

T-Rex Safari™ Operator's Manual



T-Rex Safari™



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Safety

Operation

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

Transporting

The upper monitor assembly weighs approximately 95 lbs. and the installation requires a minimum of three people, using two 6-foot step ladders (minimum height). It is preferred that the main cabinet be moved to or very near its desired operational location before beginning any of the set-up tasks. It is also strongly recommended that the game NOT be moved with the monitor installed in the upright position. It contains fragile glass and electronic components. Avoid rough handling.

Handling Components

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

Disconnect Power

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

Grounding

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

Electrical Shocks

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

Monitor

The monitors contain no user serviceable parts. Do not attempt to service the monitors.

Power Selector

Before installing game, ensure the voltage on the PC and power supply is set properly. There is a 120/230 VAC selector switch that must be set for the correct voltage for your site. The setting must match the line voltage at the installation site.

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.

Surge Suppressor

It is recommended that you plug your game's power cord into a surge suppressor to help protect from power surges that may damage sensitive electronic components.

Water and Other Liquid Sources

Do not install game near sprinkler or other water jet sources. Do not use water jet to clean game. Keep minimum clearance behind game and wall for proper ventilation but also prevent access of liquid from spills and sprays from entering ventilation holes.

Connectors

When servicing machine, 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 computers contain sensitive components, including a hard drive. Do not handle it roughly. Contact your distributor before servicing its internal components. Ask about warranty information as it relates to the PC. 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.

Tempered Glass Warning

When handling the LCD display glass cover take special care and set the glass down softly on a flat surface free of debris. The edge of the glass is sensitive to hard impact. Shattered glass from the monitor can travel long distances and cause bodily injury. Use proper procedures when handling broken materials.

Ventilation

It is critical that the game is installed in a manner that allows for proper ventilation and air flow. Game must be installed so that there is a minimum amount of clearance between the wall or another game to allow good air circulation through the game cooling fan and vents.

Hazard to Epileptics

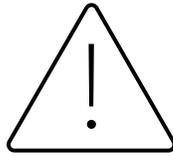
A small portion of the population has an epileptic condition that may cause seizures. Affected persons experience seizure while watching some television pictures or playing certain video games. People who have not had seizures may still have an undetected epileptic condition. If anyone in your family 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. You may not reproduce this document or any of its contents without written authorization from Raw Thrills, 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.



CAUTION

- This machine features moving parts and should only be serviced by a trained and experienced technician.
- Turn off all power and air supply before servicing the machine.
- Keep area around the machine clear and free of objects that present a trip hazard. Allow for plenty of room for players to safely enter and exit the machine.
- Observe ALL of the following guidelines to prevent injury, accident, or damage.
 - Maximum of two persons on the machine at any time.
 - If a player fatigues or experiences motion sickness or is unable to continue the game for any reason, stop the game motion immediately by pressing the MOTION STOP button. Allow the person to rest and exit the game with assistance if needed.
 - Remain seated for the entire duration of the game. Do not stand or exit while the game is moving. Press the MOTION STOP button before exiting the game.
 - Keep hands and legs inside the game at all times while in motion. Remain in the game until game comes to a complete stop.
 - Do not attempt to reach for objects on the floor or near the game when it is moving. Stay clear and stand at a safe distance while game is in motion.
 - Small children should always be accompanied by a parent or guardian.
- The machine is equipped with safety features which the operator and the player need to be familiar with:
 - MOTION STOP button is located between player 1 and 2 seats. Additionally, there are MOTION STOP buttons located in front of player 1 and 2. These buttons will stop the motion feature once pressed.
 - Bellows around the moving part of the machine prevent access between the base and the moving part. Make sure that the bellows are not damaged or showing signs of excessive wear that could lead to failure. Replace the bellows when this occurs. Use only tamper proof screw fasteners as specified.
 - The machine is designed so that there is no unintended movement in the absence of a logic signal as might be experienced during a power outage. Make sure that the machine is safe to operate before turning power back ON.
- Critical parts should be maintained and inspected regularly for safe operation. If those critical parts are damaged, broken, or installed incorrectly, replace them, or install correctly. Use only manufacturer's specified parts for continued safety and reliability. Contact your distributor to order replacement parts.

Product Specifications

Electrical Power

MULTIPLE POWER SUPPLY ENTRIES

Warning: Before obtaining access to terminals, all supply circuits must be disconnected.

Attention: Avant d'accéder aux bornes, tous les circuits d'alimentation doivent être déconnectés.

United States, Canada (ETL)

Voltage: 120VAC / 60 Hz

Operating AC Current: 20 Amps (10 Amps per entry)

International (CE)

Voltage: 230VAC / 50Hz

Operating AC Current: 10 Amps (5 Amps per entry)

Temperature

50° F to 104° F

(10° C to 40° C)

Humidity

Must not exceed 95% relative humidity

Dimensions

114.17"H x 49.5"W x 122.34"D (2.90m H x 1.26m W x 3.11m D)

Approximate weight 1500lbs. (~650kg)

Recommended minimum floor space requirement:

120.00"H x 97.50"W x 134.27"D (3.05m H x 2.48m W x 3.41m D) *see pg. 47 for diagram*****

Fuse Replacement Guide

NOTE: FOR CONTINUED PROTECTION AGAINST FIRE AND ELECTRICAL DAMAGE, USE ONLY SPECIFIED FUSE TYPE AND VALUE.

12V Power Distribution

Please see unit for specified fuse labeling.

Abbreviations:

5A 250V	5A, 250VAC Fast Acting 3AG Fuse	Littlefuse 0312005.MXP (or equivalent)
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Setup

Safety Notice

Installing this product requires three individuals able to lift heavy objects safely. Two 6-foot step ladders (minimum height) are required as part of the installation process. Make sure that you are familiar with the manual contents, game setup, and operations before you begin the installation process. Do not push or pull on the decorative items such as the monitor bracket or red vacuum formed nose cover to move the game. Doing so can damage the decorative items. Be aware of your surroundings and individuals around you during the installation process for your safety and the safety of others. Work only in an area with sufficient lighting and a clean level surface.

Unpack Materials

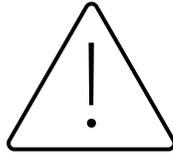
1. Place the shipping crate(s) on a flat, stable surface.
2. Cut the banding straps and remove the cardboard lids.
3. Lift off the large cardboard containers surrounding the cabinet assembly and remove any shipping cleats.
4. Remove the keys from the front dash.
5. Check for shipping damage to the following:
 - Monitor(s)
 - Monitor bracket
 - Headset arm(s)
 - Headset(s)
 - Cabinet decals
6. Check the AC line cords for visible signs of damage.

Pay particular attention to the plug and line cord insulation.

Required Tools

1. (2) 6-foot step ladders
2. Drill/driver with bit holder
3. T-27 tamper resistant Torx bit
4. T-25 tamper resistant Torx bit
5. T-20 tamper resistant Torx bit
6. 3/8" ratchet wrench
7. 3/4" socket
8. 10mm socket

Cabinet Assembly



CAUTION

UNDER NO CIRCUMSTANCES SHOULD THIS GAME BE OPERATED UNLESS ALL INSTALLATION PROCEDURES HAVE BEEN COMPLETED AND ALL SAFETY FEATURES HAVE BEEN POSITIVELY TESTED AND ARE FULLY FUNCTIONAL!

Upper Monitor Installation

The upper monitor assembly weighs approximately 95 lbs. and the installation requires a minimum of three people, using two 6-foot step ladders (minimum height). **It is recommended that the main cabinet be moved to or very near its desired operational location before beginning any of the setup tasks (see pg. 47 for footprint measurements).** It is also strongly recommended that the game NOT be moved with the monitor installed in the operational (upright) position.

1. Rotate the monitor bracket up into the operational (upright) position (*fig. a* below) and install the four 1/4-20 x 1" screws to secure the bracket to the top of the main cabinet (*fig. b* below).

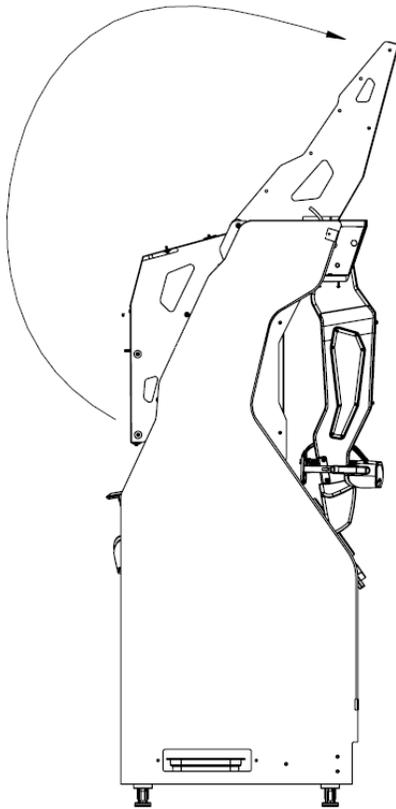


fig. a

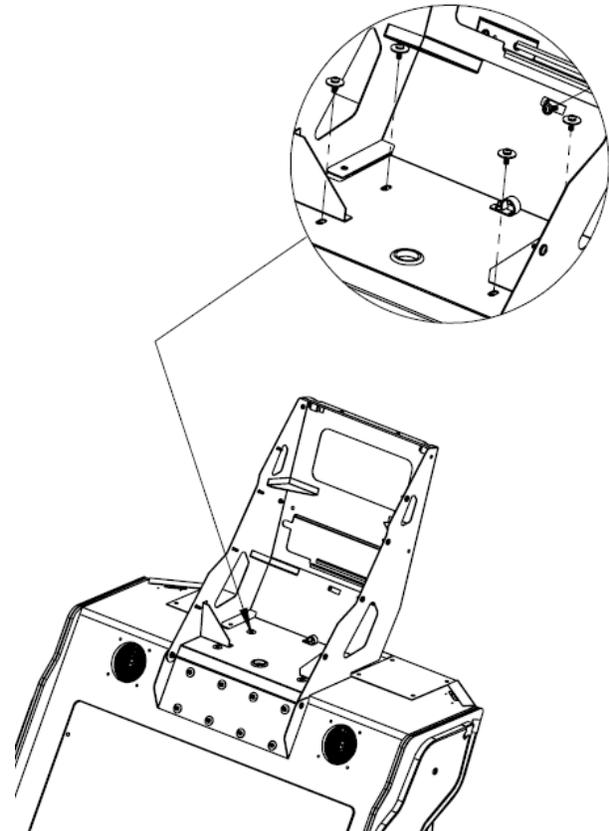


fig. b

2. Place two ladders next to the cabinet and remove the monitor assembly from the packaging.
3. With the main cabinet standing alone and both headset arms in the down position, walk the monitor assembly up the ladders and hook onto top of the monitor bracket.

