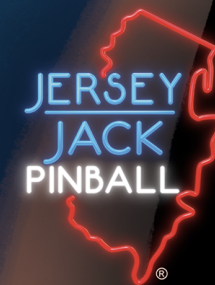




# AVATAR

THE BATTLE FOR PANDORA

PINBALL MACHINE OWNERS MANUAL







Warning - Take care when you see this symbol in the manual or game.  
This a general warning to be cautious when working on equipment as there may be potentially several different hazards present.



Pinch Hazard - Take care when you see this symbol in the manual or game.  
Fingers and limbs could be pinched or even dismembered.



Fire Hazard - Take care when you see this symbol in the manual or game.  
Risk of fire from electronics or excessive heat.



Shock Hazard - Take care when you see this symbol in the manual or game.  
Risk of shock and electrocution from electronics or direct contact with live wires.





# Jersey Jack Pinball

## Limited Manufacturer's Warranty

### **Congratulations on purchasing your new JJP Pinball**

Each JJP Pinball machine is handmade, and as such, each machine is one of a kind and has variations in appearance resulting from differences in the machine's particular wood parts, individually printed art and mechanical assemblies. We use the finest materials and processes available to build each machine, however there are certain things outside of our control. Over time, your machine can show signs of wear, which is normal. Refer to your Service Manual for further guidance and instructions on the proper operation and maintenance of your machine.

**What is covered on the game? Our Limited Warranty covers only the items listed below (“Covered Parts”)** from the date the machine is shipped to JJP's authorized distributors (or directly to the original owner), for the period of time indicated (the “Warranty Period”):

1. Printed circuit boards (game logic). Warranty Period - Sixty (60) Days.
2. LCD Monitor. Warranty Period - Two Hundred Seventy (270) Days.

**What is not covered on the game? JJP's Limited Warranty does not cover anything other than the Covered Parts during the Warranty Period.** JJP's Limited Warranty also does not cover claims for Covered Parts arising from misuse, abuse, alterations or modification, rust, warping, damage caused by electrical surge, intrusion of any liquid, fire, theft, acts of God, improper repair, installation, testing and improper electrical connections, or damage caused by converting game from one region to another.

**Who is entitled to Limited Warranty coverage?** The original owner and no one else.

**What will JJP do?** During the Warranty Period if a Covered Part fails, JJP will replace or repair at its discretion.

**What must I do?** You must register your JJP Machine within 7 days of delivery to activate your warranty. Register on-line at [www.jerseyjackpinball.com](http://www.jerseyjackpinball.com) under Support>Register Your Game.

**Who do I contact for replacement parts?** Contact your selling distributor for replacement parts. If you bought directly from Jersey Jack pinball, please open a service ticket at the Jersey Jack Pinball website under Support>Support Form, enter all fields and a brief description of the problem.

**Advance Replacement Parts and RMA's** (Return Manufacturer Authorization): Some items will require a valid credit card number on file prior to shipping and will be assigned an RMA number. If the RMA item is not returned within 30 days, the credit card will be charged and the RMA item will be treated as a sales item.

**Statutory Warranties:** This Limited Warranty is distinct from any statutory rights under any mandatory consumer protection laws of you state or country applicable to you. It is intended to grant you specific rights and does not limit the rights you may have under applicable statutory product warranty provisions. You may have other rights based on local laws during or after the Warranty Period. These rights are not excluded by this Limited Warranty.

**Exclusive Agreement:** This Limited Warranty is the complete and exclusive agreement between you and JJP. It is supersedes all other written or oral communications related to this product. JJP provides no other warranties for this product. The Limited Warranty exclusively describes all JJP's responsibilities regarding the product. There no other express warranties. No one is authorized to make modifications to this Limited Warranty, and you should not rely on any such modifications.

**Limitations:** Implied warranties, including those of fitness for a particular purpose and merchantability (an unwritten warranty that the product is fit for ordinary use) are excluded. Some states do not allow the exclusion or limitations of implied warranties, so the above may not apply to you.

In no event shall JJP be liable for any indirect, special, incidental, consequential, or similar damages (including, but not limited to, lost profits or revenue, inability to use the product, or other associated equipment, the cost of substitute equipment, and claims by third parties) resulting from the use of this product. Some states do not allow the exclusion or limitations of incidental or consequential damages, so the above may not apply to you.



# WARNINGS & NOTICES

## **WARNING**

**FOR SAFETY AND RELIABILITY**, substitute parts and equipment modifications are not recommend. Use of non-Jersey Jack Pinball® parts or modifications of game circuitry, may adversely affect game play, and may cause injuries. Substitute parts or equipment modifications may void FCC/Canada Type Acceptance.

**PROLONGED EXPOSURE** to high volume levels through the cabinet headphone jack can lead to irreversible hearing loss.

**BECAUSE THIS GAME IS PROTECTED** by Federal copyright, trademark and patent laws, unauthorized game conversions may be illegal under Federal law.

*THIS 'CONVERSION' PRINCIPLE ALSO APPLIES* to unauthorized facsimiles of Jersey Jack Pinball® equipment, logos, designs, publications, assemblies and games (or game feature not deemed to be public domain), whether manufactured with Jersey Jack Pinball® components or not.

**IF THE SUPPLY CORD IS DAMAGED**, the replacement must meet or exceed original specifications. A replacement cord can be obtained from the manufacturer, it's service agent or similarly qualified person in order to avoid a shock hazard.

## **NOTICE**

INVISIGLASS® is a registered trademark of Jersey Jack Pinball®. The entire contents of this manual are ©2024 Jersey Jack Pinball®, manufacturers of Jersey Jack Pinball® Amusement Games. All rights reserved. Reproduction of this manual other than for personal use is prohibited.

## **WARNING**

**NOTE:** This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

**Photosensitive seizure warning.** A small percentage of people may experience a seizure when exposed to certain visual images, including flashing lights or patterns. Even people who have no history of seizures or epilepsy may have an undiagnosed condition. Symptoms can be lightheadedness, altered vision, eye or face twitching, jerking or shaking of arms or legs, disorientation, confusion, or momentary loss of awareness. Seizures may also cause loss of consciousness that can lead to injury from falling.

***Immediately stop playing and consult a doctor if you experience any symptoms.***

## **RF INTERFERENCE NOTICE**

CABLE HARNESS PLACEMENTS and ground strap routing on this game have been designed to keep RF radiation and conduction within levels accepted by the FCC Rules. TO MAINTAIN THESE LEVELS, reposition harnesses and reconnect ground straps to their original placements, if they become disconnected during maintenance.

## **FCC/CANADA STICKER.**

Check the back of your game to verify that an FCC/Canada-certification sticker was attached to your game at the factory. All Games that leave the Jersey Jack Pinball® plant have been tested and found to comply with FCC/Canada Rules. Because the sticker is proof of this fact, legal repercussions to the owner and distributor may result if the sticker is missing. If you receive a game that has no FCC/Canada sticker, call Jersey Jack Pinball® for advice or write us a note on your Game Registration Card. Be sure that the card bears your game's serial number.



**CAUTION: Transport this game only with the hinged backbox down!**



*Greetings, Jersey Jack Pinball Fans.*

*Thank you for your purchase of our Avatar game.*

*The Avatar franchise has been wildly popular grossing over \$5.3 billion dollars worldwide.*

*An amazing property for first time game designer Mark Seiden. Mark and his design team have created a stunning and very ambitious game with many “firsts” for pinball. Congratulations to them!*

*In true Jersey Jack Pinball fashion, it’s a fun playing game that is easy to learn and hard to master.*

*Creating this game takes hundreds of people aside from the game designer. We thank everyone involved that helped to make this game a reality for you and many others to enjoy for years to come.*

*Best Regards,*

Jack Guarnieri  
Founder, Jersey Jack Pinball





# AVATAR

## THE BATTLE FOR PANDORA

BROUGHT TO YOU BY THE CREATIVE MINDS AT

# JERSEY JACK PINBALL

## DOCUMENT REVISION HISTORY

Version 1.0	Date September 12, 2024	Initial Release of Document
-------------	-------------------------	-----------------------------

Manual Compiled By:  
Barry Engler

Please report any errors with this publication to  
[bengler@jerseyjackpinball.com](mailto:bengler@jerseyjackpinball.com)

YOU MAY PRINT PART OR ALL OF THIS DOCUMENT FOR PERSONAL USE

**FOR SERVICE**  
CALL YOUR AUTHORIZED DISTRIBUTOR OR [CONTACT US](#)



# SPECIFICATIONS

## GAME SETUP WITH TOPPER

Specification	Imperial	Meteric
Weight	325 lbs.	148 kg.
Dimensions, leg levelers extended for 6.5°	87 x 29 x 57 in. H x W x D	221 x 74 x 145 cm. H x W x D
Minimum room dimensions per game	90 x 30 x 84 in. H x W x D	229 x 76 x 213 cm. H x W x D

## GAME SETUP WITHOUT TOPPER

Specification	Imperial	Meteric
Weight	325 lbs.	148 kg.
Dimensions, leg levelers extended for 6.5°	76 x 29 x 57 in. H x W x D	193 x 74 x 145 cm. H x W x D
Minimum room dimensions per game	79.0 x 30 x 84 in. H x W x D	221 x 76 x 213 cm. H x W x D

## GAME BOXED

Specification	Imperial	Meteric
Weight, Boxed with Pallet	392 lbs.	178 kg.
Box Diminsions	57 x 31 x 32 in. H x W x D	145 x 79 x 81 cm. H x W x D

## ELECTRICAL

Specification	120 VAC	230 VAC
Line Voltage Nominal	120 VAC	230 VAC
Line Voltage Range	100- 127 VAC	220 - 240 VAC
Line Frequency	60 HZ	50 HZ
Input Current (Max)	8 A	5A
Line Current Nominal	2 A	1A





# TABLE OF CONTENTS

## Game Assembly & Setup

Adjustments .....	<a href="#">2</a>
CE Topper Removal For Low Ceiling Clearance .....	<a href="#">4</a>
LE Topper Instalation .....	<a href="#">5</a>
12 Volt Dollar Bill Validator DBV .....	<a href="#">5</a>
Bluetooth Audio Setup .....	<a href="#">6</a>
WiFi Setup .....	<a href="#">7</a>
Unpacking Your Game.....	<a href="#">8</a>
Playfield Positions, Lifting The Playfield For Maintenance.....	<a href="#">10</a>
Playfield Pitch Bubble Level.....	<a href="#">11</a>
Adjusting Plumb Bob Tilt.....	<a href="#">11</a>
Rules Map .....	<a href="#">12</a>

## The JJP Menu System

Menu System Basics .....	<a href="#">14</a>
Tests Menu .....	<a href="#">15</a>
Settings Menu .....	<a href="#">16</a>
Sytem Default Settings .....	<a href="#">17</a>
Audits Menu .....	<a href="#">19</a>
Utilities Menu .....	<a href="#">20</a>
Reports Menu .....	<a href="#">21</a>
Resets Menu .....	<a href="#">22</a>

## Cabinet and Backbox Assemblies and Parts

Lower Cabinet Base Assemblies .....	<a href="#">24</a>
Cabinet Legs .....	<a href="#">25</a>
Lower Cabinet Base Assemblies Continued .....	<a href="#">26</a>
Lower Cabinet Game Specific Parts .....	<a href="#">28</a>
Backbox Base Assemblies .....	<a href="#">31</a>
Backbox Wood Assembly .....	<a href="#">33</a>
Backbox PCB Base Assembly 51-100041-02 .....	<a href="#">34</a>
Backbox Speaker Bar Assy. 51-100051-00 .....	<a href="#">35</a>
BackGlass Assembly .....	<a href="#">36</a>

*Cabinet and Backbox Assemblies and Parts Continued*

Door and Interlock Switch 51-000035-00..... [37](#)  
Cabinet Lock Down Switch Assy 51-000066-10 ..... [37](#)  
Lockdown Bar Receiver Assy Notched 10-008001-00 ..... [38](#)  
Lock Bar Assy with Action Button ..... [39](#)  
Side Rail..... [40](#)  
Line Filter Box Assy 51-005023-00 ..... [41](#)  
USB Camera Assy 51-005041-01 ..... [41](#)  
Knocker and Cable Assy 51-006014-25 ..... [42](#)  
Headphone and Bluetooth Assy 51-100113-00 ..... [43](#)  
Cabinet Power Box Assy U.S. 51-006001-02 ..... [44](#)  
Cabinet Power Box Assy International 51-006001-11 ..... [45](#)  
Cabinet Subwoofer 51-006004-01 ..... [46](#)  
27” LCD Monitor 51-100021-03 ..... [47](#)  
Monitor Magnetic Latch 51-100050-00 ..... [48](#)  
EMI Shield Lid with LED Strip 51-100238-01 ..... [48](#)  
Ball Shooter Assy ..... [49](#)  
Topper LE Model 51-100506-00 ..... [50](#)  
Topper CE Model 51-100440-00 ..... [51](#)

*Playfield Assemblies and Parts*

Pop Bumper Ring Assy 11-005004-01 ..... [53](#)  
Pop Bumper Bottom Assy 51-000004-01 ..... [53](#)  
Pop Bumper Assy 51-100251-00 ..... [54](#)  
CE Return Lane Left, Assy 51-100314-10 ..... [55](#)  
CE Return Lane Right, Assy 51-100314-11 ..... [55](#)  
LE Return Lane Left, Assy 51-100314-00 ..... [56](#)  
LE Return Lane Right, Assy 51-100314-01 ..... [56](#)  
Light Rail, 41.75”, Assy 51-100313-00 ..... [57](#)  
Light Rail, Shooter Lane 11.125”, Assy 51-100313-01 ..... [57](#)



*Playfield Assemblies and Parts Continued*

Outhole Flatrail with Lights, Assy 51-100454-00 .....	<a href="#">58</a>
Left Loop Subway Flatrail, Assy 51-100479-00.....	<a href="#">56</a>
Shooter Lane Flatrail, Assy 51-100474-00 .....	<a href="#">60</a>
Right Loop Outer Flatrail, Assy 51-100334-00 .....	<a href="#">60</a>
Opto Pair, Assy 18-007025-24 .....	<a href="#">61</a>
U - Shaped Opto, Assy 18-007026-24 .....	<a href="#">61</a>
Notched Opto Pair, Assy 51-100370-00 .....	<a href="#">62</a>
Upper Slingshot Plastic, Assy LE Model 51-100489-00 .....	<a href="#">63</a>
Upper Slingshot Plastic, Assy CE Model 51-100489-01 .....	<a href="#">63</a>
VUK Gate, Assy 51-100399-00 .....	<a href="#">64</a>
Loopback Ramp, Assy 51-100319-00 .....	<a href="#">64</a>
Left Ramp Plastic with Gate, Assy 51-100384-00 .....	<a href="#">65</a>
Kickback, Assy 51-100194-00 .....	<a href="#">65</a>
Horn Ramp Wireform, Assy 51-100372-00 .....	<a href="#">66</a>
Upper Right Window, Assy 51-100442-00 .....	<a href="#">67</a>
Lower Right Window, Assy 51-100442-01 .....	<a href="#">67</a>
Two Way Mirror, Assy 51-100442-02 .....	<a href="#">68</a>
Scoop with Pigtail, Assy 51-100339-00 .....	<a href="#">68</a>
Playfield Magnet, Adjustable Core, Assy 51-000024-00 .....	<a href="#">69</a>
VUK, Assy 51-100293-00 .....	<a href="#">69</a>
UP Post, Assy 51-100330-00 .....	<a href="#">70</a>
Upper Subway, Assy 51-100352-00 .....	<a href="#">70</a>
Scoop Subway, Assy 51-100354-00 .....	<a href="#">71</a>
Amp Suit Arm Coil, Assy 51-100459-00 .....	<a href="#">71</a>
Mini VUK, Assy 51-100360-00 .....	<a href="#">72</a>
Action Button Light, Assy 51-100286-00 .....	<a href="#">73</a>
Slingshot Crank and Plunger, Assy 51-100446-00 .....	<a href="#">74</a>
Slingshot Coil, Assy 51-100409-00 .... ..	<a href="#">74</a>
Right Flipper, Assy .....	<a href="#">75</a>
Left Flipper, Assy .....	<a href="#">75</a>
6 - Ball Trough, Assy 51-100311-00 .....	<a href="#">76</a>

*Playfield Assemblies and Parts Continued*

Autolaunch with Pigtail, Assy 51-100410-00 ..... [77](#)

Ladder and Clamp, Assy 51-100212-24 ..... [78](#)

Playfield Support, Assy 51-100001-00 ..... [78](#)

Playfield Controller Board, Assy 51-000103-07 ..... [79](#)

Left Ramp Opto Assy 51-100331-00 ..... [79](#)

Backpanel, Assy ..... [80](#)

Lower Left Ramp, Assy 51-100317-00 ..... [81](#)

Left Ramp Assy 51-100322-00 ..... [82](#)

Shooter Lane Gate, Assy 51-100323-00 ..... [83](#)

Floodlight, Assy, 2 UV, 1 RGBW 51-100497-04 ..... [83](#)

Infinity Lock, Assy 51-100346-00 ..... [84](#)

Scoop Pop Up, Assy 51-100324-00 ..... [85](#)

Right Ramp, Assy 51-100325-00 ..... [86](#)

Right Loop Outer Flat Rail, Assy 51-100334-00 ..... [87](#)

Left Loop Ramp, Assy 51-100344-00 ..... [88](#)

Crab Suit, Assy 51-100416-00 ..... [88](#)

Banshee, Assy 51-100393-00 ..... [89](#)

IIU, Assy 51-100394-00 ..... [89](#)

Spinner, Assy 51-100400-00 ..... [90](#)

Back Left Plastis, Assy ..... [90](#)

Rear Lower Playfield Gate, Assy 51-100345-00 ..... [91](#)

Warrior Suit, Assy 51-100430-00 ..... [91](#)

Bottom Arch, Assy ..... [92](#)

LE Lower Playfield Rear, Assy 51-100348-00 ..... [93](#)

LE Lower Playfield Front, Assy 51-100349-00 ..... [94](#)

CE Lower Playfield Rear, Assy 51-100348-01 ..... [96](#)

CE Lower Playfield Front, Assy 51-100349-01 ... [97](#)

