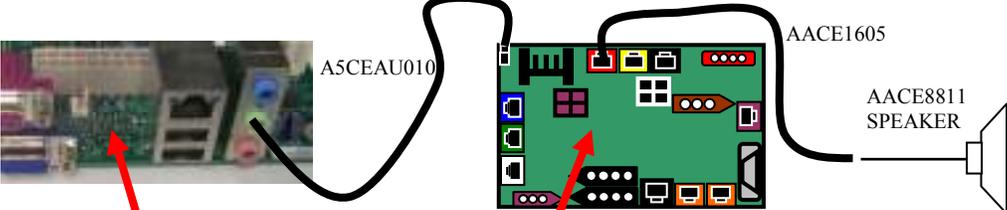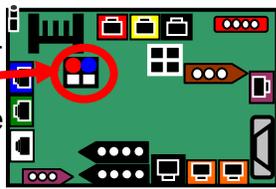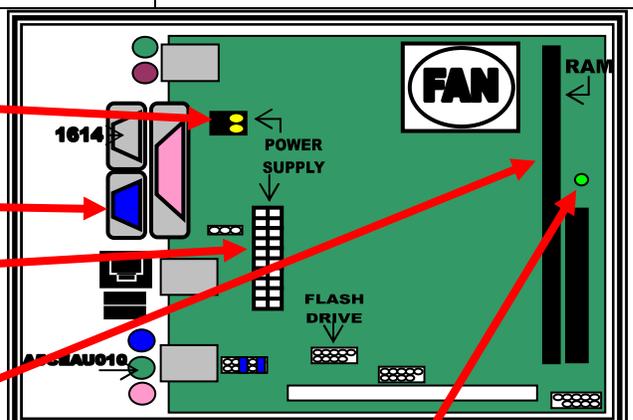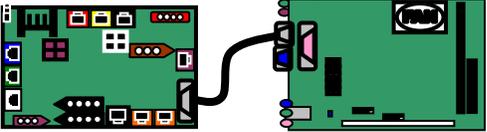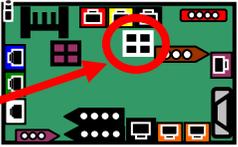# Troubleshooting Guide

Troubleshooting Strategy

Use common sense and a systematic method of troubleshooting to determine the exact problem, probable cause and remedy. Use the process of elimination to find the faulty component. Always check for the simple and obvious causes first such as unplugged, loose or broken wires and bad sensors, bent, pinched, stuck or jammed components.

<table>
<tr><th colspan="2">Troubleshooting Chart</th><th></th></tr>
<tr><th colspan="2">Problem</th><th>Probable Cause</th><th>Remedy</th></tr>
<tr>
<td colspan="2">No power to the game.
No lights on at all.</td>
<td>a. Unplugged.

b. Circuit breaker tripped.

c. Power strip faulty.

d. Faulty cable/power supply.</td>
<td>a. Check wall outlet.

b. Reset power strip breaker switch or building circuit breaker.
c. Change plug position, replace if needed.
d. See Power Supply diagnostic below.</td>
</tr>
<tr>
<td rowspan="2">No Audio</td>
<td>a. Volume too low.

b. Loose wire.

c. Faulty I/O Board

d. Faulty motherboard</td>
<td colspan="2">a. Increase the volume by pressing Menu button, scroll to volume slider bar and adjust.

b. Check audio cable connections from main board to I/O board to speakers.

A5CEAU010   AACE1605

AACE8811 SPEAKER

c. Replace I/O Board. (AACB1900)

d. Replace Motherboard. (AAMB6)</td>
</tr>
<tr><td colspan="2"></td></tr>
<tr>
<td rowspan="3">Wheel Lighting not functioning.</td>
<td>Both side lights do not work.</td>
<td>a. Cable problem.

b. Check large power in cable on motherboard.
c. Power Supply faulty.</td>
<td>a. Check connections from Jumper cable (AACE1620) to power supply (AACE1621)
b. Re-seat connector.

c. See Power Supply diagnostic below.</td>
</tr>
<tr>
<td>One side light does not work.</td>
<td>a. Cable problem.

b. Faulty light strip.</td>
<td>a. Check cables from Light Strip (AACE1622), and jumper cable (AACE1620) to power supply.
b. Replace light strip. (AACE1622)</td>
</tr>
<tr>
<td>Some lights on strip do not work.</td>
<td>a. Faulty light strip.</td>
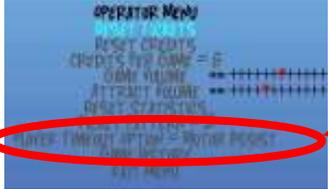<td>a. Replace light strip. (AACE1622)</td>
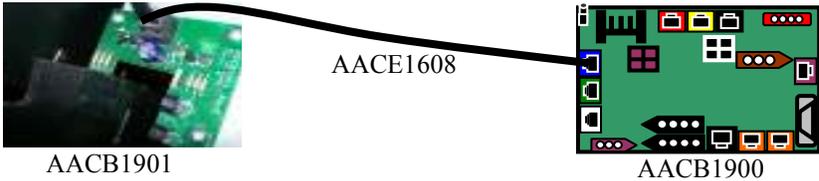</tr>
</table>

