SERVICE MANUAL



FACTORY CONTACT INFORMATION



BAY TEK ENTERTAINMENT Pulaski Industrial Park 1077 East Glenbrook Drive Pulaski, WI 54162 USA

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

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WELCOME TO WILLY CRASH

Congratulations on your purchase!

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 Entertainment

GAME INSPECTION

Please inspect the game for any damaged, loose, or missing parts.

If damage is found, please contact your freight carrier first. Then, contact Bay Tek Entertainments' Service Department at (920) 822-3951 Ext. 1102 Or email us at service@baytekent.com for further assistance.

	GAN	NE SPEC		FICATION	S
	WEIGHT			POWER R	EQ
NET WEIGHT	400 lbs.	182 kg			
SHIP WEIGHT	500 lbs.	227 kg		INPUT VOLTAGE	1
GAM		ONS	-	INPUT FREQUENCY	
WIDTH	53"	135 cm	-		
DEPTH	57"	145 cm		MAX OPER/	ATI
HEIGHT	107"	272 cm		3.3 AMF	PS (
OPERAT		RATURE		1.9 AMF	PS (
FAHRENHEIT	45 -	· 80 F		· · · · —·	
CELSIUS	7.2 -	26.7 C		Note: The marqu	ee
SHIPP	ING DIMENS	IONS		removed to low (86 l	/er ncł

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POWER REQUIREMENTS

INPUT VOLTAGE	115 VAC	230 VAC
INPUT FREQUENCY	60 Hz	50 Hz

MAX OPERATING CURRENT

3.3 AMPS @ 115 VAC

1.9 AMPS @ 230 VAC

Note: The marguee artwork can be removed to lower game to 7' 2" (86 Inches)

SAFETY PRECAUTIONS

Modifications to the mechanical, electrical and structural components of this game may void its compliance certifications.

This appliance is suitable for INDOOR, DRY locations only.

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.

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.

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 shielded power cable must be used for the game to retain EU/EMC compliance.

IN CASE OF EMERGENC

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UNPLUG THE POWER CORD. The power cord must be accessible at all times in case of an emergency.

WILLY CRASH GAME SETUP

The game will arrive on one pallet. Please inspect the pallet for shipping damage and report immediately to the freight company if any damage is found.



Unbox the pallet and remove the plastic from the top of the player console. This is the marquee.

Please unwrap the marquee and proceed to assembly instructions.

Tools Needed: 1 step ladder (4-6 foot) # 2 Square bit

Remove the keys from the small plastic bag taped to the top console.

Unlock the front door using a H95 key.

Unlock the coin box door using a E00 key.

Remove the hardware kit and power cord from the coin box.

Close and lock coin box door, remove key to allow the front door to close fully.



WILLY CRASH GAME SETUP

Unlock and remove the back door using a H95 key.

Route the power cord through the hole in the back of cabinet, and plug into the line filter inside the game.

Replace the back door.

Peel the protective plastic film from the marquee artwork, and apply the bonus ticket value desired to the white outline as shown.

Using a ladder, position the marquee artwork on top of the game and secure using 8 of the black # 2 square drive screws from the hardware kit. (4 per side)

The artwork is notched to ease installation.



Bonus Ticl

Power on game:

Open the front door and turn on the rocker switch on the power strip.

The game is now set up and ready for play!

Enter menu to adjust settings to your location specific price per play and ticket payout.







ADJUSTABLE MARQUEE



AVAILABLE BLANKING PLATES



A5PL4200 DBA Plate for 12V Upstacker Bill Acceptor



A5PL8900 Plate used for Bill Validator



A5PL9998 Plate used instead of Coin Mechanisms



A5PL9995 Plate used instead of ticket dispenser

CARD SWIPE SYSTEM INSTALLATION

The Willy Crash game is pre-wired with a UCL (Universal Card Link) connector to accept Card Swipe systems from many different manufactures.

Please follow these instructions to make full use of this capability.



Option #2:

If your card swipe systems does not have a standard 9 pin Molex connector, then you will have to splice wires into the AACE8006 harness.

> Black wire is ground. (common) Green wire is coin signal. Red wire is +12 Volts DC



Notes:

- Many card swipe systems have a voltage threshold that can be adjusted in the card swipe menu. Please set this "Game Drive Threshold" to 2 Volts.

Menu Changes

Enter menu, go to "Game" Menu Set "Game Mode" to desired option

Go to "Payout" Menu Verify "Credits" set to 1 Verify "Card Reader" set to "Enabled"

Check dipswitches on the I/O Aux Board in the front of game. Verify Dipswitch # 5 ON

HOW TO PLAY

Time your launch to shoot Willy into the air, aiming to land on a building.

Press plunger down to launch Willy from the cannon!

Collect tickets!







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Bistro

MAIN MENU FUNCTIONS

The Menu and Menu Select buttons are located inside the front door.

Hold the MENU button down for 1 second to open the main menu on the monitor.

Press MENU to scroll through the options, and MENU SELECT to change the settings.



