

## FACTORY CONTACT INFORMATION



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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 $4^{\text {TM }}$ purchase!

Everyone young and old loves the nostalgic gameplay of Connect $4^{\text {TM }}$, 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 $4^{\mathrm{TM}}$ 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 7ek Games



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## GAME INSPECTION

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## GAME SPECIFICATIONS

| WEIGHT |  |
| :---: | :---: |
| NET WEIGHT | 940 LBS |
| SHIP WEIGHT | 1015 LBS <br> (1140 wITH STOOLS) |
| DIMENSIONS |  |
| WIDTH | $124 "$ |
| DEPTH | $108 "$ |
| HEIGHT | $122^{\prime \prime}$ |
| OPERATING <br> TEMPERATURE |  |
| FAHRENHEIT | $80-100$ |
| CELSIUS |  |

POWER REQUIREMENTS

| INPUT VOLTAGE <br> RANGE | 100 to 120 <br> VAC | $/$ | 220 to 240 <br> VAC |
| :---: | :---: | :---: | :---: |
| INPUT FREQUENCY <br> RANGE | 50 HZ | $/$ | 60 HZ |

$\left.\begin{array}{|c|c|}\hline \text { MAX START UP } \\ \text { CURRENT }\end{array} \begin{array}{c}\text { OPERATING } \\ \text { CURRENT }\end{array}\right]$

## SAFETY PRECAUTIONS

| A | R |  |
| :---: | :---: | :---: |
| 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. |  |  |
| A | 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. |  |  |
| - | 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. the supply cord is damaged, it must be replaced by an approved cord or assembly provided by the manufacturer. |  |  |
| - | IN CASE OF EMERGENCY |  |
| UNPLUG THE POWER CORD. <br> 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)


## SET UP GUIDE, CONT.

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.


## SET UP GUIDE, CONT.

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


## SET UP GUIDE, CONT.

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.


## SET UP GUIDE, CONT.

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 walite phone ঞable (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.


## SET UP GUIDE, CONT.

Connect the two halves of the playfield by plugging in the cables shown; one whlies [phone oord (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.


## SET UP GUIDE, CONT.

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 |  |  |
| 4 | (credit lockout/tickets owed) |  |  |

## 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.


## Conmect 4 Main Menu

## Fambe -retur

statistics Menu Diagmostic Menu Exifi Memu

## PL SW Version $=1.00$ Minigen SW Version = /VDNE

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


## GAME SETUP MENU



| Coins/Credits per Game | Number of credits per game, per player | 0 |  | 1 |  | $\underset{(\text { (card swipe) }}{1}$ |  | 2 |  | 4 |  | 6 |  | 8 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time Per Turn | Seconds allowed per chip drop before autodrop | 6 |  | 8 |  | 10 |  | 12 |  | 20 |  | 30 |  | 60 |  |
|  | Tickets awarded to winner/ loser/ draw | $\begin{gathered} 5 / 1 / 1 \\ 6-10 \text { avg } \end{gathered}$ |  | $\begin{array}{\|c\|} \hline \text { 10/5/5 } \\ 10-14 \text { avg } \end{array}$ |  | $\begin{gathered} \text { 20/5/10 } \\ 15-20 \mathrm{avg} \end{gathered}$ |  | $\begin{array}{\|l\|} \hline 30 / 10 / 15 \\ 22-26 \text { avg } \end{array}$ |  | $\begin{aligned} & 40 / 10 / 20 \\ & 27-30 \text { avg } \end{aligned}$ |  | $\begin{aligned} & \mathbf{5 0 / 1 0 / 2 5} \\ & 31-35 \mathrm{avg} \end{aligned}$ |  | $\begin{aligned} & \mathbf{5 0 / 2 0 / 2 5} \\ & 36-40 \text { avg } \end{aligned}$ |  |
| Tickets |  | $\begin{aligned} & \text { 60/20/30 } \\ & 41-45 \text { avg } \end{aligned}$ |  | 80/30/4055-60 avg |  | 80/40/40 61-65 avg |  | 100/40/50 70-75 avg |  |  |  |  |  |  |  |
| Jackpot Value | Tickets awarded for a bonus win (requires artwork change) | 500 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 intelligence in one-player mode | $\underset{\text { (EASY) }}{1}$ |  | 2 | 3 | 4 | $\begin{gathered} 5 \\ \text { (NORMAL) } \end{gathered}$ |  | 6 | 7 | 8 | $\stackrel{9}{(H A R D)}$ |  | AUTOADJUST |  |
| 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 BONUS |  |  |  |  |  |  |  | BONUS DISABLED |  |  |  |  |  |

