Service Manual



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Rev O 2/22/2024

SAFETY AND WARNINGS BEFORE YOU BEGIN

WARNING: WHEN INSTALLING THIS GAME, A GROUNDED A.C. RECEPTACLE MUST BE USED. FAILURE TO DO SO COULD RESULT IN INJURY TO YOURSELF OR OTHERS. FAILURE TO USE A GROUNDED RECEPTACLE COULD ALSO CAUSE IMPROPER GAME OPERATION, OR DAMAGE TO THE ELECTRONICS.

NOTE: THIS GAME IS INTENDED FOR INDOOR USE ONLY.

DO NOT DEFEAT OR REMOVE THE GROUNDING PRONG ON THE POWER CORD FOR THE SAME REASON AS GIVEN ABOVE. USING AN IMPROPERLY GROUNDED GAME COULD VOID YOUR WARRANTY.

HAVE A QUALIFIED ELECTRICIAN CHECK YOUR A.C. RECEPTACLE TO BE SURE THE GROUND IS FUNCTIONING PROPERLY.

THIS GAME IS DESIGNED TO DISSIPATE STATIC ELECTRICITY THROUGH THE GROUNDING PLANE OF THE GAME. IF THE A.C. GROUND DOES NOT WORK, THE GAME COULD DISCHARGE STATIC ELECTRICITY THROUGH THE GAME CIRCUITRY, WHICH COULD CAUSE DAMAGE.

THE POWER SUPPLY IS NOT VOLTAGE ADJUSTABLE. TO OPERATE THE GAME AT VOLTAGES OTHER THAN THOSE IT WAS DESIGNED FOR. PLEASE CONTACT OUR SERVICE DEPARTMENT FOR VOLTAGE CONVERSION INFORMATION.

WARNING

DO NOT remove any of the components on the main board (e.g. compact flash and eproms) while the game is powered on. This may cause permanent damage to the parts and the main board. Removing any main board component part while powered on will void the warranty.

ALWAYS REMOVE POWER TO THE GAME, BEFORE ATTEMPTING ANY SERVICE,
UNLESS NEEDED FOR SPECIFIC TESTING. FAILURE TO OBSERVE THIS PRECAUTION
COULD RESULT IN SERIOUS INJURY TO YOURSELF OR OTHERS.

THIS GAME IS NOT SUITABLE FOR INSTALLATION IN AN AREA WHERE A WATER JET COULD BE USED.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

AC Power Information

The games main fuse is accessed through the back of the game at the power mod. Above the power cord is a small panel that contains the main fuse.

The value of the fuse for 120 volt 60Hz is 5 AMPS at 250Volt type slow blow.

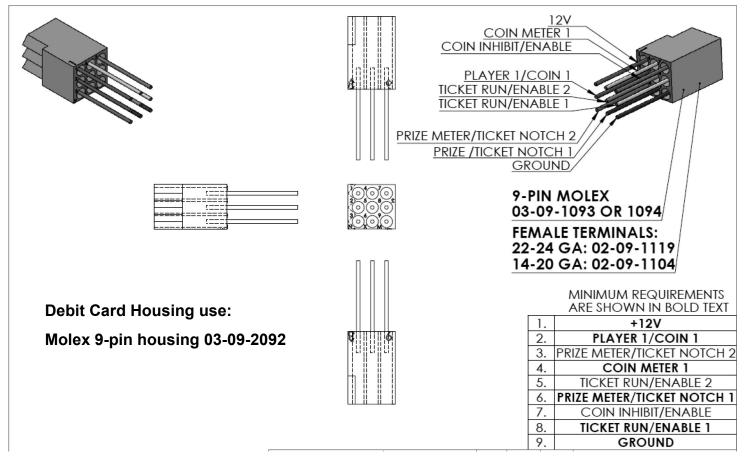
The value of the fuse for 220/230 volt 50/60Hz is 3 AMPS at 250 Volt type slow blow.

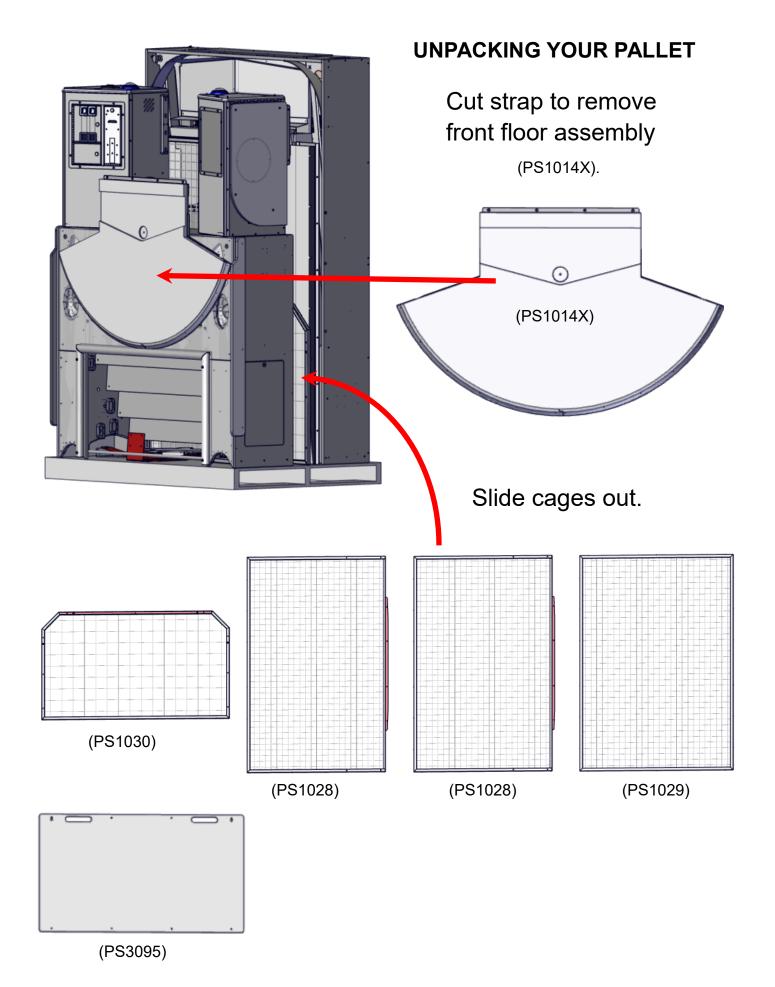


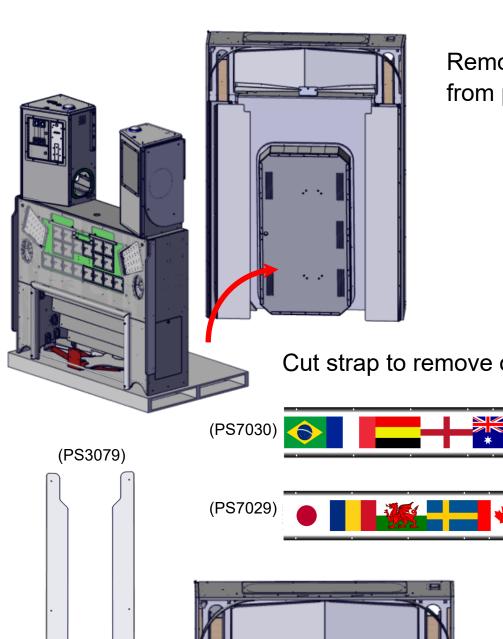
Universal Card link Connection

See Wiring Insert for wire colors and which connections are used.

- Pin 1. +12v- Supply to Card System = Minimum of 2A available for the card systems and a Max of 3A.
- Pin 2. Coin 1 input to the game PCB.
- Pin 3. Prize Meter/Ticket Notch 2- is connected to the Ticket Notch line between the game PCB and ticket dispenser. Optional.
- **Pin 4.** Coin Meter 1 is connected to the coin meter 1 output from the game PCB and can be used by card systems for monitoring purposes.
- Pin 5. Ticket Run/Enable 2- is connected to the ticket run line between the game PCB and ticket dispenser. Optional.
- **Pin 6.** Prize Meter/Ticket Notch 1- is connected to the Prize or Ticket Meter output from the game PCB and can be used by card systems for monitoring purposes. Optional.
- Pin 7. Coin Inhibit/Enable- is connected to the Coin or Note Inhibit/Enable output from the Game PCB and is used where the game has this feature for disabling any payment. This is normally for states like New Jersey that limit the amount of money that can be inserted at one time.
- **Pin 8.** Ticket Run/Enable 1 is connected to the ticket run line between the game PCB and ticket dispenser in standard redemption games. This is commonly used for systems using paperless or E-ticket. Not Used if the game doesn't have this output.
- Pin 9. Ground- is connected to the common Ground connection, the same ground as the Game PCB.







