



FACTORY CONTACT INFORMATION



BAY TEK GAMES INC. Pulaski Industrial Park 1077 East. Glenbrook Drive Pulaski, WI 54162 USA

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This free service is intended to keep you up to date on the latest game information, early notification of parts specials, pertinent technical bulletins, updates on retro fit parts, software upgrades, and much more.

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All games are proudly manufactured at our factory in Pulaski, Wisconsin, USA

GAME INSPECTION

Inspect the game for any damaged, loose, or missing parts. If damage is found, please contact your freight carrier first. Then, contact Bay Tek Games' Service Department at 920.822.3951 or e-mail them at service@baytekgames.com for further assistance.

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WELCOME TO: CONNECT 4!

Congratulations on your Connect 4[™] purchase!

Everyone young and old loves the nostalgic gameplay of Connect 4[™], and Bay Tek has brought the spirit of family fun to your game room with this larger-than-life version of Hasbro's classic game of vertical checkers.

With it's attractive presence, fun and competitive two-person game play, and the familiarity of the Hasbro brand, Connect 4^{TM} is sure to be a big attraction!

Please take a moment to read through this manual and be sure to contact our factory if you have any questions, or would like some more information.

Thank you for your purchase! Your business is important to us and we hope you enjoy this game as much as we do!

Your Friends at Bay Tek Games







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GAME SPECIFICATIONS

WEIGHT							
NET WEIGHT	940 LBS						
SHIP WEIGHT	1015 LBS (1140 WITH STOOLS)						
DIMEN	SIONS						
WIDTH	124"						
DEPTH	108"						
HEIGHT	122"						
OPERATING TEMPERATURE							
FAHRENHEIT	80-100						
CELSIUS	26.7-37.8						

POWER REQUIREMENTS					
INPUT VOLTAGE RANGE	100 to 120 VAC	/	220 to 240 VAC		
INPUT FREQUENCY RANGE	50 HZ	/	60 HZ		

MAX START UP CURRENT	OPERATING CURRENT
4.5 AMPS @ 115 VAC	4 AMPS @ 115 VAC
2.3 AMPS @ 230 VAC	2 AMPS @ 230 VAC

SAFETY PRECAUTIONS

DANGER



DO NOT perform repairs or maintenance on this game with the power ON.

Unplug the unit from the wall outlet or shut off the power strip located inside the cabinet.

A

WARNING



Use of flammable subtances can cause sever burns or serious injury.

Always use NON-FLAMMABLE solvents for cleaning. DO NOT use gasoline kerosene or thinners.



CAUTION



Lifting heavy objects can cause back, neck or other injuries. Be sure adequate lifting and moving devices are available when unloading, unpacking and moving this game.

A

ATTENTION



Be sure the electrical power matches the game requirements. See the serial number located on the back of the game cabinet. Always plug into a grounded circuit. If the supply cord is damaged, it must be replaced by an approved cord or assembly provided by the manufacturer.

A

IN CASE OF EMERGENCY



UNPLUG THE POWER CORD.

The power cord must be accesible at all times in case of an emergency.

SET UP GUIDE

Tools Needed:

- Drill with #2 square bit
- 9/16" socket and rachet
- Ladder
- One or two extra people
- Packet of hardware (included)
- Cable trip guard (included)

Unpack the game parts and lay them out.

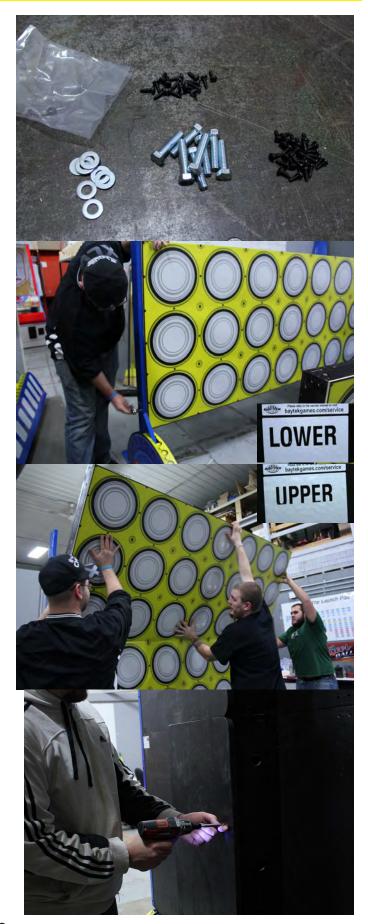
Begin by securing the metal legs to the lower section of the playfield with hex bolts and washers, leaving the top two bolts slightly loose to aid in adding the upper section.



Team lift the upper playfield section into place and secure with bolts and washers; tighten all.



Remove the back doors of the playfield control boxes and set them aside. (4 screws each)



Secure the brackets on half checker lights in the pilot holes near the top corners of the top of the game with the included black wood screws.



Place the marquee face down and remove the screws holding the yellow bracket arms to the backside. Re-attach them in the pilot holes as shown with the flanges facing each other.



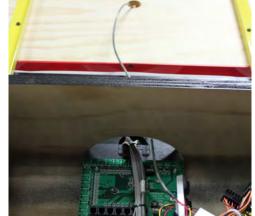
Secure the marquee brackets to the pilot holes on either side of the upper playfield control box with the included black wood screws. The bottom of the marquee will be about an inch above the half checker lights.

*the half checkers and marquee can be attached while the upper playfield is on the ground, but it will be heavier to lift onto the game



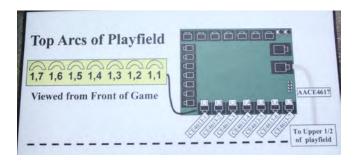
Insert the cables from both the half checkers and the marquee into the top hole of the upper playfield control box as shown.





Plug in the marquee cable (CE4623) to any one of the three housings on the power supply jumper (CE4612).

Insert each half checker cable 1-7 (CE4624) into its corresponding socket (for example, CE4624-1 is placed into socket #1). Refer to the wiring decal for a detailed diagram.

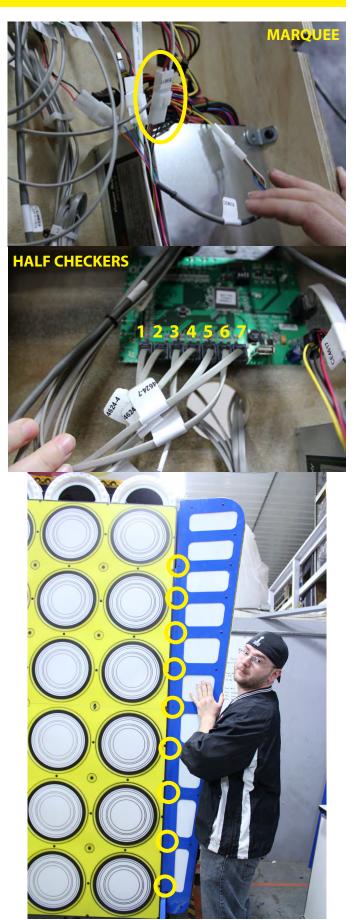


Lift the side wings into place. Insert the black self-tapping screws into the front holes, and secure to the back of the playfield with black wood screws.





front back

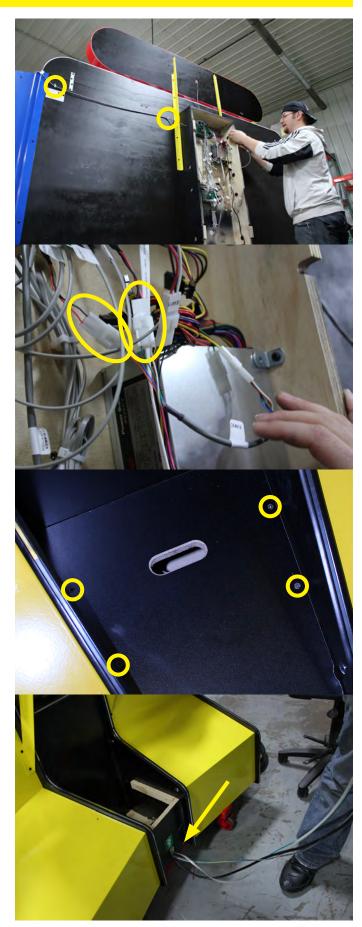


Clip the side wing cables (CE4611) in the clamps along the top edge of the back of the playfield, and feed them through the top hole of the control box.

Plug the two ends of the side wing cables (CE4611) into the two remaining housings on the power supply jumper (CE4612) connected earlier to the .

Place the player console in front of the playfield, and remove the 4 screws holding the top of the central rear compartment.

Remove the cables from the compartment, and feed all four through the hole; replace the top.



Behind the playfield, feed the cables up through the hole in the bottom of the lower box.

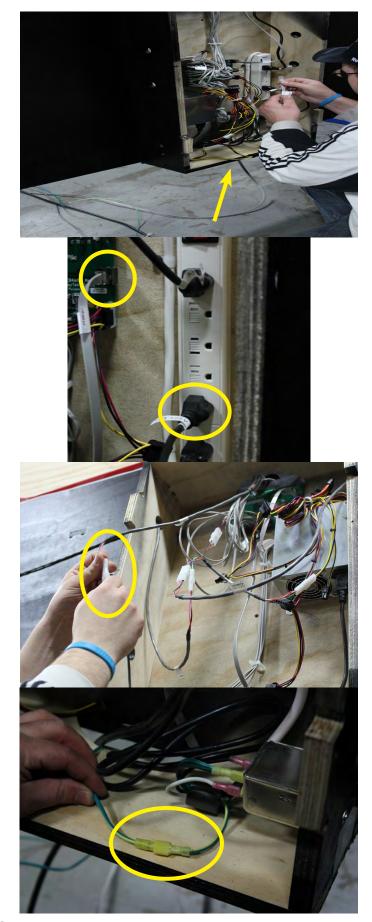
Insert the **black power cable** into the fourth outlet down on the power strip in the lower control box.