## 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.

## DIAGNOSTIC MENU



| 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 | When any of these inputs are activated, it will show ON inthe right column. |
| Right Arrow Red |  |
| Select Red (drop) |  |
| Left Arrow Blue |  |
| Right Arrow Blue |  |
| Select Blue (drop) |  |
| Service 1 |  |
| Service 2 |  |
| 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.

## Connect $4-1 n-a-R O W$ ito wnin Winner: 50 tickets Loser:20tickets <br> +a chance to win 500 Bonus tickets)

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.


## Instructions:

- Enter menu and cycle to "Game Menu"

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



A5DE4662-80/30
55-60 Tickets per Game


A5DE4662-80/40
61-65 Tickets per Game


A5DE4662-100/40
70-75 Tickets per Game

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 doorreaching 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:


## 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) To trigger your file to load, press the small pushbutton next to the dipswitches.

NOTE: 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.
2.) Check $A C$ power connection to power supply.
3.) Ensure Power Supply switch is set to 115 V (or 230 V )
(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.

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

## Important—Do not hold button down to long or Bill Acceptor will enter programming mode. <br> 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 <br> CODE | DESCRIPTION | CORRECTIVE <br> 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 <br> during operation | Stringing attempt de- <br> tected; or sensors dirty | Clean the sensors |



## 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.

| Symptom |  | Probable Cause | Remedy |
| :---: | :---: | :---: | :---: |
| No power to the game. <br> No lights on at all. <br> No light on front power strip. |  | Unplugged. <br> Circuit breaker tripped. <br> Power strip in back of game is faulty. <br> Faulty cable/power supply. | Check wall outlet, power cord to back of game (A5CORD5) Line Filter (A5FI9010) <br> Reset power strip breaker switch or building circuit breaker. <br> Remove back wood panel, change plug position, replace if needed. <br> Refer to AC Power to Game Section. |
| AC Light and Bill Acceptor on. <br> But everything else off. <br> (Power Supply not ON) |  | Power supply unplugged. <br> Rocker Switch on power supply is Off. <br> Power supply shutting down because of 12 V overload. <br> Faulty power supply. | Insure unit is plugged into power strip. <br> Make sure rocker switch is set ON. <br> See power supply diagnostics to isolate bad component. A bad motor or 12 volt short would cause this. <br> Refer to Monitor/Motherboard Power Supply Diagnostics section. |
| LED cabinet lighting not working. |  | 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. |
| No Audio | Volume too low. <br> Loose wire. <br> Faulty main Board <br> Faulty motherboard | Increase the volume by pres scroll to "Game Volume" and <br> Check audio cable connectio from motherboard to main b <br> Check audio cable connectio main circuit board(AANEWG (AAMB7) <br> Replace Main Board. (AANE motherboard. <br> Replace Motherboard. (AAM removed from motherboard MP3 player works, then moth | s from speaker(AACE8811), cable(AACE4604), N1-PJ), cable(A5CEAU010), motherboard <br> VGEN1-PJ) Main board amplifies sound from <br> 7) Motherboard creates sound. Cable can be MP3 player to test for sound amplification. If the erboard is faulty. |

## TROUBLESHOOTING GUIDE

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

## TROUBLESHOOTING GUIDE

| Symptom | Probable Cause | Remedy |
| :---: | :---: | :---: |
| Dollar Bill Acceptor not functioning. <br> Caution - 110 Volts AC <br> Cable can be moved between left and right sides to isolate problem to DBA. | Ensure bill acceptor has 110 Volts AC. <br> Dirt or debris in acceptor slot. <br> Ensure acceptor dipswitch is set to "always enable" <br> Pinched, broken, or disconnected wiring. <br> Bill acceptor problem. | Acceptor should cycle stacker at game power up. If not, check cable connections to power strip. <br> Clean with bill reader cleaning card(A5CC9000) <br> There are dips on side of acceptor. <br> Set to "always enable", not harness enable <br> Check wiring from bill acceptor to main board. Repair or replace wiring harness. <br> (AACE4626, AACE4627, AAACE4602) <br> 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. <br> Power down, wait 10 seconds and power up again. | Error on screen at power up. <br> Display stops at "No bootable device - insert boot disk and press any key" <br> Re-Boot game to see if problem still exists. | Flash drive unplugged from board or faulty. <br> Re-seat and try power on to game again. <br> Insert USB stick in different slot on motherboard <br> Replace USB software stick. <br> Replace motherboard. (AAMB7) |
|  | 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. <br> Power cable unplugged from monitor. <br> Faulty monitor. | Ensure power is plugged into back of monitor, down to power strip. <br> Replace monitor. (A5MO2200) |