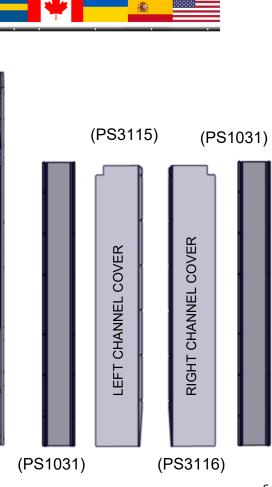
(PS3050X)

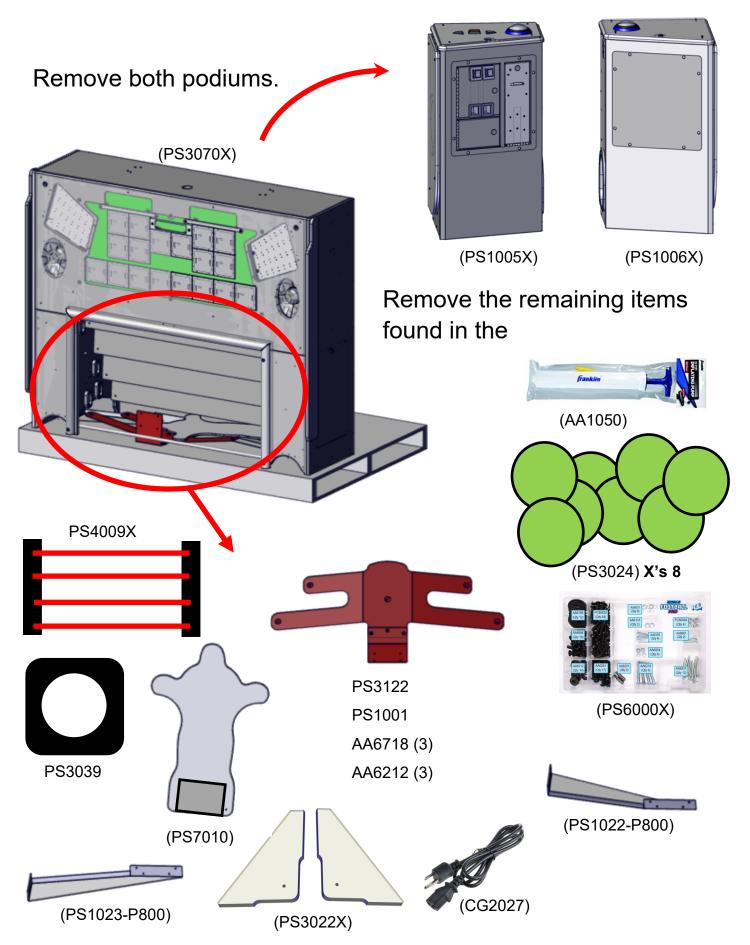
(PS7027X)

Remove floor assembly from pallet.

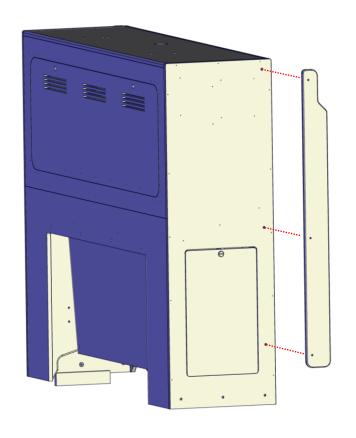


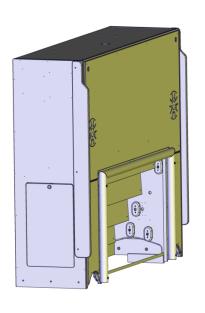
Cut strap to remove other assemblies.

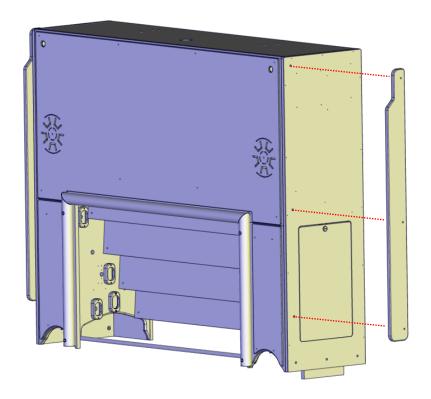


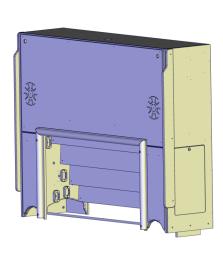


Attach one PS3079 trim piece using three AA6281 bolts and AA6212 washers to the left and right side of the back assembly (PS3070X).

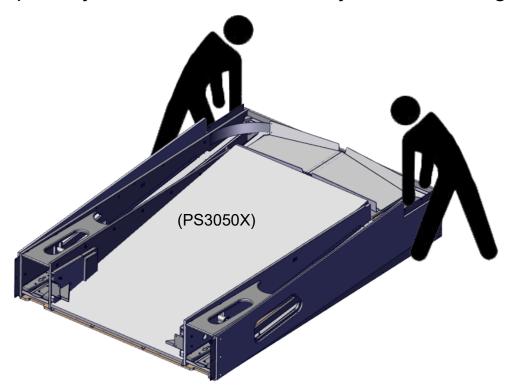




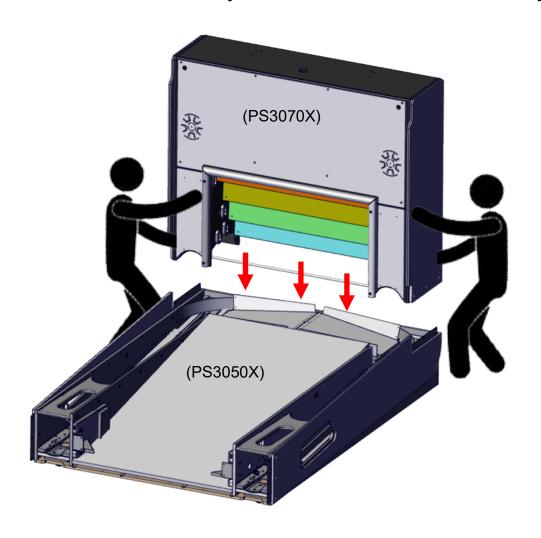




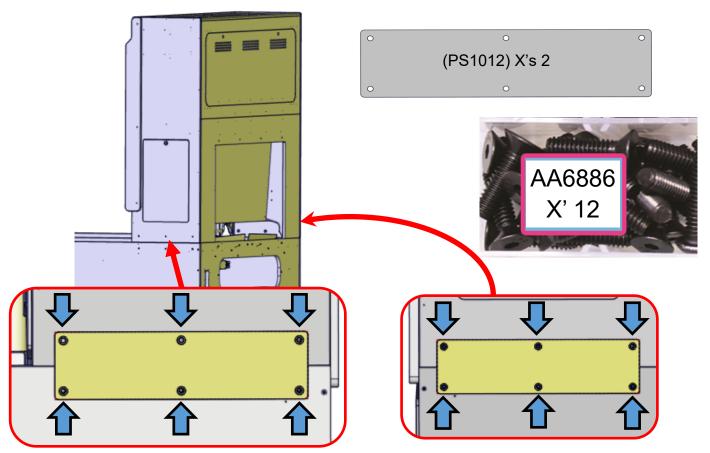
With a helper, lay the PS3050X assembly down on the ground.



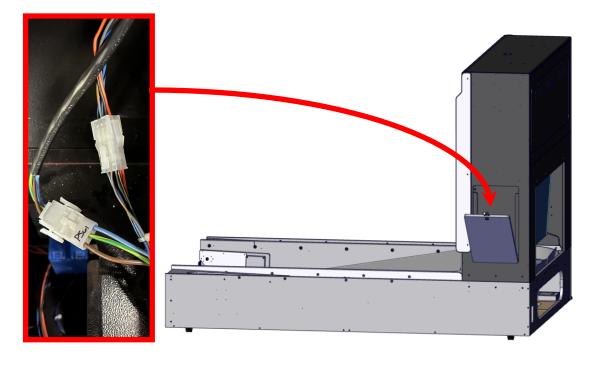
Lift the PS3070X assembly onto the PS3050X assembly.



Secure the back assembly onto the floor assembly using one PS1012 plate and six AA6886 screws on each side shown below.