The White phone eable (CE4618) plugs into the **IN** socket on the light control circuit board in the lower control box.

The **long gray round cable** (CE4607) continues to the upper control box and plugs into the half checker cable two-pin housing (CE4625).

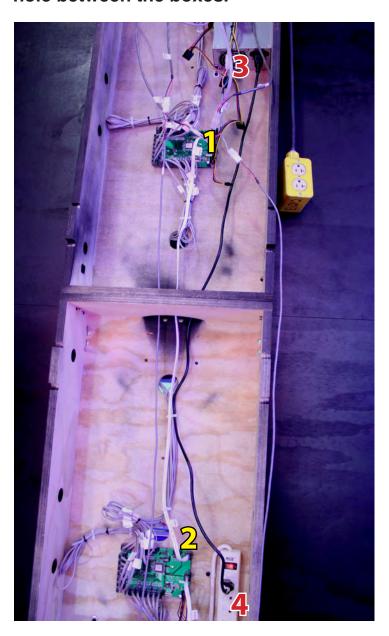
Be sure to feed the cables through the hole between the boxes.

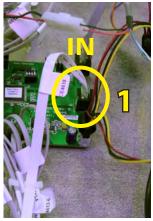
The **green ground wire** plugs into the short ground wire on the line filter box.

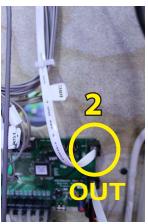


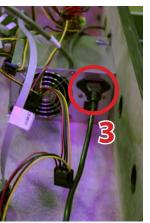
Connect the two halves of the playfield by plugging in the cables shown; one white playing one (CB4618) between the two control boards, one black power cord between the upper power supply and the lower power strip. Refer to the wiring decals for detailed diagrams.

Be sure to feed the cables through the hole between the boxes.











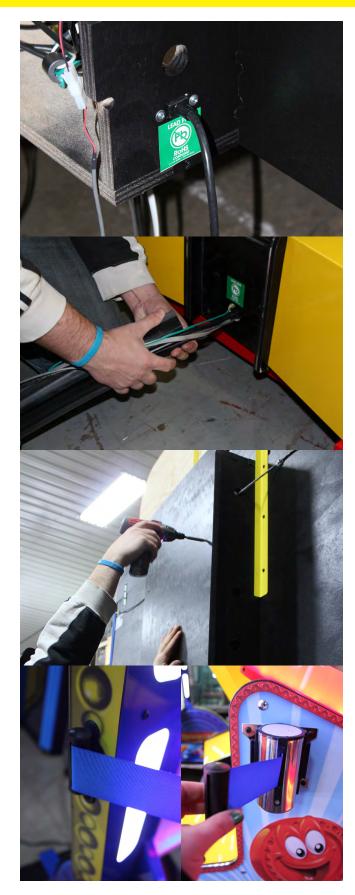
Plug the power cable into a standard electrical outlet and power on by flipping the power strip switch located in the lower playfield control compartment.

After the game powers up and everything is functioning correctly, cover the cables between the player console and the playfield with the included trip guard.

Replace the back doors, securing with 4 screws each.

Secure the retractable ropes on the console to the clips on the side wings.

Congratualtions! You're ready to Connect 4!



HOW TO PLAY

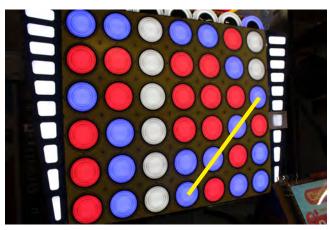
Pick a color and insert credits to play against the game or a friend



Move your chip left and right at the top of the grid with the arrow buttons, and hit the big button to drop your chip before the time runs out!



Be the first to align 4 of your chips horizontally, vertically, or diagonally to win and enter the bonus round.



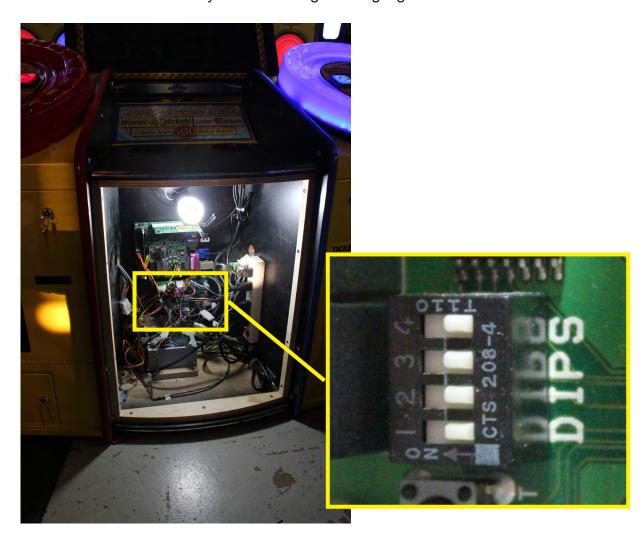
In the bonus round, win up to 500 tickets by hitting the stop button to stop the moving light on the target!



DIP SWITCH SETTINGS

The dip switch bank is located on the mainboard, inside the center of the player console.

*factory default settings are highlighted below

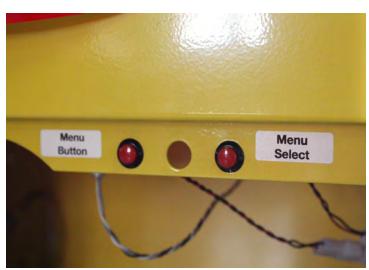


SWITCH	DESCRIPTION	ON	OFF
1	unused		
2	unused		
3	Jersey Shore (credit lockout/tickets owed)		
4	unused		

MAIN MENU FUNCTIONS

Press the MENU BUTTON, located inside the cabinet below the red player station, to enter the Main Menu.

Scroll through the menu with the MENU BUTTON, and make your selections with the MENU SELECT* button.





* to clear credits, press the Menu Select button while not in the menu.

GAME SETUP MENU

Connect 4 Game Menu Coins/Credits per Game 2 Time Per Turn 8 Tickets(w/l/d) 20/5/10 Jackpot Value 500 Double Ticket Value Off Use Coupons Off CPU Difficulty auto Game Volume 2 Attract Volume 2 Bonus Type One Hit Bonus Exit Menu
FACTORY DEFAULTS ARE HIGHLIGHTED IN YELLOW BELOW

Coins/Credits per Game	Number of credits per game, per player	0		1	1	1 (card swipe)		2		4		6		3		
Time Per Turn	Seconds allowed per chip drop before auto- drop	6	6 8		1	10 1.		12		2 2		20		30		0
Tickets	Tickets awarded to	ı				/5/10 30/10 20 avg 22-26							50/2 36-40			
lickets	winner/ loser/ draw		0/30 5 avg		0/40 0 avg	80/4 61-65		100/40/ 3								
Jackpot Value	Tickets awarded for a bonus win (requires artwork change)							50	00							
Double Tickets	Pays out one physical ticket for every 2 tickets won		OFF					ON								
Use Coupons	Changes the wording on the monitors from "tickets" to "coupons"	OFF ON														
CPU Difficulty	Changes game intel- ligence in one-player mode	1 (EASY) 2			3	4	(NOR	MAL)	6	7	8	Ç (HA) .RD)	AU ⁻ ADJ	-	
Game Volume	Volume of game while in play	0	1	2	3	4	5	6	7	8	9	10	11	12		
Attract Volume	Volume of game while not in play	0	1	2	3	4	5	6	7	8	9	10	11	12		
Bonus Type	Changes game play of bonus round	ONE HIT BONU				ONE HIT BONUS BONUS DISAB			ONE HIT BONUS BONUS DISABLED			ВО			D	

STATISTICS MENU



Total Games	Displays how many games have been played
Average Time per Game	Displays how long the average game lasts
Total Red Games	Displays how many games were played on the red side
Total Blue Games	Displays how many games were played on the blue side
Total Tickets	Displays how many tickets the game has given out
Average Tickets per Game	Displays an average value of tickets dispensed per game (includes bonus tickets)
Total CPU Games	Displays how many single-player games have been played against the computer
Total CPU Wins	Displays how many times the computer beat the player
Total CPU Losses	Displays how many times the player beat the computer
Total CPU Draws	Displays how many times the player and the computer tied
CPU Win Percentage	Displays a percentage of CPU wins out of total single-player games
Bonus Round Plays	Displays how many times the bonus round was played, single- and two-player
Bonus Tickets	Displays the total number of tickets dispensed from the bonus round
CPU Easy Total Games*	Displays how many times the computer played as "easy"
CPU Easy Total Wins*	Displays how often the computer won against the player in "easy"
CPU Normal Total Games*	Displays how many times the computer played as "normal"
CPU Normal Total Wins*	Displays how often the computer won against the player in "normal"
CPU Hard Total Games*	Displays how many times the computer played as "hard"
CPU Hard Total Wins*	Displays how often the computer won against the player in "hard"

^{*} When the game is set to auto-adjust, this will help you determine the skill-level of your clientele.

The largest number will occur in the skill-level most of your players fall into.

Press the "Menu Select" button 5 times to clear the statistics.

ALL statistics in this menu will be reset to 0.

DIAGNOSTIC MENU

Connect 4 Diagnostics Ma Change Playfield Color Toggle Bonus Lights Exit Menu	enu
Right Arrow Red Select Red Left Arrow Blue	OFF OFF OFF OFF
Select Blue Service 1 Service 2 Coin Red	OFF OFF OFF OFF
Low Tickets 1	OFF OFF

Change Playfield Color	Selecting this diagnostic will light up the playfield in solid red, blue, and white to test for dim or burned out LED circuit boards
Toggle Bonus Lights	Selecting this diagnosic will turn the bonus value lights on and off to test for dim or burned out LED circuit boards
Left Arrow Red	
Right Arrow Red	
Select Red (drop)	
Left Arrow Blue	
Right Arrow Blue	When any of these inputs are activated, it will show ON in
Select Blue (drop)	the right column.
Service 1	
Service 2	This is useful to determine if the inputs are fuctioning correctly.
Coin (mech) Red	
Coin (mech) Blue	
Low Ticket Switch 1 (Red)	
Low Ticket Switch 2 (Blue)	

HOW TO: Change Ticket Patterns

Default Ticket Pattern for \$1.00 per play, 1 cent ticket value.