	MAIN MENU		
Clear Tickets & Credits	Press the MENU SELE clear credits and	ECT button 3 times to d tickets owed	
Volume & Attract Menu	Press MENU SEL Volume & At	ECT to enter the tract Menu	
Game Menu	Press MENU SEL Game I	ECT to enter the Menu	
Payout Menu	Press MENU SEL Payout	ECT to enter the Menu	
Statistics Menu	Press MENU SEL Statistics	ECT to enter the Menu	
Diagnostics Menu	Press MENU SELECT to enter the Diagnostics Menu		
Reset Factory Defaults	Press MENU SELECT button 3 times to reset factory defaults		
Mute	ON (No sound from game)	OFF	
Exit	Press MENU SELECT	button to exit menu	

MAIN MENU

Clear Tix & Credits: [3x] Volume & Attract Menu >> Game Menu >> Payout Menu >> Statistics Menu >> Diagnostics Menu >> Reset Factory Defaults: Reset Mute: OFF Exit PC Version: 1.0.4 Door Board Version: 1.2 Light Board Version: 1.3

*** Default settings are highlighted in yellow

Software versions are shown on the bottom of the main menu screen.

PC Version: 1.0.4 Door Board Version: 1.2 Light Board Version: 1.3

If one shows "Not Found" then the circuit board is not communicating to motherboard.

VOLUME AND ATTRACT MENU

Scroll through the options by pressing the "MENU" button.

Change selection with the "SELECT" button. Scroll to "BACK" and press the "SELECT" button to go back to

the main menu.

VOLUME & ATTRACT SETTINGS MENU

Attract Volume: 4

Game Volume: 6

- Jackpot Volume: 8
 - Attract Timing: 3

Default settings are highlighted in yellow below.

Back

				ATTR	ACT VC	OLUME				
0	1	2	3	4	5	6	7	8	9	10

Sets the volume level of the attract loop when the game is not being played. "0" means the volume is off.

				GAN		UME				
0	1	2	3	4	5	6	7	8	9	10
		0 - 4 - 4 - 4			- I	N"	سيامين مطل			

Sets the game's playing volume. "0" means the volume is off.

				JACK	POT VO	LUME				
0	1	2	3	4	5	6	7	8	9	10

Sets the volume level of the celebration when Willy lands on a rooftop. "0" means the volume is off.

				ATTRAC	CT TIMII	NG			
1	2	3	4	5	6	7	8	9	10

Sets the time in minutes between attract sound cycles.

GAME SETTINGS MENU

Scroll through the options by pressing the "MENU" button.

Change selection with the "SELECT" button.

Scroll to "BACK" and press the "SELECT" button to go back to the main menu.

Default settings are highlighted in yellow below.

GAME SETTINGS MENU

Game Mode: Tickets Repeat Reward: 4 Cannon Speed: Auto Bonus Building: Normal

Back

	GAME MODE	
Tickets	Points	Coupons

"Tickets" means the game will pay out tickets, and show the word "Tickets" on screen.

"Points" means the game will pay out tickets, and show the word "Points" on screen. "Coupons" means the game will pay out tickets, and show the word "Coupons" on screen.

		REPEAT	REWARD		
Disable	2	3	4	5	6

Sets the number of repeat plays needed before Willy changes his helmet/outfit. "Disable" means no change.

	CANNO	N SPEED	
Auto	Easy	Normal	Hard
Sote the sr	and of the cappon mover	nont "Auto" moone the er	hood varios

Sets the speed of the cannon movement. "Auto" means the speed varies.

"Easy" is a constant slow speed. "Normal" is a constant medium speed.

"Hard" is a constant fastest speed.

BONUS BUILDING

	Auto	Easy	Normal	Hard	Very Hard	Move After Win
--	------	------	--------	------	-----------	----------------

Sets the location of the "Bonus Building"

"Auto" adjusts the building location depending on the number of games played since the last win.

"Easy" sets the 3rd building as the Bonus Building.

"Normal" sets the 4th building as the Bonus Building.

"Hard" sets the 5th building as the Bonus Building.

"Very Hard" sets the 6th building as the Bonus Building.

"Move After Win" moves the Bonus Building to the right after a win.

PAYOUT MENU

PAYOUT SETTINGS MENU

Scroll through the options by pressing the "MENU" button. Change selection with the "SELECT" button. Scroll to "BACK" and press the "SELECT" button to go back to the main menu.

Credits: 1 Card Reader: Disabled Bonus Building: 1000 Large Building: 100 Medium Building: 35 Small Building: 25 Alley Value: 5 Fixed Tickets: Disabled

Default settings are highlighted in yellow below.

Back

				C	REDIT	5				
0	1	2	3	4	5		17	18	19	20

Sets the amount of credit pulses needed to start a game. "0" will be free play.

CARD R	EADER	
ENABLED	DISABLED	

"ENABLED" will show "Swipe Card to Play" verbiage on the screen.

		BO	NUS BUILDI	NG		
100	250	500	1000	1500	2000	2500

Sets the amount of tickets for the Bonus Building

			LAF	RGE VA	ALUE E	BUILDI	NG			
10	20	30	 80	90	100	110	120	 230	240	250

Sets the amount of tickets for building 3 and 5

			MED	DIUM V	ALUE	BUILD	ING			
5	10	15	 25	30	35	40	45	 140	145	150

Sets the amount of tickets for building 2 and 6

			SMA	ALL VA	LUE	BUILDI	NG			
1	2	3	 23	24	25	26	27	 23	24	25

Sets the amount of tickets for building 1 and 7

				ALL	EY VA	LUE			
1	2	3	4	5	6	7	 24	25	26

Sets the amount of tickets for the alleys between the buildings

			FIXE	D TICK	ETS			
Disabled	1	2	3	4	5	 28	29	30

Sets every ticket value to be the same, if desired. "Disabled" will use the above menu settings

TICKET PATTERNS

These are estimates of Average Tickets per Game using the shown ticket values for building and alleys.