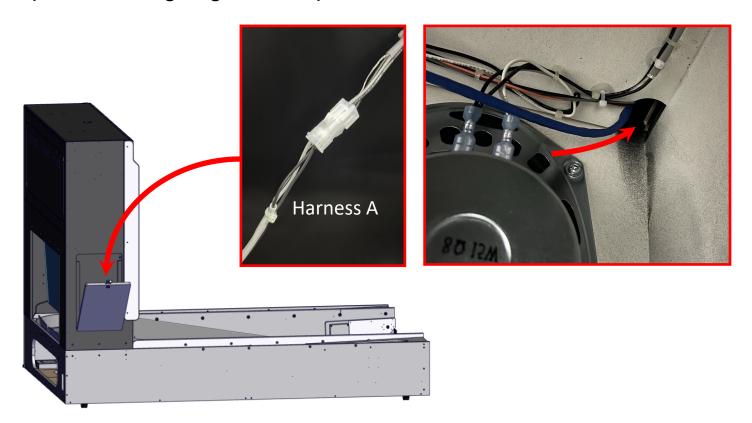


At both sides of the cabinet, unlock the access panel and remove. On the right side, plug in two harnesses.

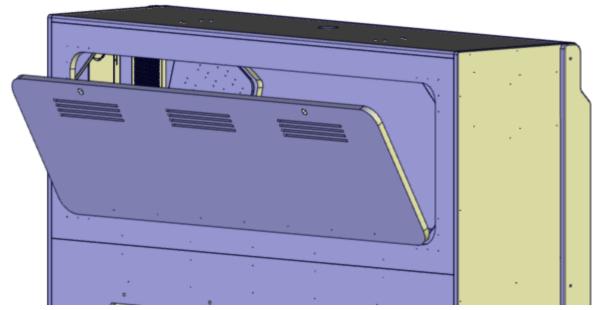


On the left side, open the access door and plug in harness A.

Then insert the network cable up into the front corner, next to the speaker, and going to the top of the cabinet.



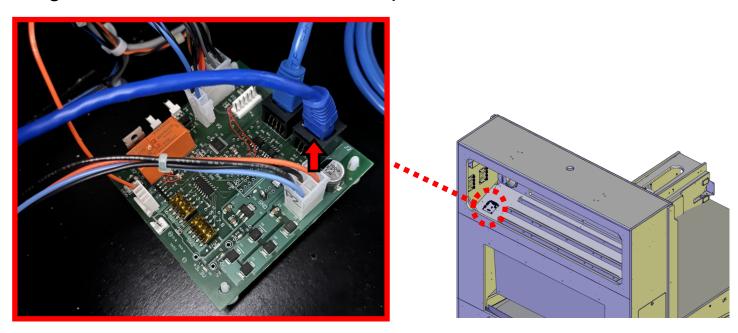
Unlock and remove the top back access panel.



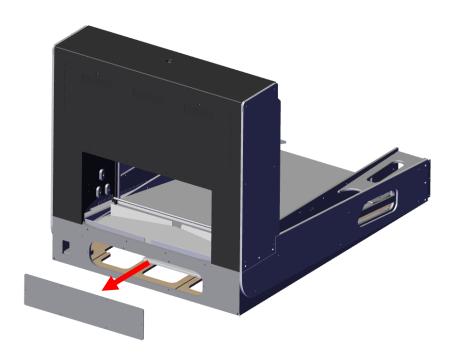
Plug the network cable you pushed up from the bottom into the lower display board.



Plug in the Network cable into the open RJ45 slot.

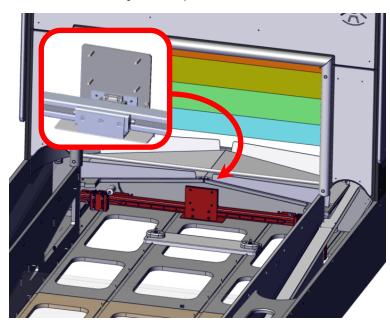


Remove the lower panel of the PS3050X assembly.

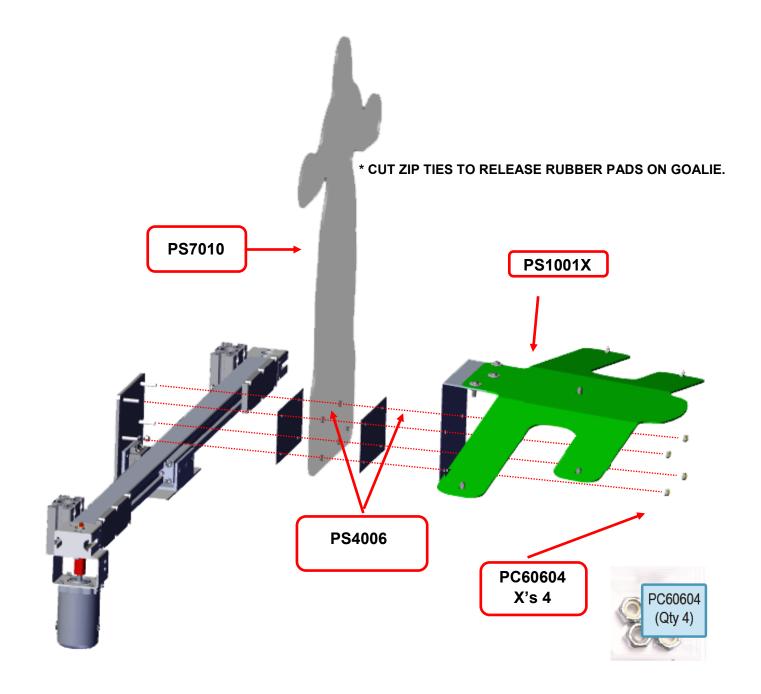


Pem studs are located at the back of this mount.

Note, floor assembly components removed for clarity.

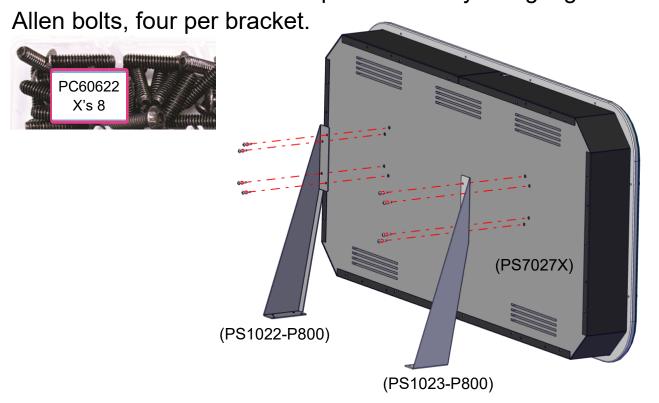


From the front of the game, insert one PS4006 foam pad, then PS7010

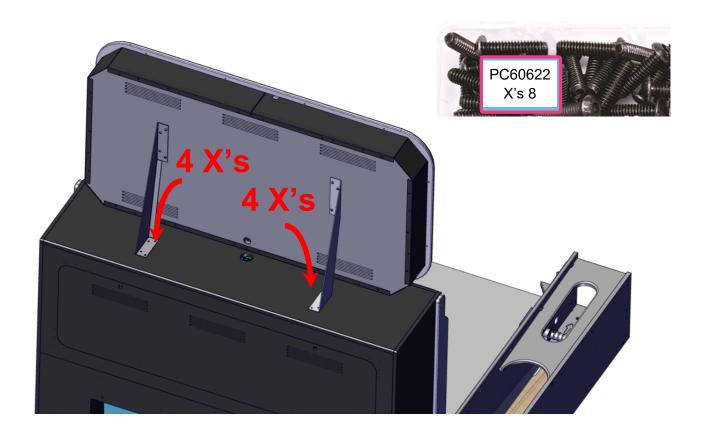


From the back of the game, use four PC606004 nylon nuts to secure the assembly.

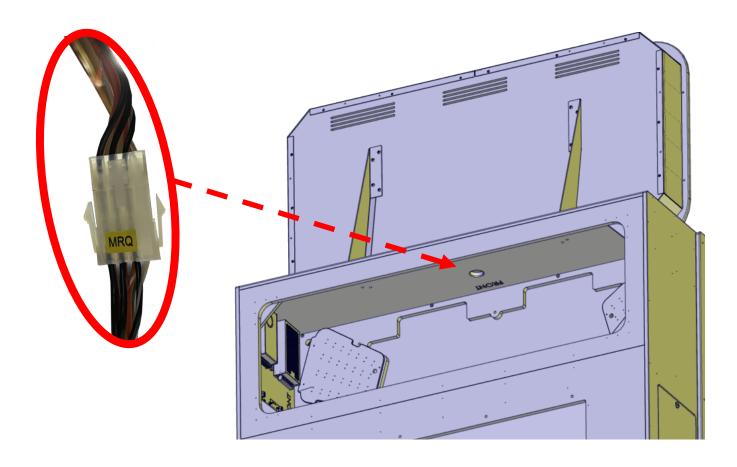
Attach the left (PS1022-P800) bracket and the right (PS1023-P800) bracket to the PS7027X marquee assembly using eight PC60622



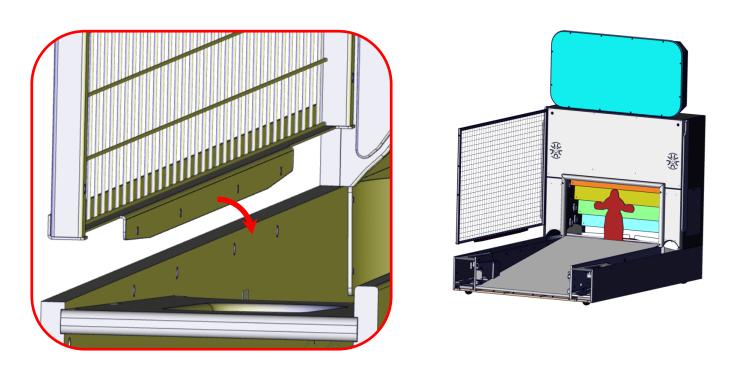
Attach the marquee assembly on top at the back of the game using PC60622 Allen bolts, four per support, eight total.



