



## **Service Manual**

Innovative Concepts in Entertainment

10123 Main Street

Clarence, New York 14031

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## 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 users is 6 AMPS at 250Volt type slow blow.

The value of the fuse for 230 users is 3.5 AMPS at 250Volt type slow blow.

# Before Getting Started

## Tools Required

7/16 socket & wrench

Phillips Screw Driver

## Included

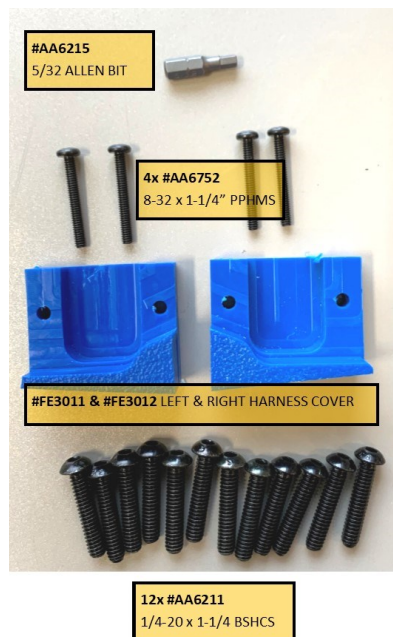
5/32 Security Bit

3/16 Allen Wrench

If you are missing any of these items please contact ICE Service Department at (716) 759-0360.



OR

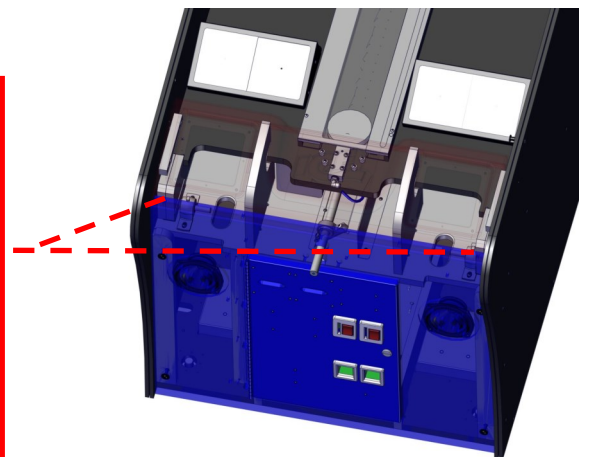
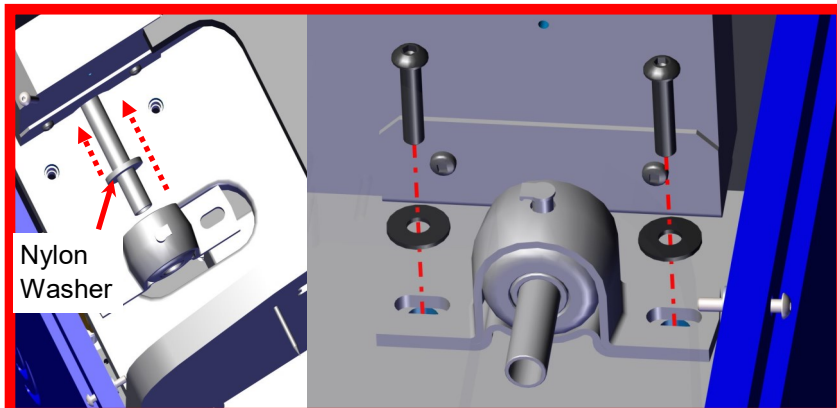
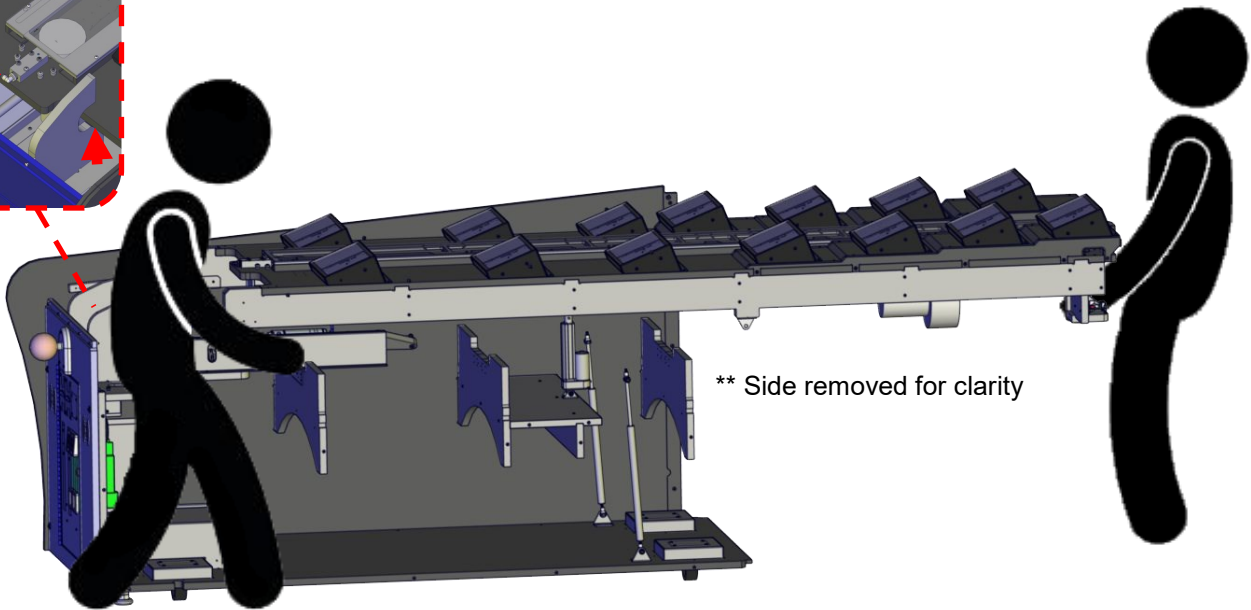
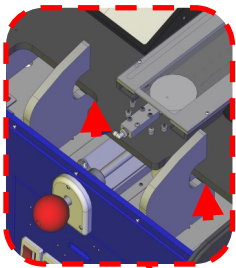
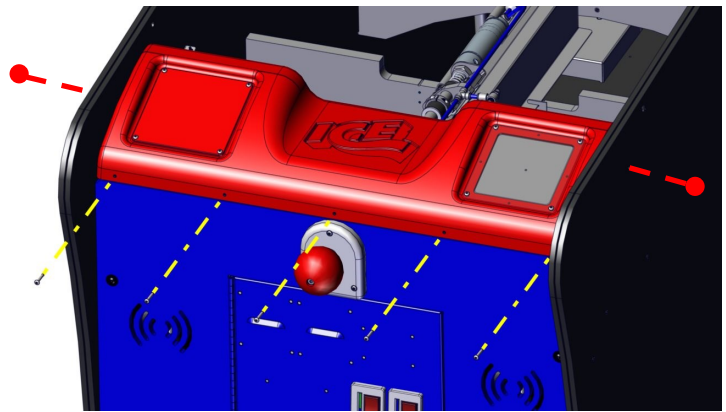


# Playfield Install (Skip if already installed).

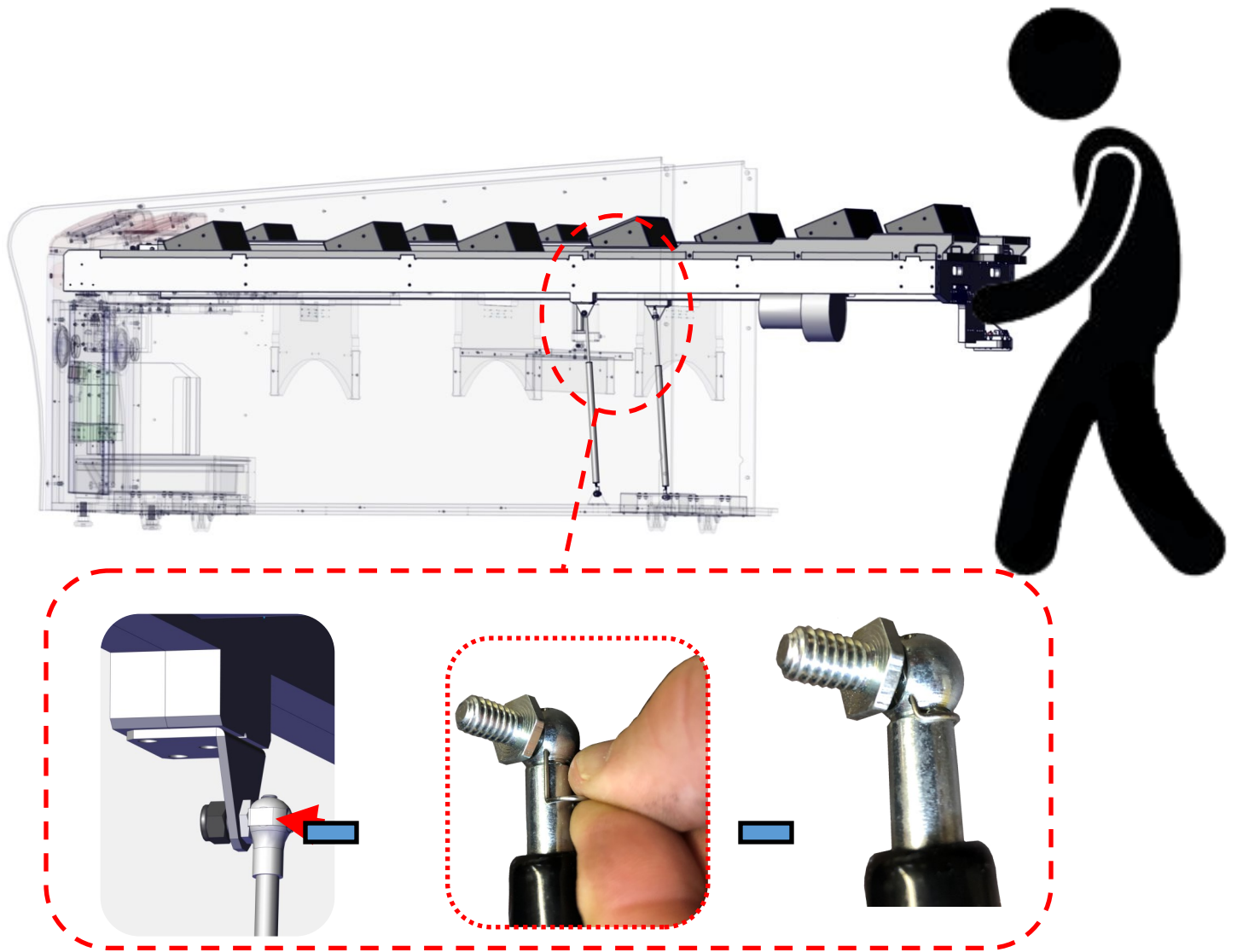
**Step 1** - Locate the front cabinet. Remove the plastic formed control panel if installed. There are five screws at the front and one on each side (early models have two). Put hardware aside.

**Step 2** - Lift the playfield carefully with a helper over the wood supports of the front cabinet. The playfield is secured with two ball joints at either side. Arrows show where the playfield should be aligned.

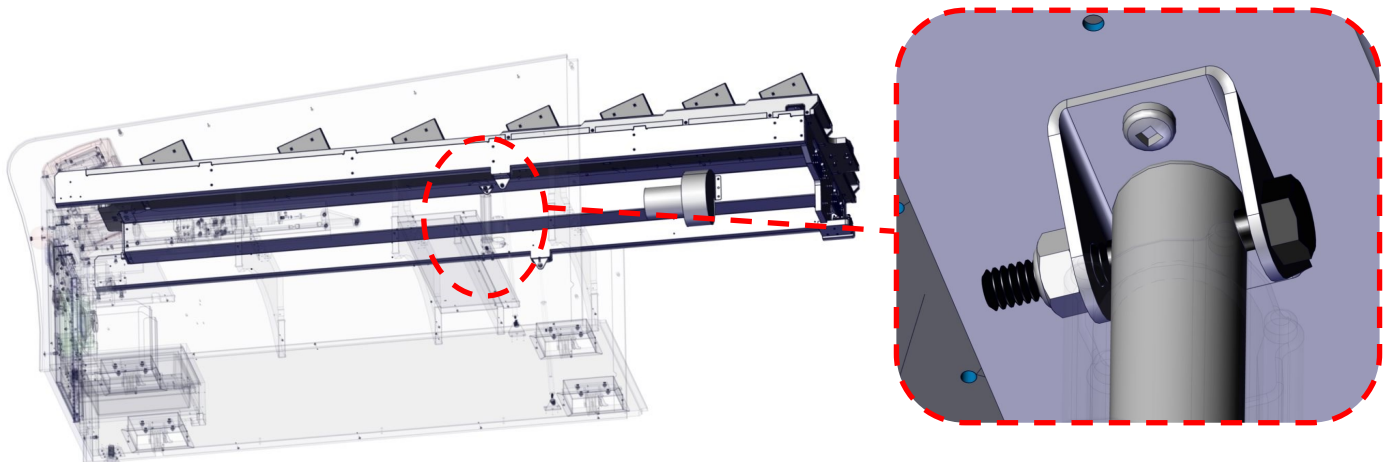
**Step 3** - Slide the ball joints onto the front shafts. On the left shaft add two AA0658 washers, on the right shaft add one AA0658 washer. Then secure to the cabinet using two AA6211 Allen bolts and AA6212 washers.



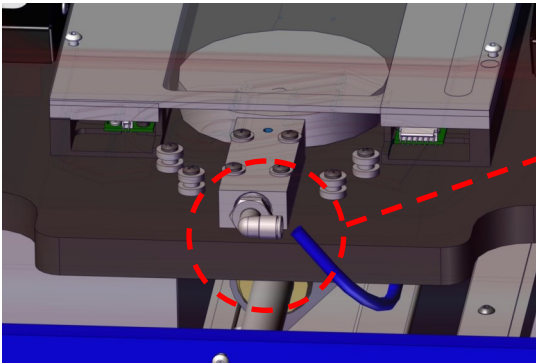
**Step 2** - While someone lifts up on the back of the playfield, attach the shock absorbers by pushing the ball joint onto the shock. Then insert the lock pin into the ball joint and snap into place.



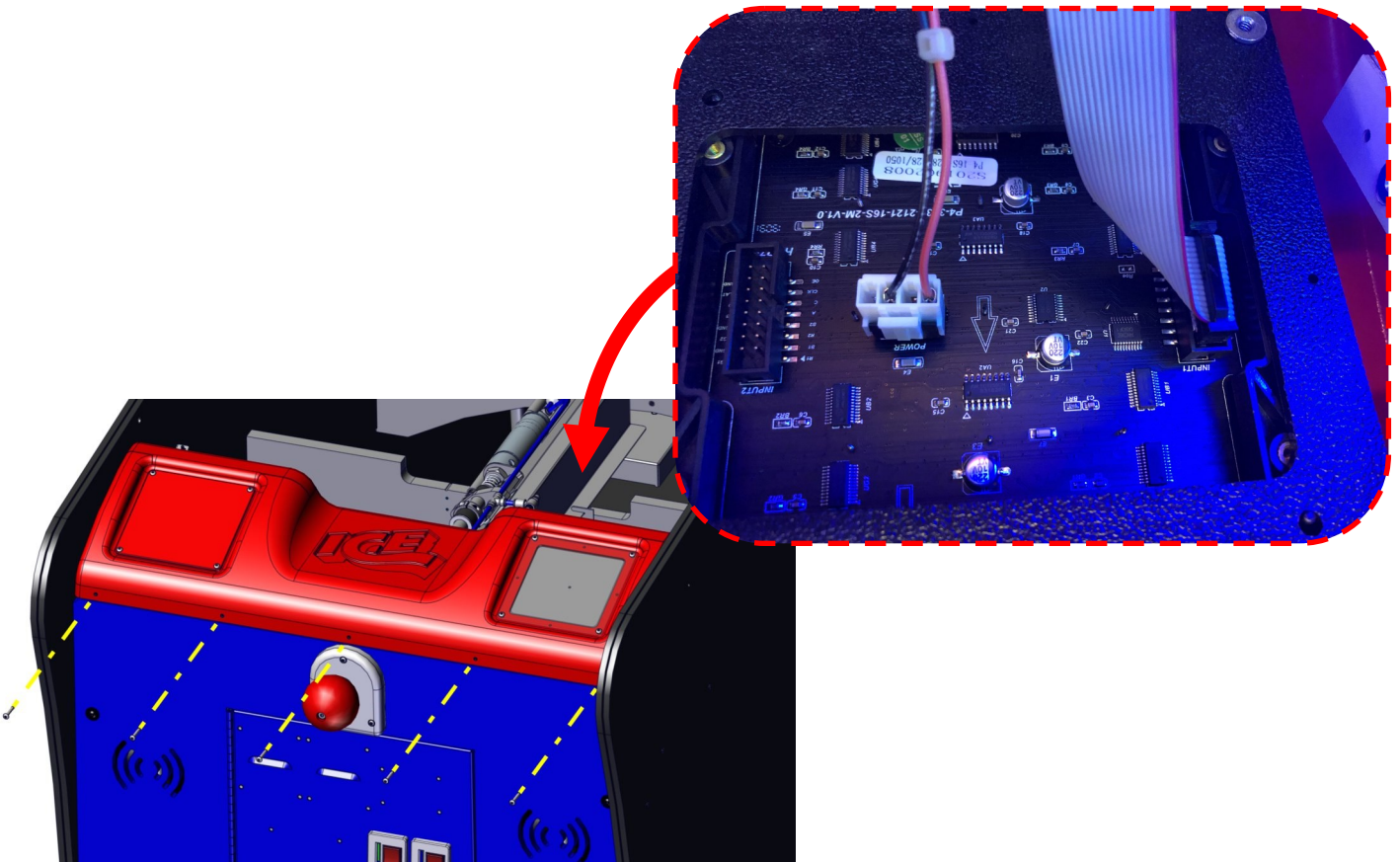
**Step 3** - Lock the actuator piston into the playfield by using one AA6202 Hex bolt and PC60604 nylock nut.



**Step 4** - Push the blue hose into the puck shooter hose block until it will no longer push in. If need to remove, push the black ring shown with the yellow arrow and pull the hose out.