4. Make sure the brackets are mated properly and install two bottom 6MM x 20MM VESA mount screws and washers (*fig. c items A*, below) in the lower back mounting brackets and then install remaining six 1/4-20 x 3/4" perimeter screws and washers (*fig. c items B*, below).
5. Install the three-piece graphic bezel to the flanges on the monitor bracket, along with the two mending plates, using the #10-32 x 1/2" screws provided (*fig. d* below).
6. Hook up the AC and DVI cord connections and secure to the wire looms provided (*fig. d item A*, below).

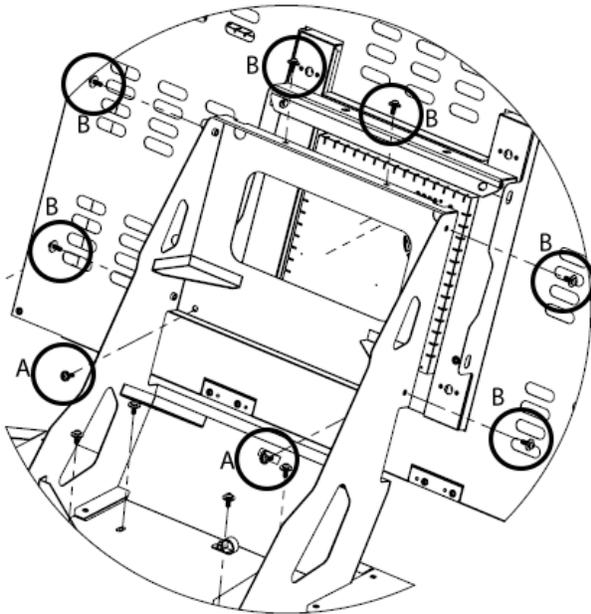


fig. c

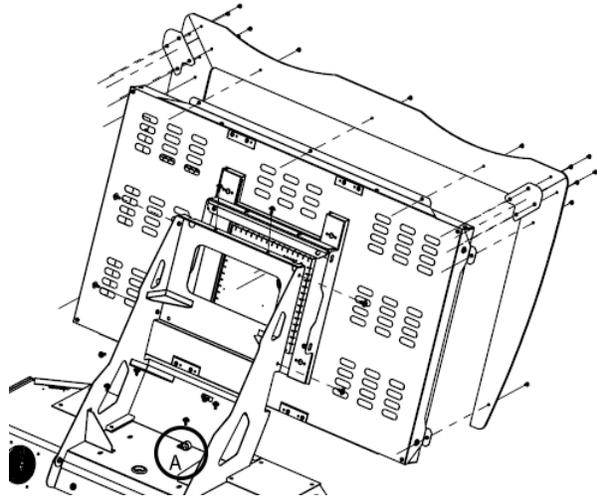


fig. d

7. Install back monitor cover panel with eight 1/4-20 x 3/4" screws and flat washers after AC and DVI cables are connected (*fig. e*, below).

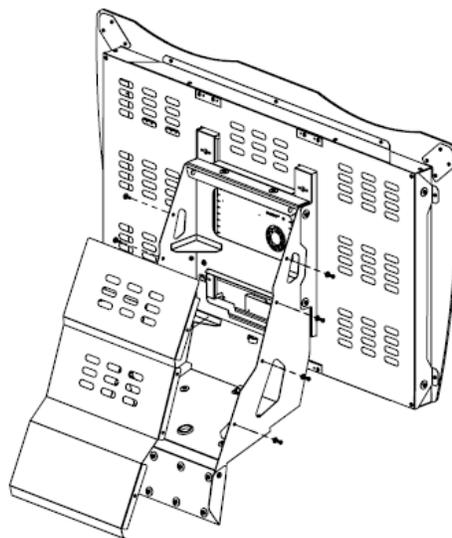


fig. e

Headset Arm Setup

1. Remove the right cover plate (*fig. f item C, below*). Remove the 1/2-13 x 7" bolt from the slotted hole of the bracket arm with a 3/4" socket (*fig. f item A, below*).
2. Rotate the arm up 90 degrees and replace the 7" bolt into the higher slotted position (make sure the bolt is snug but do not over tighten, otherwise the under-arm brackets will not fit. The arms should feel loose from side/side and up/down and not be rigid...this is a safety feature).
3. Perform the same procedure for the opposing side making sure not to over-tighten the arm pivot screws.
4. Install the under-arm brackets using the 1/4-20 x 1" screws (*fig. f item B, below*).
5. Install the corner cover plates on the upper left and right sides to finish off the installation of the arms (*fig. f item C, below*). (*fig. g installation complete*)

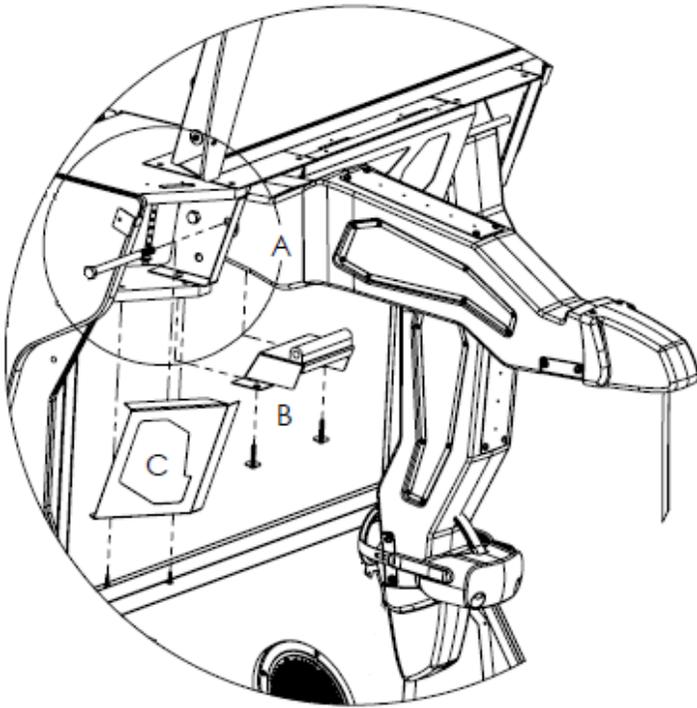


fig. f

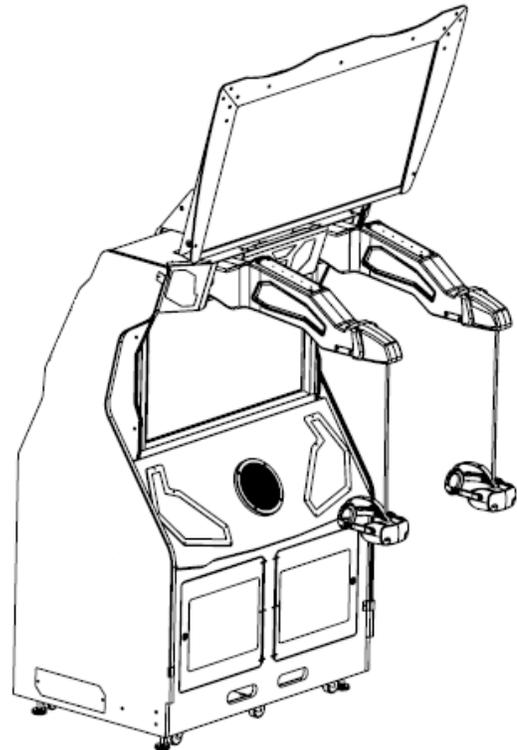


fig. g

Positioning Cabinets for Harness and Air Line Connections

1. Align the cabinets for harness and air line connections (*fig. h* below).

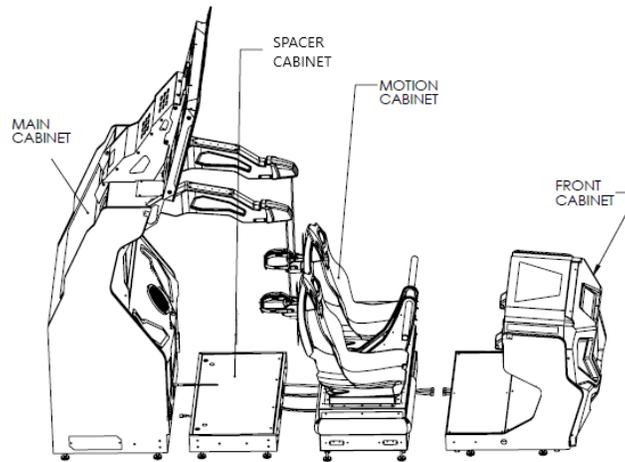


fig. h

2. From the spacer cabinet, lift up the door and prop open with the attached prop bar.
3. Route the single air line from the main cabinet thru the slot in the spacer cabinet and hook up the air line to the manifold inside the spacer cabinet (*fig. i*, below).
4. From the motion cabinet, pull the four air hoses and wire harness through the openings in the cabinet walls and hook up as labelled (*fig. i*, below).

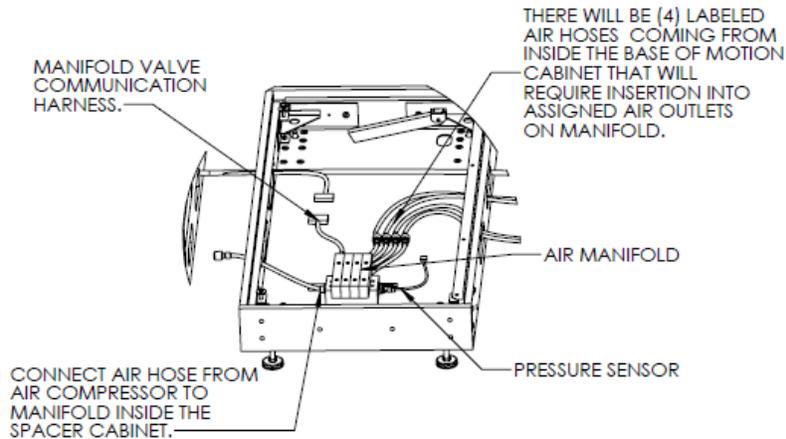


fig. i

5. Pull out and pass the USB from the front cabinet through the motion base, spacer cabinet and plug into the front of the Player 1 PC in the main cabinet and connect the harnessing into the appropriate mating connectors on the motion cabinet (*fig. j*, below).