Troubleshooting Chart
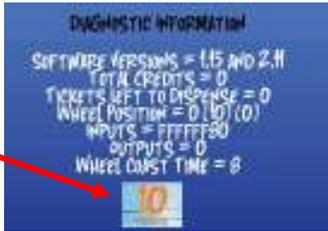
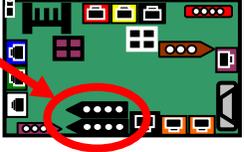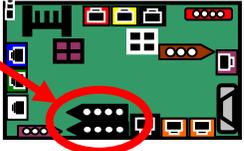| Problem		Probable Cause	Remedy
Dollar Bill Acceptor not functioning.		a. Ensure bill acceptor has 110 Volts AC.	a. Acceptor should cycle stacker at game power up. If not, check cable connections to power strip. **Caution – 110 Volts AC**
		b. Dirt or debris in acceptor slot.	b. Clean with bill reader cleaning card. (A5CC9000)
		c. Ensure acceptor dipswitch is set to "always enable"	c. There are dips on side of acceptor. Set to "always enable" (not harness enable)
		d. Pinched, broken, or disconnected wiring.	d. Check wiring from bill acceptor to I/O board. Repair or replace wiring harness. (AACE1611)
		e. Bill acceptor problem.	e. Refer to troubleshooting section of dollar bill acceptor manual included with this game or the diagnostics label of the back of the unit.
Monitor not working. Power down, wait 10 seconds and power up again.	Monitor says "NO SIGNAL" for 5 seconds after power-up. Then dark.	a. Small 12 Volt power connector unplugged on motherboard. b. Monitor VGA cable unplugged. c. Large power connector unplugged on motherboard d. Faulty or loose RAM e. Faulty power supply - Check for 12 Volts and green LED on motherboard. Check for fan spinning on power supply. f. Faulty motherboard - Replace faulty board. (AAMB6)	
	Monitor has nothing at all on power up.	a. Power cable unplugged from monitor. b. Faulty monitor.	a. Ensure power is plugged into back of monitor, down to power strip. b. Replace monitor. (A5CBDI030)
	Error on screen at power up. Re-Boot game to see if problem still exists.	a. Display stops at "No bootable device -- insert boot disk and press any key" b. Display shows "Puppy Video Wizard" or "Xorg" c. Display shows "Kernel panic – unable to mount root"	a. Flashdrive unplugged from board or faulty. Re-seat and Try power on to game again. b. Game is not recognizing monitor. Ensure VGA cable is secure to I/O board. Replace monitor. (A5CBDI030) c. Faulty or loose RAM

Troubleshooting Chart

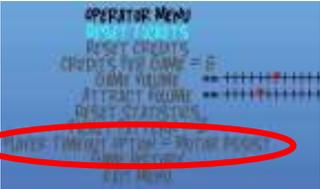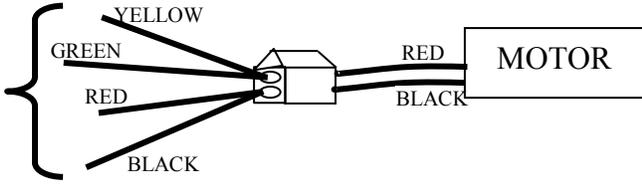| Problem	Probable Cause	Remedy

Monitor problems.
 	
  Blurry Monitor
  Too bright, or dim.
	Monitor will have to be removed from game, and adjusted from front of screen.
	a. Remove fish head.
	b. Remove 2 wood braces holding monitor.
	c. Peel monitor back away from sticky tape.
	d. Use menu buttons to access monitor adjustments.	

Game plays but some of the functions do not work.	a. None of inputs work. No coin up, no test buttons, display may say door open. b. Display is OK, but does not show some screens. No volume c. Game freezes, locks up.	a. I/O Serial cable unplugged from I/O board to motherboard b. Flashdrive loose, or faulty. c. Faulty RAM, or motherboard.
Game does not coin up.	a. One of coin switches jammed, or held down. b. Short in coin door harness. c. I/O Serial cable unplugged from I/O board to motherboard. d. I/O board faulty.	a. If one coin switch is "closed" the other one will not work either. b. Unplug white molex from door, and jump between white and black wires to simulate coin-up. c. Ensure serial cable is tight and connected. Replace AACE1614 cable if needed. d. Replace I/O board. (AACB1900)
Low tickets displays on monitor.	a. Stack of tickets not resting properly on either of the low ticket switches b. Faulty switch. c. Faulty wire or connection. d. Faulty I/O board.	a. Adjust stack of tickets so they hold both the switch actuators down. b. Replace low ticket switch. (AASW200) c. Check for proper connection from switch to I/O board. Check continuity. d. Replace I/O board. (AACB1900)