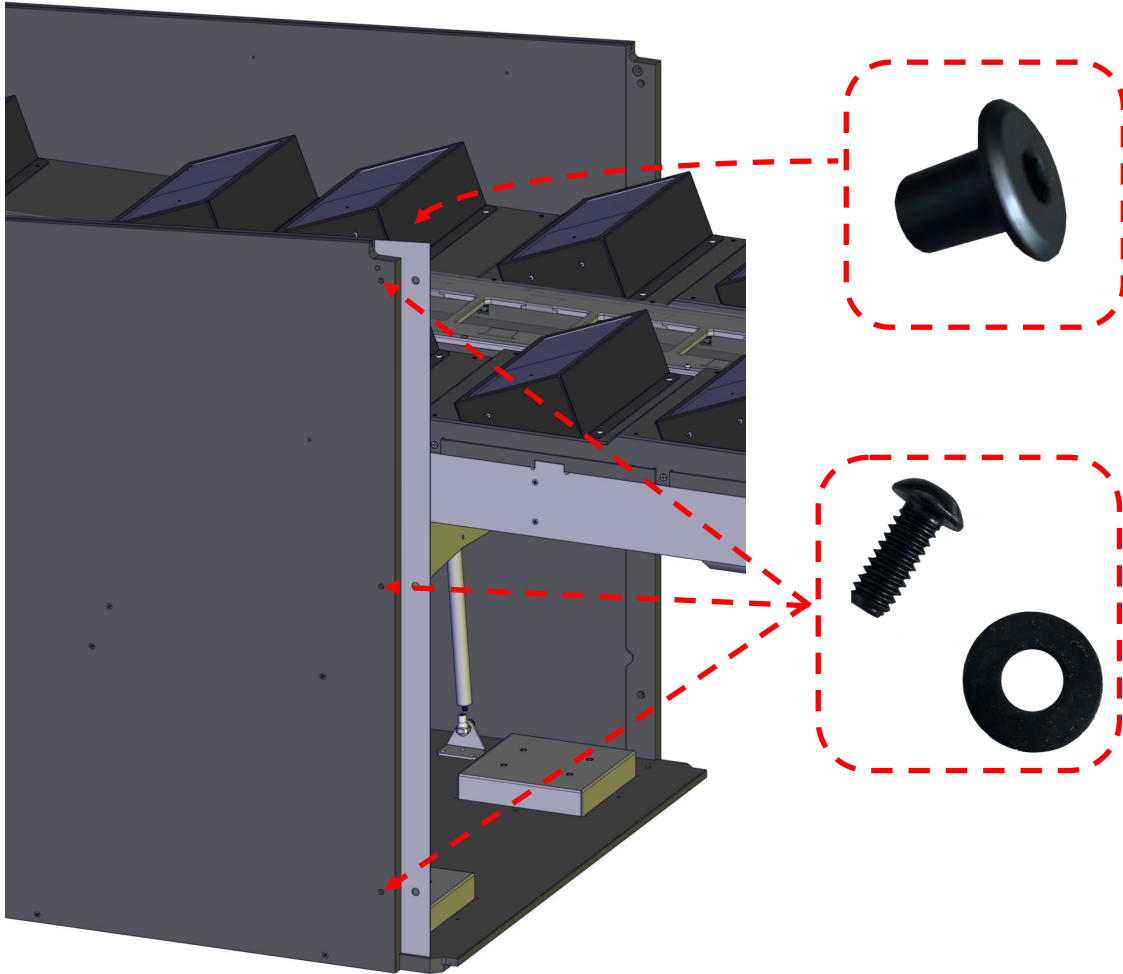


**Step 5** - Reinstall the control panel using the hardware you put aside. Plug the display ribbon cable and power cable into the display board.



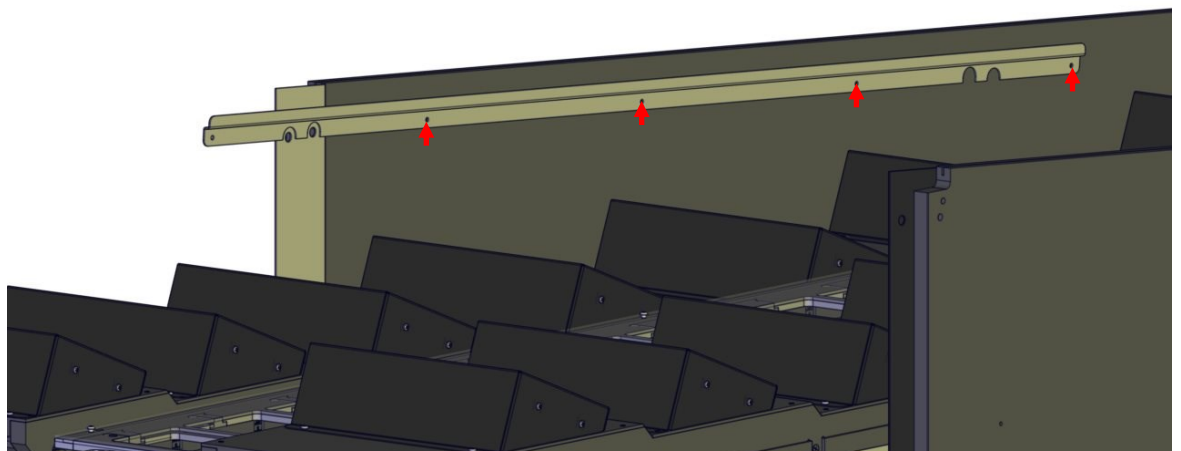
## Bracket Install (Skip if already installed).

**Step 1** - On both sides of the front cabinet install the cabinet connector bracket using three PC60601 Allen bolts and three AA6212 washer on the outside. AA6444 joint connectors are used only for the top connection on the inside.



### Step 2 -

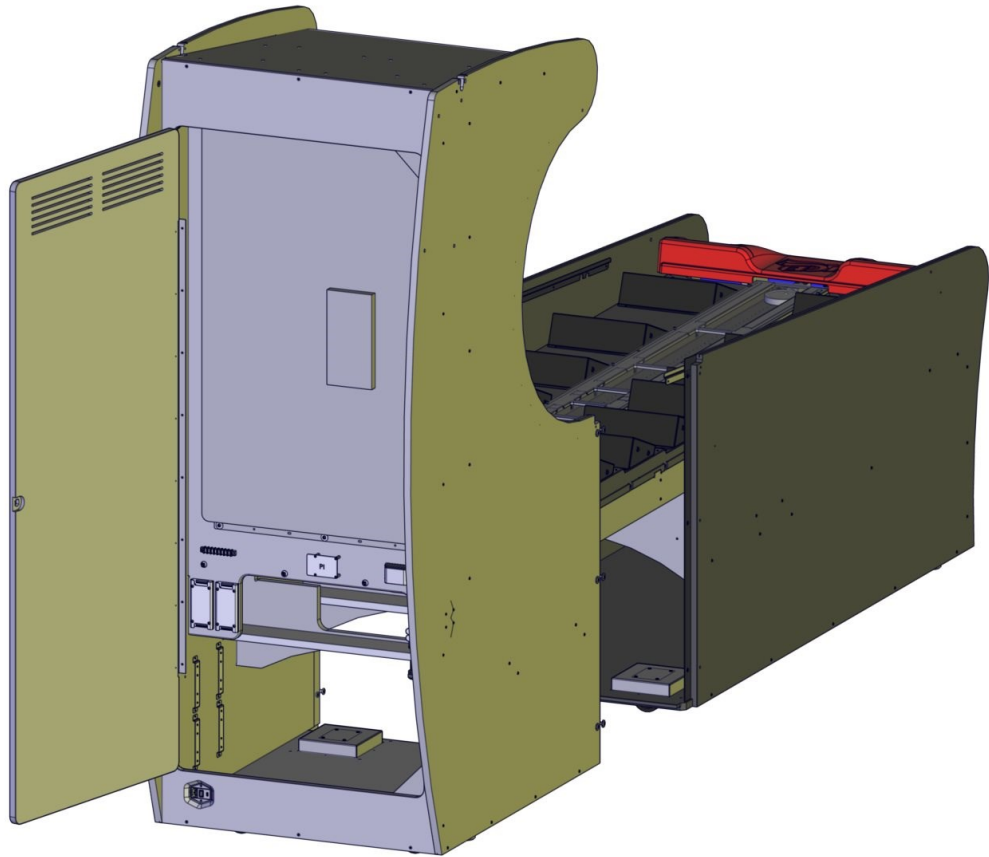
Install the slide plastic rails to the inside of the front cabinet using four 655 square bit screws.



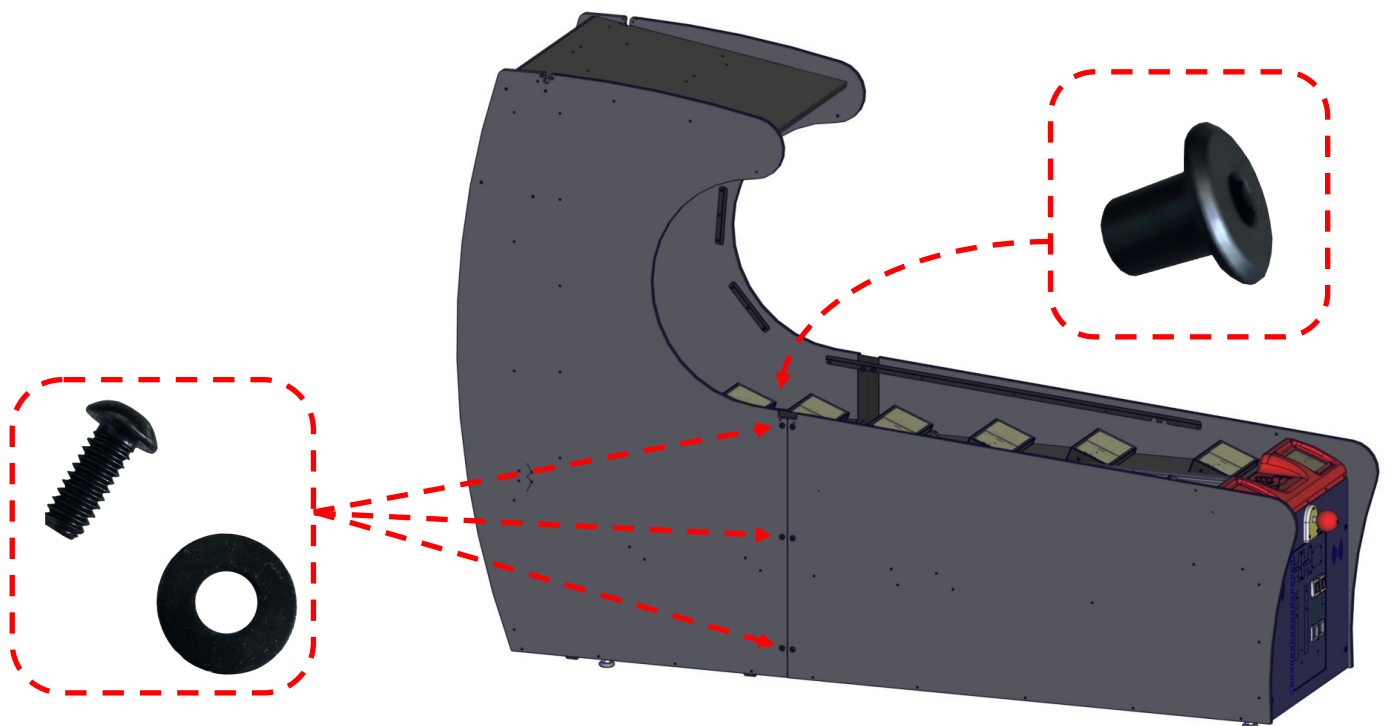
# Front cabinet to back cabinet install (Skip if already installed).

**Step 1** - Open the back door and slide the front cabinet into the back cabinet.

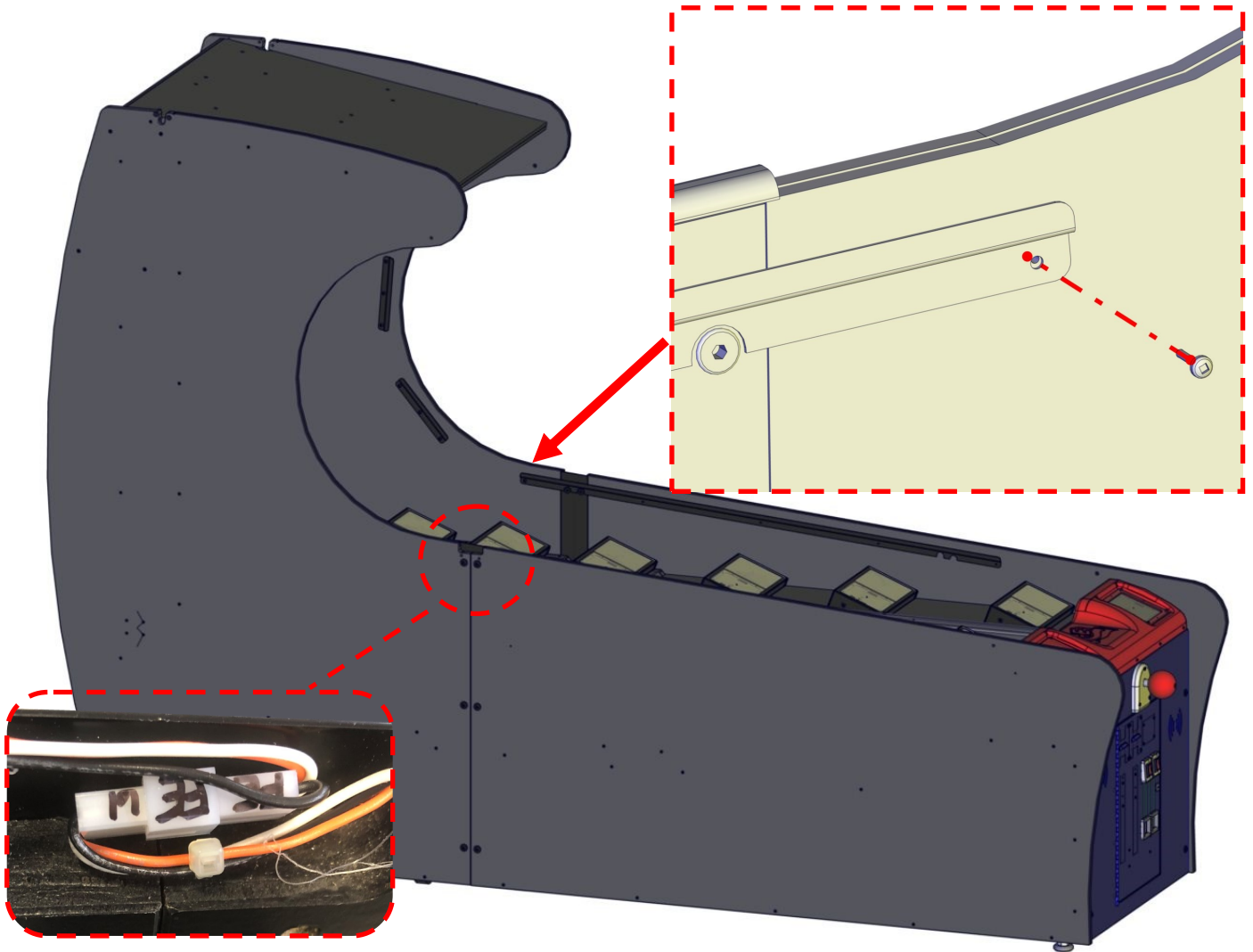
**Be careful not to damage wires and circuit boards as you slide the two halves together.**



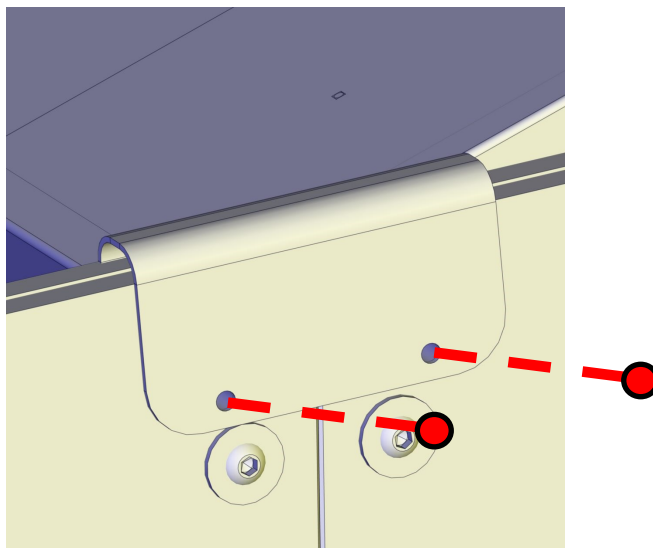
**Step 2** - Start at the top hole. Use a PC60601 bolt and AA6212 washer on the outside and AA6444 joint connector on the inside. Secure the top holes on both side. Then if any gaps appear at the bottom, slightly lift the cabinet on one side until the gap closes, then secure the bottom.



**Step 3** - Secure the side metal glass brackets to the back cabinet using one 655 on each side. Then connect the LED strip connectors on both sides.



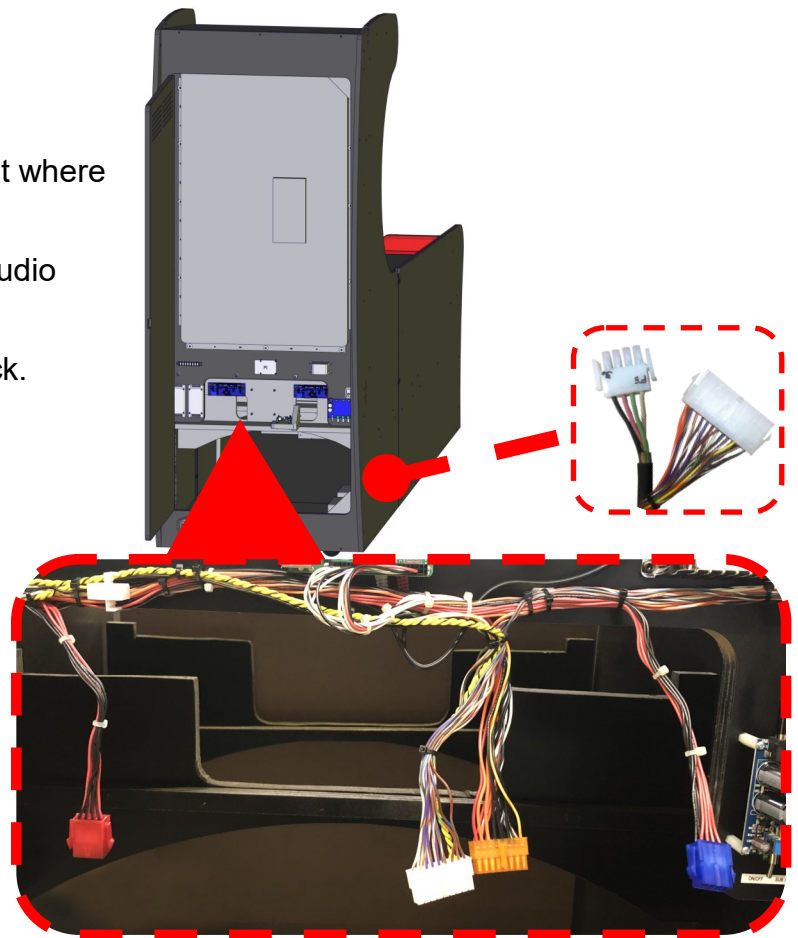
**Step 4** - Cover the LED wire harnesses on each side. Use two AA6913 screws to secure the cover.



**Step 5** - Connect the two harness on the right where the two cabinets halves are connected.

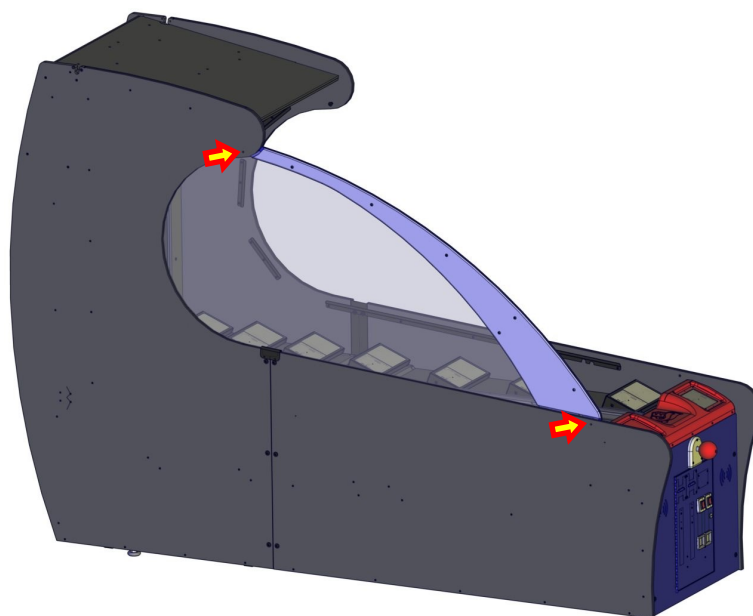
At the back of the cabinet connect both the audio blue and red connectors.