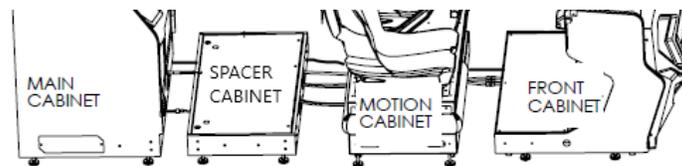


fig. j

6. Lower the door on the spacer cabinet and install the spacer screws through the mating holes in the top of the door and tighten.

Joining the Four Cabinets Together

1. Make sure all cables, harnesses, and air lines are connected, and push the cabinets together so there is minimal space between each one. **Take care to ensure that all cables, harnesses, and air lines are not pinched between the cabinets when joining.**
2. Lay the right joiner beam down on the floor next to the game assembly and plug the LED light connector into the mating connector on the lower side of the front cabinet.
3. Hang the joiner beam onto the top edge of the cabinets and begin starting to thread the screws into the aligning holes and slots in the sides of all four cabinets (*fig. k*, below). It is recommended that you start at the motion base and work your way outwards. The cabinets should begin to straighten and align as you tighten the screws, but do not begin the final tightening of the screws until all beam screws are threaded.
4. Repeat steps 2-3 for the left joiner beam.
5. Once all of the beam screws are tightened, position the game in the desired location and lower the leg levelers to lock the game into position (*fig. l*, below). Be sure the jam nuts are screwed upward and tightened up to the leveler plate weld nut to prevent the leveler from disengaging the floor.

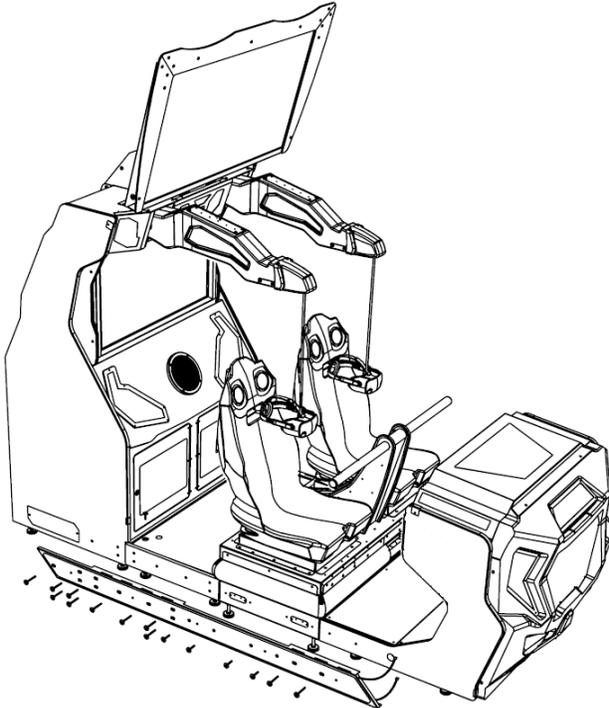


fig. k

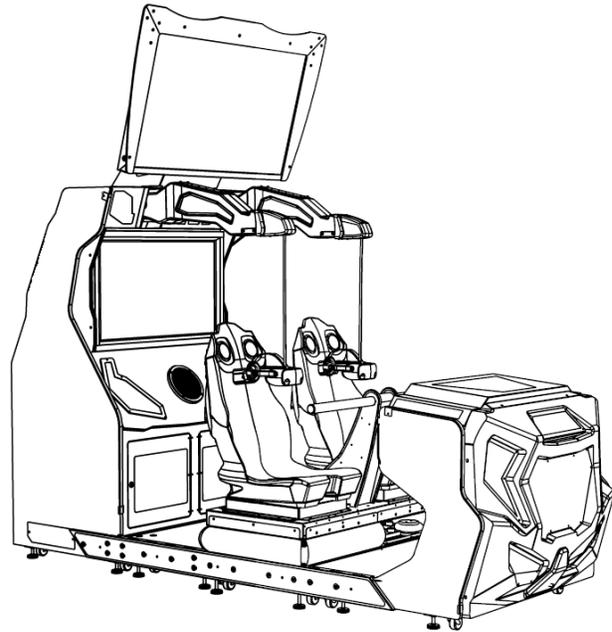


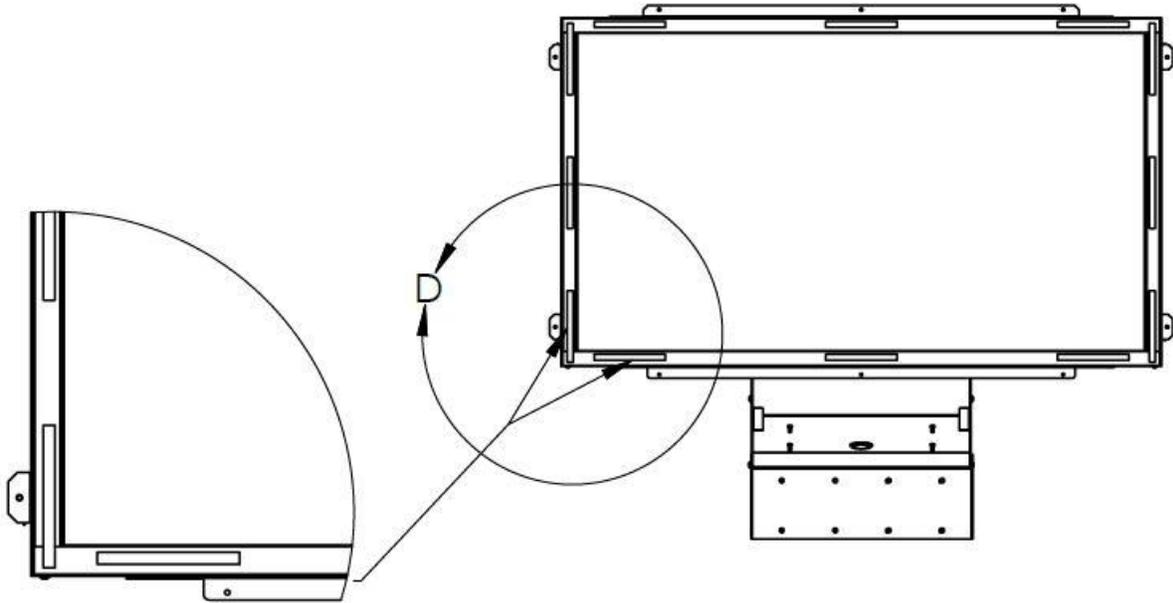
fig. l

NOTE: If the cabinet ever needs to be moved, please follow the above assembly steps in reverse order.

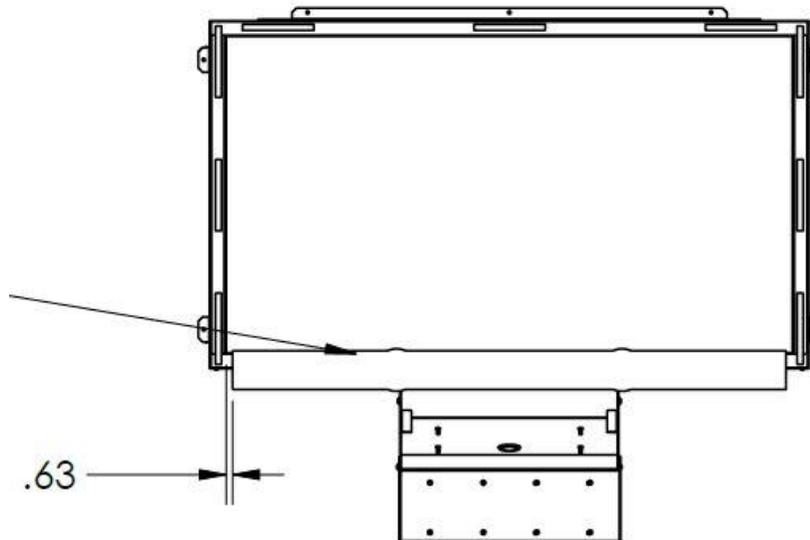
Monitor Bezel Installation

Remove the adhesive backing from one side of each of the (12) hook & loop strip pairs and apply them to the red metal monitor frame as shown below (3 places on each side).

Moni

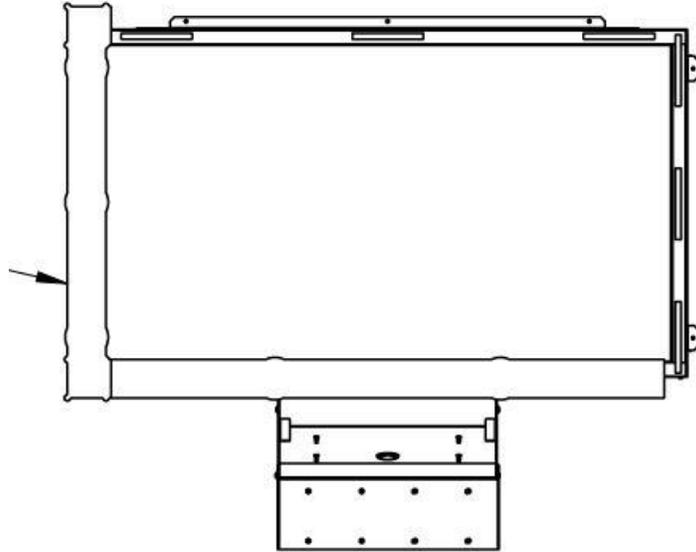


Peel the adhesive backing from the other side of the (3) bottom row strip pairs. Center the top/bottom bezel art part (606-02200-01), align just above the bottom inner edge of the monitor frame, and push firmly to secure the panel to the hook & loop adhesive as shown below.