Troubleshooting Chart

Problem	Probable Cause	Remedy
Scoring Issues	a. Game says you won tickets even though wheel is still spinning. b. Game gives tickets as soon as money is inserted during attract mode. c. Game ends after slow spin, and gives no tickets.	a. Weak encoder sensor. Replace sensor. (AACB1901) b. Attract mode spinning wheel should slow down enough so it will not trigger win. Tighten brake assy. (see Brake Adjustment) c. Motor assist should spin wheel for slow spins. Check menu screen – ensure it is not set to "Abandon Game". (see Motor Assist)

Open left front door and push menu button to enter menu Check if value on monitor matches wheel position.

If it does match:
1.) Look for "motor watchdog error" on screen. Refer to Motor Watchdog Error section

2.) Encoder sensor not reading properly.
Go to Wheel Encoder Sensor section below to adjust sensor. Replace encoder sensor if needed. (AACB1901)

If does not match:
Manually spin wheel 1 complete revolution to ensure home sensor is being read. **Important: Always spin downward**

Encoder sensor signal not reaching I/O board.
1.) Check cable AACE1616 from encoder sensor to I/O board.

AACE1608
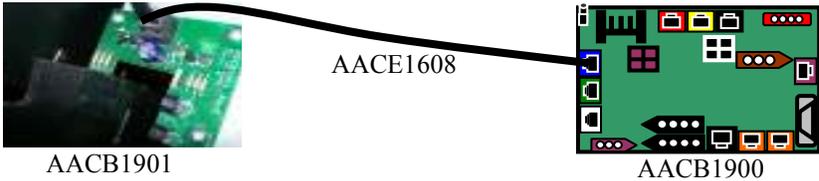
AACB1901   AACB1900

2.) Go to Wheel Encoder Sensor section below to adjust sensor. Replace encoder sensor. (AACB1901)

3.) Replace I/O board. (AACB1900)

Game pays 10 or 75 tickets every game.	Encoder sensor always "sees" home position.	If either green LED on board is always ON as you spin wheel - Replace encoder sensor. (AACB1901)

Encoder sensor signal not reaching I/O board.
1.) Check cable AACE1616 from encoder sensor to I/O board.

AACE1608

AACB1901   AACB1900

2.) Replace encoder sensor. (AACB1901)
3.) Replace I/O board. (AACB1900)

Troubleshooting Chart

Problem		Probable Cause	Remedy
Tickets not dispensing from either ticket dispenser.		a. Verify game is registering a win.	a. Display monitor will show ticket value won. If not – see "wheel sensor troubleshooting."
		b. Ensure "Door Open" is not showing on monitor.	b. Game will not dispense with any door open. See "Door Open Error"
		c. Faulty wires from dispensers to I/O board.	c. Inspect wires as they plug into I/O board.
		d. Faulty I/O board.	d. Replace I/O board. (AACB1900)
One ticket dispenser working, but One ticket dispenser is not working.		a. More than 5 tickets to dispense?	a. If game has less than 5 tickets to dispense, only one side will pay out.
		b. Faulty cable from Ticket Dispenser to I/O board.	b. Inspect wires as they plug into I/O board.
		c. Faulty I/O board. (AACB1900)	c. Swap ticket dispenser cables on I/O board to determined that one socket is faulty.
Wrong ticket amount dispensed. **Check for the correct amount of tickets showing on monitor.**	Monitor showing correct ticket payout.	a. Disconnected, loose or broken wires. b. Opto Sensor on ticket dispenser dirty. c. Faulty ticket dispenser. d. Notch on tickets cut too shallow.	a. Check connectors. Check for continuity. b. Blow dust from sensor and clean with isopropyl alcohol. c. Replace with working dispenser to isolate the problem. d. Flip tickets and load upside-down to have large cut notch toward opto sensor.
	Monitor showing different ticket payout.	a. Incorrect ticket pattern selected.	a. Enter menu, and ensure correct ticket pattern selected
		b. Wheel position not being read correctly.	b. Refer to "Encoder Sensor Diagnostics" below.