Then connect the two at the center in the back.

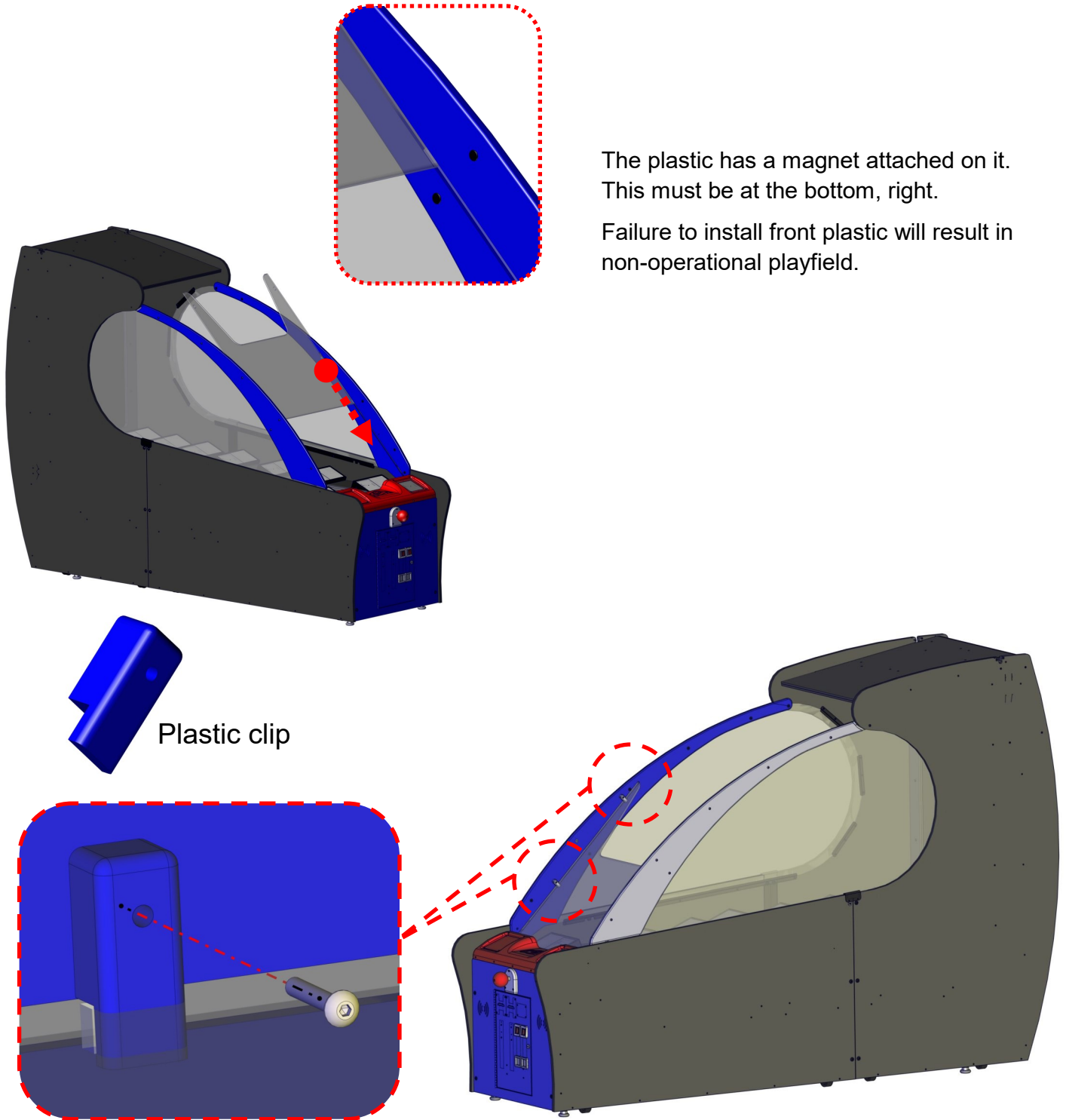


## Side Plastic Install (Skip if already installed).

**Step 1:** Attach both assembled sides onto the cabinet using Silver AA6048 screw and AA6075 washer on the outside and AA6444 joint connector on the inside. Attach the other side at this time.



**Step 2** - Locate the front plastic. Insert the plastic into the slots at the side of the side plastics. You might have to push the side plastics slightly until the front plastic is fully inserted into the slots.

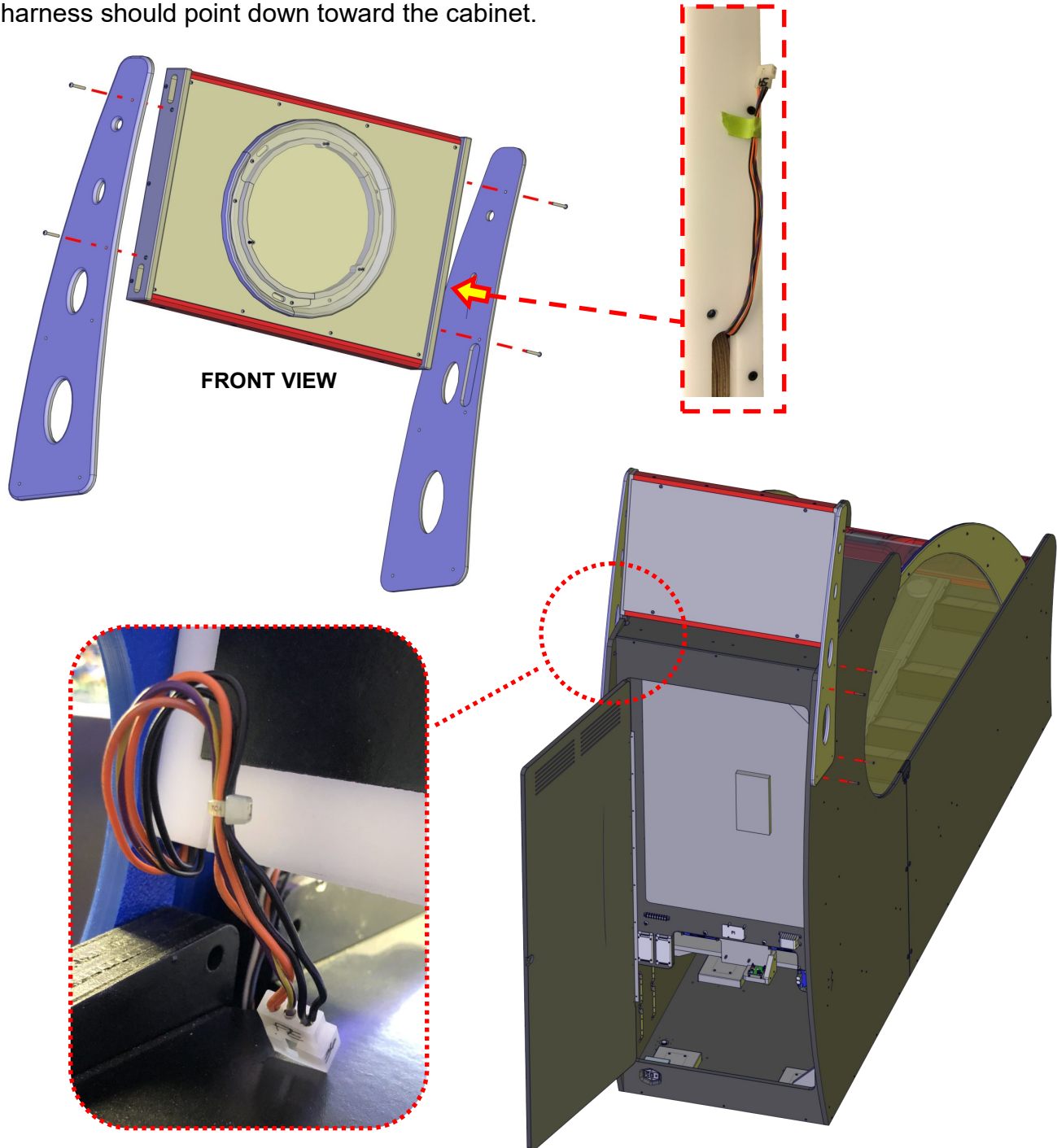


**Step 3** - To secure the front plastic, there are four slots. Insert the plastic mounting brackets into those slots. Use one AA6953 Allen screw on each plastic bracket

## Upper Marquee Install - Skip if already installed.

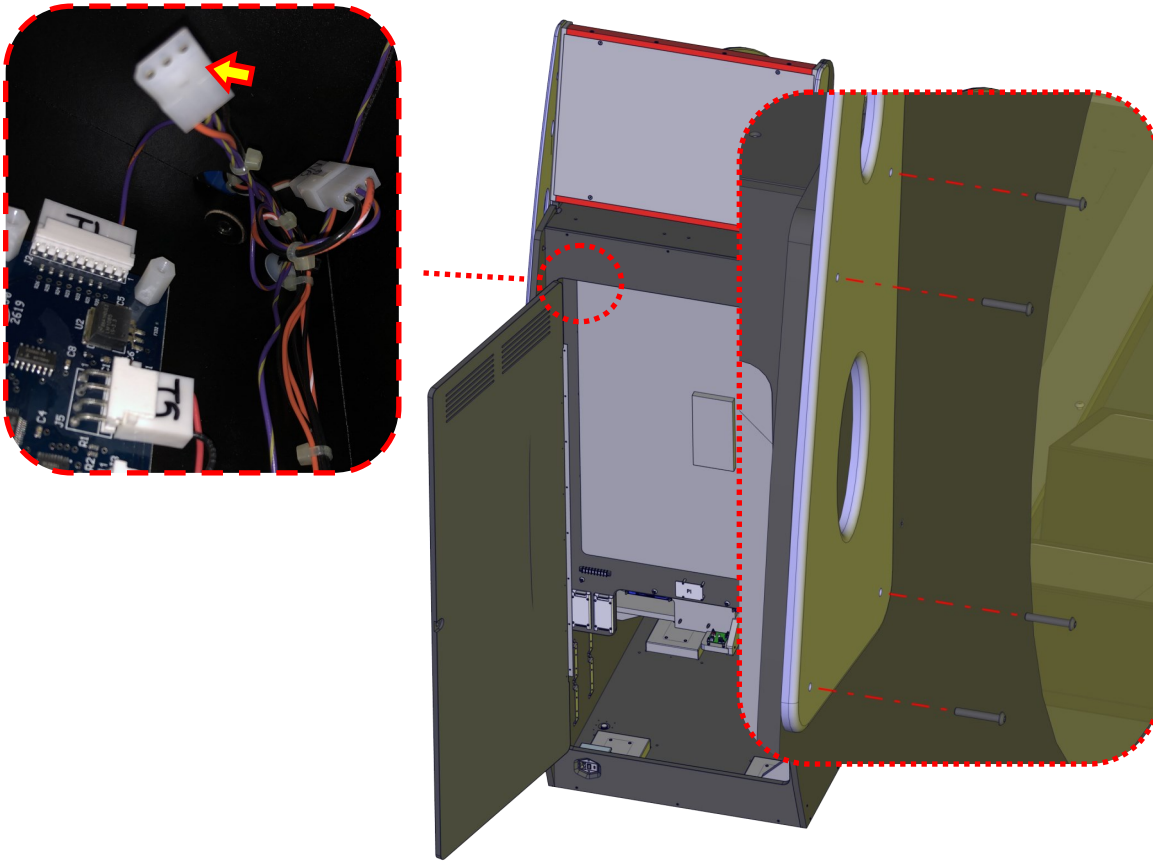
**Step 1** - Marquee components are located at the back of the cabinet. Remove the components from the game and unwrap. Hardware is located in the hardware kit. Attach the top left and right supports using four AA6211 on both sides. On the right side is the harness, when attaching the right side support, make sure that the harness does not get pinched when securing. There is a slot cut into support to accommodate the wire harness.

The harness should point down toward the cabinet.

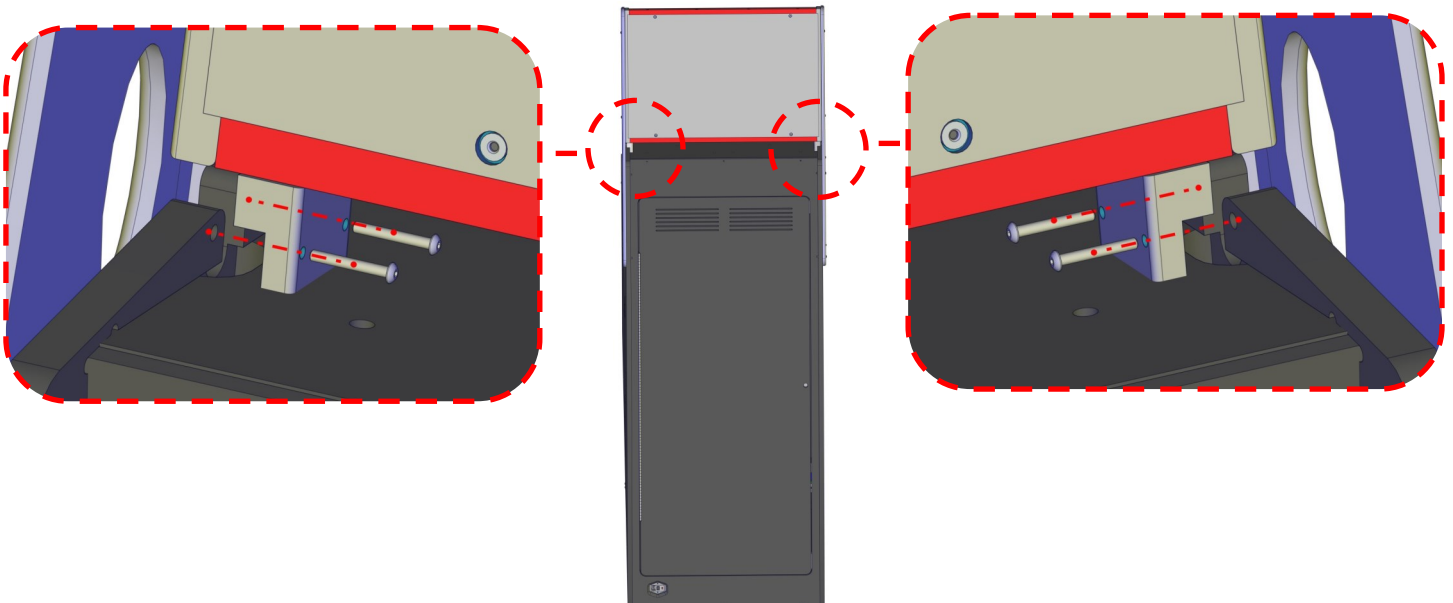


**Step 2** - Open the back door. Lift the marquee assembly up onto the cabinet. Insert the marquee harness into the top hole at the left.

**Step 3** - Carefully attach the marquee using four AA6211 Allen bolts at each side. The marquee is heavy for its size so a helper is recommended. The mating connector is located inside the cabinet shown in the diagram. Connect the harness.

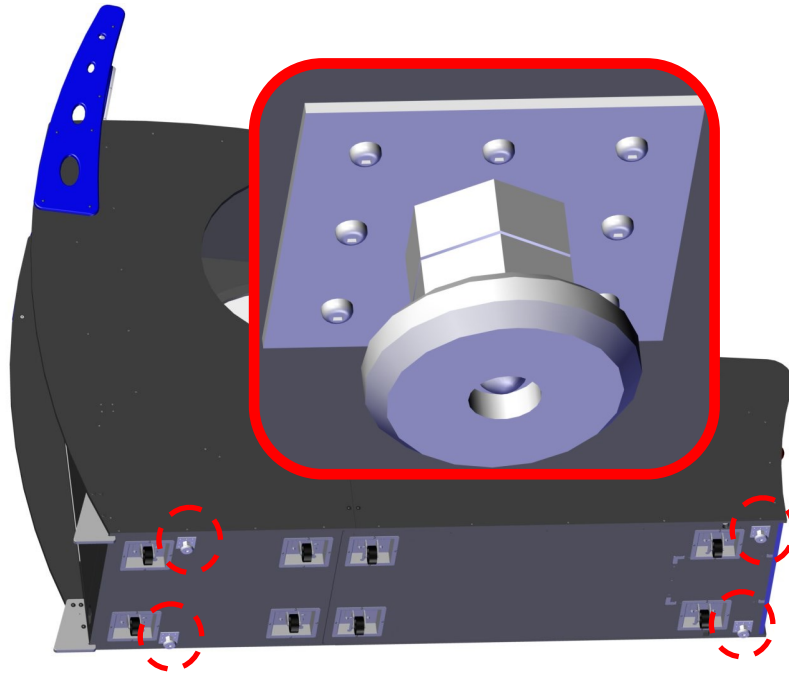


**Step 4** - Install the upper wire covers onto the top sides of the cabinet using two AA6752 Allen bolts.

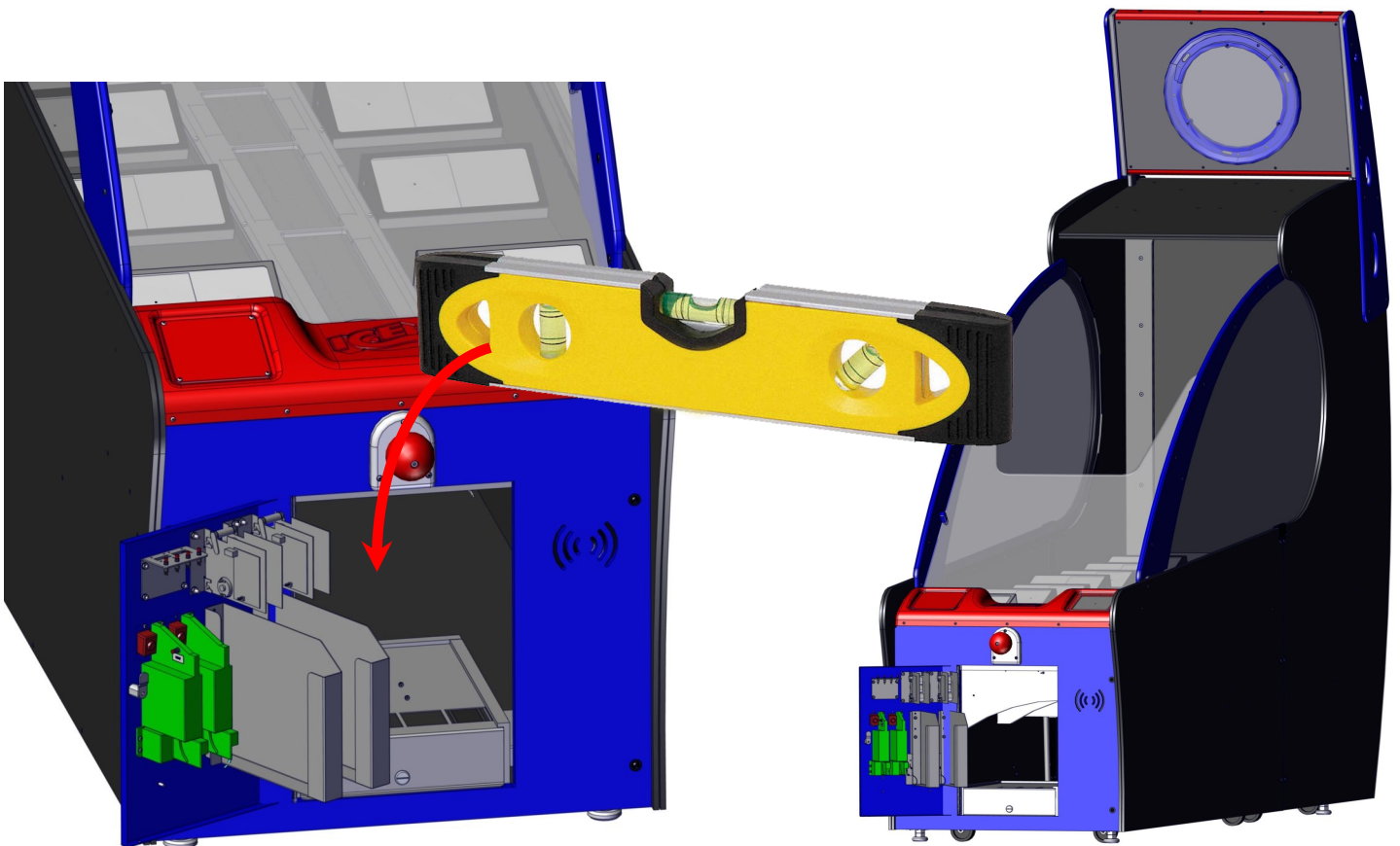


## Secure and Level the Cabinet - Required STEP regardless of how shipped.

**Step 1** - Roll the game into it's final position. At each corner of the cabinet are leg levelers. Lower the leg levelers to that the cabinet wheels are no longer able to move the cabinet around.