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Peel the adhesive backing from the other side of the (3) side row strip pairs. Align the side bezel art panel (606-02201-01) with the bottom bezel art panel (606-02200-01) and push firmly to secure the panels to the hook & loop adhesive as show below.



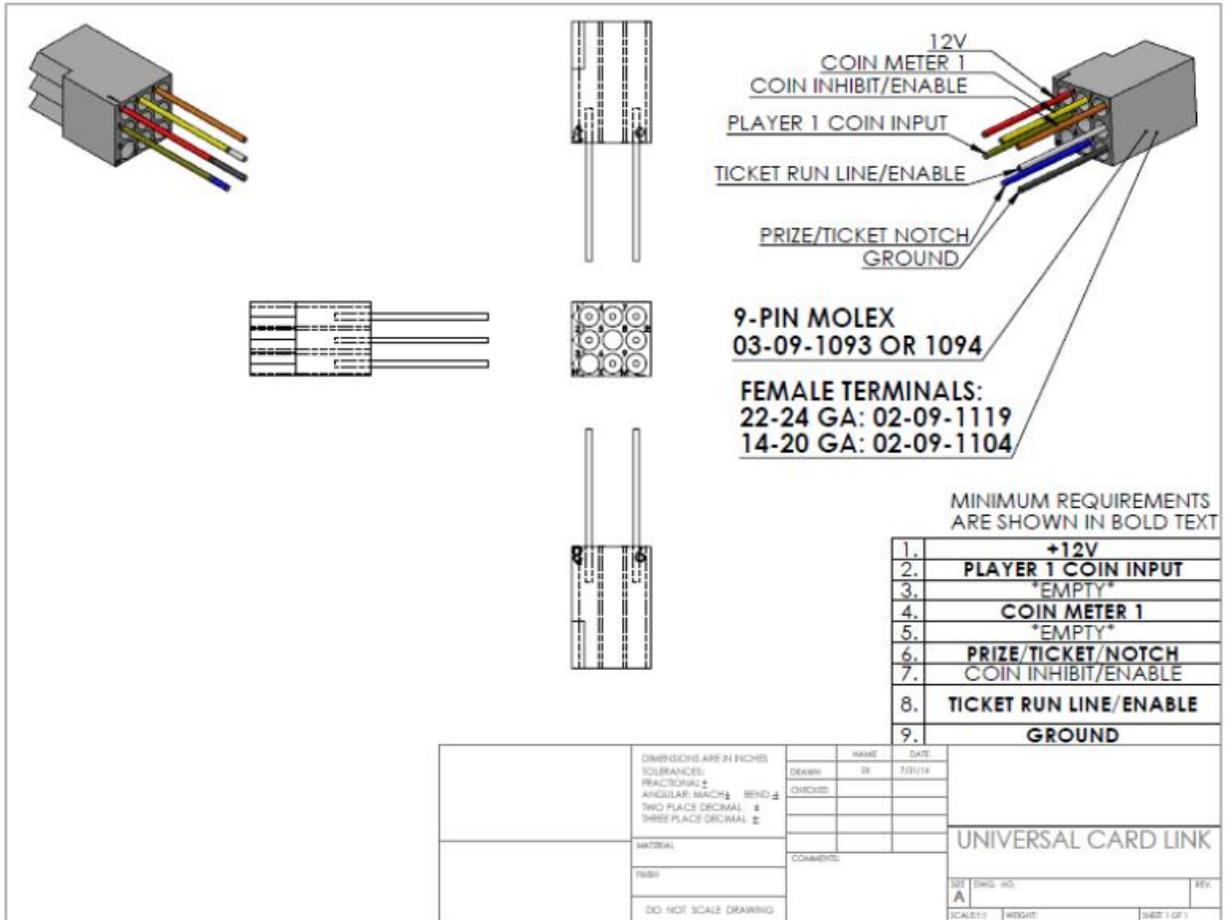
Peel the adhesive backing from the other side of the remaining hook & loop strip pairs and repeat the alignment process, working your way around clockwise. If the panels require further alignment, simply pull them away from the hook & loop strips and reposition to minimize any seams that may be visible as shown below.

Card Reader Installation and Setup

Due to the rising popularity of aftermarket debit card systems for cashless or coinless operation of amusement machines (i.e., Embed, Intercard, Semnox), this T-Rex Safari™ cabinet is equipped with UCL compatible harnessing to ensure that the installation process is easier and less prone to miswiring.

UCL, or Universal Card Link, is a debit card standard established by the American Amusement Machine Association. Visit <https://coin-op.org/standardization/> for the latest UCL standard and manual information.

The UCL connections on the game use pins 1, 2, 6, 8, and 9. The other pins are unused. Each UCL connector can supply up to 1A at 12VDC.



You can choose to use 1 or 2 card readers in the pricing adjustments section of the test menu. It is recommended to use 2 card readers for best results and player access.

There are (2) supplied connections, each located under the control panel of the Front Cabinet assembly. There is enough slack to accommodate mounting (2) card readers on the front panels, as each operator desires.

If only (1) card reader will be used, it is recommended that the card reader be mounted to the center dash door, any UCL connection can be used for games equipped with only (1) card reader.

Check Electrical Settings

1. Verify the voltage in the nearest AC outlet.
2. Verify the AC outlet ground connection is present and working.

*****Recommended: Separate 20A breakers to prevent capacity overload*****

*****Recommended: UPS*****

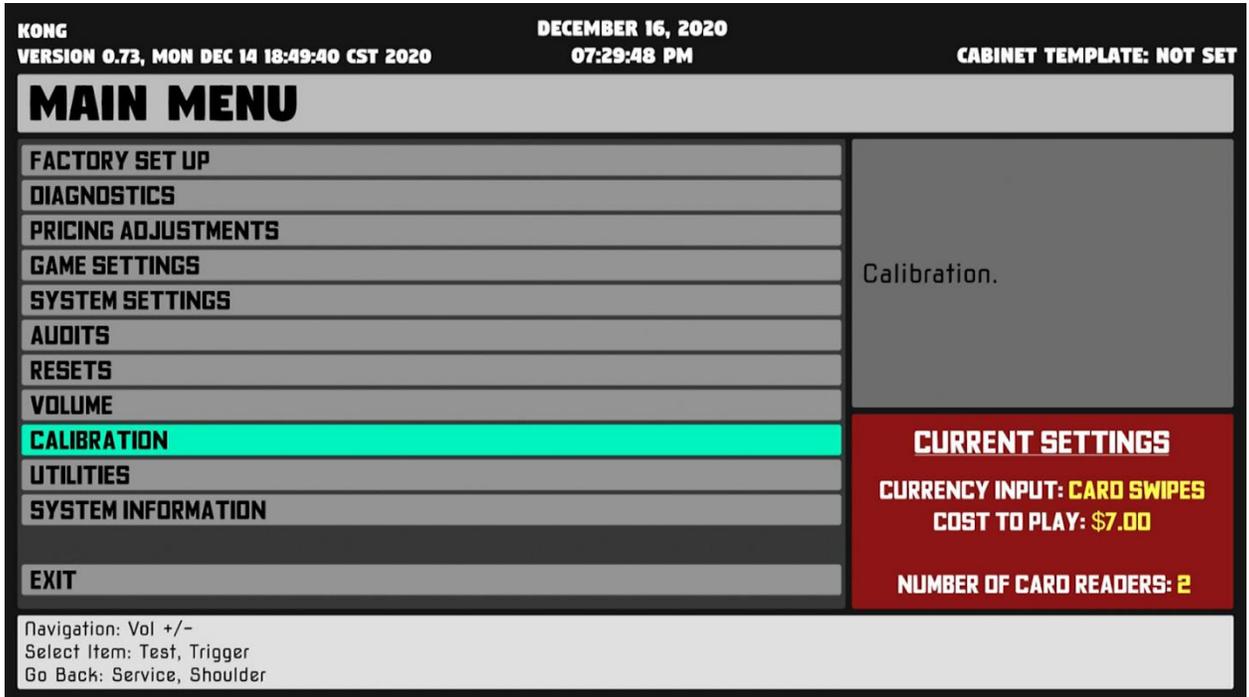
Startup Game

1. Plug the two line cords into an AC outlet (**Recommended: plug the line cords into separate 20A breakers to prevent capacity overload**).
2. Turn the main cabinet power switches on (there are two switches, GAME and COMPRESSOR).
3. Calibrate the headsets (pgs. 17-21)
*****MACHINE IS NOT OPERATIONAL WITHOUT FIRST CALIBRATING THE HARDWARE*****
4. Verify the game and all components are operating normally. See *Basic Functional Test on Initial Power Up* in the *Diagnostics and Adjustments* section for the recommended procedure.