## TROUBLESHOOTING GUIDE

| Symptom | Probable Cause |  |
| :--- | :--- | :--- |
| Monitor prob- <br> lems | Blurry Monitor - Too bright, or <br> dim. | Monitor will have to be removed from game, and ad- <br> justed from front of screen. <br> Refer to "How to Remove Monitor" Section <br> Use menu buttons to access monitor adjustment |
| Both sides do <br> not coin up. <br> Menu buttons do <br> not work. | Communication between <br> motherboard and main board <br> disrupted. <br> I/O Aux Board may be faulty, <br> wires disconnected from main <br> board, or not receiving 12 <br> VDC power. | Refer to Motherboard to MiniGen Board <br> Communication troubleshooting section for details on <br> cable connections. <br> Check I/O Aux Board for any disconnected wires. <br> Ensure phone cable is plugged into blue socket on <br> main board. |
| Game does not <br> coin up. | One of coin switches <br> jammed, or held down. <br> Short in coin door harness. <br> There should be 5 Volts <br> between grey and green <br> wires. <br> Switch faulty in coin mech. | If one coin switch is "closed" the other one will <br> not work either. <br> Unplug white molex from door, and jump between <br> grey and green wires to simulate coin-up. <br> To clear Credits: <br> Press Menu Se- <br> lect button while one coin switch at a time and verify coin <br> not in menu. |
| Disch is wired normally open. <br> Replace coin mech if coin is always rejected. (A5CM- <br> ken wires. <br> Mini-Gen Main Board faulty. | Check connectors. Check for continuity. <br> (AACE4601, AACE4602, AACBL4A-DOOR) |  |
| Replace main board. (AANEWGEN1-PJ) |  |  |

## TROUBLESHOOTING GUIDE

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

## TROUBLESHOOTING GUIDE

| Symptom | Probable Cause |  |
| :--- | :--- | :--- |
| Lights under player <br> stations do not light up. <br> LED strip under <br> faulty <br> Faulty Cable <br> Faulty Main Board | Remove plastic cover and examine LED strip. <br> Check cables from LED strips to main board. <br> (AACE4620, AACE4621, AACE4608) <br> Replace main board. (AANEWGEN-PJ) |  |
| Lights under player <br> stations stay on all the time. | Surface mounted <br> transistor blown on <br> main board. | Replace main board. (AANEWGEN-PJ) |

## MAIN BOARD WIRING



## PLAYFIELD WIRING



－－－
Viewed from Front of Game

3,7 3，6 3，5 3，4 3，3 3，2, 1
为品
號运 －票
 To Front of Game


## PLAYFIELD WIRING EXAMPLE



## WIRING DIAGRAMS

## COIN DOORS AND TICKET DISPENSERS

## Right Side Player Station

To Ticket Dispenser
Part \# A5TD1
Red= 12 Volt Power White=Enable Signal Black= Com Ground Blue= Notch Signal


To Ticket Dispenser
Part \# A5TD1
Red= 12 Volt Power White=Enable Signal Black= Com Ground Blue= Notch Signal

Left Side Player Station

## WIRING DIAGRAMS

## LOW TICKET SWITCHES, SPEAKERS, MENU BUTTONS



To AACE4600 - to J21 Connector Right Side Low Ticket Switch

Low Ticket Switch
Wired Normally Open
A5SW200


To AACE4600 - to J21 Connector Left Side Low Ticket Switch

Low Ticket Switch Wired Normally Open A5SW200


## WIRING DIAGRAMS

## PLAYER STATION BUTTONS AND COUNTERS



## WIRING DIAGRAMS

## MOTHERBOARD TO MINIGEN COMMUNICATION



## WIRING DIAGRAMS

## AC POWER TO GAME



## WIRING DIAGRAMS



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 | 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) |  |  |
| A5CB4603 | 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- <br> 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