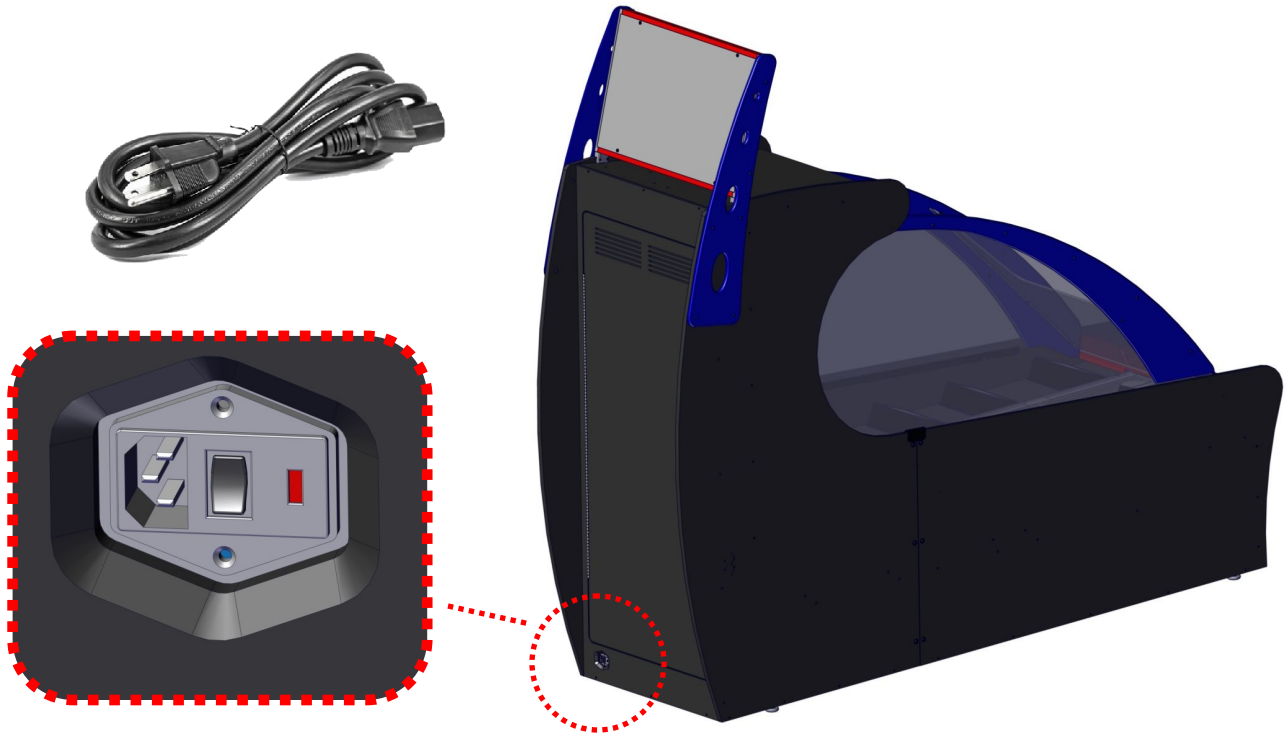


**Step 2** - Using a level, adjust the leg levelers until the cabinet's playfield is leveled. Place the level inside the cabinet through the front of the cabinet.



## GETTING STARTED

The AC cord is located at the front where you found the hardware kit. Plug the AC cord into the back of the game. Turn the power switch to the on position.



Upon power up the back display will show text scrolling very fast. The revisions of software install will be display at the lower two displays on the play field. The playfield will raise and lower. In a few seconds the display will begin to show video and finally the dot matrix displays will show a value. The game is ready to be programmed or if already pre-setup, played.

### **My game didn't move the playfield? Is it broken?**

The game has interrupt switches that will cut power to the device which moves the play field. Make sure all access doors are closed and front plastics are installed.

### **My game didn't display any text or video. Monitor is working.**

Check the power connections to the PI (it has the HDMI cable connected to it). Make sure the SDCARD is present and inserted.

### **My game plays video but the upper display is still blank.**

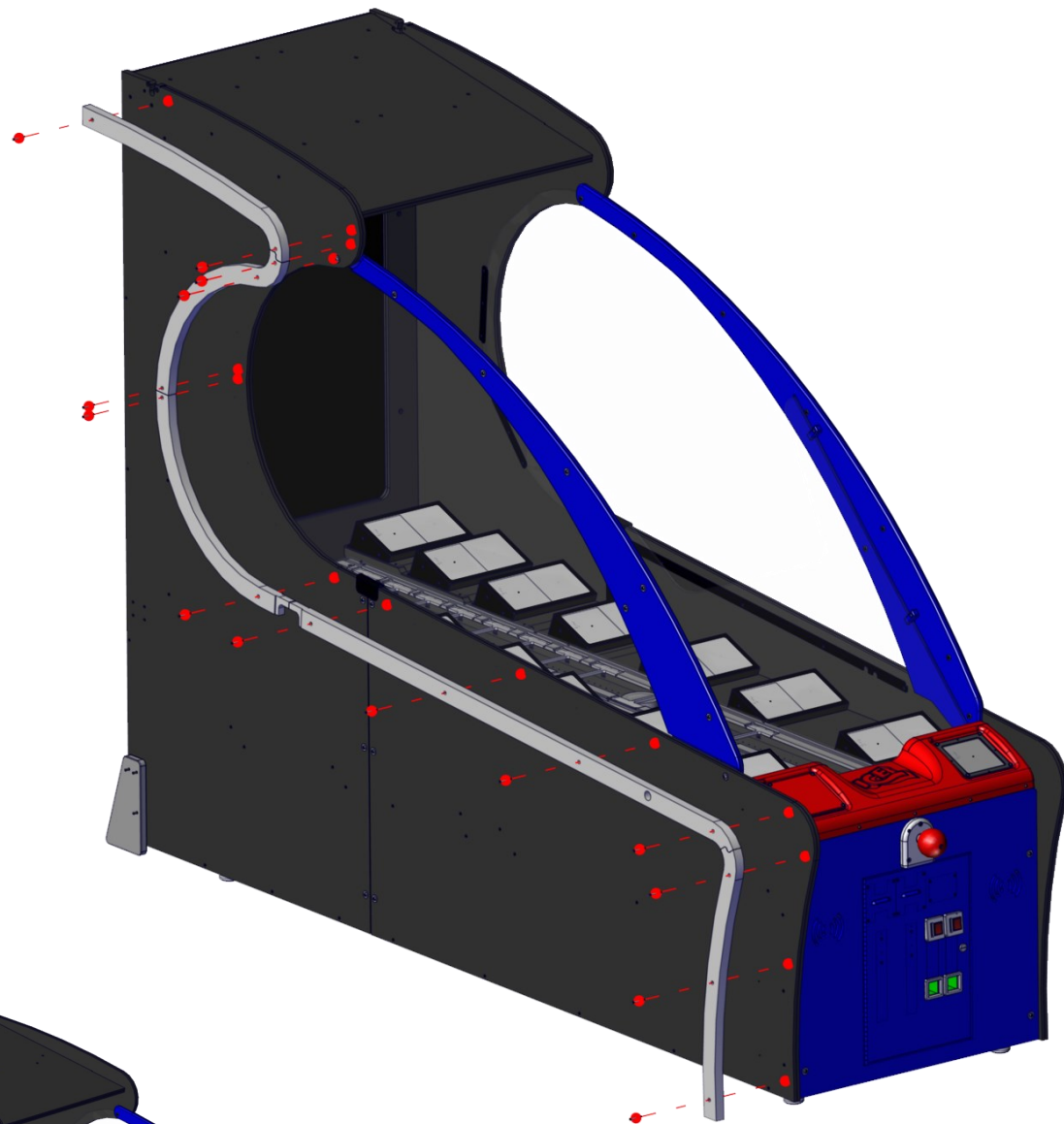
Check the Orange harness interconnection

### **My game has no sound.**

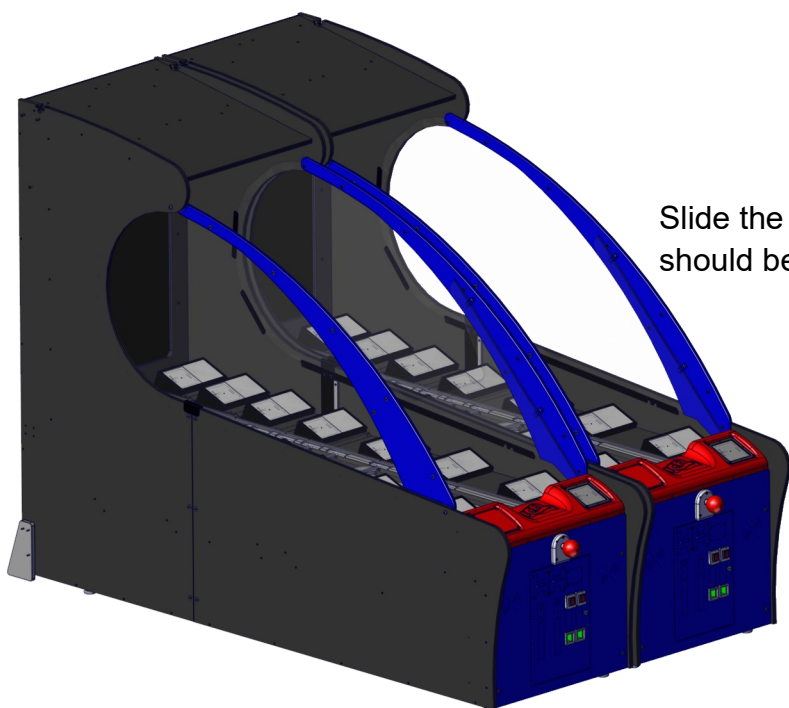
Check to make sure the volume is turned up, the RCA connections are plugged in and power is available to the amplifier.

## Mega Marquee Install

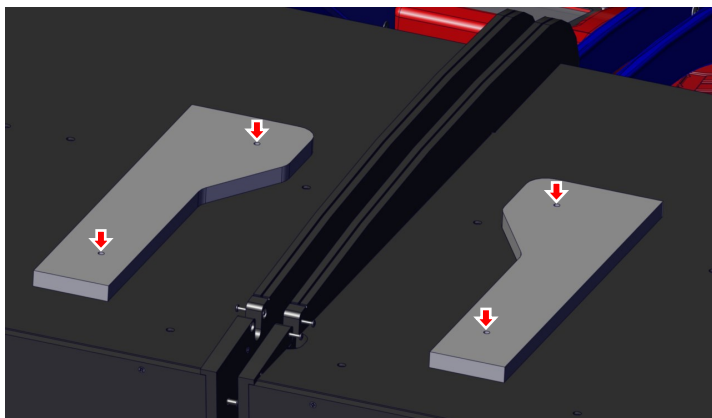
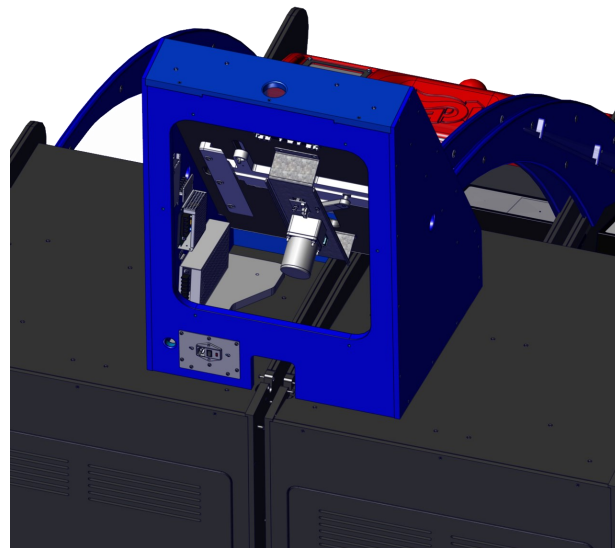
Attach the spacers to one side of a cabinet. Use AA6166 screws to secure. Make sure all heads of the screws are even to the top of the spacer.



Slide the other cabinet against the spacer. There should be no gaps.



Lift the center section of the marquee up onto the cabinets.  
A notch in the center allows it to straddle the two cabinets.



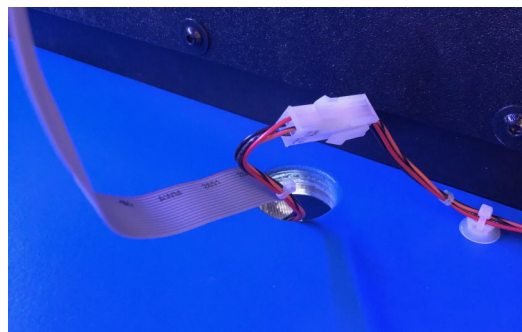
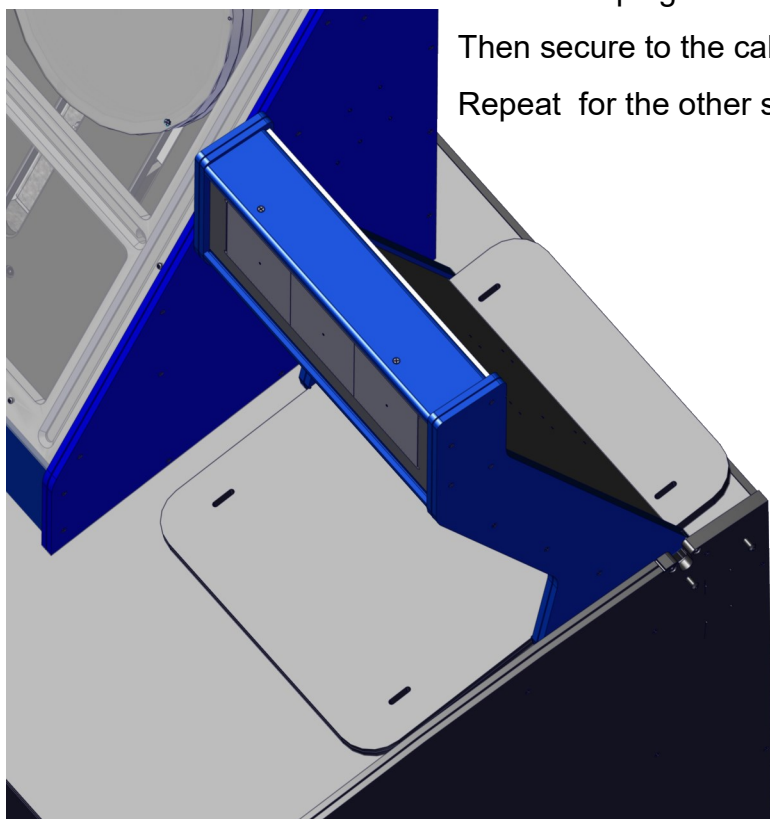
Secure the center with four AA6281.

The picture shows only the wood bottom where the bolts would install into.

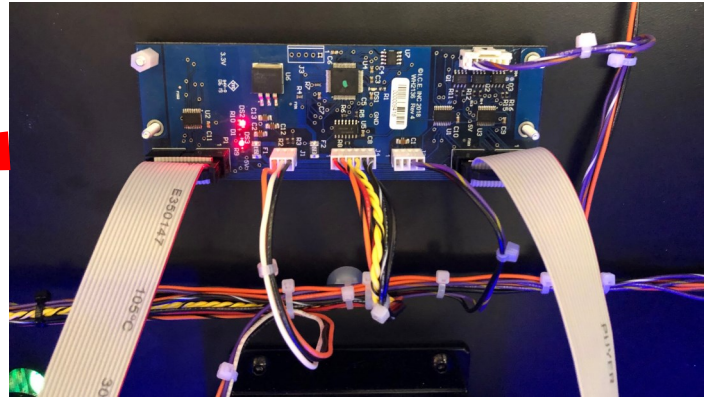
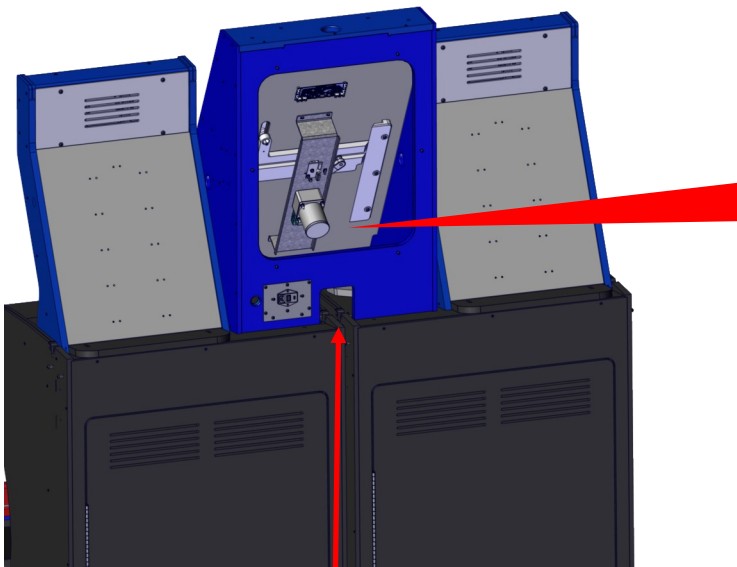
Lift one side up onto the cabinet. At the side is a hole for the wire harness to plug into. Plug the harness in.

Then secure to the cabinet using four AA6281.