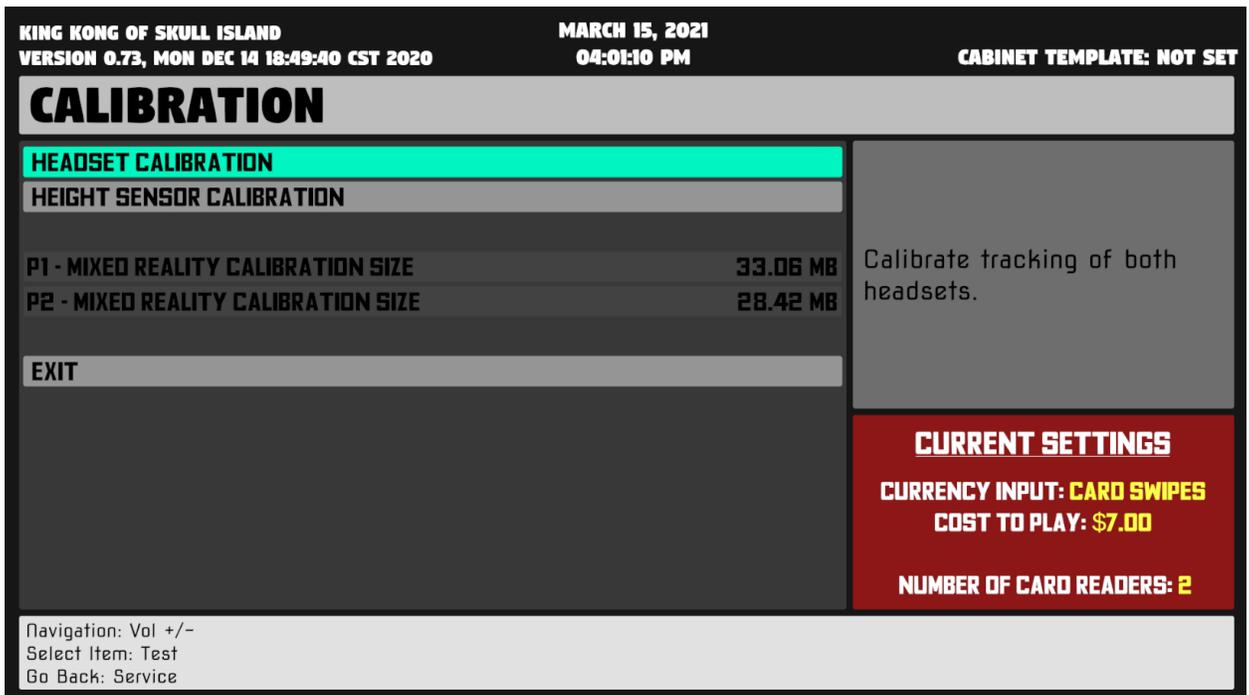
Headset Calibration Guide

*****MACHINE IS NOT OPERATIONAL WITHOUT FIRST CALIBRATING THE HARDWARE*****

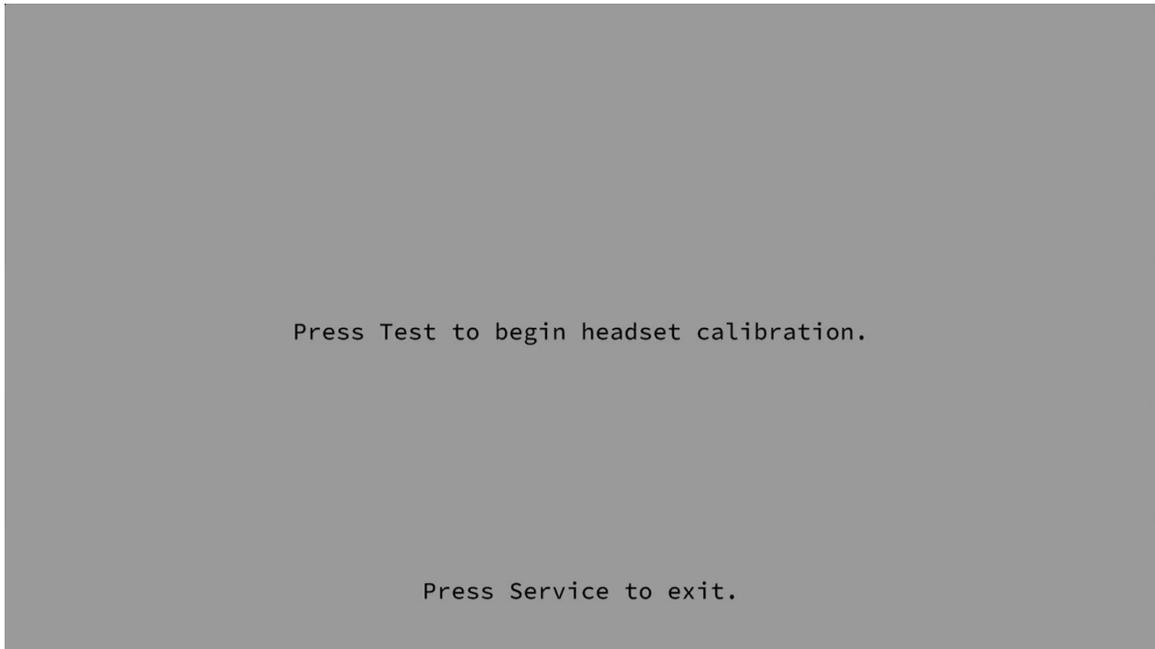
1. In the test menu, select the “Calibration” menu item. (see below)



2. In the Calibration menu, select “Headset Calibration”. (see below)



3. Press **Test** to begin calibration. (see below)



4. Hold Player 1 headset in the player head position. (see below)



5. Press **Test** again to start Player 1 calibration. (see below) (**IMPORTANT: MAKE SURE THE HEADSET CAMERAS ARE NOT COVERED, images a (front) & b (left and right sides) BELOW**)

Hold player 1 headset where player's head would be and make sure cameras are not covered.

Press Test when ready to proceed.
(Continue to hold headset in this position after pressing test).

Press Service to exit.



image a

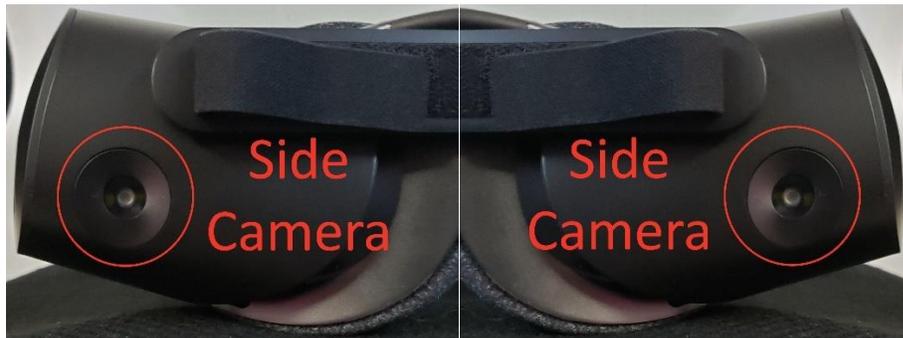
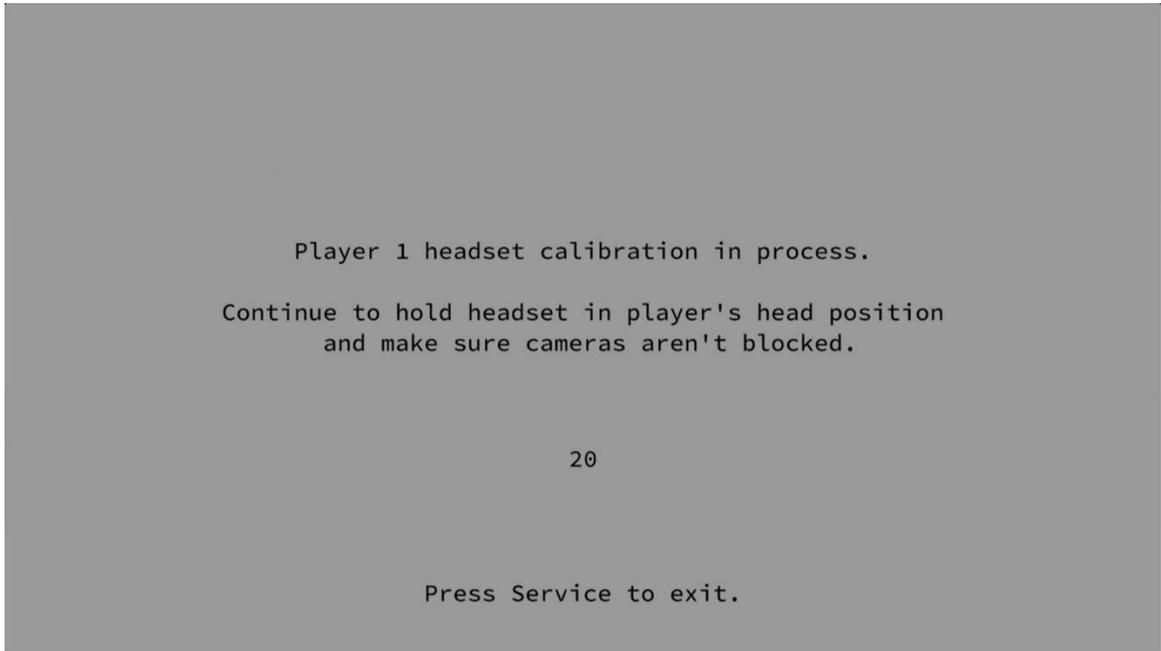
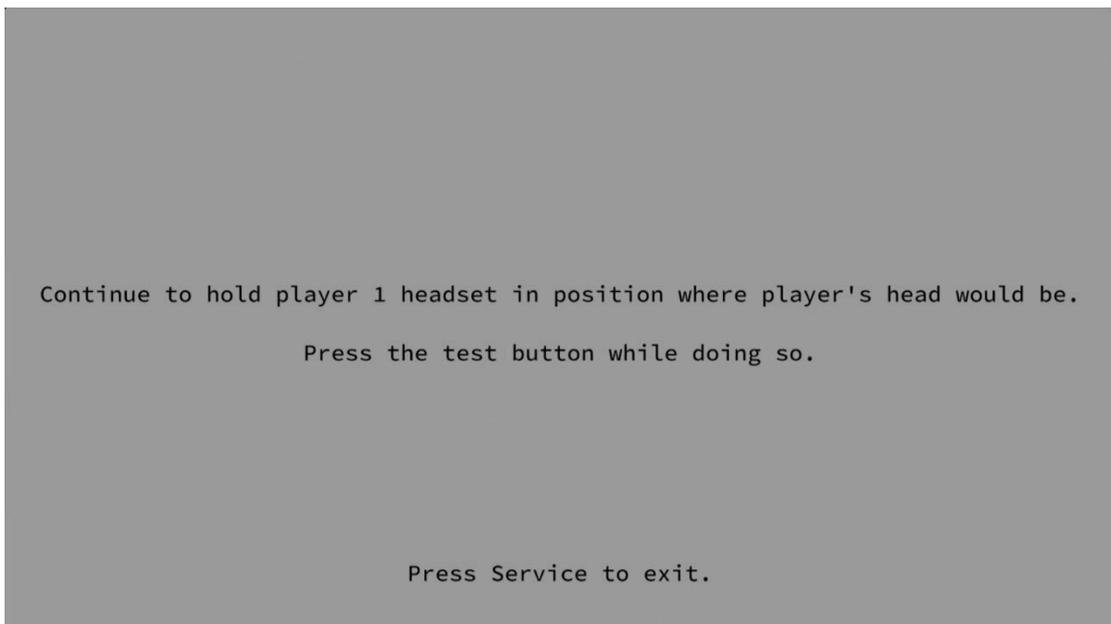


image b

6. Then wait 20 seconds for the calibration process to initialize, during that time please make sure player 1 headset is held in player 1 head position and the headset cameras are not blocked. (see below)

