SERVICE MANUAL

QUIK DROP™

PLACE SERIAL NUMBER LABEL HERE

BAY TEK entertainment

FACTORY CONTACT INFORMATION

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

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Open Monday - Friday
8 AM - 5PM C.S.T.

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

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WELCOME TO QUIK DROP

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 baytek.service@thevillage.bz for further assistance.

GAME SPECIFICATIONS

WEIGHT		
NET WEIGHT	650 lbs.	295 kg
SHIP WEIGHT	740 lbs.	336 kg

GAME DIMENSIONS		
WIDTH	38 1/2"	98 cm
DEPTH	43"	110 cm
HEIGHT	109"	277 cm

OPERATING TEMPERATURE	
FAHRENHEIT	45 - 80 F
CELSIUS	7.2 - 26.7 C

SHIPPING DIMENSIONS	
PALLET # 1	50"x 48" x 88" 590 lbs. class 125
PALLET # 2	40"x 40" x 40" 150 lbs. class 125

POWER REQUIREMENTS			
INPUT VOLTAGE	110-120 VAC		220-240 VAC
INPUT FREQUENCY	60 Hz		50/60 Hz

MAX OPERATING CURRENT
5.5 AMPS @ 115 VAC / 3 AMPS @ 230VAC

SAFETY PRECAUTIONS

NOTICE

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 EMERGENCY

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

QUIK DROP SETUP

The game will arrive on 2 pallets. Please inspect the pallets for shipping damage and report immediately to the freight company if any damage is found.
There will be about 1/2 hour of assembly time needed.

Tools Needed:

1 step ladder (6 foot)	9/16" Wrench	2 people
Phillips screwdriver bit	# 2 Square head screwdriver bit	

Important:

Portions of this game are heavy, bulky and large. Assembly requires 2 people to lift heavy components, and ladders that are tall and strong enough to position components to the top of the game.

From the large pallet, unwrap and unbox the lower cabinet.
Position the lower cabinet in position about 3 feet away from the wall.

Game keys are taped to the Drop Button of the game.
Unlock the back door and remove from cabinet.

To prevent damage to the carousel motor during shipping, bubble wrap has been installed in the back of the game.

The bubble wrap must be removed before turning on game!

Unlock the coin box door and remove hardware kit which is located in the coin box.

The marquee is heavy, bulky and large. Assembly requires 2 people and ladders that are tall and strong enough to position components to the top of the game.

Carefully lift marquee to the top of the game and position the tube into the white plastic ring mounted to the roof of the game.

QUIK DROP SETUP

Secure the marquee in place by threading 4 bolts (A5BOHH090), 4 lock washers (A5WALO010) and 4 washers (A5WAFL050) up into the marquee. Tighten all 4 bolts using a 9/16” wrench.

A5BOHH090

A5WALO010

A5WAFL050

Pull the 7 cables down from the mar-

Plug the 7 cables from the marquee into the color coded connectors as shown:

CE5842 power cable to CE5859 - 4 pin flat

CE5841 ribbon cable to board

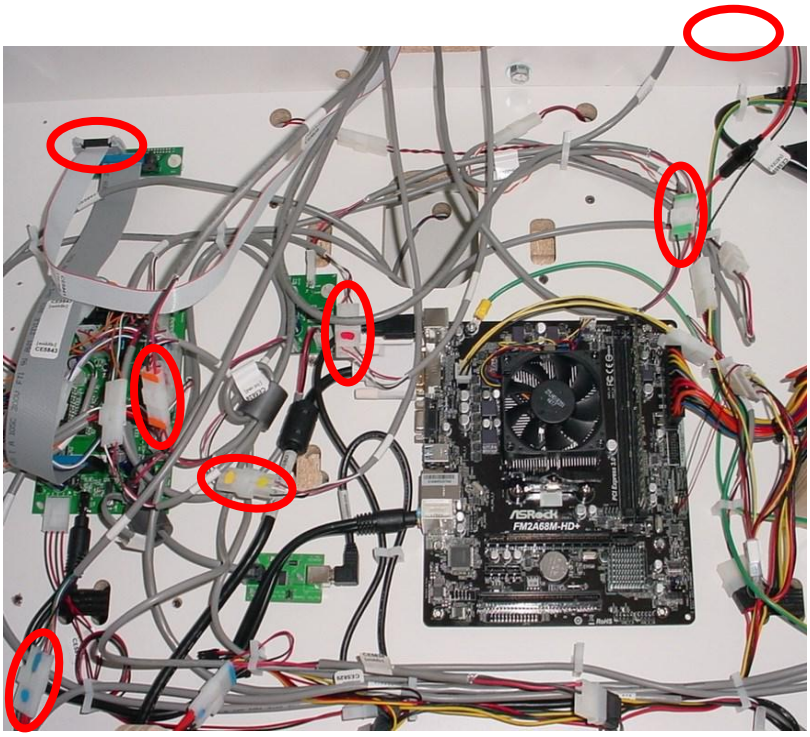
CE5826 motor cable to CE5827 - Green

CE5853 sensor cable to CE5815 - Red

CE5825 speaker cable to CE5828 - Orange

CE5851 sensor cable to CE5822 - Yellow

CE5858 display cable to CE5838 - Blue



QUIK DROP SETUP

Open the back door of game and remove the upper ball return chute.

Carefully lift upper ball return chute to the top of the game and position into the top of the game and up against the marquee.

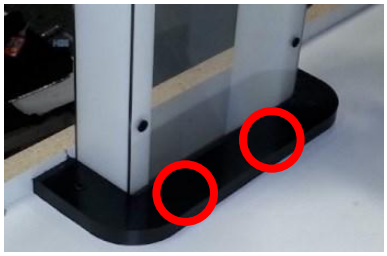
Secure the top of ball return chute with 2 of the black 10 screws using a # 2 square bit.

A5SCPH150

Inside the lower cabinet, secure the lower ball return chute by installing 2 of 3/4 " bugle screws using a Phillips screwdriver.

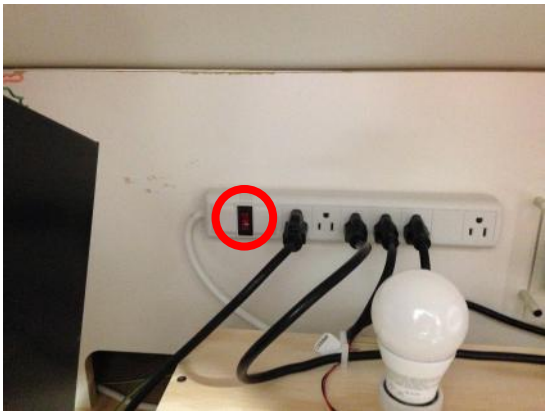
A5SCSQ001

At the top of the game, install 2 of 1" bugle screws using a # 2 square bit



A5SCFH030

Unlock the coin box door and remove power cord from the coin box. Plug one end into the back of the cabinet and the other into the wall.

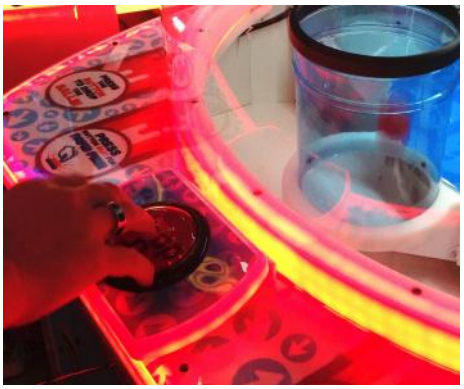


Open the front door of the cabinet and flip the rocker switch on the power strip to power on game.

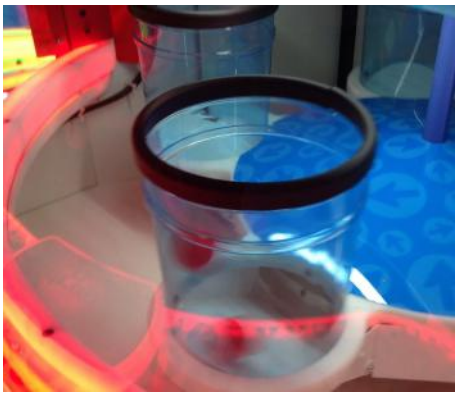
You're ready to Quik Drop!

HOW TO PLAY

Press the button to drop 50 balls into the moving buckets before time runs out.



Rapid fire is encouraged!



Win tickets for the balls caught.

Catch all 50 balls in the allotted time to win the progressive jackpot!

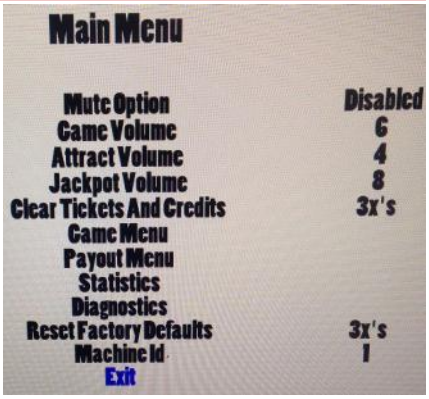
MAIN MENU FUNCTIONS

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

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

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

Default settings are highlighted in yellow below.



MAIN MENU		
MUTE OPTION	DISABLED	ENABLED
GAME VOLUME	Press the Menu Select button to change game volume level. (Default = 6)	
ATTRACT VOLUME	Press the Menu Select button to change attract volume level. (Default = 4)	
JACKPOT VOLUME	Press the Menu Select button to change jackpot volume level. (Default = 8)	
CLEAR CREDITS AND TICKETS	Press the Menu Select button 3 times to clear any accumulated credits and tickets.	
GAME MENU	Press the Menu Select button to enter the Game Settings Menu	
PAYOUT MENU	Press the Menu Select button to enter the Payout Settings Menu	
STATISTICS	Press the Menu Select button to enter the Statistics Menu	
DIAGNOSTICS	Press the Menu Select button to enter the Diagnostics Menu	
RESET FACTORY DEFAULTS	Press Menu Select button 3 times to Reset Factory Defaults	
MACHINE ID	Only used when 2 games are linked together with Link Kit	
EXIT	Press the Menu Select button to exit menu.	

Software version is shown on the display as you enter the menu.

If one shows “Not Found” then the circuit board is not communicating to motherboard.
“Link Light Version” only applies to 2 games linked together.

PC Version	**1.0.10**
Aux Version Link	**1.0**
Server Version	**1.0**
Link Light Version	**Not Found**

GAME 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.

TIME PER GAME

20	21	22	23	24	25	26	27	28	29	30

Sets the time in seconds of a game

MAX TIME

20	21	22	23	24	25	26	27	28	29	30

Sets the maximum time in seconds of a game
Actual game time is automatically extended by milliseconds with each non-jackpot game played.
Actual game time is returned to “Time Per Game” with a jackpot win.

ATTRACT BALL DROP

0	1	2	3	4	5	6	7	8	9	10

Sets the number of balls that drop during attract mode

ATTRACT TIME

0	5	10	15	20	25	30

Sets the amount of time in minutes between attract mode cycles
0 means there will be no attract mode cycles

DISPLAY PAYOUT

TICKETS	POINTS	COUPONS	ENTERTAINMENT

“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.
“ENTERTAINMENT” means the game will not pay out tickets.

PAYOUT 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.

CREDITS PER GAME

0	1	2	3	**4**	5	6	7	8	9	10

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

CARD READER

FALSE	TRUE

“TRUE” will show “Swipe Card to Play” verbiage on the screen.

DIVIDE TICKETS BY TWO

FALSE	TRUE

“TRUE” will pay out 1 physical ticket for every 2 tickets won.

FIXED TICKETS

DISABLED	1	2	3	4	5	6	….	27	28	29	30

Option to set the same amount of tickets for every game, over-riding all ticket and jackpot settings

JACKPOT START

50	100	150	200	250	300	350	400	**450**	500	550	600	….	850	900	950	1000

Sets the amount of tickets the jackpot starts at and resets to after a jackpot win

JACKPOT MAX

50	100	150	200	250	300	350	400	450	500	550	600	….	850	900	950	**1000**

Sets the maximum amount of tickets to which the jackpot will increment

JACKPOT INCREMENT

0	1	2	3	4	**5**	6	7	8	9	10

Sets the amount of tickets added to the jackpot per game played, 0 means that the jackpot will not increase

JACKPOT RESET

Press the Menu Select

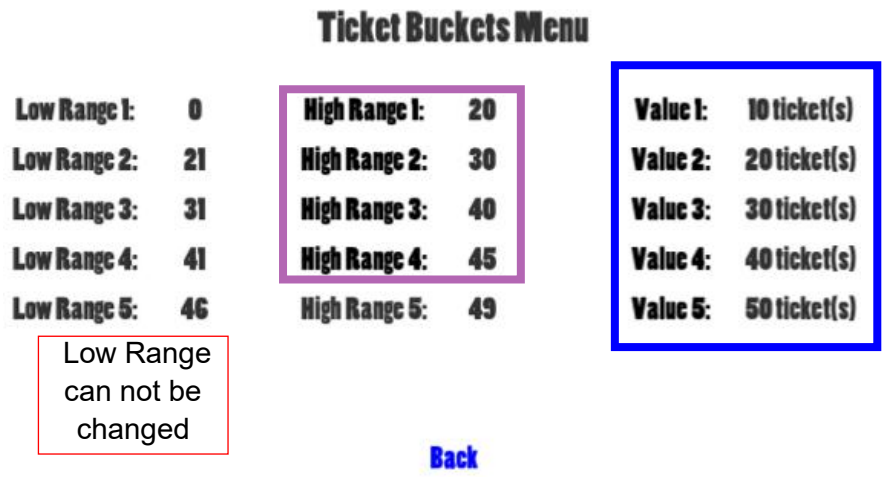
TICKET BUCKETS MENU

Press the Menu Select

TICKET BUCKETS MENU

Ticket Values can be changed to affect average tickets per game payout.

High Range of balls caught for each level can be adjusted, and will automatically populate the Low Range for the following level to avoid overlap.



Default settings are highlighted in yellow below.

TICKET BUCKET OPTIONS										
BALLS CAUGHT		AVERAGE TICKETS PER GAME								
		3-6	6-9	10-14	14-17	18-23	25-30	28-32	33-36	48-54	66-72
LOW	HIGH	TICKET VALUES									
0	20	1	3	5	5	5	10	10	10	20	30
21	30	3	4	10	10	15	20	20	20	30	50
31	40	4	5	12	15	20	25	30	30	50	60
41	45	5	10	15	20	25	30	40	50	80	75
46	49	10	20	20	25	35	50	50	75	100	100
JACKPOT START		100	100	100	250	250	350	500	500	500	500

Jackpot Start is set in the “Payout Menu” and will increment up according to the settings and reset back to Start Value when the jackpot is won.

STATISTICS

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.

TOTAL GAMES PLAYED

Shows the total number of games played since last Reset.

TOTAL PAYOUT

Shows the total number of tickets payed out since last Reset.

TOTAL JACKPOTS WON

Shows the total number of Jackpots won since last Reset.

JACKPOT PAYOUT

Shows the total number of Jackpot tickets won since last Reset.

AVERAGE PAYOUT

Shows the average tickets per game since last Reset.

RESET STATISTICS

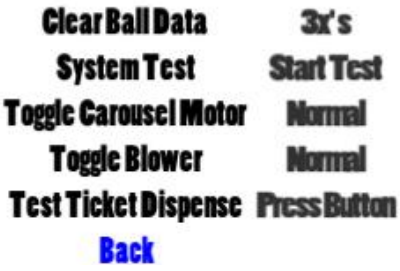
Press the “SELECT” button 3 times to reset statistics.

DIAGNOSTICS

The top section of diagnostic data shows actual “live” status of game sensors and switches.

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.