Change ticket values in the "Payout Menu" to change your individual payout percentages.

	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 6	Pattern 7
Bonus Building Value	1000	1500	500	500	100	100	1000
Large Value Building	100	150	100	75	25	10	100
Medium Value Building	35	75	75	50	10	5	35
Small Value Building	25	50	50	25	5	3	25
Alley Value	5	25	20	5	3	1	5
Recommended Cost per Play	\$1.00	\$2.00	\$1.50	\$0.75	\$0.50	\$0.25	\$1.50
Average Tickets per Game	30-40	50-60	40-50	20-30	10-20	3-5	40-50

GAME STATISTICS MENU

Scroll through the options by pressing the "MENU" button. Change selection with the "SELECT" button. Scroll to "BACK" and press the "SELECT" button to go back to the main menu.

Default settings are highlighted in yellow below.

GAME STATISTICS MENU

Total Games: 0 Total Tickets: 0 Average Tickets: 0 Bonus Winners: 0

> Reset Stats: Cleared Back

TOTAL GAMES

Reports the actual games played since last reset

TOTAL TICKETS

Reports the actual tickets dispensed since last reset

AVERAGE TICKETS

Reports the current average tickets per game since last reset

BONUS WINNERS

Reports the number of bonus winners since last reset

RESET STATS

Press the menu select button 3 times to reset statistics

DIAGNOSTICS MENU

Scroll through the options by pressing the "MENU" button. Change selection with the "SELECT" button. Scroll to "BACK" and press the "SELECT" button to go back to the main menu.

Default settings are highlighted in yellow below.

GAME DIAGNOSTICS MENU

Plunger Input: Off Low Ticket Input: On Credits On DB: 0 Tickets On DB: 0

Ticket Dispenser: Test Test Monitor Light: Red

Back

PLUNGER INPUT

Shows ON when plunger is down, and sensor beam is blocked. LED on sensor board will light.

LOW TICKET INPUT

Shows ON when tickets are sitting on top of the low ticket switch in the ticket tray. (Unless dipswitch # 5 is on)

CREDITS ON DB

Shows the amount of credits currently on the game.

TICKETS ON DB

Shows the amount of tickets to be dispensed on the game.

TICKET DISPENSER

Press MENU SELECT to test dispense a ticket from the ticket dispenser.

TEST MONITOR LIGHT

Press MENU SELECT to cycle through various colors showing around the perimeter of the monitor.

DIPSWITCH SETTINGS

SWITCH	DESCRIPTION	ON	OFF
1	SHOW GAME Does not dispense tickets and clears all accumulated credits		х
2	AMUSEMENT ONLY Does not dispense tickets		Х
3	NJ LOCKOUT Saves tickets owed and unused credits after a power loss		х
4	1/2 TICKET PAYOUT Dispenses 1/2 the amount of tickets as shown on screen. It will round up odd amounts of tickets		х
5	DISABLES LOW TICKET INPUT Disables the low ticket message on screen. This option should be enabled when using a card swipe system		х
6	NOT USED		
7	NOT USED		
8	NOT USED		



Note: **UP is ON**

DOOR BOARD PINOUT



= +12V	= +5V
= Ground	= Output
= Input	

)	u	t	р	u	t	S	;

Q1 (PD1)	Game Counter
Q2 (PD0)	Tickets Counter
Q3 (PD6)	Coin Lockout
PE6	Ticket Enable

PD4	Menu Button
PC6	Select Button
PD7	Ticket Notch
PB4	Coin In
PB5	DBA In
D15 (A1)	Low Ticket Switch Input

CIRCUIT BOARD LAYOUT



COIN MECH, MENU AND COUNTER



SPEAKERS AND MOTHERBOARD COMMUNICATION



SENSORS AND LEDS



AC IN AND POWER SUPPLY



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.

Troubleshooting Chart						
Problem	Probable Cause	Remedy				
No power to the game. No lights on at all.	Unplugged. Circuit breaker tripped. Line Filter Faulty.	Check wall outlet. Reset power strip breaker switch or building circuit breaker. Replace Line Filter (Part # A5FI9010)				
	Power strip faulty. Faulty cable/power supply	Swap positions, replace if needed AACE8020 Refer to wiring diagram. Check cables AACE8019 & AACE8020. Refer to Power Supply diagnostic section				
Monitor on, but everything else off. (Power Supply not ON)	Power supply unplugged. Rocker Switch.	Ensure unit is plugged into power strip. Make sure rocker switch is set ON.				
	Power supply shutting down because of 12 V overload. Faulty power supply. Faulty Power Dist Board	See power supply diagnostics to isolate bad component. A bad motor or 12 volt short would cause this. See Power Supply Diagnostic section. Replace Power Distribution Board (AACB5156)				
Dollar Bill Acceptor not functioning. Ensure Bill Acceptor is set to "Always Enable" Important : Only 12 Volt DBA is to be installed. Model # AE 2454 U5E Part # A5AC9101	Check for power to Bill Acceptor. Dirt or debris in acceptor slot. Pinched, broken, or disconnected wiring. Bill acceptor problem. Part # A5AC9101	 Acceptor should cycle stacker at game power up. If not, check cable connections. Refer to "How to Clean Bill Acceptor" Or clean with bill reader cleaning card. (A5CC9000) Check wiring from bill acceptor to NewGen Board. (AACE8004) Repair or replace wiring harness. Check J8 connector on Main Board Make sure wires are secure in connectors. Refer to troubleshooting section of dollar bill acceptor manual included with this game or the diagnostics label of the back of the unit. 				
Meters do not work. Game meter will click at the end of the game. Ticket meter will click as tickets come out of game and notch is "seen" by dispenser.	Ensure correct number of tickets are being dispensed Disconnected, loose or broken wires. Faulty counter.	Check ticket values in menu. Test Ticket Dispense in Diagnostic menu. Refer to Tickets not dispensing troubleshooting section. Check connections to I/O board. Cables # AACE8005 and AACO1020 Replace counter. AACO1020.				