*Diagrams*

Rubber Diagram ..... [100](#)

Mylar Diagram ..... [101](#)

OPTO Map, Top ..... [102](#)

OPTO Map, Bottom ..... [103](#)

LED Board Map ..... [104](#)



Diagrams, Continued

Switch Map .....	<a href="#">105</a>
Coil Map .....	<a href="#">106</a>

Electronics, Boards, Schematics, and Tables

IO Board 15-004001-10 .....	<a href="#">108</a>
Trough Transmitter PCB 15-100002-00 .....	<a href="#">113</a>
Trough Receiver PCB 15-100004-00 .....	<a href="#">114</a>
Cabinet Controller PCB 15-100036-00 .....	<a href="#">115</a>
Playfield USB Controller PCB 15-100055-00 .....	<a href="#">117</a>
Amplifier PCB 15-004002-01 .....	<a href="#">119</a>
Left Sling Area LED PCB 15-100062-01 .....	<a href="#">121</a>
Right Sling Area LED PCB 15-100062-02 .....	<a href="#">123</a>
Middle Right LED PCB 15-100062-03 .....	<a href="#">125</a>
Middle Left LED PCB 15-100062-04 .....	<a href="#">127</a>
Lower Sub Playfield LED PCB 15-100062-05 .....	<a href="#">129</a>
Lower Sub Playfield Ext LED PCB 15-100062-06 .....	<a href="#">131</a>
Lower Sub Playfield LED PCB 15-100062-07 .....	<a href="#">133</a>
Upper Left LED PCB 15-100062-08 .....	<a href="#">135</a>
Upper Right LED PCB 15-100062-09 .....	<a href="#">137</a>
Upper Middle LED PCB 15-100062-10 .....	<a href="#">139</a>
Target Area LED PCB 15-100062-11 .....	<a href="#">141</a>
Upper Sub Playfield LED PCB 15-100062-12 .....	<a href="#">143</a>
Infinity Ry PCB 15-100064-00 .....	<a href="#">145</a>
Infinity Rx PCB 15-100064-01 .....	<a href="#">147</a>
Single RGB PCB 15-100008-00 .....	<a href="#">149</a>
Double RGB PCB 15-104129-05 .....	<a href="#">150</a>
Floodlight PCB 15-100069-00 51-100467-00 .....	<a href="#">151</a>
Switch Matrix Table .....	<a href="#">152</a>
OPTO Lookup Table .....	<a href="#">153</a>
Dedicated Switch Table .....	<a href="#">154</a>
70 Volt Coil Table .....	<a href="#">155</a>
20 Volt Coil and Motor Table .....	<a href="#">156</a>
12 Volt Coil, Light and Motor Table .....	<a href="#">156</a>
Fuse Table .....	<a href="#">157</a>
Power Stream .....	<a href="#">158</a>





ADJUSTMENTS INSTRUCTIONS

Warning! This game has a shipping pin installed to prevent the mini ball, located in the mini-playfield assembly, from moving during transport. It must be removed before the game is played.

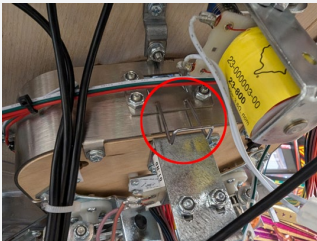
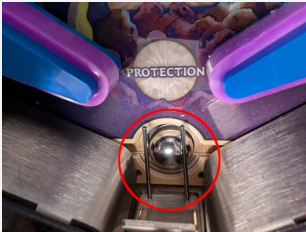
1 Remove Shipping Pin – Large Mini Playfield

Lift the playfield to Service Position #3 (refer to Owner Manual) and find the lower playfield.

- Pull out the pin.
- Lower the playfield back into place.
- Remove the art protectors.
- Replace the glass and reinstall the lockdown bar.

TOOLS NEEDED

- #1 Phillips driver
- 11/32" nut driver
- #10 Torx bit
- 9/16" wrench
- 3/8" wrench

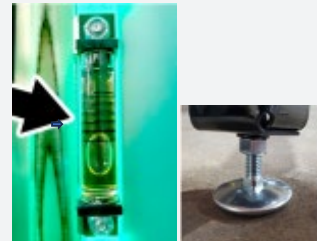


2 Game Pitch

The game was designed to be played between a 6.5 to 7 degree pitch on the playfield. On the right-hand side of your shooter lane is a bubble level. When the upper edge of the bubble is touching the 2<sup>nd</sup> line of the level, you are at the right pitch.

Adjusting the level and pitch of your game:

The leg levelers are adjustable. In order to increase the pitch of your game, you make the back legs taller by turning the feet down. Leveling side-to-side can be done by adjusting the height of legs on the left or right side of the game. All floors are different. An easy way to check the level side is to place a ball near the top of the playfield and let it roll down. If it rolls to the left, raise the left leg levelers slightly. If it rolls to the right, raise the right levelers slightly. When the game is setup to your liking, lock the position of the leg levelers by turning the nut against the bottom of the leg as pictured, and tighten with a 9/16<sup>th</sup> wrench.



3 Shooter Lane Adjustment

A full plunge should send the ball across the playfield and up the left orbit, around to the upper right flipper.



This should be adjusted by the factory. If you need to make further adjustments, the shooter lane ball guide can be aimed by loosening the 3 nuts using an 11/32 nut driver.



And loosening the screw using a #1 Phillips head screwdriver.

Adjust the ball guide as necessary and tighten the screw back down. Test by plunging a ball by pulling the plunger all the way out and releasing.

If the ball launch is satisfactory, retighten the lock nuts. Otherwise, loosen the screw and make further adjustments.



4 Playfield Windows

The playfield windows have been adjusted to the correct height by the factory. If you ever need to take the windows out, or find they are causing interference with ball travel, then they will need to be readjusted.

The playfield windows should sit a very small amount higher than the surface of the playfield. The height can be adjusted by turning the leveling screw using a #10 Torx bit. Adjust the screw closest to the position with the incorrect height. Repeat as necessary for all other edges of the window.

When a ball is rolled over a properly aligned window, it should not change direction along the edge of the window.

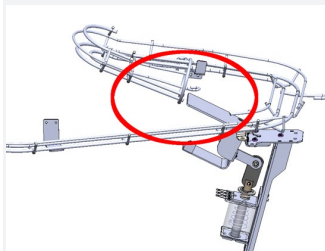
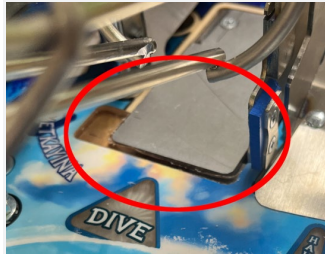


5 Scoop Ramp

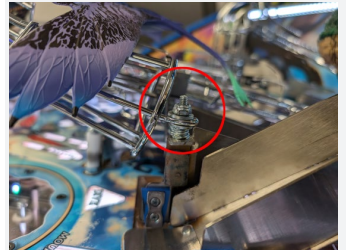
The scoop ramp flap should be flush with the playfield when closed.

There is a screw that sets the height located under the flap. It can be adjusted using a 5/32" Allen wrench.

The scoop ramp flap should be slightly higher than the floor of the wire form when open.



The height of the wire can be adjusted using an 11/32" nut driver on the nylon nut located to the right of the entrance of the wire form.



6 Left and Right Orbits

If you find the ball is heading straight down the middle on an orbit shot, you should first attempt leveling the game left to right. If that does not produce the desired result the flippers on each side can be adjusted in (rotated toward the center of the playfield) to change the trajectory of ball as it exits the orbit.

When both orbit shots are correctly adjusted the Clockwise (left orbit) comes back to the left flipper, the Counterclockwise (right orbit) comes back to the right flipper.

Loosen the flipper bat from underneath the playfield using a 3/8" wrench on the nut. (Always use the side protectors before lifting the playfield!) Rotate the flipper bat slightly outward. Tighten the nut again. Be careful not to overtighten. Roll the ball around the orbit and check for improvement.



TOPPER REMOVAL FOR LOW CEILING CLEARANCE

Removing the installed topper will take the minimum ceiling height required from 88 inches to 78 inches. Please refer to normal topper removal instructions if your game is already setup.

- 1

Unbox the game, install the legs, but do not raise the head. Please refer to the unboxing instructions that came with the game.
- 2

Looking at the backside of the topper, locate the 2 red, green and white connectors (see picture) going to the LED strip, disconnect both backer cables.
- 3

Find the topper support bracket, remove the 3 - ¼" hex screws and remove the screws and bracket.
- 4

Find and remove the 8 - Philips screws on the top of the topper, with the screws removed pull the Plexi glass straight out and place in a safe area.
- 5

With the top off, push the sides of the topper out slightly to release the cockpit Plexi.
- 6

Locate the 2 red, green and white connectors located in the upper corner of the topper (see picture), disconnect both cables.
- 7

Find the small green board in the upper right-hand corner. Disconnect the power and USB cable.
- 8

Find and disconnect the HDMI cable.

TOOLS NEEDED

- Scissors to cut cable ties
- 1/4" nut driver or #2 Phillips driver



TOPPER REMOVAL FOR LOW CEILING CLEARANCE

- 9

Find the 6 - ¼" hex screws and remove them. Use the base plate picture as a reference for screw location. Secure the topper so it does not move when the screws are removed.
- 10

With the screws removed, carefully remove the topper from the backbox by pulling the topper straight from the backbox (there is a threaded security shaft going into the backbox). There are several cables running into the top of the backbox, carefully pull the cables through the cabling hole on the Topper baseplate (see picture), after the topper is removed push the cables into the backbox through the access hole on top of backbox.
- 11

Raise the backbox and lock it into place, open the backbox by removing the glass, remove the wires for the topper by following them to the next internal connector and disconnecting and removing the cables. Wire ties may need to be cut.
- 12

Reassemble the backer LED's that you disconnected in step 2. Find the main harness for the LED's and pull the harness through the topper opening in the top of the backbox and connect. See picture for cable identification.
- 13

Reassemble the topper by following the reverse steps and store in a safe place.







# JERSEY JACK PINBALL

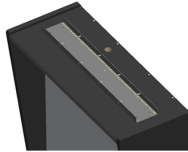
## LE Topper Installation



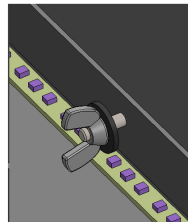
**Contents:**  
2- Arted Acrylic Panels  
8- Washers  
(30-100103-10)  
8- Wingnuts  
(91-003508-00)  
(No tools are required for assembly)

1. The topper bracket with LED strips is pre-installed on the backbox.

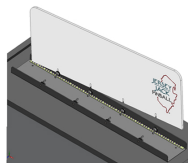
Remove protective film from front and back of each arted acrylic panel.



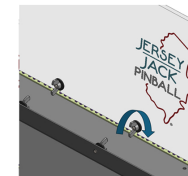
2. On each threaded stud on the topper, add (1) washer (30-100103-10) and (1) wingnut (91-003508-00), allowing space between the washer and the bracket, as shown.



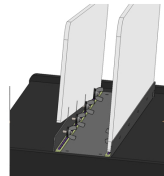
3. Insert rear arted acrylic panel. Align slots on bottom of the acrylic panel with threaded studs on the bracket. Ensure acrylic panel is between washers and bracket wall.



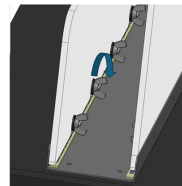
4. Ensure contact between bottom of acrylic panel and top of rear LED strip. Secure acrylic panel snugly with wingnuts, but do not over tighten.\*



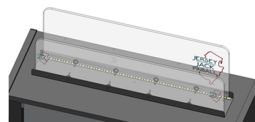
6. Insert front arted acrylic panel. Align slots on bottom of the acrylic panel with threaded studs on the bracket. Ensure acrylic panel is between washers and front bracket wall.



7. Ensure contact between bottom of acrylic panel and top of front LED strip. Secure acrylic panel snugly with wingnuts, but do not over tighten.\*



8. Power on your pinball machine. Ensure illumination of arted acrylic panels.



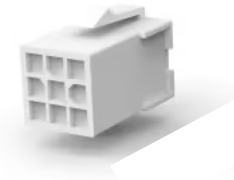
**\*OVER TIGHTENING WINGNUTS MAY CRACK OR DAMAGE ACRYLIC PANEL**

71-100049-00 RA

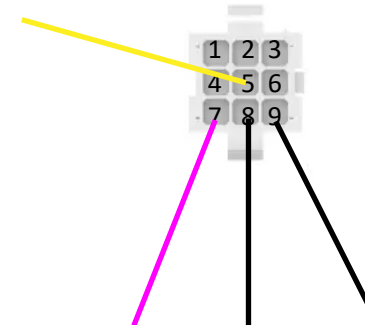
## 12 VOLT DOLLAR BILL VALIDATOR

Connector on back of coin door,  
input to your 12VDC DBV

Front View



Back View



Wire Color	Pin
Yellow, 12 VDC Power	5
Pink with Red Stripe, Credit N/O	7
Black, Credit Common	8
Black with White Stripe, Power Ground	9

# BLUETOOTH AUDIO SETUP

To set up Bluetooth you will need to access the Player Menu.

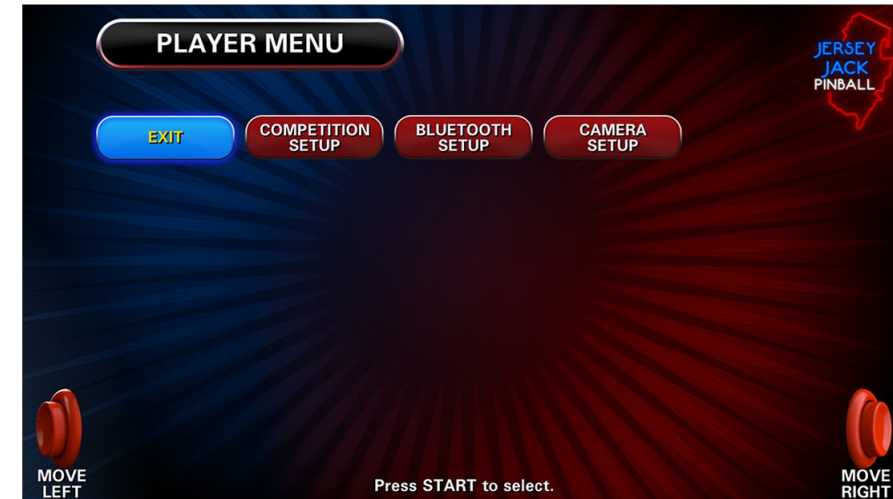
The Player Menu can be accessed by holding the right flipper for several seconds while the game is in attract mode (not during a game).

Select Bluetooth setup (using the flippers to move selection) and hit start button.

Once in Bluetooth menu it will attempt to scan for Bluetooth devices. Make sure your device is in pairing mode. Once the Bluetooth device shows up in the list select it with start button, and the Bluetooth should pair the devices and start working.

If the device does not pair exit out of Bluetooth setup and retry. Make sure your device is in pairing mode. Due to the nature of Bluetooth this may take several attempts.

\*On the LE & CE models, Bluetooth pairing can be accessed directly by pushing the button on the headphone jack panel next to the coin door.



# WIFI SETUP

Enabling WIFI allows you to download game updates.  
To set up WIFI you will need to access the Diagnostics Menu.

The Diagnostics Menu is accessed with the buttons inside the coin door.

- Open coin door
- Hit enter button to enter diagnostics
- Go to FULL MENU
- Go to SETTINGS
- Go to NETWORK SETTINGS
- Go to WIFI
- Go to SET WIFI NETWORK