DIAGNOSTICS MENU			
BUTTON INPUT	Normally OFF, shows ON when player button is pressed down	**CAROUSEL MOTOR**	Normally 5.0-6.0, shows RPM value of carousel motor (approx.10 seconds per rotation)
TUBE SENSOR	Normally ON when tube is full, shows OFF if top tube sensor beam is not blocked	**TOP FEED MOTOR**	Normally FORWARD, shows REVERSE if sensor detects a jam and motor goes backward
BALL COUNT	Normally OFF, shows ON when sensor in bottom of tube is blocked	**BLOWER STATUS**	Normally OFF, shows ON when blower is activated
BALL SCORE	Normally OFF, shows ON when sensor in score trough is blocked	**BALLS FIRED**	Shows number of solenoid pulses during a system test
CAROUSEL ENCODER	Normally OFF with flashes of ON as the carousel sensor is blocked as motor turns	**BALLS COUNTED**	Shows balls counted from sensor at the bottom of the tube during a system test
TOP FEED ENCODER	Normally OFF, only flashes ON as the top ball feed motor turns to drop balls into tube	**BALLS SCORED**	Shows balls scored from sensor in score trough during a system test

DIAGNOSTIC TOOLS	
CLEAR BALL DATA	Press "Select" button 3 times to clear diagnostic data before start of a "SYSTEM TEST"
SYSTEM TEST	Press "Select" button to START system test. (Game will fire 2 balls per second until test is stopped) Press ""Select" button again to STOP system test
TOGGLE CAROUSEL MOTOR	Normally set to NORMAL. Can be changed to OFF to stop carousel motor. Must be set to NORMAL for game to function properly
TOGGLE BLOWER	Normally set to NORMAL. Can be changed to ON to start blower. Can be changed to OFF to stop blower. Must be set to NORMAL for game to function properly
TEST TICKET DISPENSE	Press "Select" button to dispense 1 ticket

ERROR CODES

The Quik Drop game is equipped with error-sensing software.

When this Game Error screen appears, the game is not functioning normally.

Sensors need to be cleaned occasionally to prevent misreading due to dust build up.
A simple wipe of the sensors with a Q-tip or Kleenex will be enough to clear most sensor issues.
Do not use any solutions or chemicals when wiping the sensors.

Bad Carousel Encoder!

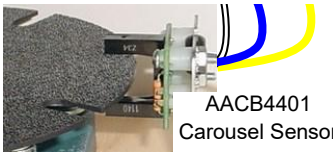
The carousel sensor is not seeing the motor turning.

Check to make sure carousel motor is turning, check for 12 VDC at motor.
Clean Carousel Encoder sensor. Check for voltage drop on blue and white wires as encoder turns.

12 Volts DC power between the Yellow and Blue wires.

When sensor is on an open notch 3.3 VDC between Blue and White wires.

When Blocked - 0 VDC between the Blue and White wires.



AACB4401
Carousel Sensor

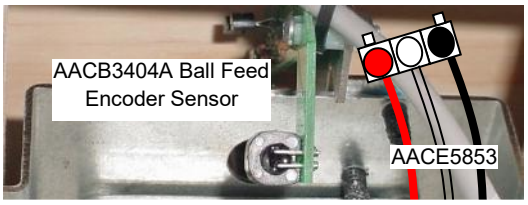
Bad Top Auger Encoder!

The top auger sensor is not seeing the auger motor turning.

Top Ball Dispense Motor should turn if the tube is not full.
First clean or replace Fill Sensor in the top of the tube behind the round marquee sign. Motor will also turn if you unplug this sensor.
Clean Top Auger sensor. Check for voltage drop on black and white wires as auger motor turns.

12 Volts DC power between the Black and Red wires.

When sensor is open, there is 3.3 VDC between Black and White wires.
When Blocked - 0 VDC between the Black and White wires. (LED is ON)



Bad Ball Score Sensor!

The game knows it is not seeing any balls scored.

Clean or replace Ball Score Sensor in the back of game at the end of the metal collection tray.
Check for voltage drop on green and white wires as this sensor is blocked.

12 Volts DC power between the Orange and Green wires.

Normally 3.3 VDC between Green and White wires (LED is OFF)

When Blocked - 0 VDC between the Green and White wires. (LED is ON)

ERROR CODES

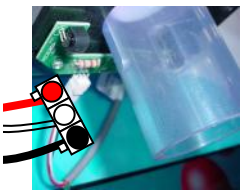
Bad Ball Count Sensor!

The game knows it is not seeing any balls dropping out of the tube

Clean or replace Ball Count Sensor in the center of the game at the bottom of the tube.

Check for voltage drop on black and white wires as this sensor is blocked.

AACB3404A
Ball Count Sensor



12 Volts DC power between the Red and Black wires.

Normally 3.3 VDC between Black and White wires (LED is OFF)

When Blocked - 0 VDC between the Black and White wires. (LED is ON)

Bad Fill Sensor!

The top tube sensor is not seeing balls fill the tube.

Auger Mixing Motor should turn if the tube is not full.

Clean or replace Fill Sensor in the top of the tube behind the round marquee sign. Motor will also turn if you unplug this sensor.

Check for voltage drop on black and white wires as this sensor is blocked.

AACB3404A
Ball Fill Sensor

12 Volts DC power between the Red and Black wires.

Normally a ball is blocking sensor and has 0 VDC between Black and white wires (LED is ON)

When Not Blocked - 3.3 VDC between the Back and White wires. (LED is OFF)

Bad Ball Firing Solenoid!

The game knows it is trying to drop balls, but not seeing any balls dropping out of the tube.

Make sure the solenoid is not jammed, it should move and drop a ball every time the button is pressed. Check for 12 volts DC at solenoid.

If balls are dropping, clean or replace Ball Count Sensor in the center of the game at the bottom of the tube.

AASO5800
Ball Drop
Solenoid
4.1 Ohms

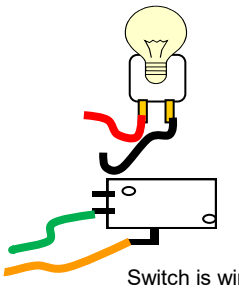
Button Stuck!

The player ball drop button is stuck down.

Clean or replace player ball drop button.

Check for voltage on green and orange wires and ensure the switch is wired correctly as shown.

A5PB4600
Ball Drop Button



Switch is wired normally open.

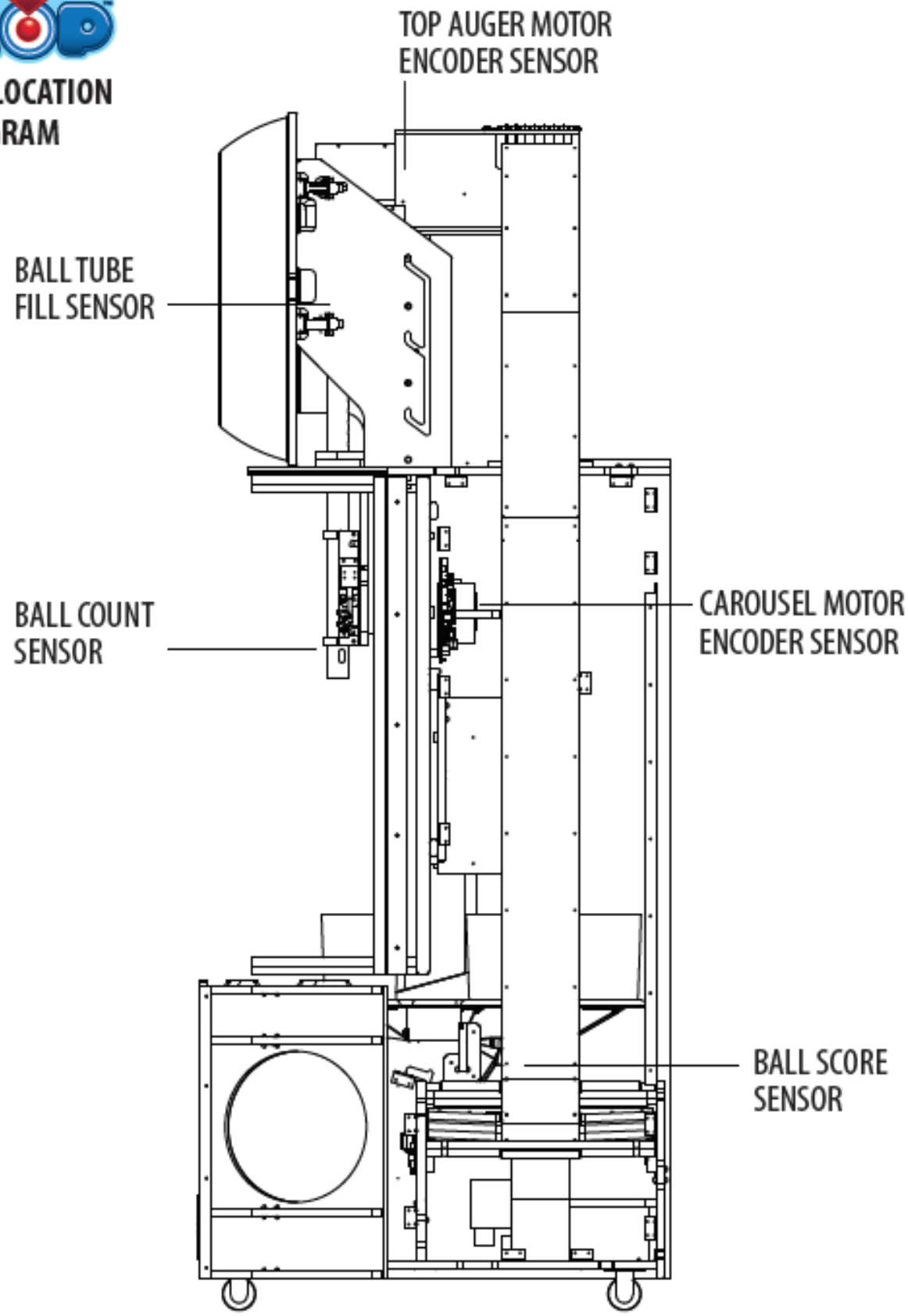
Communication Error!

The communication between the Newgen board and the Motherboard is faulty.

Please check Wiring Diagrams to determine which motherboard is in your game and how the wiring is routed. Check connections along this wiring path to determine issue. Refer to Communication Error Troubleshooting.

SENSOR LOCATIONS

SENSOR LOCATION DIAGRAM

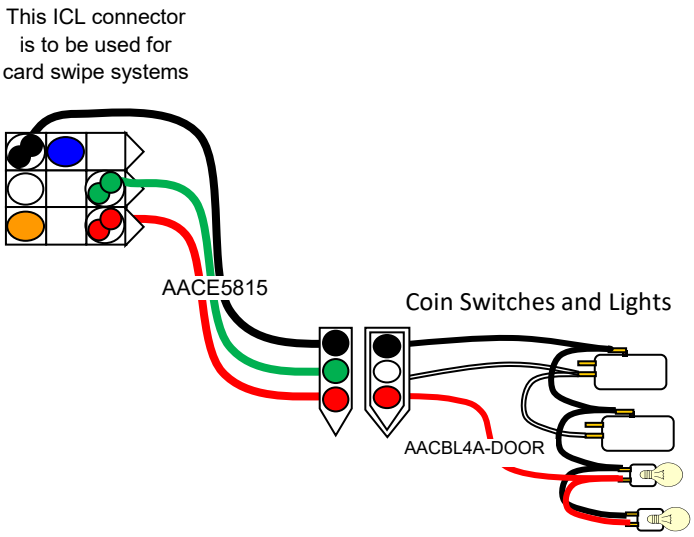


CARD SWIPE SYSTEM INSTALLATION

Option #1:

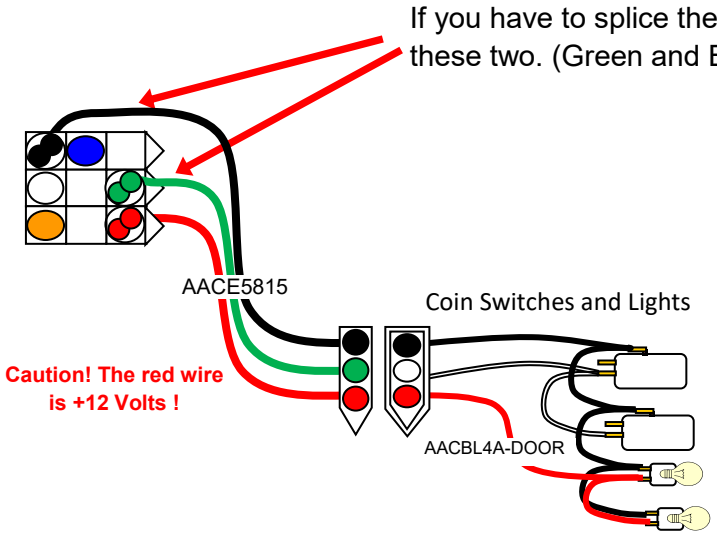
New card swipe systems may come with a standard 9 pin Molex connector.

Simply unplug this connector and plug into your card swipe reader.



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 AACE5815 harness.



Note: 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 “Payout” Menu

Set “Credits” to 1

Set “Card Reader” to “True”

Go to “Game” Menu

Set “Display Payout” to desired option: Tickets, Points, or Coupons

HOW TO ADJUST MARQUEE HEIGHT

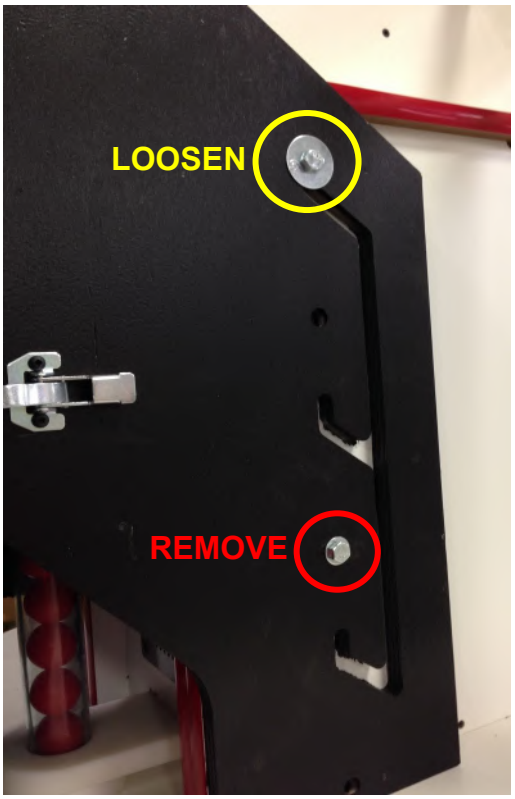
Each side of the marquee support is equipped with a height adjustment system, allowing flexibility in height from 109” to 123”

Remove casters before installing marquee for 9 foot ceiling height. (107”)

Loosen the upper bolts on the both sides and remove the lower bolts using a 9/16” wrench.

Lift the marquee up, allowing bolts to ride in the grooves. Select your desired height and allow the marquee to slide back down and rest in the notches.

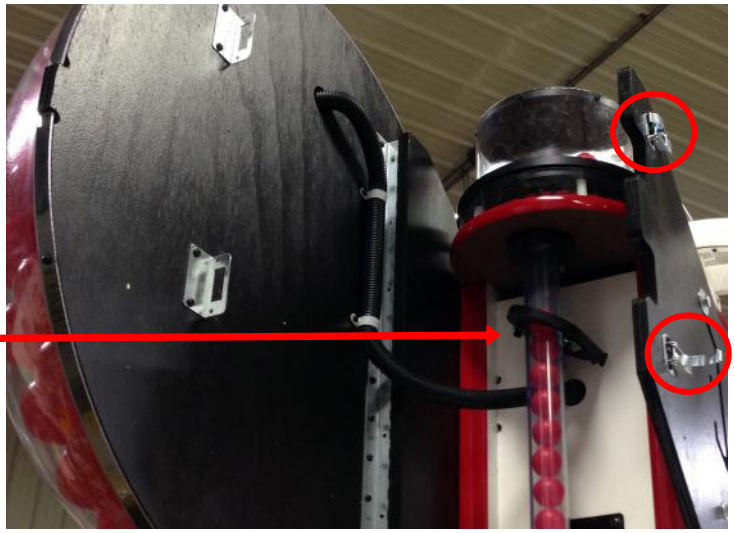
Re-install the lower bolts and re-tighten the upper bolts to hold the marquee securely.



HOW TO ACCESS BALL TUBE FILL SENSOR

Release the 2 latches on the right side of the marquee and swing open the large round marquee

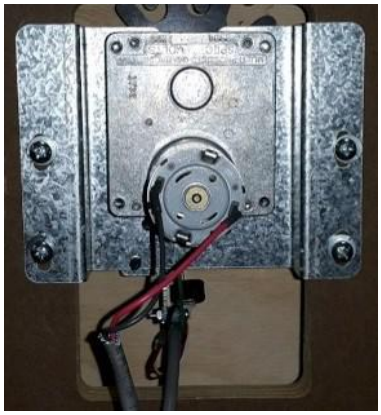
This provides access to the Ball Tube Fill Sensor.



HOW TO ACCESS TOP BALL FILL MOTOR & SENSOR

Using a ladder, carefully unlock the upper back door of the marquee.