TROUBLESHOOTING GUIDE							
Problem		Probable	Probable Cause			Remedy	
Game not coining up.		Check for I/O b cable communi	Check for I/O board USB cable communication.			efer to "I/O Aux Board Issue" diagnostic ection.	
		Ensure game makes sound when coin switch is triggered.			C nc wi (A	heck coin switches—both should be wired ormally open. If one switch is "closed" the other ill not work either. Check wiring to I/O Board. ACBL4A-DOORA, AACE8006)	
		Game set to large amount of credits per game.		Check Game Setup Menu. Ensure Coins/Credits per Game is set. Default = 4.			
No Sound		Volume set to zer Ensure "Mute" is s	Volume set to zero in menu. Ensure "Mute" is set to OFF			Enter Volume & Attract Settings Menu and verify:	
Motherboard creates sound, Audio board amplifies it.		Disconnected, loose or broken vires.				Check connections and reseat audio cable from motherboard to Audio Amplifier board to speakers. Cables # AACE8811, AACE8001, A5CE2300 and A5CEAU010 to green socket. Ensure 12 volts at CE8015 cable from power supply.	
					Unplug audio jack cable (A5CEAU010) from motherboard, plug into MP3 player and see if music is amplified and comes out of speaker. If Yes - then motherboard is faulty. If No - then Newgen may be faulty.		
		aulty speaker.			Replace speaker. AACE8811		
Menu Buttons do not work.	Swap butto	o connectors at the	e 2	Replace button if problem stays with button.(AAPB2700)			
	Pinched, broken, or disconnected wiring			Inspect crimp to ensure good connection. Check connections from menu buttons to I/O board. Check continuity on wires. (AAPB2700, AACE8005)			
	Main	n board faulty.		Replace I/O Board. (AACB9604)		O Board. (AACB9604)	
Fa		y Light Bulb	Repl	blace bulb. Part # A5LI0003 (60 Watt 110 VAC)		art # A5LI0003 (60 Watt 110 VAC)	
Marquee Lights are not on. (60 Watt 110 VAC)	Fault	y Cable	Cheo conti	ck for proper connection from bulb to Power Strip. Check inuity. (AACE8868, AACE8018, A5SP4100, A5CORD1)			
(32	Faulty outlet strip Swa			ap power cord into next socket. Replace strip (AACE8020)			

Problem	Probable Ca	use	Remedy	
Inside LED cabinet lighting	LED's to light up playfield receive 12 Volts DC from power supply through the Power Distribution Board.		Check for proper connection from power supply to Power Distribution Board and then to LED strips. Check continuity. (AACE8025, AACE8017, AACB5156, AAPS1013-PTL)	
not working.			Refer to "AC In, Power Supply Wiring Diagram section"	
Colored player console lighting	If all colored cabinet lights are not functioning, check Light Board (AACB8001)		Check power to Light Board from Power Distribution Board. Cable # AACE8016. Check USB cable to Light Board from motherboard. Cable # A5CORD58	
not working. LED's power the star first, then the outside	If LED strip is out, check cable. Refer to "Light Board Wiring Diagram"		Check for proper connection from Light board to LED strips. Check continuity. Refer to "Light Board Wiring Diagram" (AACE8003, AACE8012, AACE8013)	
edge of player console	No 5 VDC power being back fed into LED strip		Verify 5 volts DC on cable AACE8000 from Power Distribution board to end of AACE8013 cable	
	Faulty LED		Replace LED (AACE8013 or AACE8012)	
	Faulty Light Board	Replace Light Board. (AACB8001)		
Colored LED's around monitor do not work.	Faulty Cable No USB communication Faulty LED Faulty Light Board	 Check for proper connection from Light Board to LED strips. Check continuity. (AACB8001, AACE8008, AACE8011) Refer to "Light Board Wiring Diagram" Ensure the A5CORD58 is connected to the motherboard US socket. Red and yellow LED's should be on. Replace LED strip AACE8011 Replace Light board if needed. (AACB8001) 		
Floor LED's do not work.	Faulty Cable No USB communication Faulty LED Faulty Light Board	Check for proper connection from Light Board to LED strips Check continuity. (AACB8001, AACE8009, AACE8028, AACE8010, AACE8029) Refer to "Light Board Wiring Diagram" Ensure the A5CORD58 is connected to the motherboard U socket. Red and yellow LED's should be on. Replace LED strip AACE8010 Swap connectors on board. Replace Light board if needed. (AACB8001)		
Cannon LED's do not work.	Faulty Cable No USB communication Faulty LED	Check for proper connection from Light Board to LED s Check continuity. (AACB8001, AACE8007, AACE8026 AACE8027) Refer to "Light Board Wiring Diagram" Ensure the A5CORD58 is connected to the motherboa socket. Red and yellow LED's should be on. Beplace LED strip AACE8026 or AACE8027		
	Faulty Light Board	Swap connectors on board. Replace Light board if needed. (AACB8001)		