Winner receives 50 tickets Loser receives 20 tickets Tie Game (Draw) Player receives 25 tickets



A5DE4662-50/20 36 - 40 Tickets per Game

Average tickets paid out per game will vary depending on:

Single players or Head-to-Head Play:

Two player games will average more tickets being paid out. One player games will average less tickets being paid out.

- CPU Difficulty Setting:

When playing against computer, most players loose.

- Skill of Individual Player

Please allow game a 2 week time period at a specific pattern to set a good baseline before an attempt at changing ticket patterns.

Connect 4 Game Menu
Coins/Credits per Game 2
Time Per Turn 8
Tickets(w/l/d) 20/5/10
Jackpot Value 500
Double Ticket Value Off
Use Coupon's Off
CPU Difficulty auto
Game Volumy 2
Attract Volume 2
Bonus Type One Hit Bonus
Exit Menu

w/l/d = Win/Lose/Draw - Tickets won if a player wins, losses, or ties.

Instructions:

- Enter menu and cycle to "Game Menu"
- Use Menu Select button to cycle through "Tickets(w/l/d)" to desired value.



Note: The numbers listed at the bottom of each pattern are estimated payouts per game based on customer feedback and may vary depending on the skill of the individual player. Please use these numbers as a guide only. For more info: Please call Parts & Service (920) 822-3951

HOW TO: Replace Player Button Switches

Player Station Pushbuttons can be accessed from the player station front door—reaching up underneath the player station.

The switches must be removed first before button can be removed and /or replaced.

Important: The switches do not pull straight off!
They must be given a slight twist, then removed—as follows:

Left and Right Buttons:

To Remove Switch:

Original Locked Position



Unlock

Twist to



Un-Locked Position Ready to Remove

Center Drop Button:

To Remove Switch:

Original Locked Position







Un-Locked Position Ready to Remove

To Install Switch:

Un-Locked Position Insert Switch







Final Locked Position

To Install Switch:

Un-Locked Position Insert Switch







Final Locked Position

HOW TO: Update Software

Needed for Software Update:

#2 Square bit screwdriver
One USB motherboard software
One USB stick for MiniGen board

Installation Instructions:

Overview - This software upgrade consists of 2 steps:

MiniGen software loading.

Motherboard software installation.

MiniGen Software loading - NOTE: Game power must remain ON for this procedure.

1) Locate the USB stick with the MG designator for MiniGen Board.



2) Access the control panel in the lower middle Front of the game. Remove the 12 square headed screws and remove plexi.





- 3) Insert the USB stick into the main board controller as shown here:
- 4) To trigger your file to load, press the small pushbutton next to the dipswitches.

<u>NOTE:</u> The file will load quickly; you will notice that the USB stick will flash, audio will reset after about 1 second, and the game will return to normal operating condition.



Motherboard Software Installation

- 1) Power down your game and disconnect the main power plug.
- 2) Locate USB software stick with the PC designator for Motherboard.
- 3) Remove existing USB stick and install the new USB stick with PC program.





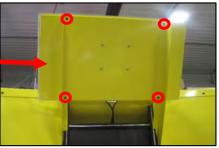
If you have any questions or need further assistance please contact Bay Tek Games. You may reach our Service Team at 920-822-3951 ext. 1102

HOW TO: Remove Monitor

1.) Remove Monitor Frame -

Remove 4 screws in back of monitor support.

Remove 3 nuts under center cabinet area where main board is located.



2.) Remove Plexi-

Remove 7 screws from front plexi to access monitor menu buttons to fix blurry, bright, or dim video.

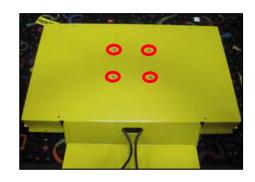






3.) Remove monitor from metal frame-

Remove 4 bolts to remove monitor.

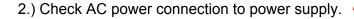


DIAGNOSTICS: Motherboard Power Supply

Monitor not coming on?

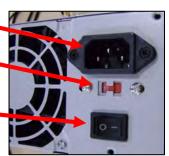
1.) Verify AC power to front of game.

Check power strip in bottom front of game for light ON inside rocker switch. If light is not ON, remove back panel of cabinet and check AC power in and Power Strip in that location.



- 3.) Ensure Power Supply switch is set to 115V (or 230V)

 (Some model power supplies may not have this)
- 4.) Ensure Power switch is on.



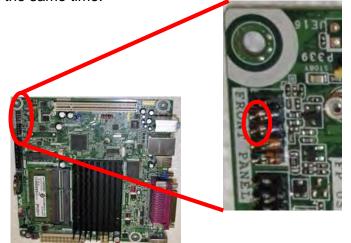


- 5.) Examine top left corner of motherboard. There is green LED ON. If LED is not ON, replace power supply. (AAPS4600)
- 6.) Check connections from power supply.

 Make sure these 2 connections are secure.

7.) "Jump Start" Motherboard:

If green LED is ON, but monitor is not ON, you may start motherboard by quickly touching these 2 red pins at the same time.



Large power supply connection

2 Black and 2 yellow wires (12 Volts DC)

DIAGNOSTICS: Dollar Bill Acceptor

Note: There are many different models and brands of Bill Acceptors that are used on redemption games. Your Bill Acceptor may differ from the unit shown.

First determine if Bill Acceptor has power:

Turn game ON—The bill acceptor should make noise as stacker cycles and green lights on outside bezel should flash.

If NO power:

Due to the different models and brands of Bill Acceptors that are used: Examine Bill Acceptor and determine if acceptor is 12 Volt DC or 110 VAC Use meter to measure voltage at cable going into Bill Acceptor.



Clean Bill Acceptor path to make sure there is nothing jamming unit. Enter DBA Diagnostics Mode -



If accidentally entered programming mode by mistake—Unplug game and plug back in.

To enter Diagnostic Mode, press and hold the Diagnostic Button on the back left corner of the DBA for **1-3 seconds.**

The lights above the bill slot will flash the code.

ERROR CODES

Count the number of flashes on front bezel of Bill Acceptor and follow chart for repair.

FLASHING CODE	DESCRIPTION	CORRECTIVE ACTION
LEDs off	Power off	Turn on power
LEDs on	Acceptor is OK	
1 flash	Bill path blockage	Un-jam bill path
2 flashes	Stacker jam	Un-jam stacker
3 flashes	Cassette is full of bills	Empty the cassette
4 flashes	Cassette is removed	Replace the cassette
5 flashes	Acceptor is defective	Replace the acceptor
6 flashes	Acceptor not enabled	See service manual
10 flashes	Configuration Mode	Power down to exit
Rapid flashing during operation	Stringing attempt detected; or sensors dirty	Clean the sensors





Troubleshooting StrategyUse 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.

Syr	mptom	Probable Cause	Remedy			
No power	to the game.	Unplugged.	Check wall outlet, power cord to back of game (A5CORD5) Line Filter (A5FI9010)			
No lights o	n at all.	Circuit breaker tripped.	Reset power strip breaker switch or building circuit breaker.			
No light on strip.	front power	Power strip in back of game is faulty.	Remove back wood panel, change plug position, replace if needed.			
		Faulty cable/power supply.	Refer to AC Power to Game Section.			
AC Light a	nd Bill	Power supply unplugged.	Insure unit is plugged into power strip.			
Acceptor o	n. hing else off.	Rocker Switch on power supply is Off.	Make sure rocker switch is set ON.			
	upply not ON)	Power supply shutting down because of 12 V overload.	See power supply diagnostics to isolate bad component. A bad motor or 12 volt short would cause this.			
		Faulty power supply. Refer to Monitor/Motherboard Power Supplications and Power Supplications are supplied to the second power supp				
LED cabin working.	et lighting not	LED's under player stations and on rear playfield should turn on with the associated power supplies.	Refer to "Back of Game LED Wiring" section and "Lights under Player Station Wiring" section.			
	Volume too low.	Increase the volume by press scroll to "Game Volume" and	adjust. Time Per Turn Tickets(w/l/d) 20/5/10			
	Loose wire.	Check audio cable connections from motherboard to main board to speakers. Graph Value Office Coupons From motherboard to main board to speakers.				
No Audio		Check audio cable connections from speaker(AACE8811), cable(AACE4604), main circuit board(AANEWGEN1-PJ), cable(A5CEAU010), motherboard (AAMB7)				
	Faulty main Board	Replace Main Board. (AANEWGEN1-PJ) Main board amplifies sound from motherboard.				
	Faulty motherboard	Replace Motherboard. (AAMB7) Motherboard creates sound. Cable can be removed from motherboard to MP3 player to test for sound amplification. If the MP3 player works, then motherboard is faulty.				