Troubleshooting Chart

Problem	Probable Cause	Remedy
Motor will not assist the slow spin. Game should always try to assist a slow spin. It helps the smaller child play the game. Attract Mode – The big spinning wheel attracts players to game. If not, the reason can be any one of these problems making game go to "Abandon Game"	a. Enter menu, ensure this is not set to "Abandon Game". b. Enter menu, check diagnostic information for "motor watchdog error" c. Door open d. Faulty encoder sensor. e. Auto-spin catch broken. f. Drive chain broken. g. Cable problem. h. I/O board faulty. i. Game is set to "New Jersey" mode.	a. Change to "Motor Assist" b. Change "abandon game" to "Motor Assist". Turn game off, and then back on to clear error. Enter menu to verify change. c. Motor assist will not engage if game thinks door is open. Close all doors. d. Assist motor will try for 2 seconds, not "see" the wheel turning, and then deactivate. Replace encoder sensor. (AACB1901) e. Inspect mechanism on left side door. Replace spring if needed.(A5SREX040) f. Inspect drive chain that powers wheel. Replace if needed. (A5CH1003) g. Inspect cable from Assist Motor to I/O board. AACE1616 h. Replace I/O board. (AACB1900) i. New Jersey law does not allow wheel to auto-spin.

Motor Problem

As motor starts, 5 Volts DC is present at connector. (It builds to 12 Volts as wheel gains speed)

TO I/O BOARD:
Phone cables are doubled up for redundancy – Motor will still work with 1 wire off

YELLOW
GREEN
RED
BLACK

RED
BLACK

MOTOR

Troubleshooting Chart

Problem	Probable Cause	Remedy
Wheel always spinning.	a. Brake assembly very loose or broken. b. Solenoid Assy. on right side of wheel is broken or faulty so player can spin wheel anytime. c. Spin motor receiving 12 Volts DC all the time. Spin meter screen stays on. d. Spin Meter does not increase. Stays on autospin.	a. See "Brake Adjustment" section. b. Solenoid should only engage when game is coined up. Refer to "Wheel Engaging Solenoid" c. Faulty I/O Board. Replace AACB1900. d. Faulty encoder sensor. It does not see wheel spinning. Refer to Encoder Sensor section.
Spin meter never increases. Encoder sensor not seeing wheel spin.	a. Encoder sensor dirty or faulty. b. Pinched, broken, or disconnected wiring. c. I/O board faulty.	a. Clean sensor and replace if needed. (AACB1901) b. Inspect wiring and replace cable if needed. (AACE1608) c. Replace I/O board. (AACB1900)
Wheel not spinning when player moves handle. 	a. Door open b. Solenoid Assy Faulty. c. Cable problem. AACE1606 d. I/O board faulty.	a. Wheel will not engage if game thinks door is open. b. Inspect mechanism in right side door. Inspect springs and engaging action. Replace if needed.(AASO4150) c. Inspect cable from Solenoid to I/O board. d. Replace I/O board. (AACB1900)
	Solenoid Problem As game starts 12 Volts DC is present at solenoid. TO I/O BOARD: Phone cables are doubled up for redundancy – Solenoid will still work with 1 wire off YELLOW GREEN RED BLACK RED BLACK SOLENOID	
Solenoid always stays on. Players can spin wheel without inserting money. During attract mode- game will make loud clicking sound.	a. Jammed Solenoid. b. Missing/Broken Springs. c. Pinched Cable. d. I/O board faulty.	a. Inspect solenoid. Ensure it operates smoothly. b. Look for missing springs. Replace Assy if needed. (AASO4150) c. Inspect phone cables for smashed cable. May also have to replace I/O Board. d. Replace I/O board. (AACB1900)
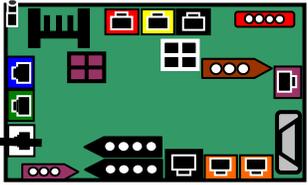
Troubleshooting Chart

Problem	Probable Cause	Remedy
Meters do not work.	a. Ticket meter should click as ticket exits ticket mech. b. Game meter should click as game starts. c. I/O board faulty.	a. Watch as tickets come out of mech. Replace counters (AACO1000) b. Watch as next game starts. Replace counters (AACO1000) c. Replace I/O board. (AACB1900)
Monitor shows "Out of Order Door Open "	a. One or more doors open. b. Faulty door switch c. I/O Serial Cable unplugged. d. I/O board faulty.	a. Refer to Door Open Section below. b. Replace door switch. (A5SW7000) c. Inspect and re-seat serial cable from motherboard to I/O board. d. Replace I/O board. (AACB1900)
Motor Watchdog Error	a. Encoder Sensor Faulty. b. Motor Faulty.	a. Clean Encoder sensor on left side of wheel. b. Refer to "Motor will not assist a slow spin" section above.
	After problem is found and fixed: 1.) Enter menu and ensure Player Timeout option is set to "Motor Assist" 2.)Turn game off, then back on, coin game, but do not spin wheel. Let game try to spin wheel own it's own. 3.) Enter menu and verify Motor Watchdog Error is not present.	

Door Open Error

There are 5 switches total:
1 in back, 1 in left side door, 1 in right side door, 1 in left front door, and 1 in right front door.