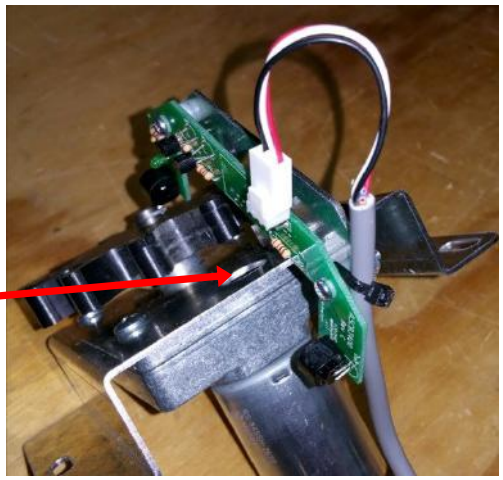
This provides access to the Top Auger Motor and Encoder Sensor.



To change motor or sensor:
Remove the 4 pan head bolts (A5BOPH220) with split washers (A5WASI020) using a Phillips screwdriver.

This whole assembly will come down.
The sensor or motor can now be swapped out.

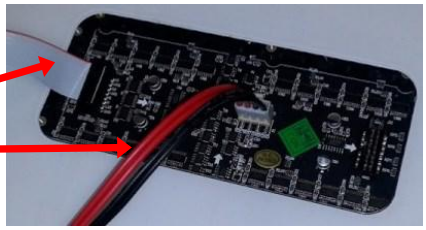
The top auger sensor watches the gear turn through this hole.



HOW TO CHANGE JACKPOT DISPLAY BOARD

Unplug the game from the wall, use a ladder to remove the 5 small black screws A5SCPH030 using a small Philips screwdriver.

Carefully pull out the display board and unplug:
the CE5841 ribbon cable
the 5 volt power CE3892 cable.



HOW TO REPLACE MONITOR

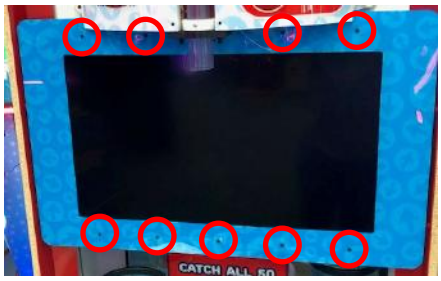
As monitors become obsolete and unavailable, replacement monitors will incorporate a different mounting process and wood pieces to enable the new monitor to fit and function.
These instructions will show how to install the new monitor into your cabinet.

Tools Needed:

#2 Square Bit Screwdriver Wire Cutter 5/32” Allen Wrench

Instructions:

Unplug the game from the wall.
Remove the 10 bolts from the left and right front plexi using a 5/32” Allen Wrench.
Remove the plexi from the cabinet and set aside for later installation.



Remove the 9 screws from the monitor plexi using a #2 square bit screwdriver. Set aside for later installation. (It will be stuck onto the old monitor with double sided tape)

Unlock and remove the back door of the game.

Helpful Hint: Place a cloth or shop rags in the bottom of the game to catch any screws that may drop and prevent them from falling into the blower.

Remove the 4 screws from the top protective plexi using a #2 square bit screwdriver. Set aside for later installation.

Remove the 8 screws from the rear protective plexi shield using a #2 square bit screwdriver. Set aside for later installation.

HOW TO REPLACE MONITOR

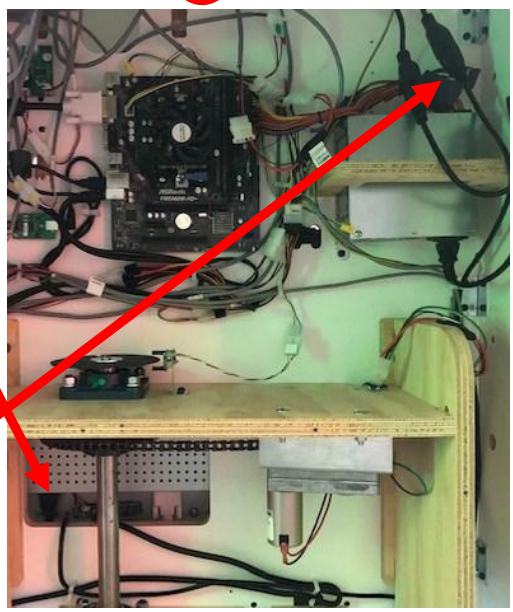
Unscrew the DVI signal cable from the back of the motherboard and carefully remove the cable from the wire saddles.
It is no longer needed as the new monitor uses an enclosed HDMI cable.

Use a wire cutter to cut the cable to remove from this slot.

Note: If your game already has a HDMI cable - Ignore this step.

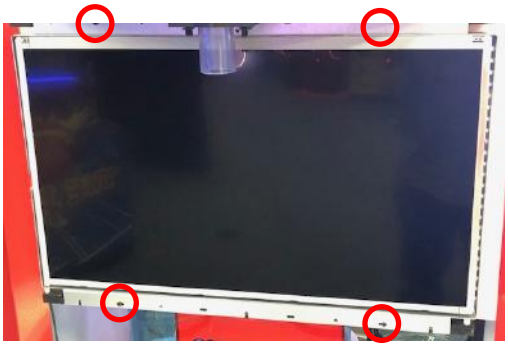
Unplug the power cord from the back of the monitor, and carefully remove the cable from the wire saddles.

It is no longer needed as the new monitor will have it's own power cable.



Unplug the old power cable from the power adapter at the top of the game, and remove from cabinet.

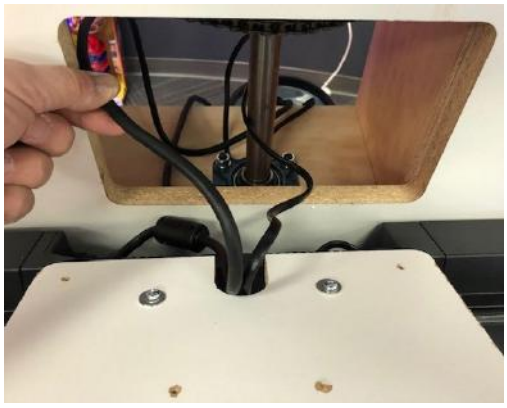
From the front of the game, remove the 4 screws holding in the old monitor using a #2 square bit screwdriver.
Remove the old monitor from the cabinet.



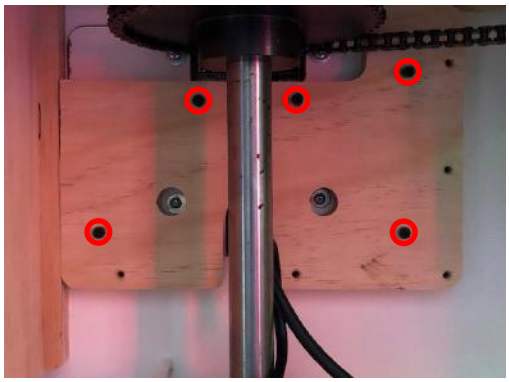
HOW TO REPLACE MONITOR

Unwrap the new monitor and remove the wire ties from the power cord and the HDMI cable. Plug one end of the HDMI cable into the monitor.

Route both the power cable and HDMI cables through the notch in the wood as shown.



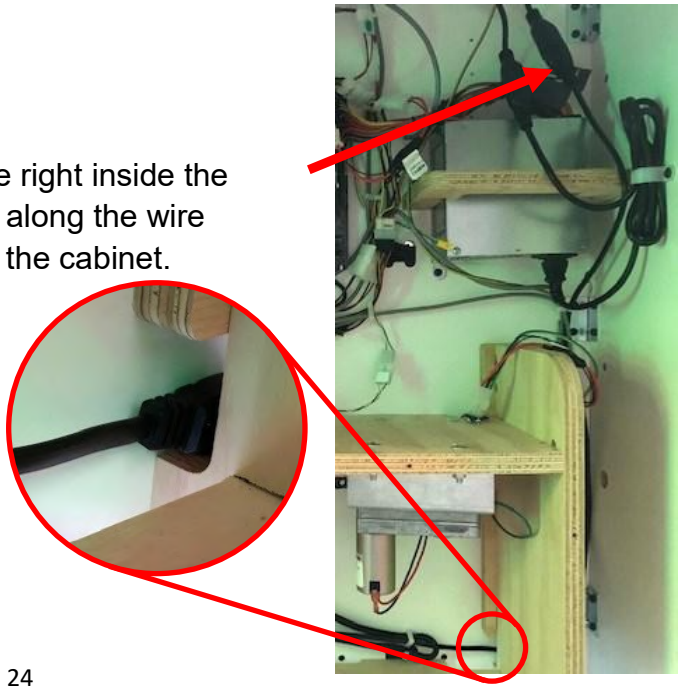
Install the monitor assembly into the cabinet by sliding the wood block into the existing hole in the cabinet.
Ensure the 2 cables stay in the slot as the wood block is inserted.



While a second person holds the new monitor in place, position the plywood board in position from the back of the game.
Screw 5 of the black screws into these holes using a #2 square bit screwdriver.

Finish securing using the remaining 5 black screws using a #2 square bit screwdriver.

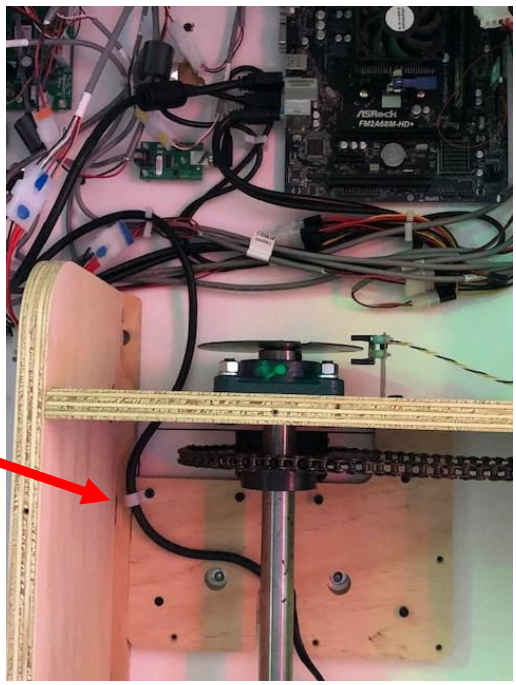
Route the TV power cable from the monitor to the right inside the wire saddle, push through the tight wood slot, up along the wire saddles, and into the power adapter at the top of the cabinet.



HOW TO REPLACE MONITOR

Route the HDMI cable from the monitor to the left.

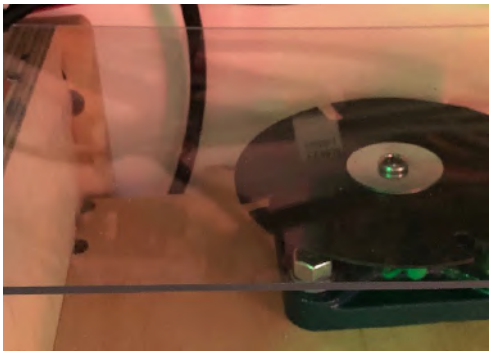
Install the P clamp onto the cable as shown.



This will keep the cable away from the chain. Continue routing the cable up through the hole and plug into the motherboard.

Test fit the top protective plexi - this will keep any wires from dangling down and tangling with the code wheel sensor.

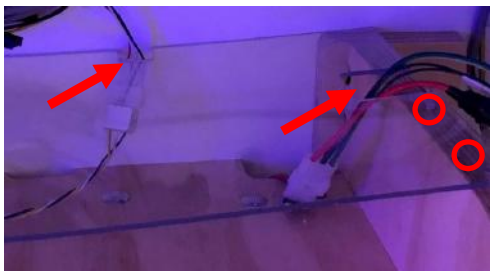
A notch will have to be cut into the plexi to accommodate the new HDMI cable.

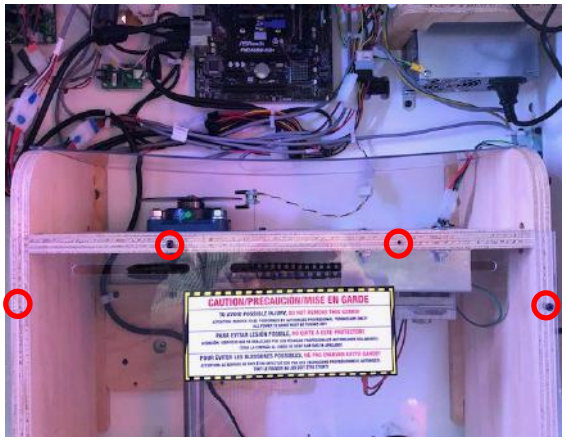


Mark a slot on the plexi and use wire snips to cut out a notch.

HOW TO REPLACE MONITOR

Making sure all 3 of the cables are in the slots, re-install the 4 screws into the top protective plexi using a #2 square bit screwdriver.

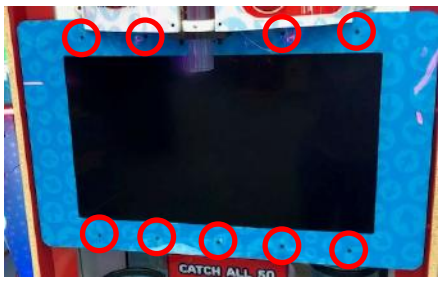




Re-install the rear protective plexi - this will keep fingers from getting pinched in the chain.

Re-install the 8 screws into the rear protective plexi using a #2 square bit screwdriver.

From the front of the game, remove the protective film from the monitor before re-installing the blue monitor plexi.



Re-install the 9 screws into the monitor plexi using a #2 square bit screwdriver.

Re-install the front plexi by installing the 10 bolts from the left and right front plexi using a 5/32” Allen Wrench.

Remove the cloth or shop rags from the back blower area, install the back door and plug in the game to test.

HOW TO REPLACE BALL DROP SOLENOID

Remove the 5 flat head bolts (A5BOBH030) using a 5/32” Allen wrench from the side rail.

Bend and flex the front plexi around the drop button and out of the way.

Remove the 4 small screws (A5SCPH030) using a small Phillips screwdriver.

Bend and flex the plexi way from the solenoid.

The solenoid assembly (AASO5800) can now be removed and replaced by removing the 3 black self taping screws(A5SCPH190) using a # 2 square bit.

Pull the cable through the hole to unplug connector.

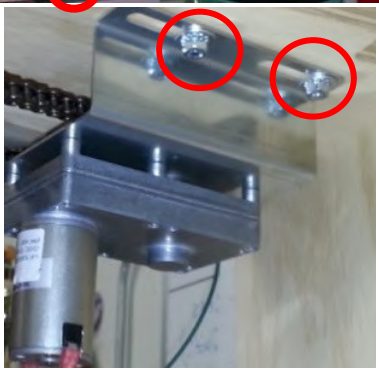
AVAILABLE BLANKING PLATES

A5PL4200	DBA Plate used for Upstacker Bill Acceptor
A5PL9998	Plate used instead of Coin Mechanisms
A5PL8900	Plate used for Bill Validator
A5PL9995	Plate used instead of ticket dispenser

HOW TO REPLACE CAROUSEL MOTOR

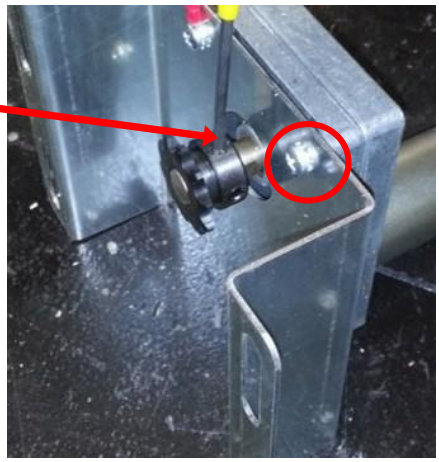
Unplug the game from the wall and remove the back door.
Remove the 8 black 8 screws (A5SCPH101) using a
2 square bit and remove the plexi shield.

Remove the motor bracket from game by removing the 4 nuts using a 7/16” wrench.



Remove the sprocket from motor shaft by loosening the set screw using a 1/8” Allen wrench.

Remove the motor from the bracket by removing the 4 bolts (A5BOPH270) using a Phillips screwdriver.



Install the new motor onto bracket by installing the 4 bolts using a Phillips screwdriver.

Install the sprocket onto new motor by tightening the set screw using a 1/8” Allen wrench. The sprocket should be flush with the end of the motor shaft.