Sympto	Probable Cause	Remedy
Tickets do not dispense.	Ticket tray empty due to faulty low ticket switch or broken/ loose wires. Switch stuck or switch wire bent out of position.	Fill ticket tray. Replace low ticket switch(AASW200). Repair wiring. Clean ticket tray of dirt, loose tickets or debris. Bend switch wire to correct position under tickets.
Swap cable from one output on main board to the other to verify cable/ dispenser problem or main board problem.	Faulty cable to dispenser.	Check wiring continuity from dispenser to main board (AACE4606, AACE4605, AACE4600) Check for pinched, broken or disconnected wires. Replace as necessary.
	Dirty opto-sensor or paper dust buildup in ticket dispenser	Clean with compressed air and if necessary wipe sensor with isopropyl alcohol on a cotton swab.
	Notch on tickets too shallow.	Flip tickets and load upside-down to have large cut notch toward opto sensor.
	Ticket dispenser faulty.	Replace dispenser with spare working dispenser (A5TD1)
	Main circuit board malfunction.	Replace main board if possible to isolate the problem to the main circuit board. (AANEWGEN1-PJ)
Wrong number	Ticket Pattern set wrong.	Enter menu and cycle to Game Menu. Verify correct settings for Ticket Patterns, Jackpot Value, and Double Ticket Value
of tickets dispensed.	Dirty opto-sensor on ticket dispenser.	Clean with compressed air or wipe with isopropyl alcohol on a cotton swab.
	Many tickets in memory. If ticket meter is counting the tickets coming out, then reset game.	Turn game off, wait 10 seconds, and turn game back on.
	Notch on tickets cut too shallow.	Flip tickets and load upside-down to have large cut notch toward opto sensor.
	Faulty ticket dispenser.	Replace with spare working dispenser (A5TD1).
	Main circuit board malfunction.	Swap cable from one output on main board to the other to verify cable/dispenser problem or faulty main board. (AANEWGEN1-PJ)
Menu buttons do not work.	Stuck pushbutton.	Inspect pushbutton to make sure it is not stuck. Check continuity on connector.
	Cable problem.	Check cable from pushbutton to main board. (AAPB2700 & AACE4608)
	Faulty pushbutton.	Replace pushbutton. (AAPB2700)

Symptom	Probable Cause	Remedy
Dollar Bill Acceptor not functioning.	Ensure bill acceptor has 110 Volts AC.	Acceptor should cycle stacker at game power up. If not, check cable connections to power strip.
Trot ranoustming.	Dirt or debris in acceptor slot.	Clean with bill reader cleaning card(A5CC9000)
Caution – 110 Volts AC	Ensure acceptor dipswitch is set to "always enable"	There are dips on side of acceptor. Set to "always enable", not harness enable
Cable can be moved between	Pinched, broken, or discon- nected wiring.	Check wiring from bill acceptor to main board. Repair or replace wiring harness. (AACE4626, AACE4627, AAACE4602)
left and right sides to isolate problem to DBA.	Bill acceptor problem.	Refer to troubleshooting section of dollar bill acceptor manual included with this game or the diagnostics label of the back of the unit.
	Error on screen at power up. Display stops at "No bootable device - insert boot disk and press any key"	Flash drive unplugged from board or faulty. Re-seat and try power on to game again.
Monitor not working. Power down, wait 10 seconds and	Re-Boot game to see if problem still exists.	Insert USB stick in different slot on motherboard Replace USB software stick. Replace motherboard. (AAMB7)
power up again.	Monitor says "NO SIGNAL" for 5 seconds after power-up. Then dark.	Refer to Monitor/Motherboard Power Supply Diagnostics Section
	Monitor has nothing at all on power up. Power cable unplugged from monitor. Faulty monitor.	Ensure power is plugged into back of monitor, down to power strip. Replace monitor. (A5MO2200)

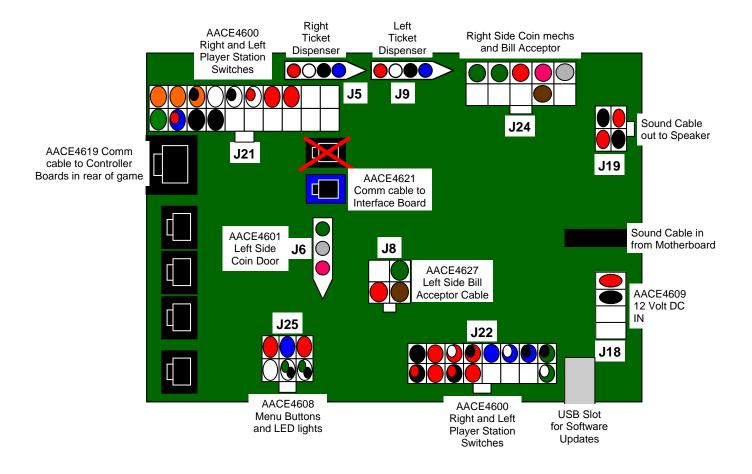
Symptom	Probable Cause	e Remedy
Monitor prob- lems	Blurry Monitor - Too bright, or dim.	Monitor will have to be removed from game, and adjusted from front of screen. Refer to "How to Remove Monitor" Section Use menu buttons to access monitor adjustment
Both sides do not coin up.	Communication between motherboard and main board disrupted.	Refer to Motherboard to MiniGen Board Communication troubleshooting section for details on cable connections.
Menu buttons do not work.	I/O Aux Board may be faulty, wires disconnected from main board, or not receiving 12 VDC power.	Check I/O Aux Board for any disconnected wires. Ensure phone cable is plugged into blue socket on main board.
Game does not coin up. Note: To clear Credits: Press Menu Select button while not in menu.	One of coin switches jammed, or held down. Short in coin door harness. There should be 5 Volts between grey and green wires. Switch faulty in coin mech. Disconnected, loose or broken wires. Mini-Gen Main Board faulty.	If one coin switch is "closed" the other one will not work either. Unplug white molex from door, and jump between grey and green wires to simulate coin-up. Unplug one coin switch at a time and verify coin switch is wired normally open. Replace coin mech if coin is always rejected. (A5CM) Check connectors. Check for continuity. (AACE4601, AACE4602, AACBL4A-DOOR) Replace main board. (AANEWGEN1-PJ)
Low tickets displays on monitor.	Stack of tickets not resting properly on either of the low ticket switches Faulty switch. Faulty wire or connection. Faulty main board.	Adjust stack of tickets so they hold both the switch actuators down. Replace low ticket switch. (AASW200) Check for proper connection from switch to main board. Check continuity. (AACE4605, AACE4606, AACE4600) Replace main board. (AANEWGEN1-PJ)

Symptom	Probable Cause	Remedy
Bonus Lights do not come on at end of game.	Bonus Feature not enabled in menu.	Enter menu and set "Bonus Type" to "One Hit Bonus"
	Faulty cable from bonus light boards in top back of game to main board in front of game.	Check wiring continuity from light boards to main Board. (AACE4625, AACE4607, AACE4600) Check for pinched, broken or disconnected wires. Replace as necessary.
	Faulty center bonus light board Power comes into this board.	Replace center bonus light board. (AACB4602) Refer to Back of Game Wiring Diagram.
	Faulty main board.	Replace main board. (AANEWGEN1-PJ)
All Bonus Lights stay ON.	Surface mounted transistor blown on main board caused by 12 Volt dead short on one of the bonus light circuit boards.	Locate 12 Volt short. Refer to Back of Game Wiring Diagram. Repair cable (AACE4624) or replace bonus light board (AACB4602) Replace main board. (AANEWGEN1-PJ)
Some Bonus Lights stay ON.	Faulty bonus light circuit board.	Refer to Back of Game Wiring Diagram. Replace bonus light board (AACB4602)
A va Limbt	Cable is plugged into wrong socket.	Refer to Back of Game Wiring Diagram, and Connect Four Playfield Wiring Diagram for proper connection.
Arc Light Boards do not come	Faulty cable from Arc Light Board to Controller Board.	Ensure cable is secure, swap cable to isolate problem. Replace as needed. (AACE4624)
on, or stay on.	Faulty arc light boards.	Swap arc light boards to isolate problem, replace if needed. (AACB4603)
	Faulty Controller Board.	Ensure Dip's 3 & 4 are ON for top board. Swap boards to isolate problem, replace if needed. (AACB4600)
Purple or Pink lights on playfield.	Dipswitches set wrong on Controller Boards	Refer to Connect Four Playfield Wiring Diagram - make sure that 2 lower boards have Dip 4 ON, and top board has Dip 3 & 4 ON
	RGB Light Board Faulty	Refer to Target Wiring Example- Cables can be swapped into different sockets to isolate problem to rear controller board or front RGB Light Board.
	One of power supplies is faulty.	Refer to AC Power to Game - If one power supply is faulty, it will not power RGB board correctly. Replace power supply if needed. (AAPS4600)
	Controller Board faulty.	Refer to Back of Game Wiring Diagram, and Connect Four Playfield Wiring Diagram - Controller boards can be swapped to isolate problem. (Make sure dips are set correctly) Replace controller board if needed. (AACB4600)