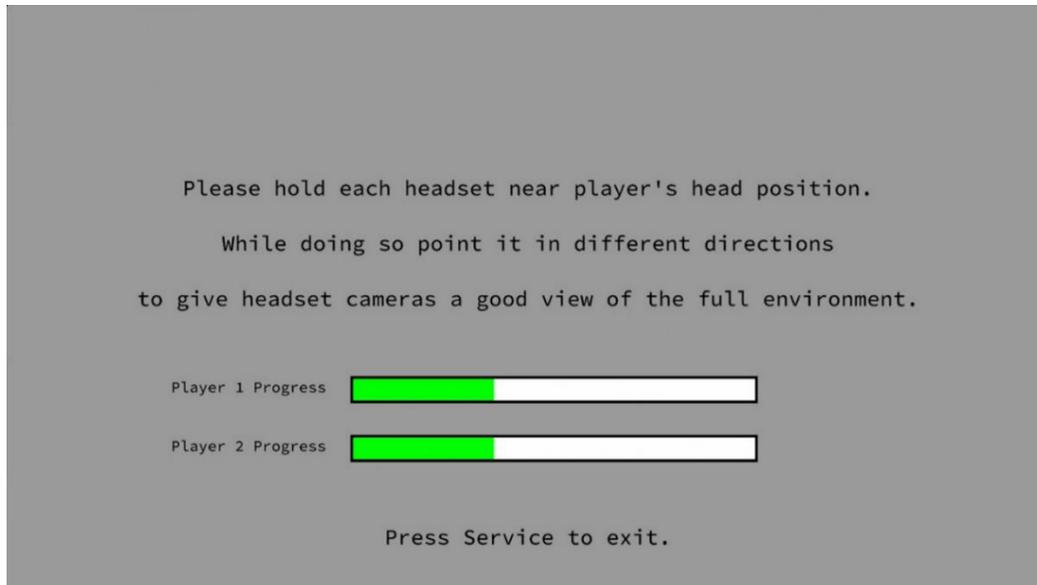


7. The wizard will then instruct you to keep the headset in Player 1 head position while pressing the Test key again. (see below)



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- After pressing Test again, the wizard will instruct you to perform the same steps however this time with the player 2 headset. Hold the player 2 headset in player head position and press test, wait 20 seconds and press test again. Perform steps 5-7 with Player 2 headset.
- Move the headsets around, to fill the bars (as seen on screen, see below). During this time, the headset calibration process captures and maps the environment using the headset cameras. The more the surrounded environment is recorded by the headset the more consistent the calibration will be. The bars fill up based on both time elapsed since calibration started and the size of the calibration file which grows depending on how much of the environment was captured. (see below)

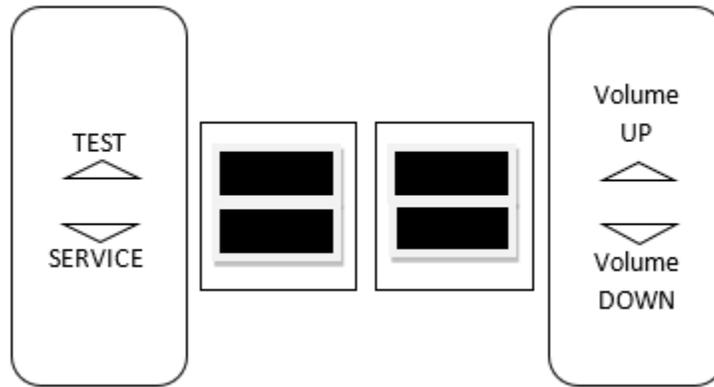


- Once the bars are filled, sit in the players position, and test the calibration. The headset should display a jeep and the position of the cameras for both player 1 and player 2 will show the driver side. When done, press service to exit the wizard. (see below)



Diagnostics and Adjustments

The Service Button Panel has four buttons, three of which can navigate the menu system.



Navigating the Test Menu	
Button	Action
TEST (Not in Test Menu)	Enters Test Menu
TEST (In Test Menu)	Selects Highlighted Option
SERVICE (On Main Menu)	Exits Test Menu
SERVICE (Not on Main Menu)	Cancel Selection
VOLUME UP	Move Up
VOLUME DOWN	Move Down
Start Buttons	Selects Highlighted Option

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

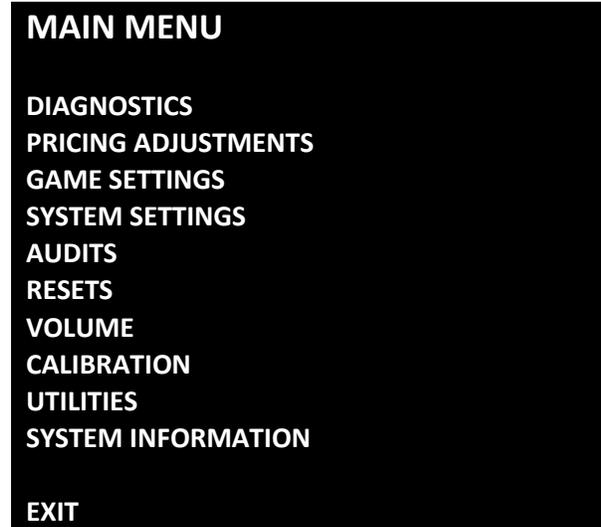
Basic Functional Test on Initial Power Up

1. Enter the Input Test and verify all switch inputs are working.
2. Enter the Video Test and verify the monitors are working properly.
3. Enter the Audio Test and verify the audio works and is not distorted.
4. Enter the Cabinet Light Test and verify that all the lights are working properly.
5. Enter the Meter Test and verify the coin meter is working properly.
6. Enter the Motion Test and verify the motion platform is working properly.
 - a. Enter the Motion Stress Test to perform a stress test of the motion platform.
7. Enter the Blower Test and verify that both air blowers are working properly.
8. Enter the Leap Motion Test and verify that the Leap Motion sensors on the headsets are working properly.
9. Enter the Watchdog Test and verify the game reboots.
10. Upon a successful reboot, you are ready to adjust pricing, volume, and other functions.

Test Menu

Main Menu

Choose from all available operator settings and menus here. You can use the test menu bracket and volume buttons to navigate.



Diagnostics

Verify or diagnose the operations of all game functions.

DIAGNOSTICS

INPUT TEST

HEADSET STATUS

LEAP MOTION TEST

VIDEO TEST

AUDIO TEST

NETWORK TEST

CABINET LIGHTS TEST

BLOWER TEST

CABINET MOTION TEST

DRAIN VALVE TEST

METER TEST

WATCHDOG TEST

EXIT

- **Input Test:** Test input hardware such as switches.
- **Headset Status:**
- **Leap Motion Test:** Test the functionality of the Leap Motion controllers (mounted on headsets).
- **Video Test:** Checks color pattern of monitors.
- **Audio Test:** Test audio using 100Hz and 1000Hz.
- **Network Test:** Test the connectivity between linked games.
- **Cabinet Lights Test:** Tests all LED cabinet lighting together and individually.
- **Blower Test:** Test the functionality of the two air blowers.
- **Cabinet Motion Test:** Test the functionality of the motion platform.
- **Drain Valve Test:** Test the drain valve.
- **Meter Test:** Test the functionality of the mechanical coin meter inside the cabinet.
- **Watchdog Test:** Test the functionality of the Watchdog (if successful the cabinet will power off and reboot).

Pricing and Payout Adjustments (Cash)

Set pricing and payout adjustments for game operation.

PRICING AND PAYOUT ADJUSTMENTS

(CASH)

FREE PLAY

CURRENCY INPUT

CURRENCY TYPE

COIN VALUE

COINS TO PLAY

MAX CREDITS

NUMBER OF CASH BOXES

EXIT

- **Free Play**: Turn free play mode on or off.
- **Currency Input**: Change the currency input.
- **Currency Type**: Change the currency type.
- **Coin Value**: Change the money value of the coin.
- **Coins to Play**: Adjust the amount of coins to start a game.
- **Max Credits**: Adjust the maximum number of credits.
- **Number of Cash Boxes**: Whether players share a cash box, or each have their own.

Pricing and Payout Adjustments (Tokens)

Set pricing and payout adjustments for game operation.

PRICING AND PAYOUT ADJUSTMENTS

(TOKENS)

FREE PLAY

CURRENCY INPUT

CURRENCY TYPE

TOKEN VALUE

TOKENS TO PLAY

MAX CREDITS

NUMBER OF CASH BOXES

EXIT

- **Free Play**: Turn free play mode on or off.
- **Currency Input**: Change the currency input.
- **Currency Type**: Change the currency type.
- **Token Value**: Change the money value of the token.
- **Tokens to Play**: Adjust the number of tokens to start a game.
- **Max Credits**: Adjust the maximum number of credits.
- **Number of Cash Boxes**: Whether players share a cash box, or each have their own.

Pricing and Payout Adjustments (Swipes)

Set pricing and payout adjustments for game operation.

PRICING AND PAYOUT ADJUSTMENTS

(SWIPES)

FREE PLAY

CURRENCY INPUT

CURRENCY TYPE

SWIPE VALUE

NUMBER OF CARD READERS

MAX CREDITS

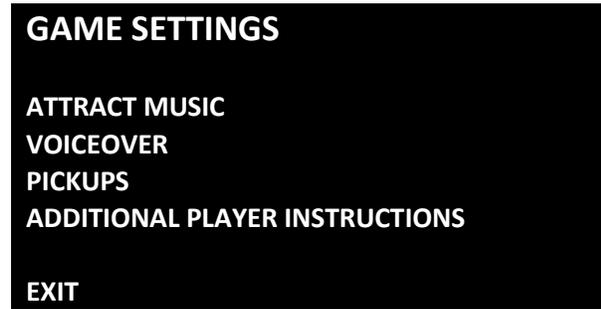
NUMBER OF CASH BOXES

EXIT

- **Free Play**: Turn free play mode on or off.
- **Currency Input**: Change the currency input.
- **Currency Type**: Change the currency type.
- **Swipe Value**: Money value of the swipe.
- **Number of Card Readers**: Whether players share a cashbox, or each have their own. (DBV input is disabled when set to 2.)
- **Max Credits**: Adjust the maximum number of credits.
- **Number of Cash Boxes**: Whether players share a cash box, or each have their own.