Wrap the chain onto the sprocket and install the motor bracket into game by hand threading the 4 nuts onto the bolts.
Push the motor bracket to the right as you tighten the 4 nuts using a 7/16” wrench.

There should be about 1/8” play in the chain after it is tightened.

Warning: Do Not spin the carousel or motor by hand.
This will cause the gears in the motor to wear much faster and may shorten the life span of the motor significantly.

HOW TO ACCESS BLOWER

Unplug the game from the wall and remove the back door and remove all the red balls from cabinet.

Remove the 2 of 1 5/8” black bugle screws (A5SCFH050) on the wood piece that shows “Blower Access” using a # 2 square bit.

This wood can now be removed from the cabinet.

The blower can now be seen and inspected.
To remove the blower continue below.

HOW TO REMOVE BLOWER

To remove the blower from the cabinet, first follow the above directions.
Then, remove the 2 of 1 5/8” black bugle screws (A5SCFH050) using a # 2 square bit.

Remove white wood shelf from cabinet.

The ball chute on the side of the cabinet will need to be removed next:

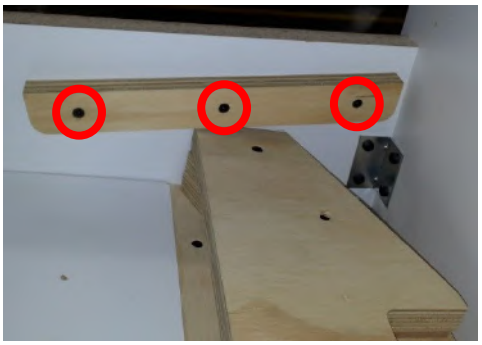
On the bottom of the ball chute, remove the 4 of black 10’s (A5SCPH150) using a # 2 square bit.

On the top of the ball chute, remove the 2 of 3/4 “ bugle screws (A5SCSQ001) using a Phillips screwdriver.

The ball chute can now be removed from the cabinet.

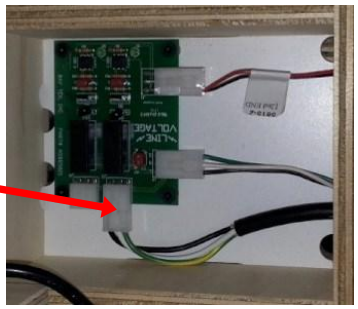
HOW TO REMOVE BLOWER (CONTINUED)

There is a wood block attached to the back wall of the cabinet.
This must be removed to remove the blower/wood assembly.
Remove these 3 of 1 1/4" bugle screws (A5SCFH040) using a # 2 square bit.



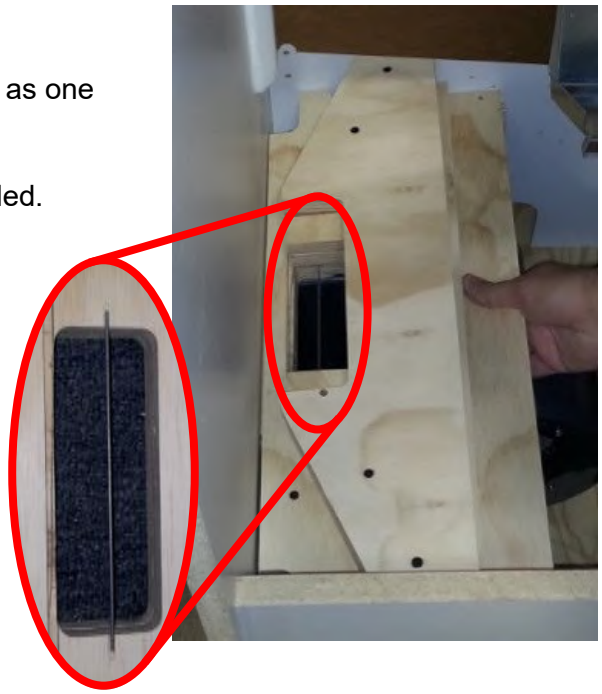
Open the front door of the game and locate this wood box.
Remove the 4 black 8 screws (A5SCPH101) using a # 2 square bit.
Remove the clear plexi shield covering the AC Driver Board

Unplug the bottom connector from the AC Driver Board.
This is the blower power.



The blower/wood assembly can now be removed from the game as one large assembly. It is not screwed down.

The blower can be unbolted from the wood and replaced if needed.
(Part # AABL 3201-QD for the 110 Volt AC blower)
(Part # AABL 1180-QD for the 220 Volt AC blower)



Important: There is a small wire (A5WRSS063) that blocks the balls from dropping into the blower.
Ensure this is in place as the blower is removed and replaced.

HOW TO CHANGE FUSES IN MARQUEE

Unplug the game from the wall, use a ladder to carefully unlock the upper back door of the marquee.

Locate the AACE5858 cable. The 5 amp fuses are located inside the black plastic housings. Fuses are part # A5FUSE11

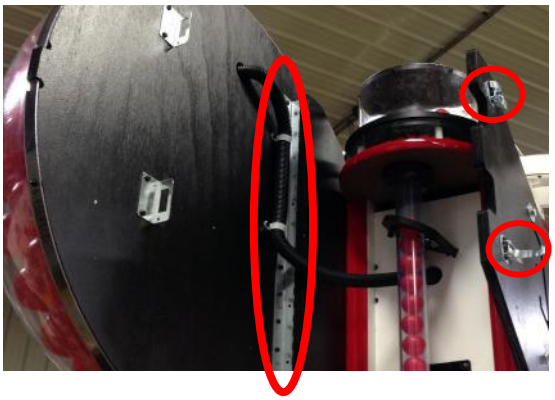
HOW TO CHANGE LIGHTS IN MARQUEE

The marquee will have to removed from the game to change the LED lights inside.

Unplug the game from the wall, use a ladder to carefully unlock the upper back door of the marquee.

Locate the 4 cables that emerge from the hole in the far wall above the speaker. These 4 cables will have to unplugged from the bottom of the cabinet and fed up through this hole.

Unplug CE5841 from Splitter Board
Unplug CE5842 from CE5859
Unplug CE5851 from CE5822
Unplug CE5830 from CE5858



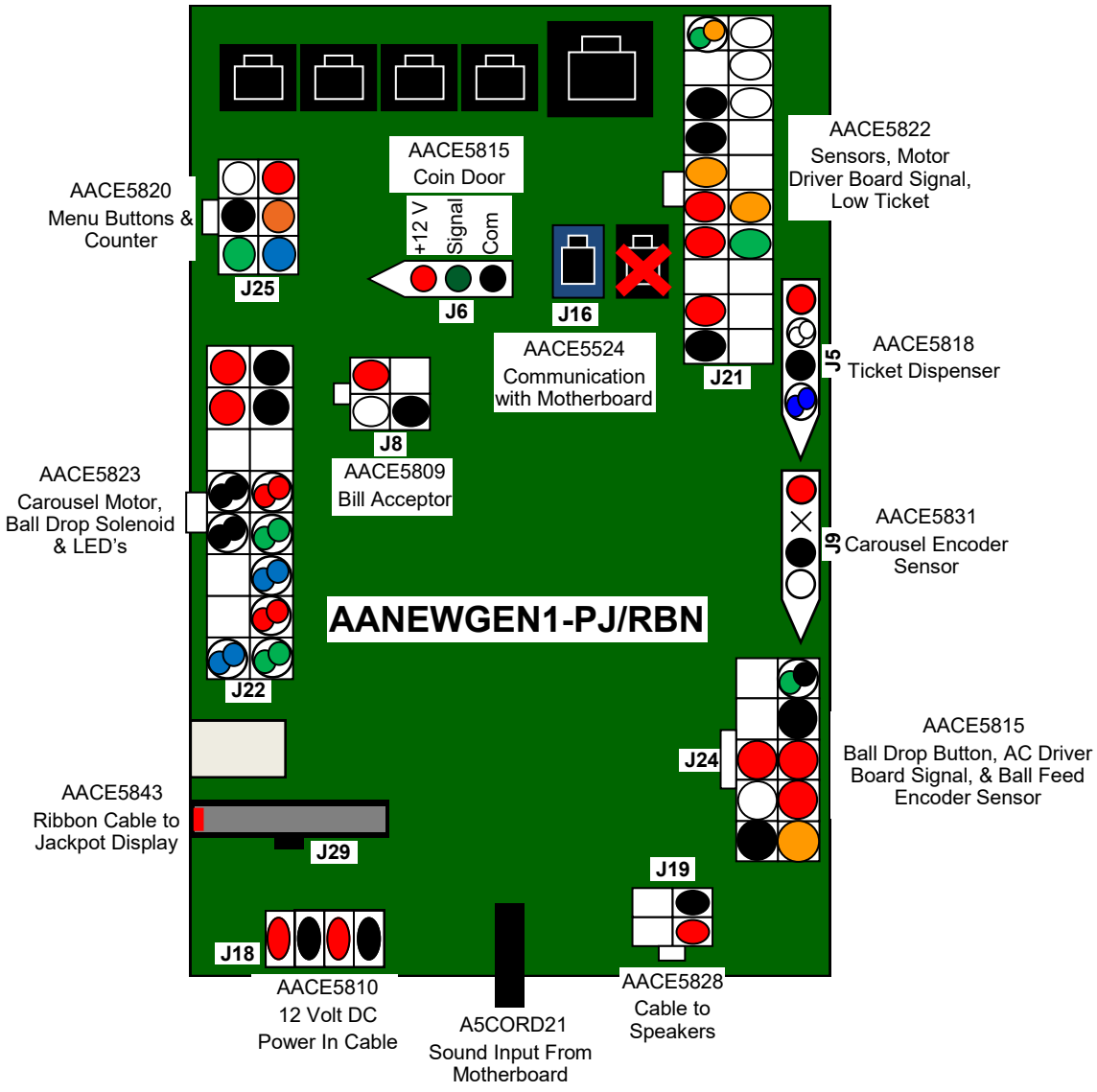
Release the 2 latches on the right side of the marquee and swing open the large round marquee.

Using 2 people to help support the marque - remove the screws in the hinge and bring the marquee to the floor.

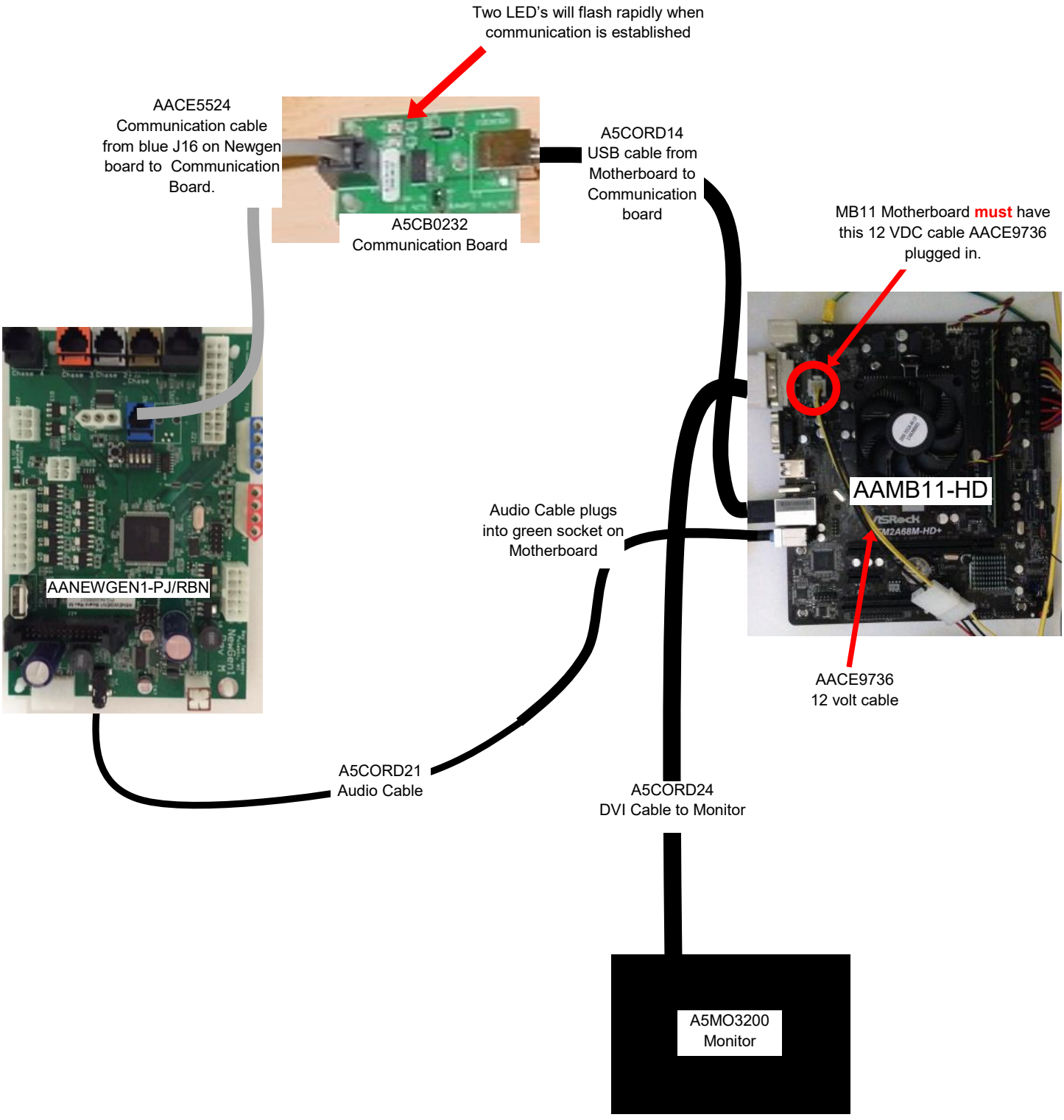
Lay the marquee on it's face and remove the black screws around the outside edge.

The cables can now be inspected or replaced.