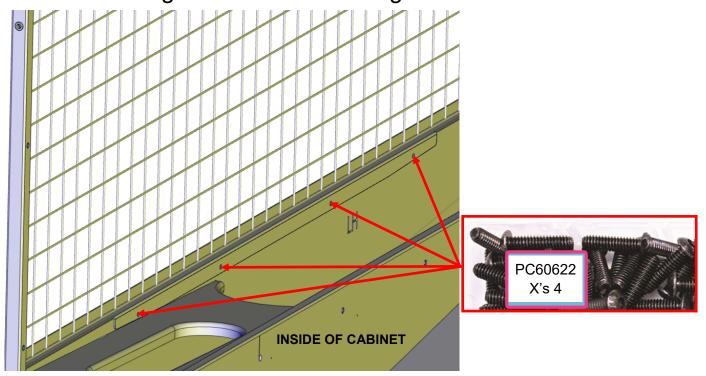
Plug in the harness for the marquee.



Slide the left cage (PS1028-p705) onto the top lip of the cabinet as shown.

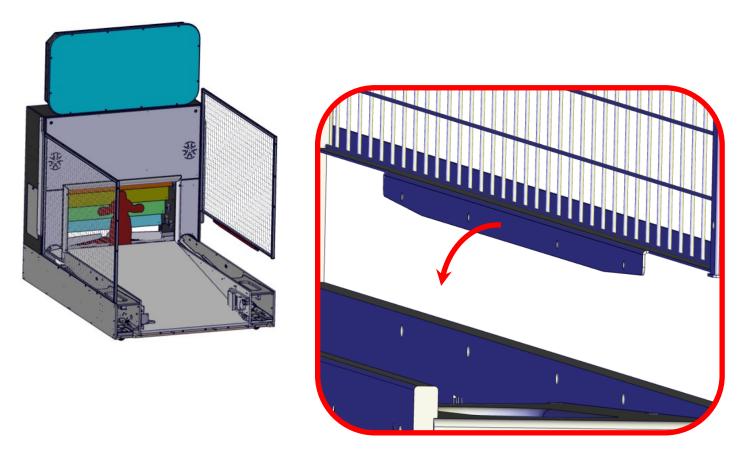


Secure the cage to the cabinet using four PC60622 Allen bolts.

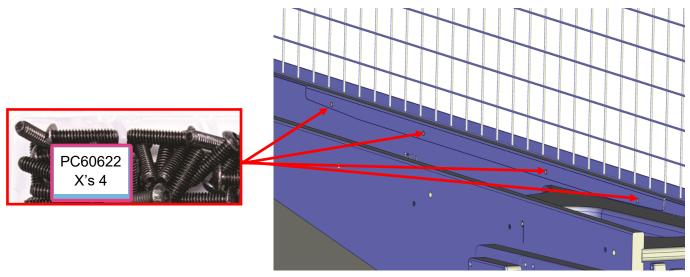


WARNING - CAGE WILL NOT BE COMPLETELY STABLE UNTIL TOP CAGE ASSEMBLY IS ATTACHED.

Slide the right cage (PS1028-705) onto the top lip of the cabinet as shown.

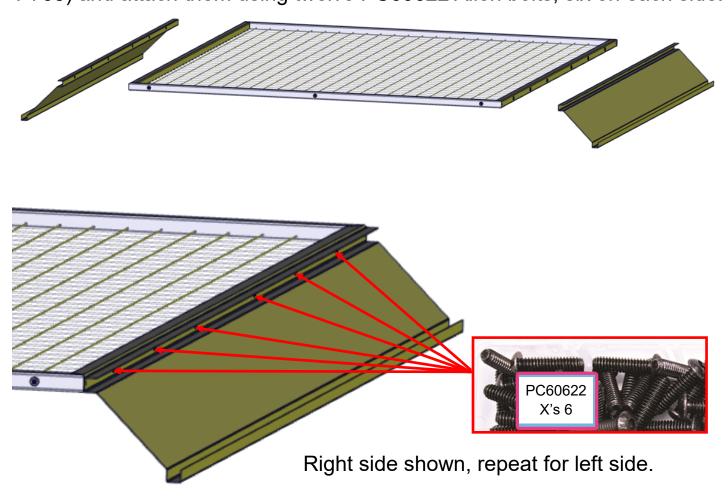


Secure the cage to the cabinet using four PC60622 Allen bolts.



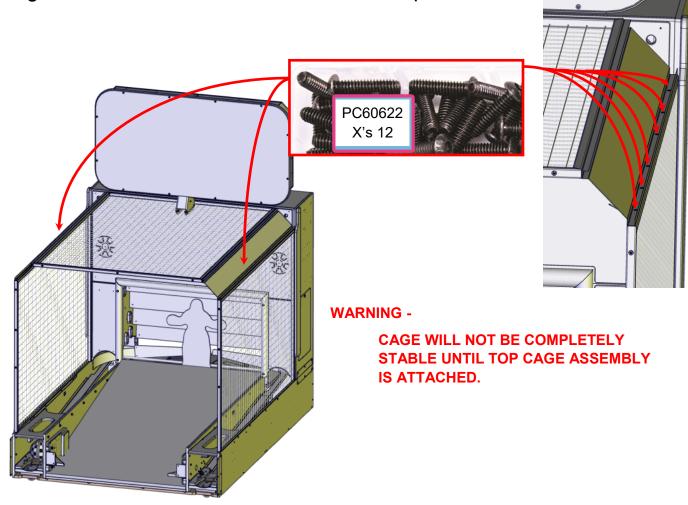
WARNING - CAGE WILL NOT BE COMPLETELY STABLE UNTIL TOP CAGE ASSEMBLY IS ATTACHED.

Position two PS1031 trim panels at each side of the top cage (PS1029-P705) and attach them using twelve PC60622 Allen bolts, six on each side.

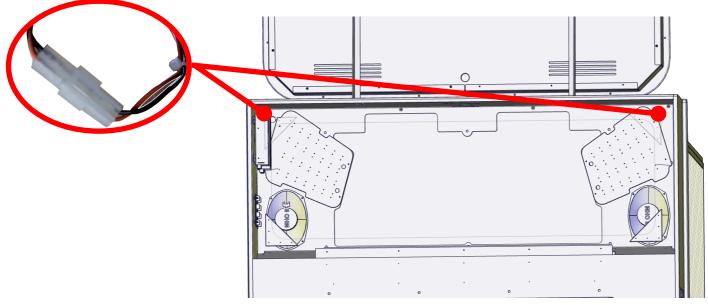


A helper is highly recommended to stabilize the side cages while placing the top cage assembly onto the side cages! Secure the cage top assembly

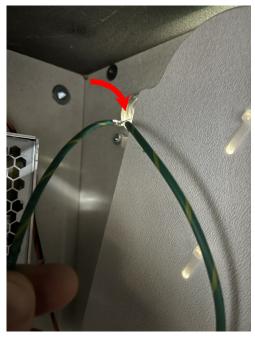




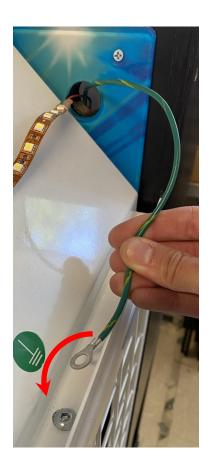
From the front of the game, insert the LED power connectors through the hole at each side. Then from the back, connect them to the game.

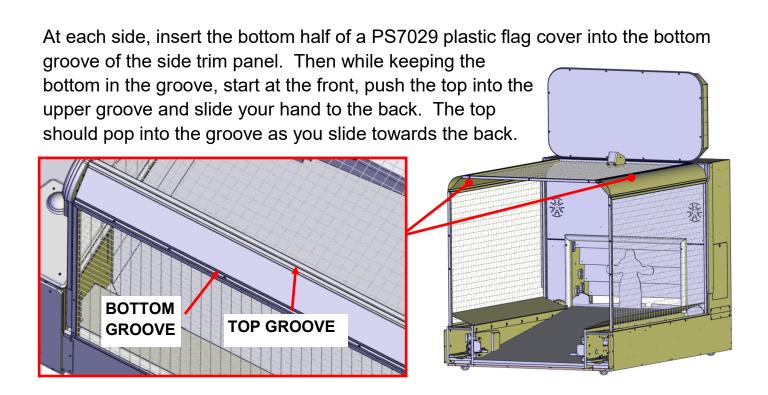


From the front of the game, locate the earth ground wire. Remove the mounting bolt installed under the earth ground label. Slip the wire ring onto the bolt and reattach the bolt.