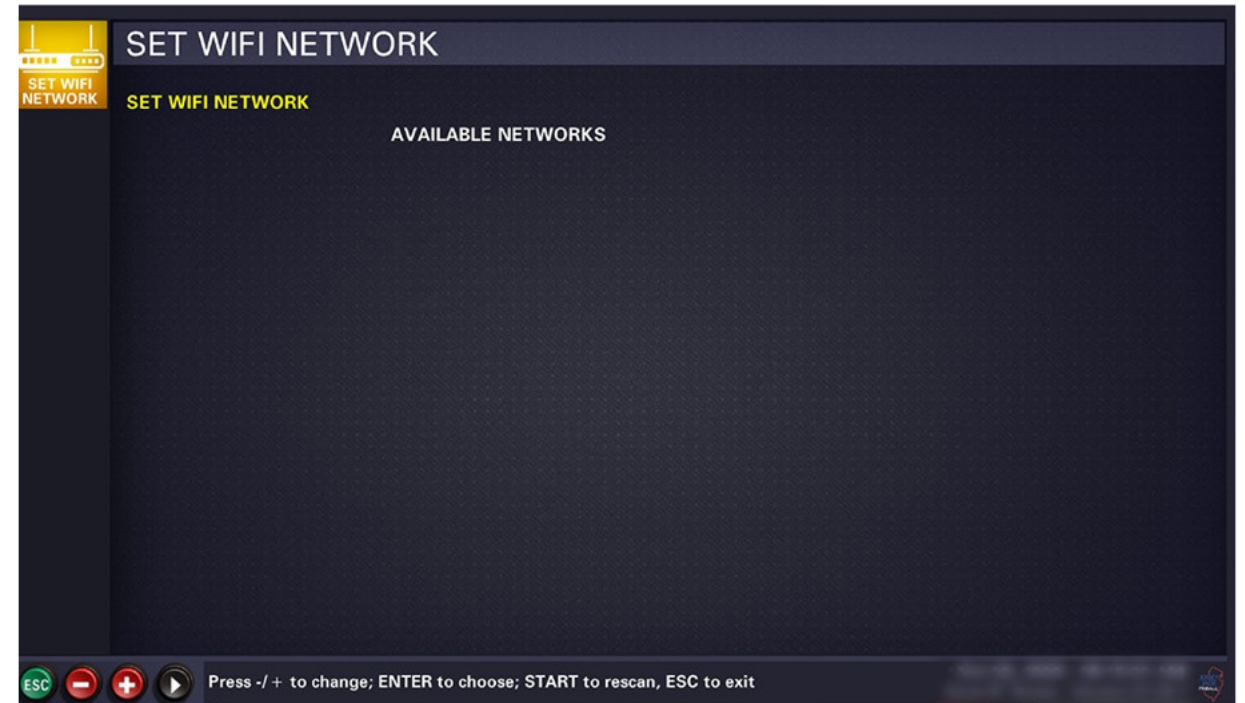
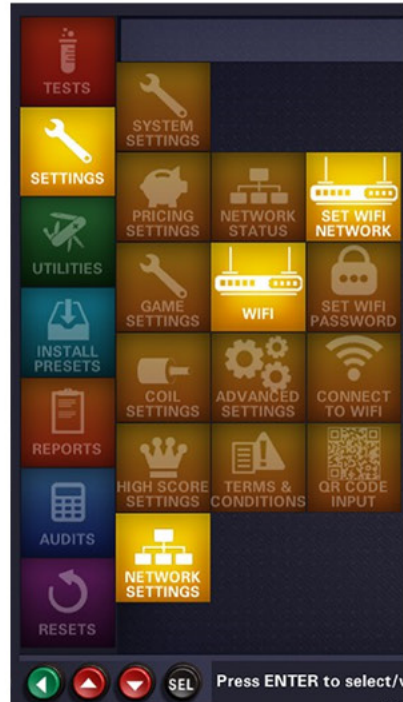
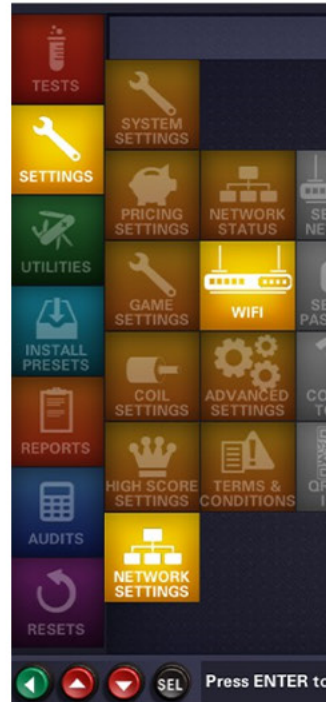
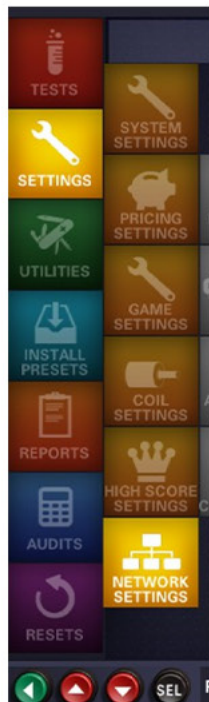
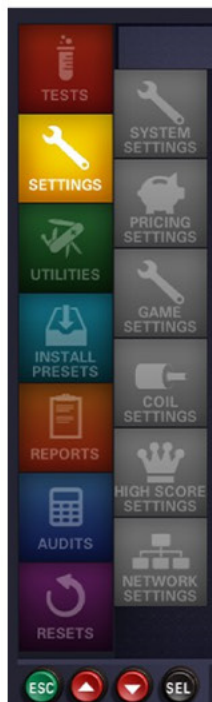
When setting up your network be sure to read the JJP terms of service (TOS) and agree to them in order to connect your pinball machine to WIFI.

***\*\*Without agreeing to TOS, your machine will not connect to WIFI.***

While in SET WIFI NETWORK select your network from the available list.

After your network is set, go to SET WIFI PASSWORD in menu and enter your WIFI password.

Finally go to CONNECT TO WIFI in menu to connect to the internet.



[Back to TOC](#)



# UNPACKING & SETUP INSTRUCTIONS FOR YOUR JERSEY JACK PINBALL MACHINE.



Tools required:  
Phillips Head Screwdriver  
5/8" Wrench (for leg bolts)  
Side Cutter or Scissors  
Allen wrench (comes included)

1. If the game has been shipped on a pallet or skid, there are two sets of strapping. Cut the outer straps holding the game to the skid, then cut the two remaining packing straps to open the box.



**CAUTION! SAFETY EYEWEAR RECOMMENDED. Use caution when cutting the strap, as it is under high tension and can spring when cut.**

2. Remove the cap on the top of the box. Inside the box, remove the top tray containing the legs for the game, the leg levelers, and the name/number plate envelope.



3. Remove the legs, leg leveler bag, and the name/number plate envelope from the tray, placing them in a safe location.



4. In the inside corners of the box are four cardboard stiffeners and two cardboard spacer pieces. These need to be pulled straight up and out of the box.



5. Slide the entire box sleeve up and off the game.

If this is not possible due to a low ceiling, cut the box using a box cutter or a sharp knife. Find the dotted line on the box for the safe location to do this. The line is located on one corner of the box. Damage to your game may result if cut in any other location! Cut through the cardboard and then unwrap the cardboard from the game.



6. Remove the protective plastic bag that covers the game.



**CAUTION! SUFFOCATION DANGER! DO NOT LEAVE THIS BAG WHERE IT COULD BE FOUND BY SMALL CHILDREN OR PETS!**

7. **DO NOT CUT THE STRAP THAT IS AROUND THE GAME AT THIS TIME!**

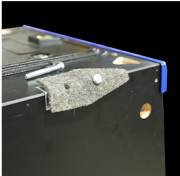
This strap secures the head during setup. Removing this strap could cause the game to become unstable and unexpectedly fall! Leave the game standing upright on the carton base.



8. Take the nuts and levelers from step 3 and put one nut on each leg leveler. Then, thread a leg leveler onto the bottom of each of the legs. Thread them fully into the legs.



9. Using a 5/8" wrench, remove the leg bolts and washers (4) from the front leg positions. Place one leg in each front corner position and use the leg bolts to secure to the cabinet. The included felt pad should remain between the cabinet and the leg. The washer(s) should remain between the head of the bolt and the leg. Use the 5/8" wrench to tighten the legs.



10. Carefully tip/lower the game onto its front legs. It is recommended to have two people for this step.



11. **WARNING! HEAVY LIFTING REQUIRED!**

The next step requires heavy lifting. Two people are recommended to lift the game with a third person to place a support under the game. Keep children and small pets away from the game during this operation!

**DO NOT ATTEMPT THIS OPERATION ALONE!**

Find a suitable support (metal stool or similar) that can hold the back end of the game when it is lifted and raised into position. Place one person on each side of the game and lift the back end of the cabinet. Slide a suitable support under the rear of the game and rest the game on it. Bolt the two remaining legs on to the back end of the game (using same process as step 9). Lift the back end of the game and remove the support. The game should now be standing on four legs. Make sure the leg bolts are tight.



[Back to TOC](#)



12. Cut the strap that is wrapped around the game. Use caution when cutting the strap, as it is under high tension and can spring when cut.

13. An Allen wrench came packed with the game leg levelers. Place the wrench in the rear lock of the cabinet. Raise the head of the game into position. Turn the wrench until the backbox is firmly locked into its upright position.

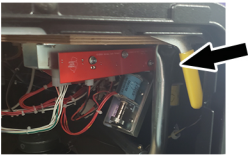
**CAUTION! Failure to lock the backbox in position can result in serious injury! Make sure that you cannot move the raised head after it is locked in position!**



14. The keys to the game are tied to the front shooter rod. Cut the tie wrap to free the keys and discard the tie wrap. Use the keys to open the front cashbox door of the game.



15. Inside the cashbox door, at the top of the opening is a yellow lever. Slide the lever to the left. While holding the lever to the left, remove the front hand protector molding by pulling straight up.



16. Close and lock the cashbox door to prevent scratches while removing the glass. Slide the glass towards you and out of the game. Carefully place the glass on a carpeted/soft surface.



**CAUTION! The glass is tempered and could explode if placed on end on a hard surface!**

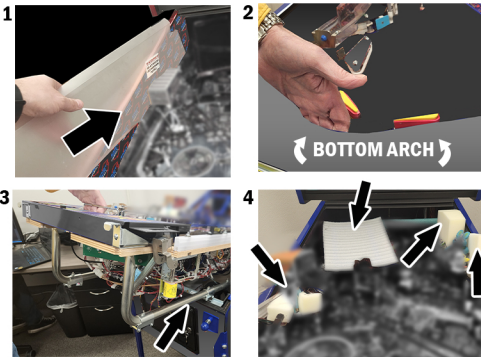
17. If arted sideblades are installed, use **ART BLADE PROTECTORS** before raising playfield. The Protectors are found inside of the cabinet on Collector's Edition games. (see pic 1) See Sideblade Art Protector insert for more information.

- Firmly grasp the bottom arch and pull up on the playfield (see pic 2).

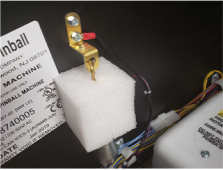
- Pull the playfield toward you and rest it on the cabinet front edge in one of the provided service positions (see pic 3).

- Remove all packing foam from the playfield (see pic 4).

- Slightly raise and push the playfield back into its normal game position.



18. Inside the cashbox door, along the left side of the cabinet, is a plumb bob that detects tilted operation of the game. It has a white piece of shipping foam that locks it into place. Remove the shipping foam by turning it until the slot in it can be pulled around the wire of the tilt.

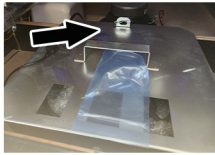


**Adjusting the plumb bob:**

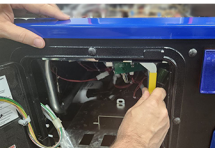
*Using the wingnut underneath the plumb bob weight, adjust the tilt mechanism to the desired sensitivity. Raising the weight higher up the hanger wire makes the tilt mechanism more sensitive; lowering the weight makes it less sensitive. With the game leveled and set to the desired playfield incline, the plumb bob weight should hang in the center of the metal contact ring. If the weight is not centered, loosen the screws holding the contact ring to adjust.*

19. Inside the game cabinet is the cashbox. It is held in place with a Cotter pin. Remove cotter pin and carefully remove the cashbox from game.

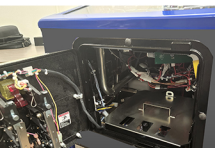
Inside the cashbox are the pinballs, powercord, and goodie bag. Take the pinballs out of their protective plastic and gently clean them with a soft rag. Place the pinballs inside the open top of the game. They will roll to the bottom return area. Set the powercord aside for step 22.



20. With the door closed, carefully place the glass back into the channels of the game and slide it all the way forward. While holding the glass, open the door and move the locking lever to the left and replace the front hand protector molding. Move the lever to the right to lock it into position.



21. Place the cashbox back into the game, re-insert the Cotter pin, and close and lock the coin door.



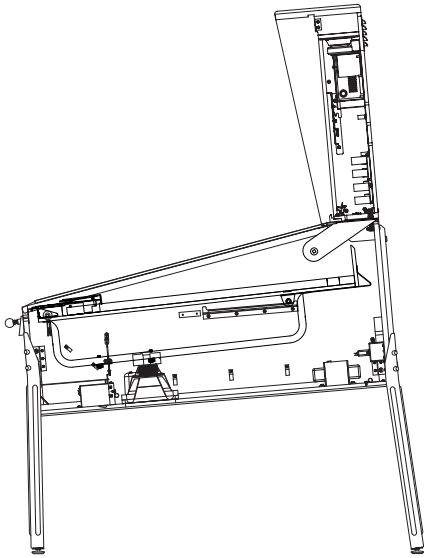
22. Remove the number plate from its shipping envelope (from Step 2). Remove the two phillips screws in the speaker panel: Using these same screws, install your number plate.



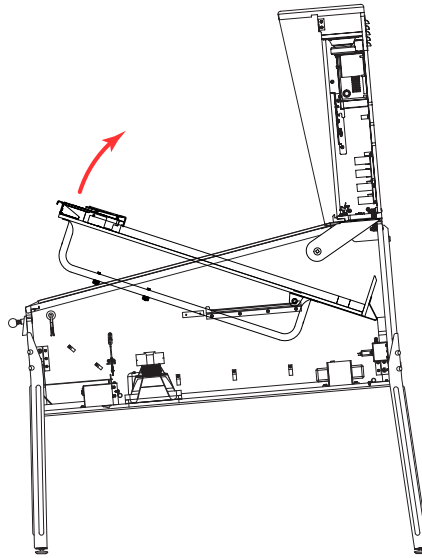
23. Plug in the game via the rear power port with powercord found in cashbox. Remove the power port cover plate screws with your Phillips head screwdriver. Plug in the power cord. Reinstall the plate, making sure the cord is secured in the slot in the wood. The power switch is located under the game on the front right corner. Flip the power switch on. Your game should take a few minutes to boot up and come to life!



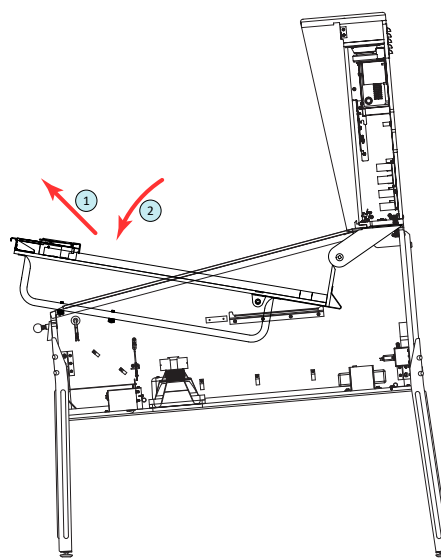
# LIFTING THE PLAYFIELD FOR MAINTENANCE



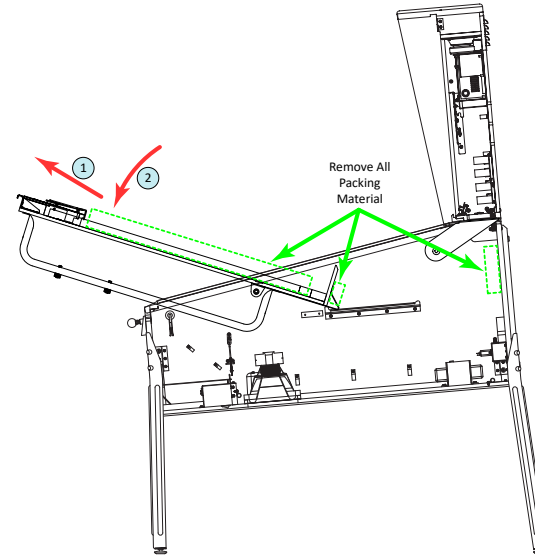
Playfield Home Position



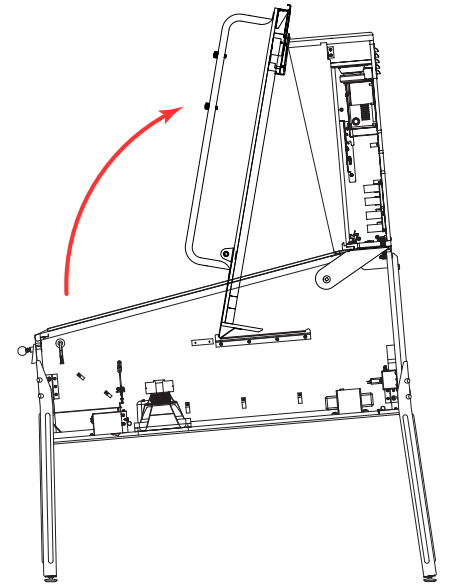
Lifting the Playfield



Playfield Service Position 1



Playfield Service Position 2



Playfield Service Position 3



## DANGER!

Pinch Point

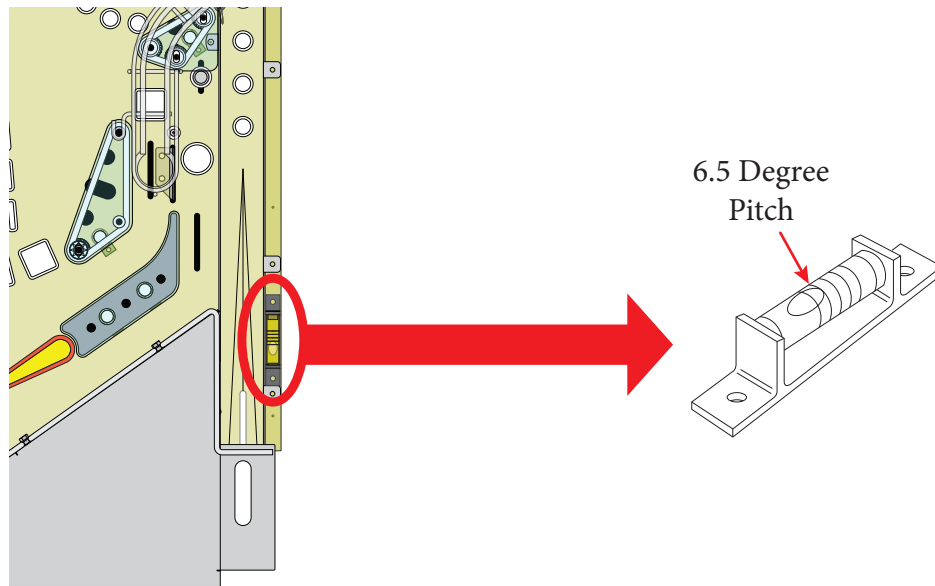
Lifting the playfield can cause injury or death.  
Use caution when moving the playfield.



# ADJUSTING THE PLAYFIELD ANGLE & TILT SENSITIVITY

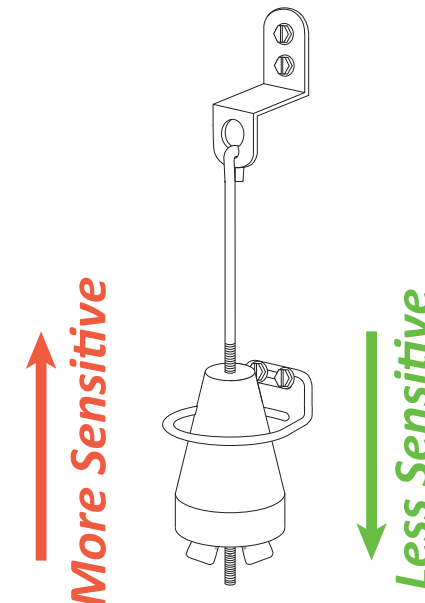
A bubble level is attached to the playfield's right wood rail, next to the ball shooter lane, to indicate the optimal pitch of the playfield (front-to-back) for game play. Adjust the levelers and tightening nuts on the game's four legs until the top of the bubble in the level is just touching the second reference line, as shown in figure. This will provide a playfield pitch angle of 6.5°.