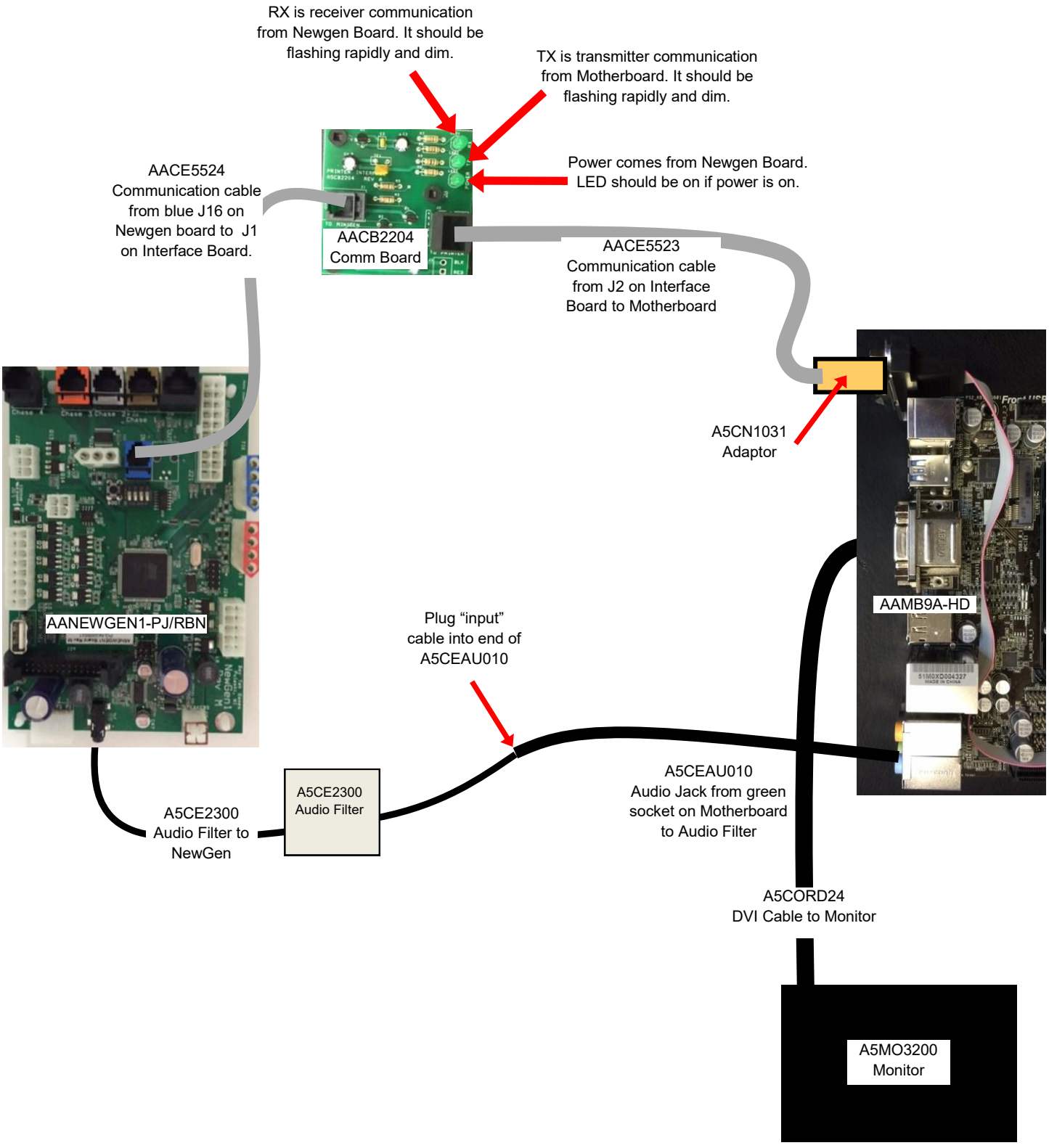
CIRCUIT BOARD PINOUT



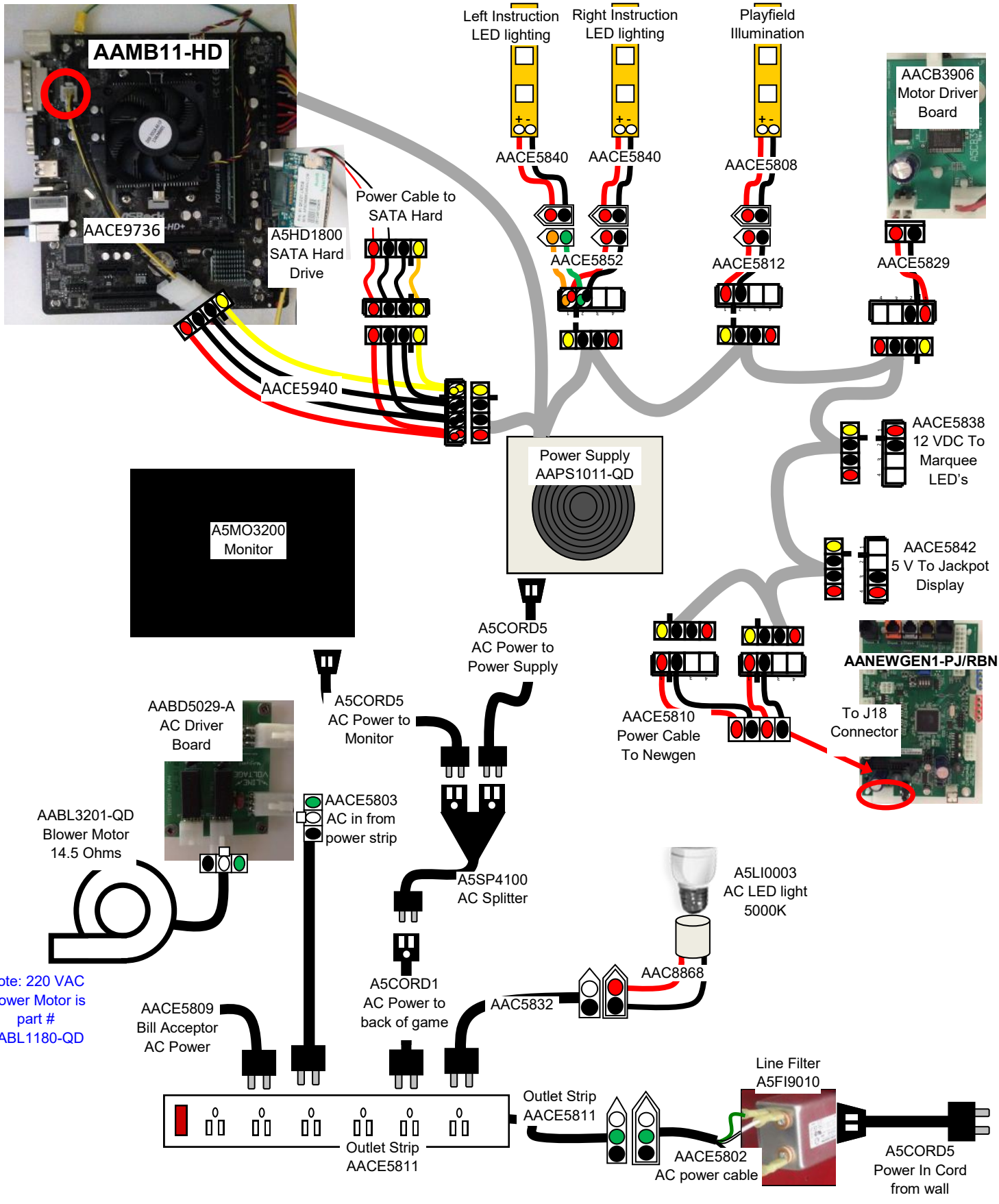
Quick Drop Motherboard Communication Wiring Diagram on MB11 games manufactured after 2/5/18



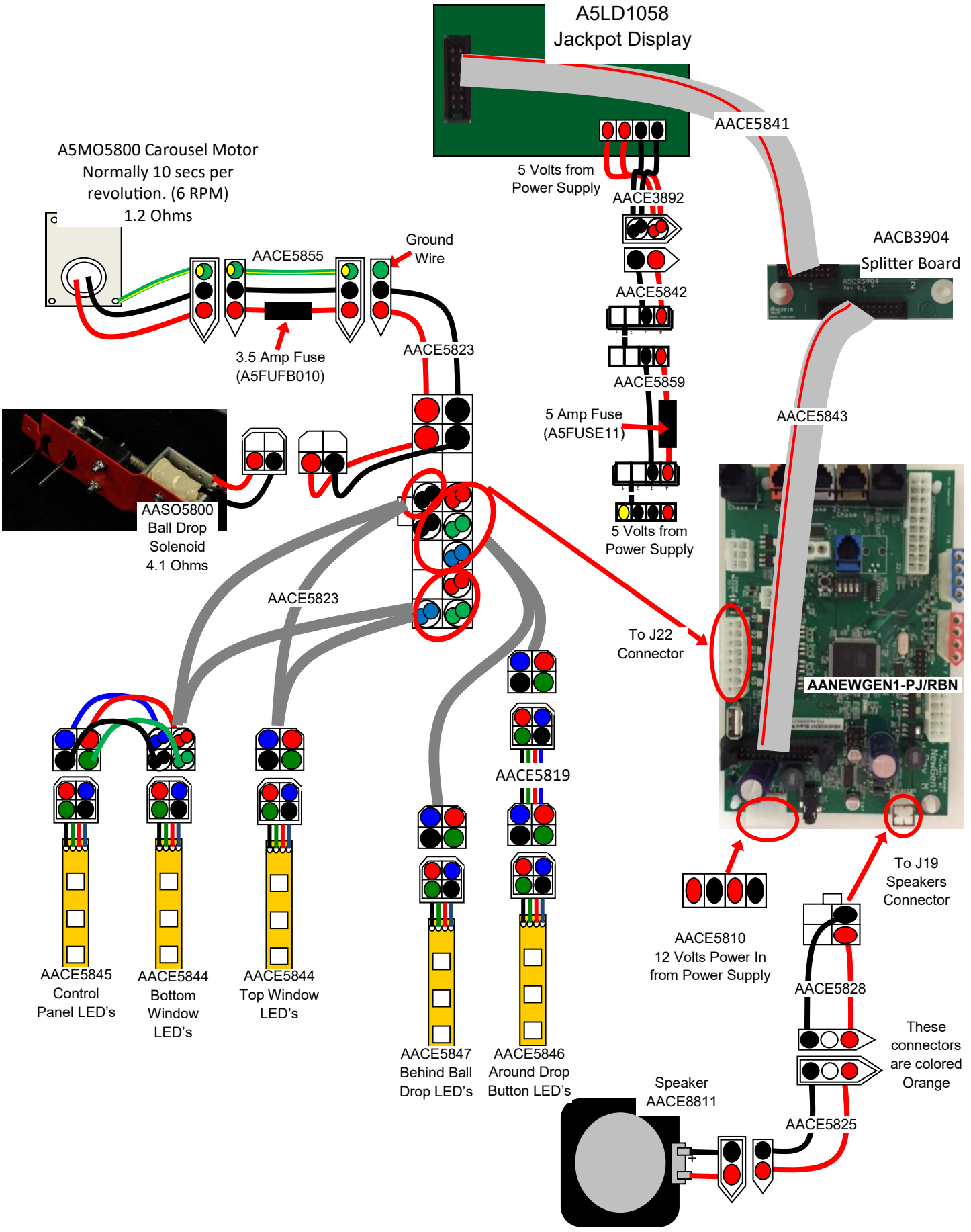
Quick Drop Motherboard Communication Wiring Diagram on MB9 games manufactured before 2/5/18



AC IN, POWER SUPPLY WIRING DIAGRAM



JACKPOT DISPLAY, SPEAKER, CAROUSEL MOTOR & BALL DROP SOLENOID



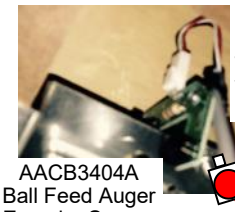
SENSORS & AUGER MOTOR WIRING DIAGRAM

AAMO5801
Ball Dispense
Motor
2.4 Ohms

AACE5826

Green
colored
connectors

AACE5827



AACB3404A
Ball Feed Auger
Encoder Sensor

12 Volts DC power between the Black and Red wires.

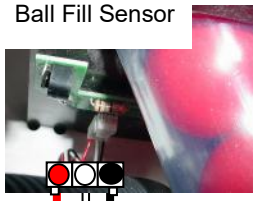
When Blocked - 0 VDC between the Black and White wires. (LED is ON)

AACE5853

Red
colored
connectors

From CE5815 from J24 connector

AACB3404A
Ball Fill Sensor



Ball Fill Sensor
12 Volts DC power between the Red and Black wires.

Normally a ball is blocking sensor and has 0 VDC between Black and white wires (LED is ON)

When Not Blocked - 3.3 VDC between the Back and White wires. (LED is OFF)

AACE5851

Yellow
colored
connectors

Top marquee

Lower game

AACB3906
Motor Driver BD

AACE5829
from Power
Supply

AACE5822

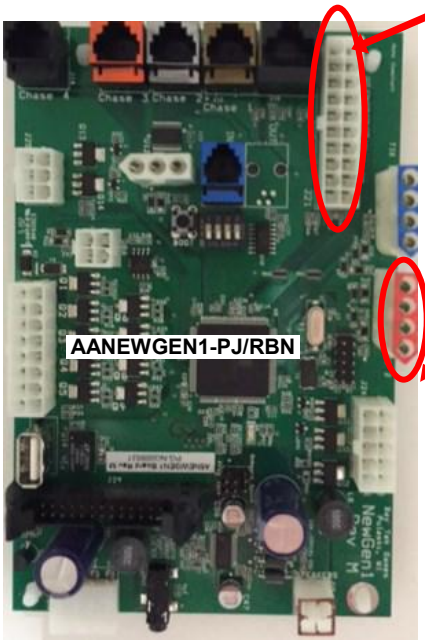
AACE5822

AACB3404A
Ball Count Sensor

Ball Count Sensor
12 Volts DC power between the Red and Black wires.

Normally 3.3 VDC between Black and White wires (LED is OFF)

When Blocked - 0 VDC between the Black and White wires. (LED is ON)



AANEWGEN1-PJ/RBN

To J21
connector

To TIX2
connector

12 Volts DC power between the Yellow and Blue wires.

When sensor is on an open notch 3.3 VDC between Blue and White wires.

When Blocked - 0 VDC between the Blue and White wires.

AACB4401
Carousel Sensor

AACE5831

AACE5816

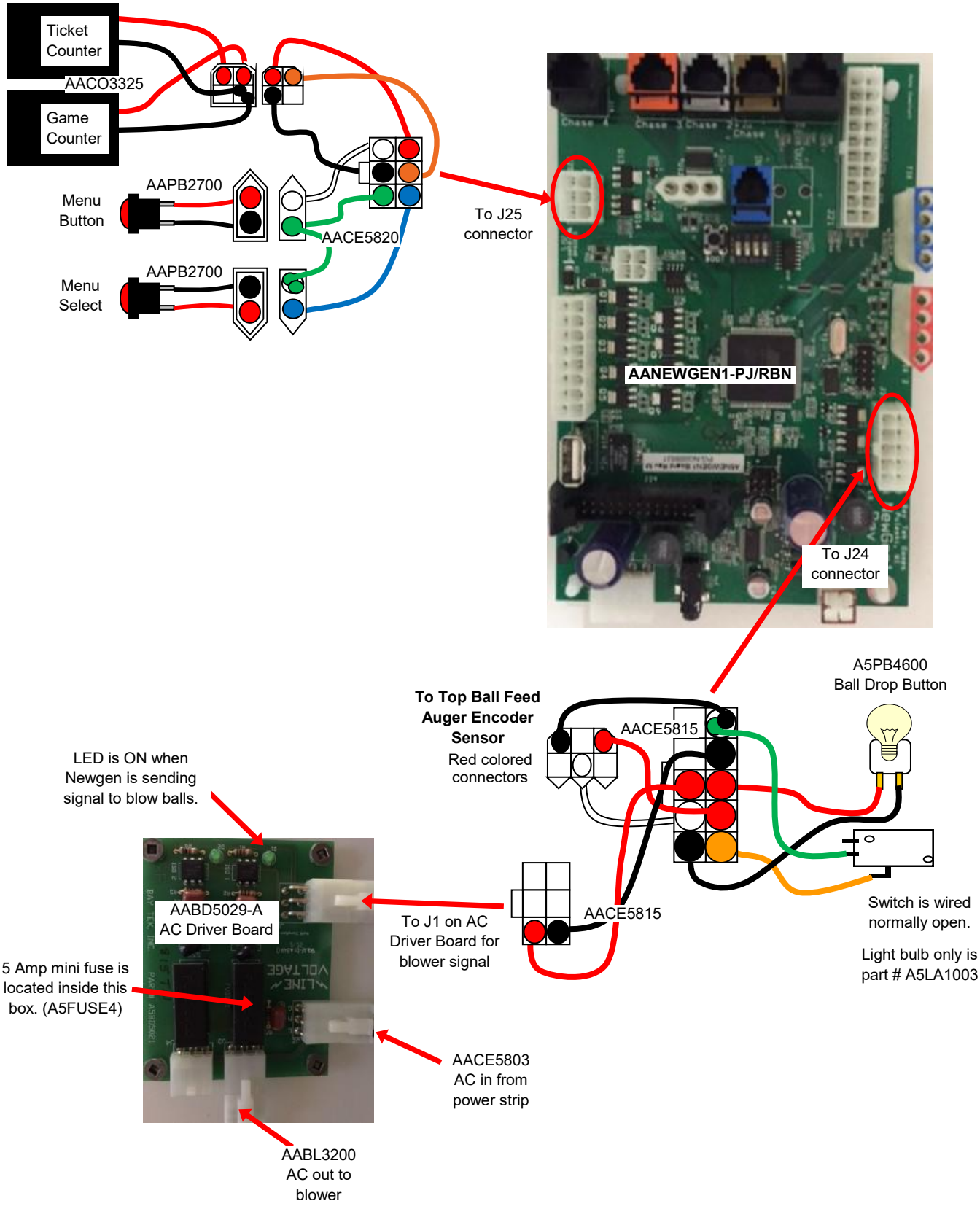
AACB3404A
Ball Score Sensor

Ball Score Sensor
12 Volts DC power between the Orange and Green wires.