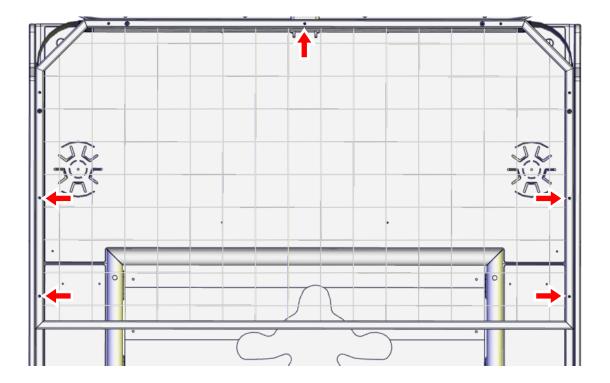


Inside the cabinet, push the ground wire back out toward the cages.

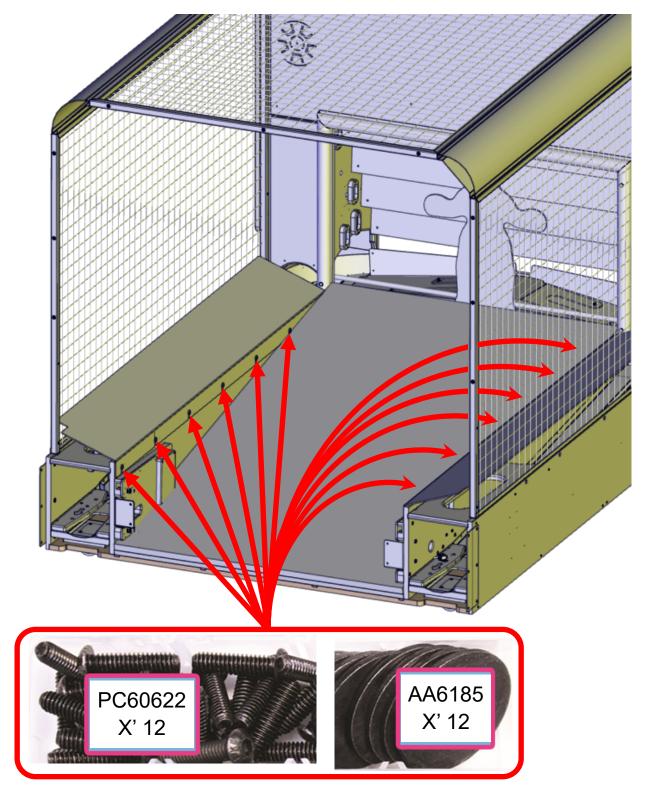




Using AA6281 Allen bolts, secure the front cage to the side and top cages at the indicated arrows.

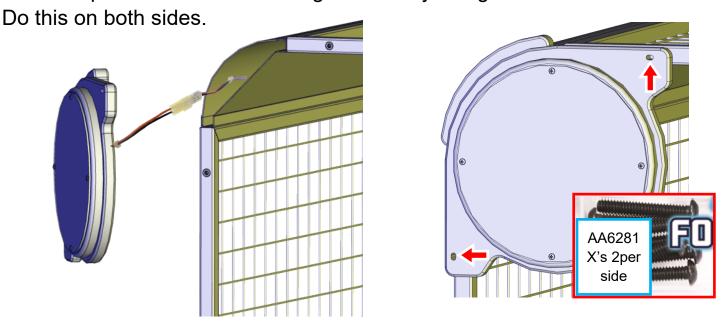


Install the ball covers PS3115 left and PS3116 right using six PC60622 Allen bolts and AA6185 large black washers on each side.



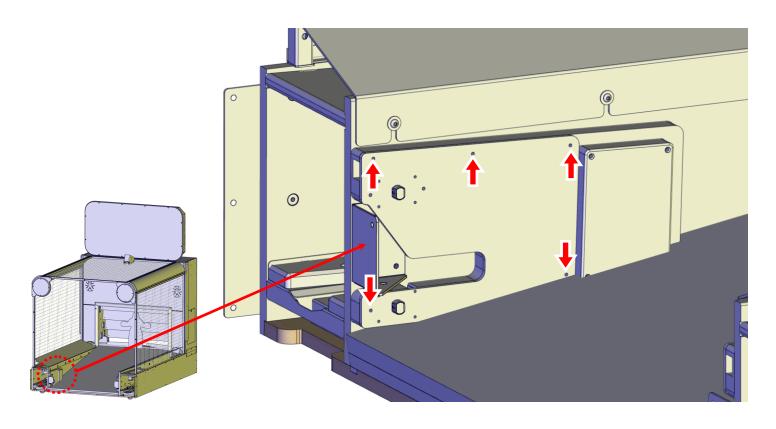
** NOTE ** Front cage is removed for Clarity!

At the upper front corner of the cage assembly, plug in a PS3027X cage corner cap and attach it to the cage assembly using two AA6281 Allen bolts.

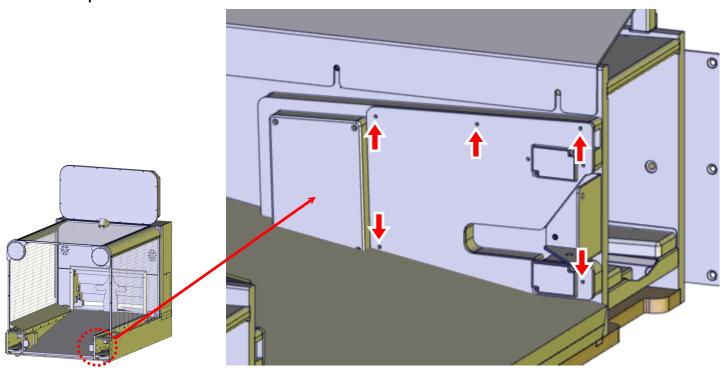


** NOTE ** Front cage is removed for Clarity!

At the front left floor level, remove the sensor array cover by removing the Phillip screws shown with the arrows. Put hardware aside.



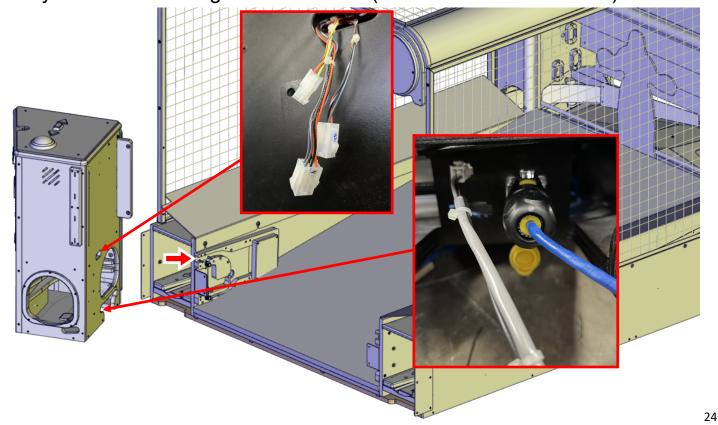
At the front right floor level, remove the reflector array cover by removing the Phillip screws shown with the arrows. Put hardware aside.



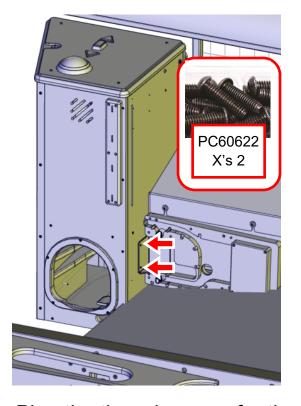
On the left podium, plug the network cable and harness at the bottom.

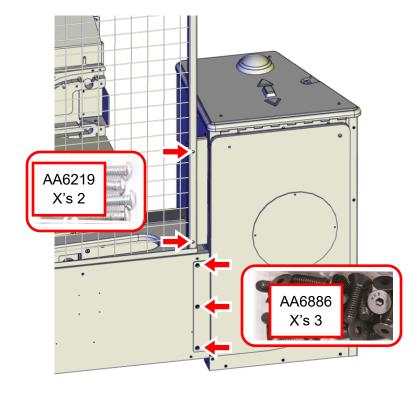
Then carefully move the podium against the front floor and cage assembly making sure the three harness are not pinched in the process.

They connect to the right side sensors (two of them on the cover).