Game Settings

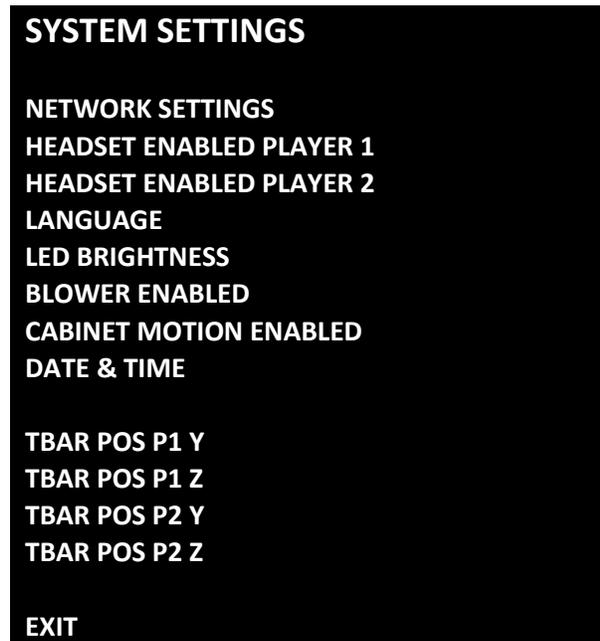
Adjust game settings for operation.



- **Attract Music**: How often should music play in attract mode.
- **Voiceover**: Enable/disable voiceovers during a race and in the menus.
- **Pickups**: Enable/disable pickups.
- **Additional Player Instructions**: Show extra instructions to the players at the start of each game.

System Settings

Adjust system settings for operation.



- **Show Compressor Warnings:** Toggle whether compressor related errors will be displayed on monitors.
- **Cabinet LED Brightness:** Adjust the brightness of the cabinet lighting.
- **Tradeshow Mode:** Turn this mode on when operating on a trade show, sales, or demo floor. The game runs on free play in this mode.
- **Date & Time:** Set date & time.
- **Language:** Set game language (default: English).

Audits

View machine statistics such as games played, money earned, etc.



- **System Audits**: Tracks system information including boots, resets, game times, and more.
- **Coin Audits**: Tracks income related information.
- **Game Audits**: Tracks the gameplay habits of your customers.

*****Changes to pricing adjustments will reset any existing audits back to zero*****

Resets

Reset various machine settings and audits.



- **Reset Credits**: Reset credits to zero (0).
- **Reset Pricing Adjustments**: Resets pricing to default settings.
- **Reset Game Adjustments**: Resets game adjustments to default settings.
- **Reset Game Audits**: Clears the game audits log file.
- **Reset System Audits**: Clears the system audits log file.
- **Reset Coin Audits**: Clears the coin audits log file.
- **Reset All Audits**: Clears all audits log files.
- **Factory Restore**: Resets system to original factory settings and defaults.

*****HEADSET CALIBRATION AND PRICING ADJUSTMENTS MUST BE PERFORMED AGAIN IF THE GAME HAS BEEN RESTORED TO FACTORY SETTINGS*****

Volume

Adjust all volume settings.

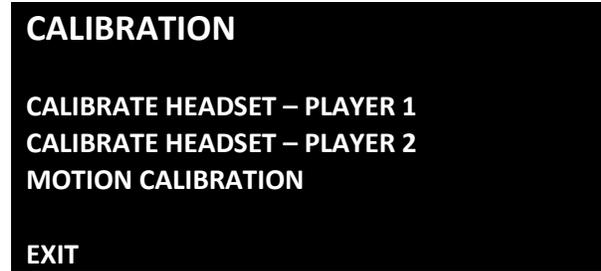


- **Game Volume**: Adjusts the volume level during gameplay.
- **Attract Volume**: Adjusts the volume level during the attract mode sequences.
- **Credit Volume**: Adjusts the volume level of the credit chime only (independent setting of game and attract volume).

Calibration

Calibrate the VR headsets and cabinet motion.

*****MACHINE IS NOT OPERATIONAL WITHOUT FIRST CALIBRATING THE HARDWARE*****

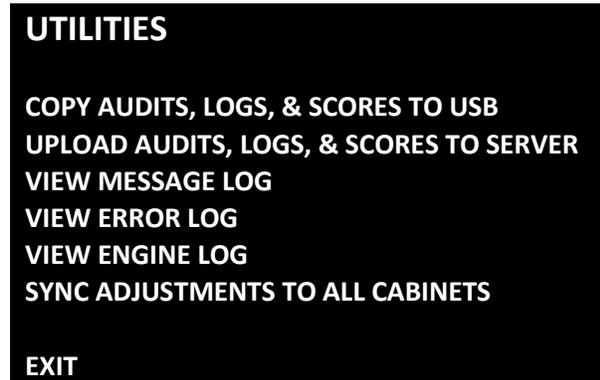


- **Calibrate Headset – Player 1**: Calibrate tracking of the Player 1 headset.¹
- **Calibrate Headset – Player 2**: Calibrate tracking of the Player 2 headset.¹
- **Motion Calibration**: Calibrate cabinet motion.

¹ See Headset Calibration Guide, pgs. 17-21

Utilities

Miscellaneous operator tools.



- **Copy Audits, Logs, & Scores to USB:** Copy all audits and diagnostics to USB drive.
- **Upload Audits, Logs, & Scores to Server:**
- **View Message Log:** Allows you to view the game log without having to save them to a USB.
- **View Error Log:** Allows you to view the error log without having to save them to a USB.
- **View Engine Log:** Allows you to view the Unity log without having to save them to a USB.
- **Sync Adjustments to All Cabinets:** Sync all adjustments to linked games.

System Information

View hardware and software information

- Serial Number
- Software Rev
- Build Date
- RIO2 A Serial Number
- RIO2 A Firmware Version
- RIO2 A Primary MCU Version
- RIO2 B Serial Number
- RIO2 B Firmware Version
- RIO2 B Primary MCU Version
- P1 Dongle Version
- P2 Dongle Version
- Cabinet Type
- Game Template

There are no special menu options for this test menu entry.

Choosing the Right Pricing Adjustments for Your Location

Card Swipe Locations

- Make Sure Your Game is Set to **Swipes Mode**:
 1. Hold the Test Button for 2 seconds to enter the Test Menu.
 2. Select “Pricing Adjustments” from the menu.
 3. Select “Currency Input” from the menu.
 4. Select “Card Swipes” from the menu.
 5. Exit out of “Currency Input” menu.
 6. While back in “Pricing Adjustments” menu, set “Swipe Value” to the currency equivalent of your swipe, or the coin audits bookkeeping will be incorrect. **THIS SETTING IS EXTREMELY IMPORTANT!** (Example: If the card swipe is worth \$1.50 in your card system, set the swipe value to \$1.50 as well).

Coin Locations

- Make Sure Your **Pricing & Coin Value** are Correct:
 1. Hold the Test Button for 2 seconds to enter the Test Menu.
 2. Select “Pricing Adjustments” from the menu.
 3. Select “Currency Input” from the menu.
 4. Select “Cash” or “Tokens” from the menu.
 5. Exit out of “Currency Input” menu.
 6. While back in “Pricing Adjustments” menu
 - a. Select “Coins to Play” and set the desired amount of coins per game of *T-Rex Safari™*.
 - b. After setting the coins per play, set “Coin Value” to the currency equivalent of your coin, or the coin audits bookkeeping will be incorrect. **THIS SETTING IS EXTREMELY IMPORTANT!** (Example: If your coin is worth \$0.25, set “Coin Value” to \$0.25 as well).

PC Hardware

Your *T-Rex Safari™* game uses two **HP Z2G5TWR Desktop PC computers**. One is the Player 1 PC and the other is the Player 2 PC.



(above: HP Z2G5TWR Desktop PC)

NOTICE

WARNING: DO NOT ENTER THE BIOS SETTINGS MENU! Modifying the BIOS settings will cause your game to stop functioning. In order to boot, new security features verify the BIOS settings against factory settings, including timestamp.

PC Hard Drive Recovery

Symptoms requiring a PC hard drive recovery include:

- File test reports bad or missing files.
- Game fails to finish loading during setup.
- After resetting the AC power, an error is reported.
- Erratic Game or Attract Mode behavior.

The only way to repair corrupt files is to reinstall the software as described below:

Computer

The computer contains sensitive components. Do not handle roughly. Contact 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.

Steps to Re-Install the software (the game ships with (2) USB drives, either drive can be used in the steps below):

(NO DVD Restoration. USB Thumb Drive is used on the *HP Z1G5TWR*)

1. With game and PC's on, verify that both RIO2 boards has power. If not, see Troubleshooting.
2. Open the lower back door of the cabinet.
3. Insert the recovery USB thumb drive (included in your game) into an open USB port on the "Player 1 PC".
4. Plug in a USB keyboard to "Player 1 PC".
5. Turn cabinet power switch to OFF. Wait 30 seconds.
6. Turn cabinet power switch to ON, and **HOLD F9** on the keyboard until the Boot Menu screen appears.
7. Use the Up and Down arrow keys to highlight "Legacy – JetFlash Mass Storage Device" and press enter.
8. Follow on screen instructions to begin recovery.
9. If recovery does not begin, check to ensure USB Drive is inserted correctly and is not damaged.
10. Initial software loading may take several minutes. Check progress periodically.
Do not interrupt power or reset the game during recovery.
11. When software has been loaded, a message indicates that restore is complete. When instructed to remove USB Drive, wait 15 seconds to remove the drive from the PC.
12. Turn cabinet power switch off.
13. Repeat steps 3-12 for the "Player 2 PC".
14. Turn the cabinet on again.
15. Your game will now be restored.

Troubleshooting

Warning: Review the Safety section before making any adjustments to the game.