**Note:** Ensure that the playfield remains level, side-to-side, as you adjust its pitch.



Playfield pitch bubble level.

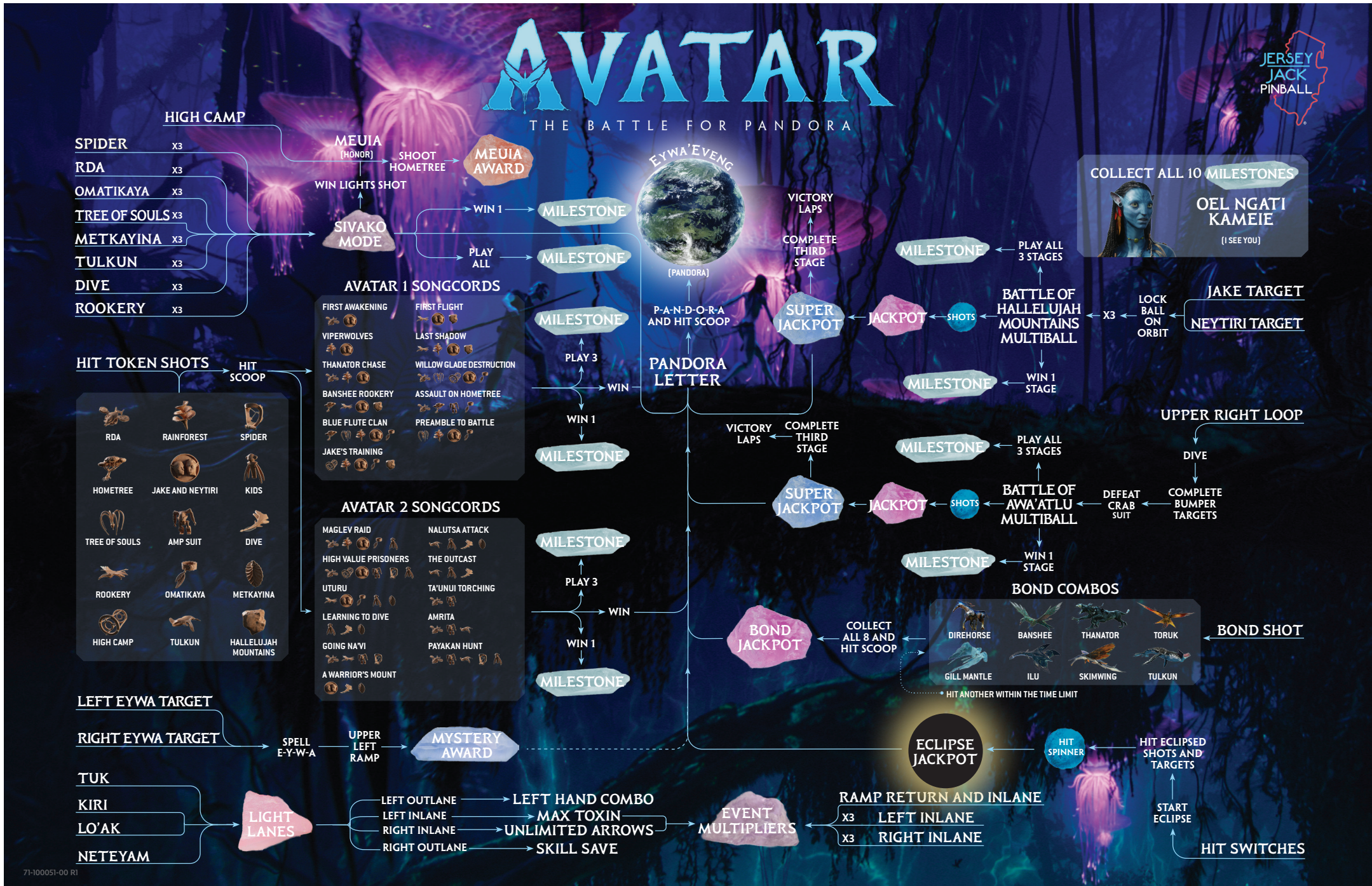
Locate the plumb bob assembly, mounted to the left sidewall of the cabinet interior, near the front. Remove the shipping block from around the plumb bob tilt mechanism. Using the wingnut underneath the plumb bob weight, adjust the tilt mechanism to the desired sensitivity. Raising the weight higher up the hanger wire makes the tilt mechanism more sensitive; lowering the weight makes it less sensitive.



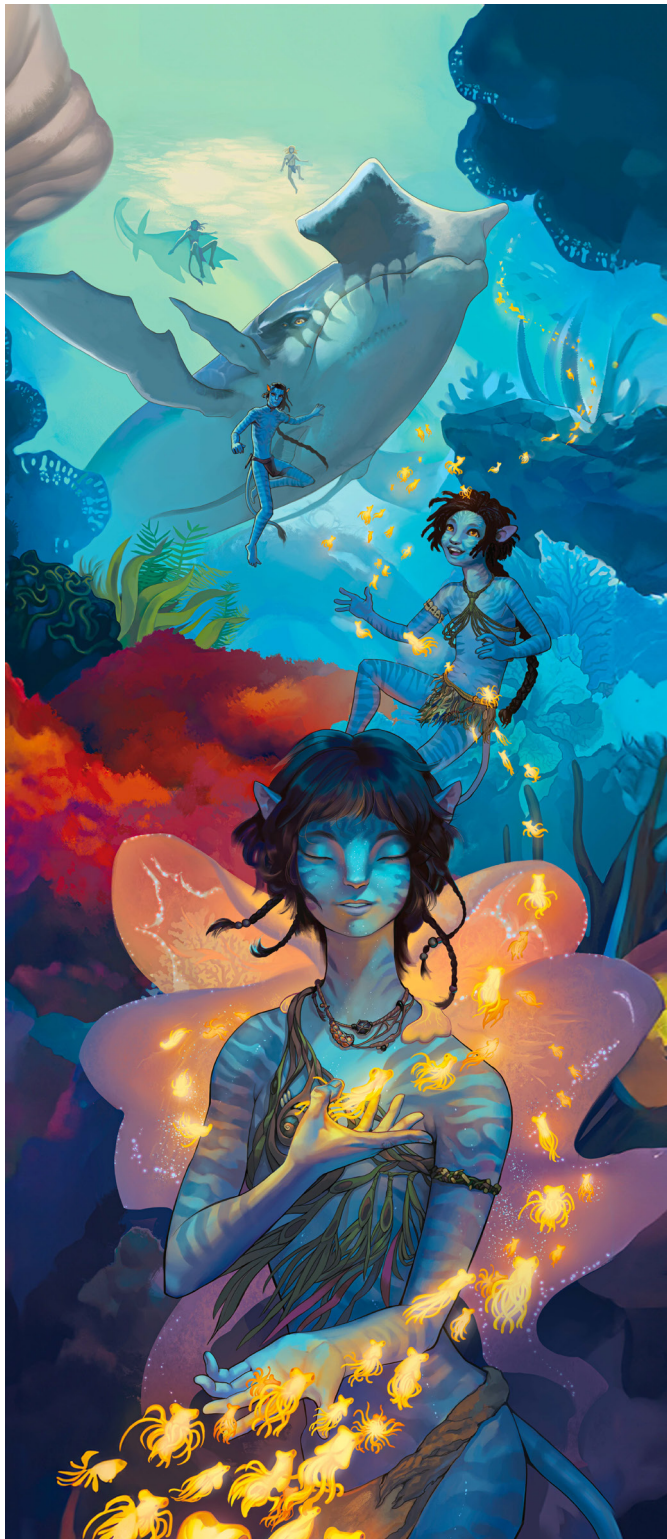
Adjusting The Tilt Sensitivity



# RULES MAP

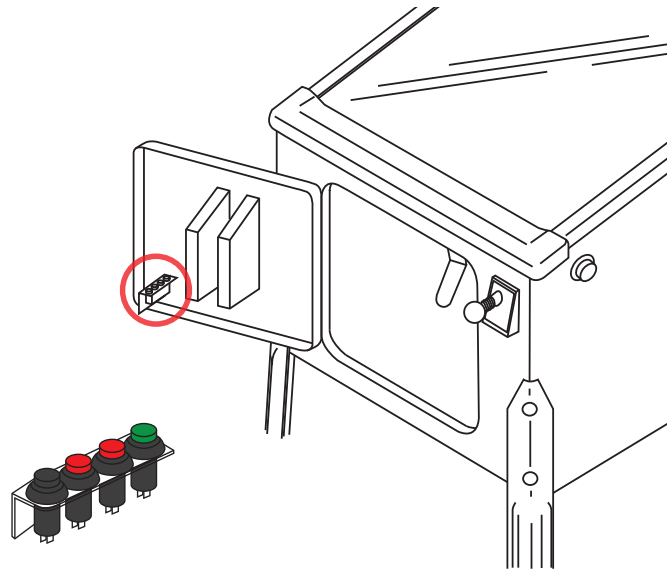






# THE JJP MENU SYSTEM

# MENU SYSTEM BASICS

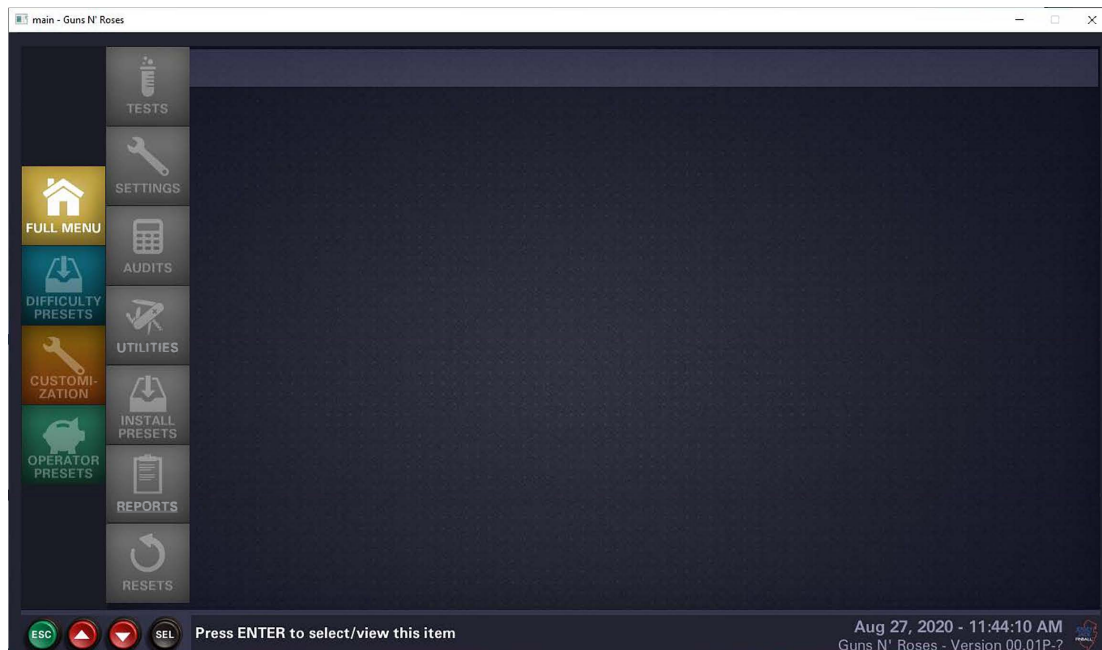


The JJP menu system allows the user or operator of the game to test the performance of its components and assemblies, personalize its rules and track, monitor or manage its play and/or earnings. Four pushbuttons are used to navigate the menu system, make adjustments, enter data, check components, trigger tests, etc. The buttons are located on the inside of the coin door, mounted to a bracket nearest its outside edge (circled).

The buttons are labeled: black is **Enter**, red next to it is **Up/+**, next red is **Down/-** and green is **Back/Escape**. Each time you press a button, you will hear an audio response through the game's speakers. Use **Enter** to enter a sub-menu, select a menu item to change or execute a command. Use **Up/+** or **Down/-** to maneuver through menu choices or increase/decrease data values for a selected menu item. Use **Back/Escape** to exit a sub-menu or escape from a selected menu item without saving changes. Each sub-menu screen contains specific instructions for button use and/or visual cues superimposed over the button illustrations in the lower left corner of the LCD screen.

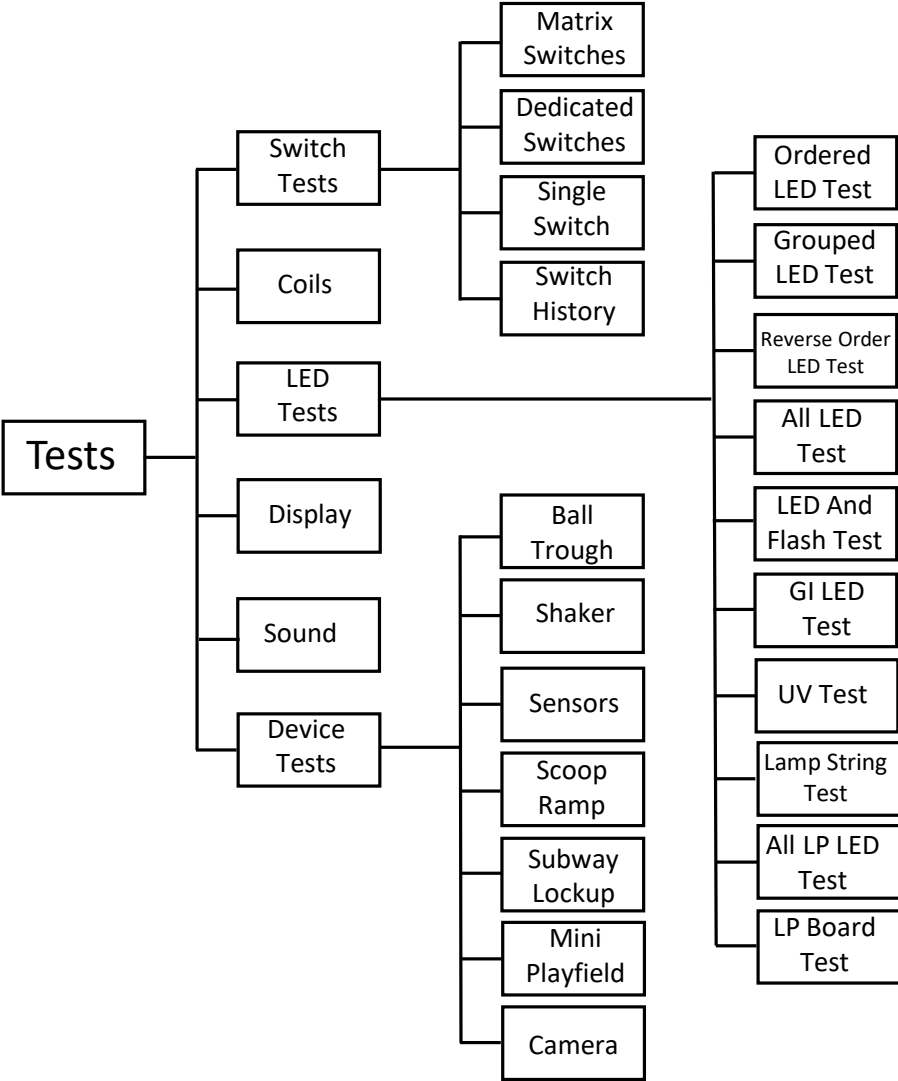
To enter the menu system at any time (after system boot-up), open the coin door and momentarily press **Enter**. The main menu screen will instantly appear on the game's LCD monitor. The current date and time will be displayed in the lower right hand corner of the screen, along with the version of software the game is running. All of the RGB LEDs and GI/flasher LEDs in the game will light up in white to improve visibility above and below the playfield.

Note: When the coin door is opened, the game's safety interlock switch disables the 70-volt power running to the playfield. In order to activate 70-volt devices in any of the diagnostics tests, you must either close the coin door or pull the safety interlock switch's actuator out (it will "click" and lock in place). When you close the coin door, the interlock switch actuator will be pushed back into its normal (unlocked) position. **CAUTION:** Most of the high power coils will be enabled, so slingshots, pop bumpers, VUKs and flippers (if activated by the flipper buttons) will kick a ball around as it rolls down the playfield - or fire when trigger switches are closed by any means. **So please be careful with your fingers and tools on the playfield surface! If you lift the playfield for any reason, please be careful around high power coil lugs, as they present a shock hazard!**



Menu system main screen.

# TESTS MENU



The **Tests** menu allows the user to test all major components and assemblies in the game for proper operation.

**Switch Tests** - test all matrix or dedicated switches in the game. A screen will be displayed for the selected group (**Matrix Switches** or **Dedicated Switches**) showing the status of every switch within the group. As you manually open or close switches, the status for each is updated on the screen and you hear an audio response through the game’s speakers. In **Single Switch** test, you can scroll through the entire list of switches and repeatedly open or close any single switch. The **Switch History** screen displays the 24 most recent inactive-to-active switch transitions.

**Coils** - test virtually any coil, magnet, motor or light in the game. A screen will be displayed, listing all of the coils, magnets, motors and lights in the game that can be energized. You can auto-cycle through the list one at a time, or repeatedly/manually trigger a single device.

**LED Tests** - test the RGB LEDs in the game (feature and GI lighting). **Ordered LED Test** - you can step through the list of RGB LEDs, one at a time, in hardware order, and test the color-producing capability of each. **Grouped LED Test** - you can step through the list of RGB LEDs, one at a time, in grouped order, and test the color-producing capability of each. **Rev Order LED Test** - basically the same as the **Ordered LED Test**, except the LEDs are listed in reverse hardware order. **All LED Test** - all LEDs (RGB and GI) will light at once, allowing you to test the color-producing capability of the entire chain at one time. **GI Only Test** - allows you to test the color-producing capability of LEDs used for GI purposes. **LED And Flash Test** - allows you to test the functionality of all CPU-controlled lighting in the game at one time.