Install two PC60622 Allen bolts at the front. Then two AA6219 silver screws to secure the cage to the podium. Three AA6886 flat head Allen bolts to secure the side of the podium.

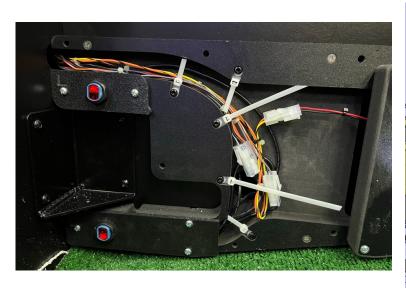


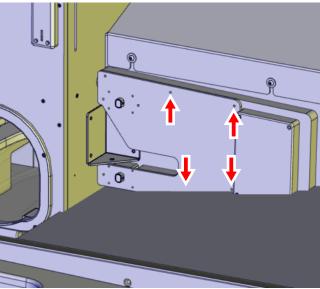


Plug the three harness for the left sensors in. Use the wire ties to keep the wires in the wire channel while you re attach the sensor array panel.

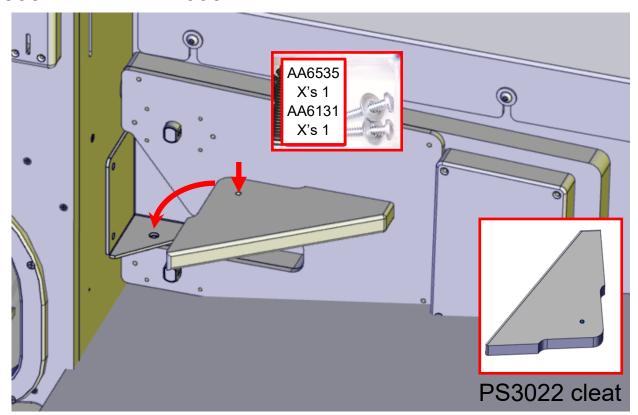
Use the Phillip screws you put aside to secure it.

DO NOT PINCH ANY WIRES DURING THIS PROCESS.



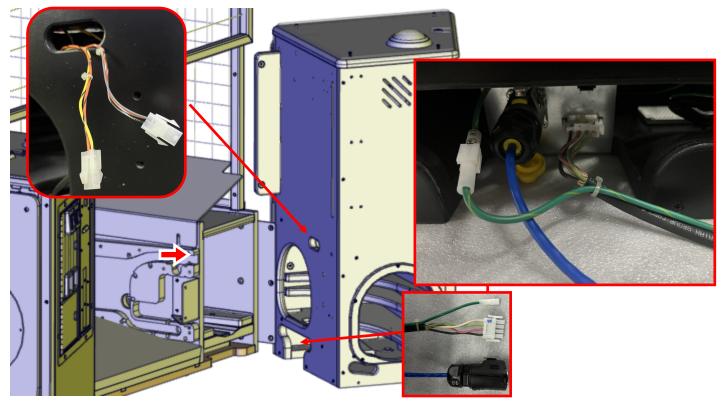


Attach a PS3022 cleat at the back of the left podium using one AA6535 bolts and AA6031 washers.

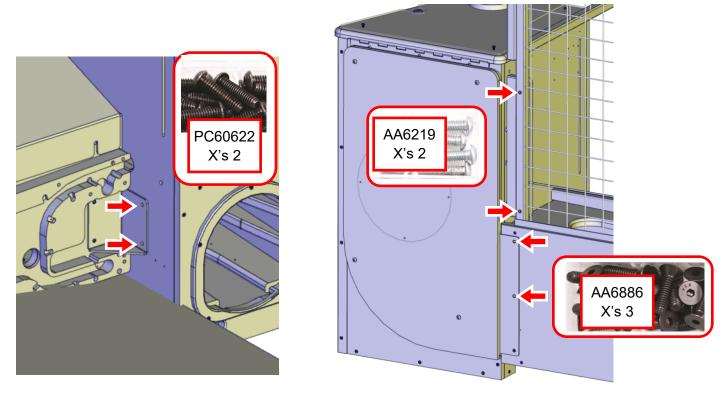


On the left podium, plug the network cable and AC at the bottom.

Then carefully move the podium against the front floor and cage assembly making sure the two harness are not pinched in the process.

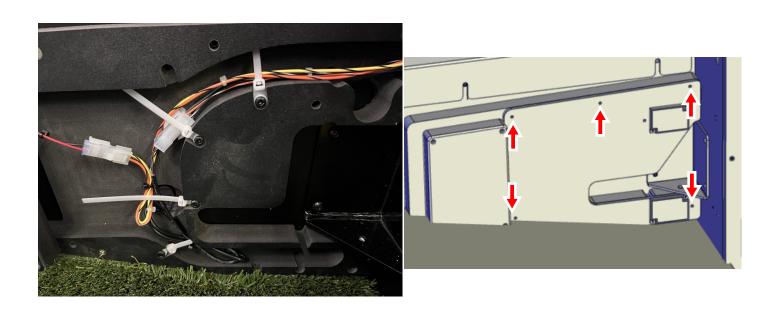


Install two PC60622 Allen bolts at the front. Then two AA6219 silver screws to secure the cage to the podium. Three AA6886 flat head Allen bolts to secure the side of the podium.

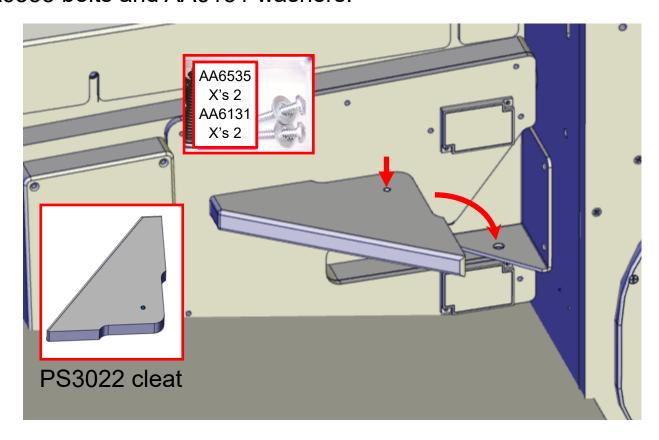


Plug the two harnesses for the right podium sensors. Use the wire ties to keep the wires in the wire channel while you re attach the sensor array panel. Use the Phillip screws you put aside to secure it.

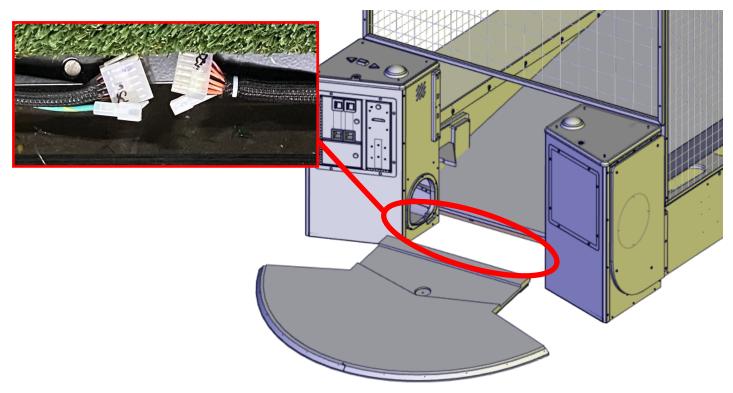
DO NOT PINCH ANY WIRES DURING THIS PROCESS.



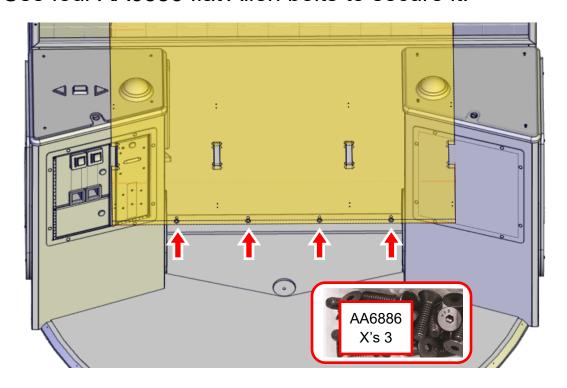
Attach a PS3022 cleat at the back of the right podium using one AA6535 bolts and AA6131 washers.



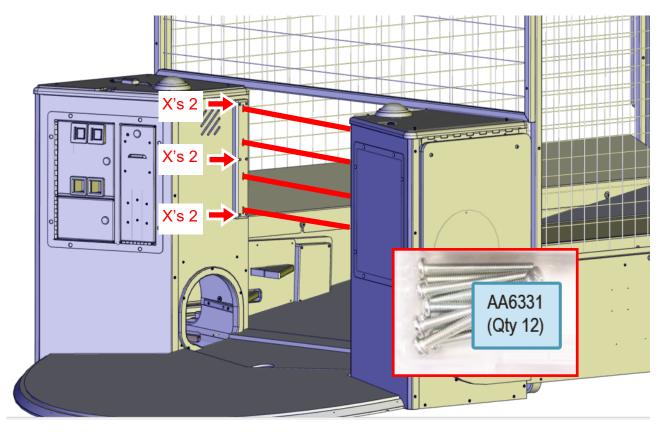
Slide floor up to front but do not attached until you plug in the harness that connects the two podiums together.