What happens if door is open?
Tickets will not dispense.
Game will not start.
Auto spin will not engage
Player can not spin wheel

This is a safety matter and switches must not be disabled or injury to player or technician may occur.

Handle will still move solenoid assy. – Make sure to remove handle when working on game!

Door switches are Push/Pull type
Switch can be pulled out when door is open and game will think door is closed.

Troubleshooting Door Open Problem:

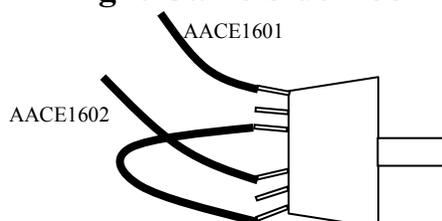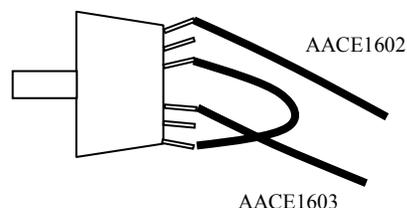| Open all 5 doors and pull all 5 switches out.	Door Open message stays.	a. Faulty door switch. (A5SW7000) – It could be anyone of the five. b. Check all wires on switches. c. Check crimps on wires. d. Check connection to I/O Board e. Replace I/O board if needed.
	Door Open message clears.	a. Individually check each switch by pushing in on each switch one by one and verify the door open message is not on screen. b. If a door switch shows the message when pushed in, that switch is faulty. Replace switch (A5SW7000)

Front Right Side Door
AACE1600
AACE1601

Front Left Side Door
AACE1604
AACE1600
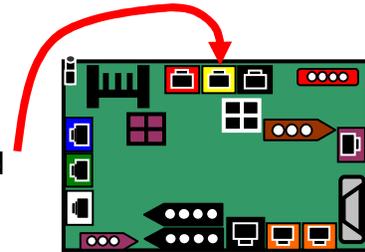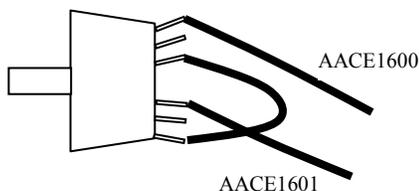
Back Door
AACE1604
AACE1603
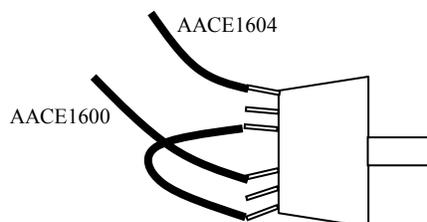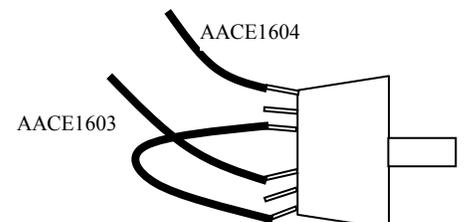
Right Game Side Door
AACE1601
AACE1602

Left Game Side Door
AACE1602
AACE1603

Encoder Wheel Sensor

IMPORTANT: ONLY SPIN WHEEL DOWNWARD

This tells where the wheel is and determines the payout of the wheel.
Sensors sees thin slot as boundary between large score panels.
It sees the large slots as high score values in middle of score panels.
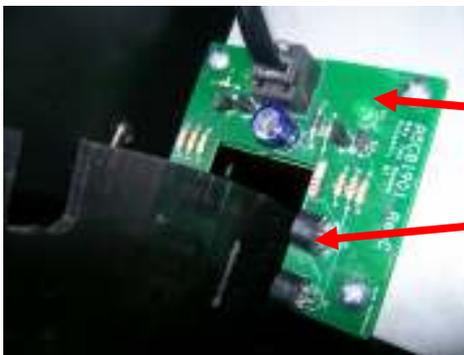As wheel spins, Green light comes on as next score panel starts
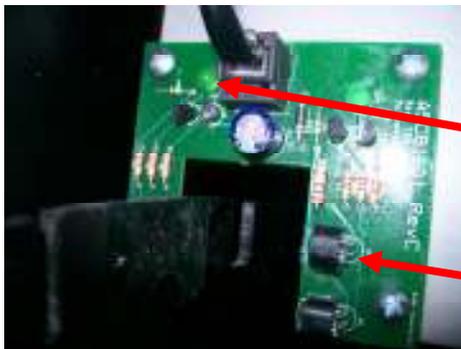
Green LED Indicator

Wheel encoder sensor (AACB1901) is mounted so the top sensor reads the outside cut-out notches.

Home Position Sensor

The home position sensor is on same board and reads a notch to calibrate home position.

Green LED Indicator

The lower sensor reads the 1 home position notch on wheel.

