

SERVICE MANUAL

SKEE-BALL CLASSIC

22

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BAY★TEK®
entertainment

FACTORY CONTACT INFORMATION



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WELCOME TO SKEE-BALL

Congratulations on your Skee-Ball purchase!

Skee-Ball has been entertaining audiences at boardwalks, fairs and entertainment centers for over 110 years.

Please take a moment to read through this manual as it contains a lot of helpful information. Be sure to contact our factory if you have any questions, or would like 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!



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 them at service@baytekent.com for further assistance.

GAME SPECIFICATIONS

WEIGHT

NET WEIGHT	645 lbs	293 kg
SHIP WEIGHT	695 lbs	318 kg

SHIPPING DIMENSIONS (1 Pallet)

80" x 32" x 92" at 695 lbs (Class 125)

GAME DIMENSIONS

WIDTH	30"	77 cm
DEPTH	122"	310 cm
HEIGHT	86"	219 cm

Individual Dimensions:

Ramp: 30" Wide X 87" Deep X 27" Height
Head: 30" Wide X 43.5" Deep X 86" Height

POWER REQUIREMENTS

INPUT VOLTAGE RANGE	100 to 120 VAC	220 to 240 VAC
INPUT FREQUENCY RANGE	60 Hz	50/60 Hz

MAX OPERATING CURRENT

2 AMPS @ 110 VAC / 1.3 AMP @ 220VAC

OPERATING TEMPERATURE

FAHRENHEIT	45-80 F
CELSIUS	7 - 27 C

GAME HEIGHT WITH MARQUEE

128" (325 cm)

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 substances 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.	
WARNING	
This unit is capable of producing sound levels hazardous to human hearing. Consult local sound regulations and adjust volume accordingly.	

SKEEBALL CLASSIC GAME SET UP

The game will arrive on 1 pallet.

Dimensions of pallet is 80" long by 32" wide by 92" tall.

Please inspect the pallet 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.

Unbox the pallet and proceed to the assembly instructions.

Tools Needed:

9/16" Wrench 7/16" Wrench # 2 Square Bit 2 - 3 people

Important:

Portions of this game are heavy, bulky and large. Assembly requires 2-3 people to lift and move heavy game sections.

Working on the Ramp section:

Remove the screws holding the retaining block in place using a # 2 square bit. Remove the retaining block, it is not needed.

Remove the 2 lag bolts using a 9/16" Wrench.

Remove the cardboard box. Open box to access:

- 9 game balls (A5BA5810)
- Game keys
- Game manual
- Locking Wrench (A5WR3800)

A Link Box or Overhead Sign may be included with your shipment, please refer to their individual Set Up Guide

Working on the rear Target section:

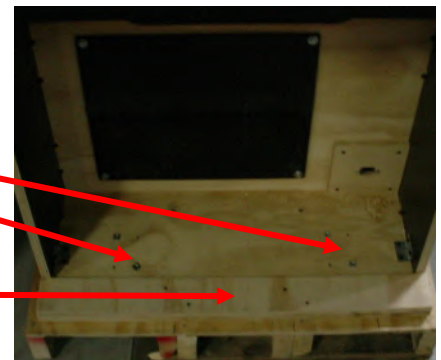
Remove the 2 lag bolts using a 9/16" Wrench.

Remove the screws holding the retaining block in place using a # 2 square bit. Remove the retaining block, it is not needed.

Remove the rear target section from the pallet and place in the final game position in the game room. It is advisable to leave some distance from the wall.

Remove the front ramp section from the pallet and position 2 feet away from the rear target section.

Pull the cable bundles through the holes in the cabinets so that they may be connected.



SKEEBALL GAME SET UP

Begin plugging the 6 connectors from the ramp into the appropriate connectors from the target section.

The green ground wire is located inside the target section.

Slide the ramp section closer to the target section - making sure that the cables slide neatly into the holes and do not get pinched in between the cabinet sections.



Secure Ramp and Target Sections Together:

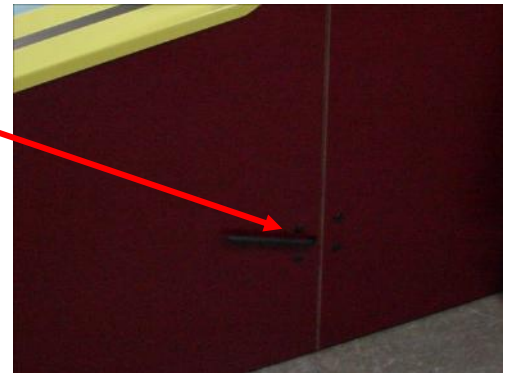
Locate the large 5/16" Allen hex tool (A5WR3800) from the cardboard box.



Push the two game sections together completely so both sides are flush.

Insert the large Allen wrench into the right side hole and turn clockwise until latch is completely locked in place.

Similarly, insert the large Allen wrench into the left side hole, but turn counter-clockwise until latch is completely locked in place.



Locate the game's AC power cord from the cardboard box, plug into the back of the cabinet, and plug into the wall socket.

Power on game:

Flip rocker switch located at the top of the game.

The game is now set up and ready for play!

Use the menu buttons (located inside the lower alley center front door)

to adjust setting to your specific price per play and ticket payout.

If a Grand Marquee Sign or Link Box is included with your purchase,



The game is now set up and ready for play!



This unit is capable of producing sound levels hazardous to human hearing. Consult local sound regulations and adjust volume accordingly.

AVAILABLE OPTIONS TO LINK GAMES

The games can be linked with an Overhead Sign
Part # AASIGN-SBCL

Linking features:

- Synchronizes scrolling of displays during attract mode.
- Adjustable jackpot ticket win and ticket increment per game.

A Linking Box Part # AAKIT-SBCLP may be used instead
in a room with low ceiling height.

Please refer to their individual Set Up Guide.



AVAILABLE BLANKING PLATES

A5PL5150 plate used instead of Coin Mech Coin Comparator



A5PL9995 Plate used instead of ticket dispenser



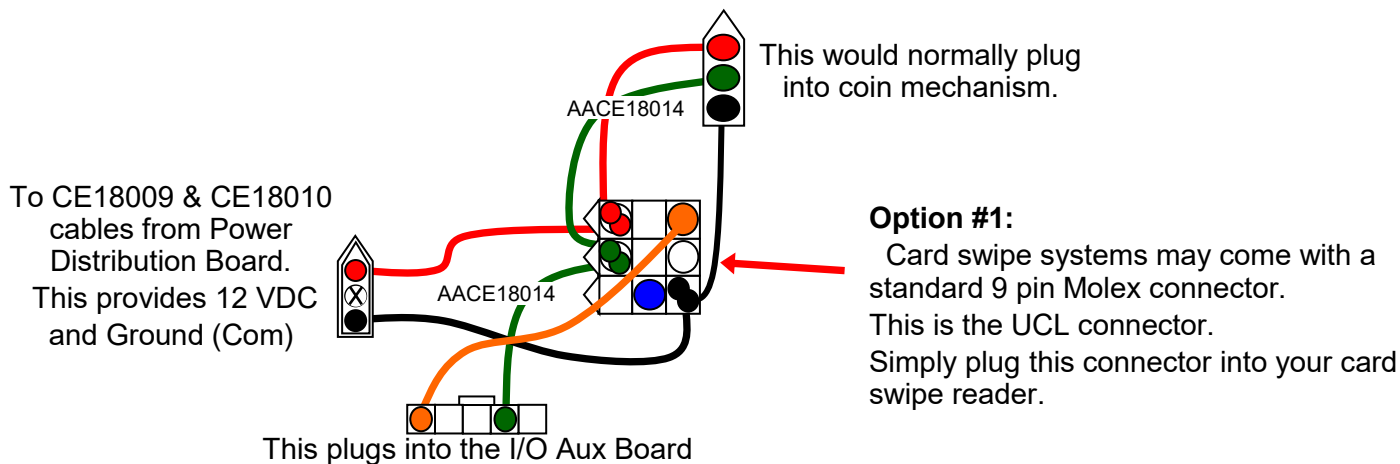
AAME17016 Plate used instead of Bill Acceptor



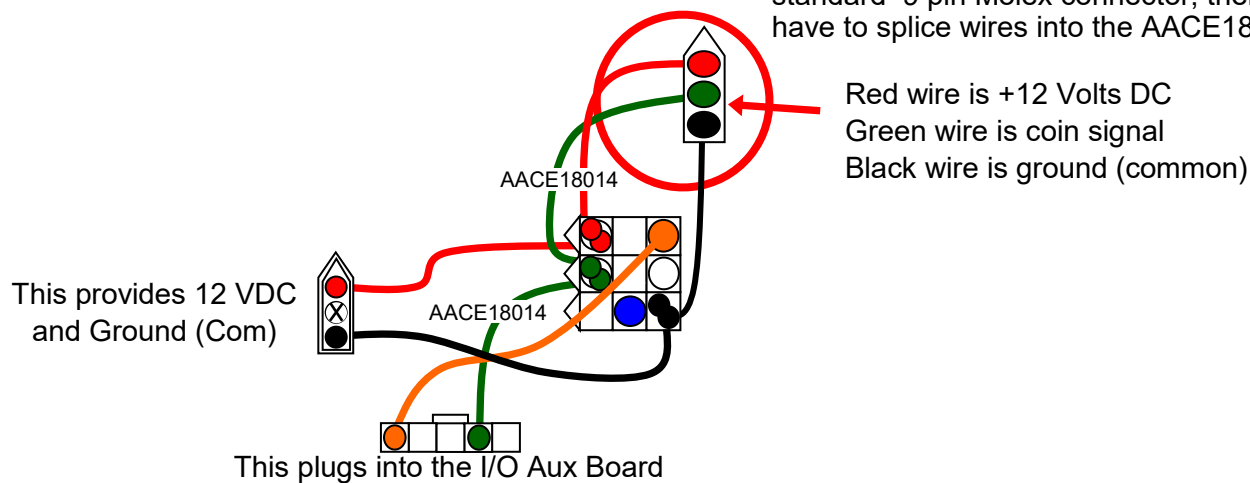
CARD SWIPE INSTALLATION

The Skee Ball game is pre-wired with a UCL (Universal Card Link) connector to accept Card Swipe systems from many different manufacturers.

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 AACE18014 harness.



Game Adjustments:

Enter game menu, Set "Set Credits" to 1 (1 Credit per play), Set "Credit Type" to Swipe, or Tap
Set "Game Mode" to Tickets.

On the I/O Aux Boards, set dipswitches #5 and #8 to ON. (Disables low ticket input)

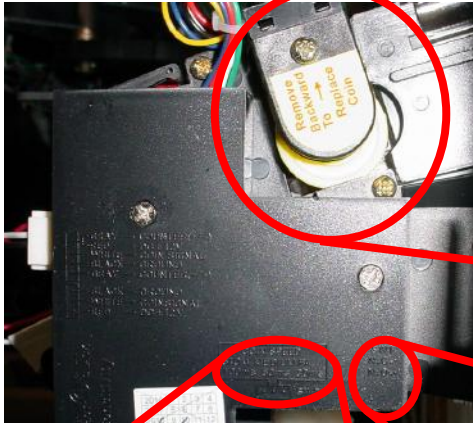
Notes:

- 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.
- The Bill Acceptor harness can also be used as an alternative to provide a coin-in signal to the game. Cable part # AACE18008: White wire is signal, Black wire is ground (common).
Danger: Red wire is 12VDC

HOW TO SET COIN COMPARITOR MECHS

Coin comparators come standard on a Skee Ball game that is not specifically ordered for use with a card swipe system. These mechs are specifically designed to work with any size coin or token. Coin mechs can be swapped between games to identify a faulty mech.

3 items to check on the coin mech:



1.) Slide back the housing and replace the yellow plastic chip with the coin or token you are using. The mech will compare the coin inserted to this coin.



2.) Ensure this switch is up - to the N.C. position. (For normally closed operation)



3.) This is the pulse speed position. Set to the middle position for 50 ms

<p>Game not coining up.</p>	<p>Ensure game makes sound when coin switch is triggered.</p> <p>Verify communication between Motherboard and I/O Aux Board.</p> <p>Game set to large amount of credits per game.</p> <p>Faulty coin mech</p>	<p>Check coin switch—Should be wired normally closed. (NC) Switch should be up.</p> <p>Check wiring to I/O Aux Board. Part #'s AACE18004 & AACE18005</p> <p>Refer to “Game does not coin up” troubleshooting section.</p> <p>Check options in menu.</p> <p>Swap mech between games to identify a faulty mech</p>
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GAME PLAY THEORY OF OPERATION

The game is designed to give points for balls scored through the target playfield.

The Playfield Sensor under each hole will score the points.



Balls not reaching the target playfield will return to the ball track and the Ball Count Sensor will register them as zero points.

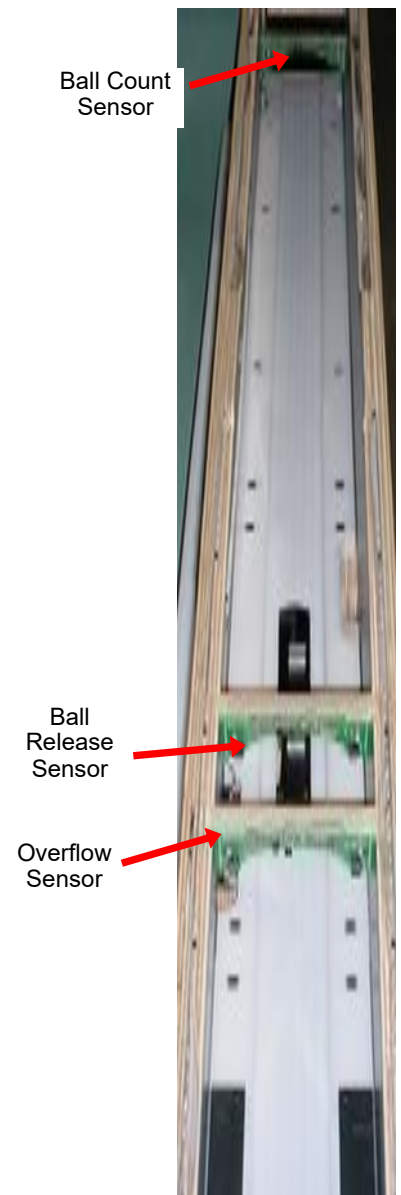
After the desired amount of balls (usually 9) are counted by the Ball Count Sensor and the Playfield Sensors, the game will end.

Upon coin up, the ball release motor will turn as the Ball Release Sensor counts the balls released.

When the sensor releases the desired amount of balls (usually 9), the motor will stop.

The Ball Release Motor will not turn if the Overflow Sensor is blocked. This will prevent damage to the motor.

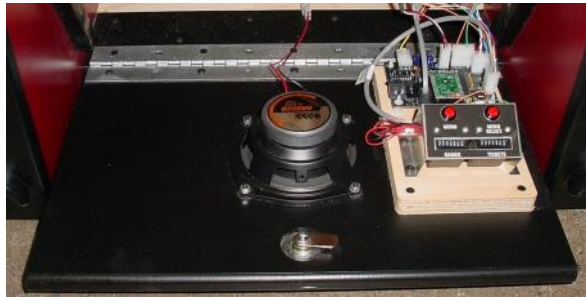
There are spacers on top of these sensors - these are important as they prevent the sensors from raising in the track.



HOW TO ACCESS MENU BUTTONS & I/O AUX BOARD

Unlock the lock in the bottom, middle door below the ramp.

Menu buttons, Speaker, and I/O Aux Board can now be accessed.