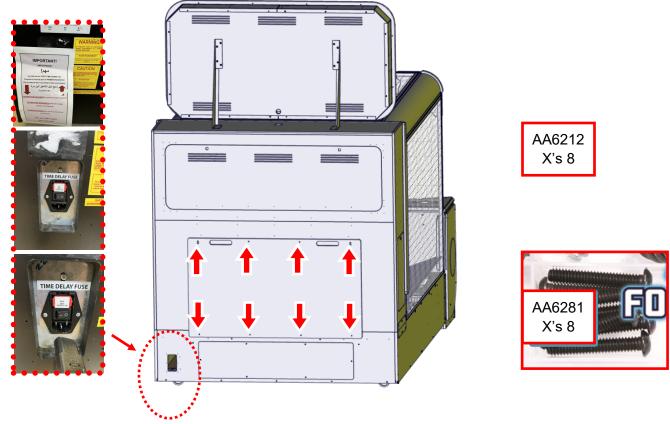
Lift the floor carpet up a bit to access the holes to attach the front floor. Use four AA6886 flat Allen bolts to secure it.



Attach the front foul line band assembly to the cabinet using six AA6331 screws on each side.



Re-install the upper and lower access panels. To install the middle panel, use eight AA6281 Allen bolts and AA6212 washers at the back shown with arrows.



The game has been shipped with eight balls.

DO NOT USE ALL EIGHT BALLS! ONLY SIX BALLS AT ANYTIME SHOULD BE USED.

Loading more than six balls will cause the game to jam during play.

Use the included air pump to pump up the balls.

USE INCLUDED TEMPLATE TO DETERMINE PROPER INFLATION.

Three balls should be loaded into each side of the game.

You can insert them by opening the side access panels.

If all balls end up on one side during play, the game will dispense a ball from the full side if the player selects the empty side.

First time you power on your game Instructions:

THE GAME WILL NOT FUNCTION UNTIL YOU PREFORM THIS CALIBRATION

Steps to clear "first build" or "calibrate"

The Goalie must be off of either sensor, if not then instructions to center goalie will be displayed Move goalie left – this checks that the left goalie sensor is good.

Move goalie Right – this checks that the right goalie sensor is good.

Put Ball in Left panel at Goal - this will check the function of the left 0 count sensor.

Put Ball in Right panel at Goal – This will check the function of the right 0 count sensor.

Press the left ball button – this will check if the button itself is working, when the ball ready sensor shows a ball is available, and when a ball dispense command is given.

It dispenses a ball.

There will be a 2 second delay and if the ball shows it has dispensed it will move on, if not, it will start the test over.

Press the Right Ball Button – this will check if the button itself is working, when the ball ready sensor shows a ball is available, and when a ball dispense command is given.

It dispenses a ball

There will be a 2 second delay and if the ball shows it has dispensed it will move on, if not, it will start the test over.

Kick the ball in Goal – This checks that the goal sensor is working

Press Left Arrow - Tests left arrow button

Press Right Arrow - Tests right arrow button

Block Foul Line (both at the same time) - Tests foul sensors.

Test is now complete. It will change the value of the first build option to 1.

You can interrupt this test by entering programming. There may be a up to a couple second wait before it goes into programming. Change the option value for First build to 1 and exit.

You can also enter diagnostics by holding the down button for 5 seconds in this mode also. You will primarily see the diagnostics screen, but a flash shows you what the first build screen would be showing to let you know where you stand.

NOTE: For sensors white indicates the sensor is blocked. Red indicates unblocked.

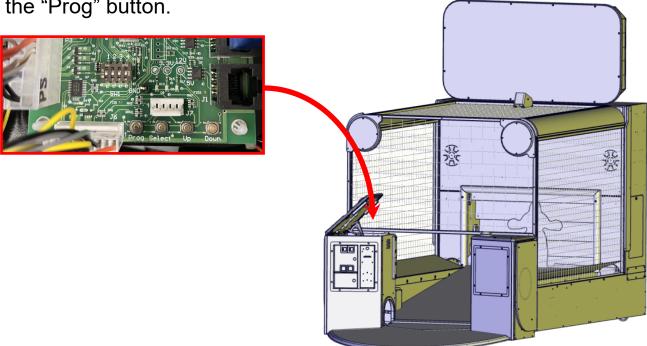


Above is what the diagnostic screen looks like. See section on diagnostics for explanation.

How to enter program options.

Unlock the left podium and open to access the program operator controls.





Programming Options version 109

Options:	min	max	def	inc	Description:
Attract Time in minutes	0	60	3	1	Time in Minutes.
Coin 1 Pulses	0	9	1	1	Coins/pulses per credit to start a game.
Coin 2 Pulses	0	9	1	1	How many Coin 1's is Coin 2 worth?
					If using same value coins on both lines, leave at 1.
					If using two value coins like quarter and dollar, 4 coin 1's would equal a dollar coin.
Maximum Credit	0	10	1	1	Maximum credits stackable, 0 = unlimited.
Main Game Time Seconds	30	90	45	15	Game Time in Seconds.
Tickets Multiplier	0	2	1	1	$2 = \frac{1}{2}$ tickets, $1 = 1$ ticket, $0 = 0$ tickets.
Tickets per goal	0	25	4	1	Tickets given per goals scored.
Minimum Tickets	0	10	10	1	Minimum Tickets per game regardless of score
Minimum Bonus Start	0	50	20	1	Starting/Min Bonus Score.
Bonus Tickets Given	0	1000	100	5	Bonus Tickets if Bonus Won.
High Score Tickets	0	100	0	1	Tickets won if high score is achieved.
Game Losses per	0	20	10	1	Bonus Score Games Dec (-1)
Bonus Reduction					
Save bonus Value	0	1	0	1	Save Bonus after power loss. 0=NO, 1=YES.
High Score Reset	0	1	0	1	Reset High Score if set to 1.
High Score Save	0	1	0	1	Save High Score after power loss. 0=NO, 1=YES.

Options:	min	max	def	inc	Description:
Game Volume	0	12	7	1	Foreground Volume
Music Volume	0	12	5	1	Background Volume
Cheat Sensitivity	0	50	0	1	Cheat sensitivity 0 = Off
First Build Finished	0	1	0	1	0 = Validation Test, 1 = Test passed
Max Balls Playable	1	2	2	1	Max balls released at the same time to the player.
Bonus Ending Enable	0	1	1	1	0 = off, 1 = On
Coin Discounting	0	25	0	1	0 = non, # of coin pulses to get credit
Clear Tickets and Credits	0	1	0	1	1 = Reset Saved Coins and Tickets
Factory Reset	0	1	0	1	Factory Reset if set to 1.
Main Board Revision	-,-,-,-				Displays Main Code Rev
Front Board Revision	-,-,-,-				Displays Front Board Rev
Left Board Revision	-,-,-,-				Displays left Target board Rev
Right Board Revision	-,-,-,-				Displays right Target board Rev
Goalie Board Revision	-,-,-,-				Displays Rear Goalie Board Rev
NOTES:					

Ticket Multiplier = 0 and Tickets for bonus = 5 Free game on Bonus.

Ticket Multiplier = 0 and Tickets for bonus = 0 No Free Game just initials.

For the option to take, you need to press "select" past the option then you can exit programming.

The game will reboot upon exiting.

Press Select for 4 seconds will display the games balls out counter only during game play

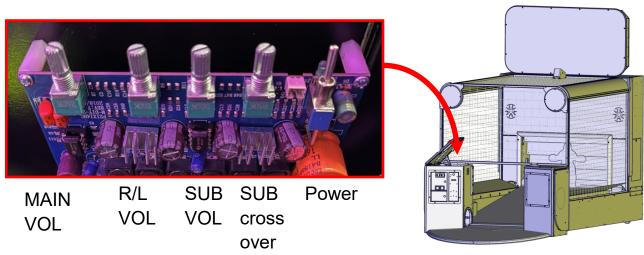
Pressing Up will enable the Accounting mode screen, which self-times out – Pressing down while in accounting will clear accounting numbers

Main Game Time in Seconds means that the primary game will be about that amount of time.

So this time is NOT including the Bonus time or the 10 seconds after if all balls have not be returned.