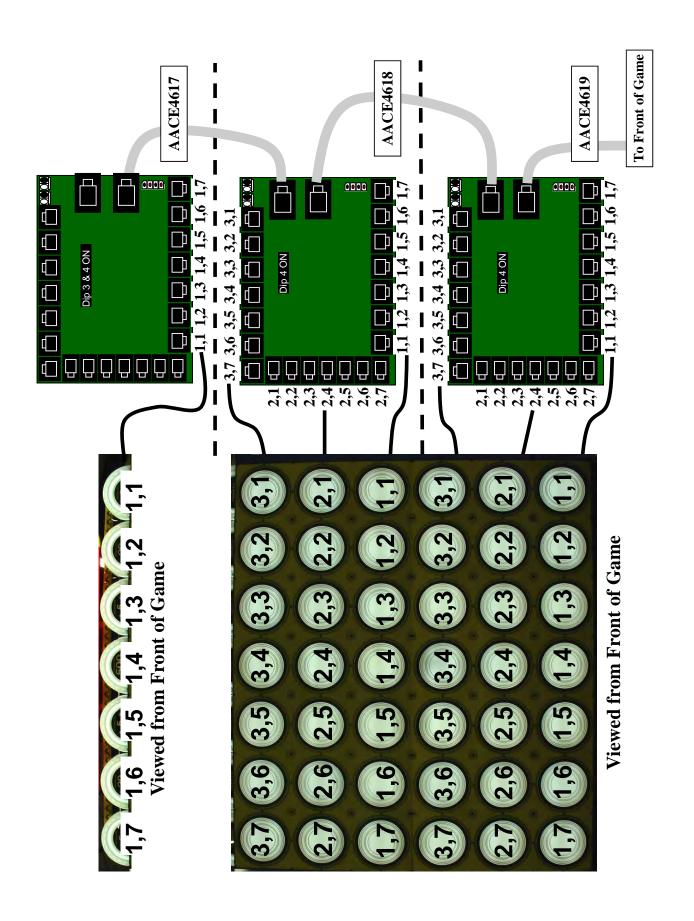
Symptom	Probable Cause	Remedy
Lights under player stations do not light up.	LED strip under faulty Faulty Cable	Remove plastic cover and examine LED strip. Check cables from LED strips to main board. (AACE4620, AACE4621, AACE4608)
	Faulty Main Board	Replace main board. (AANEWGEN-PJ)
Lights under player stations stay on all the time.	Surface mounted transistor blown on main board.	Replace main board. (AANEWGEN-PJ)
Lights under Arrow & Drop Pushbutton do not come on. Light under button should be ON in attract, flashing when coined up, and during players turn, and off during computers	Burnt out LED bulb. Faulty Cable	Replace switch/bulb assy. (A5PB460x) Check cables from pushbutton to main board. (AACE4603, AACE4600) Refer to Left and Right Player Stations, Counters Wiring Diagram Swap AACE4600 cable molex connectors from left and right to isolate problem to one side.
turn.	Faulty Main Board	Replace main board. (AANEWGEN-PJ)
Lights under Arrow & Drop Pushbutton stays on.	Surface mounted transistor blown on main board.	Replace main board. (AANEWGEN-PJ)
Arrow & Drop Pushbuttons do not work.	Pushbutton itself is broken or stuck down Faulty Cable Faulty Main Board	Refer to "How to Replace Player Station Switches" to remove switch to inspect. Check cables from pushbutton to main board. (AACE4603, AACE4600) Refer to Left and Right Player Stations, Counters Wiring Diagram Replace main board. (AANEWGEN-PJ)
Meters do not work. Game counter clicks at start of each game.	The 2 wires crimped together may be faulty Faulty Cable.	Inspect crimp to ensure good connection. Check cables from counters to main board. (AACO1000, AACE4603, AACE4600)
Ticket counter clicks as tickets come out of game.	Faulty Main Board.	Replace main board. (A5NEWGEN1-PJ)