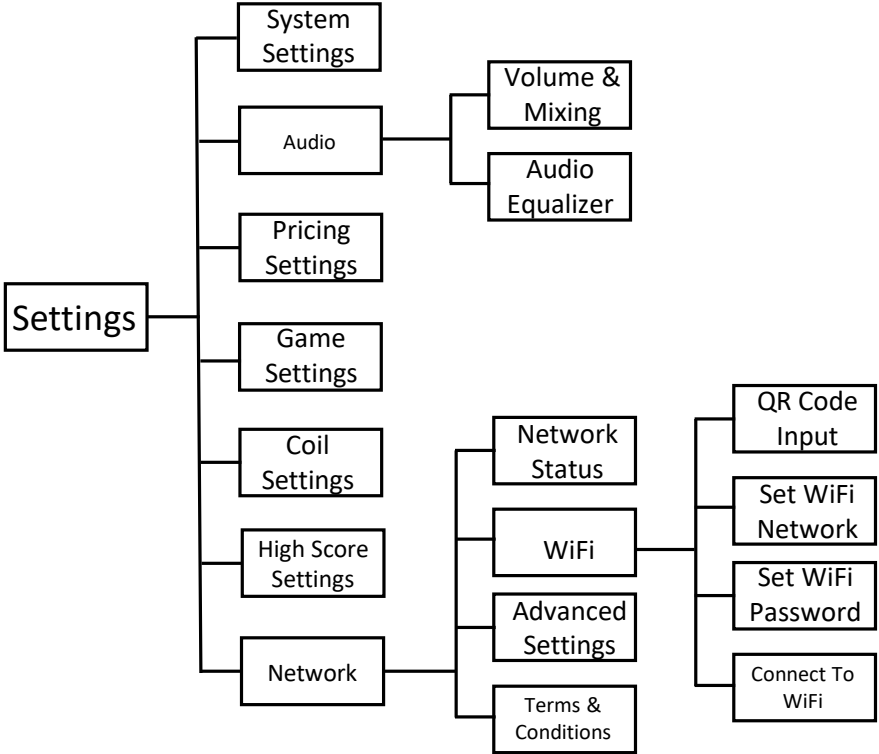
**Display** - test the basic colors and alignment of images on the game’s LCD monitor. You can step through several fundamental colors on the screen and superimpose a grid on it to check for proper centering and alignment of displayed images.

**Sound** - test the game’s sound system for proper balance and operation with sound effects, voices, music and a wide variety of tones and sweeps.

**Device Tests** - test all of the major game devices/assemblies (**Ball Trough, Shaker, Sensors, Scoop Ramp, Subway Lockup, Mini Playfield, Camera**) for proper operation. A specific screen will be displayed for each device, allowing the user to repeatedly exercise it and ensure that it is functioning correctly.



# SETTINGS MENU



The **Settings** menu allows the user to adjust system, pricing, game, coil and high score settings, to personalize the game (home use) or optimally configure it for a location or route (commercial use).

**System Settings** - adjust settings for high-level game controls such as balls per game, ball save time, tilt warnings, audio levels, match percentage and replay/scoring awards.

**Audio Settings** - adjust settings for volume, mixing and equalization of audio.

**Pricing Settings** - adjust settings for pricing controls such as free play, accepted currency, coin door specifics and pricing tiers/levels.

**Game Settings** - adjust game-specific settings such as Jackpot difficulties, Kickback & Extra Ball relight frequencies, and Mode, Bonus & Multiball difficulties.

**Coil Settings** - adjust kicking strength for virtually every coil in the game.

**High Score Settings** - adjust settings related to high scores such as whether the game will record them, what the award for high score will be, multiple player initials and default high scores.

**Network Settings** - adjust settings related to the WiFi and Online game connectivity features.

# SYSTEM DEFAULT SETTINGS

SETTING NAME	DEFAULT SETTING
<b>GENERAL</b>	
Game Play Type	Balls
Ball Play Type	BALLS IN PLAY
Balls Per Game	3 balls
Time Per Game	45 seconds
Timed Game Over Type	INSTANT DEATH
Sudden Death Timer	10 seconds
Competition Mode	OFF
<b>BALL SAVER</b>	
Ball Save Time	6 seconds
Maximum Ball Saves	Unlimited
Backup Ball Save Time	OFF
Coin Door Ball Saver	ON
<b>START BUTTON</b>	
Game Restart	NEVER
Player Addable	BEFORE LAST BALL
Money-in Auto-Start	OFF
Game End	
<b>BALL AUTO-LAUNCH</b>	
Auto-launch Timeout	OFF
Flipper Auto-launch	OFF
<b>BALL SEARCH</b>	
Chase Ball	ON
Coin Door Ball Search Pause	ON

SETTING NAME	DEFAULT SETTING
<b>IN-GAME STATUS REPORT</b>	
Status Report Start Time	6
Status Report Display Time	6
<b>PLAYER MENU</b>	
Menu Enabled	YES
Bluetooth Menu Item Enabled	YES
Camera Menu Item Enabled	YES
Competition Menu Item Enabled	YES
<b>TILT</b>	
Tilt Warning Type	Per Game
Tilt Warning Start	2
Tilt Warning Maximum	4
Coin Door Tilt Disabled	OFF
<b>EXTRA BALLS</b>	
Game Extra Ball Limit	Unlimited
Stacked Extra Ball Limit	Unlimited

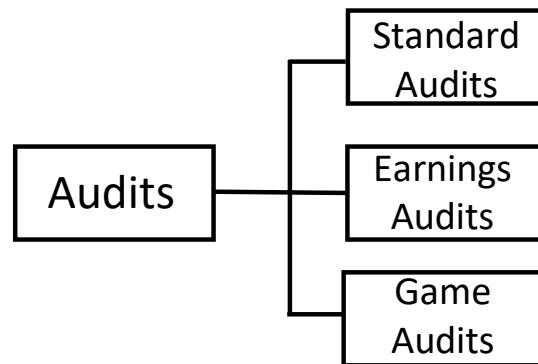
# SYSTEM DEFAULT SETTINGS

SETTING NAME	DEFAULT SETTING
<b>REPLAY AWARDS</b>	
Replay	AUTO
Replay Percentage	10
Replay Levels	1
Replay Award	FREE GAME
Replay Boost	ON
Replay Score	19,000,000
<b>SCORE AWARDS</b>	
Score Award Levels	0
Score Level 1	30K
Score Level 4	150K
Score Award 1	Extra Ball
Score Award 2	Extra Ball
Score Award 3	Extra Ball
Score Award 4	Extra Ball
Score Award Boost	OFF
Score Level 2	75K
Score Level 3	95K
<b>OTHER AWARDS</b>	
Match Percentage	5
Special Award	FREE GAME

SETTING NAME	DEFAULT SETTING
<b>TEST REPORT</b>	
Display Error Dot	NO
Test Report at Power On	YES
<b>MAIN MONITOR</b>	
Width Scale	1000
Height Scale	1000
X Offset	0
Y Offset	0
<b>CE TOPPER MONITOR</b>	<i>CE Model Only, if equipped</i>
Width Scale	1000
Height Scale	1000
X Offset	0
Y Offset	0
<b>KNOCKER</b>	
Knocker Strength	NORMAL
Knocker Control	ON
<b>CAMERA</b>	
Disable Camera	NO
Disable High Score Photo	NO
Show Attract Mode Camera Message	YES
<b>LEDs</b>	
LED Brightness	NORMAL
Lilypad Auto Update	ON
Lilypad Boot Status Box	OFF



# AUDITS MENU



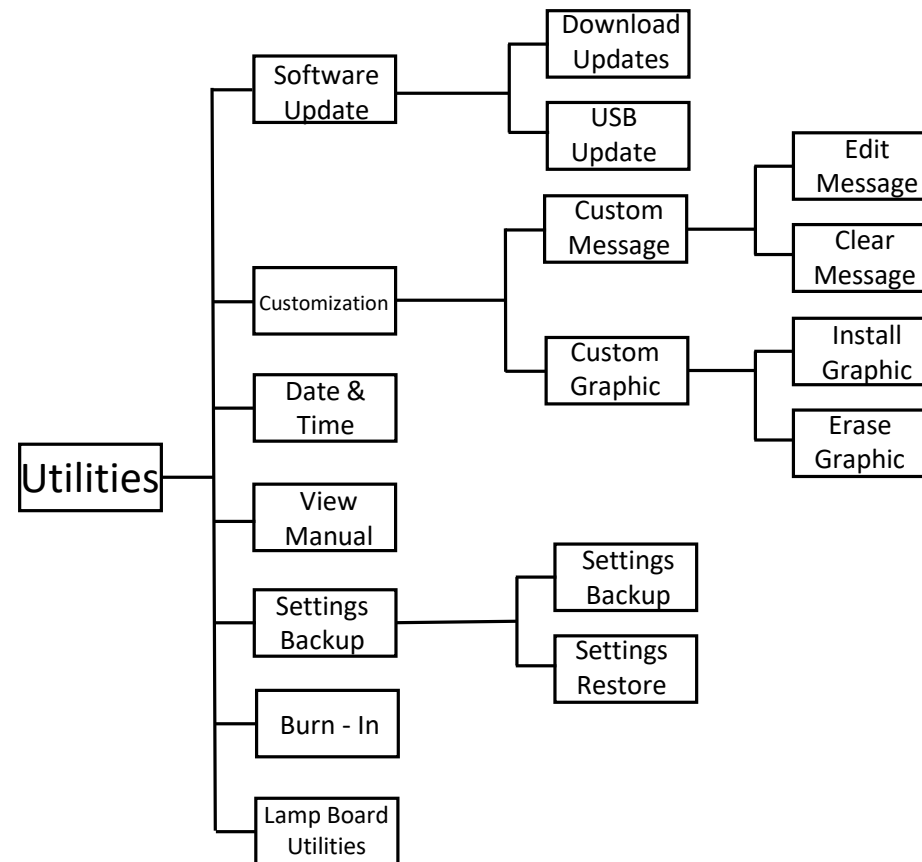
The **Audits** menu allows the user to view, monitor and/or track game usage and earnings over a specific time period (since audits were last cleared and over the lifetime of the game).

**Standard Audits** - view game-related totals such as free plays, 1-, 2-, 3- & 4-player games started, extra balls, replays, matches, etc.

**Earnings Audits** - view totals for paid credits, free plays, service credits, pricing tier purchases and coins accepted in each slot.

**Game Audits** - view totals for various shots made (targets hit or switches closed) and modes started and/or completed in the game.

# UTILITIES MENU



The **Utilities** menu allows the user to manage and maintain the game by setting the internal clock, entering messages/graphics and through commonly-used routines like burn-in and software update. There are also utility screens to save/restore settings and view this manual.

**Software Update** - update your game software via WIFI or USB update methods.

**Customization** - customize your game: enter/modify a message for the game to display in attract mode (**Custom Message > Edit Message**), clear an existing message (**Custom Message > Clear Message**), upload/select an image (**Custom Graphic > Install Graphic**) for the game to display in attract mode or erase a previously uploaded graphic with the **Custom Graphic > Erase Graphic** utility.

**Date & Time** - adjust the system date and time.

**View Manual** - display/navigate the PDF version of the manual on the game's LCD screen.

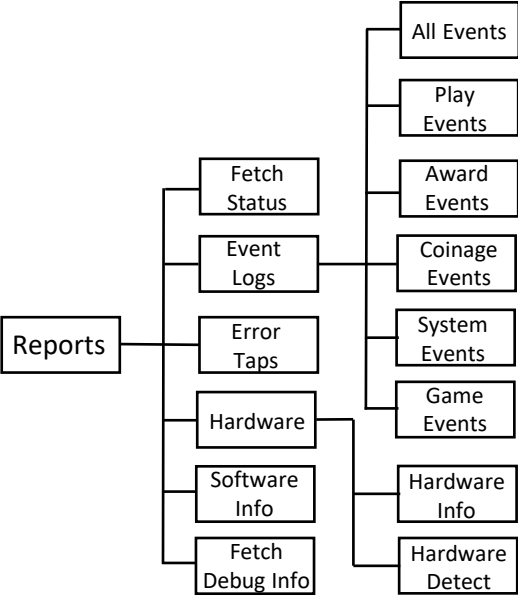
**Settings Backup** - backup (**Settings Backup**) and/or restore (**Settings Restore**) settings, audits, replay information and custom message for the game.

**Burn In** - cycles; coils, audio, monitor and lights. Used to troubleshoot your game.

**Lamp Boards Utilities** - Checks the status as well as the firmware version of the Lilypad light boards.

Lilypad board in green is working / red is not communicating.

# REPORTS MENU



The **Reports** menu allows the user to view logs and graphs of events of interest in the game including bad switch alerts, device errors, game power-ups, service credits, game statistics, awards, etc.

**Fetch Stats** - Export game statistics to a USB drive for records or detailed, off-line analysis.

**Event Logs** - View logs for various system events including when the power was cycled on the game, when the game was started, when the coin door was opened, when service credits were added, when game awards were earned, etc.

**Error Traps** - View the contents of the game’s error log.

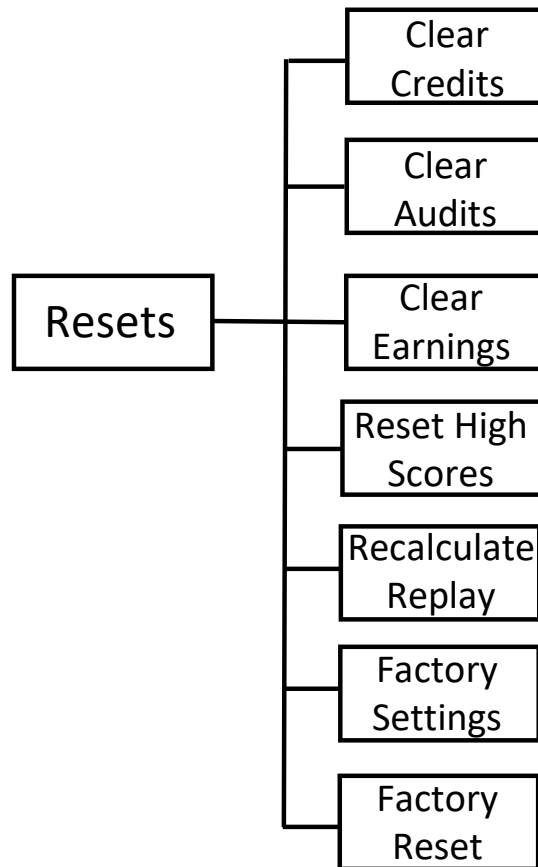
**Hardware** - Information about the game’s hardware.

**Software Info** - Information pertaining to the game’s software.

**Fetch Debug Info** - Export debug information to a USB drive for software Dev usage.



# RESETS MENU



The **Resets** menu allows the user to quickly clear game audits/earnings information and high scores from a single menu.

**Clear Credits** - clear credits from the game.

**Clear Audits** - reset audits data.

**Clear Earnings** - reset earnings data.

**Reset High Scores** - reset high scores to default values.

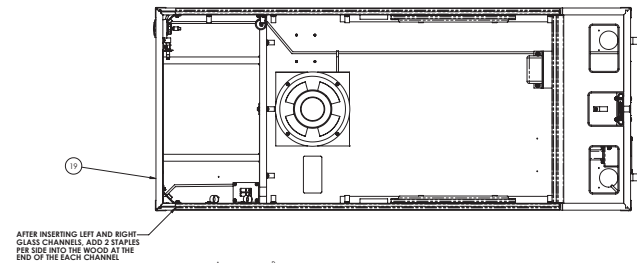
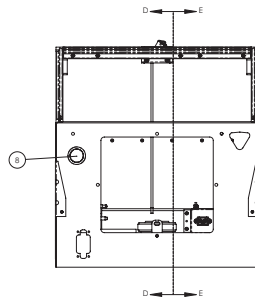
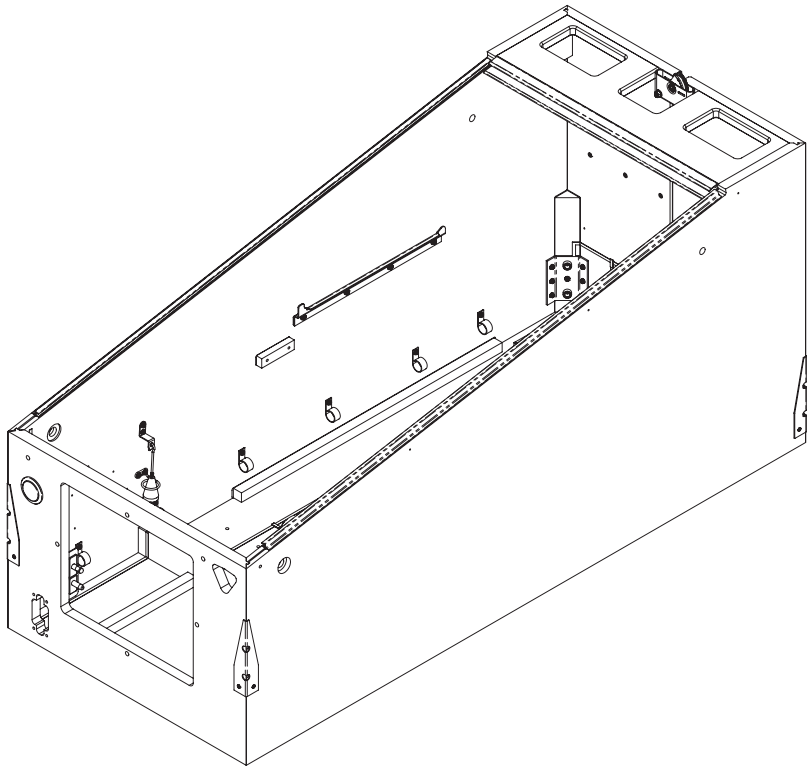
**Factory Settings** - reset all software-adjustable settings to the values they originally were given at the factory.