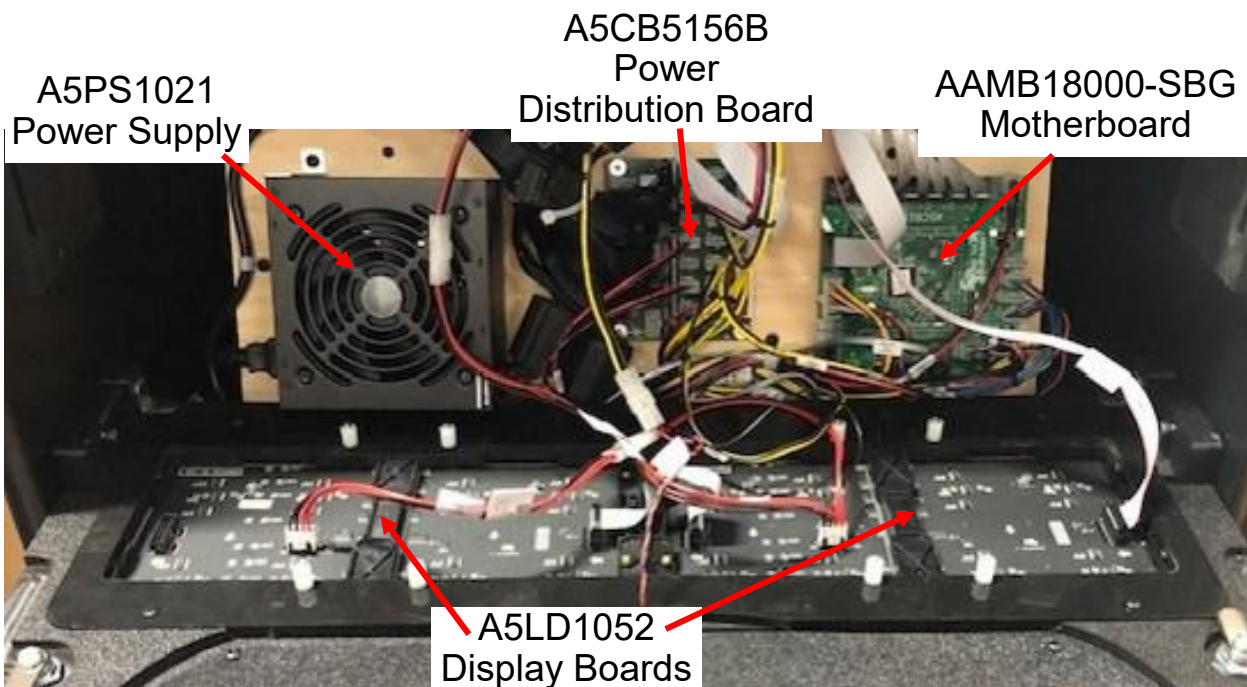
HOW TO ACCESS MOTHERBOARD AND POWER SUPPLY

Unlock the 2 locks in the marquee on the top of game.

Tilt the marquee down.

The marquee may be removed completely from the cabinet by unplugging cables, pivoting the hinge pins from black plastic blocks, and carefully removing the marquee from the cabinet.

Motherboard, Display Boards, Power Supply, and Power Distribution Board can now be accessed.



MAIN MENU FUNCTIONS

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

Press the “Menu Select” button during attract mode to dispense balls. This is useful to balance the amount of balls in each alley.

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

This will also automatically clear the credits and tickets owed.

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

Press and hold the “SELECT” button to scroll faster.

Exit the menu at any time by pressing both the Menu button and Menu Select buttons at same time.



MENU	DESCRIPTION	MENU	DESCRIPTION
N1	SOFTWARE VERSION	N7	BALLS PER GAME
N2	SET CREDITS	N8	GAME TIMEOUT
N3	CREDIT TYPE	N9	LOCAL HIGH SCORE RESET MODE
N4	SET VOLUME	N10	RUN DIAGNOSTICS
N5	ATTRACT TIMER	N11	TEST BALL RELEASE
N6	ATTRACT VOLUME		

**The following menu options (N12-N27) are available if dipswitch # 4 is OFF
(Refer to Motherboard Dipswitch Settings page)**

MENU	DESCRIPTION	MENU	DESCRIPTION
N12	EXTRA LAST BALL	N20	CREDIT PER DISCOUNT
N13	SCORE END OF GAME	N21	GAMES PER DISCOUNT
N14	MERCY TICKETS	N22	LOCAL HIGH SCORE BASE
N15	FIRST TICKET SCORE	N23	GAME MODE
N16	SCORE SPAN	N24	WIN OUTPUT TIMER
N17	TICKETS PER SPAN	N25	DISPLAY LAST SCORE
N18	GAME STATS	N26	DISPLAY HIGH SCORE
N19	CLEAR STATS	N27	MIDWAY PAYMENT TYPE
		N36	RESTORE FACTORY SETTINGS

**The following menu options (N28-N36) are available if dipswitch # 4 is OFF on Motherboard
AND**

An overhead sign is attached and only accessible from the right hand game.

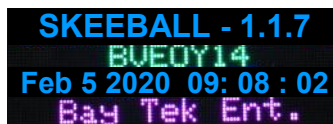
MENU	DESCRIPTION	MENU	DESCRIPTION
N28	USE BONUS	N33	SIGN ATTRACT TIMER
N29	BONUS SCORE BASE	N34	CELEBRATION TIMER
N30	WIN BONUS TICKET VALUE	N35	NEW HIGH SCORE BECOMES BONUS SCORE
N31	BONUS MAX TICKETS		
N32	BONUS INCREMENT	N36	RESTORE FACTORY SETTINGS

GAME MENU

Scroll through the menu with the “MENU” button. Make your selection with the “SELECT” Button.
Hold the “SELECT” button to scroll faster. Default settings are highlighted in yellow below.

N1 - SOFTWARE VERSION

Shows the software version of the game.



SKEEBALL - 1.1.7
BUEOY14
Feb 5 2020 09:08:02
Bay Tek Ent.

N2 - SET CREDITS

0	1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---	---

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

Note: Default menu settings are shown at \$1 per play.

N3 - CREDIT TYPE

SWIPE	TAP	COINS	TOKENS	BILLS
-------	-----	-------	--------	-------

Scrolls on the display to instruct player the method of coin up.

N4 - SET VOLUME

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

Sets the game’s playing volume. “0” means volume is off.

N5 - ATTRACT TIMER

OFF	30s	1m	5m	10m	15m
-----	-----	----	----	-----	-----

Sets the time between attract sound cycles. “OFF” means no attract sounds.

N6 - ATTRACT VOLUME

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 volume is off.

GAME MENU

Scroll through the menu with the “MENU” button. Make your selection with the “SELECT” Button.
Hold the “SELECT” button to scroll faster. Default settings are highlighted in yellow below.

N7 - BALLS PER GAME

3	4	5	6	7	8	9
---	---	---	---	---	---	---

Sets the amount of balls to be played per game.

N8 - BALL TIMEOUT

OFF	20s	30s	1m	2m	3m	5m
-----	-----	-----	----	----	----	----

Sets the time the game will wait before going to “Game Over” if the balls are not thrown.
OFF means no game timeout.

N9 - LOCAL HIGH SCORE RESET MODE

POWER	99 PLAYS	NEVER
-------	----------	-------

Determines if the high score will reset.

POWER - The high score will reset when the game is shut down and powered back on.

99 - It will reset the high score after 99 games.

NEVER The high score will never reset.

N10 - RUN DIAGNOSTICS

Normally shows a 0 - meaning the sensor is clear.

A sensor will show “1” when blocked. This will help determine a faulty sensor.

Gutter Sensor		Ball Release Sensor		Overflow Sensor	
10	20	30	40		
50		100 Left		100 Right	



N11 - TEST BALL RELEASE

While in this Test mode, press the “Menu Select” button to activate the ball release.

This will also turn on/off the celebration light/bell. (if equipped)

Press the “Menu Select” button again to turn off light and bell.

To run ball release without entering menu, press the “Menu Select” button while in attract mode.

GAME MENU

The following menu options (N12-N27) are available if dipswitch # 4 is OFF

Scroll through the menu with the “MENU” button. Make your selection with the “SELECT” Button. Hold the “SELECT” button to scroll faster. Default settings are highlighted in yellow below.

N12 - EXTRA LAST BALL

OFF	10 Sec	20 Sec
-----	--------	--------

This option applies when the “Balls per Game” set in N7 were not detected.

Sets the amount of time before a ball is given to the player.

“OFF” means no ball will be given, and game will then end at the “Game Timeout” setting.

N13 - SCORE END OF GAME

OFF	5s	10s	15s	20s
-----	----	-----	-----	-----

Set the time that the player’s score will show on the display after the game is over.

“OFF” means the score will not display at the end of the game.

N14 - MERCY TICKETS

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

Sets the number of tickets paid out if the player’s score is below the first ticket score.

N15 - FIRST TICKET SCORE

0	10	20	...	290	300	350	400	450	...	850	900
---	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Sets the amount of points that must be scored before the first ticket is dispensed.

N16 - SCORE SPAN

0	10	20	30	40	50	60	...	270	280	290	300
---	----	----	----	----	----	----	-----	-----	-----	-----	-----

Sets the additional score needed to dispense the “Tickets Per Span” ticket amount.

Example: If the FIRST TICKET SCORE is set to 10 and the SCORE SPAN is set to 10, the first ticket is issued at 10 and the next one would be at 20, then 30, and every 10 points thereafter.

N17 - TICKETS PER SPAN

0	1	2	3	...	18	19	20	30	...	100
---	---	---	---	-----	----	----	----	----	-----	-----

Sets the amount of tickets given for every “Score Span” past the “First Ticket Score”

GAME MENU

Scroll through the menu with the “MENU” button. Make your selection with the “SELECT” Button.
Hold the “SELECT” button to scroll faster. Default settings are highlighted in yellow below.

N18 - GAME STATISTICS

Reports:

The total number of games.

Average score of these games.

Number of Bonus Wins. (If equipped with optional sign)

An attached sign will also show statistics,
if accessed by the far right game.



N19 - CLEAR STATISTICS

Press the “MENU SELECT” button 3 times to clear the Game Statistics.

An attached sign will also clear statistics, if accessed by the far right game.

Audio chime will sound when cleared.

N20 - CREDIT PER DISCOUNT

0	1	2	3	4	5	6	...	97	98	99
---	---	---	---	---	---	---	-----	----	----	----

This option is used to give the player free games for every X credits they buy at once. (Bill Acceptor)

Example: If the option is set to 4, then for every 4 credits bought at the same time,

“Games Per Discount” games are given for free.

If the option is set to 20, then for every 20 credits bought at the same time,

“Games Per Discount” games are given for free.

N21 - GAMES PER DISCOUNT

0	1	2	3	4	5
---	---	---	---	---	---

Sets the number of free games given when a player utilizes the “Credit Per Discount” option.

N22 - LOCAL HIGH SCORE BASE

0	10	20	...	240	250	260	...	400	450	...	850	900
---	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Sets the initial high score shown on the game.

Game may be set to show and reset this high score with the “Local High Score Reset” menu option

GAME MENU

Scroll through the menu with the “MENU” button. Make your selection with the “SELECT” Button.
Hold the “SELECT” button to scroll faster. Default settings are highlighted in yellow below.

N23 - GAME MODE

TICKETS	POINTS / AMUSEMENT ONLY	PRIZES	COUPONS
----------------	--------------------------------	---------------	----------------

Tickets - Will show tickets won on screen, and dispense tickets.

Points / Amusement Only - Will not show anything on screen, and not dispense tickets.

Prizes - If score set in “First Ticket Score” is reached, win beacon will flash for time setting in “Win Output Timer” below.

N24 - WIN OUTPUT TIMER

OFF	5s	10s	15s	20s	25s	30s	1m	1m 30s
------------	-----------	------------	------------	------------	------------	------------	-----------	---------------

Sets the number of seconds an available bell and/or beacon will remain for win celebration.

N25 - DISPLAY LAST SCORE

YES	NO
------------	-----------

Determines if the game will show the last score on display during the attract mode

N26 - DISPLAY HIGH SCORE

YES	NO
------------	-----------

Determines if the game will show the high score on display during the attract mode

N27 - MIDWAY PAYMENT TYPE

DISPENSE	ATTENDANT	WAIT
-----------------	------------------	-------------

Sets how the game will pay tickets.

Dispense - Attract mode/next game can be played while tickets are dispensed.

Attendant - Plays the win sound continually until an attendant presses the “Select” menu button.

Wait - Attract mode/next game will not begin until all tickets are dispensed.

SIGN MENU

The following menu options (N28-N36) are available if dipswitch #4 is OFF
AND

An overhead sign is attached and only accessible from the right hand game.

Scroll through the menu with the "MENU" button. Make your selection with the "SELECT" Button.
Hold the "SELECT" button to scroll faster. Default settings are highlighted in yellow below.

N28 - USE BONUS

NO

YES

Determines the verbiage used on the jackpot sign display.
If No - the jackpot sign will scroll "Keep the Good Times Rollin"
If Yes - all of the Bonus/Jackpot features below are enabled.

N29 - BONUS SCORE BASE

0	10	20	...	390	400	410	420	...	880	890	900
---	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Sets the score at which the overhead sign will pay the bonus value tickets.

N30 - WIN BONUS TICKET VALUE

0	10	25	50	75	100	150	200	250	300	350	400	450	500	1000	1500	2000	2500
---	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------

Sets the minimum sign ticket value. Sign will also reset to this value after a win.

N31 - BONUS MAX TICKETS

0	50	...	400	450	500	600	...	900	1000	1500	2500	3000	4000	...	8000	9000	9999
---	----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	-----	------	------	------

Sets the maximum Jackpot value when using progressive jackpot

N32 - BONUS INCREMENT

0	1	2	3	4	5
---	---	---	---	---	---

Set the amount of tickets that the bonus will increment with every game played.
0 means a fixed jackpot (no increment)

SIGN MENU

Scroll through the menu with the “MENU” button. Make your selection with the “SELECT” Button.
Hold the “SELECT” button to scroll faster. Default settings are highlighted in yellow below.

N33 - SIGN ATTRACT TIMER

OFF	30s	1m	3m	5m	10m
-----	-----	----	----	----	-----

Sets the amount of time that the sign celebration will remain on when the Bonus Score is reached.

N34 - CELEBRATION TIMER

OFF	5s	10s	15s	45s	1m	1m 30s
-----	----	-----	-----	-----	----	--------

Sets the amount of time that the sign celebration will remain on when the Bonus Score is reached.

N35 - NEW HIGH SCORE BECOMES BONUS SCORE

NO	YES
----	-----

Determines if the high score will become the sign bonus score.

N36 - RESTORE FACTORY SETTINGS

Press the “MENU SELECT” button 3 times to reset all settings to factory defaults.

Audio chime will sound when cleared.

This will also reset the overhead sign settings to factory defaults.