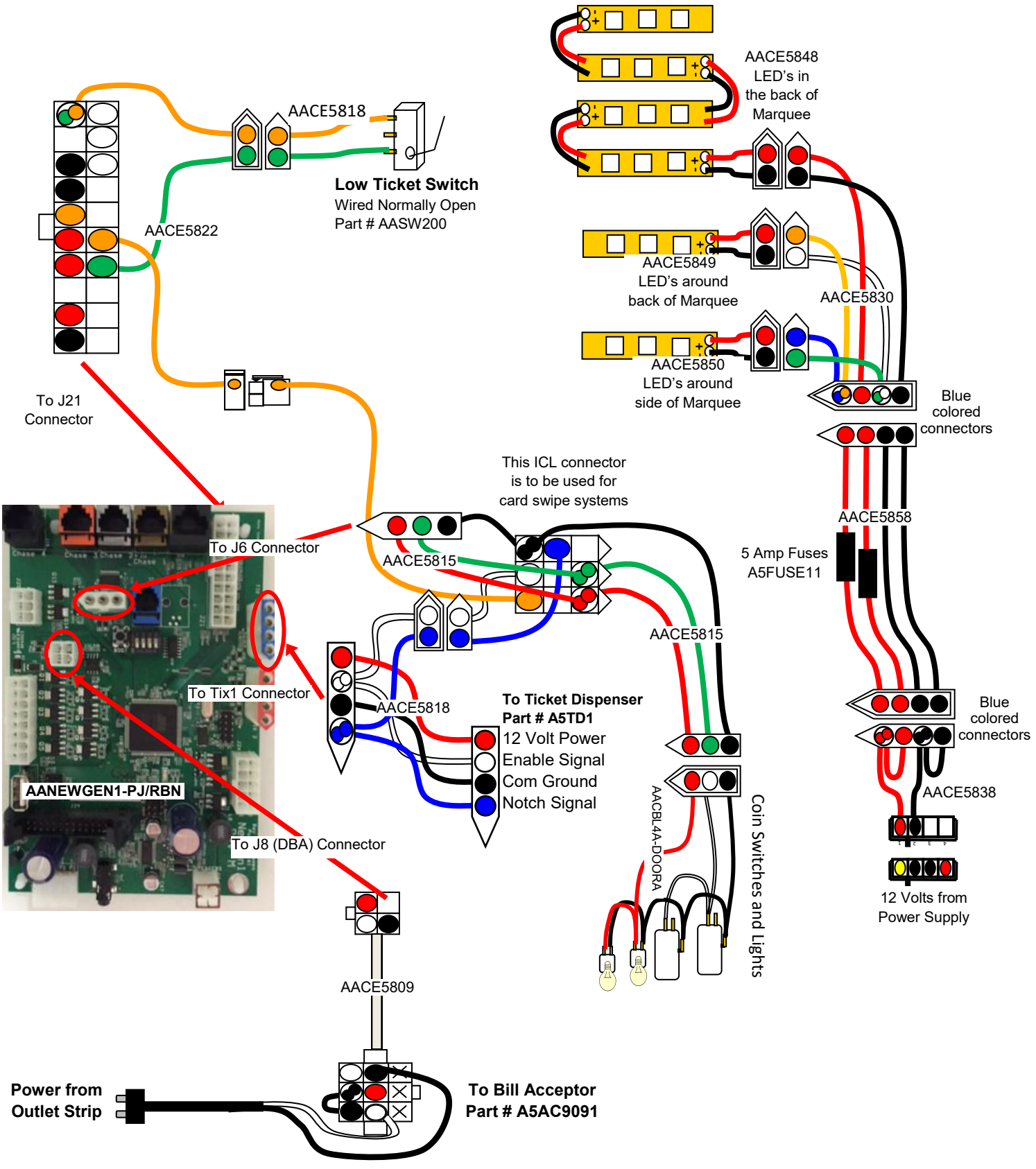
Normally 3.3 VDC between Green and White wires (LED is OFF)

When Blocked - 0 VDC between the Green and White wires. (LED is ON)

COUNTERS, MENU BUTTONS, BALL DROP BUTTON, AUGER SENSOR, & BLOWER SIGNAL WIRING DIAGRAM



MARQUEE LIGHTING, COIN MECH, & TICKET DISPENSER WIRING DIAGRAM



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.

Troubleshooting Chart

Problem	Probable Cause	Remedy
No power to the game **No lights on at all**	Unplugged.	Check wall outlet.
	Circuit breaker tripped.	Reset power strip breaker switch or building circuit breaker.
	Line Filter Faulty.	Replace Line Filter. Part # A5FI9010
	Power strip faulty.	Change plug position, replace power strip if a section does not work. Cable # CE5811
	Disconnected, loose or broken wires.	Refer to wiring diagram. Check connections and reseat cables from line filter to outlet strip. Cables # CE5802 & CE5811
Monitor is on. **But Power Supply not ON** Bill Acceptor will cycle. AC light in bottom of game is on	Power supply unplugged.	Insure power supply is plugged into power strip
	Rocker Switch.	Make sure rocker switch is set ON. 
	Disconnected, loose or broken power in wires.	Check power connections from outlet strip to power supply. A5CORD1, A5SP4100 & A5CORD5
	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.	See Power Supply Diagnostic below.
Dollar Bill Acceptor not functioning Ensure Bill Acceptor is set to “Always Enable” Model # AE 2451 U5E Part # A5AC9091	Check for power to Bill Acceptor.	Acceptor should cycle stacker at game power up. If not, check cable connections.
	Dirt or debris in acceptor slot.	Refer to “How to Clean Bill Acceptor” Or clean with bill reader cleaning card. (A5CC9000)
	Ensure acceptor dipswitch is set to “Always Enable”	There are dips on the side of the bill acceptor. Set to “Always Enable” (Not harness enable)
	Pinched, broken, or disconnected wiring.	Check wiring from bill acceptor to I/O Newgen Board. AACE5809 Repair or replace wiring harness. Make sure wires are secure in connectors.
	Bill acceptor problem. Part # A5AC9091	Refer to troubleshooting section of dollar bill acceptor manual included with this game or the diagnostics label of the back of the unit.

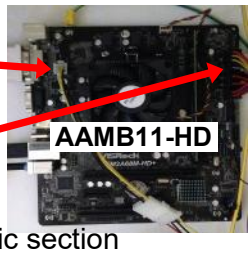
TROUBLESHOOTING GUIDE

Problem	Probable Cause	Remedy
LED lighting inside cabinet left and right instruction panels not working	LED's receive 12 Volts DC from power supply. Faulty LED light.	Check for proper connection and reseat cables from power supply to LED strip. Refer to wiring diagram. Cables # CE5840 and CE5852 Swap the 2 light strips left to right to identify a faulty LED strip. Replace as needed. Part # AACE5840
LED lighting inside cabinet playfield not working	LED's receive 12 Volts DC from power supply. Faulty LED light.	Check for proper connection and reseat cables from power supply to LED lights. Refer to wiring diagram. Cables # CE5808 and CE5812 Replace LED Light. Part # AACE5808
Upper marquee sign LED's not working **There are 3 sets of LED lights inside the upper marquee sign**	LED's receive 12 Volts DC from power supply. Faulty LED light. **Refer to "How to Change LED Lights in Marquee"**	Check for proper connection and reseat cables from power supply to LED lights. Refer to wiring diagram. Cables # CE5838, CE5830, CE5850, CE5849 & CE5848 Swap connectors with one of the other two LED's to identify a faulty LED strip. Replace LED Light. Part # AACE5850, AACE5849 and AACE5848
Control Panel LED's not working	LED's receive signals from I/O Newgen Board. Faulty LED light.	Check for proper connection and reseat cables from I/O Newgen Board to LED lights. Refer to wiring diagram Cables # CE5823 and CE5845 Swap connectors with another LED to identify a faulty LED strip. Replace LED Light. Part # AACE5845
Top or Bottom Window LED's not working	LED's receive signals from I/O Newgen Board. Faulty LED light.	Check for proper connection and reseat cables from I/O Newgen Board to LED lights. Refer to wiring diagram Cables # CE5823 and CE5844 Swap connectors with another LED to identify a faulty LED strip. Replace LED Light. Part # AACE5844
LED's behind ball drop not working	LED's receive signals from I/O Newgen Board. Faulty LED light.	Check for proper connection and reseat cables from I/O Newgen Board to LED lights. Refer to wiring diagram Cables # CE5823 and CE5847 Swap connectors with another LED to identify a faulty LED strip. Replace LED Light. Part # AACE5847
LED's around drop button not working	LED's receive signals from I/O Newgen Board. Faulty LED light.	Check for proper connection and reseat cables from I/O Newgen Board to LED lights. Refer to wiring diagram Cables # CE5823, CE5819 and CE5846 Swap connectors with another LED to identify a faulty LED strip. Replace LED Light. Part # AACE5846

TROUBLESHOOTING GUIDE

Problem	Probable Cause	Remedy
Light inside drop button not working **Light should be solid on during attract, and flashing when game is playing**	Light receive signals from I/O Newgen Board Faulty light bulb	Check for proper connection and reseat cables from I/O Newgen Board to lights. Refer to wiring diagram Cables # CE5815 Replace light bulb. Part # AALA1003
Meters does 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. Refer to Tickets not dispensing troubleshooting section. Refer to wiring diagram. Check connections and reseat cables from meters to I/O Newgen Board Cables # CE5820 and AACO3320 Replace counter. AACO3320
Menu Buttons do not work.	Swap connectors at the 2 buttons. Pinched, broken, or disconnected wiring Faulty communication between motherboard and I/O Newgen Board. Faulty I/O Newgen board.	Replace button if problem stays with button. AAPB2700 Inspect crimp to ensure good connection. Check connections from menu buttons to I/O Newgen Board. Check cables # AAPB2700, CE5820 Refer to Communication Error Troubleshooting section **Communication Error!** Replace I/O Newgen Board. Part # AANEWGEN1-PJ/RBN
Low Tickets message on monitor	Tickets are empty in ticket tray Faulty cable. Disconnected, loose or broken wires. Faulty low ticket switch. Faulty I/O Newgen Board.	Load tickets into tray. Ensure tickets hold down micro switch wire. Check connectors from low ticket switches to Newgen board. Check for continuity. Cables # CE5818 or CE5822 Inspect switch and replace if needed. (AASW200) Replace I/O Newgen Board. Part # AANEWGEN1-PJ/RBN
Game not coining up Enter Diagnostic Mode (Turn diagnostics on, then exit menu) to see if Credits Increment when coin is inserted.	Look for communication error **Communication Error!** Ensure game makes sound when coin switch is triggered. Game set to large amount of credits per game. Faulty I/O Newgen Board.	Refer to Communication Error Troubleshooting section. Check coin switches—both should be wired normally open. If one switch is "closed" the other will not work either. Check wiring to I/O Newgen Board. (AACBL4A-DOORA, AACE5815) Check Game Setup Menu. Ensure Credits is set to proper value. Ensure 3.3 volts on coin switch green and black wires. Replace I/O Newgen Board if needed. Part # AANEWGEN1-PJ/RBN

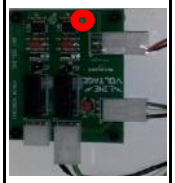
TROUBLESHOOTING GUIDE

Problem		Probable Cause	Remedy
Tickets do not dispense or Wrong amount dispensed. Check for the correct amount of tickets showing on monitor	Tickets on monitor does **not** match tickets coming out of game.	Opto Sensor on ticket dispenser dirty. Faulty ticket dispenser. Notch on tickets cut too shallow. Faulty cable. Disconnected, loose or broken wires. Faulty I/O Newgen Board.	Blow dust from sensor and clean with isopropyl alcohol. Replace with working dispenser to isolate the problem. (A5TD1) Flip tickets and load upside-down to have large cut notch toward opto sensor. Check connectors from ticket dispensers to I/O Newgen board. Check for continuity. AACE5818 Replace I/O Newgen Board. Part # AANEWGEN1-PJ/RBN
	Tickets on monitor does match tickets coming out of game.	Settings in Menu are incorrect.	Enter Menu and check certain areas: Display Payout set to Tickets Divide Tickets by 2 set to False Fixed tickets set to Disabled
Monitor not working. Power down, wait **5 minutes** and power up again.	Screen shows "No Signal Input" Note: Monitor must be plugged in for mother-board to boot up.	Monitor DVI cable unplugged. Part # A5CORD24 Small power connector unplugged on motherboard Large power connector unplugged on motherboard Faulty or loose RAM Faulty power supply - Refer to Power Supply diagnostic section Faulty motherboard - Replace faulty board. (AAMB11-HD)	
	Screen 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. There are multiple power cords. A5CORD5, A5SP4100, and A5CORD1 Replace monitor. (A5MO3200)
	Error on screen at power up. Re-Boot game to see if problem still exists.	Display shows "Kernel panic – unable to mount root" Display stuck on "ASRock UEFI Setup Utility"	Faulty or loose RAM, faulty software, or faulty motherboard No SATA drive in motherboard. Check for power connector  

TROUBLESHOOTING GUIDE

Problem	Probable Cause	Remedy
Carousel Motor not turning **Motor should turn all the time**	Check for DC voltage to the motor. It should be 8-12 VDC Pinched, broken, or disconnected wiring Faulty I/O Newgen Board.	The voltage sent to motor will vary to keep the motor at 6RPMs. If voltage is present and the motor does not turn, replace motor. A5MO5800. Refer to wiring diagram. Check from Newgen board to motor. Cables AACE5823 & AACE5855. Check 3.5 amp fuse inside the CE5855 cable. If still no voltage to the motor, Replace I/O Newgen Board. Part # AANEWGEN1-PJ/RBN
Balls Not Dropping	Verify "Drop Button" works	Enter Diagnostic Menu and press button as "Button Input" changes.	If no change: Inspect/clean or replace button. A5PB4600 Check wires from button to Newgen Board Check for continuity on cable AACE5815 Replace Newgen Board. AANEWGEN1-PJ/RBN If input changes, Verify balls are in the tube. Solenoid is not working correctly. Refer to "How to Replace Ball Drop Solenoid" for instructions on how to access solenoid. Check wires from ball drop solenoid to Newgen Board. AACE5823 Inspect/clean or replace solenoid. AASO5800 Replace Newgen Board. AANEWGEN1-PJ/RBN
	Verify balls are in the tube	Balls are in the tube.	Drop button or solenoid is faulty. Refer to "Verify Drop Button works" above.
		No balls in the tube.	Blower is not operating correctly. Most of the balls should be in the hopper in the top of the game. Refer to "Blower not working" Ball Dispense Motor not operating correctly. This motor fills the tube until the sensor tells it to stop. Refer to "Ball Dispense Motor not working"
Balls are bouncing out of the buckets too much.	Some of the fun involved in timing the balls to land in the buckets is the possibility of the balls bouncing out as in is being played. However, some customers may prefer a damping foam kit that can be installed in the bottom of each bucket. Please call Parts & Service and purchase 5 of part # A5PA5800		

TROUBLESHOOTING GUIDE

Problem		Probable Cause	Remedy
Blower not working Balls are all in the bottom of the game Bower should run at power on, and at the start of every game.	DC voltage problem 	Check green LED on AC driver board. It should be ON when blower is running.	If green LED is ON, then refer to AC voltage problem below If green LED is OFF: Check for disconnected, loose or broken wires from Newgen Board to AC Driver Board. Check for continuity on CE5815 cable. Check tor 12 volt DC at power on between the red and black CE5815 wires into the AC driver board. If no 12 volts - Replace Newgen Board # AANEWGEN1-PJ/RBN If 12 volts ok - Replace AC Driver Board. Part # AABD5029-A
	AC voltage problem	Faulty Fuse Faulty cable. Disconnected, loose or broken wires. Blower Issue	Replace 5 Amp mini fuse on AC Driver Board. Part # A5FUSE4 There is a constant 110 Volts AC on the CE5803 into the AC Driver Board from power strip. Check for 110 Volts AC on the AABL3200 cable going to the blower at game power on while green LED is on. (If green LED is not on, refer to DC voltage problem above) If no 110 Volts AC going to the blower, replace AC Driver Board. Part # AABD5029-A Refer to “How to Access Blower” to ensure blower is not jammed. Refer to “How to Remove Blower” to replace the blower if faulty. Part # AABL3201-QD for 110 VAC game Part # AABL1180-QD for 2200 VAC game
No Sound Motherboard cre-ates sound, the Audio Amplifier boards amplifies it.		Volume set to mute enabled in Main Menu or game volume/ attract volume set to zero. Disconnected, loose or broken wires. Verify 12 Volts DC to Audio Amplifier Boards	Enter Main Menu and verify: Game Volume & Attract Volume is not zero. Mute is set to Disabled Refer to wiring diagram. Check connections and reseat audio cable from motherboard to speakers. Cables # A5CEAU010, A5CE2300, CE5828, CE5825, AACE8811 Unplug audio cable (A5CE2300) from motherboard, plug into MP3 player or phone and see if music is amplified and comes out of speaker. If Yes - then motherboard is faulty. If No - then cable or amplifier board is faulty
Jackpot Display not working		Refer to wiring diagram 5 Volt DC power into board is missing Communication cable issue. Pinched, broken, or disconnected wiring Faulty display board.	Display is wired from Newgen Board to Splitter Board, up to Display Board Check cables from power supply to the display. CE5842, CE3454, CE3892 Check fuse inside CE3454 cable. Part # A5FUSE11, 5 amp fuse Check flat ribbon cables CE5843 from Newgen Board to Splitter Board (AACB3904), to Display Board CE5841 Replace Display Board if needed. A5LD1058 Refer to “How to Change Jackpot Display Board”