**Factory Reset** - reset factory settings (as above) plus reset audits and alarm counters.

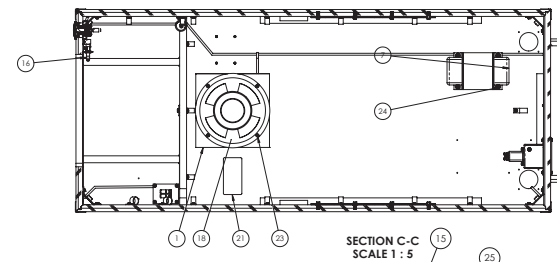
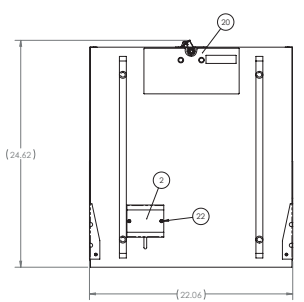
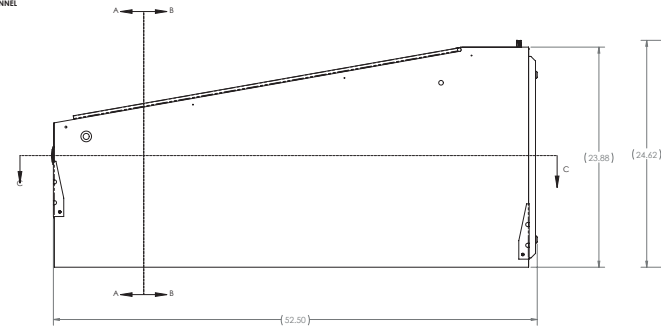
# CABINET AND BACKBOX ASSEMBLIES AND PARTS



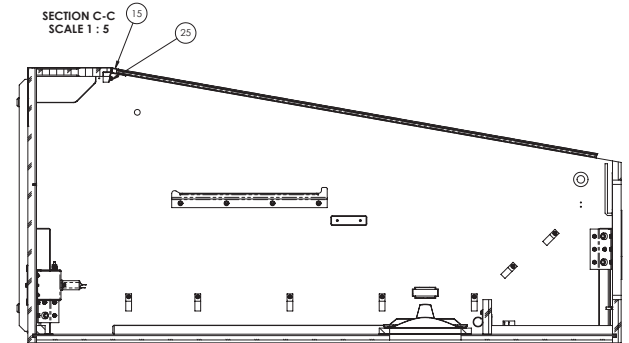
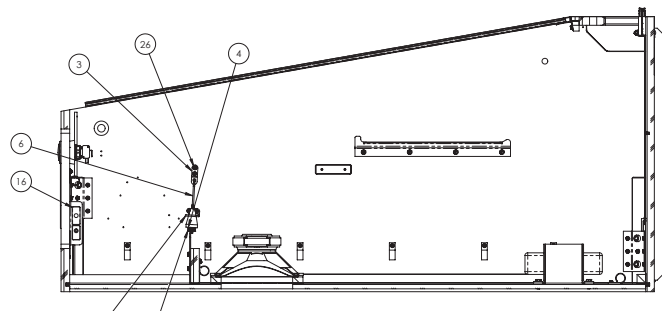
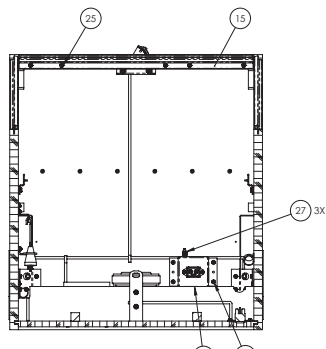
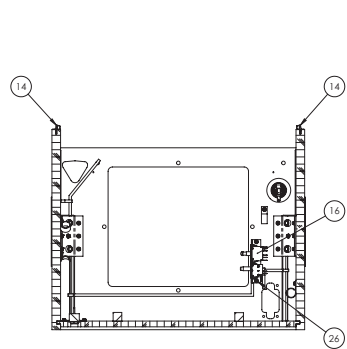
# LOWER CABINET BASE ASSEMBLIES



AFTER INSERTING LEFT AND RIGHT GLASS CHANNELS, ADD 2 STAPLES PER SIDE INTO THE WOOD AT THE END OF EACH CHANNEL.



SECTION C-C  
SCALE 1:5





LOWER CABINET BASE ASSEMBLIES

Item	Part Number	Description	Qty
1	05-003007-00	SUBWOOFER MTG PANEL	1
2	10-000010-01	LINE CORD COVER PLATE	1
3	10-000086-00	TILT HANGER WIRE BRKT	1
4	11-000028-00	PLUMB BOB	1
5	13-003008-00	TILT CONTACT WIRE FORM BRKT	1
6	13-003009-00	TILT HANGER WIRE	1
7	16-005000-02	MAIN TRANSFORMER, 2/16	1
8	18-007023-04	START BUTTON SWITC ASSY, RECESSED, YELLOW	1
9	19-003052-55	GROUND JUMPER CABLE, 18AWG, GRN, W/ RING TERM	1
10	19-009027-02	TRANSFORMER SECONDARY CABLE, BACKBOX PCB'S	1
11	19-009028-01	POWER BOX AC INPUT CABLE BACKBOX PCB'S	1
12	30-000051-08	8" WIRE TIE, NATURAL	3
13	30-000118-20	POLY TUBING, SPLIT, BLACK, 1-1/4"	52"
14	30-008000-00	CABINET SIDE GLASS CHANNEL	2
15	30-008001-02	CABINET REAR GLASS CHANNEL, STANDARD	1
16	51-000035-00	DOOR & INTERLOCK SWITCH ASSY	1

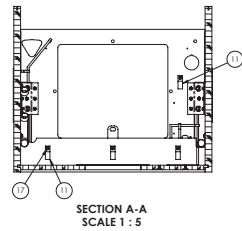
Item	Part Number	Description	Qty
17	51-005023-00	LINE FILTER BOX ASSY	1
18	51-006004-01	SUBWOOFER SPEAKER & CABLE ASSY	1
19	51-100190-01	CABINET WOOD ASSY, STANDARD, W/ SLIDE BRACKET SHIMS	1
20	62-100031-00	DECAL BACK BOX OUTSIDE INFO	1
21	72-100060-00	WARNING, VOID WARRANTY LABEL	1
22	80-002008-16	8-32 X 1" HWH PHILLIPS MS, SERRATED	2
23	80-002008-20	8-32 X 1-1/4" HWH PHILLIPS MS, SERRATED	4
24	80-002025-10	#1/4-20 x 5/8" HWH PHILLIPS MS, SERRATED, ZINC PLATED	4
25	82-002108-08	#8 HWH PHILLIPS SMS, BLACK	5
26	82-009008-08	#8X1/2" AB SPECIAL HWH PHILLIPS SMS	10
27	91-001008-00	#8-32 KEPS NUT, ZINC PLATED	3
28	91-003406-00	6-32 WING NUT, NYLON	1

CABINET LEGS

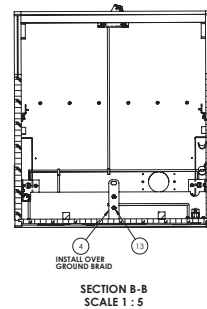
10-000031-23  
10-000032-01

LE - Super Chrome Plus/Silver Sparkle  
CE - Gold II/Silver Sparkle

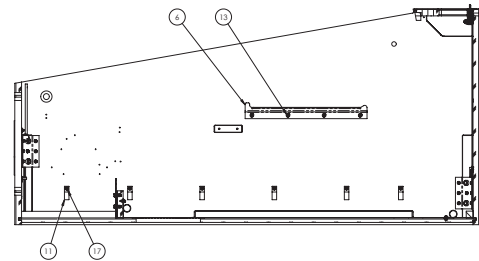
# LOWER CABINET BASE ASSEMBLIES CONTINUED



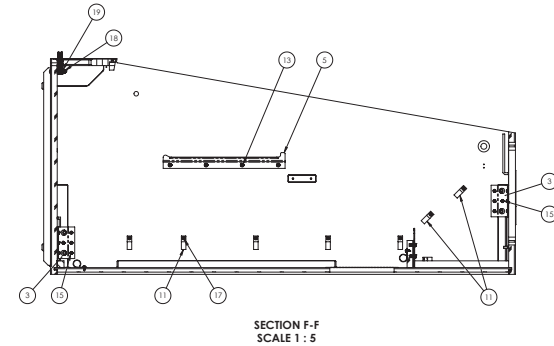
SECTION A-A  
SCALE 1:5



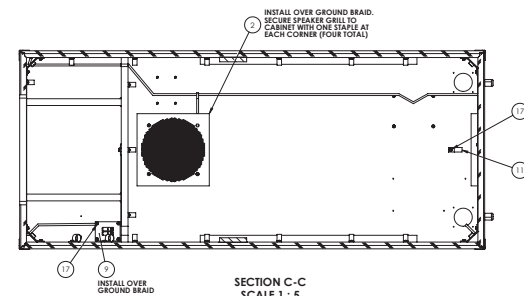
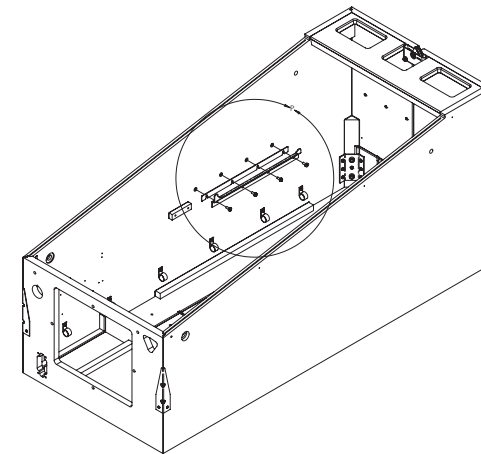
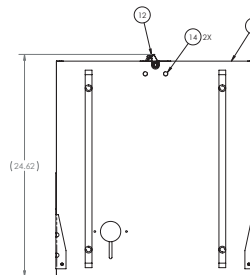
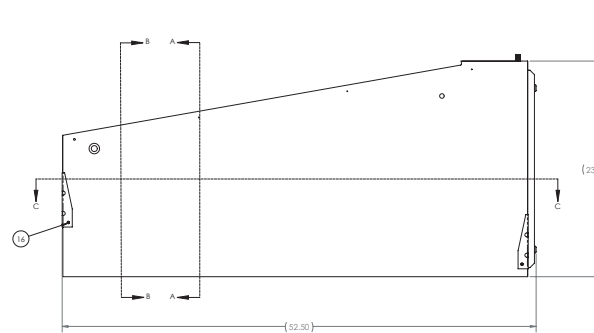
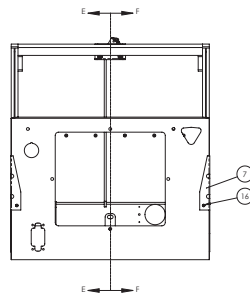
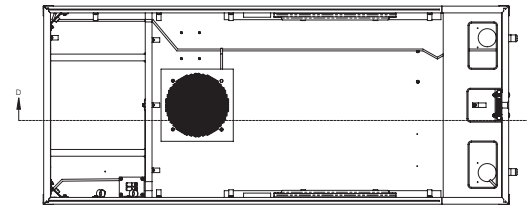
SECTION B-B  
SCALE 1:5



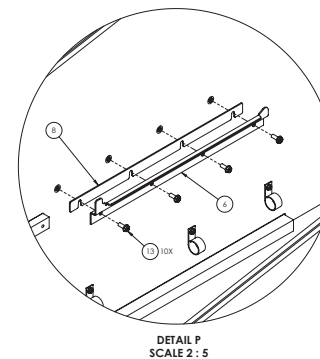
SECTION E-E  
SCALE 1:5



SECTION F-F  
SCALE 1:5



SECTION C-C  
SCALE 1:5



DETAIL P  
SCALE 2:5

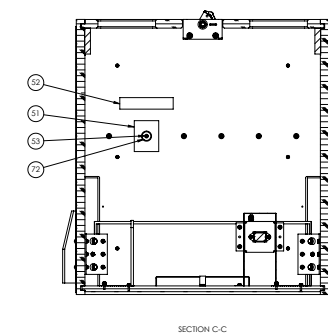
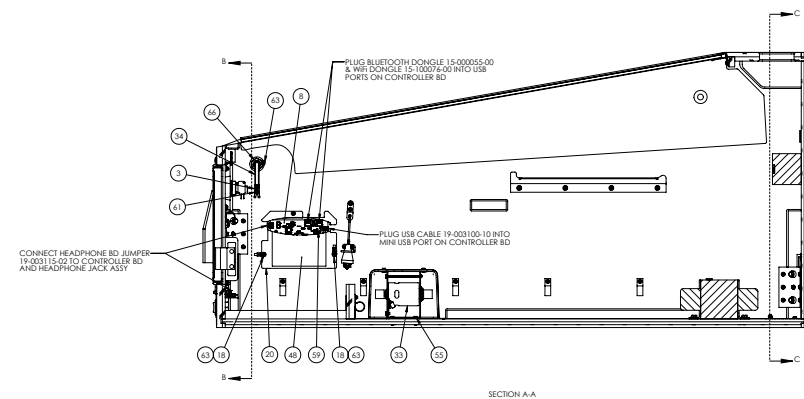
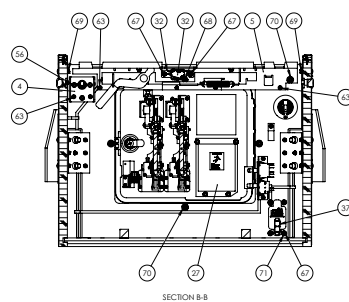
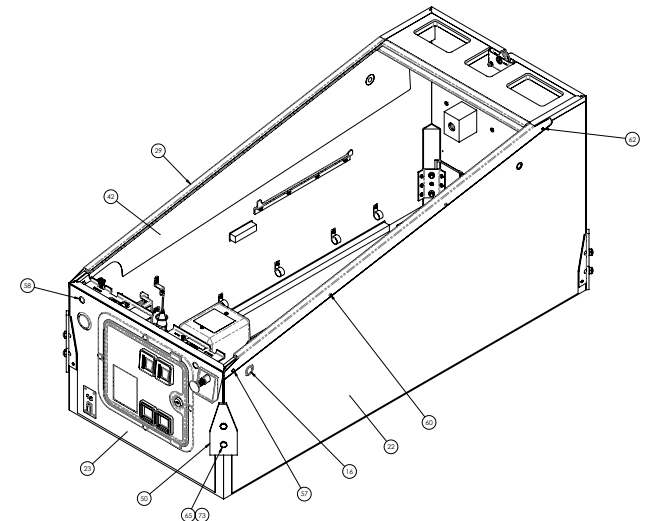
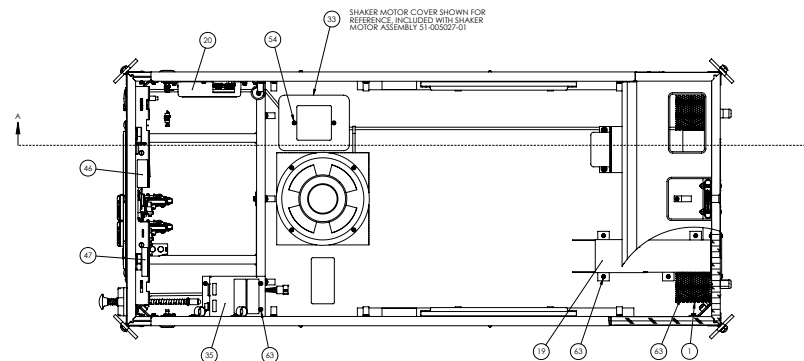
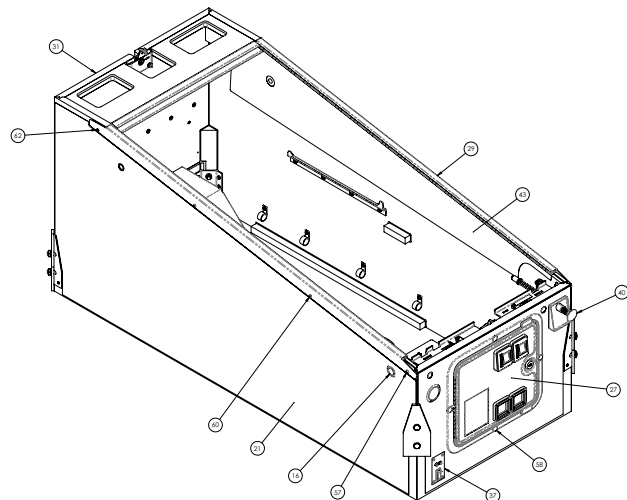
LOWER CABINET BASE ASSEMBLIES CONTINUED

Item	Part Number	Description	Qty
1	05-100041-00	LOWER CABINET WOOD ASSY,STANDARD	1
2	10-000002-00	CABINET SPEAKER GRILL	1
3	10-000006-00	CABINET LEG MTG BRKT	4
4	10-000026-00	CASHBOX LOCK BRKT	1
5	10-000033-00	CABINET SLIDE SUPPORT BRKT -RIGHT	1
6	10-000033-01	CABINET SLIDE SUPPORT BRKT -LEFT	1
7	10-000133-00	CABINET DECAL LEG BRACKET	4
8	10-100443-00	SHIM, CABINET SLIDE BRACKET	2
9	18-007012-00	ON/OFF SWITCH ASSY	1
10	19-009011-00	GROUND BRAID	206"