I/O AUX BOARD DIPSWITCH SETTINGS

SWITCH	DESCRIPTION	ON	OFF
1	SHOW GAME Set to ON to not dispense tickets and clears all accumulated credits		X
2	AMUSEMENT ONLY Set to ON to not dispense tickets		X
3	NJ LOCKOUT Set to ON to save tickets owed and unused credits after a power loss		X
4	1/2 TICKET PAYOUT Dispenses 1/2 the amount of tickets as shown on screen, rounding up odd amounts.		X
5	DISABLES LOW TICKET INPUT Disables the low ticket message on screen. Set to ON when using a card swipe system		X
6	NOT USED		
7	NOT USED		
8	USB POWER TO BOARD Set to ON if no USB input	X	

Note:
UP is ON



I/O AUX BOARD PINOUT



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

Outputs:

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

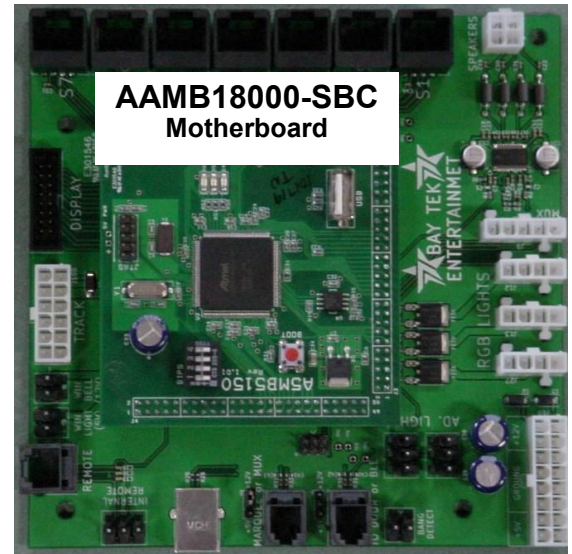
Inputs:

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

MOTHERBOARD DIPSWITCH SETTINGS

All dipswitches on the Motherboard
Are normally set to OFF

DIP	DESCRIPTION	ON	OFF
1	Not Used		X
2	Not Used		X
3	Not Used		X
4	Home Use Game Set ON to simplify the menu by only displaying the options most used by home owners.		X

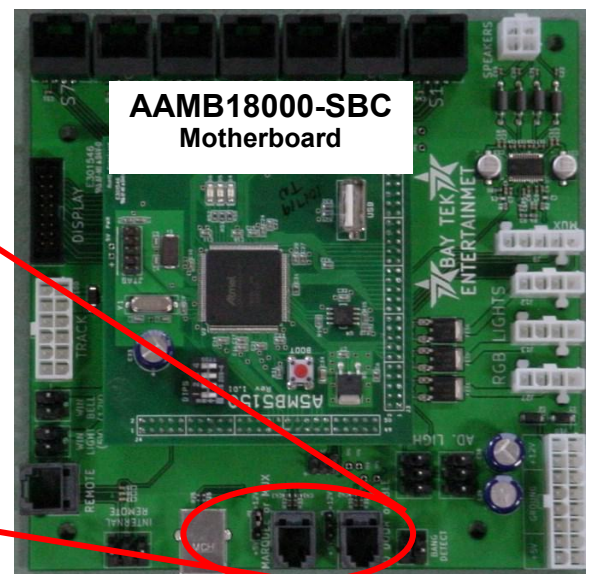


MOTHERBOARD JUMPERS

Motherboard Jumpers are pre-installed at the factory.
Adjustment is not necessary.

Jumper on the
12V side for cable
going to the sign.

No Jumper
Needed



ERROR CODES

ROLL BALLS MESSAGE

The game thinks there are balls in the ball track waiting to be rolled.

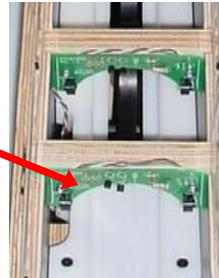
This will disable the motor from releasing more balls.

Remove right side lane cover and check the overflow sensor in ball track. Clean or replace if needed.

Part # AACB3850A



Overflow Sensor



RED DOT ON LOWER LEFT CORNER OF DISPLAY

The game thinks there are no tickets in the ticket tray.

Check the low ticket switch in the left front side of game.



Replace switch if using tickets. Part # AASW200

Unplug one of the wires if using not using tickets.
(Card Swipe systems)



GREEN DOT ON LOWER RIGHT CORNER OF DISPLAY

The game thinks there are too many balls in the ball track.

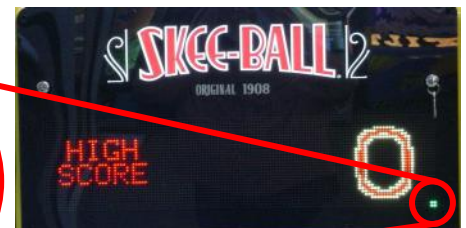
This will result in the game miss-scoring or giving 0 points for the first few balls rolled.

Most of the time, one alley will be missing balls while this alley has extra balls.

To balance the balls in each alley:

Open the middle lower door to access the menu buttons and hold the "Menu Select" button to engage ball release motor.

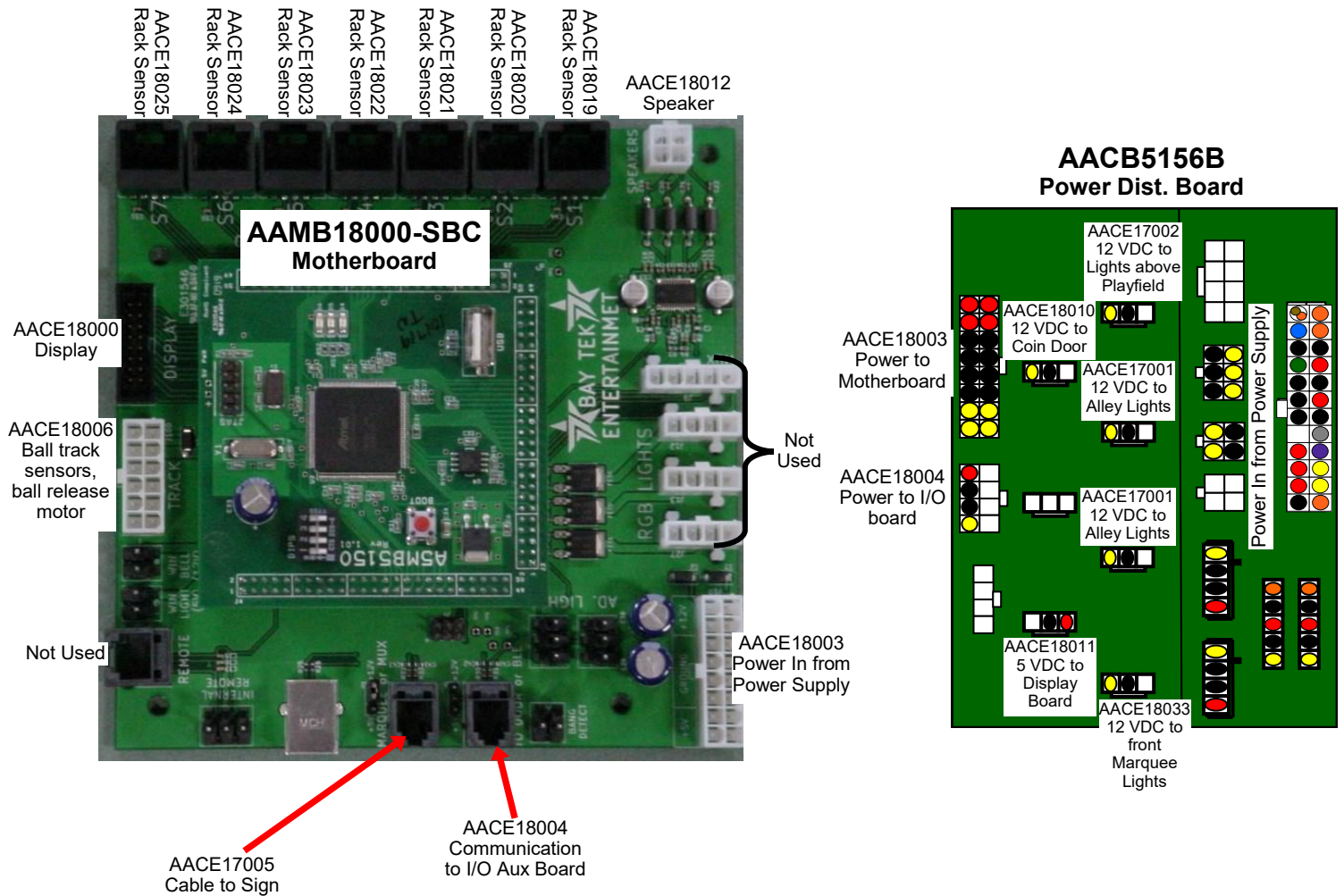
If the correct number of balls (9) are in the track, remove right side lane cover and check the ball count sensor at the far end of the ball track. Clean or replace if needed. Part # AACB3850A



Ball Count Sensor

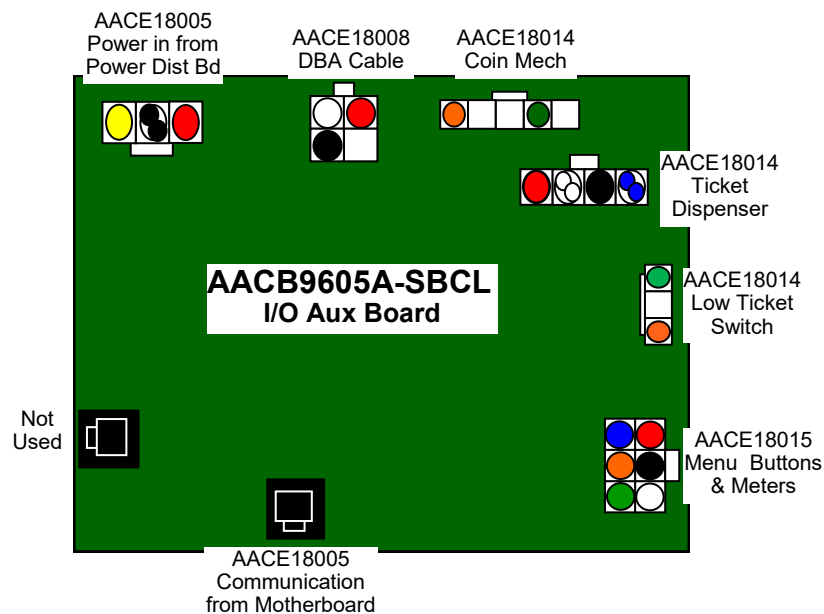


ALLEY CIRCUIT BOARD OVERVIEW



Boards located in top of game behind the display.

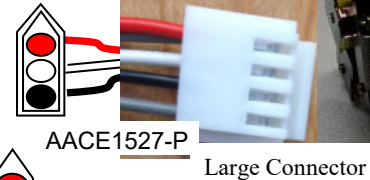
Board located in bottom of game in front of ramp.



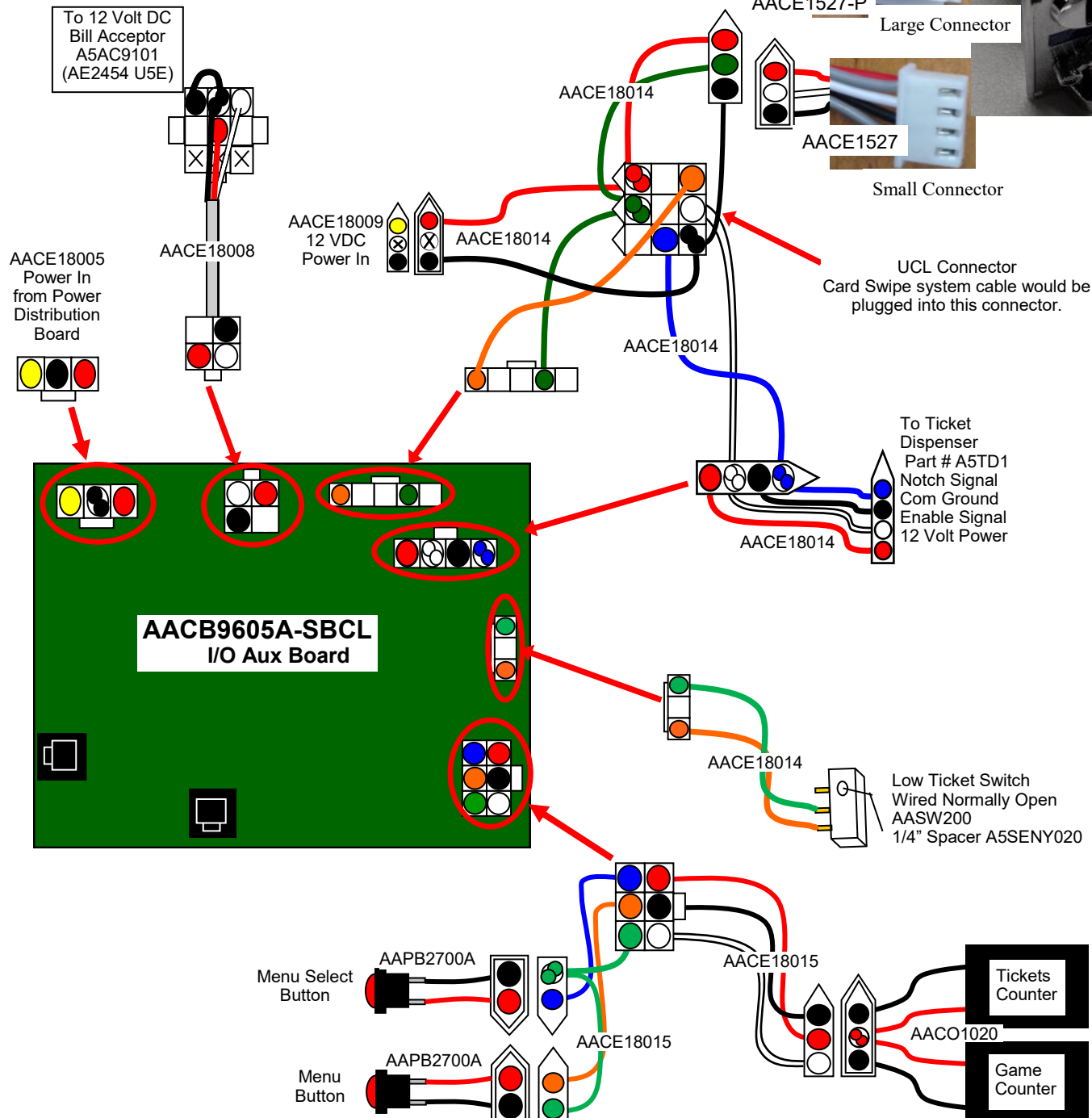
TICKET DISPENSER, COIN MECH, COUNTERS, AND MENU BUTTONS

AACM-AS-COMP
Coin Mechanism

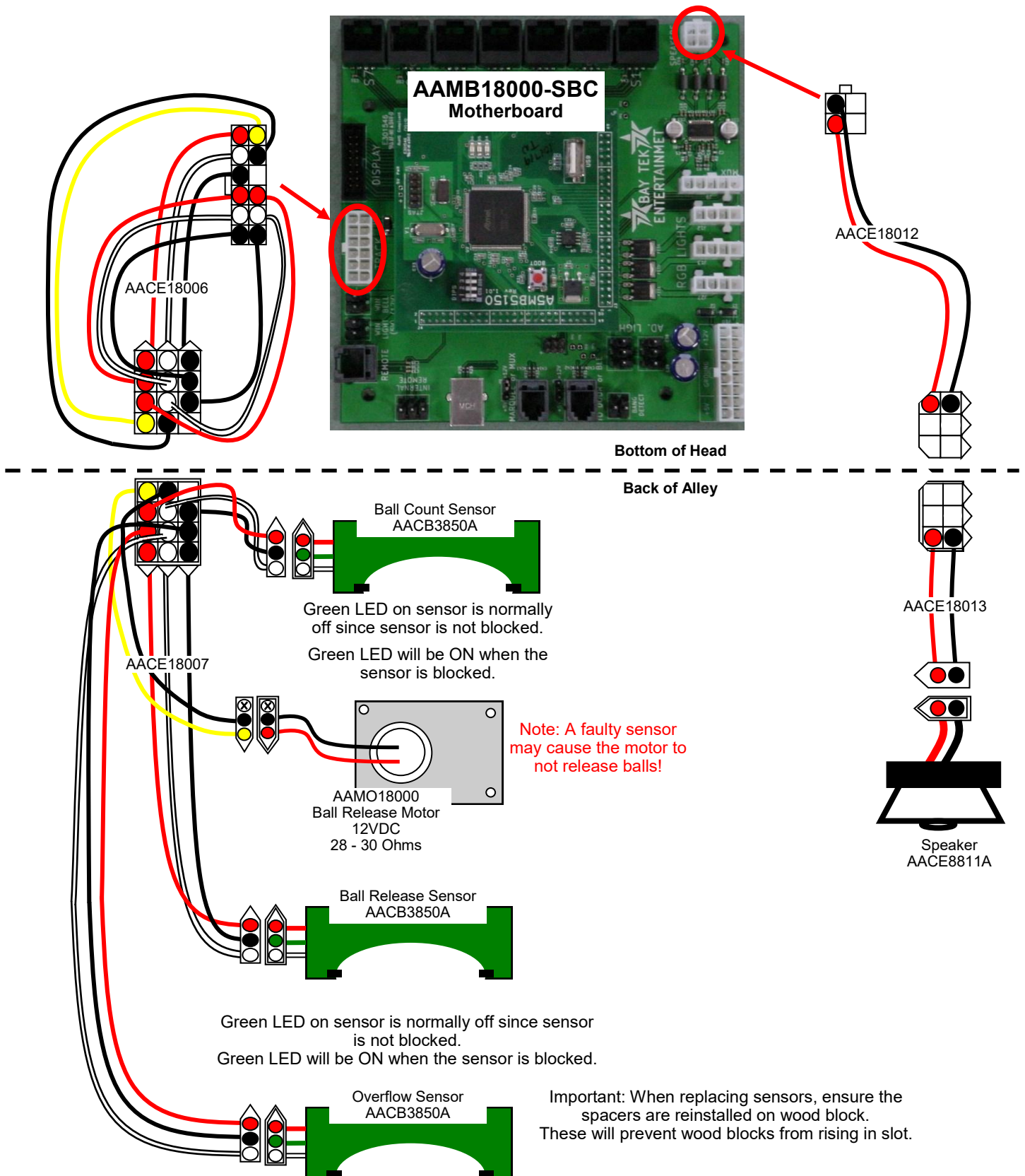
The AACM-AS-COMP coin mechanism will come with a cable.
2 Options:



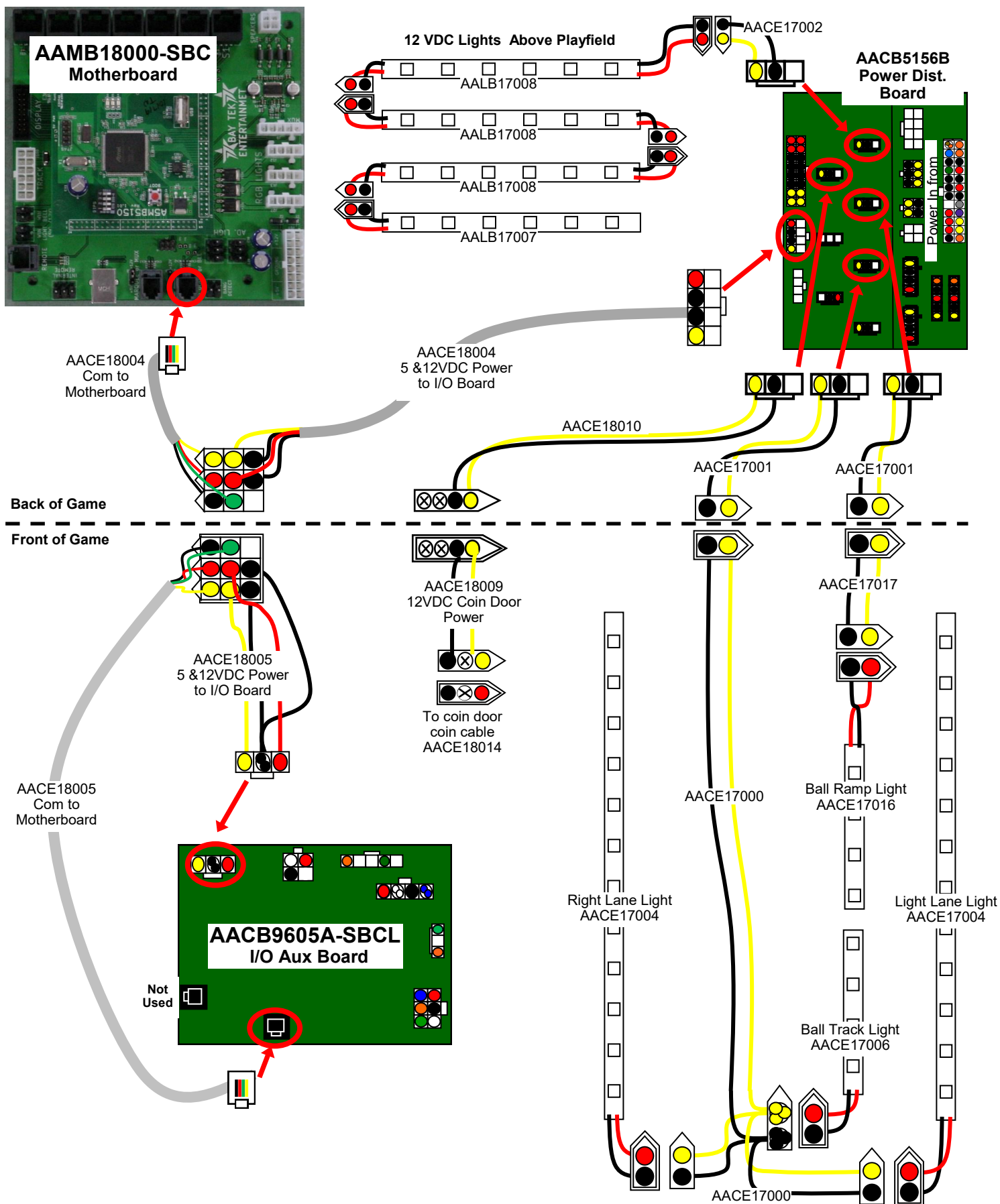
UCL Connector
Card Swipe system cable would be plugged into this connector.



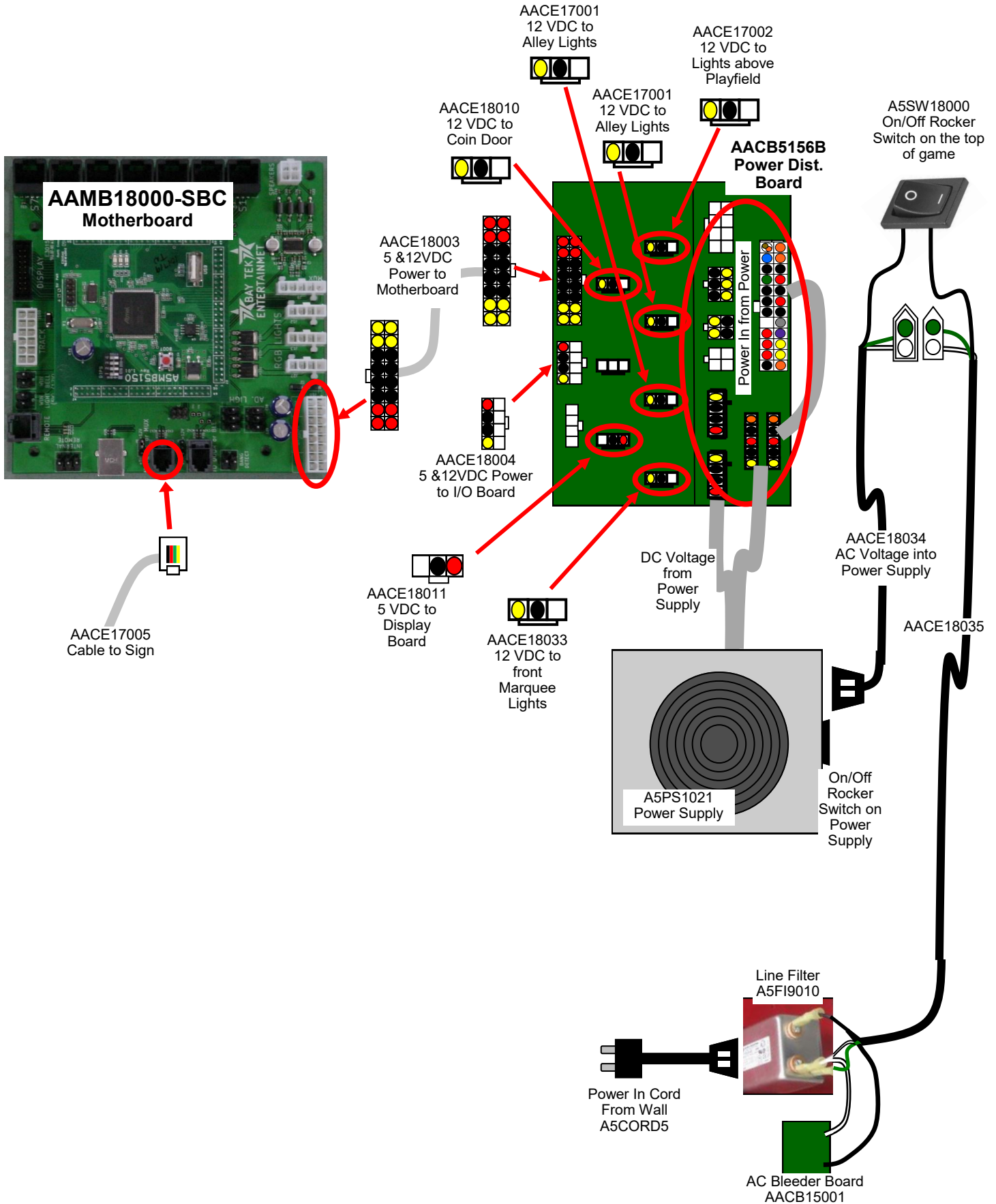
BALL RELEASE, ALLEY SENSORS, AND SPEAKER



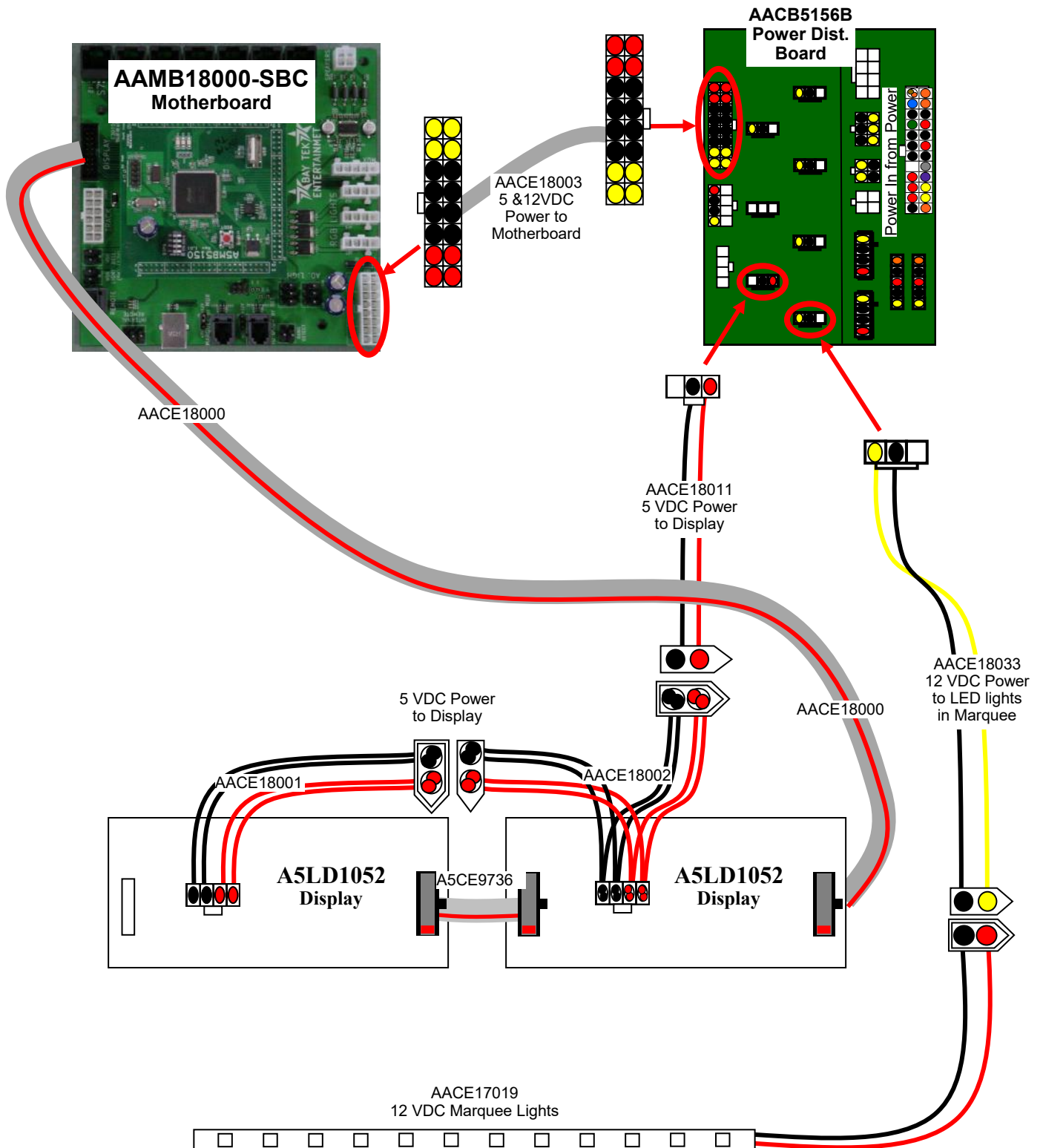
COMMUNICATION, PLAYFIELD LIGHTS, AND RAMP