TROUBLESHOOTING GUIDE

Problem		Probable Cause	Remedy
Top ball dispense motor not working **Motor will turn until ball tube is full of balls.** **If Ball Tube Fill Sensor is dirty or defective, the game will think the tube is full and not turn the motor.**	Game thinks the ball tube is full.	The tube is full of balls.	Game is operating normally. The motor will not turn if the tube is full.
		The Ball Tube Fill Sensor is dirty or faulty.	Refer to “How to Access Ball Tube Fill Sensor” to clean sensor. Unplug connector from ball tube fill sensor - if the top motor starts turning, this sensor is faulty. Replace sensor. Part # AACB3404A
		Faulty cable. Disconnected, loose or broken wires.	Check connectors from sensor to Newgen Board. Check for continuity on cables CE5851 and CE5822
	Ball jammed in hopper on top of game.	Broken ball jamming motor	Inspect ball hopper and remove any broken balls. It is best to replace the balls as a complete set. Part # AABA5802-P70
		Encoder Sensor is not working correctly.	Clean sensor. Refer to “How to Access Top Ball Dispense Motor & Sensor” Replace sensor if needed. AACB3404A
	Power issue to top ball dispense motor	12 Volts DC must be present at lower right connector at all times. Check cable CE5829 to power supply if no 12 Volts DC. Check cable # CE5822 to Newgen Board for continuity. Check connections from the top connector of this board to the ball dispense motor. CE5827 and AAMO5801—Ensure the green connectors are secure. Top connector will be 12 Volts DC only when top motor should be turning and tube is empty. First unplug the ball tube fill sensor in the top of the tube behind the large front round marquee before replacing this board. AACB3906	 AACB3906 Motor Driver BD
	Component failure Try unplugging the ball tube fill sensor in the top of the tube behind the large front round marquee before trying these suggestions.	If 12 Volts DC at the motor:	Replace the Ball Dispense Motor. AAMO5801
		If no 12 volts at the motor:	Check green Molex connection at CE5827 cable Check connection to Motor Driver Board. Replace Motor Driver Board. AACB6906 Check cable to NewGen Board CE5822 Replace Newgen Board AANEWGEN1-PJ/RBN

TROUBLESHOOTING GUIDE

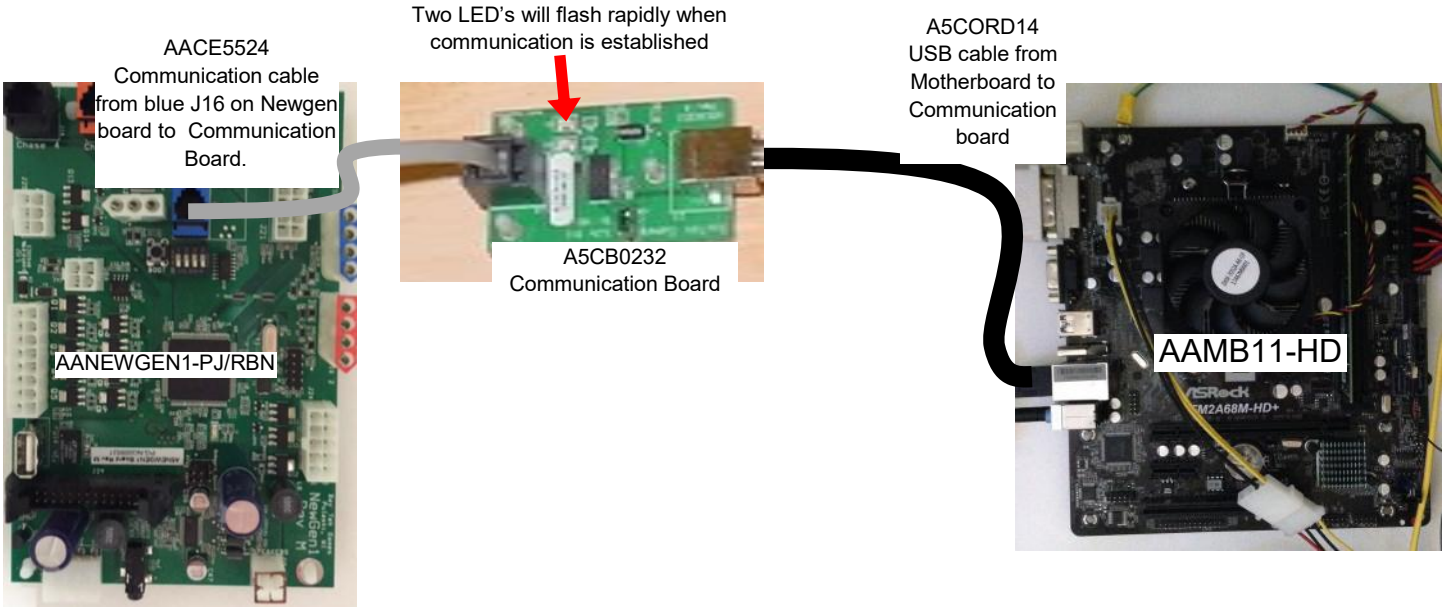
Problem	Probable Cause	Remedy
Bad Ball Score Sensor  Game always paying 10 tickets per game.	Check for 12 volts to sensor and 3.3 volt signal return. Pinched, broken, or disconnected wiring Faulty Sensor Board.	There should always be 12 volts on the orange and green wires for power in. Signal wires have 3.3 volts on the white and green wires when sensor is clear, and 0 volts when blocked. Refer to wiring diagram. Check connections from sensor to Newgen Board. Cables CE5816 & CE5822 Replace Sensor Board. # AACB3404A
Bad Ball Count Sensor  Player can drop more than 50 balls Ensure ball drop solenoid is working.	Check for 12 volts to sensor and 3.3 volt signal return. Pinched, broken, or disconnected wiring Faulty Sensor Board.	There should always be 12 volts on the red and black wires for power in. Signal wires have 3.3 volts on the white and black wires when sensor is clear, and 0 volts when blocked. Refer to wiring diagram. Check connections from sensor to Newgen Board. Cables CE5822 Replace Sensor Board. # AACB3404A
Bad Carousel Encoder  Carousel motor turning very slowly	Check for 12 volts to sensor and 3.3 volt signal return. Pinched, broken, or disconnected wiring Faulty Sensor Board.	There should always be 12 volts on the yellow and blue wires for power in. Signal wires have 3.3 volts on the white and blue wires when sensor is clear, and 0 volts when blocked. Refer to wiring diagram. Check connections from sensor to Newgen Board. Cables CE5831 Ensure the CE5831 is plugged into the red socket Replace Sensor. # AACB4401
Bad Top Auger Encoder  Game does not see the top motor turn as it should	Ball jam in the top ball hopper Check for 12 volts to sensor and 3.3 volt signal return. Pinched, broken, or disconnected wiring Faulty Sensor Board.	Remove any balls jammed in hopper. There should always be 12 volts on the red and black wires for power in. Signal wires have 3.3 volts on the white and black wires when sensor is clear, and 0 volts when blocked. Refer to wiring diagram. Check connections from sensor to Newgen Board. Cables CE5853 & CE5815 Replace Sensor Board. # AACB3404A

COMMUNICATION ERROR TROUBLESHOOTING

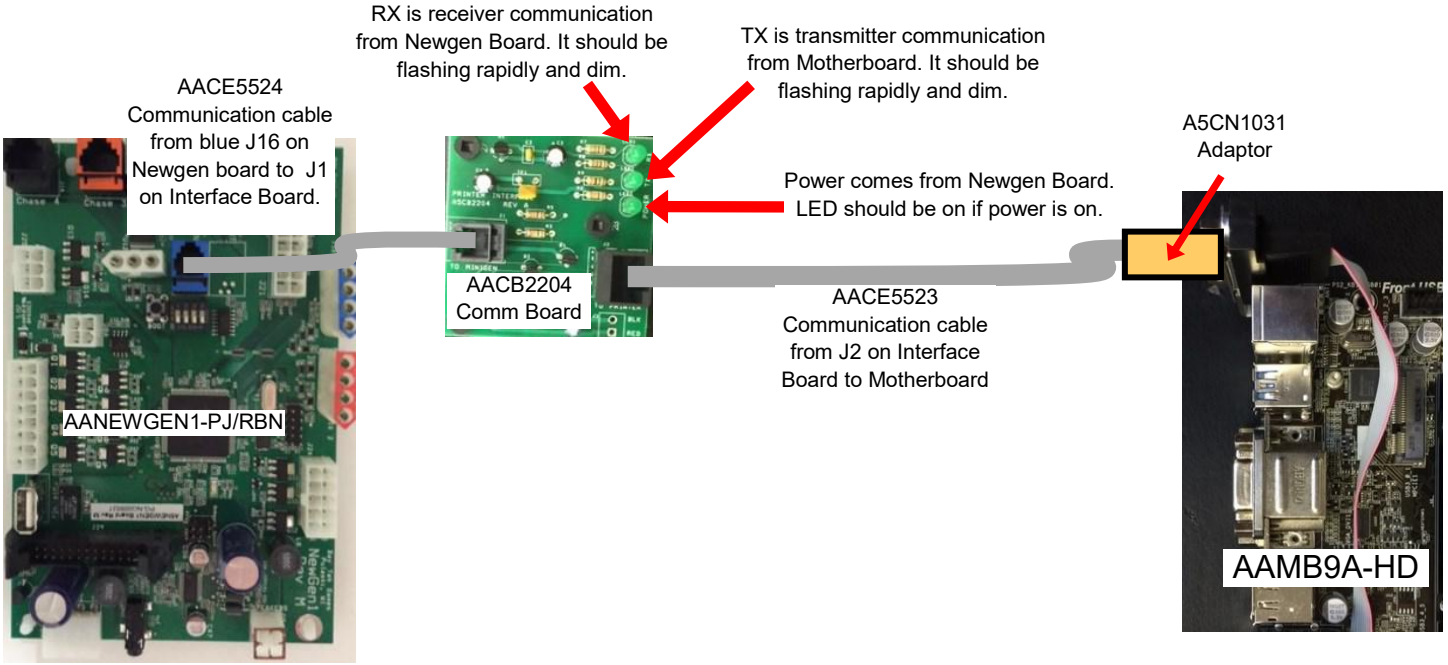
Communication between the motherboard and the Newgen board is necessary for the game to coin up, enter the menu, and any other inputs to be processed by the game.
If the communication error is displayed, please follow the below instructions for the 2 versions of communication used by Quik Drop.

Choose the diagram that matches your game and re-seat connections, replace parts as needed.

MB11 games manufactured after 2/5/18



MB9 games manufactured before 2/5/18



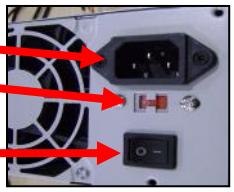
POWER SUPPLY DIAGNOSTICS

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:

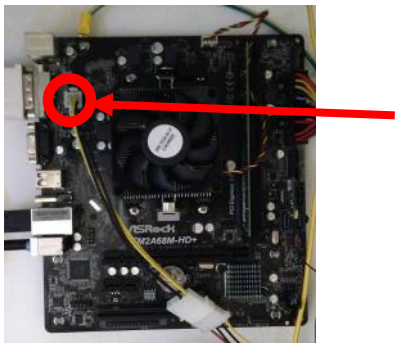
Unplug all power out connectors from the Power Supply
Turn on game and if it boots correctly, plug one cable in at a time until the issue is found.

Replace power supply if this board is not receiving 12 volts. (AAPS1011-QD)
- 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.



If you have an AAMB11 version motherboard

Make sure the 4 pin power connector is plugged in. (Black, Black, Yellow, Yellow)

As well as 24 pin power in connector.

Minimize load on power supply and isolate short

Unplug the power supply cables going to the LED lights, Newgen Board, Motor Driver Board, and Marquee.
This will leave the power supply, motherboard, and monitor left plugged in together.

If power supply, motherboard, and monitor now turn on:
Plug in one component at a time to power supply to locate short.
When plugging in Newgen Board, turn game power off, then plug in Newgen Board, then turn power on.
It may be required to unplug all the outputs from the Newgen Board to isolate a bad cable from board.

If power supply still does not power on, replace power supply (AAPS1011-QD), or motherboard.

HOW TO UPDATE SOFTWARE

Software Update Instructions for Quik Drop

It is possible to change software in 2 different locations:

1.) Motherboard Software is a SATA drive

2.) Newgen software is a file to be uploaded via USB thumb drive

Your software update may include only one of these, or both, depending on circumstance.

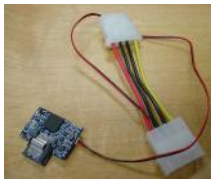
Instructions:

1.) Install Motherboard Software - Unplug game from wall, or switch power strip off inside front door.

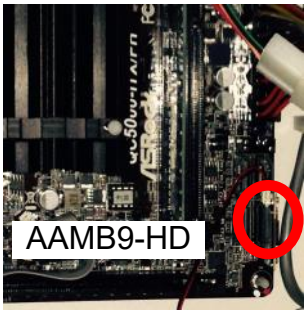
Remove old SATA drive from the motherboard. Pinch metal tab and pull straight off motherboard.

Gently install new SATA software.

Ensure the small power cable is connected the SATA drive and the other end is connected to a power supply con-



nector.



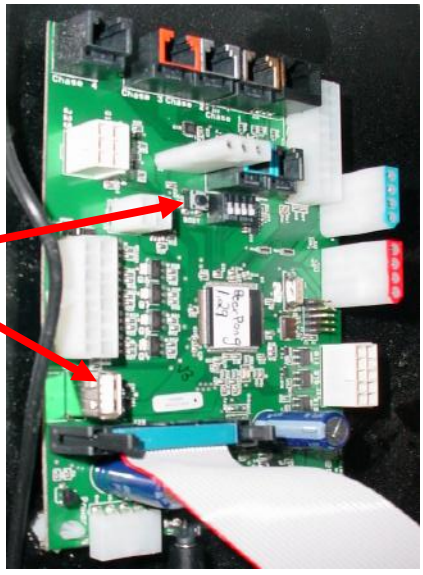
2.) Newgen Software loading - **Note: Game power must remain ON for this procedure.**

Make sure game is on and running.

Insert the USB stick into the Newgen Board's USB socket.

Push the small pushbutton (labeled Boot) to load file.

NOTE: The file will load quickly; you will notice that the USB stick will flash, and the game will return to normal operating condition.



If you have any questions or need further assistance please contact Bay Tek Games at 920-822-3951 ext. 1102

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 # AE2451-U5E Part # A5AC9091

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:

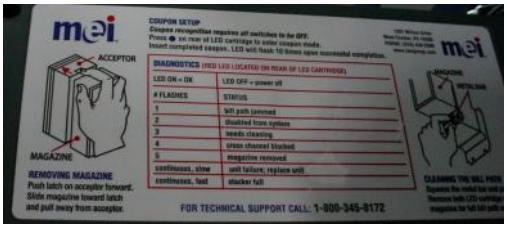
Use meter to measure 110 AC voltage at cable going into Bill Acceptor from power strip.

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.

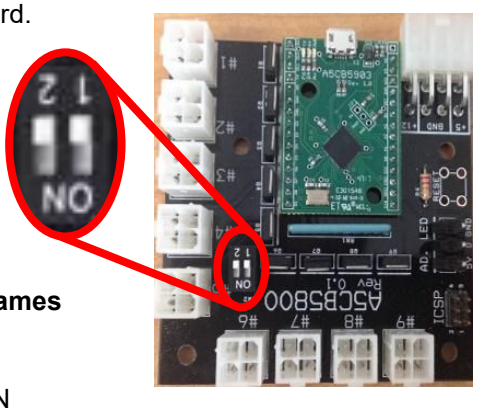
DIPSWITCH SETTINGS

The Newgen Board has a bank of 4 dipswitches.

SWITCH	DESCRIPTION	ON	OFF
1	**NOT USED**		X
2	**SAVE TICKETS/CREDITS** Will save tickets and credits after a power off if set to ON		X
3	**NOT USED**		X
4	**NOT USED**		X

If your games have a center link console attached to 2 games:

Set both Dipswitches to OFF on the control board.