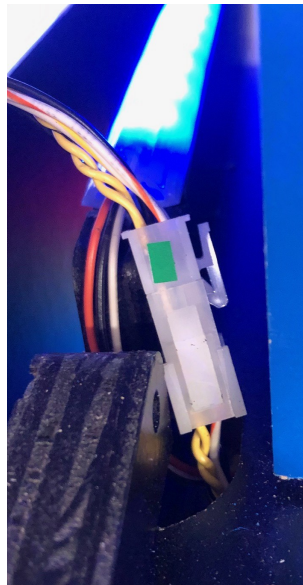
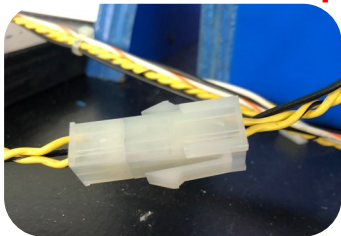
Repeat for the other side.



Plug in harnesses as you attach to top.

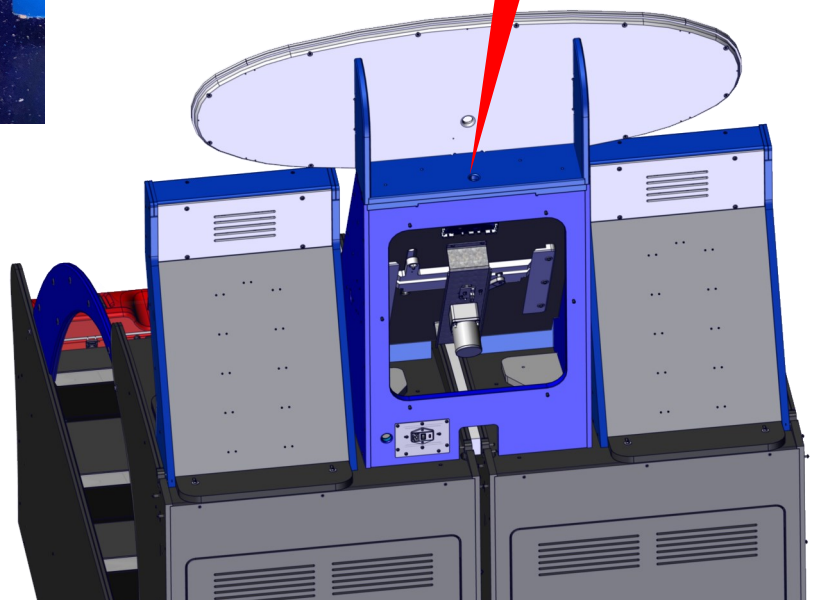


Plug in remaining harnesses



Attach the large oval sign at top. Secure using AA6281.

Plug the Upper harness in.

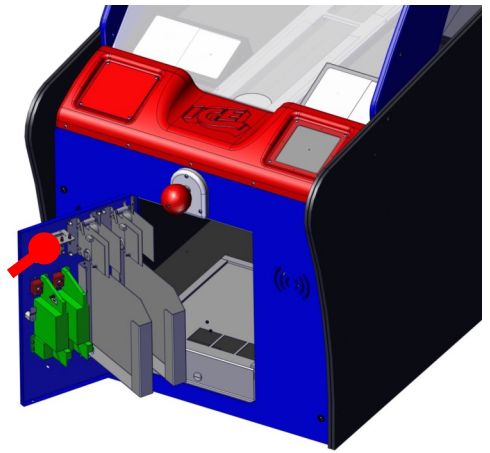


## Adjusting Program Options

Open the front door and locate the operator control panel.

Press the “PROG” button to enter into program mode.

Press the “SEL” button to cycle through options. Press the “+” and “-” to change a value for that option.



### Program Options

Option	Description	Min	Default	Max
Attract Volume	Adjusts the volume level for attract mode	0	100	100
Game Volume	Adjusts the game volume different from attract.	0	100	100
Win Scale	Adds this amount to the game volume when bonus is won.	0	10	10
Music Ratio	Adjusts music volume in game. Higher value = louder.	0	50	100
Coin1	Sets the cost of play. 0 = Free Play Mode	0	1	10
Coin2	Allows you to set how many coin 1 pulses coin2 wire is worth when pulsed. Allows for different valued inputs.	1	1	10
Attract Time	Amount of time between attract audio is played (not Win up to xx tickets audio).	1	1	9
True Level	If set to 0, table will have a minor position change at true level position.	0	0	1
Ticket Multiplier	Divides tickets by this value.	0	1	2
Progressive Bonus	If using a marquee the bonus can be static or progressive. If set to 1, use “games to inc” and “amount to inc” to set up progressive bonus.	0	0	1
Games to Inc	How many games played without a bonus win before incrementing the amount of tickets that can be won.	1	1	100
Amount to Inc	How many tickets to add to the progressive bonus.	0	0	100
Games to Shift Bonus	Move bonus values every X games or when bonus is hit. X = this value. If 0, move bonus value whenever it is hit. Values can be 0, 10, or 25.	0	0	25

For the next 11 options it is recommended to use the “Default Table” option instead to configure each zone. Otherwise use the charts found under “Suggestive Zone Values for Price of Play”.

Option	Description
Zone1/out	2,5,10,15,20,25
Zone2	2,5,10,15,20,25,30,35,40,50,60,75,80,100,120,125,150,160,200,250,500,1000
Zone3	2,5,10,15,20,25,30,35,40,50,60,75,80,100,120,125,150,160,200,250,500,1000
Zone4	2,5,10,15,20,25,30,35,40,50,60,75,80,100,120,125,150,160,200,250,500,1000
Zone5	2,5,10,15,20,25,30,35,40,50,60,75,80,100,120,125,150,160,200,250,500,1000
Zone6	2,5,10,15,20,25,30,35,40,50,60,75,80,100,120,125,150,160,200,250,500,1000
Zone7	2,5,10,15,20,25,30,35,40,50,60,75,80,100,120,125,150,160,200,250,500,1000
Zone8	2,5,10,15,20,25,30,35,40,50,60,75,80,100,120,125,150,160,200,250,500,1000
Zone9	2,5,10,15,20,25,30,35,40,50,60,75,80,100,120,125,150,160,200,250,500,1000
Zone10	2,5,10,15,20,25,30,35,40,50,60,75,80,100,120,125,150,160,200,250,500,1000
bonus	100, 250,500,1000,2000

Option	Description	Min	Default	Max
Default Table	Automatically sets game’s zones to cost of play 1=CEC, 2=.50, 3=\$1.00, 4=\$1.50, 5=\$2.00, and 6=\$2.67/D&B	0	0	6
Factory Reset	Resets settings to defaults values.	0	0	1

### Suggestive Zone Values for Price of Play

Average tickets 13-18		Average tickets 27-33	
\$0.50		\$1.00	
Lose Value/Zone 1	10	Lose Value/Zone 1	15
Zone 2	10	Zone 2	20
Zone 3	15	Zone 3	25
Zone 4-10	50	Zone 4-10	80
Zone 4-10	15	Zone 4-10	30
Zone 4-10	100	Zone 4-10	150
Zone 4-10	25	Zone 4-10	50
Zone 4-10	50	Zone 4-10	100
Zone 4-10	100	Zone 4-10	150
Zone 4-10	40	Zone 4-10	75
Zone Bonus	500	Zone Bonus	1000

## Suggestive Zone Values for Price of Play

Average tickets 41-49	<b>\$1.50</b>
Lose Value/Zone 1	20
Zone 2	25
Zone 3	35
Zone 4-10	125
Zone 4-10	50
Zone 4-10	250
Zone 4-10	80
Zone 4-10	150
Zone 4-10	250
Zone 4-10	100
Zone Bonus	1000

Average tickets 55-65	<b>\$2.00</b>
Lose Value/Zone 1	20
Zone 2	30
Zone 3	40
Zone 4-10	200
Zone 4-10	60
Zone 4-10	250
Zone 4-10	120
Zone 4-10	160
Zone 4-10	500
Zone 4-10	150
Zone Bonus	1000

## Special Zone Values

	<b>CEC</b>
Lose Value/Zone 1	2
Zone 2	5
Zone 3	10
Zone 4-10	15
Zone 4-10	10
Zone 4-10	20
Zone 4-10	50
Zone 4-10	25
Zone 4-10	15
Zone 4-10	30
Zone Bonus	100

	<b>DB/2.67</b>
Lose Value/Zone 1	20
Zone 2	40
Zone 3	60
Zone 4-10	250
Zone 4-10	80
Zone 4-10	500
Zone 4-10	150
Zone 4-10	250
Zone 4-10	500
Zone 4-10	200
Zone Bonus	1000

## Entering Audit Mode (To review statics, clear credits or tickets owed).

In this mode you can review the various statics of the game. Pressing the “SELECT” button will advance to the next menu option. Press the “PROG” button to exit.

Open the front door to locate the operator control panel.

Press and hold the “DOWN” button to enter audit mode.



If you do not wish to clear credits, tickets owed, or audits, press the “PROG” button to exit.

Press the “SELECT” button to enter the clear ticket menu. Then change the value to 1 by pressing ‘UP’ or “DOWN” buttons. Press the “PROG” button if finished. Tickets will not clear until you press the “PROG” button.



Press the “SELECT” button to enter the clear credits menu. Then change the value to 1 by pressing ‘UP’ or “DOWN” buttons. Press the “PROG” button if finished. Credits will not clear until you press the “PROG” button.



Press the “SELECT” button to enter the clear audit menu. Then change the value to 1 by pressing ‘UP’ or “DOWN” buttons. Press the “PROG” button if finished. Audits will not clear until you press the “PROG” button.

## OTHER Commands available to the operator using the operator control panel.

### Bring play field down (if stuck up).

Open the front door to locate the operator control panel.

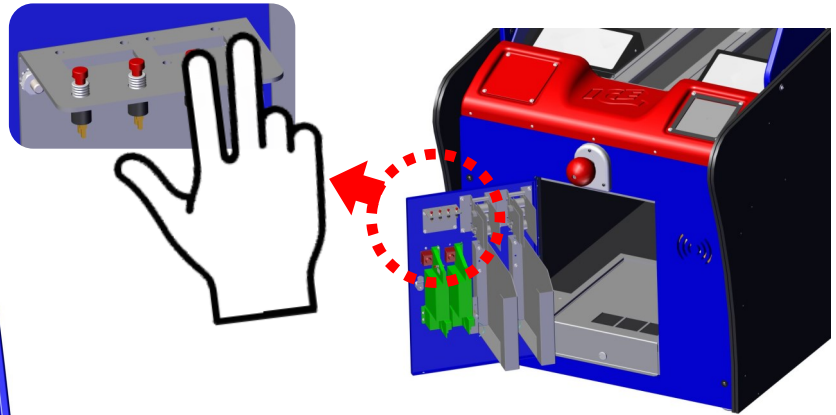
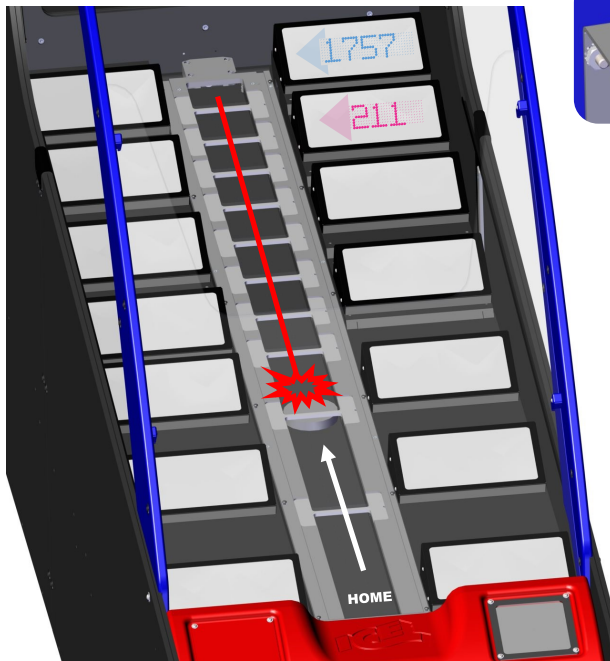
Press the “SEL” button for 10 seconds to bring the play field to the home position (down).

# Error 4 :Indicates that the main board lost communication with the laser.

**Solution:** Press and hold both the UP & DOWN buttons for 6 Seconds.

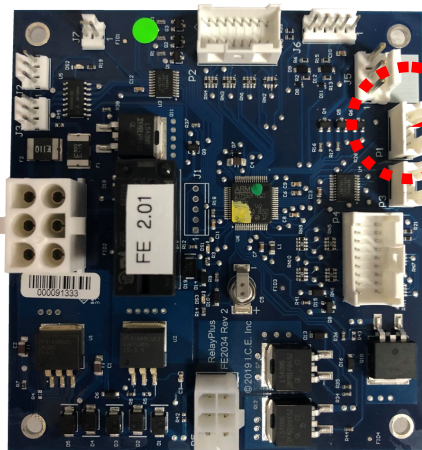
The laser should constantly be trying to read the position of the puck.

At the back of the playfield and on the right side, the back two displays will show a value.



As the puck moves away from the home position, the values should decrease.

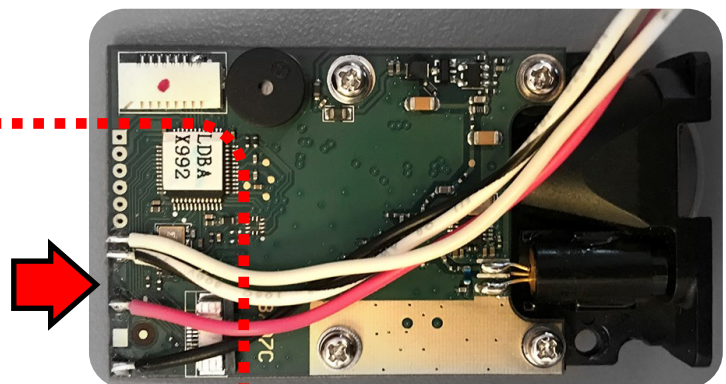
If the value does not change, Verify the following:



P1	Wire Color	Description
1	Pink wire	= +3.3 volts DC
2	White wire	= Receive LASER
3	White/black wire	= Transmit LASER
4	Black wire	= DC Ground

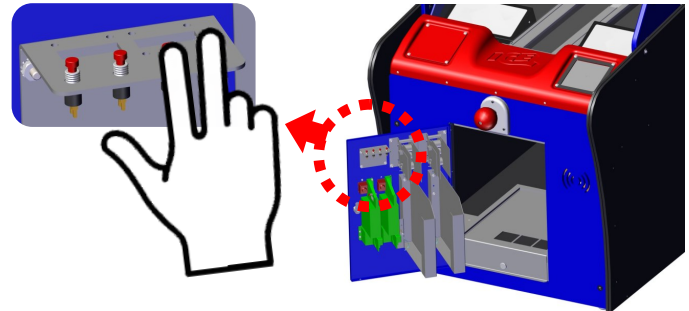
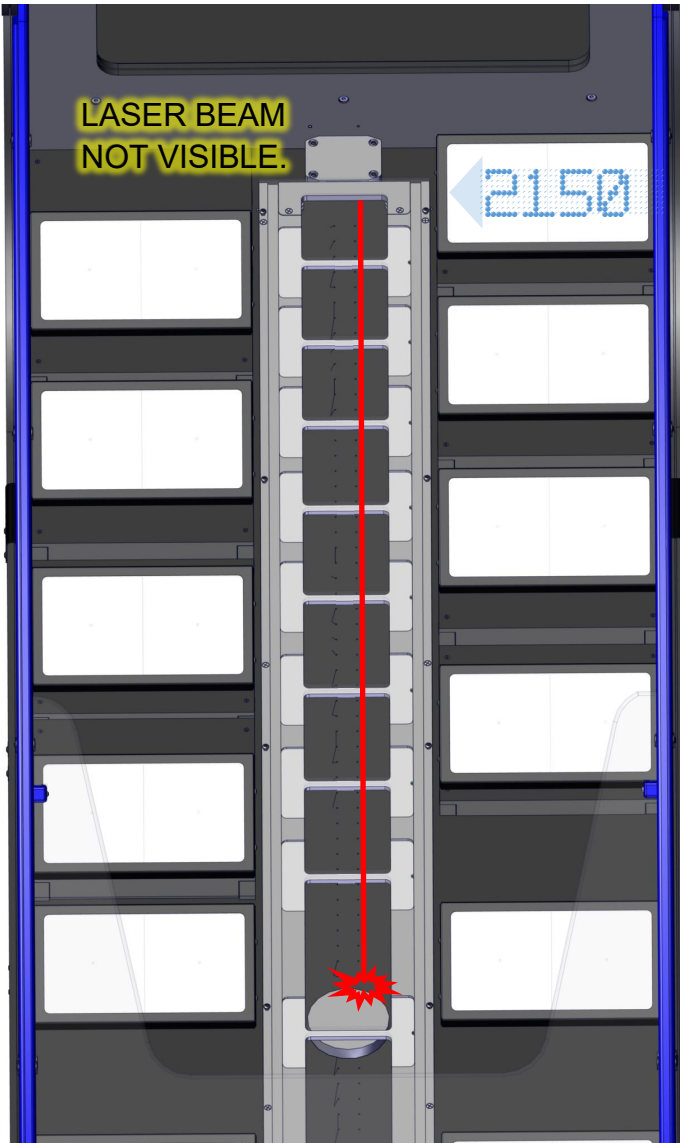
If after checking the harness , verify the wires are soldered to the laser board. They are underneath.

You must unmount the laser board from the game. It is located at the back.



## Error 5 : Indicates the laser is not aligned.

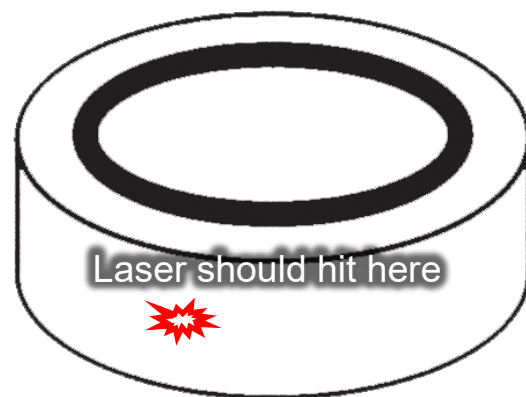
**Solution:** Open the front door of the game, press and hold the UP and DOWN buttons for ~6 seconds. This will put the game into a test mode with the laser constantly on, and the last zone display (right rear) will display the measured distance of the puck.



When the laser is in proper alignment and the puck is in the home position, the rear display will report between 2100 & 2250.

The laser beam should run along the right-side air holes of the playfield and centered between the top and bottom edges of the puck. The beam should at no point reflect off the playfield or any other surface in the game.

If the above criteria is not met, adjust the laser.



# Error 5 : Indicates the laser is not aligned.

## UP/DOWN ADJUSTMENT

With the game in test mode, open the rear door and using an 11/32" nut driver or wrench adjust the rear 2 nuts pictured below.

Check from rear every 1/4 turn to inspect position of beam, and make sure to adjust each nut evenly

- Tighten to raise the beam.
- Loosen to lower the beam.