Problem		Probable Cause			Remedy	
Tickets do		Opto Sensor on t dispenser dirty.	Opto Sensor on ticket dispenser dirty.		Blow dust from sensor and clean with isopropyl alcohol.	
or Wrong amount	Tickets on	Faulty ticket disp	Faulty ticket dispenser.		Replace with working dispenser to isolate the problem. (A5TD1)	
dispensed.	not match tickets comin	Notch on tickets on shallow.	cut too	C	Flip tickets and load upside-down to have large cut notch toward opto sensor.	
Check for the correct	out of game.	Faulty cable. Disc loose or broken v	Faulty cable. Disconnected, loose or broken wires. Enter Diagnostic menu and test Dispenser		Check connectors from ticket dispensers to Newgen board. Check for continuity. Cables AACE8006	
tickets		Enter Diagnostic test Dispenser				
showing on Monitor		Check dipswitche Aux Board	Check dipswitches on I/O Aux Board		There are many options that affect ticket payout using the dipswitches. Refer to Dip Switch Setting page.	
		Faulty I/O Board			Replace I/O Board. AACB9604	
	Tickets on monitor do match tickets coming out o game.	Settings in Menu incorrect. s	Settings in Menu are incorrect.		Enter Menu and check certain areas: Preset Payout Pattern Fixed tickets Tickets per payout hit Tickets earned every X hits	
Low Tickets	Tickets are empty in ticket tray		Load swite	Load tickets into tray. Ensure tickets hold down micro switch wire.		
message on monitor	Faulty cable. Disconnected, loose or broken wires.		Cheo Cheo	Check connectors from low ticket switch to I/O board. Check for continuity. (AACE8006)		
	Faulty low ti	cket switch.	et switch. Inspe		spect switch and replace if needed. (AASW200)	
	Faulty I/O B	Board Ch		Check dipswitches on I/O Board, Replace I/O Board if needed. AACB9604		
Plunger does	not fire	Inspect assembly for ohysical obstruction	spect assembly for Er		Ensure arm is breaking the beam. The LED on the board will come ON when beam is blocked.	
Cannon Bottom of plunger is not breaking the opto beam.		Disconnected, loose broken wires.	sconnected, loose or oken wires.		k connections from opto sensor to I/O board. e # AACE8002, AACB3850A)	
		Enter Diagnostic Menu to see if game recognizes		Button should go to ON when button is pushed.		
F		Faulty sensor.		Repla	ace sensor. AACB3850A	
Cannon is firing all by itself		Faulty sensor.		Ensure the LED is OFF and opto beam is not blocked by plunger arm. Clean emitter and detector on sensor board.		
Opto Sensor is blocked, dirty, or faulty.				i iepic		

Problem		Probabl	e Cause		Remedy	
Monitor not working. Power down,	Monitor sl Signal"	nows "No	Monitor HDMI cable unplugged from video card. The game will not boot up with the monitor disconnected Faulty or loose RAM on motherboard Large power connector unplugged on motherboard Small power connector unplugged on motherboard			
minutes and power up again.			Faulty power supply - Refer to Power Supply diagnostic section Faulty Graphics Card - Replace Graphics Card (A5CB8000)			
There is also a small access hole drilled into the middle of the underside of plastic frame	a 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. (AAMO5503-WC)	
A small screw- driver can be used to access the power button.	Error on s power up. Re-Boot g if problem	are to see still exists.	Display shows "Kerne – unable to mount Display shows "ASRC Setup Utility Menu	l panic root")CK "	Faulty or loose RAM, faulty software, faulty motherboard No SATA drive in motherboard. Check for power connector	
I/O Aux Board IssueGraft flatGame does not coin up, and has no other functions.Ref flatFreed and Yellow LEDsGreen Power LEDFa		Green powe flashing. Red and Yel flashing. Faulty I/O A	r LED should be low LED's should be ux Board.	If it is off into boar Distribut If solid o the moth cable. So If they ar motherb Swap ca Replace Part # A	, then check 12 & 5 Volts DC coming rd on cable AACE8014 from Power ion Board. n, then it is not communicating with herboard. Check A5CORD58 USB wap cable with the light board. re off, it is not communicating with the oard. Check A5CORD58 USB cable. ble with the light board. I/O Aux board Replace if needed. ACB9604-WC	

POWER SUPPLY DIAGNOSTICS

- 1.) Verify AC power to game. Check power strip in front door. The rocker switch should be illuminated.
- 2.) Check connection to power supply.
- 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.) Ensure fan is turning.
- If power supply fan is turning and there is no 12 Volt out:
 - Check power supply cables to the Power Distribution Board.

This board takes the power in, and directs it to the different 12 volt loads.



Unplug all power out connectors from the top of the Power Distribution Board. Turn on game and if it boots correctly, plug one cable in at a time until the issue is found.

Replace power supply if this board is not receiving 12 volts. (A5PS1013)

- If power supply fan is not turning, then continue to "Verify Power to Motherboard"

Verify Power to Motherboard

The motherboard will turn on power supply.

If your game has no 12 volts, it may be the motherboard not turning on.

Also - there may be a 12 volt short somewhere in cabinet that is not allowing the power supply to turn on.

Minimize load on power supply and isolate short

Unplug the power supply cables going to the Power Distribution Board.

This will leave the power supply, motherboard, and monitor left plugged in together.

If power supply, motherboard, and monitor now turn on:

Plug in the Power Distribution Board to power supply, but unplug all of the outputs from the board.