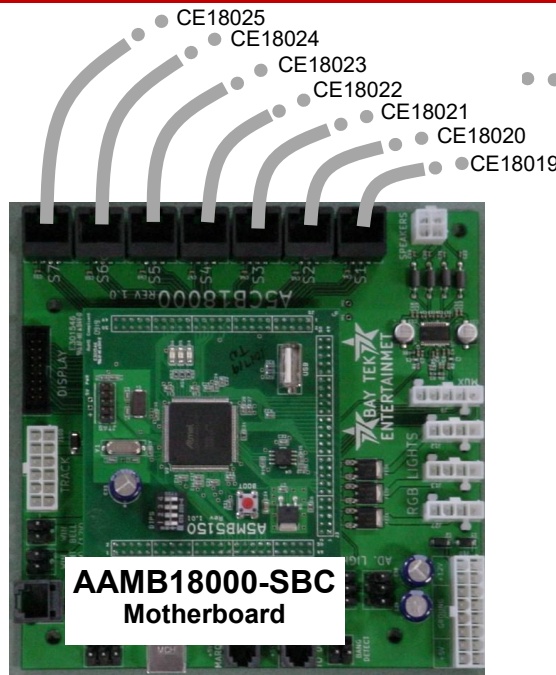
AC POWER & POWER SUPPLY WIRING



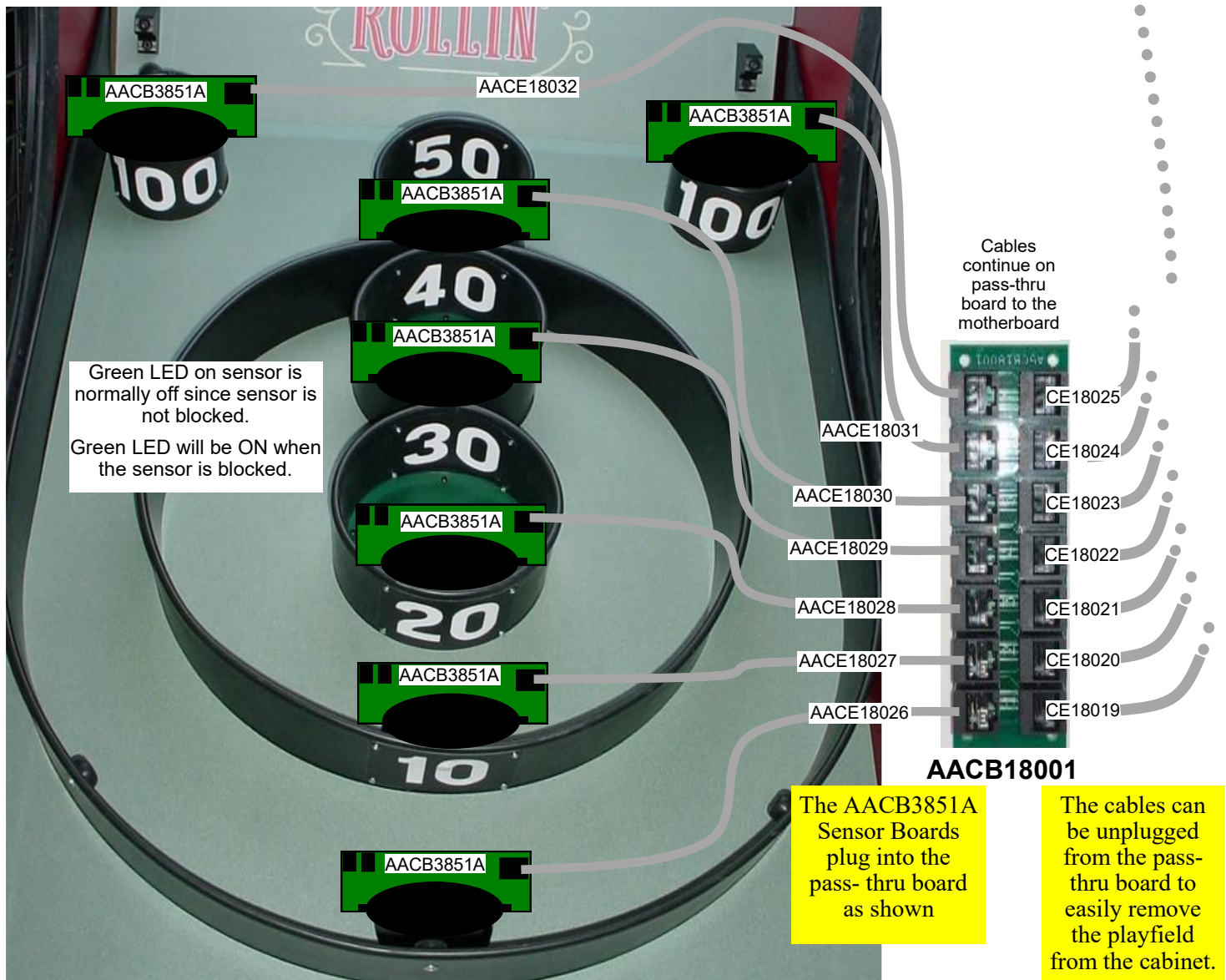
DISPLAY WIRING



PLAYFIELD SENSOR WIRING DIAGRAM



Cables plugged across top of motherboard correspond to score sensors.



TROUBLESHOOTING GUIDE

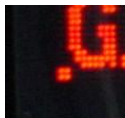
Problem		Probable Cause	Remedy
No power to the game		Unplugged. Faulty Line Filter Faulty Cable Rocker Switch on top of game or power supply turned off, or plugs unplugged. Circuit breaker tripped Bad power supply.	Check wall outlet to line filter in back of game. (A5FI9010) Replace Line Filter. (A5FI9010) Refer to wiring diagram. Check cables CE18035, CE18034 Check rocker switch on top of game. Check rocker switch on power supply. Ensure power cords are pushed up into the back of the power supply and line filter securely. Replace Rocker Switch if needed. Part # A5SW18000 Reset power strip breaker switch or building circuit breaker. Attempt to determine cause. Refer to Power Supply Diagnostics
Lights on ramp do not light up		LED strip faulty Faulty Cable	All ramp lights are supplied by one power connector from Power Distribution Board. If only one light is out, remove plastic cover and examine LED strip. Replace if needed. Part # CE17004 Check cables from LED strips to Power Distribution Board. Refer to wiring diagram for the cable path. CE17000 & CE17001. Check Molex connector at the rear of the ramp. Verify CE17001 is plugged securely to Power Distribution Board. Check for 12 volts DC on CE17000
Lights inside ball track does not light up		LED strip faulty Faulty Cable	These lights are supplied by 2 power connectors from Power Distribution Board. If only one light is out, remove and examine LED strip. Replace if needed. Part # CE17006 or CE17016 Check cables from LED strips to Power Distribution Board. Refer to wiring diagram for the cable path. CE17000 & CE17001. Check Molex connector at the rear of the ramp. Verify CE17001 is plugged securely to Power Distribution Board. Check for 12 volts DC on CE17000 and CE17001
LED marquee lighting not working		Faulty Cable Verify 12 Volts DC LED strip faulty	Check cables from LED strips to Power Distribution Board (CE17019, CE18033) Check for 12 volts DC on CE18033 on Power Dist. Board Replace LED strip. AACE17019
LED's lighting up playfield area not working		Faulty wire or connection. Faulty LED light strip.	Check for 12 volts DC on CE17002 from Power Dist. Board. Check continuity. Check for damaged connector Refer to wiring diagram. Swap LED light from a different spot. Replace LED light strip if needed. CE17007 or CE17008
No Audio	Volume too low	Increase the volume by pressing Menu button, scroll to "Game Volume" and adjust.	
	Loose wire	Check audio cable connections from motherboard to speaker. (CE8811, CE17013, CE18012) Check Molex connector at the rear of the ramp.	
	Faulty Speaker	Replace Speaker (AACE8811)	





TROUBLESHOOTING GUIDE

Problem	Probable Cause	Remedy
<p>Balls are not released</p> <p>To test motor: Enter menu and scroll to Test Ball Release</p>	<p>Pinched, broken, or disconnected wiring.</p> <p>Track Sensor faulty. A blocked sensor will cause ball motor to stop to protect motor.</p> <p>If 12 Volts DC and motor is not moving.</p> <p>Motherboard defective.</p>	<p>Refer to Wiring Diagram. Verify 12 Volts DC at motor at game coin up. Check Molex connector at the rear of the ramp. Check cables CE18007 & CE18006</p> <p>Check Overflow Sensor. Replace if needed. AACB3850A</p> <p>Faulty motor. Replace AAMO18000</p> <p>Replace Motherboard. (AAMB18000-SBC)</p>
Too many balls are released	<p>Sensor at ball release blocked, dirty, or faulty.</p> <p>Pinched, broken, or disconnected wiring.</p>	<p>Clean sensor at ball release. Green LED should only come on when blocked. Replace if needed. (AACB3850A)</p> <p>Check connections from sensor board to main board. Check continuity on wires. CE18007 & CE18006 Check Molex connector at the rear of the ramp.</p>
<p>Not enough balls are released</p> <p>Game is waiting for player to throw balls and there are none left in track.</p>	<p>Ball count opto sensor is defective at far end of ramp.</p> <p>Pinched, broken, or disconnected wiring.</p> <p>Opto sensor at ball release is defective</p>	<p>If this sensor misses a ball, the game will continue waiting until game time-outs. Replace sensor. (AACB3850A)</p> <p>Check connections from sensor board to main board. Check continuity on wires. CE18007 & CE18006 Check Molex connector at the rear of the ramp.</p> <p>If this sensor “sees” 2 balls instead of one. Replace sensor. (AACB3850A)</p>
Display not working	<p>Pinched, broken, or disconnected wiring.</p> <p>Faulty Display Module</p>	<p>Refer to wiring diagram. Ensure 5 volts DC on CE18011 CE18002 & CE18001 cables from power distribution board. Check communication ribbon cable from Motherboard to Display Boards. Part # CE18000</p> <p>Swap display modules inside cabinet to isolate the issue. Replace display if needed. A5LD1052</p>
<p>Dollar Bill Acceptor not functioning</p> <p>Ensure Bill Acceptor is set to “Always Enable”</p> <p>Important : Only 12 Volt DC DBA is to be installed.</p>	<p>Check for power to Bill Acceptor.</p> <p>Dirt or debris in acceptor slot.</p> <p>Pinched, broken, or disconnected wiring.</p> <p>Bill acceptor problem Part # A5AC9101 (AE2454 U5E)</p>	<p>Acceptor should cycle stacker at game power up. If not, check cable connections.</p> <p>Refer to “How to Clean Bill Acceptor” Or clean with bill reader cleaning card. (A5CC9000)</p> <p>Check wiring from bill acceptor to I/O Board. (CE18008) Repair or replace wiring harness. Make sure wires are secure in connectors.</p> <p>Refer to troubleshooting section of Bill Acceptor manual itself, the diagnostics label of the back of the unit.</p>
Lane matting or target area is dirty	Matting will get dirty with use.	Clean with “Scrubbing Bubbles” brand cleaner.

TROUBLESHOOTING GUIDE

Problem		Probable Cause		Remedy
Tickets do not dispense or Wrong amount dispensed	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. Enter Diagnostic menu and test Dispenser Check dipswitches on I/O Aux Board Faulty I/O 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 Aux board. Check for continuity. Cables AACE18014 There are many options that affect ticket payout using the dipswitches. Refer to Dip Switch Setting page. Replace I/O Board. AACB9605A	
	Tickets on monitor do match tickets coming out of game.	Settings in Menu are incorrect.	Enter Menu and check certain areas: First Ticket Score Score Span Tickets per Span Mercy Tickets Check Dipswitches on I/O Aux Board Ensure only Dip # 8 is set to ON.	
Low Tickets Red Dot on monitor 	Tickets are empty in ticket tray Faulty cable. Disconnected, loose or broken wires. Faulty low ticket switch. Faulty I/O Board	Load tickets into tray. Ensure tickets hold down micro switch wire. Check connectors from low ticket switch to I/O board. Check for continuity. (AACE18014) Inspect switch and replace if needed. (AASW200) Check dipswitches on I/O Board, Replace I/O Board if needed. AACB9605A		
Menu Buttons not working	Game also does not coin up? Pinched, broken, or disconnected wiring. Faulty Menu Button	Check communication cable from Motherboard to I/O Aux Board. CE18004, CE18005. Check Molex connector at the rear of the ramp. Ensure power to I/O Aux Board. Refer to wiring diagram. Ensure 12 & 5 volts DC on CE18004, CE18005 cables from power distribution board. Check 18015 cable from I/O Aux Board to Menu Buttons. Swap buttons to isolate issue. Replace if needed.AAPB2700A		
Counters /Meters do not work	The 2 wires crimped together may be faulty Pinched, broken, or disconnected wiring I/O Aux board faulty.	Inspect crimp to ensure good connection on meter cable Check connections from counters to I/O Aux board. Check continuity on wires. (AACO1020, CE18015) Replace I/O Aux board. (AACB9605A)		

TROUBLESHOOTING GUIDE

Problem	Probable Cause	Remedy
Game scores wrong	Game starts with a score already on display or scores double points.	Sensor is defective under score hole. Enter menu, go to Diagnostics Menu to check sensors. Refer to wiring diagram. Sensors cables plug into pass-thru board (AACB18001) to ease removal of playfield. Ensure cables are properly connected to it. Replace defective sensors (AACB3851A)
Game does not coin up	Check power into I/O Board - CE18004 & CE18005 from power distribution board. Check for 12 Volts DC into CE18014 cable from CE18009 cable. Also check 12 VDC on CE18010 from Power Distribution Board Check wiring from coin switch to I/O board. CE18014 Card swipe systems must tie into the green and black wires.	
Game will have an audio track "clinking" sound from speakers when coin switch triggered.	Communication to Motherboard faulty. (Motherboard is located behind display)	Ensure CE18005 cable is plugged into correct phone socket on I/O board. Replace if needed.
Ensure 12 VDC on CE18009 & CE18010 from Power Dist Board	Game will not coin up, and will not go into menu if the communication is faulty.	Check CE18004 cable to motherboard behind the Display. Ensure this cable is plugged into the correct socket on motherboard.
Check for "Roll balls" message on display	Coin Mech issue.	Check Molex connection at the rear of the ramp. Swap coin mech from different game. Replace if needed.
Green Dot on Display Game miss-scoring or giving 0 points for the first few balls rolled.	Too many balls in the ball track. Faulty cable. Disconnected, loose or broken wires. Faulty Ball Count Sensor. Faulty Motherboard.	Open the middle lower door to access the menu buttons and hold the "Menu Select" button to engage ball release motor. Faulty cable. Disconnected, loose or broken wires. CE18007, CE18006 to Motherboard Replace Ball Count Sensor. AACB3850A Replace Motherboard. (AAMB18000-SBG)
Roll Ball Message on Display 	The game thinks there are balls in the ball track waiting to be rolled. Faulty sensor.	Remove right side lane cover and check the overflow sensor in the ball track. This will cause the motor not to release balls. Replace sensor. AACB3850A Important: When replacing sensors, ensure the spacers are reinstalled on wood block. These will prevent wood blocks from rising in slot, and possibly damaging the ball release motor.

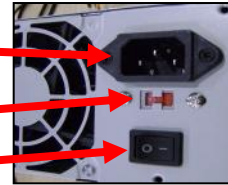
POWER SUPPLY DIAGNOSTICS

1.) Verify AC power to game. Check the rocker switch on top of the cabinet.



2.) Check power in connection to power supply.

3.) Ensure Power Supply switch is set to 115V (or 230V)
(Some model power supplies may not have this)



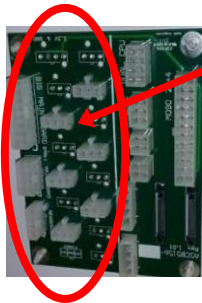
4.) Ensure Power switch is on.

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 left side 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. (A5PS1021)

- If power supply fan is not turning, replace power supply part # A5PS1021

BILL ACCEPTOR INFORMATION

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. A 12 Volt DC Bill Acceptor must be used.

Standard 12 Volt DBA is MEI # AE2454-U5E Part # A5AC9101

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 I/O Aux Board

If power is OK:

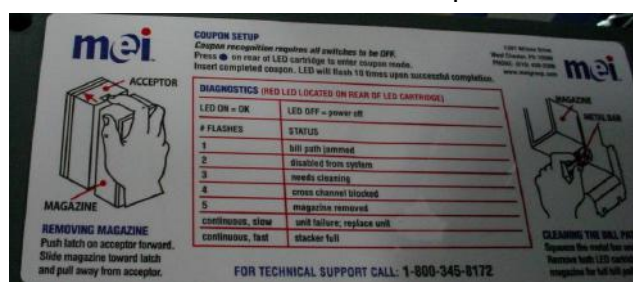
Clean Bill Acceptor path to make sure there is nothing jamming unit.

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 chart for repair.



HOW TO ACCESS TARGET SENSORS

Remove the 4 bolts (A5SCBH027) from the front metal cage using a 5/32" Allen Wrench.