## LEFT/RIGHT ADJUSTMENT

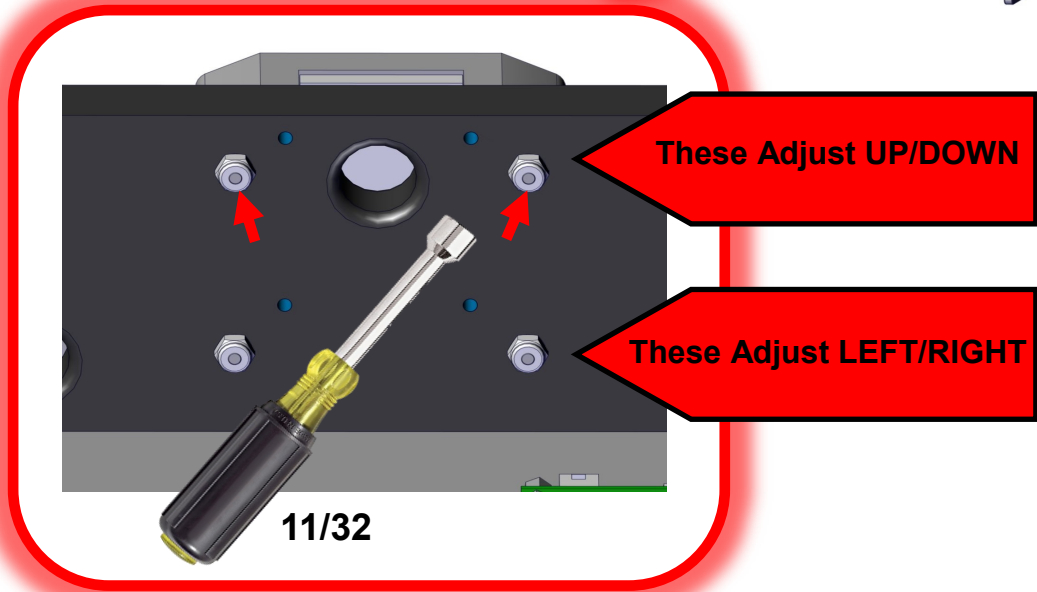
If not already in test mode, to make this adjustment, power cycle the game and while the table is in the up position open the back door to keep the playfield up.

Open the front door and hold the UP & DOWN buttons for ~6 seconds until the game enters the test mode and the laser turns on.

Remove the front glass and one side glass to access the laser mounting block.

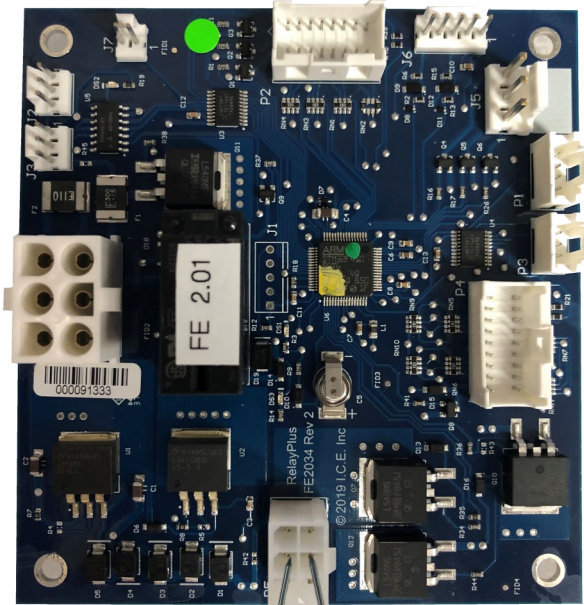
Using a 5/32" Allen wrench (on top) and an 11/32" wrench (on bottom), lightly loosen the front screws pictured and adjust the beams position until it follows the right-side air holes and tighten.

If you have a second person to assist, then skip step 1. One person can access from the rear door while the other goes from the side.



# Error 6 : Indicates blower motor failure.

**\*\* HARNESSES NOT SHOWN \*\***

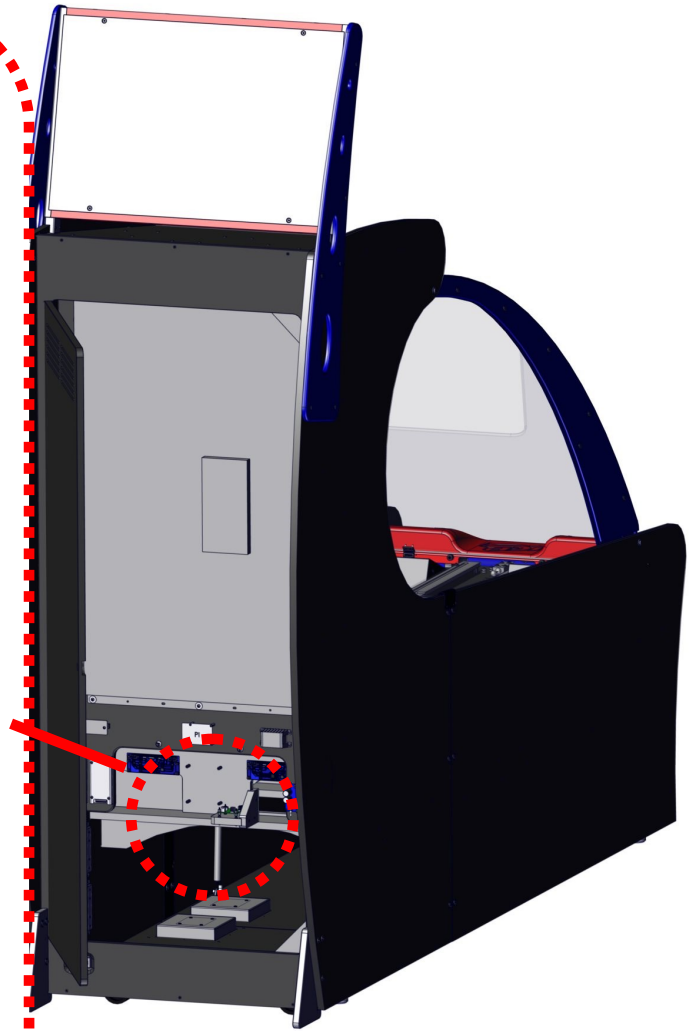


**-12 or +12 Volts DC**

**Depends on direction**

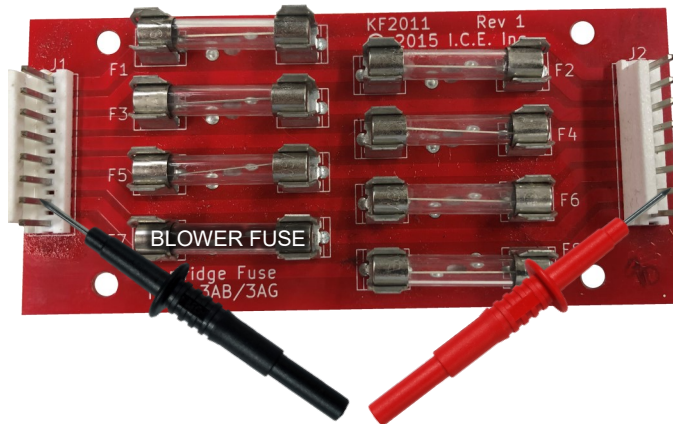
Measure voltage between pin 2 ( orange / blue wire) and pin 5 (black/blue wire) of P5 on the I/O board.

If present but playfield doesn't move, check wiring.



# Error 6 : Indicates blower motor failure.

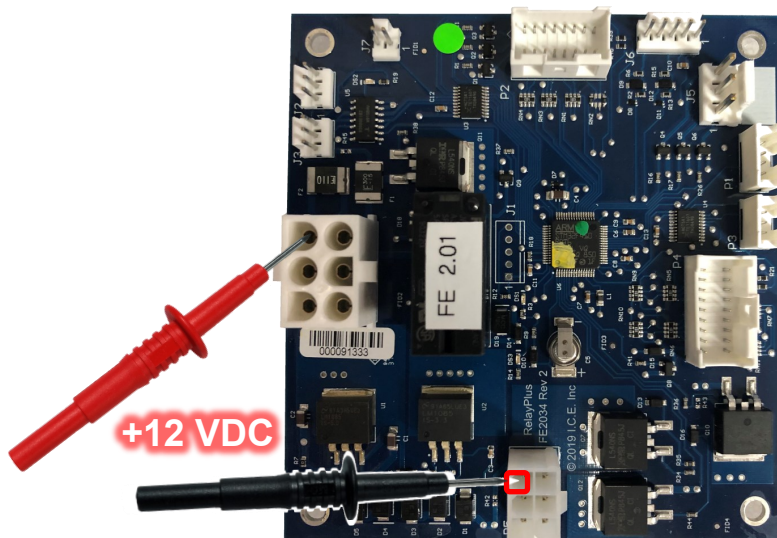
**Step 1:** The power to the blower is provided by the fuse board. With the **power off**, measure the resistance between pin7 of J1 and J2. If open, replace 7 amp fuse.



\*\* Harnesses not shown

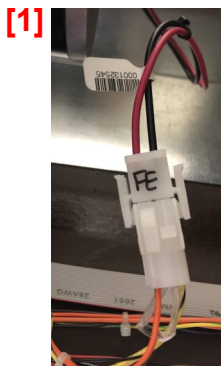
Should measure less than a ohm with power off.

**Step 2:** Check the blower output from I/O board. Measure for DC voltage between pin 3 of P5 and pin 3 of J4.

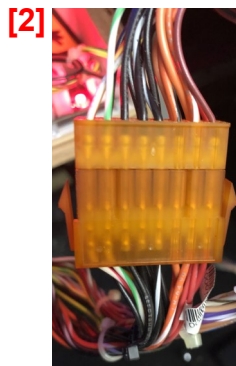


\*\* Harnesses not shown

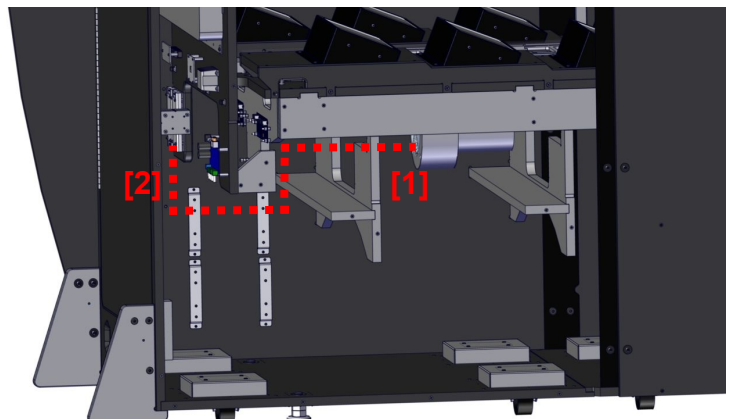
**Step 3:** Check harnessing from I/O board to blower.



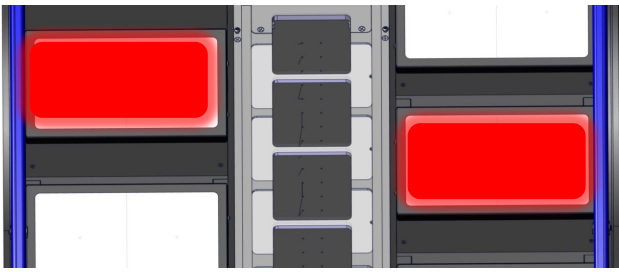
[1] Blower motor connector



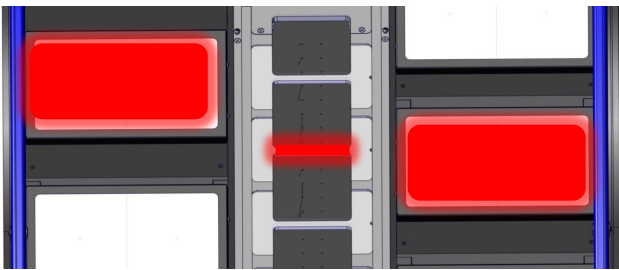
[2] +12 VDC to Blower



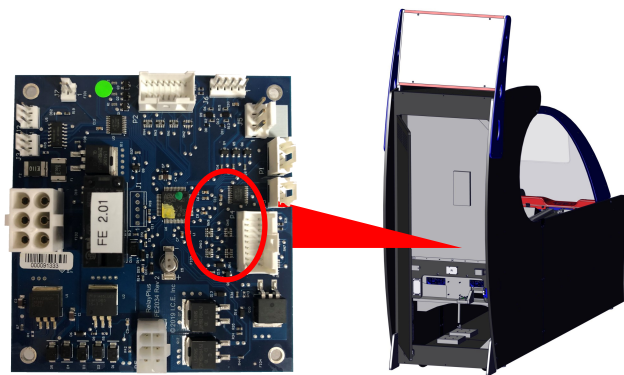
## Error 7 : Indicates playfield sensor failure.



If a sensor appears failed at startup, the game will blink the surrounding dot matrix to indicate which position or positions are not being seen.

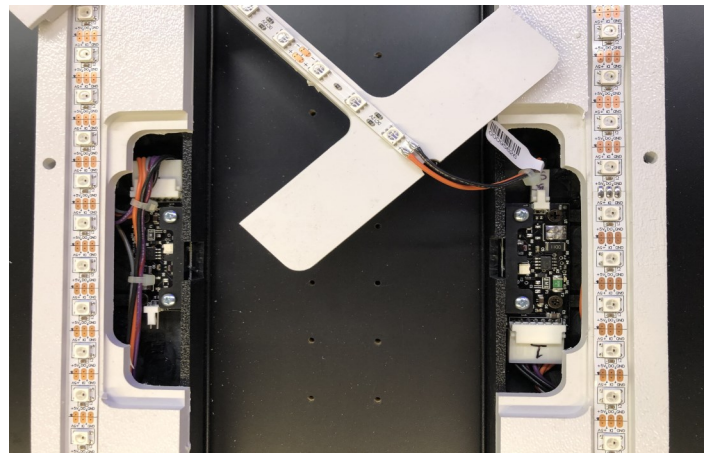


If debris are blocking the sensor at startup or the sensor failed thinking it is blocked, the game will also light the strip across the sensors that are blocked.



If all sensors fail self check, check harness the connection at P4 of I/O.

Each sensor block has two sensors. Lift up on the LED bar to access the sensors.



## **Error 7** : Indicates playfield sensor failure.

All sensor boards are the same, they are installed 180 degrees and across of each other.

Power for each sensor is daisy chained through the last sensor in the chain.

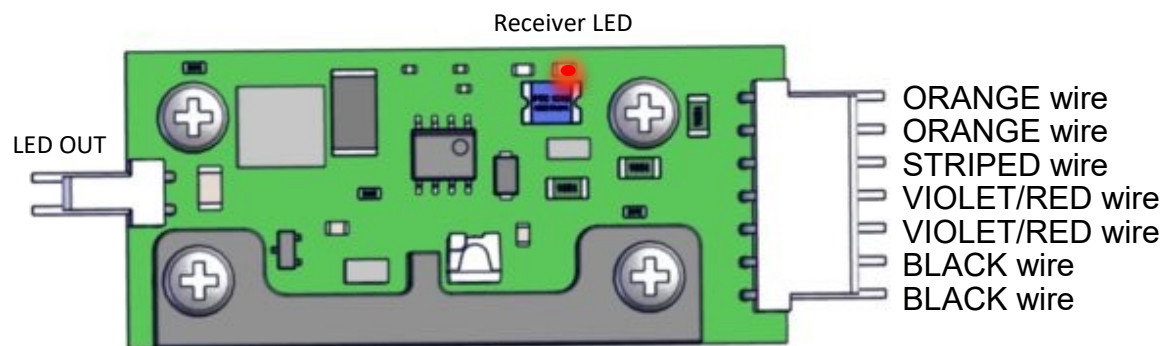
The output of the sensors (sense line) are tied to the adjacent sensor output.

Striped wire color is different for each location. It is the output of the sensor which is tied to the adjacent sensor across from it.

Sense lines go back to the I/O board to connector P4.

Sense lines should be at +5 volts when not blocked.

Sense lines should drop to 0volts when blocked.



### **Step by Step Sensor Checking:**

Measure orange wire to black wire, is 12 volts present?

NO? FIX HARNESS; CHECK POWER SUPPLY.

IF YES? Is the sensor blocked?

YES? Clear debris. Sensor error will clear if removed.

NO? Continue

Is the Receiver LED ON one of the sensor?

YES? REPLACE Opposite sensor (NOT THE ONE WITH THE LED ON!)

NO? Continue

Measure Violet/RED wire to Black wire.

Voltage around 12 VDC?

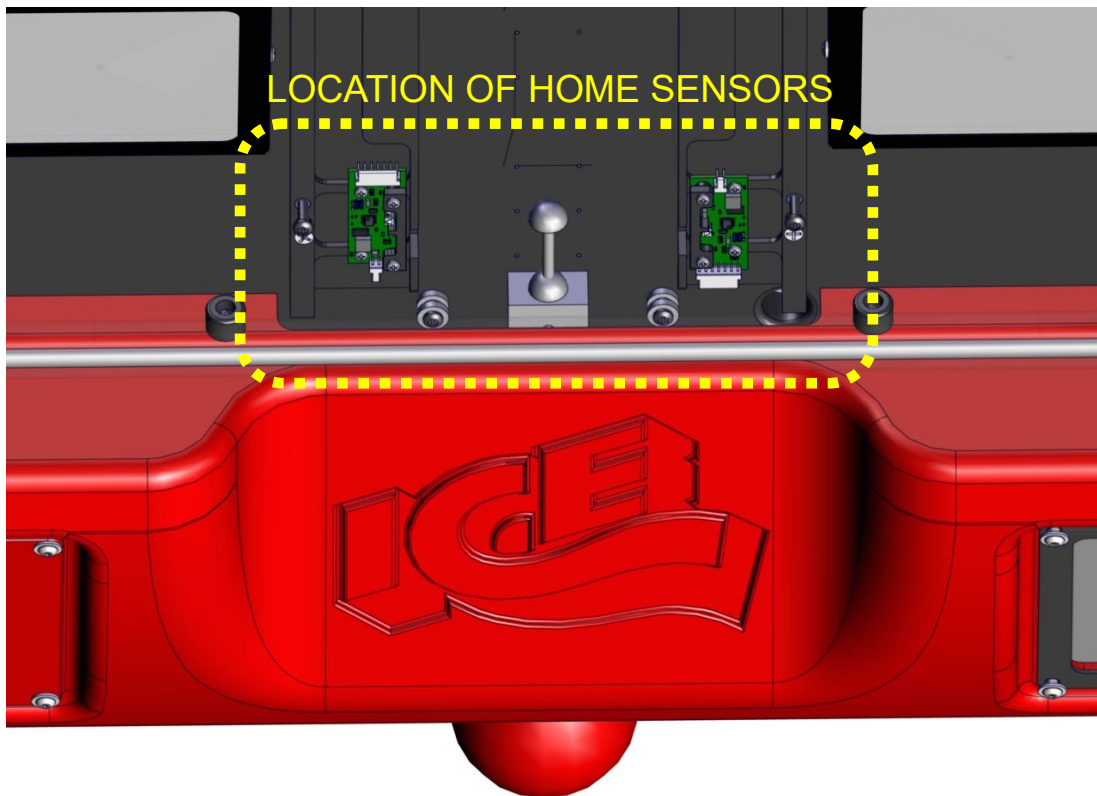
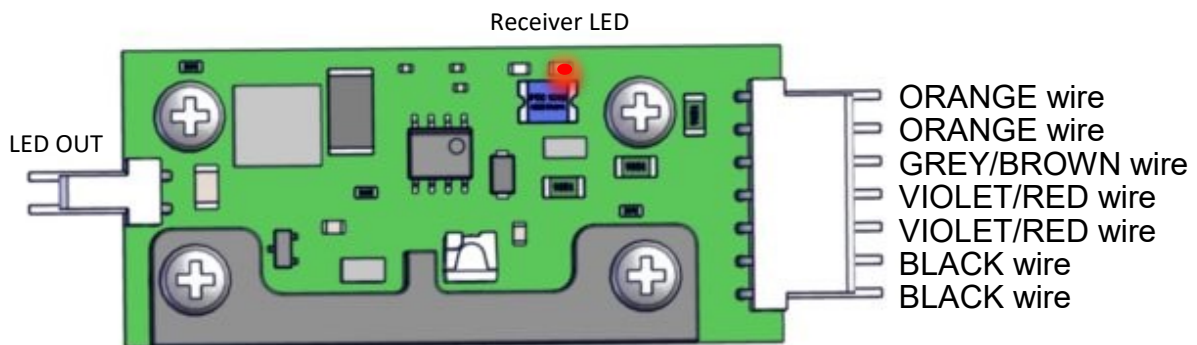
NO? Fix Harness, confirm enable line back to connector P4, pin 1.