Turn on game and verify the 12 volts is good.

Then plug in one component at a time to power supply to locate short.

If power supply still does not power on, then replace power supply (A5PS1013), or replace motherboard. (AAMB10-HD)



BILL ACCEPTOR DIAGNOSTICS

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. Standard DBA is MEI # AE2454-U5E Part # A5AC9101 **Only use 12 Volt DC Bill Acceptor**

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:

Use meter to measure 12 VDC voltage at cable going into Bill Acceptor from front I/O Aux Board

If power is OK: Clean Bill Acceptor path to make sure there is nothing jamming unit.

Check dipswitch settings on side of acceptor.

Make sure switch # 8 is OFF for Always Enable

ERROR CODES

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



OFF arness Enable ÓN Pulse Per Dollar Pulse Per Dollar ON \$1 \$2 \$5 Accept=ON Reject=OFF ON ligh Security OFF igh Acceptance

ways Enable

HOW TO UPDATE SOFTWARE

New Software Installation:

The hard drive contains all the information about the game: Credits per play, ticket pattern, etc. Be sure to check this information after finishing installing new software.

Turn off game by flipping the power switch on the power strip.

Locate hard drive on motherboard.

Press tab on far side of hard drive and gentle remove from motherboard.

Unplug power supply jumper connector and remove old hard drive from unit.





Install new hard drive by gently pushing straight onto motherboard until it "clicks". Turn the game back on by flipping the power switch on the power strip.

Note: The I/O boards will automatically be updated by the motherboard software.

HOW TO FIT THROUGH 39" DOOR

Description:

The monitor surround assembly with wood can be removed from a Willy Crash game to allow the game to fit through a narrow opening door.

Tools Needed:

2 Square bit screwdriver

7/16" Socket Wrench

Instructions:

Unplug the game's power cord from the wall.

Unlock and remove the back door of the game.

Locate the access panel on the right side of the back of game.

Remove the 6 screws using a # 2 Square bit screwdriver. Unplug the HDMI cable from the HDMI 1 slot and pull sticky tabs from the back of the monitor.

The 4 bolts in the recessed holes must be left in place. Do not remove! They hold the monitor to the wood board.

Unplug the monitor power cord from the Y connector in the back. Remove cable clamp to free monitor power cord using a # 2 Square bit screwdriver.

Unplug the bottom 2 four pin molex connectors.

Tuck the light cables, HDMI cable, and the monitor power cord inside the access hole so it can be removed with the wood and monitor.



The monitor wood frame will be attached to the monitor and the wood will come out with the monitor as it is removed from cabinet.

The old monitor can now be removed from the cabinet:

Using 2 people - Remove the 4 nuts & washers with a 7/16" wrench.

Carefully pull the wood off the front of the cabinet and place on a soft flat surface.

Reinstall monitor onto cabinet using reverse process.



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HOW TO REPLACE AAMO5504 MONITOR

Description:

As monitors become obsolete, a different model monitor must be used. The current monitor has differences and some modification to the mounting will be needed. These instructions will walk you through replacing the monitor on the Willy Crash Game.

This kit will included a small square piece of wood attached to a large piece of wood. All of the components from the old piece of wood will swap over to the new piece.

Tools Needed:

2 Square bit screwdriver7/16" Socket Wrench

Phillips Screwdriver Possibly Jigsaw

Instructions:

Unplug the game's power cord from the wall. Unlock and remove the back door of the game.

The back panel needs to be cleared by: Unplug the top 2 connectors.

Remove the 3 white plastic wire saddles from the wood by twisting and pulling. Save to be reinstalled later.

Remove the 2 wood screws using a # 2 Square bit screwdriver.

Unplug the bottom 2 connectors.

Unplug the monitor power cord from the Y connector in the back.

The HDMI cable must be unplugged from the front of the game and be removed as the monitor is removed.

Open front door.

Remove the 1 black screw on HDMI cable using a # 2 square bit. Unplug the HDMI cable from the video card.

Pull this cable to the back of cabinet.

Tuck the light cables, HDMI cable, and the monitor power cord inside the access hole so it can be removed with the wood and monitor.



HOW TO REPLACE MONITOR

The monitor wood frame will be attached to the monitor and the wood will come out with the monitor as it is removed from cabinet.

The old monitor can now be removed from the cabinet.

Using 2 people - Remove the 4 nuts & washers with a 7/16" wrench. Carefully pull the wood off the front of the cabinet and place face down on a soft flat surface. Save to be reinstalled later.

Remove the 12 small black screws on the white plastic surround by using a # 2 Square bit screwdriver. Save to be reinstalled later.

Use the included large piece of wood and swap all of the components from the old piece of wood to the new piece.

Be sure to install the components exactly as was on the old board.

Remove the HDMI cable from the back of the old monitor.

Pull off the sticky tabs to be reused on the new monitor.

Remove the old monitor from the surround.

Using 2 people:

Unbox the new monitor, remove the plastic protector from the edges of the monitor.

Carefully place the new monitor face down in the white plastic surround.

Plug the HDMI cable into the HDMI1 spot on the new monitor.

Place the new wood onto the back of the new monitor. Make sure the T-nut inserts are down against the monitor and the arrow under the wood is pointing to the top of the monitor.

Make sure the large oval hole is toward the bottom of the monitor.

Ensure the power cord, HDMI cable, and light cables are pulled through the large oval hole as shown

Hand thread the 4 bolts, spacers, and washers through the slots in the wood into the TV itself.