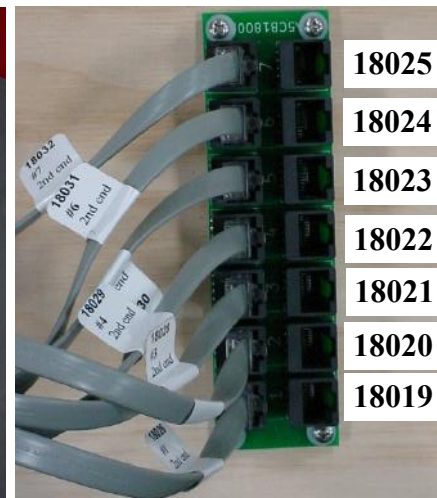
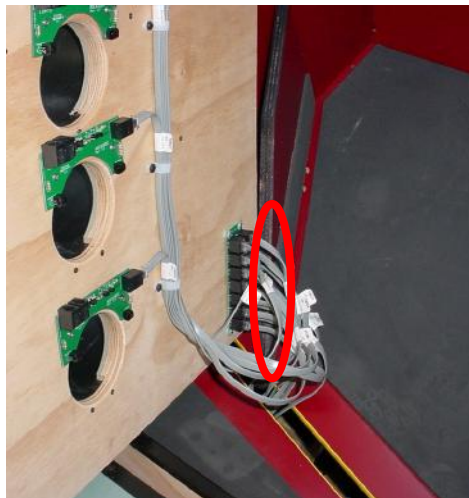
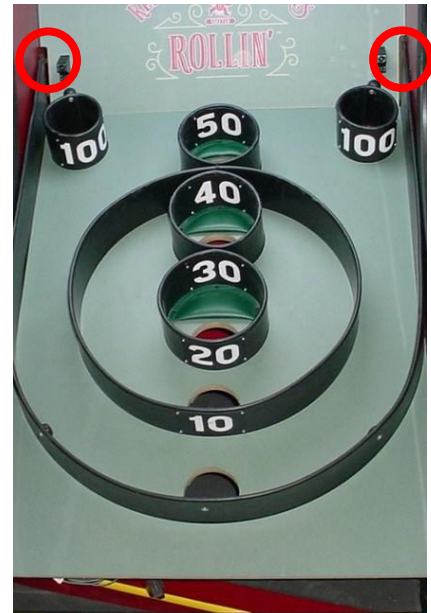


Remove the 2 screws in the left and right rubber ends using a Phillips screwdriver

Pivot and pull the playfield to the left to access the cables on the lower left corner.

Unplug the game harness cables from the right side of the jumper board to free the playfield from the cabinet. The playfield can now be removed from the game, and sensor boards can be replaced.

For installation: position playfield into cabinet and plug cables into the right side of jumper board as shown.



HOW TO CHANGE BALL RELEASE MOTOR

Unlock the lock on the right lane cover of the alley using a H95 Key.

Slide yellow lane cover up and remove from alley.

Remove the balls in the track.

Slide up both wood blocks holding the sensors.

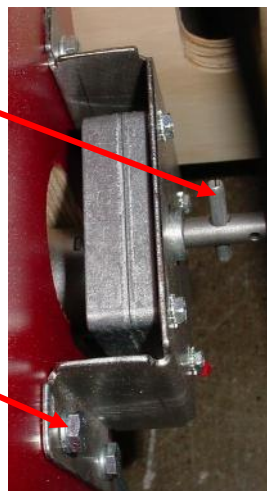
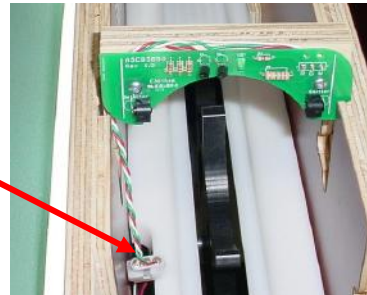
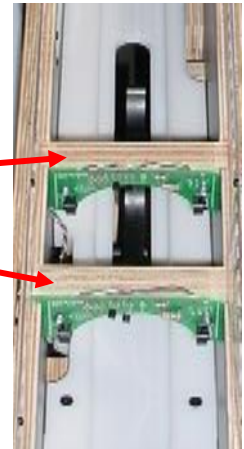
Unplug the connectors, and remove the sensors from the cabinet.

Remove the 4 mounting screws using a #2 Square Bit screwdriver.
Remove the white plastic ball track from cabinet.

Remove the small cotter pin from the motor shaft, and remove the black plastic wheel.

Remove roll pin and save for re-installation of new motor.

Remove the 4 bolts attaching the motor bracket to the wood cabinet using a 7/16" wrench.



HOW TO CHANGE BALL RELEASE MOTOR

Pivot motor/bracket and lift upward out of channel.

Remove 4 bolts using 5/16" wrench to remove old motor from bracket.

Unplug motor power from the yellow & black wire connector.

Install new motor onto bracket, plug new motor into yellow & black wire connector and re-install into channel as before.

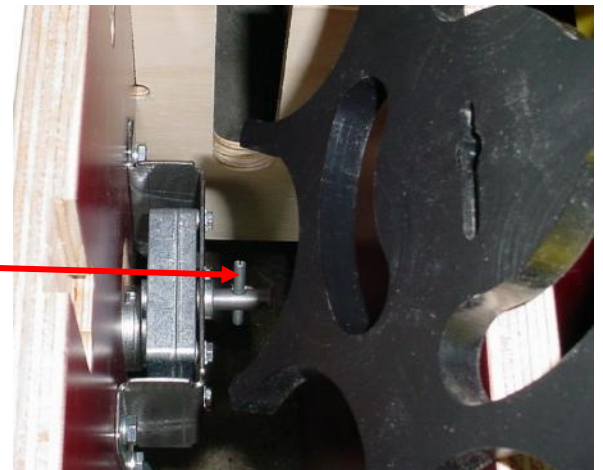
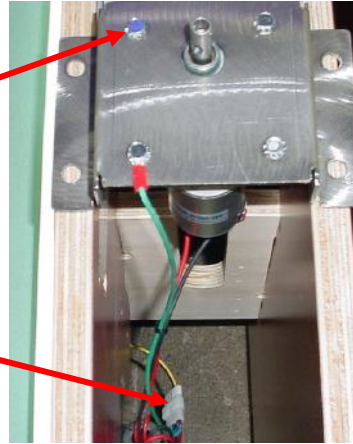
Important: Ensure the roll pin is installed into the new motor before attaching the black plastic wheel. Make sure the slot for the roll pin is facing to the left, toward the roll pin.

Slide the black plastic wheel onto the shaft of the motor so the roll pin is fully seated into the slot.

The cotter pin can now be installed into the motor shaft and bent to prevent the black plastic wheel from sliding off.

Re-install the white plastic ball track and both sensors.

Make sure the sensor's cable is tucked down away from the path of the ball.



HOW TO UPDATE SOFTWARE

The motherboard software can be easily updated with a USB flash drive stick.

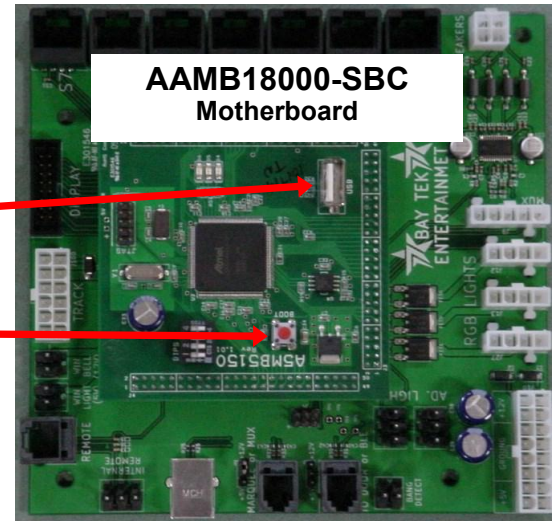
Instructions:

Copy the program file onto a blank USB thumb drive stick.
Make sure the game is turned ON.

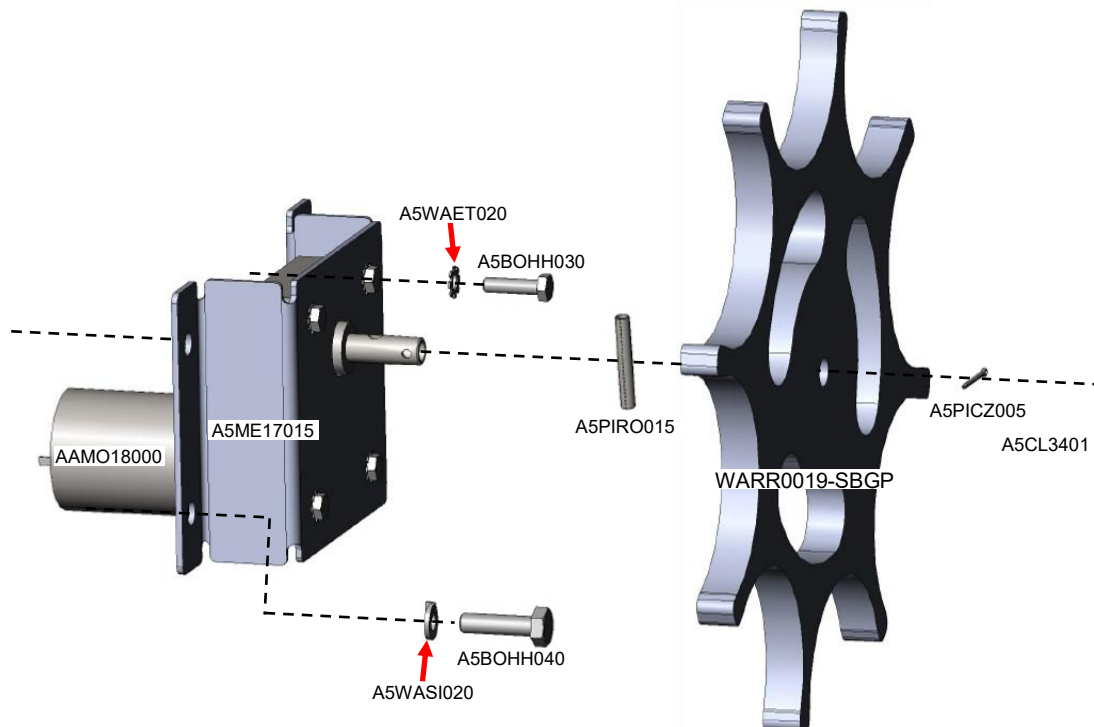
Insert the USB thumb drive into the slot on the motherboard assembly.

Press the red "Boot" button on the board.

The process will be complete in seconds.
Remove the USB stick, the software has been update.

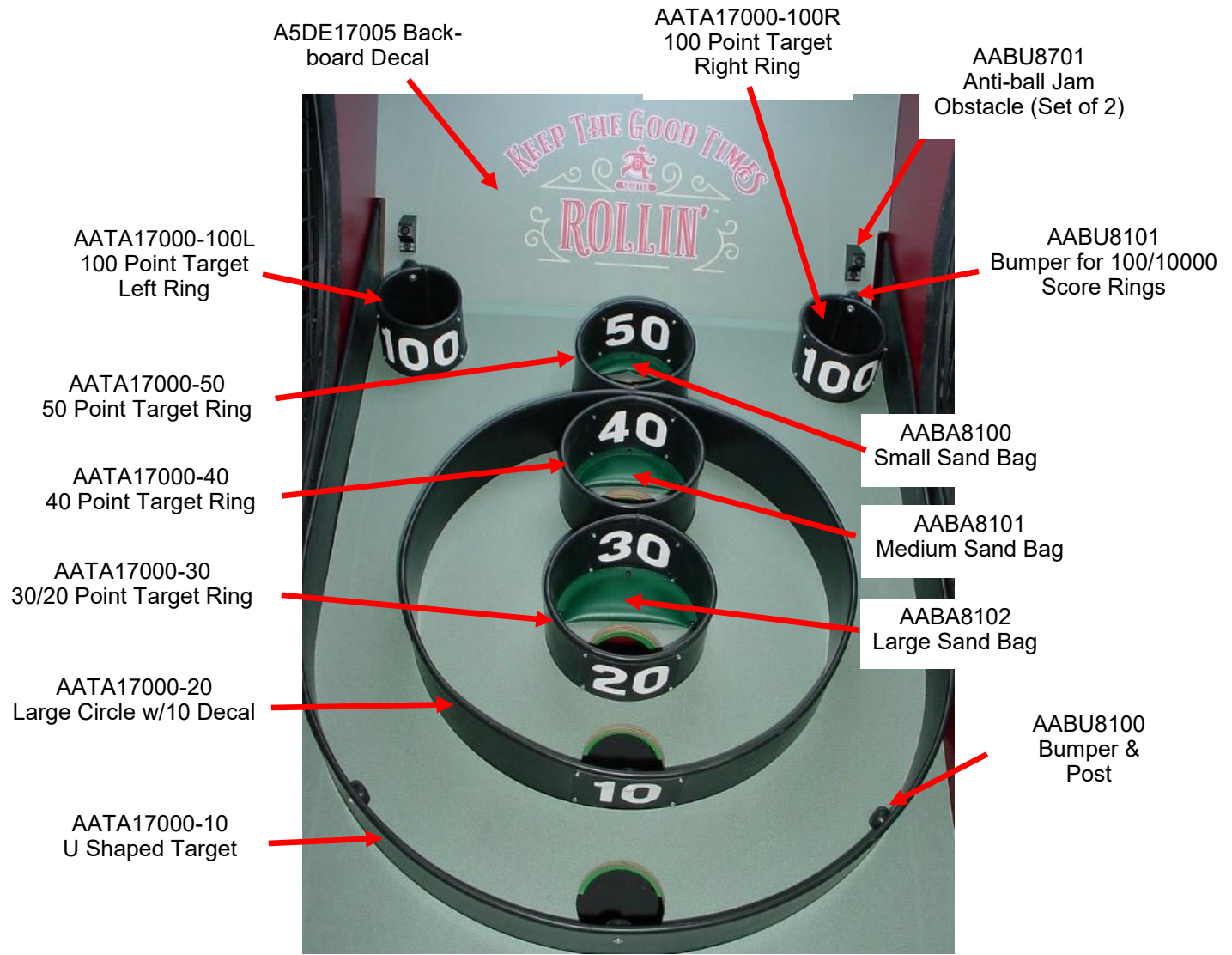


AAMO18005 BALL RELEASE ASSEMBLY



Part #	Description	Quantity on Assembly	Part #	Description	Quantity on Assembly
A5BOHH030	Hex Head Bolt 10-32 X 3/4"	4	A5PIRO015	Roll Pin 3/16" Dia X 1 1/4"	1
A5BOHH040	Hex Head Bolt 25-20 X 1"	4	A5WAET020	#10 Tooth Lock Washer	4
A5ME17015	Ball Release Motor Bracket	1	A5WASI020	1/4" Split Washer	4
AAMO18000	Ball Release Motor, 10 RPM,	1	WARR0019-SBGP	Black Plastic Cogged Wheel	1
A5CL3401	Cotter Pin 3/32" Dia X 1/2"	1			

PLAYFIELD PARTS



Additional Parts for Playfield

Part #	Description	Quantity on Assembly
A5DE17004	Ring Value Decals	1
AACB3851A	Score Sensors	7