Problem	Possible Cause	Solution
Game will not power up.	Game not plugged in.	Plug game into AC outlet.
	Game not turned on.	Turn on main power switch.
	Game fuse is blown.	Check and replace fuse. See Specification section for fuse values.
	No power to receptacle.	Test AC outlet and plug game into powered outlet.
	PC BIOS set incorrectly.	Contact your distributor.
	Flash Drive Installer is left connected to PC.	Disconnect Flash Drive Installer and power cycle the game.
Buttons do not work.	Faulty micro switch.	Replace the micro switch on the button and re-test. Verify that the wires are connected to the correct spades on the micro switch.
	Faulty wiring.	Disconnect the cabinet from AC power. Verify that all wires are firmly connected to each button and the PCB. Verify that no wires are frayed or improperly shorting to ground. Verify that wires are connected to the correct spades on the micro switches.
	Faulty PCB.	Ensure all connections to PCB are secure. Replace PCB if faulty.
Neither buttons nor audio work.	PCB connected to faulty USB port (boot message may indicate not detected)	To test a USB port, turn off the game, disconnect the device from the port, and then connect the game dongle to the port. Reboot the game. A No Dongle message indicates the port is bad. If the game starts, the port is working. After the test, reconnect all devices to the correct USB ports and reboot.

Problem	Possible Cause	Solution
No sound or bad sound.	Bad connection.	Check connection to speakers.
	Volume set too low.	Use VOL UP button on Test panel to raise volume
	Faulty wiring.	Verify all wires are firmly connected to the speakers and the audio PCB. Verify that audio PCB is connected to the computer via USB cable.
	Blown speakers.	Remove the grill and inspect each speaker for visible damage. Run the Sound Test from System Tests in the Operator Menu to verify each speaker is working.
	Reversed wires.	A weak or low muffled sound is a sign of reversed speaker wires. Check for reversed wires on each speaker.
Constant low audio hum.	Faulty power supply.	Check external DC supply and the PC supply.
	Open ground.	Check all ground wires in cabinet. Ensure AC wall outlet is properly grounded.
RIO2 A or B disconnected	USB cable disconnected.	Check USB connection from PC to RIO2 board.
	No power to RIO2 board.	Check for proper voltage (+5V, +12V) at RIO2 P1 connector.
Game is not running on both PC's.	Not connected to other PC.	Make sure both PC's are on and are connected to headsets and displays. Make sure the game runs on both displays.
	Ethernet cable is not connected.	Connect the ethernet cable between the two computers.
No motion during gameplay.	Compressor height sensors are not calibrated.	Calibrate the motion platform height sensors (see Calibration in the Test Menu section).

Problem	Possible Cause	Solution
Message on screen: Headset USB connection not detected.	Loose or disconnected USB cable.	Disconnect and reconnect the USB cable from the headset to the PC (must be plugged into a USB 3.0 port), then reboot the cabinet.
Message on screen: Headset Display Port not detected. Reconnect headset via Display Port.	Loose or disconnected display port cable.	Disconnect and reconnect the display port cable from the headset to the PC, then reboot the cabinet.
Message on screen: Game dongle not found. Please RECONNECT the game dongle.	Dongle missing or disconnected.	Find the dongle cable and reseal in USB port.
	Faulty USB port.	Insert dongle cable in different USB port.
Message on screen: Insufficient RAM, 16GB required.	Loose or disconnected RAM stick.	Contact your distributor for service.
	Faulty RAM stick.	Contact your distributor for service.
Message on screen: GFX card missing. Please RECONNECT the GFX card.	Loose or disconnected graphics card.	Contact your distributor for service.
	Faulty graphics card.	Contact your distributor for service.
Game does not load.	PC hard drive failure.	Recover hard drive. See Flash Installer Document or contact your distributor for the latest software revision.
PC Drive test reports "bad" or "missing" files.		
Game fails to finish loading.		
After resetting, game still reports an error.		
Erratic game mode or attract mode.		
WARNING! Data files Corrupted. (Game Operation May Become Unstable.)		
Game Resets	Bad file.	Run Flash Installer.

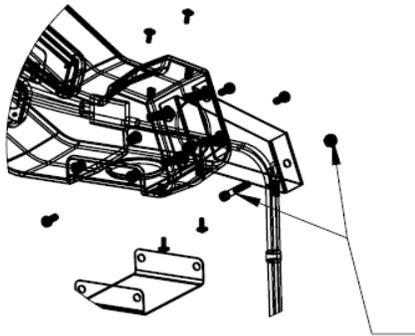
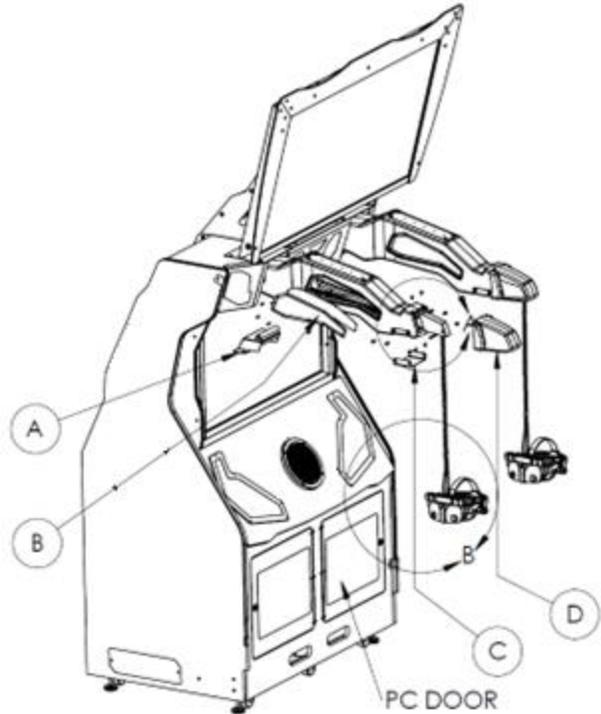
Problem	Possible Cause	Solution
No Video	PC not turned on.	Turn PC power switch on. Ensure IEC cable tightly plugged in. Trace cable back to source to ensure continuity.
	Video cable not secure.	Check and secure DVI or HDMI connector to Monitor. Check and secure DVI or HDMI connector to PC.
	Cabinet was powered on too quickly after a manual shutdown/power loss	Shut off cabinet via both switches at rear of cabinet. Leave off for 30 seconds, then power back on.
Coin meter does not click during test.	No pulse to meter.	Check wiring from meter to PCB board.
	Faulty meter.	Replace coin meter.
	Blown fuse(s) on PCB	Replace 12vdc 5A fuse(s) on PCB.
Exits Test Mode every 3 seconds.	Test button stuck in ON position.	Slide or toggle button off after Test Menu appears
Improper number of credits given when bills are inserted.	Incorrect setting in Pricing Adjustments.	Adjust pricing settings.
	Faulty wiring.	Disconnect cabinet from AC power. Verify wires are firmly connected to bill validator and ground wires are properly connected. Verify no wires are frayed or shorting to ground.
Compressor does not turn on/low humming noise coming from the compressor	Compressor power cut off while it was running.	Shut off cabinet via both switches at rear of cabinet. Leave off for 3 minutes, then power back on.

Problem	Possible Cause	Solution
<p>Leap Motion does not recognize fingers properly.</p>	<p>Camera captures interferences from external sources.</p>	<p>Leap is sensitive to infrared light, including sunlight, please make sure the game is not positioned in the way of direct or reflected sunlight, and any other infrared light source.</p>
	<p>Smudge on the Leap screen is blocking the view of the Leap cameras.</p>	<p>Use an alcohol-based wipe to clean the Leap front camera glass.</p>
	<p>Loose connection.</p>	<p>Reseat connection at headset and PC. If the problem persists, contact your distributor to order a replacement. Once the replacement has been received, please see Headset Replacement Guide on pg. 45.</p>
<p>There is no positional (X,Y,Z) tracking of head movements.</p>	<p>Headset needs to be calibrated.</p>	<p>Please see Headset Calibration Guide, pgs. 17-21</p>
<p>The view within the headset is disoriented.</p>		
<p>Headset does not power on/one or both viewports display a black screen.</p>	<p>Loose connection.</p>	<p>Reseat connection at headset and PC. If the problem persists, contact your distributor to order a replacement. Once the replacement has been received, please see Headset Replacement Guide on pg. 45.</p>

Headset Replacement Guide

This procedure can be completed with one person.

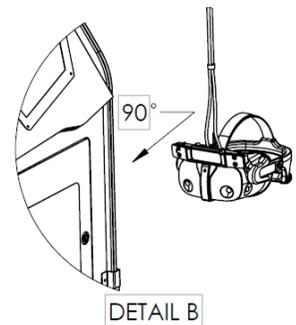
1. Shut off power and unplug the main cabinet AC power cords.
2. Remove upper and lower rear doors. Open front PC door to access the test menu switches and front of PC.
3. Locate headset cables on the PC for existing headset to be replaced, (please take note of the port locations for each cable) and unplug all 3 headset cables and the power connection which is inline on the main headset cable.
4. Remove parts labeled A, B, C, and D for accessing the inside of the headset arm. (Removing "C" is optional).



DETAIL A

5. Remove the tether cable screw and bolt (detail "A") to release the headset from the arm assembly. The tether cable acts as the strain relief for the headset.

6. Gently begin to pull the headset and cable bundle from the arm. It will be necessary to help feed the bundle through the rear access openings and out through the arm cavity. Do not attempt to pull the entire bundle from the arm opening.
7. Before installing replacement headset, it is recommended to use a twist tie to temporarily join the three cables together at the leading ends to simplify threading the bundle back through the headset arm, through the cabinet and back down to the PC area.
8. After successfully routing the headset bundle through the arm and cabinet, replace the tether screw (step 5) through the bracket and loop of the tether cable and be sure that the headset hangs at 90° (either direction), in front of the seat, as shown in detail "B". This can be achieved by rotating the loop until it hangs in the desired orientation. This prevents the headset from making contact with an empty seat during a one player cycle, thus preventing premature failure.
9. Reverse steps 4-1 and power up game. Navigate to the calibration menu and perform the setup to initialize the new headset (see pgs. 17-21).



DETAIL B

Technical Support

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

Betson's Raw Thrills Technical Support Hotline

Phone: 1-800-753-2513

FAX: 1-201-438-5019

Email: rtsupport@betson.com



All Raw Thrills assembly and service videos:

rawthrills.com/assembly-and-service-videos/