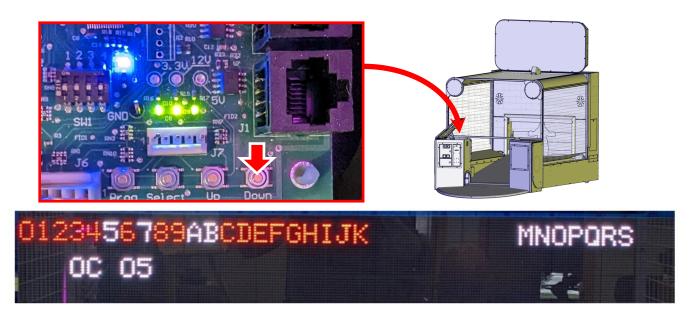
Volume controls:

If after setting the digital controls you find the game not loud enough or too loud, you can adjust the amplifier itself.



World Football Pro Diagnostic Menu

To enter diagnostic mode, in attract mode (not in game mode), open the left podium lid and press and hold the down button for five seconds.



Left side numbers are inputs, right side are boards

LEFTSIDE:

0	Goal input from Score Display Board	1	Foul line 1 from Front Board	
2	Foul Line 2 from Front Board	3	Left Exit Ball Sensor Target board 1	
4	Right Exit Ball Sensor Target board 2	5	Cheat Sensor from Score Display Board	
6	Goalie Right from Target 3	7	Goalie Left from Target 3	
8	Left Ball Release Button board 1	9	Right Ball Release Button board 2	
Α	Left Ball Available from Target 1	В	Right Ball Available from Target 2	
С	Right Zero Count	D	Left Zero Count	
E	Left Arrow from Front Board	F	Enter Button from Front Board	
G	Right Arrow from Front Board	Н	Program Button from Front Board	
I	Select Button from Front Board	J	Up Button from Front Board	
K	Dn Button from Front Board	L	SD card audio files(s) incorrect / SD card Removed (after Boot)	
RIGHTSIDE:				

IVI	Score Matrix Board - Rear Cabinet	N	Front Board – Left Front Podium
0	Target 1 Board Left Front Podium	Р	Target 2 Board Right Front Podium
Q	Target 3 Board – Rear Cabinet Board (or Goalie board)	R	Right Side Time of Flight Rear Cabinet or
S	Left Side Time of Flight Board Rear Cabinet		Goalie board emulated

Note that the scrolling sign does not currently display a missing code, since if it is not working then how can it tell you it is not working since there is no way to know it.

For sensors RED indicates the sensor is blocked. White indicates unblocked.

There are two numbers that are below the Button indicators. The one on the left, or the first number, refers to the value that is being read from the bar/goal piezo. The one on the right, or second, refers to the valued being read by the goalie piezo. This is useful to set the sensitivity for the audio triggers if there is an issue with the piezo.

Error Conditions and solution.

<u>Blocked Goal, Call tech</u> - There are three sensors used to detect a ball in the goal area. If one of them is blocked for more than 5 seconds, this error will be displayed and game play will be disabled until correct. The sensors are connected in parallel which means if one is blocked, all are blocked to the game. At the back of each sensor you will find a small LED light. If they are solid orange, they are aligned and not blocked. If they are flashing orange, they are at the edge of alignment. If they are off, they are blocked or not aligned.

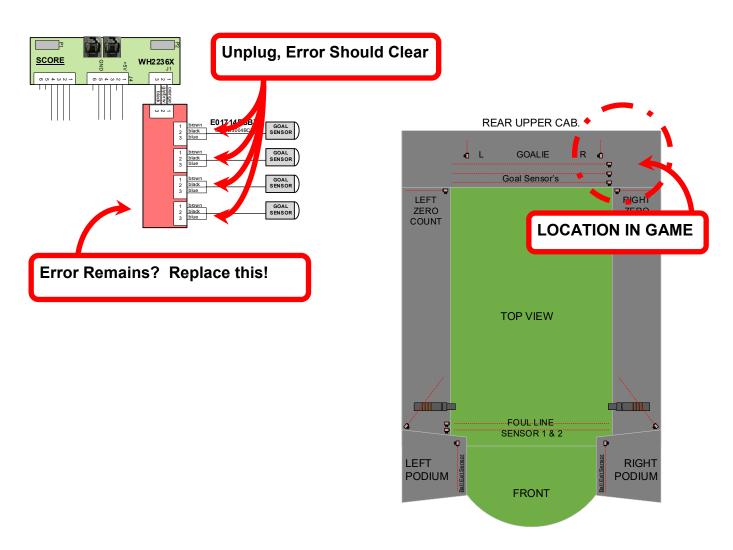
To verify a bad sensor, unplug all sensors.

If the error cleared, then plug one sensor at a time waiting 15 seconds between plugging the next sensor in. Repeat until the error is displayed again. Replace that sensor which caused the error to reappear.

If the error didn't clear, unplug the CG2041X board.

If cleared, replace CG2041X board.

If not cleared, check harnessing and if good, replace Score display board (WH2236X)

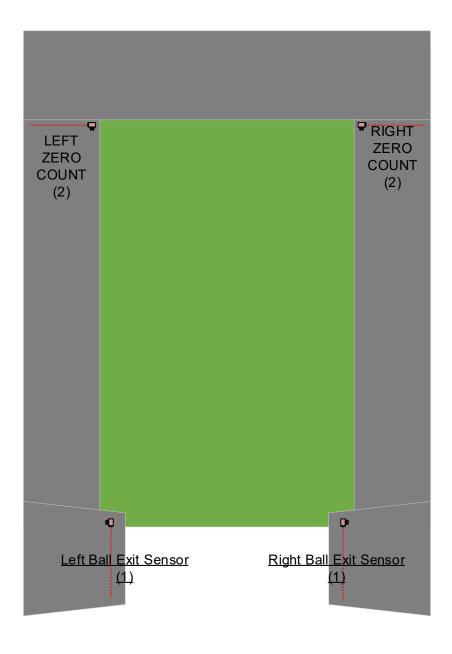


Error Conditions and solution.

<u>Call tech, left or right 1or 2 blocked</u> - This condition can occur if too many balls are loaded into the game, if either of the side exit sensors are damaged or blocked, or the through sensors are damaged or blocked. At the back of each sensor you will find a small LED light. If they are solid orange, they are aligned and not blocked. If they are flashing orange, they are at the edge of alignment. If they are off, they are blocked or not aligned.

Ensure no more than 3 balls are loaded at each side. Remove extras. Never allow more than 6 balls to be loaded into the game. If too many balls are sensed on a side, the game will disable that side. If any of these sensors go bad or become misaligned, the game will shut down that side.

See diagnostics for status of each sensor. 3 and 4 are the left and right exit ball sensor. C and D are the right and left zero count sensors.



Error Conditions and solution.

<u>Double Tap to dispense a ball</u> - If you find during play that you have to double tap one side in order to have a ball dispensed, the motor timing needs adjusting.

Located in each podium is the control board for the motors. They have small switches on them to adjust the timing. Switch bank 1 has 1 - 4 while switch bank 2 has 5-8.

Dip switch 3 and 4 are the two you will need to adjust.

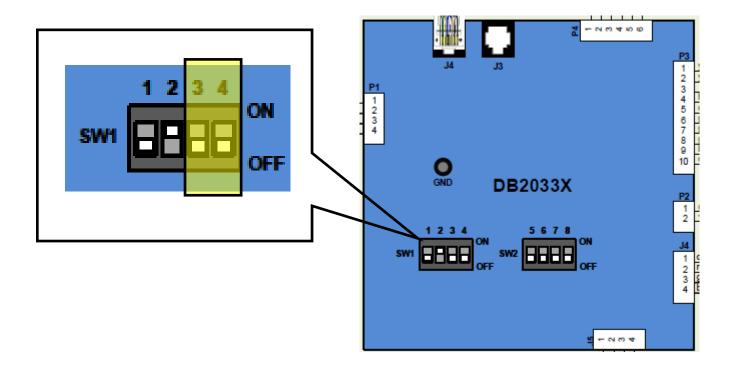
Here is the settings for the dip switches:

3 4 Speed

Off Off 100ms (shortest)

On Off 125ms

On On 150ms (longest)





I.C.E. Inc warrants all components in new machines to be free of defects in materials and workmanship for the period listed below:

- 180 days on Main PCB's, Computers & Motors
- 1 year on all LCD monitor panels
- 90 days on all other electronic and mechanical components
- 30 days on all I.C.E. repairs and parts purchases

I.C.E. Inc shall not be obligated to furnish a warranty request under the following conditions:

- Equipment or parts have failed through normal wear and tear
- Equipment has been subjected to unwarranted stress, abuse or neglect
- Equipment has been damaged as a result of arbitrary repair/modification

Products will only be covered under warranty by obtaining an I.C.E. authorized RMA #. To obtain an RMA # please provide I.C.E. tech support with the game serial # or original I.C.E. invoice # and a detailed description of the failure or fault symptoms.

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