## PARTS PICTURES



A5OU1000


AACE8868


A5CB8020


A5LI0001


AACBL4A-DOOR A5TT4100


AAPS4600


AACE4600


A5CORD1


A5LK5001


A5PL9097


AACE4601


AASW200


A5DC9950


A5BR4600


A5PL9995


AACE4602


A5CEAU010


A5FI9010


A5CA4600


A5TD1


AACE4603

## DECAL IDENTIFICATION



## MAINBOARD PINOUT



## MAINBOARD PINOUT GUIDE

BayTek Connect 4 NEWGEN1 Hardware REV D Pinout - Version 1


| PX37 | Ticket Notch \#1 | J5 | 1 |
| :--- | :---: | :---: | :---: |
| Ground | Ground for Ticket Dispensor | J5 | 2 |
| PB18 | Ticket Motor \#1 | J5 | 3 |
| +12 Volts | Power for Ticket Dispensor | J5 | 4 |


| PB16 | Ticket Notch \#2 | J9 | 1 |
| :--- | :---: | :---: | :---: |
| Ground | Ground for Low Ticket Switch | J9 | 2 |
| PB17 | Ticket Motor \#2 | J9 | 3 |
| +12 Volts | Power for Ticket Dispensor | J9 | 4 |



| Pin Type | Purpose | Ref | Pin \# |
| :--- | :---: | :---: | :---: |
| Ground | Coin Ground Station \#2 | J 24 | 1 |
| Ground |  | J 24 | 2 |
| +12 Volts | Coin Door Power Station \#2 | J 24 | 3 |
| +12 Volts | Coin Input Station \#2 | 4 |  |
| PB7 | Lower White Bonus Lights | J 24 | 5 |
| LOWSIDE \#12 | DBA Input Station \#2 | 6 |  |
| PX29 |  | J 24 | 7 |
| HIGHSIDE \#10 |  | J 24 | 8 |
| HIGHSIDE \#11 |  | J 24 | 9 |
| $3.3 V$ | J 24 | 10 |  |



| HIGHSIDE \#13 | LED Glow Station \#1 | J25 | 1 |
| :--- | :---: | :---: | :---: |
| HIGHSIDE \#14 | LED Glow Station \#2 | J25 | 2 |
| PX10 | Service Button \#1 | J25 | 3 |
| PX11 | Service Button \#2 | J25 | 4 |
| Ground |  | J25 | 5 |
| Ground |  | J25 | 6 |


| +12 Volts | Coin Door Power Station \#1 | J6 | 1 |
| :--- | :---: | :---: | :---: |
| PA05 | Coin Input Station \#1 | J6 | 2 |
| Ground | Coin Ground Station \#1 | J6 | 3 |

## MAINBOARD PINOUT GUIDE

|  |  |
| :---: | :---: |
|  |  |




| PB19 | Arrow Left Button Station \#1 | J21 | 1 |
| :--- | :---: | :---: | :---: |
| PX39 | Arrow Right Button Station \#1 | J21 | 2 |
| PX00 | Select Button Station \#1 | J21 | 3 |
| PX01 | Arrow Left Button Station \#2 | J21 | 4 |
| PB20 | Arrow Right Button Station \#2 | J21 | 5 |
| PX02 | Select Button RIGHT Station \#2 | J21 | 6 |
| PB21 | Low Tickets Switches | J21 | 7 |
| PB22 |  | J21 | 8 |
| PB23 | Jersey LockOut Station \#2 | J21 | 9 |
| PB24 | Jersey LockOut Station \#1 | J21 | 10 |
| Ground |  | J21 | 11 |
| Ground |  | J21 | 12 |
| Ground |  | J21 | 13 |
| Ground |  | J21 | 14 |
| +12 Volts |  | J21 | 15 |
| +12 Volts |  | J21 | 16 |
| +12 Volts |  | J21 | 17 |
| +12 Volts |  | J21 | 18 |
| PB25 |  | J21 | 19 |
| PB26 |  | J21 | 20 |

## CB4600 BOARD PINOUT (LIGHT CONTROL)



## 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 | ON | OFF |
| :---: | :---: | :---: | :---: |
| 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 |
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## 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.


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.