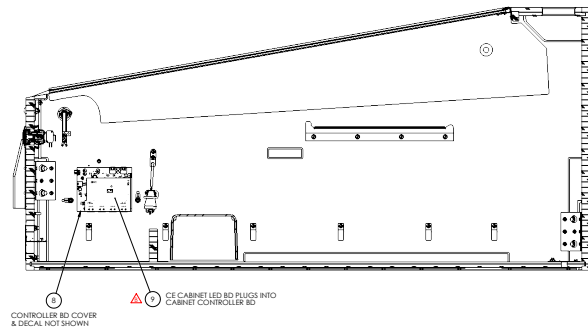
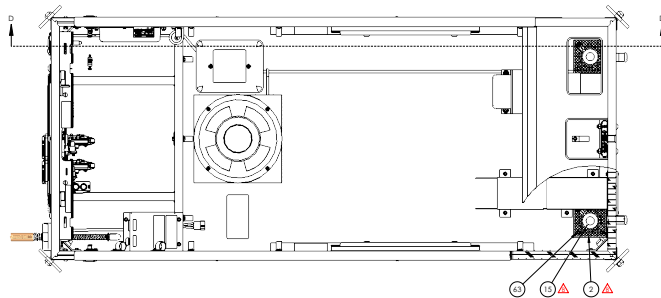
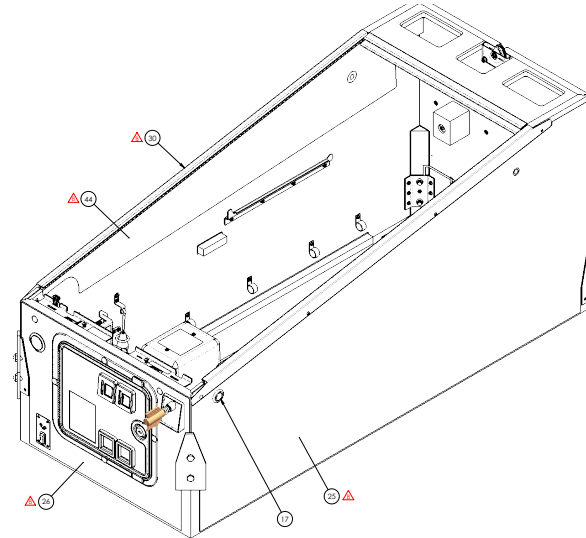
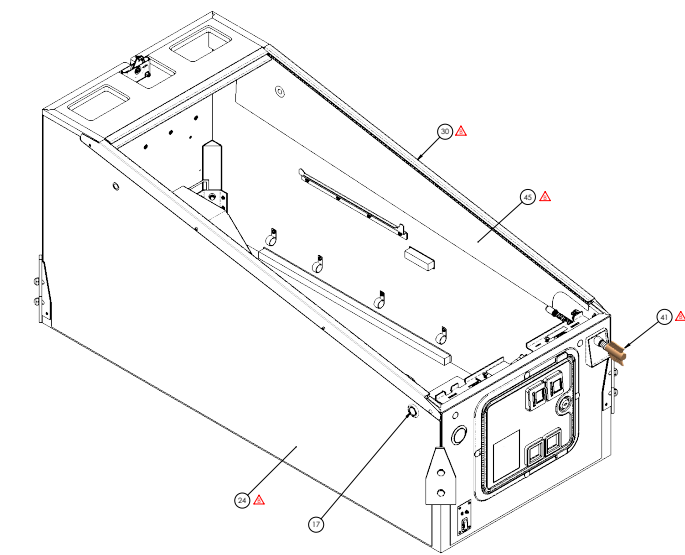
Item	Part Number	Description	Qty
11	30-000049-12	NYLON CABLE CLAMP, OPEN,3/4"	18
12	42-005001-00	ROTO-LOCK LATCH	1
13	80-002010-08	#10-32 X 1/2" HWH MS,SERRATED	10
14	81-005011-28	#10-24 x 1-3/4" CARRIAGE BOLT,BLACK	2
15	82-002008-10	#8 x 5/8" HWH PH SMS	28
16	82-006106-08	#6 PFH SMS, 82 DEG CA, BLACK	8
17	82-009008-08	#8X1/2" AB SPECIAL HWH,PHILLIPS SMS	22
18	91-000011-00	#10-24 NYLON STOP NUT	2
19	92-000010-00	#10 FLAT WASHER, 0.226" ID,0.507" OD	2



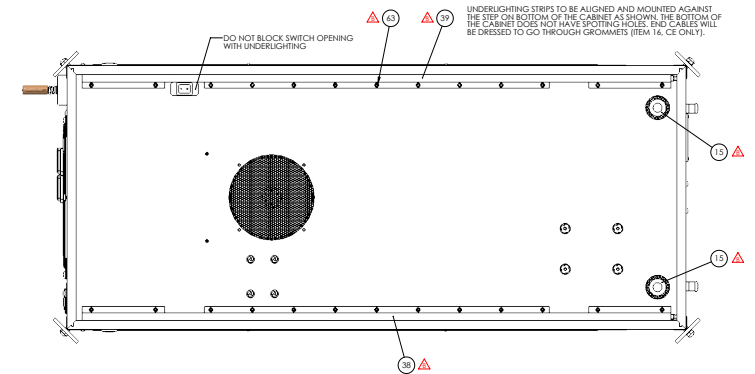
# LOWER CABINET GAME SPECIFIC PARTS



# LOWER CABINET GAME SPECIFIC PARTS



SECTION D-D



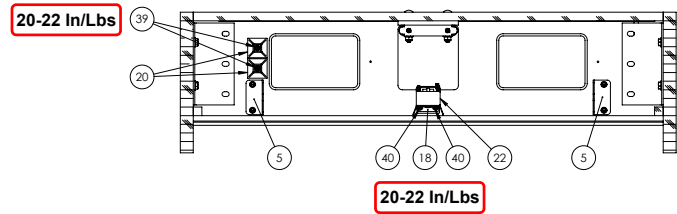
# LOWER CABINET GAME SPECIFIC PARTS

Item	Part Number	Description	Qty
1	10-000003-01	LE CABINET VENT GRILL	2
2	10-000003-02	CE VENT GRILL WITH GROMMET	2
3	10-000022-01	CURVED SWITCH PLATE	2
4	10-000025-01	PLATE, BALL SHOOTER MOUNTING	1
5	10-008001-00	LOCKDOWN BAR RECEIVER ASSY	1
6	15-000017-00	UK COIN DOOR INTERFACE	1
7	15-000055-00	BLUETOOTH 4.0 DONGLE	1
8	15-100036-00	CABINET CONTROLLER BD, 480 MPS	1
9	15-100042-01	CE CABINET LED BD	1
10	15-100076-00	USB Wi-Fi DOMGLE	1
11	19-003100-10	USB CABLE, 2.0 A TO MINI-B, SHIELDED, 10FT	1
12	19-003115-02	CABINET HEADPHONE BD JUMPER	1
13	19-100104-00	CE EXTERIOR LIGHTING HARNESS	1
14	19-100117-00	220V AC VOLTAGE CONVERTER CABLE	1
15	25-100008-00	GROMMET	1
16	30-000009-06	LE FLIPPER BUTTON, BLUE	2
17	30-000009-11	CE FLIPPER BUTTON, AMBER	2
18	30-000050-06	6" WIRE TIE, SCREW DOWN	4
19	30-000125-00	LINE FILTER BOX ASSY COVER	1
20	30-100066-00	COVER CAB CONTROLLER	1
21	30-100197-01	AVTR CABINET RAD-CAL, LEFT, LE	1
22	30-100197-02	AVTR CABINET RAD-CAL, RIGHT, LE	1
23	30-100197-03	AVTR CABINET RAD-CAL, FRONT, LE	1
24	30-100198-01	AVTR CABINET RAD-CAL, LEFT, CE	1
25	30-100198-02	AVTR CABINET RAD-CAL, RIGHT, CE	1
26	30-100198-03	AVTR CABINET RAD-CAL, FRONT, CE	1
27	40-000006-20	STANDARD USA COIN DOOR ASSY, 12V	1
28	40-000012-00	STANDARD EUROPEAN COIN DOOR	1
29	42-007004-03	LE CABINET SIDE RAIL	2
30	42-007005-01	CE CABINET SIDE RAIL, HYDRO DIPPED	2
31	50-005040-03	LOWER CABINET BASE ASSY STANDARD	1
32	51-000066-10	CABINET LOCK DOWN SWITCH ASSY	1
33	51-005027-01	SHAKER MOTOR ASSEMBLY	1
34	51-006000-02	CABINET FLIPPER SWITCHES & CABLE ASSY	1
35	51-006001-02	CABINET POWER BOX & CABLE ASSY US	1
36	51-006001-11	CABINET POWER BOX AND CABLE ASSY INTL	1
37	51-100113-00	CAB BT AND HDPHONE JACK ASSY	1

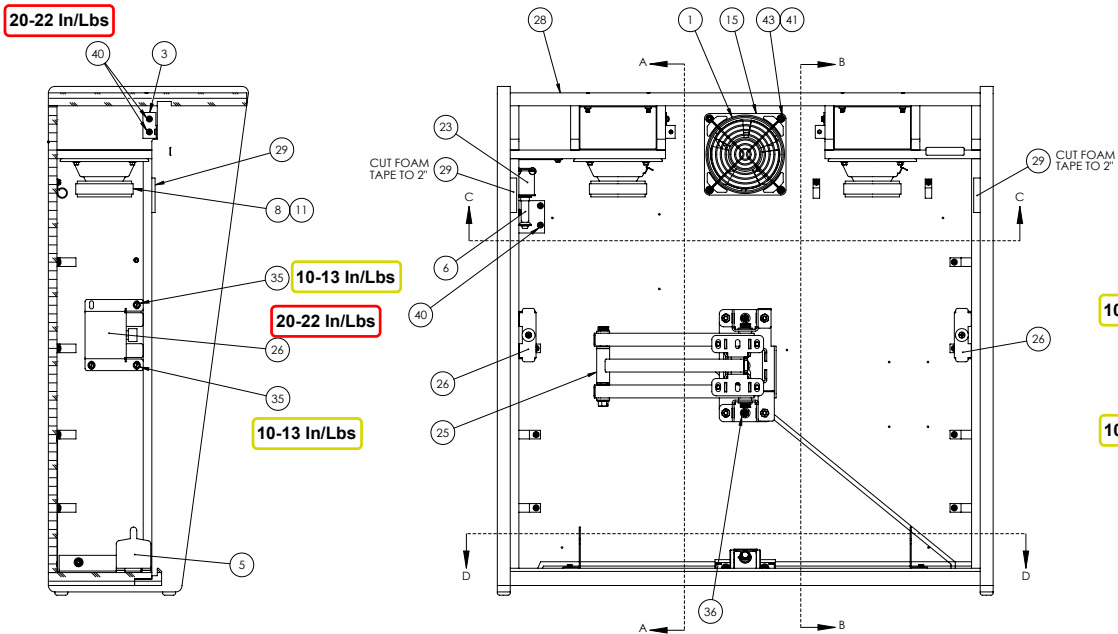
Item	Part Number	Description	Qty
38	51-100145-01	CE LED STRIP WITH MOUNTING LEFT	1
39	51-100145-02	CE LED STRIP WITH MOUNTING RIGHT	1
40	51-100351-06	LE BALL SHOOTER W/ BUSHINGS	1
41	51-100351-07	CE BALL SHOOTER W/ BUSHINGS	1
42	61-100031-01	LE SIDE BLADE, LEFT	1
43	61-100031-02	LE SIDE BLADE, RIGHT	1
44	61-100032-01	CE SIDE BLADE, LEFT	1
45	61-100032-02	CE SIDE BLADE, RIGHT	1
46	62-000034-10	DECAL, CAUTION HIGH VOLTAGE	1
47	62-000034-11	DECAL, INSTALL 6 BALLS	1
48	62-100025-00	DECAL COVER CAB CONTROLLER	1
49	62-100103-XX	AVTR DECAL SHEET	1
50	70-009003-00	HEAVY, FELT CABINET PROTECTORS	1
51	72-000004-16	FOAM SHIPPING BLOCK	1
52	72-100054-00	CAUTION LABEL	1
53	80-000008-44	8-32 X 2-3/4" PPH MS, ZINC PLATED	1
54	80-002008-04	#8-32 x 1/4" HWH PHILLIPS SERRATED	2
55	80-002008-10	#8-32 x 5/8" HWH PHILLIPS MS, SERRATED	4
56	80-002010-08	#10-32 X 1/2" HWH MS, SERRATED	3
57	81-005108-16	#8-32 X 1" CARRIAGE BOLT, BLACK OXIDE	2
58	81-005125-20	#1/4 - 20 x 1-1/4" CARRIAGE BOLT, BLACK	6
59	82-000004-10	#4 x 5/8" PPH SMS	4
60	82-000106-08	#6X1/2" PPH SMS, BLK	4
61	82-002006-20	#6 X 1-1/4" HWH SMS	4
62	82-006104-08	#4 x 1/2" PFH SMS, BLACK	2
63	82-009008-08	#8X1/2" AB SPECIAL HWH PHILLIPS SMS	25
64	83-000006-04	#6-32 x 1/4" PPH TYPE 25 TCS	1
65	90-008038-40-0	LEG BOLT, ACORN HEAD, BLACK	8
66	91-000001-10	FLIPPER BUTTON PAL NUT, HEX	2
67	91-000008-00	8-32 NYLON STOP NUT THIN	6
68	91-000025-02	1/4-20 NYLON STOP NUT, THIN	1
69	91-001008-00	#8-32 KEPS NUT, ZINC PLATED	2
70	91-002025-00	#1/4-20 FLANGE NUT	5
71	92-000008-00	#8 FLAT WASHER	4
72	92-000008-02	FLAT FENDER WASHER	1
73	92-000138-00	FLAT WASHER, BLACK	8



# BACKBOX BASE, ASSY 50-100028-01

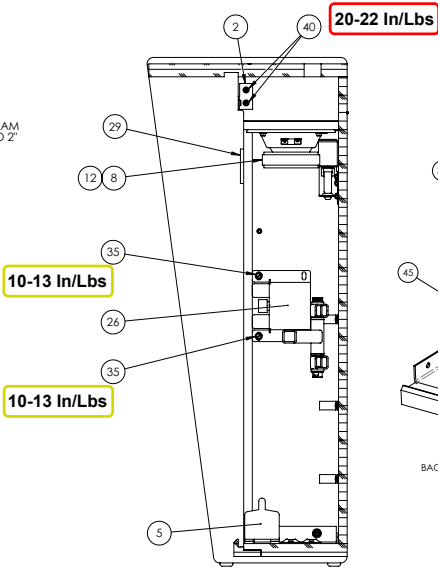


SECTION D-D

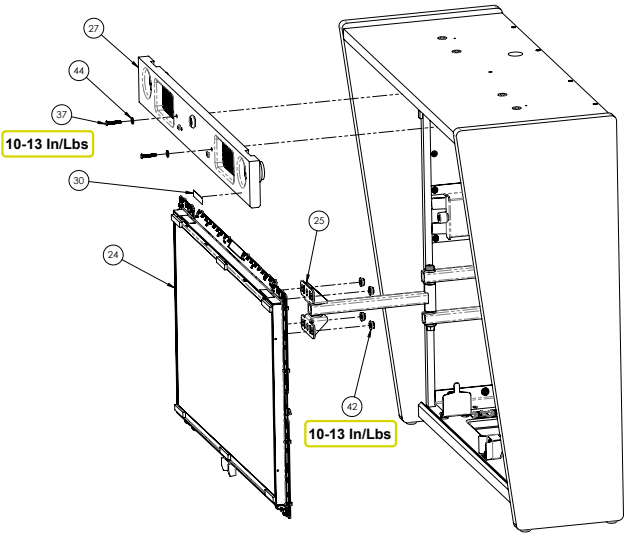
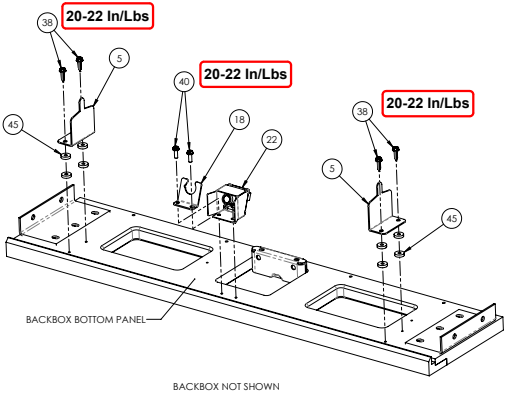