Adjusting Wheel Sensor

The arrow pointer will show the customer which ticket value they have won.
Remember: There is a ½ inch buffer zone between panels that provide a small margin of error. This space is also present on the big bonus values.
It allows a big bonus value to score even though the pointer may be slightly above or below the actual sticker on the wheel.

Check the wheel position

1.) Open front doors and unlatch clasps holding
    front plexiglass in place. There are 2 located behind
    the speakers.

2.) Front plexiglass will now slide up like a roll-top desk.

3.) Push menu button to enter menu.

4.) Check if value on monitor matches wheel position pointer.

5.) Watch bottom left of display as you manually turn the wheel down.
    The wheel may have to go a full revolution so the game can
    find home position.
    Spin the wheel downward by hand, watch the display change
    as the wheel moves to the next score panel.

5.) Slowly rotate the wheel downward as it approaches a bonus section.
    Watch the display as it turns to a 4, then slowly move wheel down.
    Stop the wheel as soon as the display changes to the bonus.
6.) Look at pointer and verify that it is on the boundary between the
    4 space and bonus value.
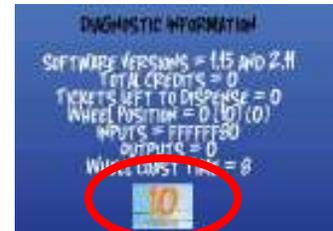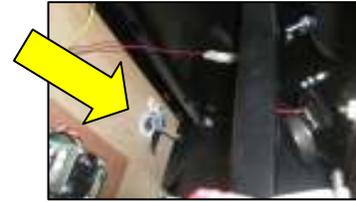
IMPORTANT: ONLY SPIN WHEEL DOWNWARD

If the pointer is more than ¼ inch off:

    1.) Open left side door of game.
    2.) Locate 2 phillips screws on bracket.
    3.) There are slots on this bracket to allow adjustment.
    4.) Loosen 2 screws and slightly move bracket.
    5.) Tighten screws and re-check wheel position.

Brake Adjustment

Wheel coast time is a number related to how long the wheel spins as it coasts to a stop.
A long coast time will increase the time per game, and customer will wait too long to play game.
The higher the number, the faster the wheel stops.
The wheel coast time should be 30-40
This can also be adjusted periodically to prevent a very skilled player from memorizing the coast and win bonus after bonus.

Performing Wheel Coast test
Coin game up and give the wheel a good fast spin.
Quickly press the menu button inside front door.
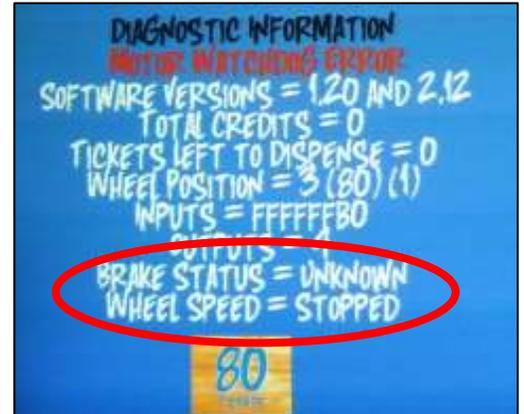Watch display as wheel turns
    – It should show "good spin" as the wheel turns.

Once the wheel coasts to a stop, it will show:
Brake OK
Tighten Brake
Loosen Brake

Adjusting Wheel Brake
Lift each of the two threaded rods, and spin nuts:
Clockwise to increase tension – decrease wheel coast time.
Counter-clockwise to decrease tension – increase wheel coast time.
    Adjust both rods evenly.
    Re-test after adjustment

If customer inserts money during autospin
and wheel coast is too much, it may read the
autospin as a player spin and give tickets for that autospin.
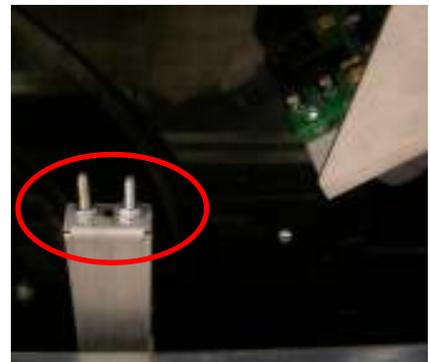
Removing Handle

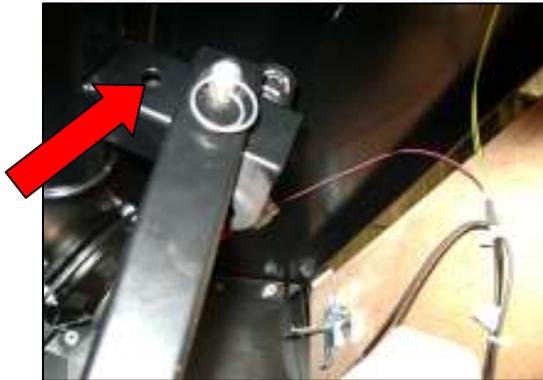 The handle is designed to be removed from game. This will allow technician to work on solenoid with handle off to reduce chance of mechanism moving.