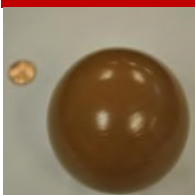
PARTS LIST

PART #	DESCRIPTION	PART #	DESCRIPTION
A5BA8106	3" Brown Balls (9 per game)	A5LA3850	Receptacle End Latch for Ramp (2 per game)
AACM-AS-COMP	Coin Comparator with Cable	A5LA3851	Panel Fastening Latch for Head (2 per game)
A5AC9101	12 Volt Bill Acceptor	W5HG1070	18" Single Bend Hinge
W5TM4006	13/16" Yellow T-Molding (18 feet per game)	A5CA2102	Lock Cam for Coin Mech Door (2 per game)
A5FO8103	Foam Black Neoprene Set	A5PL5150	Coin Mech Blanking Plate
A5PL8600	Round Plastic Plug	AAME17016	DBA Blanking Plate w/Plug
A5CL3401	Clip Hitch Pin for Ball Release and lock mech	A5BK6035	Light Bracket (2 per game)
A5PIRO015	Roll Pin for Ball Release (3/16" X 1")	A5BK9999	Power Supply Mounting Bracket
A5PICV015	Clevis Pin, Front Doors lock into this (2/game)	AABK1013	Push Buttons/Counter Bracket With Decals
A5SCBH027	Allen Head Front Cage Bolts (4/ game)	A5ME8123	Metal Rear Carpet Clamp
A5WR3800	Allen Wrench 5/16"	A5ME8714	Metal Plate for Obstacle Bumpers (2 per game)
A5FC0080	Ferrite Core Suppressor	A5ME15005	Ticket Holder Tray Inserts (2 per game)
AASW200	Low Ticket Switch	A5ME17001	METAL, FRONT CAGE, SBCL
A5SW18000	On & Off Rocker Switch on Top of Game	A5ME17011	Metal Rail Bracket Latches (2 per game)
A5LK2001	A05 Lock and Keys, Coin Box	A5ME17012	Metal Front Ramp Guard
A5LK5002	H95 Lock and Keys (7 per game)	A5ME17013	Metal Ball Track Side (2 per game)
A5HA3850	Handle for Cashbox	A5ME17014	Metal Ball Ramp Front Plate
A5BU8100	Rubber Bumper in Ball Track	A5ME17015	Metal Motor Ball Release Bracket
AABU8100	Bumper & Post for 10 Point Target (9/game)	A5ME17018	Coin Door Metal, SBC22
AABU8101	Bumper for 100 Point Target (2 Per game)	A5ME17019	Ticket Door Metal, SBC22
AABU8701	Anti-Ball Jam Obstacle Bumper (Set of 2)	A5ME17020	Cash Box Holder Metal, SBC22
A5BA17000	Small Sand Bag (50 POINT)	A5ME17021	Cash Box Metal, SBC22
A5BA17001	Medium Sand Bag (40 POINT)	A5ME17022	Ramp Left Metal Cover, SBC22
A5BA17002	Large Sand Bags (30 POINT)	A5ME17023	Ramp Right Metal Cover, SBC22
AABA8100-SET	Skee-ball Sand Bag Set	AAPB2700A	Push Buttons Assembly (2 per game)
AACA8103-L	Left Ball Deflector Cork Assembly (Green)	A5CORD5	AC Cord
AACA8103-R	Right Ball Deflector Cork Assembly (Green)	A5CE9736	Ribbon Display Jumper Cable
AACA8104	Playfield Cork Assembly (Green)	AACE1710	Door Ground Cable
AACA17000	Ramp Cork Assembly (Green)	AACE17005	Communication Sign Cable
AACA17001	Backboard Cork Matting (Green)	AACE17000	Power to Ramp Lights Cable
AATA17000-10	U-Shaped 10 Point Target (91.75")	AACE17001	12V Power to Ramp Lights from Head Cable
AATA17000-20	Big Circle Target With 10 Decal (60")	AACE17002	Power to Playfield Light Bars Cable
AATA17000-30	20/30 Point Target (21.25")	AACE17003	Ultra Bright White Marquee Light Cable
AATA17000-40	40 Point Target (19.44")	AACE17004	Ultra Bright LED Ramp Light Cable
AATA17000-50	50 Point Target (17.56")	AACE17005	Communication Sign Cable
AATA17000-100L	Left 100 Point Target (13.31")	AACE17006	Ultra Bright LED Ball Track Light Cable
AATA17000-100R	Right 100 Point Target (13.31")	AACE17007	12V Addressable Light Bulb Power Jumper
AAMO18000	Ball Release Motor With Cotter Pin	AACE17008	12V Addressable Light Power Cable
AAMO18005	Ball Release Motor Assembly	AACE17014	12V Addressable Light Bulb Power Jumper
AAKIT-SBCLP	Linking Kit	AACE17016	Ultra Bright LED Ball Track Ramp Light Cable
AACA17003	Front Metal Cage With Plastic Assembly	AACE17017	Ball Track Ramp Light Power from Ramp Cable
AAPF17001	Playfield Assembly	AACE17019	Marquee Light Cable

PARTS LIST

PART #	DESCRIPTION	PART #	DESCRIPTION
AACE18000	Display Ribbon Cable	AACE18032	Playfield Sensor #7 From Playfield Cable
AACE18001	Display Power Jumper Cable	AACE18033	Power To Marquee Light Cable
AACE18002	Display Power Jumper Cable	AACE18034	Power Switch to Power Supply Cable
AACE18003	Main Board Power Cable	AACE18035	Power Switch to Line Filter Cable
AACE18004	Communication to I/O Aux Board Cable	AACE8625-P	Free Play Button Assembly
AACE18005	Power in from Power Distribution Board Cable	AACE18077	Front Door Hinge to Stud Cable
AACE18006	Sensor & Motor Power from Head Cable	A5DE0042	Menu/Volume Decal
AACE18007	Sensors & Motor Power from Ramp Cable	A5DE17005	Backboard Decal
AACE18008	12 Volt DBA Power Cable	A5DE17004-10	10 Point Value Target Decal
AACE18009	12 Volt Coin Door Power from Ramp Cable	A5DE17004-100	100 Point Value Target Decal (2 per game)
AACE18010	12 Volt Coin Door Power from Head Cable	A5DE17004-20	20 Point Value Target Decal
AACE18011	5V Display Power Cable	A5DE17004-30	30 Point Value Target Decal
AACE18012	Speaker Power From Head Cable	A5DE17004-40	40 Point Value Target Decal
AACE18013	Speaker Power From Ramp	A5DE17004-50	50 Point Value Target Decal
AACE18014	Ticket Dispenser & Coin Door Cable	A5DE17006	Faceplate Marquee
AACE18015	Menu Buttons & Counter Cable	A5DE18004	Rail Light Covers Plexi (4 per game)
AACE18016	Line Filter to Stud Ground Cable	A5DE18005	Ball Return Light Covers Black Plastic
AACE18017	Right Ramp & Coin Door Grounding Cable	A5DE18011	Window Cling Decal
AACE18018	Left Ramp & Ticket Ground Cable	A5VF17000	Ball Hop
AACE18019	Playfield Sensor #1 From Head Cable	A5LD1052	LED Display Board (2 per game)
AACE18020	Playfield Sensor #2 From Head Cable	A5FI9011	Inline Filter
AACE18021	Playfield Sensor #3 From Head Cable	AACO1020	Counters
AACE18022	Playfield Sensor #4 From Head Cable	AACE8811A	Game Speaker With Cable
AACE18023	Playfield Sensor #5 From Head Cable	A5TD1	Ticket Dispenser
AACE18024	Playfield Sensor #6 From Head Cable	A5PS1021	Power Supply
AACE18025	Playfield Sensor #7 From Head Cable	AACB3850A	Ball Track Sensor (3 per game)
AACE18026	Playfield Sensor #1 From Playfield Cable	AACB3851A-B	Score Sensor (7 per game)
AACE18027	Playfield Sensor #2 From Playfield Cable	A5CB5156B	Power Distribution Board
AACE18028	Playfield Sensor #3 From Playfield Cable	AACB15001	Bleed Resistor Board
AACE18029	Playfield Sensor #4 From Playfield Cable	AACB18001	7 Position RJ12 Pass-Thru Board
AACE18030	Playfield Sensor #5 From Playfield Cable	AACB9605A-SBG	I/O Aux Board (Door Interface)
AACE18031	Playfield Sensor #6 From Playfield Cable	AAMB18000-SBG	Mother Board

PARTS PICTURES



A5BA8106



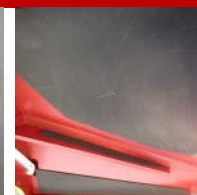
AACM-AS-COMP



A5AC9101



W5TM4006



A5FO8103



A5PL8600



A5CL3401



A5PIRO015

PARTS PICTURES



PARTS PICTURES



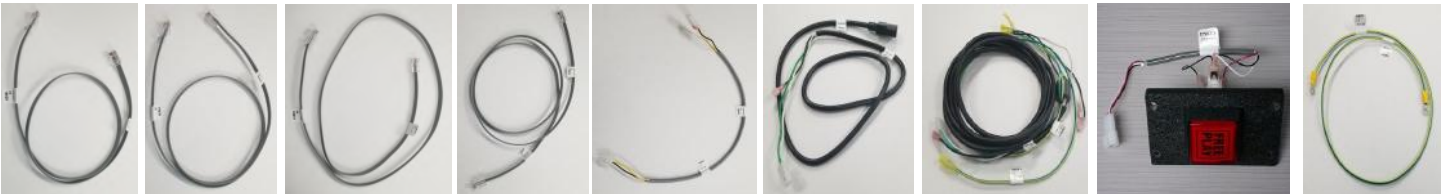
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AACE18020 AACE18021 AACE18022 AACE18023 AACE18024 AACE18025 AACE18026 AACE18027 AACE18028



AACE18029 AACE18030 AACE18031 AACE18032 AACE18033 AACE18034 AACE18035 AACE8625-P AACE18077



A5DE0042



A5DE17005



A5DE17004-10



A5DE17004-100



A5DE17004-20



A5DE17004-30



A5DE17004-40



A5DE17004-50



A5DE17006



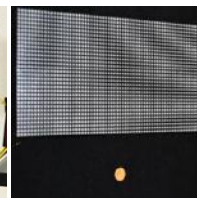
A5DE18004



A5DE18005



A5DE18011



A5LD1052



A5FI9011



AACO1020



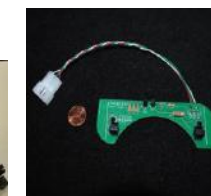
AACE8811A



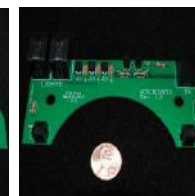
A5TD1



A5PS1021



AACB3850A



AACB3851A-B



A5CB5156B



AACB15001



AACB18001



AACB9605A-SBG



AAMB18000-SBG

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.

[illegible]

NOTES

[illegible]

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:

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 need to return a 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.

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 2 years from the date of shipping

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

New, purchased parts have a 30 day warranty.

Any labor expended 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 its 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



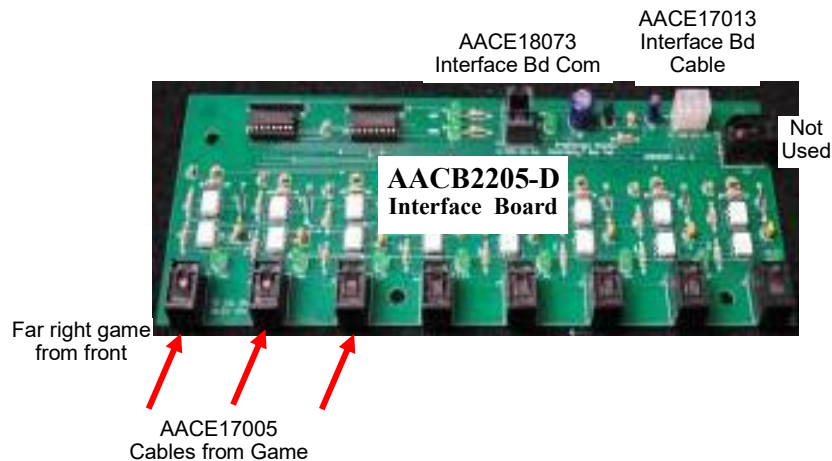
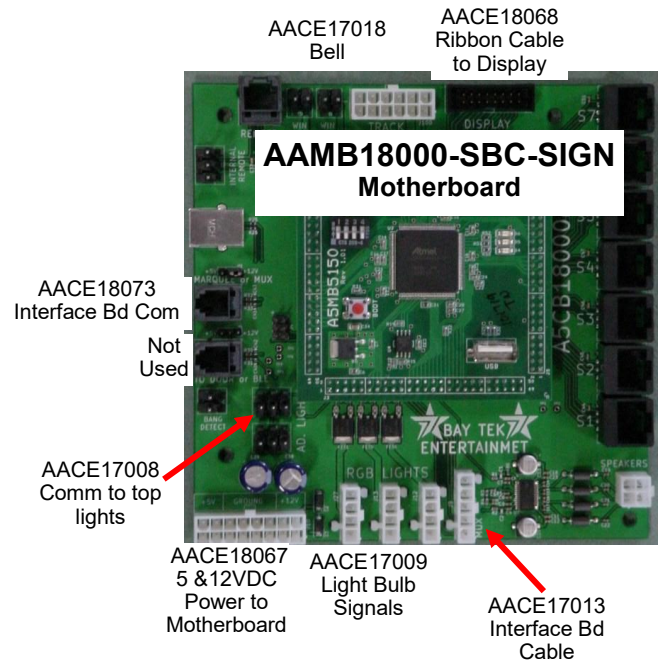
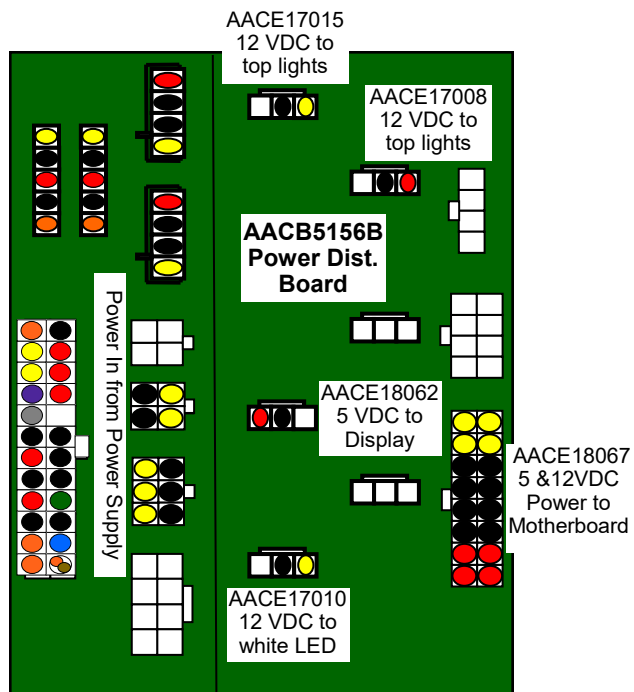
SIGN MANUAL SUPPLEMENT