MAIN BOARD WIRING

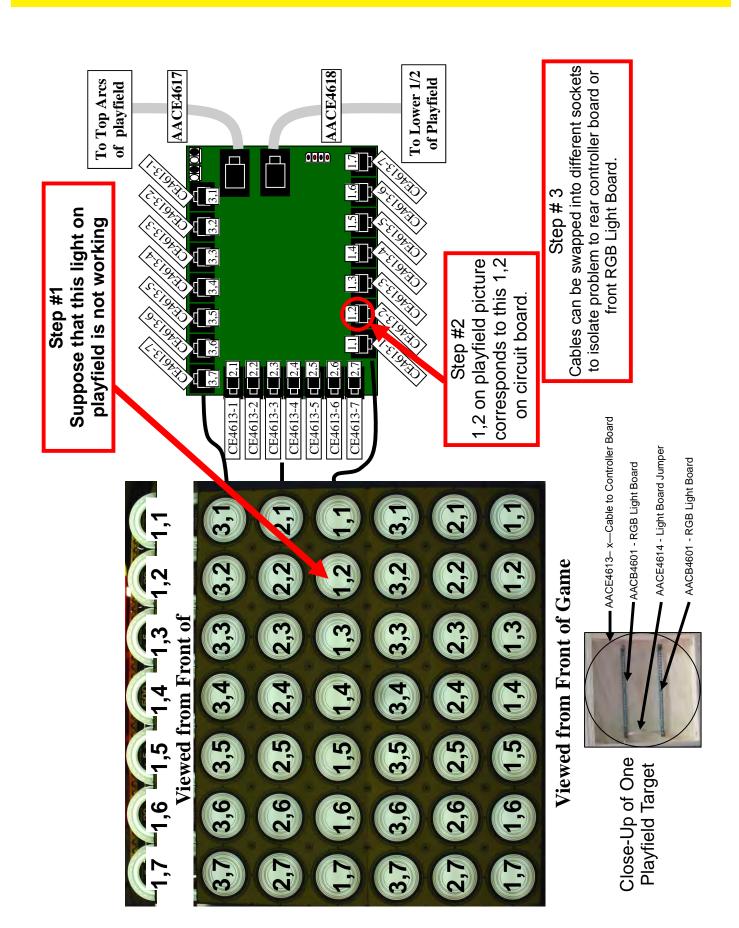
AANEWGEN1-PJ



PLAYFIELD WIRING



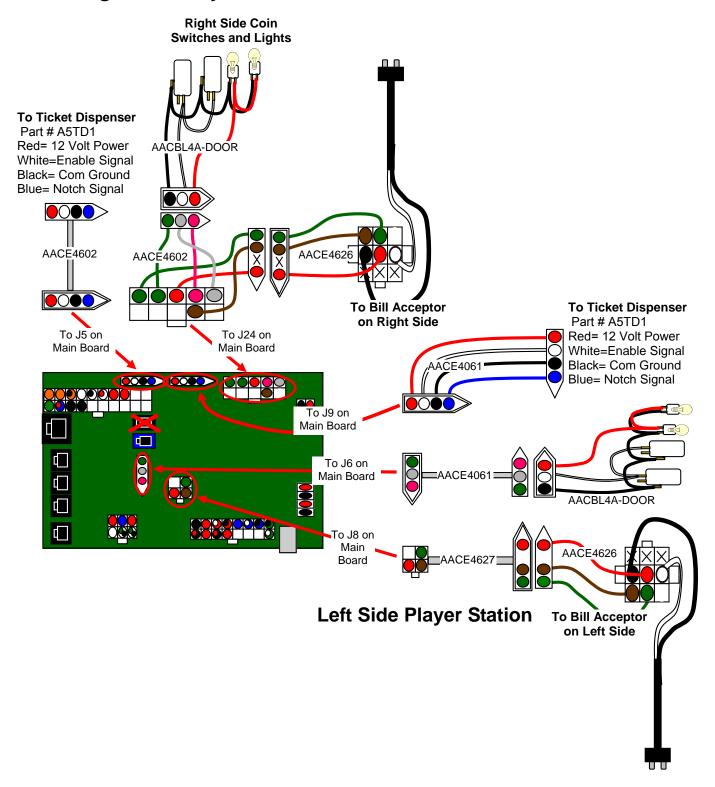
PLAYFIELD WIRING EXAMPLE



WIRING DIAGRAMS

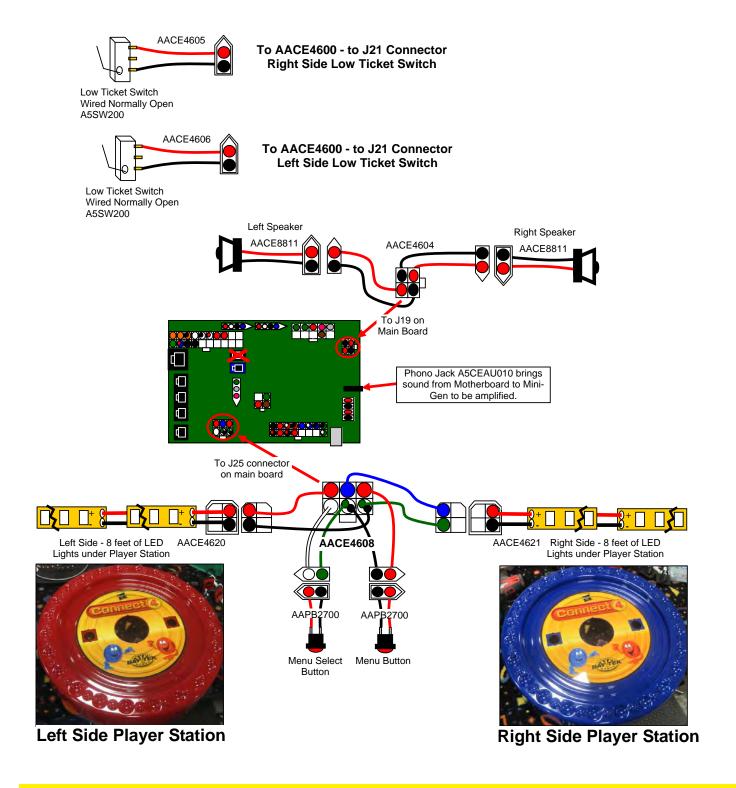
COIN DOORS AND TICKET DISPENSERS

Right Side Player Station



WIRING DIAGRAMS

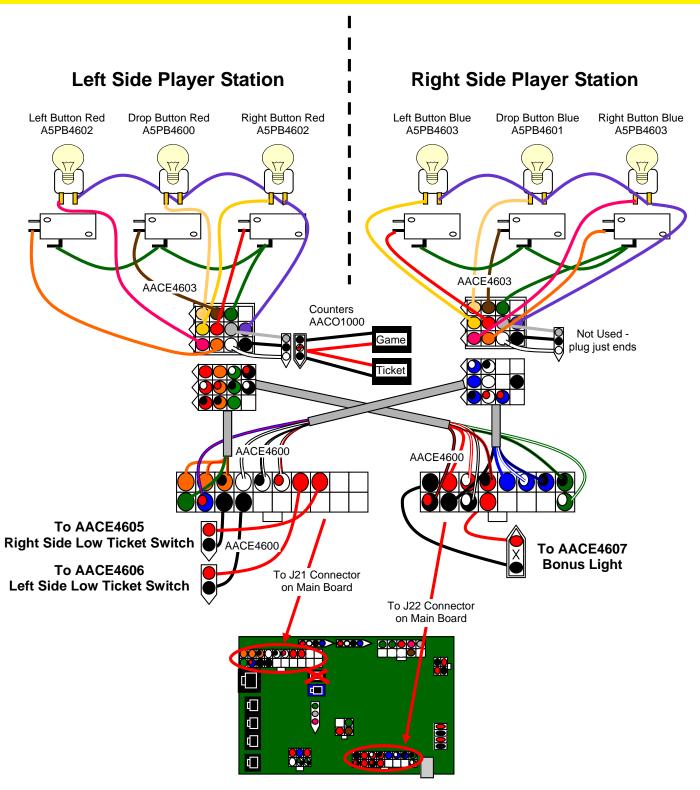
LOW TICKET SWITCHES, SPEAKERS, MENU BUTTONS



PLAYER STATION LIGHTS

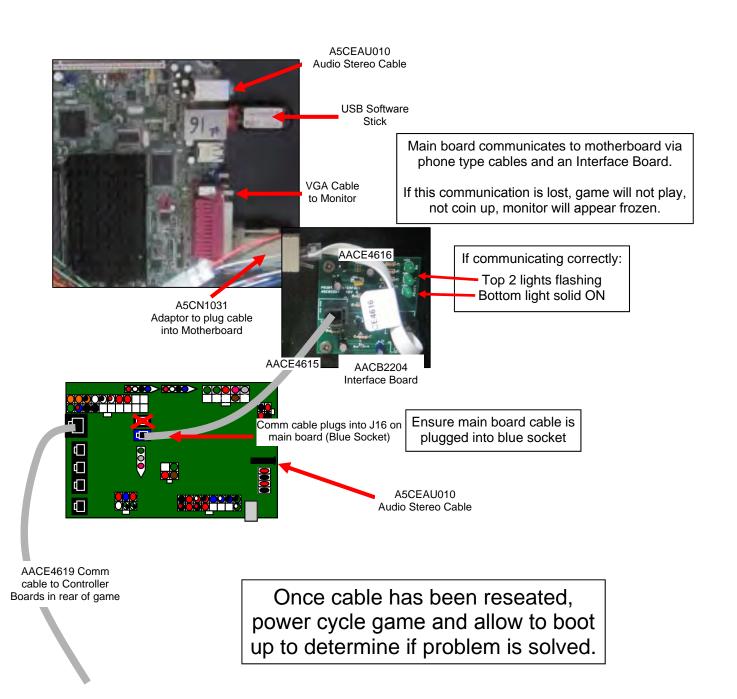
WIRING DIAGRAMS

PLAYER STATION BUTTONS AND COUNTERS



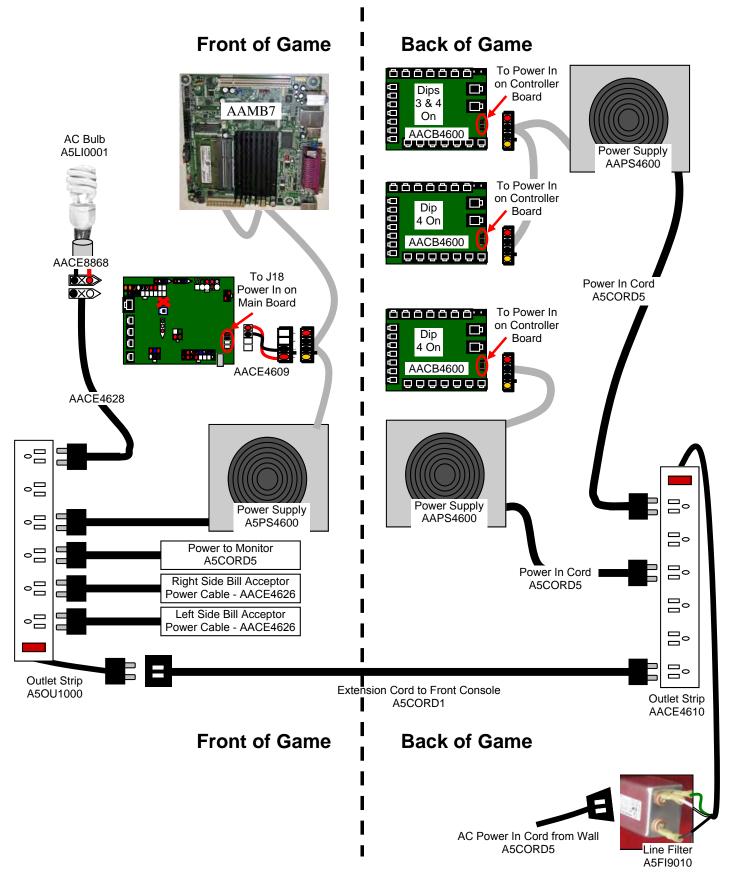
WIRING DIAGRAMS

MOTHERBOARD TO MINIGEN COMMUNICATION



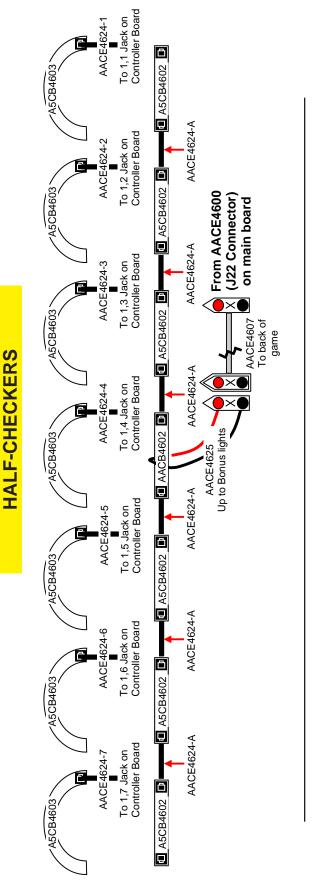
WIRING DIAGRAMS

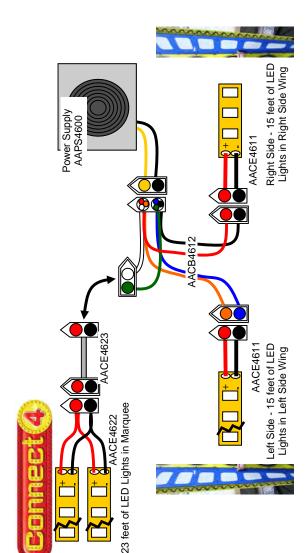
AC POWER TO GAME



WIRING DIAGRAMS

CONSTANT-ON LED WIRING





SIDE WINGS & MARQUEE

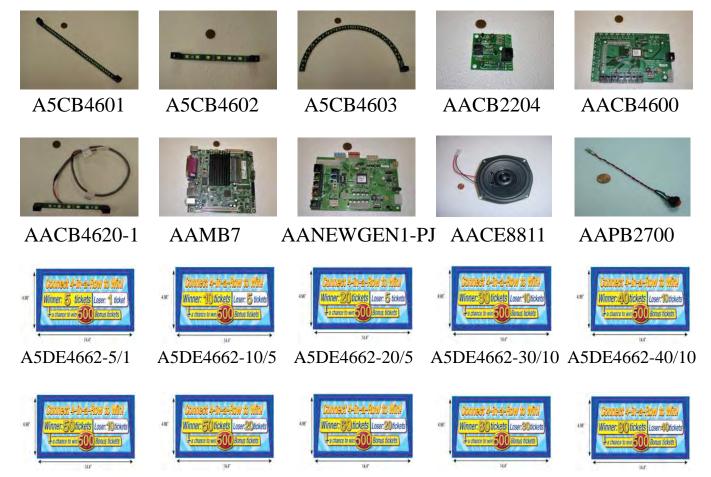
PARTS LIST

PART NUMBER	DESCRIPTION	PART NUMBER DESCRIPTION		
A5CB8020	Cash Box		DECALS & PLEXI	
A5FI9010	Inline Filter	A5DC9950	Yellow Tickets Decal	
A5LI0001	120V 60HZ Fluorescent Light	A5DE4650	Top Marquee Decal	
W5TM1316	13/16 Black/Silver T-Molding	A5DE4651	Number 4 Marquee Decal	
A5CN1031	Adapter	A5DE4652	Half Checker "5" Ticket Decal	
A5PB4600	Jumbo Red Drop Button	A5DE4653	Half Checker "20" Ticket Decal	
A5PB4601	Jumbo Blue Drop Button	A5DE4654	Half Checker "500" Ticket Decal	
A5PB4602	Red Arrow Scroll Button	A5DE4655	Checker Insert Decal	
A5PB4603	Blue arrow Scroll Button	A5DE4656	Monitor Frame Decal	
AACO1000	Counters	A5DE4657	Front Console Decal	
A5PL9097	Blanking Plate	A5DE4658	Left Console Decal	
A5PL9995	Ticket Dispenser Blanking Plate	A5DE4659	Right Console Decal	
A5PL9998	Coin Door Blanking Plate (No Holes)	A5DE4660	Player Station Decal	
A5TT4100	Ticket Tray	A5DE4661	Game Board Hub Decal	
AASW200	Low Ticket Switch	A5DE4662	Game Console Instruction Decal	
A5OU1000	Outlet Strip	A5DE4663	Wing Strip Decal	
AAPB2700	Push Button	A5DE4664	Red 500 Bonus Checker Decal	
A5MO2200	22" Widescreen Monitor	A5DE4665	Blue 500 Bonus Checker Decal	
A5TD1	Ticket Dispenser	A5DE4667	67 Checker Grid Decal	
AAPS4600	Power Supply	A5DE4672 Front Edge Trim Decal		
(CIRCUIT BOARDS	A5DE4673	Back Edge Trim Decal	
AACB2204	Interface Board for Printer	A5DE4674	Checker Insert Shim Decal	
A5CB4601	Game Board Light (84 Per Game)			
A5CB4602	Bonus Light Boards (6 Per Game)			
<u>A5CB4603</u>	Arc Boards (7 Per Game)			
AACB4600	Controller Board (3 per Game)			
AACB4602-1	Main Bonus Light Board			
AANEWGEN1-PJ	Mini Gen1 With Phone Jack			
AAMB7	Main Board			