Do not use the old spacers - do not tighten fully until all bolts are inserted.

Push wood piece upward to the top of the monitor as shown, then tighten bolts using a Phillips screwdriver.

The new TV should now be securely attached to the new large piece of wood.









HOW TO REPLACE MONITOR

Reinstall the 12 small black screws on the white plastic surround by using a # 2 Square bit screwdriver.

Note: Some cabinets may need the receiving holes to be enlarged to accommodate the new bolt pattern. The easiest way to do this is cut the entire square out from the cabinet.

On the cabinet itself, draw lines connecting the 4 holes as shown. Carefully cut on this line using a jigsaw to create a large opening in the cabinet.

The new monitor assembly can now be installed onto the cabinet.

Using 2 people - Carefully lift and position so the 4 long bolts are aligned into the cabinet.

Reinstall the 4 nuts/washers and tighten using a 7/16" wrench

Plug the monitor's power cord back into the Y connector.

Route the HDMI cable to the front of the cabinet and plug back into the video card. Tape the HDMI cable to a long stick to help get it to the front of the cabinet.

From the back door:

Reconnect the top 2 connectors.

Reinstall the 3 white plastic wire saddles into the wood, and clip cables in place.

Reinstall the 2 wood screws using a # 2 Square bit screwdriver.

Reconnect the bottom 2 connectors.









HOW TO REPLACE MONITOR

Set up Monitor - Plug game into wall and power on. At power on, the TV will have this screen. Locate the remote control and install the batteries.

Aim the remote at the TV and press the "Menu" button.

the "OK" button.

Arrow down to "Advanced Settings" and press the Right Arrow on the remote control.

Arrow down to "HDMI Mode" and set to "Graphic" Press the "Exit" button on the remote, and store remote in cabinet for future use.

Once the screen has the "Picture" option highlighted, press







MONITOR SETTINGS

There have been 2 different versions of TV used in Willy Crash:

Full HDTV: Press "MENU" on the remote control to access the menu.

- Set screen options as shown:



LG Model LGE-55UK6090

- Press "GUIDE" button on remote control to access menu.
- Press "OK" button on remote control to clear this screen.

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set the current time now

Unable to start the Guide without current time being set. Pleas

OK

6 0:0 OI

- Set screen options as shown:



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HANDLE ASSY EXPLODED VIEW



PARTS LIST

PART #	DESCRIPTION	PART #	DESCRIPTION
A5BK1013	Bracket, Pushbutton/Counters	A5CORD1	Cord,Power,10' Works W/Outlet Strip
A5BK6035	Bracket, Light	A5CORD55	Cord, 10' HDMI To HDMI
A5BK9999	Bracket, Power Supply Mounting	A5CORD5	Cord, AC Computer Cord, 6.5'
A5BTRT010	#4 Nylon Push Pins	A5CORD58	Cable, USB, Male A To Micro, 3ft
A5BURU075	Bumper,Rubber,2 1/4x2 5/8,Black	A5SP4100	Splitter, Detach Power Supply Cord Y
A5CB1499	Coin Box, White	AACE8000	Cable Assy, Addressable Light Power
A5CO4203	Cover, Speaker	AACE8001	Cable Assy, Speaker Power
A5CO4400	Cover Grip, Slide On, Handle	AACE8002	Cable Assy, Plunger Sensor
A5FI9010	Filter, F1700ca06, Inline	AACE8003	Cable Assy, 5V Addressable Light Power
A5HO1003	Holder, For Light Bars	AACE8004	Cable Assy, Dba
A5LI0003	Light,A19,9 Watt,60w	AACE8005	Cable Assy, Menu/Select/Counters
A5LK2001	Lock, Cash Box, A05/E00 Key Code	AACE8006	Cable Assy, Coin Door/Ticket Dispenser
A5LK5002	Lock, 7/8", H95 Key Code	AACE8007	Cable Assy, Cannon Led Power
A5ME2035	Ticket Tray, Metal	AACE8008	Cable Assy, Monitor Lights Power
A5ME4182	Metal, Cashbox Guide	AACE8009	Cable Assy, Left Bottom Side RGB
A5ME4414-BLK	Metal, Handle Guide Assy	AACE8010	Cable Assy, Bottom Sides RGB Light
AAME4415	Metal, T-Handle, w/ grips & bumpers	AACE8011	Cable Assy, Monitor RGB Blue Light
A5ME5508	Metal, Bracket, Graphics Card	AACE8012	Cable Assy, Star Light Power
A5PICV032	Pin,Clevis,1.4"D X 1-5/8"L	AACE8013	Cable Assy, Control Panel Light Power
A5PL4200	Plate, Up Stacker	AACE8014	Cable Assy, Door Board To Power Distribution
A5PL8900	Plate, Blanking, Bill Validator	AACE8015	Cable Assy, Audio Board Power
A5RICZ010	Ring,Cotter,7/16"-1/2" Shaft	AACE8017	Cable Assy, Power To Service Light
AASW200	Low Ticket Switch	AACE8018	Cable Assy, Power To Marquee Lights
A5VF8000	Vacuum Form, Monitor Cover	AACE8019	Cable Assy, Line Filter
A5DE0042	Decal, Menu/Vol	AACE8020	Cable Assy, Ground, T-Handle To Ground Stud
A5DE8010	Decal, Marquee Back	AACE8021	Cable Assy, Ground, Coin Door To Hinge
A5DE8011	Decal, Cannon Wrap	AACE8022	Cable Assy, Ground, Ticket Dispenser To Hinge
A5DE8012	Decal, Floor Cover, Right	AACE8023	Cable Assy, Ground, Hinge To Ground Stud
A5DE8013	Decal, Floor Cover, Left	AACE8024	Cable Assy, Ground, Power Supply To Stud
A5DE8014	Decal, Marquee Front	AACE8025	Cable Assy, Servicing Stick Light
A5DE8015	Decal, Marquee Cover	AACE8026	Cable Assy, RGB Cannon Stick Lights
A5DE8016	Decal, Control Panel	AACE8027	Cable Assy, Cannon RGB Stick Light
A5DE8017	Decal, Control Panel Star	AACE8028	Cable Assy, Bottom Right Side Jumper
A5DE8018	Decal, Outer Door	AACE8029	Cable Assy, Front Floor LED lights
A5DE8019	Decal, Inner Door	AACE8811	Cable Assy, Speaker
A5DE8020	Decal, Monitor Pillar	AACE8868	Cable Assy, Fluorescent
A5DE8021	Decal, Left Cabinet Side	A5PS1013	Power Supply, EVGA 500
A5DE8022	Decal, Right Cabinet Side	A5GC8000	Graphics Card
W5HG1025	Hinge,16",Double Bend	AAMO5503-WC	Monitor, 55" TV
W5HG1065	Hinge,5-75,Single Bend	A5TD1	Ticket Dispenser, Entropy
W5KE5000	Keeper, Lock	A5CB9600	PCB, Audio Amplifier
W5TM4002	T-Molding,7/8"Blue	AACB9604	Board, Door Interface
AACO1020	Counter Assy, No Feet	AACB5156	PCBA, Power Dist.
AAPB2700	Push Button Assembly	AACB8001	PCBA, Light Driver Board
A5CE2300	Cable, Audio Isolator	AACB3850A	Board, Launch Sensor
A5CEAU010	Cable, Audio Stereo,3.5mm , M-M 2ft	AAMB10-HD	Mother Board, W/Hard Drive