Tools needed:
½ inch socket and ½ inch wrench

There is a bolt, lock washer, and nut located under front panel.
It is closest to front of game on this assy.

Remove bolt and pull out handle.

Remember to replace lock washer so handle will not loosen and fall out!

Cleaning Plexiglass

1.) Open front doors and unlatch clasps holding
     front plexiglass in place.
      There are 2 located behind the speakers.

2.) Front plexiglass will now slide up like a roll-top desk.

3.) Remove back door. The top edge of plexiglass is now accessible.

4.) Use swiffer duster to clean all plexiglass.
      Be sure to remove all dust and dirt on plexiglass
       from front and back of game.

5.) Slide down plexi back down and re-latch clasps.

6.) Clean outside of plexiglass with Windex Glass Cleaner.
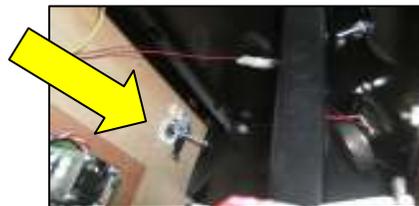
Power Supply Diagnostics:

1.) Check power cable to game.

2.) Check connections on power socket on bottom rear of game

3.) Check connection to power supply.

4.) Ensure Power Supply switch is set to 115V
    (Some power supplies may not have this)

5.) Ensure Power switch is on.

6.) Ensure fan is turning.
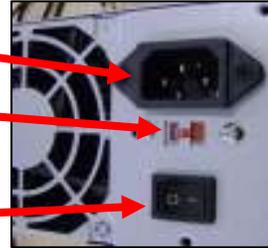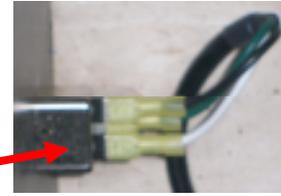
Verify power to motherboard:

Check for 12 Volts DC between black and yellow wires.
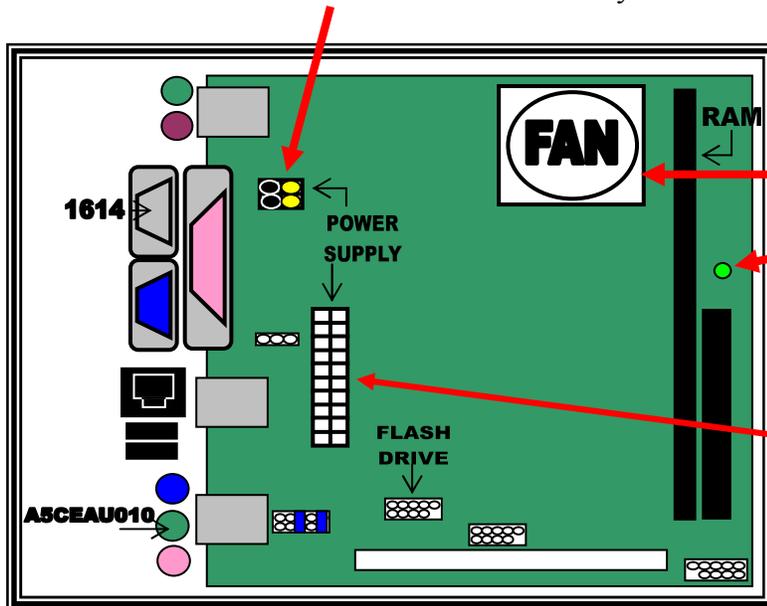
1.) Ensure fan is turning.

2.) Green LED should be ON.

Note: The location of this connector may vary depending on which version motherboard is in game.

Circuit Board Wiring Pinouts

I/O Board – Part # AACB1900

SPEAKER
LINE IN
(A5CEAU010)

SPEAKER
OUT
(AACE1605)

DOOR OPEN
SWITCHES
(AACE1604)

NOT
USED

POWER IN
(AACE1621)

ENCODER SENSOR
(AACE1608)

MOTOR
(AACE1616)

SOLENOID CABLE
(AACE1606)

BILL ACCEPTOR
CABLE (AACE1611)

LOW TICKET
SWITCHES
(AACE1609)

COIN DOOR
(AACE1610)

MENU
BUTTONS
(AACE1613)

SERIAL PORT TO
MOTHERBOARD
(AACE1614)

COUNTERS
(AACO1000)

2 TICKET
DISPENSERS
(AACE1609)

NOT
USED

2 BOBBER
CHASELIGHTS
(AACE1624)

Mother Board – Part # AAMB6

SERIAL PORT TO
MOTHERBOARD
(AACE1614)