PARTS LIST

PART NUMBER	DESCRIPTION	PART NUM- BER	DESCRIPTION	
	CABLES	AACE4614	Playfield Board Jumpers	
A5CEAU010	Audio Stereo Cable	AACE4615	Mini Gen to Printer Board Jumper	
AACBL4A-DOOR	Door Cable	AACE4616	MB7 to Printer Board Jumper	
AACE4600	LED Player Consol Light Cables	AACE4617	Aux Board Jumper	
AACE4601	Red Door Cables	AACE4618	Aux Board Jumper	
AACE4602	Blue Door Cables	AACE4619	Mini Gen to Aux Board Jumper	
AACE4603	Red & Blue Player Button Cables	AACE4620	Red Checker LED Cable	
AACE4604	Mini Gen to Speaker Cable	AACE4621	Blue Checker LED Cable	
AACE4605	Left Low Ticket Cable	AACE4622	Connect 4 Marquee Lights	
AACE4606	Right Low Ticket Cable	AACE4623	Marquee Light Jumper	
AACE4607	Bonus Light Marquee Power Cable	AACE4624-1	Bonus Marquee Light Board Jumpers	
AACE4608	Menu Button Cable	AACE4624-2	Bonus Marquee Light Board Jumpers	
AACE4609	Mini Gen Power Cable	AACE4624-3	Bonus Marquee Light Board Jumpers	
AACE4610	Power Strip Cable Assembly	AACE4624-4	Bonus Marquee Light Board Jumpers	
AACE4611	Wing Lights	AACE4624-5	Bonus Marquee Light Board Jumpers	
AACE4612	Wing & Top Marquee Power Jumper	AACE4624-6	Bonus Marquee Light Board Jumpers	
AACE4613-1	Playfield Light Cables	AACE4624-7	Bonus Marquee Light Board Jumpers	
AACE4613-2	Playfield Light Cables	AACE4625	Bonus LED Power Cable	
AACE4613-3	Playfield Light Cables	AACE4626	DBA Power Cable	
AACE4613-4	Playfield Light Cables	AACE4627	DBA Jumpers	
AACE4613-5	Playfield Light Cables	AACE4628	Light Socket Power Cable	
AACE4613-6	Playfield Light Cables	AACE8811	Speaker Assembly With Cable	
AACE4613-7	Playfield Light Cables	AACE8868	Fluorescent Light Cable Assembly	

PARTS PICTURES



A5DE4662-50/10 A5DE4662-50/20 A5DE4662-60/20 A5DE4662-80/30 A5DE4662-80/40





PARTS PICTURES



A5OU1000



AACE8868



AACO1000



AASW200



A5CEAU010



A5CB8020



A5CORD1



A5DC9950



A5FI9010



A5LI0001



A5LK2000



A5LK5001



A5BR4600



A5CA4600

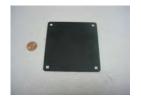


AACBL4A-DOOR A5TT4100





A5PL9097



A5PL9995



A5TD1



AAPS4600



AACE4600



AACE4601

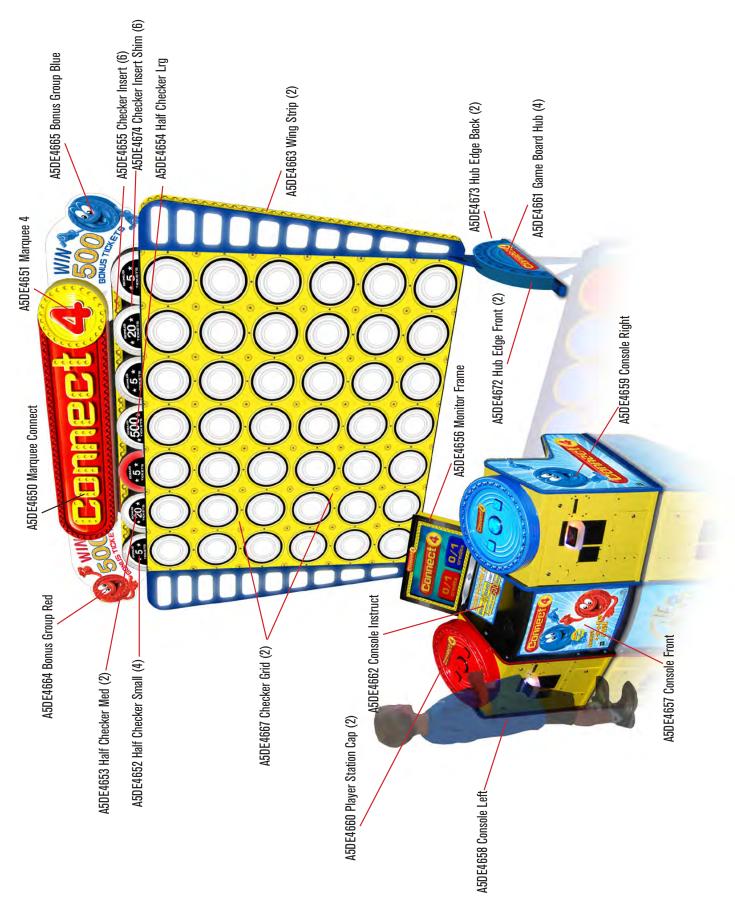


AACE4602

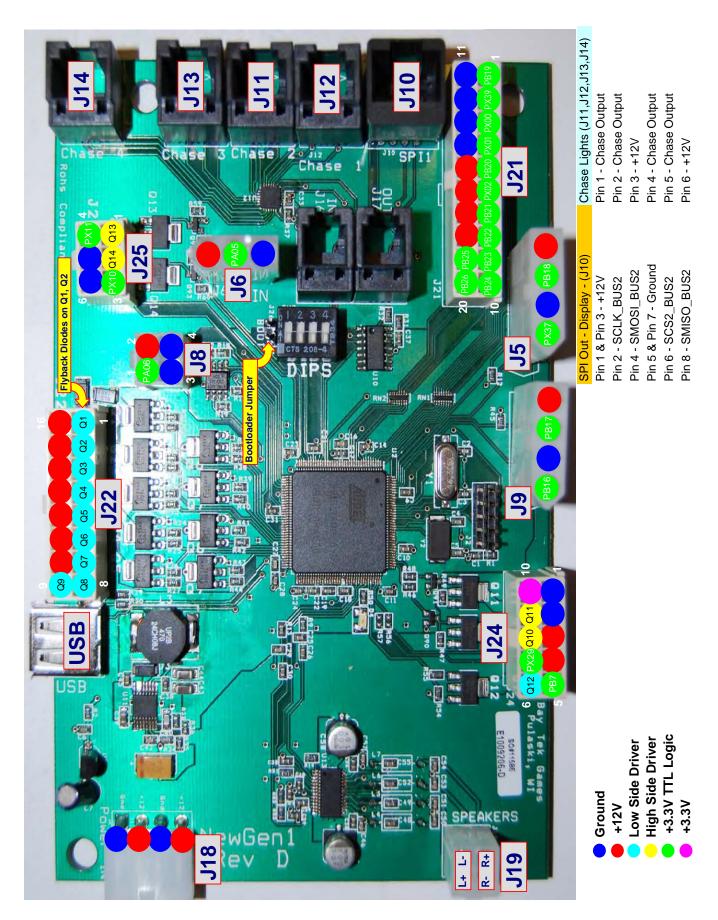


AACE4603

DECAL IDENTIFICATION



MAINBOARD PINOUT



MAINBOARD PINOUT GUIDE

Pin # 4 9 4 8 3 2 J24 J24 J24 J24 J24 J24 J24 ව ව ව ව ව J24 J24 75 J5 J5 80 80 8 8 Ground for Low Ticket Switch Coin Door Power Station #2 Ground for Ticket Dispensor Lower White Bonus Lights Power for Ticket Dispensor Power for Ticket Dispensor Coin Ground Station #2 Coin Input Station #2 DBA Input Station #2 DBA Input Station #1 Ficket Notch #2 Ticket Motor #2 Ficket Motor #1 icket Notch # Purpose = LED Constant Current Drive = TTL Input/Output **=High Side Driver** =Low Side Driver HIGHSIDE #10 **HIGHSIDE** #11 OWSIDE #12 = Ground Pin Type 12 Volts Ground Ground Ground Ground Ground B 18 19 13 4 15 16 8 20 12 ထ တ 4 J25 J25 **J25 J25 J25 J**22 222 **J22 J22 J**22 **J**22 **J**22 **J22 J**22 **J22 J**22 **J**22 **J**22 **J25** 9 9 9 **J**22 J22 Arrow Right ButtonLamp Station #2 Arrow Right ButtonLamp Station #7 Arrow Left ButtonLamp Station #2 Arrow Left ButtonLamp Station #1 Select ButtonLamp Station #1 Select ButtonLamp Station #2 **Upper White Bonus Lights** Coin Door Power Station #7 Mechanical Counter #1 Mechanical Counter #2 Coin Ground Station #1 Coin Input Station #1 LED Glow Station #2 LED Glow Station #1 Service Button #1 Service Button #2 Purpose OWSIDE #2, w dioc w diod **IIGHSIDE** #13 **HIGHSIDE #14 OWSIDE #4** OWSIDE #5 OWSIDE #6 OWSIDE #7 LOWSIDE #8 OWSIDE #3 OWSIDE #9 Volts Pin Type ·12 Volts 12 Volts 12 Volts 12 Volts 2 Volts 12 Volts 2 Volts 2 Volts Ground Ground Ground

