP Address. Game is online.

Ensure strong signal (the more green bars, the better the connection).

Not Connected

```
WI-FI DETAILS

    EXIT
    STATUS:  Not Connected
    ADAPTER : Not Found
    IP ADDRESS:  Not Found
    ADAPTER MAC ADDRESS:  N/A
    INTERFACE: N/A
    SSID: N/A
    FREQUENCY: N/A
    Bit RATE: N/A
    LINK QUALITY: N/A
    SIGNAL STRENGTH: N/A
```
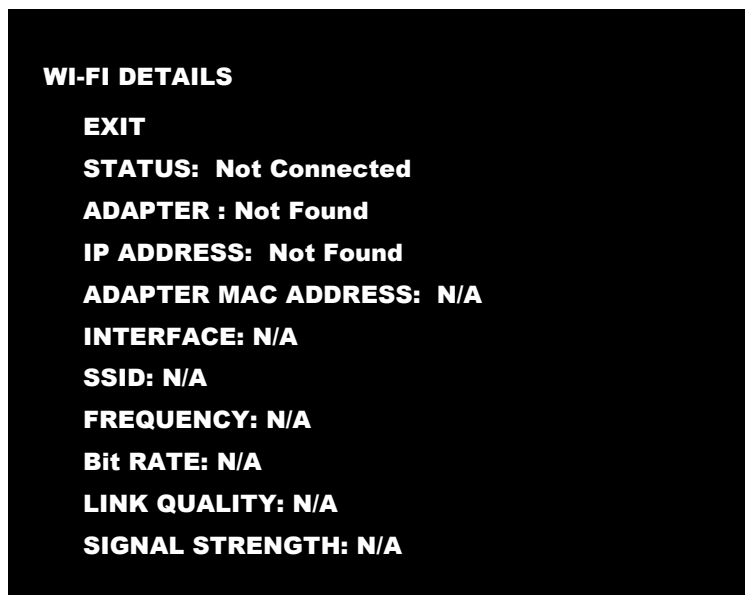
Wi-Fi Not Connected

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 with correct version is connected.
2. If Adapter status shows the name of the adapter connected to the PC, ensure SSID status is also correct.

Locating Access Point...
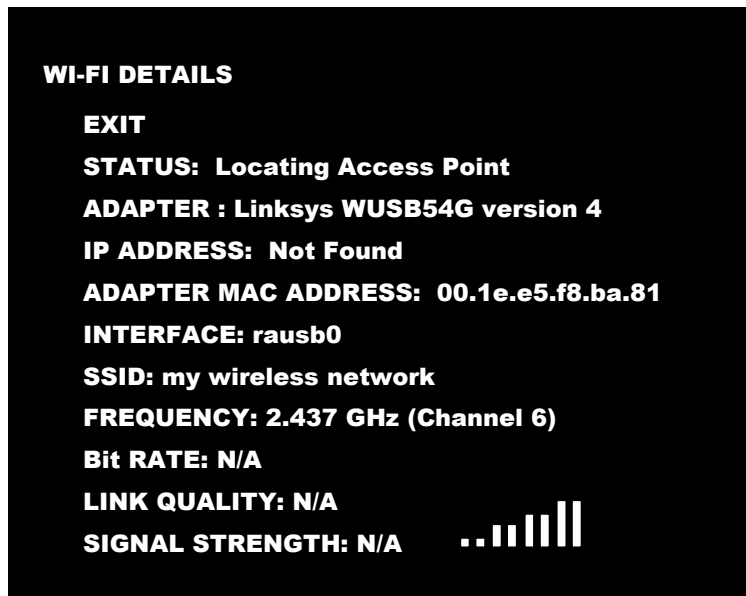

WI-FI DETAILS

    EXIT
    STATUS: Locating Access Point
    ADAPTER : Linksys WUSB54G version 4
    IP ADDRESS: Not Found
    ADAPTER MAC ADDRESS: 00.1e.e5.f8.ba.81
    INTERFACE: rausb0
    SSID: my wireless network
    FREQUENCY: 2.437 GHz (Channel 6)
    Bit RATE: N/A
    LINK QUALITY: N/A
    SIGNAL STRENGTH: N/A

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 5 minutes, either the network information entered was incorrect, or the game cannot communicate with the access point.

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

Obtaining IP Address

```
WI-FI DETAILS

    EXIT
    STATUS:  Obtaining IP Addresss
    ADAPTER : Linksys WUSB54G version 4
    IP ADDRESS:  Not Found
    ADAPTER MAC ADDRESS:  00.1e.e5.f8.ba.81
    INTERFACE: rausb0
    SSID: my wireless network
    FREQUENCY: 2.437 GHz (Channel 6)
    Bit RATE: 54 Mb/s
    LINK QUALITY: 0 percent
    SIGNAL STRENGTH: .32 dBm   ..ııIIIII
```
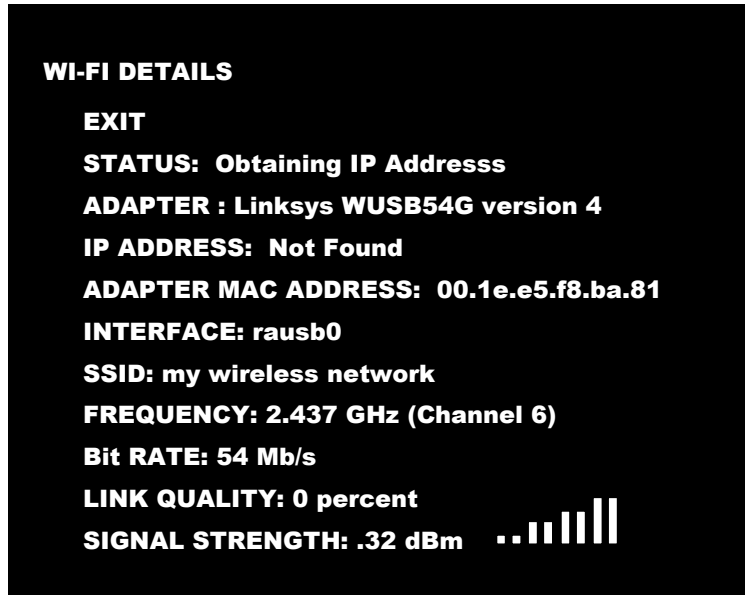
Obtaining IP Address