MONITOR CABLE
(A5CORD11)

SPEAKER LINE OUT
(A5CEAU010)

RAM

FAN

POWER
SUPPLY

FLASH
DRIVE

Changing Ticket Patterns

The Big Bass Wheel comes with a factory default ticket pattern already installed.
This pattern has shown through field testing to provide a good ratio of tickets out vs. money in.
The ticket amount the player receives encourages repeat game play.
Before changing ticket pattern, be sure to consider the following points:

        1.) Price per play
        2.) Ticket value (1 cent ticket or 2 cent ticket)
        3.) Comparative game data

  Baytek Games would be happy to assist in recommending ticket patterns to suit your needs.
      Phone # 920-822-3951

There are 11 Ticket Patterns available for the Big Bass Wheel Game:

TICKET PATTERNS

#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11
1000	1000	1000	500	1000	1000	500	500	1000	1000	1000
25	25	25	15	25	25	15	15	25	50	50
75	75	75	10	40	40	10	10	40	75	60
15	30	50	15	15	50	15	15	25	25	40
40	75	150	40	40	150	10	40	10	40	150
100	250	250	50	100	250	50	100	100	100	500
10	10	75	10	10	75	10	10	10	10	40
50	80	80	25	30	30	15	25	30	50	80
40	40	40	10	40	40	10	10	10	40	70
100	250	250	50	100	250	50	50	100	100	500
25	25	25	15	25	25	15	15	25	50	40
75	75	75	10	40	75	10	10	40	75	60
15	30	50	15	15	50	15	15	25	25	40
40	75	150	40	40	150	10	40	10	40	70
100	250	250	50	100	250	50	50	100	100	500
10	10	75	10	10	75	10	10	10	10	150
50	80	80	25	30	30	15	25	30	50	80
40	40	40	10	40	40	10	10	10	40	70
38-41	50-53	68-71	19-22	32-35	60-63	14-17	23-26	27-30	42-45	74-77

AVERAGE TICKETS PER GAME
(ESTIMATED TICKETS BASED ON CUSTOMER FEEDBACK AND MAY VARY DEPENDING ON SKILL OF PLAYER)

TICKET PATTERN CHANGE INSTRUCTIONS

1.) Open front doors and unlatch clasps holding
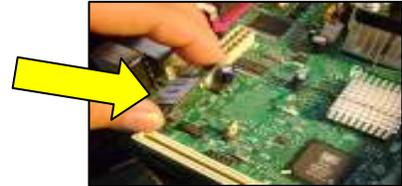   front plexiglass in place. There are 2 located behind
   the speakers.
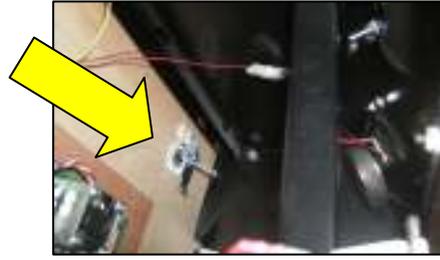
2.) Front plexiglass will now slide up like a roll-top desk.

3.) There are 2 types of program hardware for Big Bass Wheel.
   Flash Drive – Push on top of motherboard.
   USB Drive – Plug into USB port on side of motherboard.

3.) Flash drive on motherboard Option. It is a small push-on
 board with a decal. If the version is less than 1.21, this flash drive
 will have to be replaced. Unplug game and remove Flash drive
 from motherboard. Install new flash drive by covering all pins
 and pushing straight down.
   Turn on game and watch boot-up sequence.
     If the Display stops at "No bootable device -- insert boot disk"; turn
     off game, remove flash drive, reposition and replace on board.
    Power game back on and watch boot-up sequence.
    Game should boot-up normally.

4.) USB Drive Option. It could be used in place of the push on board.
    It pushes into the USB port in side of motherboard.
    Install new USB Drive if needed, and power on game.
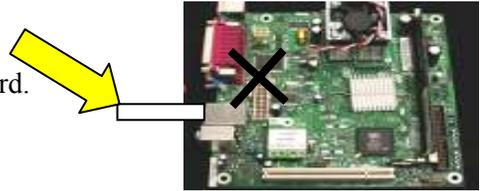
5.) Menu buttons are located inside of left door.
    Press menu button to access operator menu on the game display.
    Use select button to change function.

6.) Scroll down to Ticket Patten and change to desired ticket pattern.

IMPORTANT: ONLY SPIN WHEEL DOWNWARD

7.) Watch bottom left of display as you manually turn the wheel down.
   The wheel will have to go a full revolution so the game can find home
position. Spin the wheel by hand, watch the display change as
the wheel moves to the next score panel.

8.) Install new decal cover over existing panel. Make sure wheel does not move backward, or game may think
the wheel moved to next panel!
Spin wheel downward a complete revolution to recalibrate home position and continue with decals.