YES, Continue

Replace both sensors.

## Error 8 : Indicates home sensor failure.

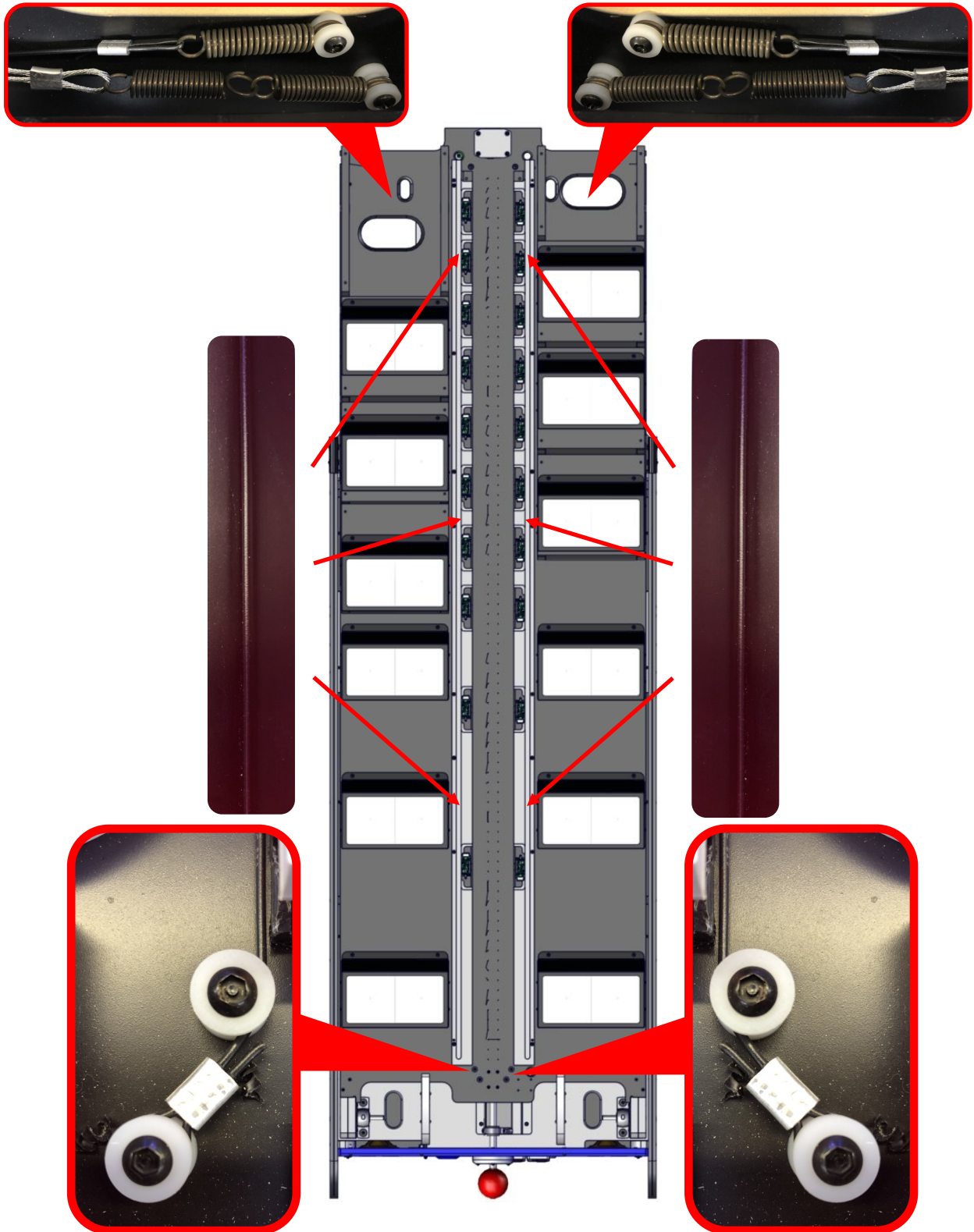
- The home sensors are the same as the score sensor.
- Power for the sensor is daisy chained through the last sensor in the chain.
- Grey/Brown wire is the output of the home sensor which is tied to the adjacent sensor.
- The home sense line goes back to the I/O board to connector P4, pin 3.
- The sense line should be at +5 volts when not blocked.
- The sense line should drop to 0volts when blocked.



# Error 10 : Indicates the puck stopped moving. Puck did not return to the home position.

## CHECK: Damaged or loose lane wire?

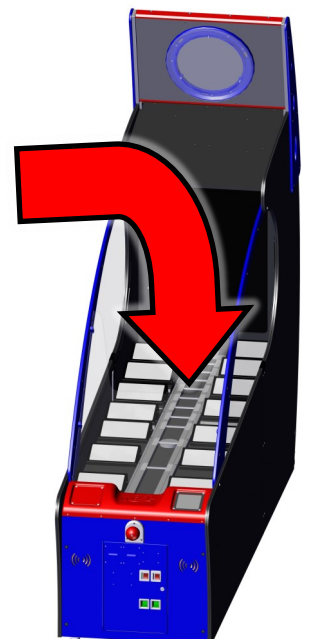
Follow the guide wire and ensure the wire is taut and nothing is hung up on it.



# Error 10 : Indicates the puck stopped moving.

**CHECK:** Airholes blocked or debris on the playfield?

Clean and inspect the air holes on the playfield. The puck should glide with ease.



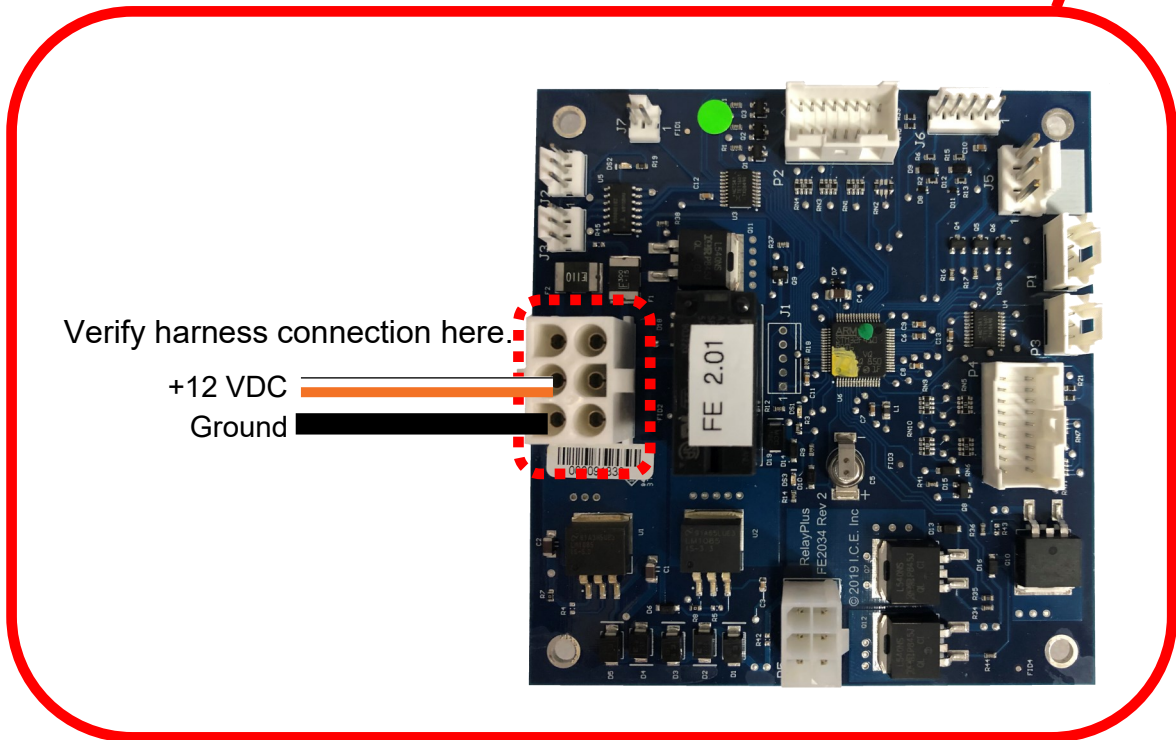
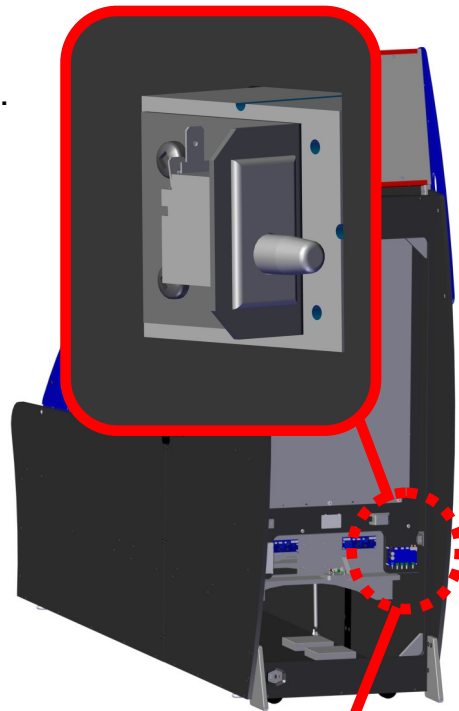
# Error 11 : Indicates that the back door is open.

**Solution:** Check the door and door switch.

If this push switch is in, 12 volts should be present at connector J4, pin 2 on the I/O board. It is the orange/white wire.

Measure between pins 2 and 6 (black wire) on the connector.

If you measure 0 volts, the push switch is not engaged, broken, or bad wiring.

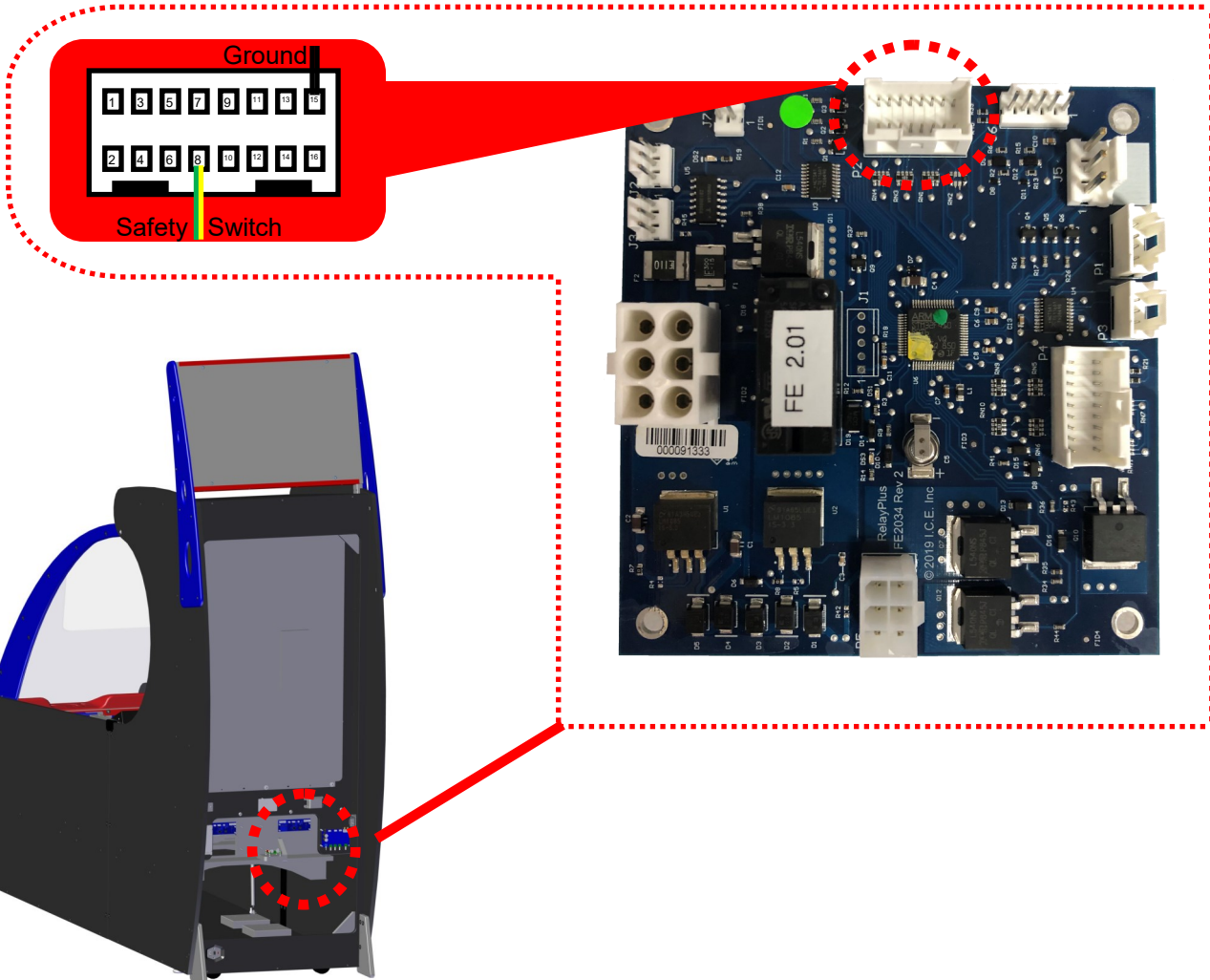
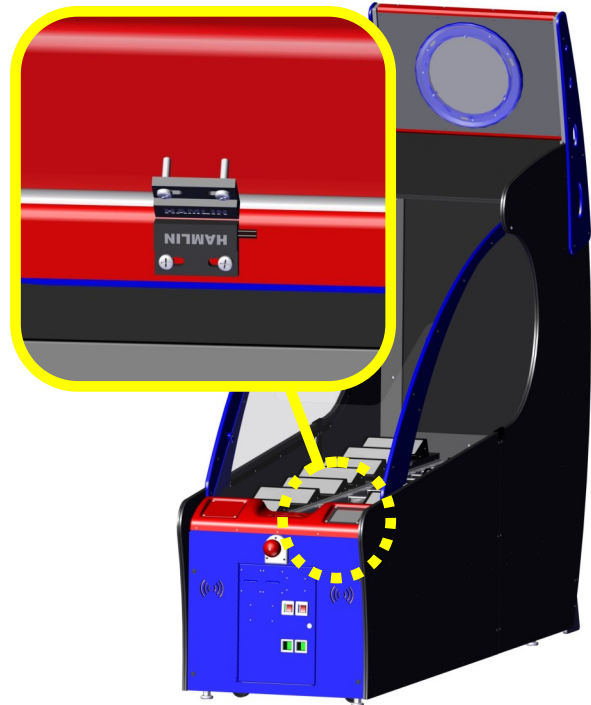


# Error 12 : Indicates front glass is not installed.

If this magnet switch is closed, there should be 0 volts at connector P2, pin 8, on the I/O board. It is the yellow/green wire.

Measure between pins 8 and 15 (black wire) on the connector.

If you measure 3.3 volts, magnet might not be present (is the plastic guard off?) or broken wire.



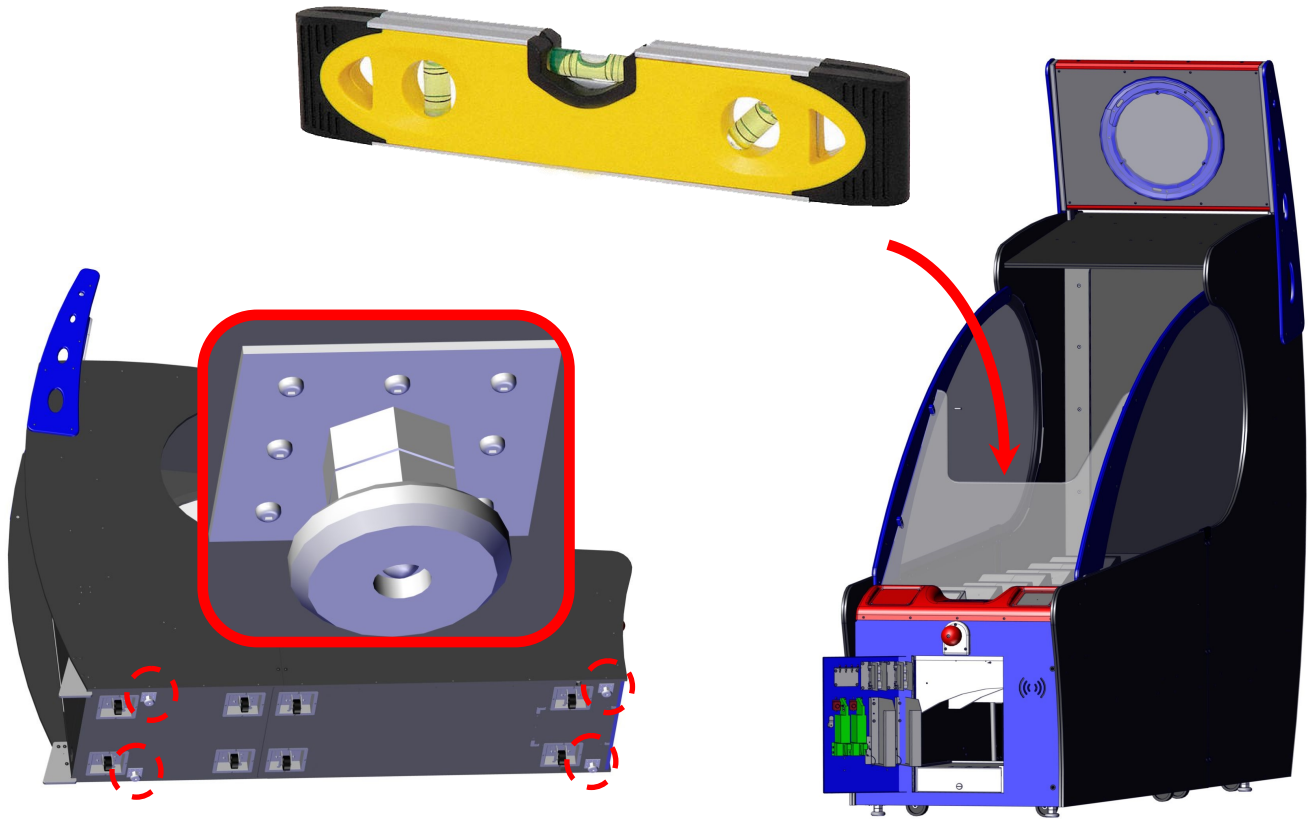
## **Error 13** : Indicates the table needs leveling or adjusting.

The puck moved away from the home sensor while the table was lowering.

**Solution 1:** Level the cabinet using the leg levelers underneath the game.

Using a level, adjust the leg levers until the cabinet's playfield is leveled. Place the level on the playfield and adjust the leg levers beneath the game until the cabinet is level.