Game has found wireless access point or router and is negotiating an IP Address through DHCP.

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

Maintenance

Hard Drive Recovery

Symptoms requiring hard drive recovery include

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

```
                        WARNING!
                   DATA Files Corrupted.

            (Game Operation May Become Unstable.)

            Use "Test" Switch to Enter Test Mode
                   and Run "File Test"

                   Press Start to Continue
```

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

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

COMPUTER

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

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

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

9. Recovery begins automatically when PC boots up.
10. If recovery does not begin, check to ensure disc is inserted correctly and is not damaged.
11. After 30-40 minutes, check game progress.
    Do not interrupt power or reset the game during recovery.
12. A message indicates that recovery is complete. When instructed to remove disk, open DVD-ROM drive tray and remove disk.
13. Turn cabinet power switch off.
14. After 30 seconds, turn cabinet power switch on.
15. Game will reboot and enter calibration mode.
16. Re-calibrate guns.

BIOS Settings/Power Management

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

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

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

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

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

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

Wiring
JAMMA I/O Board Connector Table

Function	Wire Color	Pin	Pin	Wire Color	Function
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

Troubleshooting

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

Problem	Possible Cause	Solution
Game will not power up	Game not plugged in.	Plug game into outlet.
	Game not turned on.	Turn on main power switch.
	Game fuse is blown.	Check and replace fuse.
	No power to receptacle.	Test outlet and plug game into 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.

Problem	Possible Cause	Solution
Scrambled or scrolling display	Sync Polarity incorrect.	Change DIPswitch settings for HSYNC and VSYNC.

Problem	Possible Cause	Solution
No video display	No power or signal to projector.	Check and secure all cables to projector. Consult projector manual for more information.

Problem	Possible Cause	Solution
No sound	Bad Connection	Check connection to speakers.

Problem	Possible Cause	Solution
Game does not load		
Hard drive test reports "bad" or "missing" files.		
Game fails to finish loading.	Hard drive failure	Recover hard drive.
After resetting, game still reports an error.		See procedure at end of this chapter.
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.		

Message	Possible Cause	Solution
Guns won't register, or function poorly	Bad calibration	Calibrate guns.
	Dirty/damaged lens	Clean gun lens.
	Gun disconnected	Check USB connections.
	Faulty USB port.	Swap gun to another USB port to test.
	Display out of adjustment	Enter display diagnostics menu and repair.
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 cable not secure.	Check and secure cable.
	PC not turned on.	Turn PC power switch on. Ensure IEC cable tightly plugged in. Trace cable back to source to ensure continuity.
	Sync Polarity incorrect.	Change DIPswitch settings for HSYNC and VSYNC.
Dongle Not Present	Dongle missing or disconnected	Find dongle and reseat in USB port
	Faulty USB port	Insert dongle in different USB port
Connect I/O Board or *I/O Board Missing*	USB cable disconnected	Check USB connection from PC to I/O board
	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.

Cellular Troubleshooting Table

Problem	Possible Cause	Solution
Game cannot connect to server.	Poor connection between cell modem and PC.	Check that USB connections at cell modem and PC are tight. Turn off cabinet AC power. Wait 30 seconds and restart game. If no IP Address, enter diagnostics mode and go to Connection Menu. Select Cell Modem Details. If message is *No Modem Found* or *Collecting Data* call Betson service.
	Faulty 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 PlayMechanix® Service.
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.
Game has IP address and screen says *Server Ping Success* but Test Connection screen reports Database Ping Failure.	Database is down.	Wait 30 minutes and revisit Test Connection screen.
	Bad dongle	Replace dongle or call Betson service.

Ethernet Troubleshooting Table

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

Problem	Possible Cause	Solution
Game has IP address and screen says *Server Ping Success* but Test Connection screen reports Database 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 is down.	Wait 30 minutes and revisit Test Connection screen.

Wi-Fi Troubleshooting Table

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 restart.
	Operating system has lost communication with the adapter.	Unplug Wi-Fi adapter from PC. Wait one minute, then plug it in. Turn off cabinet AC power. Wait one minute and restart.
Wi-Fi Details status is *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—Online Debug Menu—View Online Debug Details—Server Details—Refresh Server Info. After refresh, new host names and IP addresses of servers are displayed.

Parts

Contact your Betson distributor for all replacement parts and service. When ordering Guns or Start buttons, clarify that you have a Super Deluxe Projector model and require the following numbers:

Orange gun: 820-00006-01   Green gun: 820-00007-01

Orange Start button assembly: F702-00008-01   Green Start button assembly: 702-00007-01

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

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

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