In the rare event that you have 3 Quik Drop games linked together with 2 link kits:

Set one board with Dip #1 ON, #2 OFF

Set the other board with Dip #1 OFF, Dip #2 ON

PARTS LIST

PART #	DESCRIPTION
AABA5802-P70	Set Of 70 Red Balls
A5BA5801	Ball, Red,Smooth, 3"
AABK1013	Bracket, Pushbutton/Counters
A5BR1001	Bearing
A5BR5800	Bearing, Solenoid Guide
A5CA1005	Caster,250# Load, Swivel/Lock
A5CB1499	Coin Box, White
A5CH1800	Chain,#35,88 Links Long
A5CL1004	Clamp, Versa Latch
A5CL3200	Clamp, Conn, 3/8"
A5CO4203	Cover, Speaker Grill
A5DE0042	Decal, Menu/Volume Decal
A5DE0048	Decal, Universal Card Link
A5DE5800	Decal, Button Platform
A5DE5801	DECAL,CONTROL Panel
A5DE5802	Decal, Cab Front
A5DE5803	Decal, Cab Front
A5DE5804	Decal, Cab Front
A5DE5805	Decal, Side Panel
A5DE5806	Decal, Marquee
A5DE5808	Decal, Backlit Marquee
A5DE5809	Decal, Cab Side, Left
A5DE5810	Decal, Cab Side, Right
A5DE5811	Decal, Instruction Panel, Left
A5DE5812	Decal, Instruction Panel Right
A5DE5813	Decal, Wheel Ramp
A5DE5814	Decal, Jackpot Cover
A5DE5815	Decal, Default Score Card
A5DE5817	Decal, Custom Ticket Set
A5DE5819	Decal, Jackpot Instruction
A5DE5821	Decal, Notice Clean Sensors
A5DEWH010	Decal, White
A5FC0080	Ferrite, Suppressor
A5FI9010	Filter, Inline
A5FO5800	Foam, .5x4x6, Auger Disp Assy
A5GR5800	Grommet, Rubber
A5HO1003	Holder, For Light Bars
A5LI0003	Light, 9 Watt, 60w
A5LK2001	Lock, Cash Box, A05/E00 Key Code
A5LK5002	Lock, 7/8", H95 Key Code

PART #	DESCRIPTION
A5ME1878	Metal,3/8 Diax4"Lg Rod
A5ME5800	Metal, Front Corner
A5ME5801	Metal, Side Corner
A5ME5802	Metal, Window Brkt
A5ME5803	Metal, Ball Shear Plate
A5ME5804	Metal, Gear Motor Bkt
A5ME5805	Metal, Solenoid Brkt
A5ME5806	Metal, Playfield Motor Bkt
A5ME5812	Metal, Playfield Shaft Assy
A5ME5813	Metal, Solenoid Link
A5ME5814	Metal, Inner Window Rail Assy
A5ME5815	Metal, Angled Ball Ramp
A5ME5816	Metal, Wheel Shield
A5ME5817	Metal, Ball Counting Bracket
A5ME5818	Metal, Sensor Bracket
A5ME5819	Metal, Solenoid Bracket
A5ME5820	Metal, Encoder Sensor Bkt
A5ME5821	Metal, Top Encoder Brkt
A5PI5801	Pin,Spring,1/8" X 2 1/2" Lg
A5PI5802	Pipe, Pvc Clear, Ball Release
A5PI5803	Pipe, Pvc, Clear, Upper Loader
A5PL4200	Plate, Upstacker Bill Acceptor Plate
A5PL8900	Plate, Bill Validator Blanking Plate
A5RO5800	Rocker, Ball Release
A5RVCI015	Rivet, 5/32x25/64 Red
A5SP1006	Sprocket,#35x10 Tooth
A5SP1801	Spring, Ext, W/Loop Ends
A5SP5801	Sprocket,1"Bore,Crsel Motr,48tooth
A5TR5800	Trim, Rubber Edge
A5TT4000	Ticket Tray
A5VF5800	Vacuum Form, Ring
AAPS1011-QD	Power Supply

220 Version Game Differences

- Different Blower. Part # AABL1180-QD
- Flip switch on power supply to 220

PARTS LIST

PART #	DESCRIPTION	PART #	DESCRIPTION
A5CORD1	Cord,Power,10'	AACE5851	Cable, Ball Fill Sensor
A5CORD14	Cord,3'usb R Angle, B to A Male	AACE5852	Cable, Ticket Bucket Light Power Jumper
A5CORD21	Cord, 3', 35mm Male To Male, Audio	AACE5853	Cable, Ball Auger Sensor Jumper
A5CORD5	Cord, AC Computer Cord, 6.5'	AACE5854	Cable, Ground Strap
A5SP4100	Splitter, Power Supply Cord	AACE5855	Cable Assy, Motor Fuse Holder
AACBL4A-DOORA	Cable, Door, W/ Bulbs	AACE5856	Cable, Ground Wire, Quick Drop
AACE1715	Cable, Door Ground Cable	AACE5857	Cable, Ground Wire, Quick Drop
AACE3892	Cable Assy,12 V Jumper, Display	AACE5858	Cable Assy, Marquee Fuse
AACE5523	Cable Assy, Communication Cable	AACE5859	Cable Assy, 5v Fuse Jumper
AACE5524	Cable, Communication Cable	AACE5940	Cable Assy, Power Splitter
AACE5802	Cable, Assy, Line Filter Jumper	AACE8811A	Cable Assy, Speaker
AACE5803	Cable, Assy, AC Driver Bd Power	AACE8868	Cable, Fluorescent Socket
AACE5808	Cable, Playfield Illumination Light	AACE9736	Cable Assy,Mb11 Motherboard Power
AACE5809	Cable, Front RGB Jump	AATU5800-M	Machined Blue Tub Assemblies
AACE5810	Cable, Assy, Mini Gen Pwr	W5CL1002	Clamp, Panel, Kick Plate
AACE5811	Cable, Assy, Power Strip	W5HG1025	Hinge,16",Double Bend
AACE5812	Cable, Playfield Illumination Jumper	W5HG1030	Hinge,23",Single Bend
AACE5815	Cable, Mini G To Drop Button	W5HG1045	Hinge, 5.75" Double Bend
AACE5816	Cable, Ball Score Sensor	W5KE5000	Keeper, Lock
AACE5818	Cable, Low Ticket	W5TM4003	T-Molding, 7/8” Red
AACE5819	Cable, Button Light Surround Jumper	A5MA5800	Game Mat For Floor In Front Of Game
AACE5820	Cable, Menu/Counter To Mini Gen	A5PB4600	Pushbutton, Jumbo Red Drop
AACE5822	Cable, Sensors Jumper	AABL3201-QD	Blower,115 Volts
AACE5823	Cable Assy, Motor, Solenoid, Leds	AABL1180-QD	Blower,220 Volts
AACE5825	Cable, Speaker Cable	A5MO3200	Monitor, 32"
AACE5827	Cable, Auger Motor To Motor Board	A5MO5800	Motor,25 RPM, Carousel
AACE5828	Cable Assy, Speaker Jumper	AASW200	Low Ticket Switch
AACE5829	Cable, Power To Auger Motor Board	A5TD1	Ticket Dispenser, Entropy
AACE5830	Cable, Marquee Light Power Jumper	A5LD1058	Led,Mod,7.5" X 3.75",64*32
AACE5831	Cable, Encoder Sensor Jumper	AACO3325	Counter Assy
AACE5832	Cable, Ac Power To Bulb	AAMO5801	Motor, Top Ball Feed
AACE5835	Cable, Ground Wire	AAPB2700	Push Button Assembly
AACE5838	Cable, Power Supply To Marquee	AASO5800	Solenoid, with Bracket
AACE5840	Cable, L & R Instruction Led Cable	AACB2204	Communication Board For MB9
AACE5841	Cable, Display Ribbon Cable	A5CE2300	Audio Filter For MB9
AACE5842	Cable Assy, 5v To Jackpot Display	A5CEAU010	Audio Cable For MB9
AACE5843	Cable, Display Ribbon Cable	A5CB0232	Communication Board For MB11
AACE5844	Cable Assy, Window Led Lights	AABD5029-A	Bd Assy, AC Driver Board
AACE5845	Cable Assy, Control Panel Led's	AACB3404A	Assy, Sensor
AACE5846	Cable, Led Around Button	AACB3904	Circuit Board, Rbn Split/Dot Matrix
AACE5847	Cable Assy, Led Behind Ball Drop	AACB3906	Circuit Board, DC Motor Driver
AACE5848	Cable Assy, White Marq Lights	AACB4401	Circuit Board, Encoder Sensor With Cable
AACE5849	Cable Assy, Red Led Marq	AAMB11-HD	Motherboard, Mb 11
AACE5850	Cable Assy, Blue Marq Lite	AANEWGEN1-PJ/RBN	Bd Assy, Minigen, w/Phono & Ribbon

A5CEAU010 A5CN1031

PARTS PICTURES


AABA5802-P70


A5BA5801

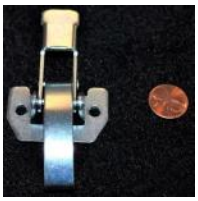

AABK1013

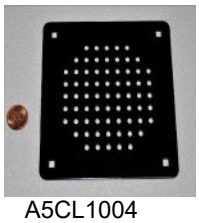

A5BR1001


A5CA1005


A5CB1499


A5CH1800

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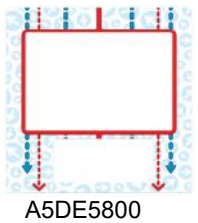
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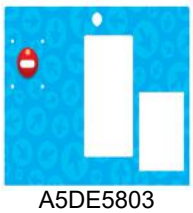
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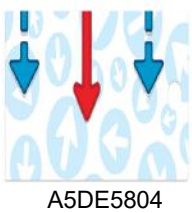
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A5DE5809

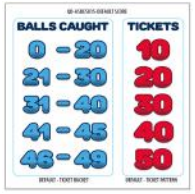
A5DE5810

A5DE5811

A5DE5812


A5DE5813

A5DE5814



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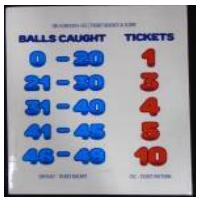

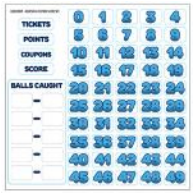
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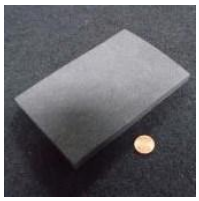
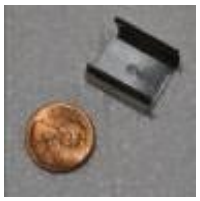
A5DE5816


A5DE5819






A5LK5002

A5ME5819

A5ME5820

A5ME5821

A5PI5802

A5PI5803

PARTS PICTURES




A5SP5801

A5TR5800





A5CORD5



A5SP4100

AACBL4A-








AACE5815

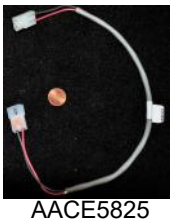
AACE5816

AACE5818

AACE5819

AACE5820

AACE5822

AACE5823

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AACE5845

AACE5846

AACE5847

AACE5848

AACE5849

AACE5850

AACE5852

AACE8868

W5CL1002

W5HG1025

W5HG1030

W5HG1045

W5KE5000

W5TM4003

A5MA5800

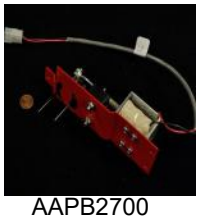
PARTS PICTURES

A5PB4600

AABL3201-QD

AACO3325

AAMO5801



AAPB2700

AASO5800

A5CB0232

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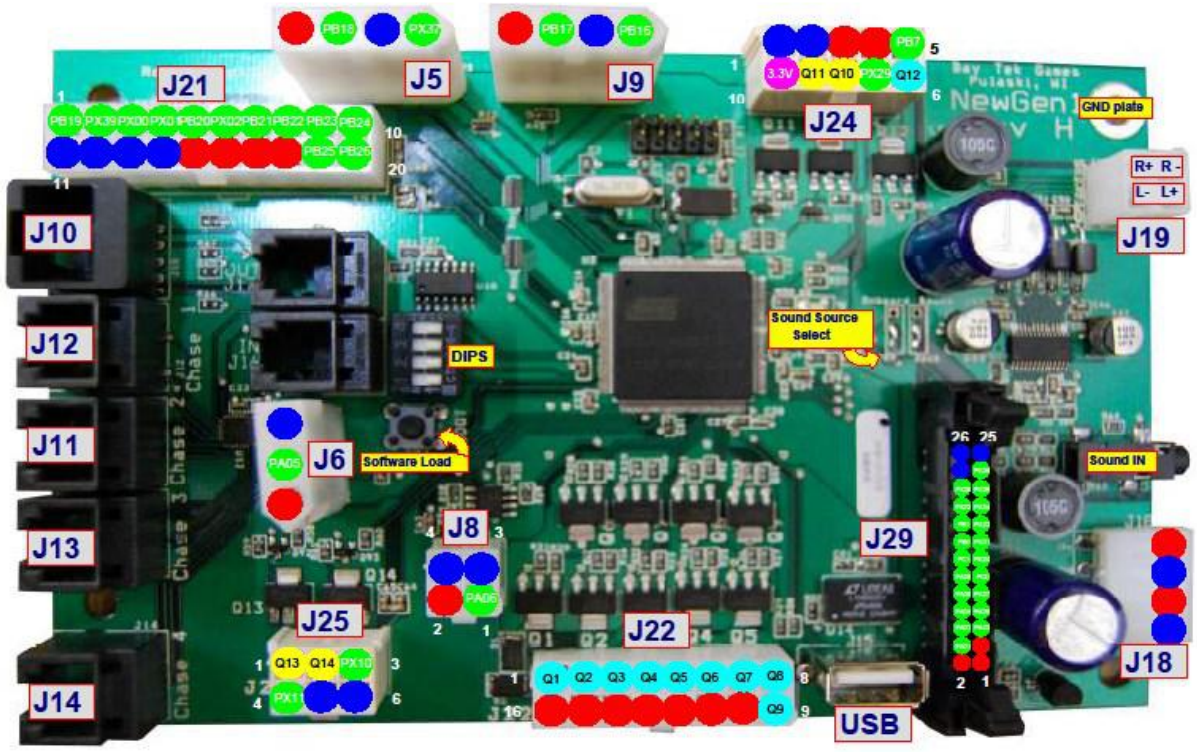
AACB3904

AACB3906

AACB4401

AAMB11

I/O AUX BOARD PINOUT



Ground
+12V
Low Side Driver
High Side Driver
TTL Logic
+3.3V

SPI Out - Display - (J10)	Chase Lights (J11,J12,J13,J14)
Pin 1 & Pin 3 - +12V	Pin 1 - Chase Output
Pin 2 - SCLK_BUS2	Pin 2 - Chase Output
Pin 4 - SMOSI_BUS2	Pin 3 - +12V
Pin 5 & Pin 7 - Ground	Pin 4 - Chase Output
Pin 6 - SCS2_BUS2	Pin 5 - Chase Output
Pin 8 - SMISO_BUS2	Pin 6 - +12V

DECAL DIAGRAM

QUIK DROP

DECAL DIAGRAM

MARQUEE:

A5DE5808_MARQUEE

A5DE5814_ JACKPOT COVER

A5DE5811_INSTRUCTION PANEL LEFT

A5DE5812_INSTRUCTION PANEL RIGHT

A5DE5815_DEFAULT SCORE CARD *(2 DECALS/SET)*

AVAILABLE BUT NOT PICTURED:

A5DE5816_CUSTOM SCORE SET

A5DE5817_CUSTOM TICKET SET

NOT VISIBLE IN PICTURE:

A5DE5809_CABINET SIDE LEFT

A5DE5810_CABINET SIDE RIGHT

A5DE5806_MONITOR COVER

A5DE5813_WHEEL RAMP

A5DE5800_BUTTON PLATFORM

A5DE5802_CABINET FRONT

A5DE5803_MECH DOOR

A5DE5804_COIN DOOR

A5DE5801_CONTROL PANEL

A5DE5805_SIDE PANEL (2/GAME)

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.

NOTES

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:

·**Repair & Return** – 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.

·**Advance Replacement** – 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!

· **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:

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 12 months from the date of shipping.

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.

Any labor is not included in this warranty.

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.