Power cycle game.



## Electronic Parts

ICE Part	Description
GG2000FEX	pi w/All In SDCARD
FE2034X	Main Board
E01583FEX	laser assembly.
FE2035X	accelerometer board
FE2036X	charger board
FE3061X	Puck Charging Coil
FE2039X	Play field sensor
CG2012SCX	Magnet Sensor
FE2006	Amplifier
E02007	Speaker
MON49EST	Monitor

ICE Part	Description
E01466	HDMI to DVI cable
E02762	Ground Loop Isolator
WH2136X	matrix driver board
WH2135X	neo pixel
E01357	dot matrix panel
CL2011FEX	handle solenoid
FE201	12 volt linear actuator
FE2008X	12 volt blower
MON42/47PS	24V supply
GF2010	12V supply
WN2010	5V supply

\*\* NOTE: See wiring insert for Exact LED part numbers.

# ALL IN™

10-14-19

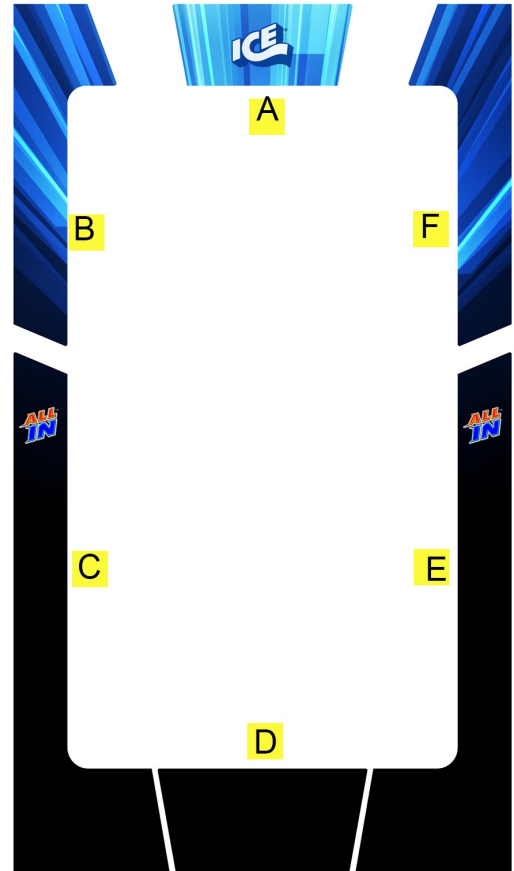
FE7000



FE7001



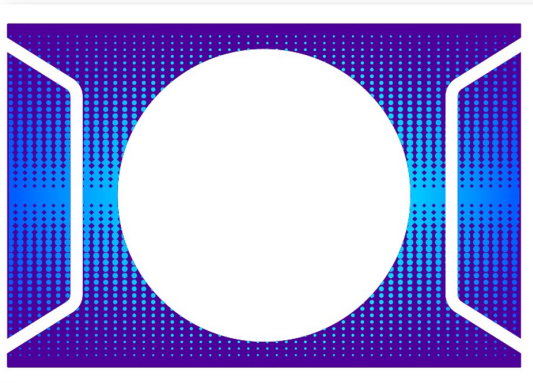
FE7004



FE7003



FE7020	FE7021	FE7022	FE7023
20 INCHES	32 INCHES	62 INCHES	28 INCHES

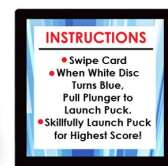


FE7028



FE7029

FE7009

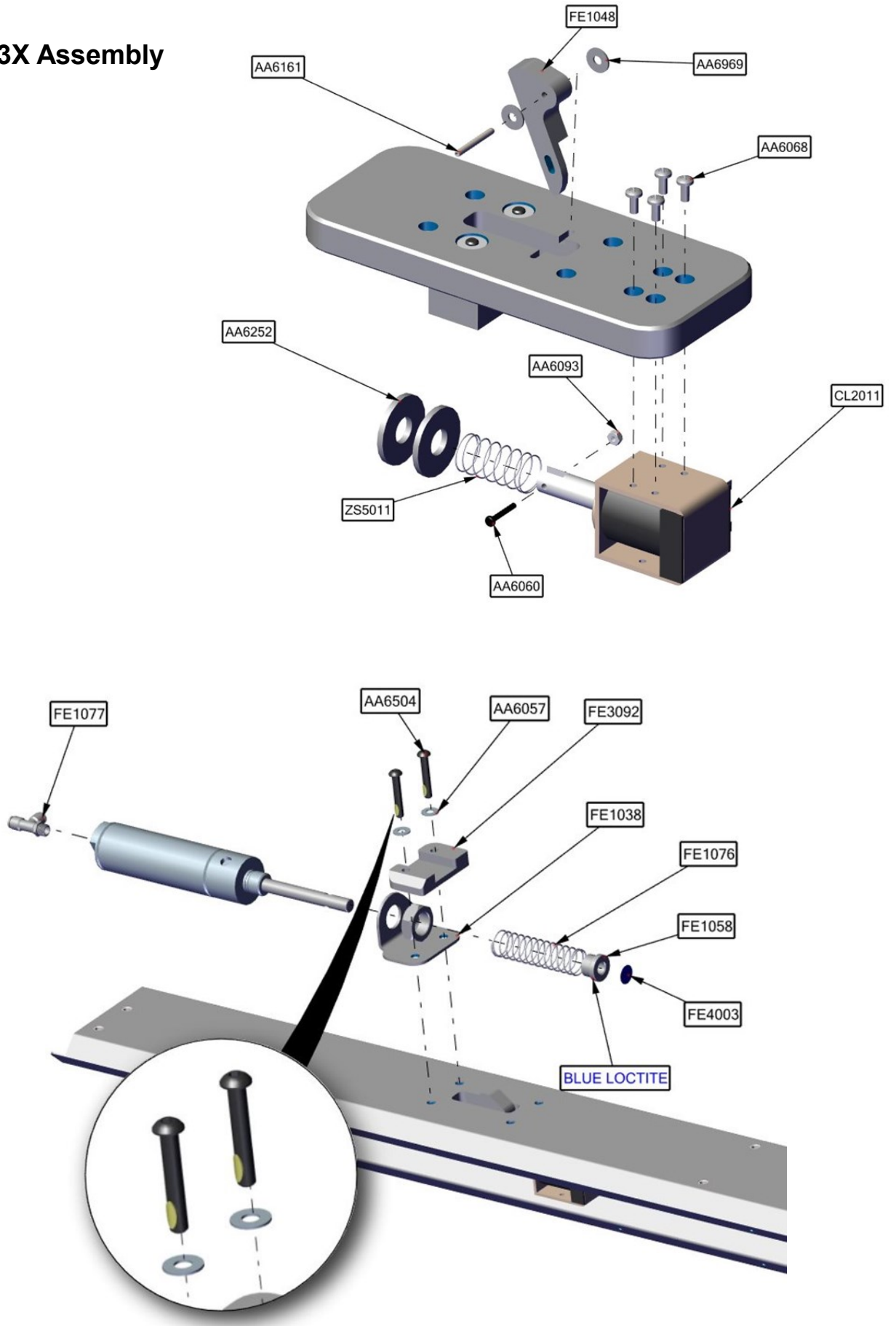


FE7010

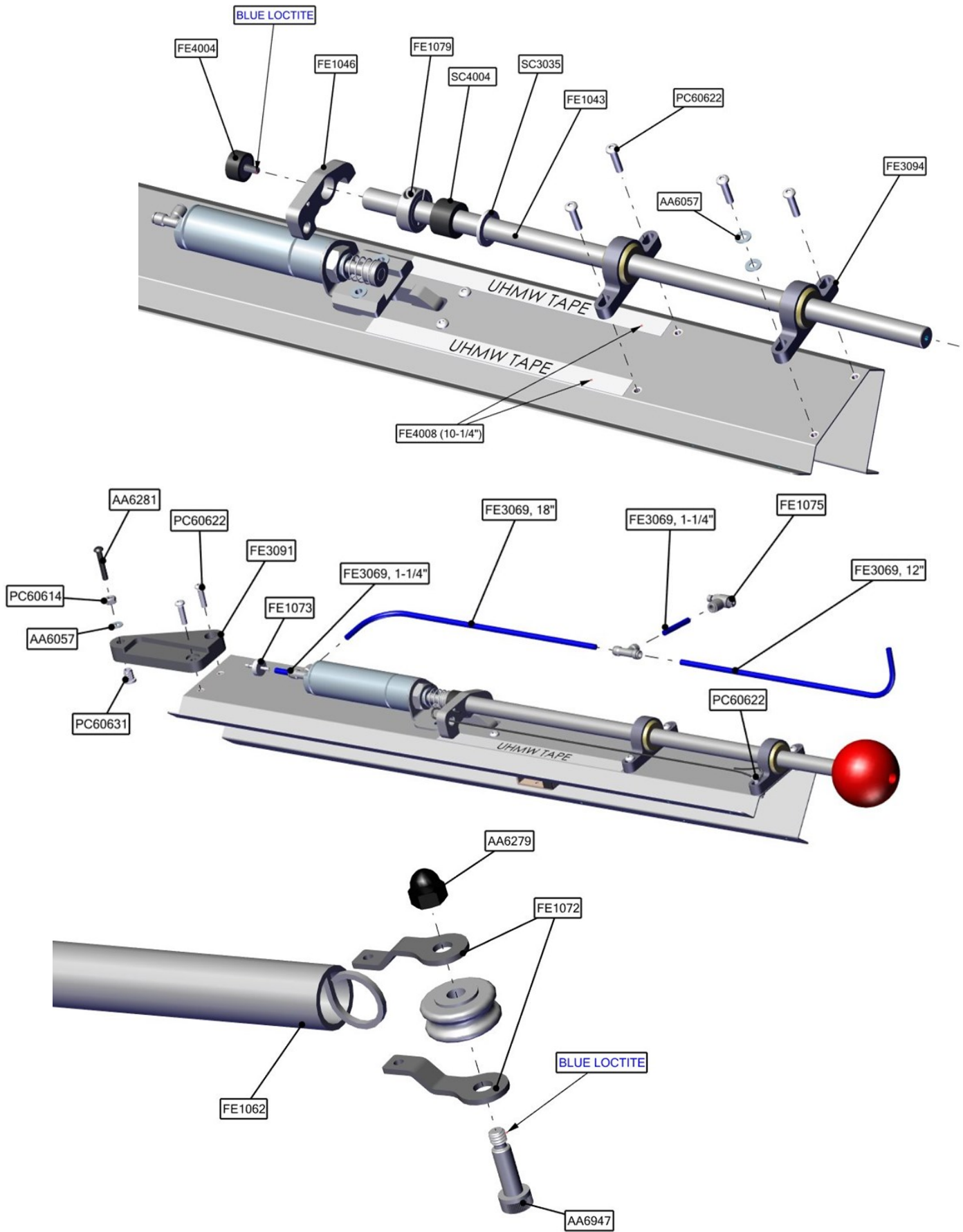


Gray Filter for FE7010

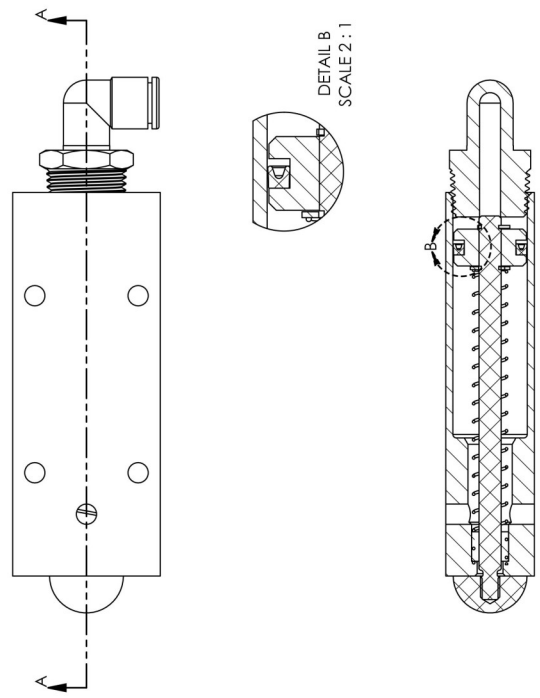
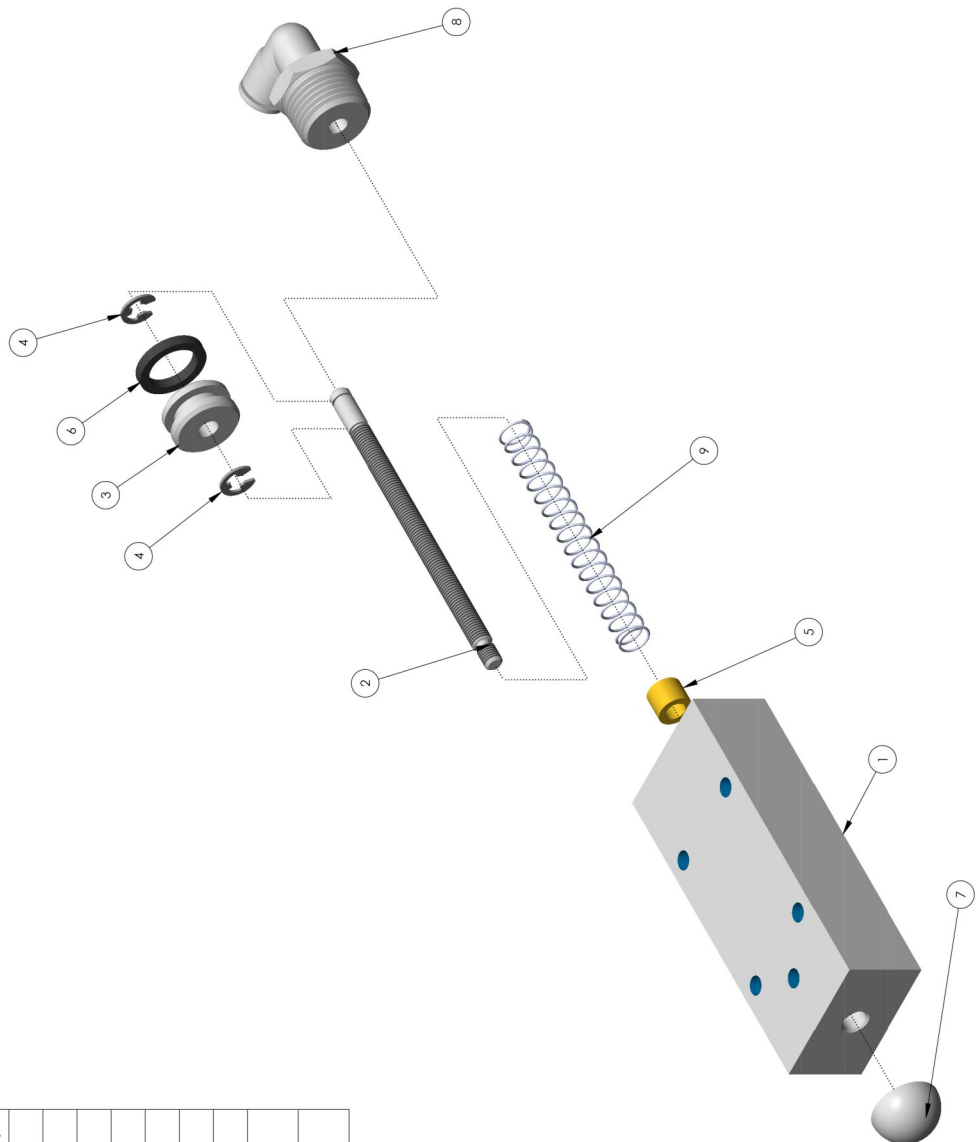
# FE1043X Assembly



# FE1043X Assembly



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE1053	UPPER CYLINDER BODY	1
2	FE1056	PLUNGER ROD	1
3	FE1057	PLUNGER	1
4	AA6470	MCMMASTER 97431A280	2
5	FE1061	MCMMASTER P/N 6391K114	1
6	FE4002	PISTON SEAL	1
7	FE4006	BUMPER	1
8	FE1063	3/8 NPT X 1/4 TUBE 90°; ME14-38N; PC69SCB-46	1
9	FE1069	MCMMASTER 9657K412; LEE LC022D14M	1





## 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.

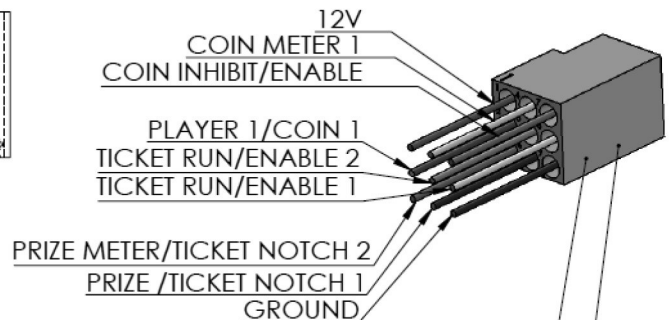
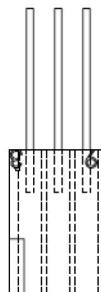
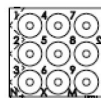
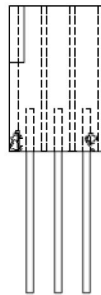
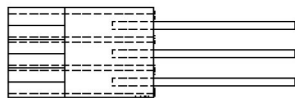
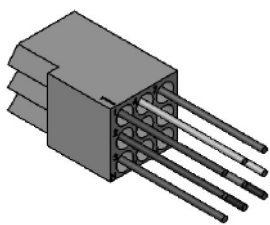
Pin 5. Ticket Run/Enable 2- is connected to the ticket run line between the game PCB and ticket dispenser. Optional.

**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.



**9-PIN MOLEX  
03-09-1093 OR 1094  
FEMALE TERMINALS:  
22-24 GA: 02-09-1119  
14-20 GA: 02-09-1104**

**Debit Card Housing use:**

**Molex 9-pin housing 03-09-2092**

MINIMUM REQUIREMENTS  
ARE SHOWN IN BOLD TEXT

1.	<b>+12V</b>
2.	<b>PLAYER 1/COIN 1</b>
3.	PRIZE METER/TICKET NOTCH 2
4.	<b>COIN METER 1</b>
5.	TICKET RUN/ENABLE 2
6.	<b>PRIZE METER/TICKET NOTCH 1</b>
7.	COIN INHIBIT/ENABLE
8.	<b>TICKET RUN/ENABLE 1</b>
9.	<b>GROUND</b>



# WARRANTY POLICY

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.

I.C.E. Inc will assume no liability whatsoever for costs associated with labor or travel time to replace defective parts. All defective warranty covered components will be replaced with new or factory refurbished components equal to OEM specifications.

I.C.E. Inc will cover domestic UPS ground, or comparable shipping costs during the warranty period. International or expedited shipments are available for an additional charge. To obtain credit defective parts must be returned to I.C.E. Inc, at the customer's expense, within 30 days. After 30 days a 15% re-stocking fee will apply to all returns.

ICE distributors are independent, privately owned and operated. In their judgment, they may sell parts and/or accessories other than those manufactured by I.C.E. Inc. We cannot be responsible for the quality, suitability or safety of any non-I.C.E. part or modification (including labor) that is performed by such a distributor.

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**10123 Main St.**

**Clarence, NY 14031**

**Phone #: (716) - 759 – 0360**

**Fax #: (716) – 759 – 0884**

**[www.icegame.com](http://www.icegame.com)**