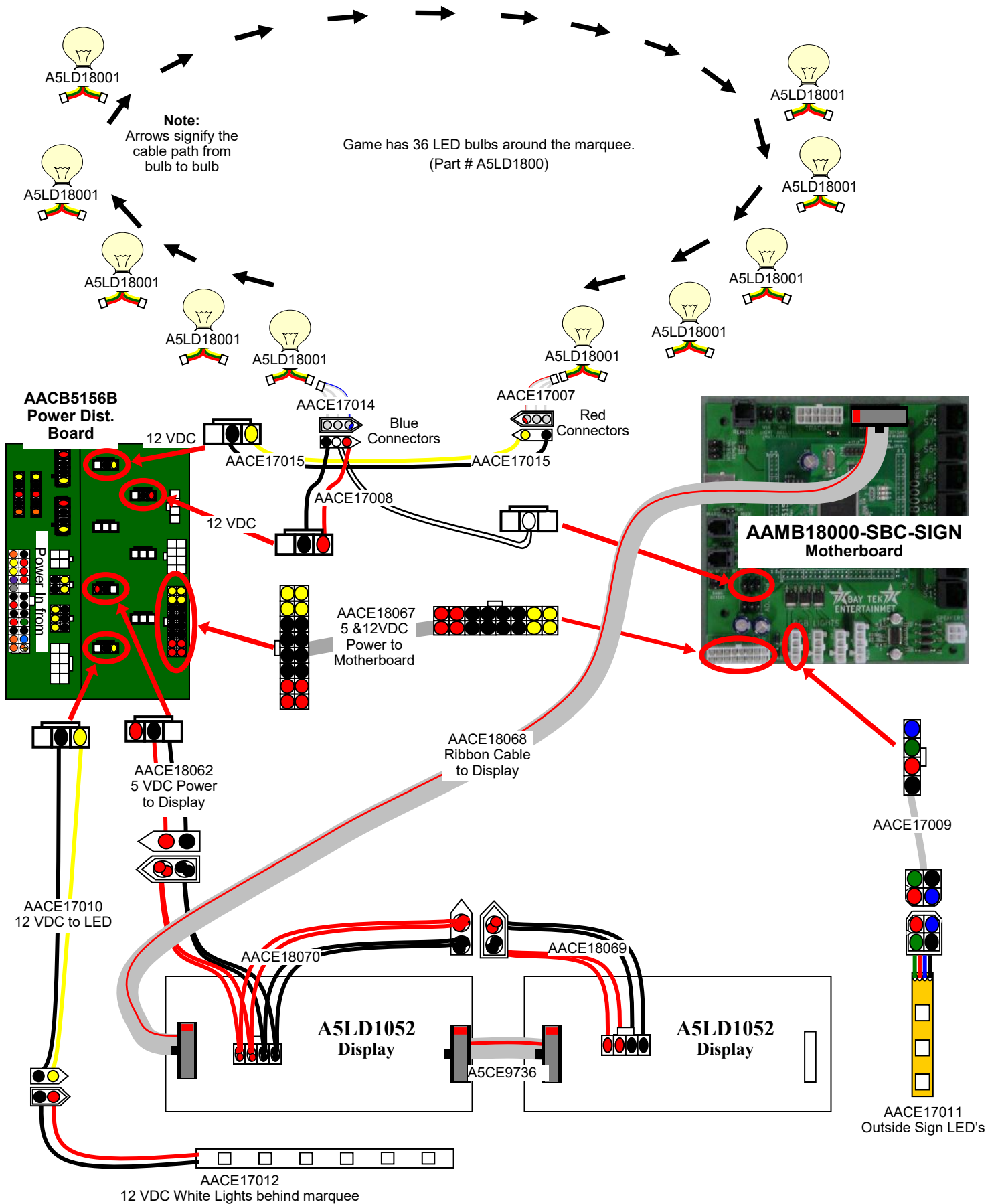
SKEE-BALL
CLASSIC
GRAND MARQUEE



SKEEBALL CLASSIC SIGN BOARD PINOUT



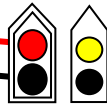
SIGN LIGHTS AND DISPLAY WIRING DIAGRAM



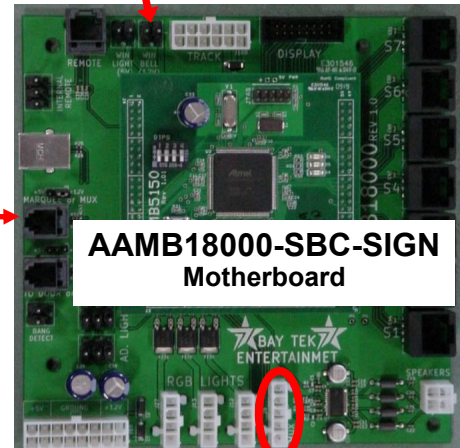
SKEEBALL SIGN LINKING GAMES & BELL



AABE18000
Bell
4.8 MOhm



AACE17018



AAMB18000-SBC-SIGN
Motherboard

This end only
used in case of
linking more
than 8 games



AACE1806

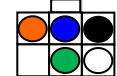
AACE18073
Interface Bd Com



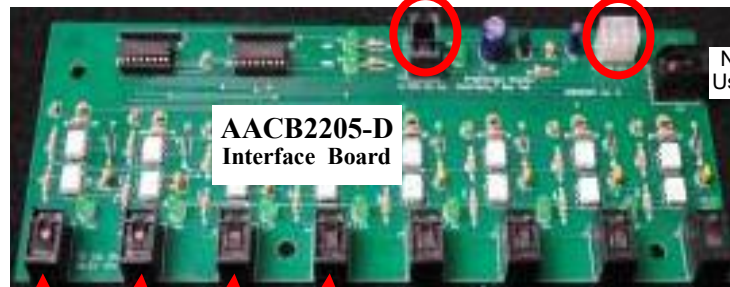
AACE17013
Interface Bd Cable



AACE17013
Interface Bd Cable



This end only
used in case of
linking more
than 8 games



AACB2205-D
Interface Board

Not
Used

Important:
Cables must be run in correct
order to ensure smooth
scrolling of message and
proper menu access.
Game #1 is the far right game.



1



2



3

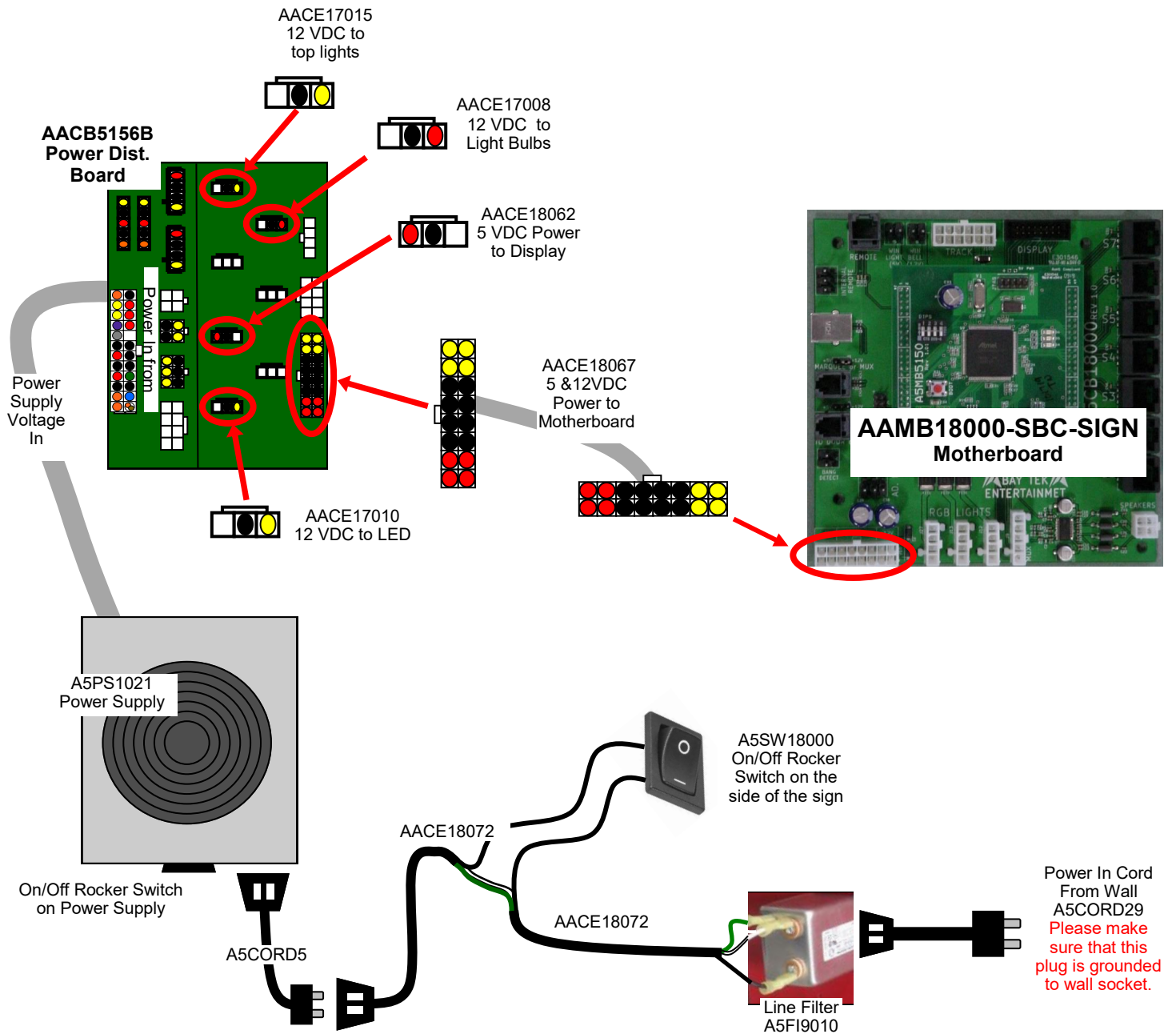


4

AACE17005
Cables from Games



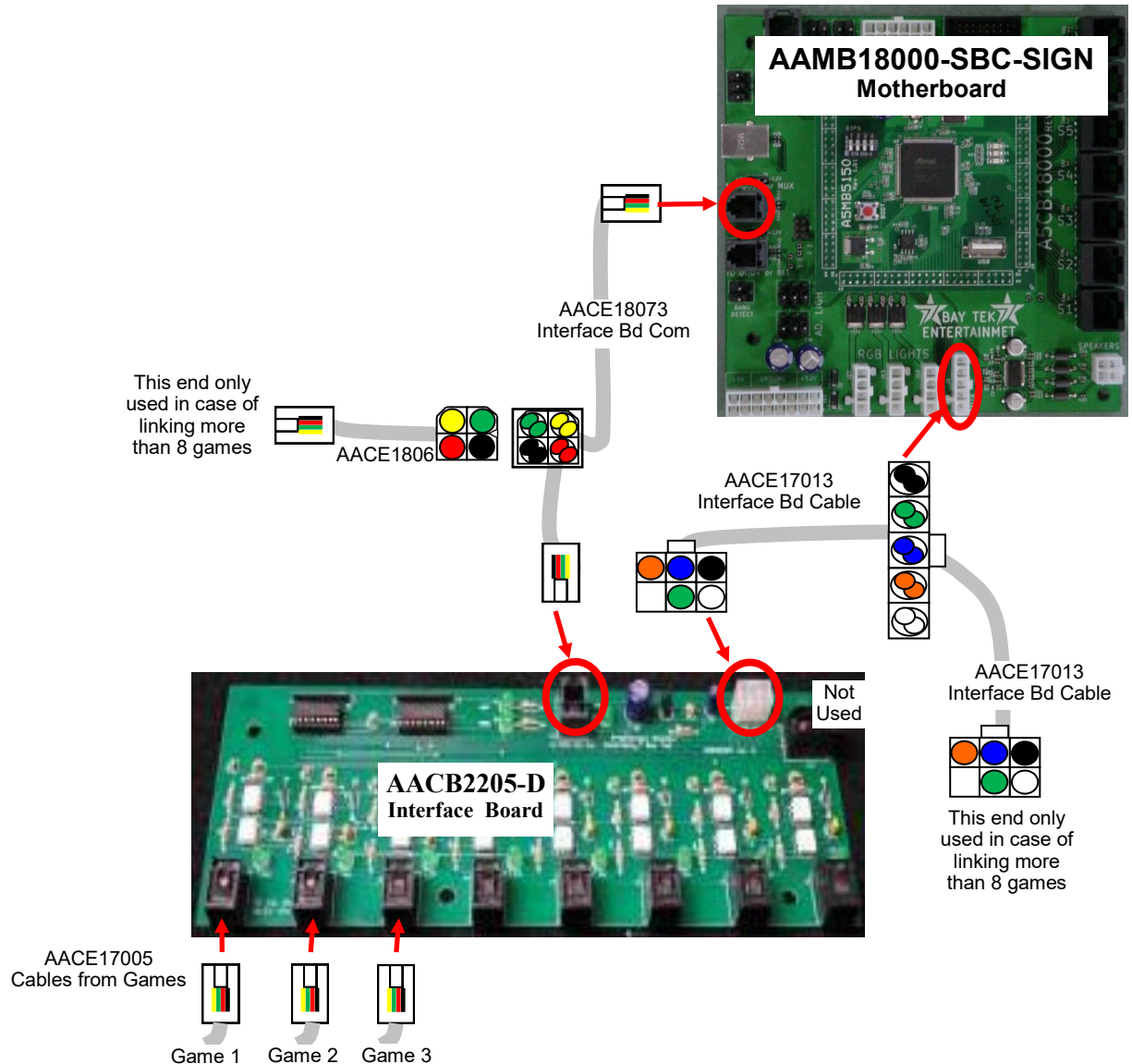
SKEEBALL SIGN POWER IN



TROUBLESHOOTING GUIDE

Problem	Probable Cause	Remedy
No power to the sign	Unplugged. Faulty Line Filter Faulty Cable Rocker Switch on side of sign or power supply turned off, or plugs unplugged. Circuit breaker tripped Bad power supply.	Check wall outlet to line filter in back of sign. (A5FI9010) Replace Line Filter. (A5FI9010) Refer to wiring diagram. Check cable CE18072 Check rocker switch on side of sign. Check rocker switch on power supply. Ensure power cords are pushed up into the back of the power supply and line filter securely. Reset power strip breaker switch or building circuit breaker. Attempt to determine cause. Refer to Motherboard/Power Supply Diagnostics
Light bulbs on front of sign do not light up There are 36 A5LD18001 bulbs	LED bulb faulty Faulty Cable	Bulbs receive 1 cable of 12 VDC from Power Dist Board with signal to flash from motherboard. Another 12 VDC power from the Power Dist Board is also needed. Lights are daisy chained so if one light goes out the remaining bulbs will not light. If all lights are out, check cables from first bulb to Power Distribution Board and motherboard. Refer to wiring diagram for the cable path. CE17008, CE17014 Check for 12 volts DC on CE17008, CE17015, & CE17007 If the bulbs have stopped flashing, check cable CE17008 to motherboard. If the bulbs do not work after a certain point, there is a faulty bulb. Part # A5LD18001. It may be the last lit bulb or the next bulb in the series. If all bulbs do not work, check power into bulb, and replace bulb. Part # A5LD18001
Outside edge lights of sign do not work	Faulty Cable LED strip faulty	Check cable from LED strip to Motherboard. Refer to wiring diagram for the cable path. CE17011 & CE17009. Remove and examine LED strip. Replace if needed. Part # CE17011
White marquee lighting not working	Faulty Cable Verify 12 Volts DC LED strip faulty	Check cables from LED to Power Distribution Board (CE17012, CE17010) Check for 12 volts DC on CE17010 on Power Dist. Board Replace LED strip. AACE17012
Display not working	Pinched, broken, or disconnected wiring. Faulty Display Module	Refer to wiring diagram. Ensure 5 volts DC on CE18062, CE18070 & CE18069 cables from power distribution board. Check communication ribbon cable from Motherboard to Display Boards. Part # CE18068 Swap display modules inside cabinet to isolate the issue. Replace display if needed. A5LD1052
Bell not working	Pinched, broken, or disconnected wiring. Faulty Bell	Enter menu and scroll to Test Ball Release N11. Press Menu Select button to engage ball release and bell. Ensure 12 volts DC on CE17018, Press Menu Select again to turn off bell. Replace bell. Part # AABE18000

HOW TO LINK GAMES



Important:

Cables must be run in correct order to ensure smooth scrolling of message and proper menu access.

Game #1 is the far right game.

Bring the phone cable from the top of each alley (Part # AACE17005) and plug into the bottom of the Interface board as shown.

The phone cables must plug into the left side of the board as shown.