PARTS PICTURES



PARTS PICTURES







AACE8001

AACE8002



AACE8003







AACE8006



AACE8008



AACE8010







AACE8013



AACE8015



AACE8017



AACE8019



AACE8020



AACE8021









AACE8024







AACE8027



A5PS1013





A5CB9600



AACB5156



AACB3850A



AAMB10-HD



AACB9604

AACB8001









DECAL DIAGRAM



REPAIR/MAINTENANCE LOG

If you need to make repairs or order replacement parts it is a good idea to keep a log. Below is a chart you can use to track repairs and maintenance.

DATE	MAINTENANCE PERFORMED	PARTS ORDERED	MISC.



TECHNICAL SUPPORT

Excellent customer service is very important to Bay Tek Entertainment! 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. When you do need us, it's important that you know what to expect. We offer options that fit your needs.

Electronics / Circuit Boards:

•<u>Repair & Return</u> – If you have Circuit Board issues with your Bay Tek product 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.

<u>Advance Replacement</u> – If you have Circuit Board issues with your Bay Tek product, 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.

This is your best option when you need to get your game up and running as quickly as possible!

• <u>Spare Parts</u> – 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:

Sometimes the issue isn't what it seemed to be. If you chose the Advance Replacement option and now need to return that circuit board, just give us a call to get Return Authorization. You will be credited for the cost of the board and charged only the bench fee for our processing and retesting that board. If you choose the Repair and Return option, we'll test your board before we begin. If no problems are found, you will only be charged the bench fee.

Note: Bench fees apply regardless of whether the repair was your choice or a recommendation from a Bay Tek Entertainment technician.

It's a small price to pay for troubleshooting the issues with your game. You can count on our Technical Support Team for service and support!



WARRANTY OPTIONS

Bay Tek Entertainment warrants to the original purchaser that the game will be free of defects in workmanship and materials for a period of 6 months from the date of installation.

Register your new game for an extra 3 months on your warranty.

Log on to : http://www.baytekent.com Then click on the Register tab.

Bay Tek Entertainment will, without charge, repair or replace at it's option defective product or component parts upon notification to the parts/service department.

Warranty replacement part(s) will be shipped immediately via ground service, along with a Return Material Authorization (RMA) number for the return of defective part(s). Defective part(s) must be shipped back to Bay Tek Entertainment unless otherwise instructed.

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 the serial number decal is altered, defaced, or removed from it's original position.

Should you need your game serviced, determine the serial number from the decal on the back of the game cabinet or main board, and call **920.822.3951 Ext. 1102** or e-mail to: **service@baytekent.com**

REPAIR OF NON-WARRANTY PARTS

Should your game need servicing, determine the serial number from the decal on the back of the game cabinet, inside front door, or the cover of this manual and call 920.822.3951 Ext. 1102 or e-mail to: service@baytekent.com

An estimate of the repair charges will be quoted to you for approval. You may now proceed in one of two ways.

Option 1:

Request immediate shipment of advance replacement part(s). You will receive the part(s) with an **RMA** for the return of the faulty part(s).

You must return the faulty part(s) in 14 days to avoid additional charges.

Option 2: Call the Service Dept at (920) 822-3951 Ext. 1102 to receive a RMA to send the faulty part(s) in for repair Please include the following information

NAME ADDRESS PHONE # SERIAL # PURCHASE ORDER NUMBER or

AUTHORIZATION to perform service.

Repaired part(s) will be shipped back using the same method in which they were received. Repairs are warranted for 30 days from the date of installation.