BayTek Connect 4 NEWGEN1 Hardware REV D Pinout - Version 1

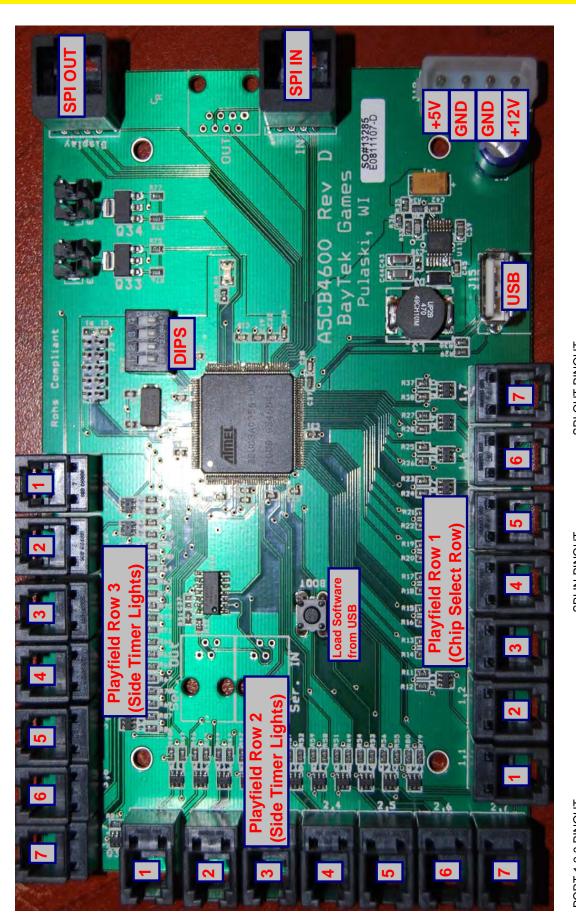
MAINBOARD PINOUT GUIDE

- 0 K 4 G O

Driver 13
Driver 14
+12 Volts
Driver 15
Driver 16
+12 Volts

	0 0	2	,		2	ŀ
PB19	Arrow Left Button Station #1	121	_	Driver 1	212	_
PX39	Arrow Right Button Station #1	J21	7	Driver 2	J12	7
PX00	Select Button Station #1	J21	က	+12 Volts	J12	က
PX01	Arrow Left Button Station #2	J21	4	Driver 3	J12	4
PB20	Arrow Right Button Station #2	J21	2	Driver 4	J12	2
PX02	Select Button RIGHT Station #2	J21	9	+12 Volts	J12	9
PB21	Low Tickets Switches	J21	7			
PB22		J21	8	Driver 5	J11	_
PB23	Jersey LockOut Station #2	J21	6	Driver 6	111	7
PB24	Jersey LockOut Station #1	J21	10	+12 Volts	111	က
Ground		J21	1	Driver 7	111	4
Ground		J21	12	Driver 8	J11	2
Ground		J21	13	+12 Volts	111	9
Ground		J21	4			
+12 Volts		J21	15	Driver 9	J13	_
+12 Volts		J21	16	Driver 10	J13	7
+12 Volts		J21	17	+12 Volts	J13	က
+12 Volts		J21	18	Driver 11	J13	4
PB25		J21	19	Driver 12	J13	2
PB26		J21	20	+12 Volts	J13	9

CB4600 BOARD PINOUT (LIGHT CONTROL)



PINO D	SCK	MO	GN GN	SS	GNE
SPIOU	Pin 2 SCK	Pin 4	Pin 5	Pin 6	Pin 7
INON	SCK	MISO	GND	SS	GND
A NI IAS	Pin 2 SCK	Pin 4	Pin 5	Pin 6	Pin 7
,2,3 PINOUI	Pin 1 12V +	Red LEDs	White LEDs	Blue LEDs	
PORI 1	Pin 1	Pin 2	Pin 3	Pin 4	

MISO
*** DIP 3 needs to be ON for use on the Chip Select and Timers

Pin 8

** Playfield rows are numbered as viewed from the back of the game from left to right

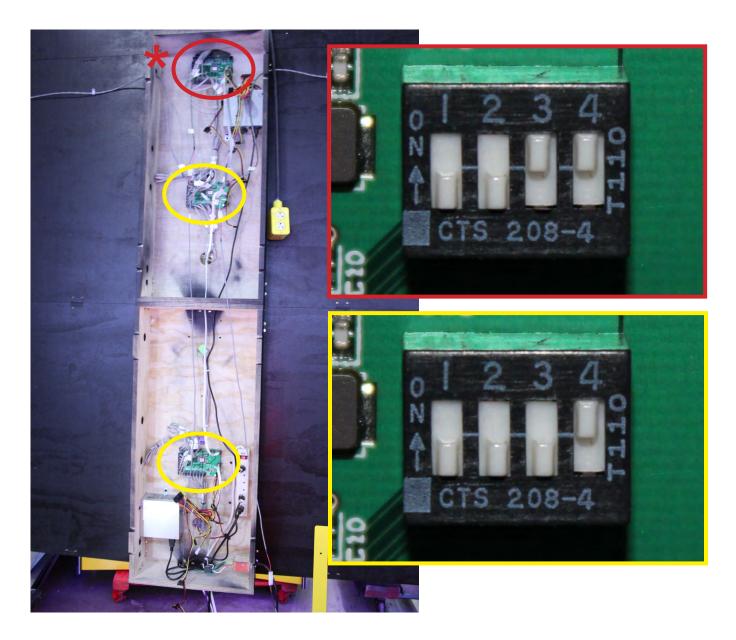
CB4600 BOARD DIPS

These dip banks are located on the light controller boards inside the control boxes on the back of the playfield.

*factory default settings are highlighted below

DIP	DESCRIPTION	DESCRIPTION ON			
1	Test Mode		X		
2	Not Used				
3	Chip Select Board	*	X		
4	LED Board Type	RBW	RGB		

*Dip 3 should be ON for the very top board- it controls the chip topper.



MAINTENANCE LOG

If repairs are necessary, it is good practice to keep a log of repairs done and parts ordered.

The chart below will assist you in tracking your game's maintenance.

DATE	MAINTENANCE PERFORMED	PARTS ORDERED	INITIALS

TECHNICAL SUPPORT

Excellent customer service is very important to Bay Tek Games!

We know that keeping your games in great operating condition is important to your business.

When you need us, we are here to help. You can call us for free technical assistance, and you can count on us to have parts on-hand to support your game. We offer options that fit your needs.

Electronics / Circuit Boards - Repair Options

Repair & Return – If you have Circuit Board issues with your Bay Tek game, you can send the board to us and we'll repair it right away. Most items sent to us are repaired and returned to you within two days. This option is your best value as we offer this fast turn-around service at the most reasonable price.

Advance Replacement – If you have Circuit Board issues with your Bay Tek game, but you don't have time to send in your board in for repair, give us a call and ask for an Advance Replacement. We'll send you a replacement board that same day (pending availability). When you get your new board, just repackage the defective board in the same box and send it back to us. We make it easy by including a UPS Return Shipping label for you to put on the box (not available for international shipments). This is your best option when you need to get your game up and running as quickly as possible!

Spare Parts – Take matters into your own hands and purchase new spare Circuit Boards for your Bay Tek games. Many of our games share the same main-board electronics. This means you can buy one set of spare electronics to support many of your Bay Tek games. Spare boards allow you to get your game up and running the quickest and provide you a valuable troubleshooting option. Call our technicians to get recommendations for what you should keep on hand for spare parts!

Technical Support:

"You" are the best tool for troubleshooting! Your abilities to understand the game and your skills to repair the game are invaluable to us! If you need help, you know you can call us. It's not easy to diagnose a game remotely by phone, but our technicians do a great job. They'll need your help to perform some troubleshooting steps and convey to them exactly what's happening with your game.

Returns, Credits, & Fees:

NOTICE! ALL ITEMS being sent to Bay Tek Games for repair or return, etc. require prior Return Authorization! Bay Tek Games will provide a Product Return Form with an authorizing Ticket Number for each item to be returned. Please be certain to include this document with all shipments! **Late Fees and Non-Return Fees -** Advance Replacement and Warranty Replacement items require the defective items to be returned by Bay Tek games promptly to avoid Late Fees. We expect items to be returned with 10 working days. Late fees are invoiced monthly. Late fees are non-refundable under any circumstance! Any item not returned within 90 days will be invoiced in full as a replacement part. **Bench Fees -** Bench fees will apply for each electronic item returned to Bay Tek Games (this includes unused Advance Replacement items). This charge covers our cost to inspect, evaluate and retest each item. Please note that returned items that do not pas our tests will be charged accordingly as replacement items or advance replacements.

Restocking Fees - Unused items returned for credit will be credited minus a restocking fee. Items must be returned with in 30 days of purchase in order to qualify for any credit amount. No shipping charges will be credited.

WARRANTY

Bay Tek Games warrants to the original purchaser that all game components will be free of defects in workmanship and materials for a period of 6 months from the date of purchase. If you fill out the registration card in the cashbox of the game, Bay Tek will add another 3 months to your warranty, free of charge.

Bay Tek Games will, without charge, repair or replace defective component parts upon notification to the parts/service department while the game is under warranty.

Warranty replacement parts will be shipped immediately, via ground service, along with a Product Return Form for the return of defective parts.

Defective parts must be shipped back to Bay Tek Games unless otherwise instructed. Items not returned to Bay Tek Games will be invoiced as replacement parts.

This warranty does not apply in the event of any misuse or abuse to the product, or as a result of any unauthorized repairs or alterations. The warranty does not apply if any serial number decal is altered, defaced, or removed from its original position.



ATTENTION



In order to maintain the safety & compliance certifications of this game, ONLY approved parts may be used. For approved replacement parts, refer to the parts list in this manual.

Should you need your game serviced, determine the serial number from the decal placed on the front of this manual, or locate it on the back of the game. Then contact our Service Department at: 920.822.3951 or e-mail: service@baytekgames.com

NON-WARRANTY

Options and estimated charges will be provided to you for your approval.

Please remember that any items being sent to Bay Tek Games must include prior return authorization from our Parts & Service Department.

This approval will include a Product Return Form which is required to be included with any incoming shipments. Repaired parts will be shipped back using the same method in which they were received.

Repairs are warranted for 30 days from the date of return shipment.