SECTION B-B

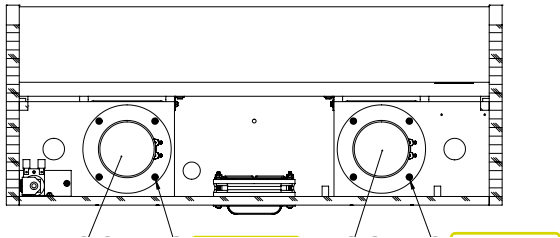
SPEAKER BAR & LCD NOT SHOWN



SECTION A-A



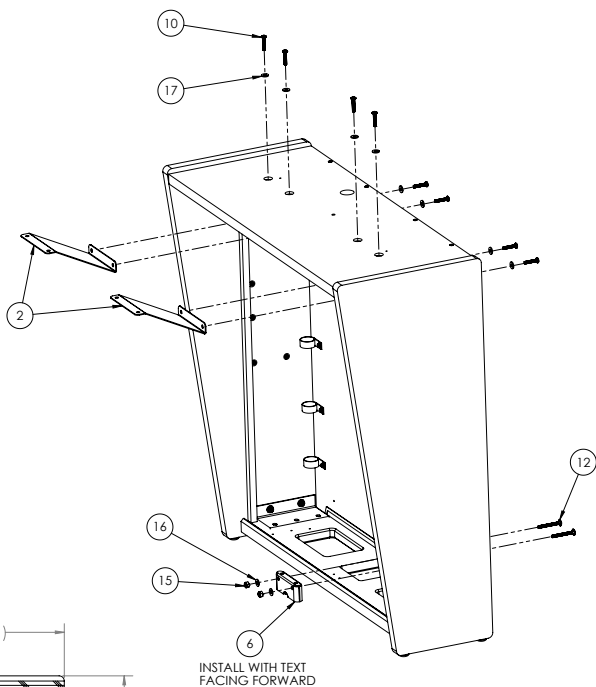
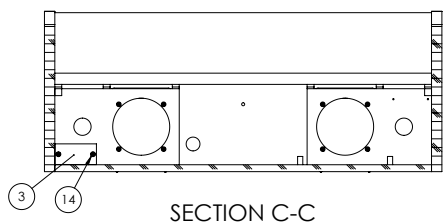
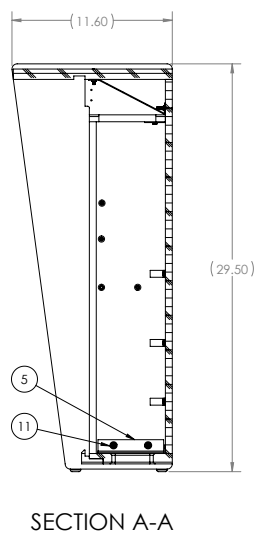
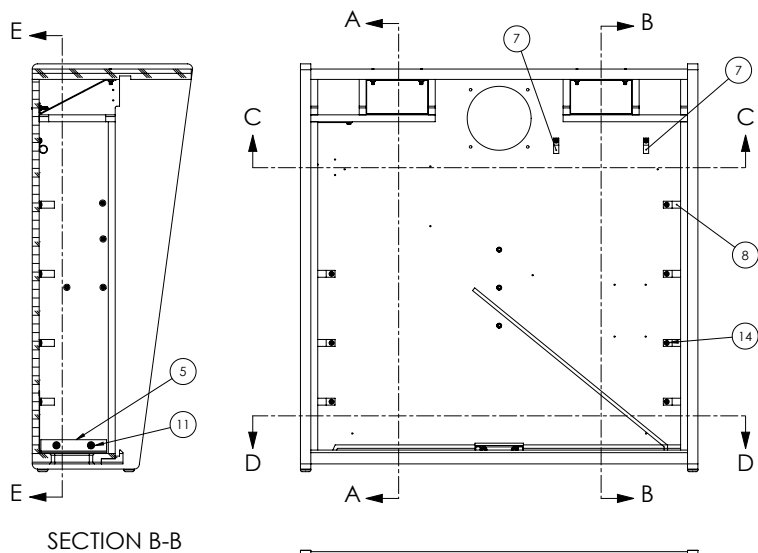
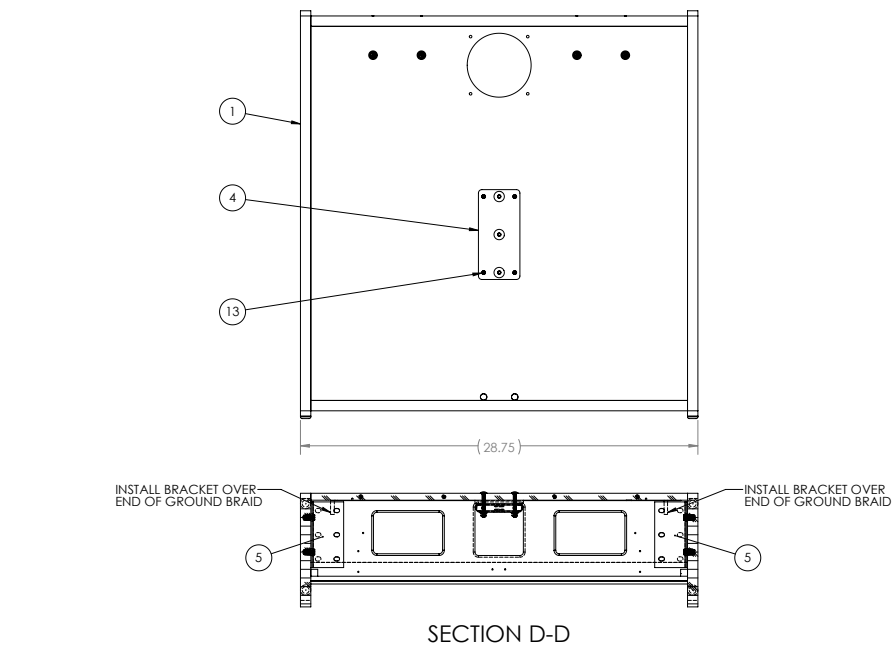
TES:  
VTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M-1994.  
ALL DIMENSIONS AND TOLERANCES ARE IN INCHES.



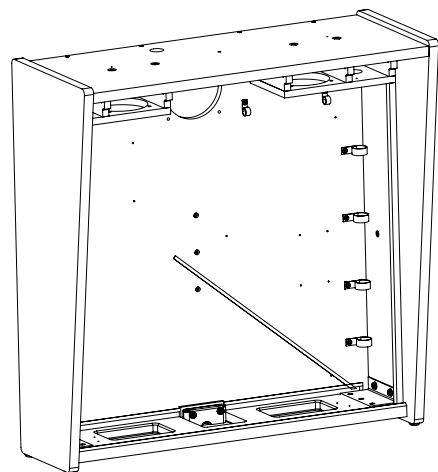
# BACKBOX BASE, ASSY 50-100028-01

Item	Part Number	Description	Qty	Item	Part Number	Description	Qty
1	10-000110-01	FAN GUARD, 4.69in	1	23	51-006014-25	KNOCKER & CABLE ASSY, VERTICAL MOUNT, 25"	1
2	10-000207-00	SPEAKER PANEL MTG BRKT, LEFT	1	24	51-100021-03	27" LCD MONITOR ASSEMBLY, W/ STUDS, BRACKETS, AND LEDS	1
3	10-000207-01	SPEAKER PANEL MTG BRKT, RIGHT	1	25	51-100040-00	27" LCD PIVOT/SWING ASSY	1
4	10-000234-00	BACKBOX VENT HOLE COVER, LOUVERED	1	26	51-100050-00	ASSEMBLY, MAGNET LATCH	2
5	10-100077-01	SCREEN BRACE	2	27	51-100051-00	BACKBOX SPEAKER BAR & CABLE ASSY 2/19	1
6	11-000011-00	KNOCKER PLUNGER ASSY	1	28	51-100191-00	BACKBOX WOOD ASSY, STANDARD	1
7	16-005001-00	GROUND LOOP ISOLATOR	1	29	61-009004-01	FOAM ADHESIVE TAPE MEDIUM DENSITY	16 IN
8	17-006003-00	5.25" MIDRANGE SPEAKER 8 OHM	2	30	62-000034-03	DECAL, WARNING, SHOCK HAZARD, SMALL	1
9	19-000030-22	CRIMP PIN, FEMALE, 22-30AWG, 2.54MM	2	31	62-100012-00	LCD PULL HERE, DECAL	2
10	19-003043-01	3.5MM AUDIO CABLE, M-M 3FT	1	32	80-000106-03	6-32 x 3/16 PPH MS, BLACK	2
11	19-003116-10	SPEAKER BAR CABLE, RIGHT	1	33	80-000108-32	#8-32 x 2" PPH MS, BLACK OXIDE	4
12	19-003116-11	SPEAKER BAR CABLE, LEFT	1	34	80-002008-08	8-32 X 1/2" HWH PHILLIPS MS	8
13	19-003127-03	ADAPTER CABLE, DVI-D TO HDMI, W/FERRITES, 3FT	1	35	80-002010-06	10-32 x 3/8" HWH PHILLIPS MS	7
14	19-100002-00	ATX POWER CABLE, 093 TO C-13"	1	36	80-002025-12	1/4-20 x 3/4" HWH PHILLIPS MS	3
15	23-005004-02	FAN, 12VDC MOTOR, 120MM, 25MM WIDE	1	37	80-008108-16	8-32 X 1" TP TORX MS, BLACK	2
16	30-000050-11	11" WIRE TIE, SCREW DOWN, 50 LBS (#10 SCREW)	1	38	82-002008-10	#8 x 5/8" HWH PH SMS	4
17	30-000051-08	8" WIRE TIE, NATURAL	15	39	82-006008-08	#8 X 1/2" PFH SMS, 82 DEG CA, ZINC PLATED	2
18	30-000094-01	COVER, USB CAMERA, LOWER	1	40	82-009008-08	#8X1/2" AB SPECIAL HWH PHILLIPS SMS	9
19	30-000094-02	COVER, USB CAMERA, UPPER	1	41	91-000008-00	8-32 NYLON STOP NUT THIN	4
20	30-000115-06	1.1" CABLE TIE MOUNT, #6 SCREW, WHITE	2	42	91-002025-00	#1/4-20 FLANGE NUT	4
21	30-002105-03	HOUSING, FEMALE, 3-PIN, 2.54MM, W/RAMP	1	43	92-000008-00	#8 FLAT WASHER, .19 ID, .443 OD, .06 TH	4
22	51-005041-01	ASSEMBLY, USB CAMERA, COVERED	1	44	92-000108-00	#8 FLAT WASHER, BLACK	2
				45	92-000633-00	NYLON WASHER, 0.166" ID, 0.500" OD, 0.125"	8

# BACKBOX WOOD, ASSY 50-100191-00

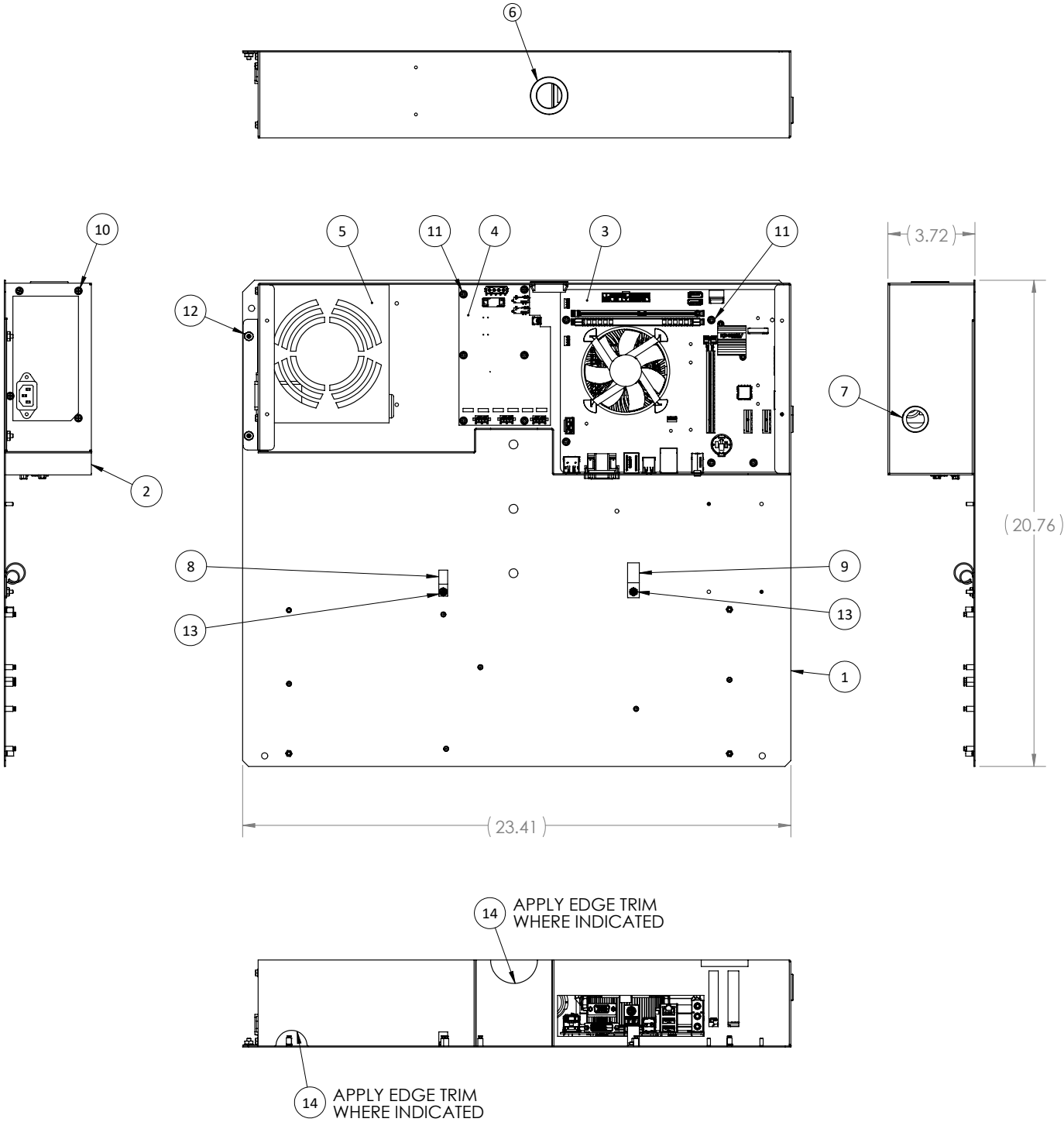


Item	Part Number	Description	Qty
1	05-100010-00	BACKBOX WOOD ASSY	1
2	10-000201-00	ACOUSTIC PLATE - BACKBOX SPEAKERS	2
3	10-000016-00	KNOCKER PLATE	1
4	10-000206-09	27" LCD PANEL FACE PLATE	1
5	10-000034-01	BACKBOX CORNER BRKT	2
6	42-005002-00	ROTO-LOCK RECEPTACLE	1
7	30-000049-08	NYLON CABLE CLAMP, OPEN, 1/2"	2
8	30-000049-16	NYLON CABLE CLAMP, OPEN, 1"	7
9	19-009011-00	GROUND BRAID	47"
10	80-000110-16	10-32 x 1" PPH MS, BLACK OXIDE	8
11	80-002025-08	#1/4-20 x 1/2" HWH PHILLIPS MS	4
12	81-005011-28	#10-24 x 1-3/4" CARRIAGE BOLT, BLACK	2
13	82-006106-08	#6 PFH SMS, 82 DEG CA, BLACK	4
14	82-009008-08	#8X1/2" AB SPECIAL HWH PHILLIPS SMS	11
15	91-000011-00	#10-24 NYLON STOP NUT	2
16	92-000010-00	#10 SAE FLAT WASHER, 0.226" ID, 0.507" OD	2
17	92-000110-00	#10 SAE FLAT WASHER, BLACK OXIDE	8





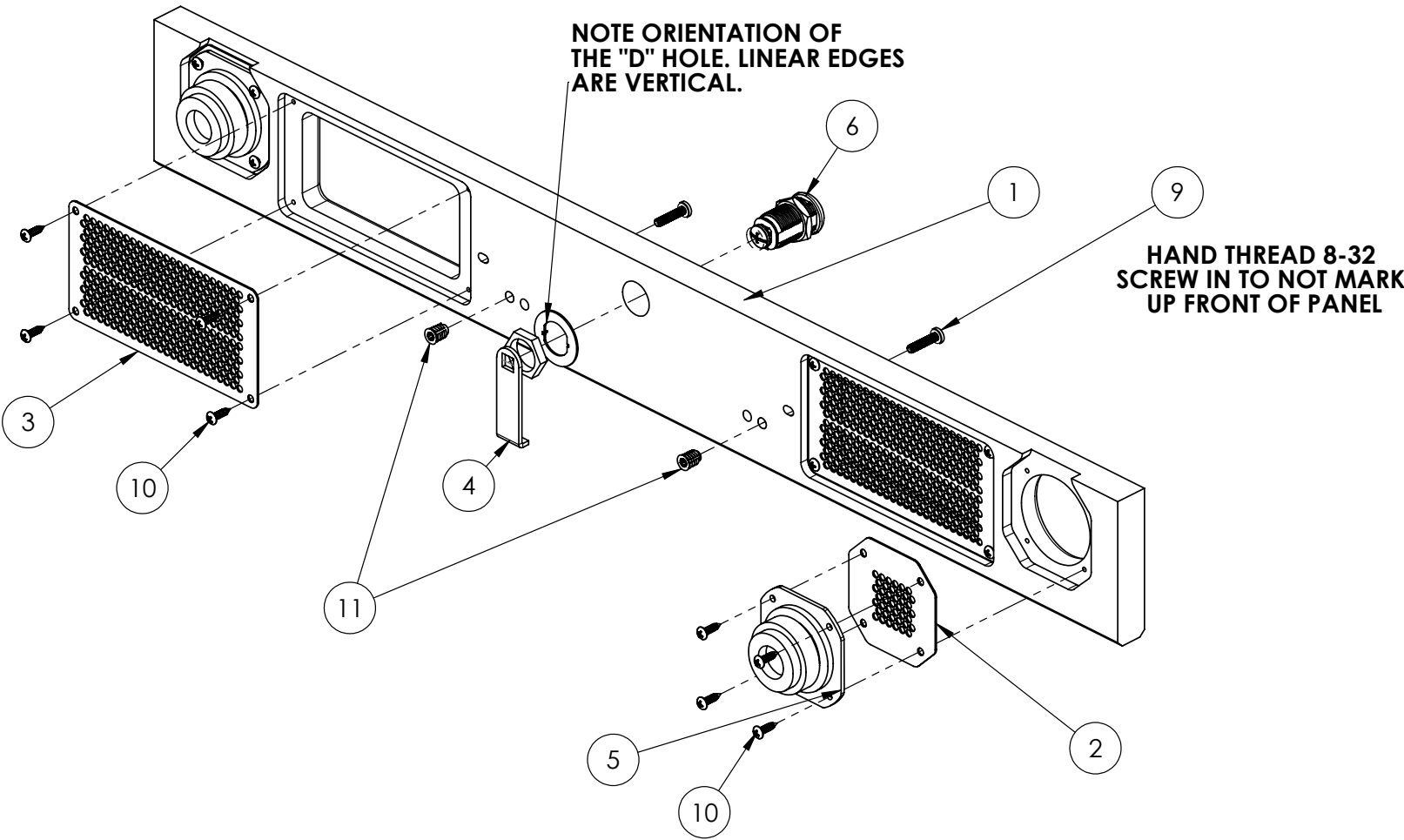
BACKBOX PCB BASE, ASSY  
51-100041-02



Item	Part Number	Description	Qty
1	10-100082-00	Backbox PEM Plate	1
2	10-100295-00	Backbox PCB's EMI Shield	1
3	51-100177-01	B560M Computer Assembly	1
4	15-004002-01	Sound Amplifier PCB, Analog In	1
5	16-000013-00	ATX Power Supply, 450 Watts	1
6	30-000108-02	Locking Grommet, 1-1/2"	1
7	25-009013-00	PCB Chassis CPU Grommet 1"	1
8	30-000049-08	Nylon Cable Clamp, 1/2"	1
9	30-000049-12	Nylon Cable Clamp, 3/4"	1
10	SUPPLIED W/ ATX	6-32 x 1/4" HWH Phillips SMS Serr	4
11	80-002006-06	#6-32 x 3/8" HWH MS	11
12	91-001008-00	#8-32 Keps Nut, Zinc Plated	4
13	91-001006-00	6-32 Keps Nut	2
14	30-008005-00	Plastic Edge Trim w/ Adhesive	7"
15	19-003043-01	3.5mm Audio Cable, M-M 3ft	1
16	19-003072-03	27" LCD Power Cable, Backbox PCB's	1
17	19-003100-01	USB Cable 2.0 A to Mini-B, Shld 1ft	1
18	19-003127-03	Adapter Cable, DVI-D to HDMI, 3ft	1
19	19-009015-02	Sound Amp BD Input Power Cable	1
20	19-100002-00	ATX Power Cable, 093 to C-13"	1
21	30-000051-08	8" Wire Tie, Natural	2

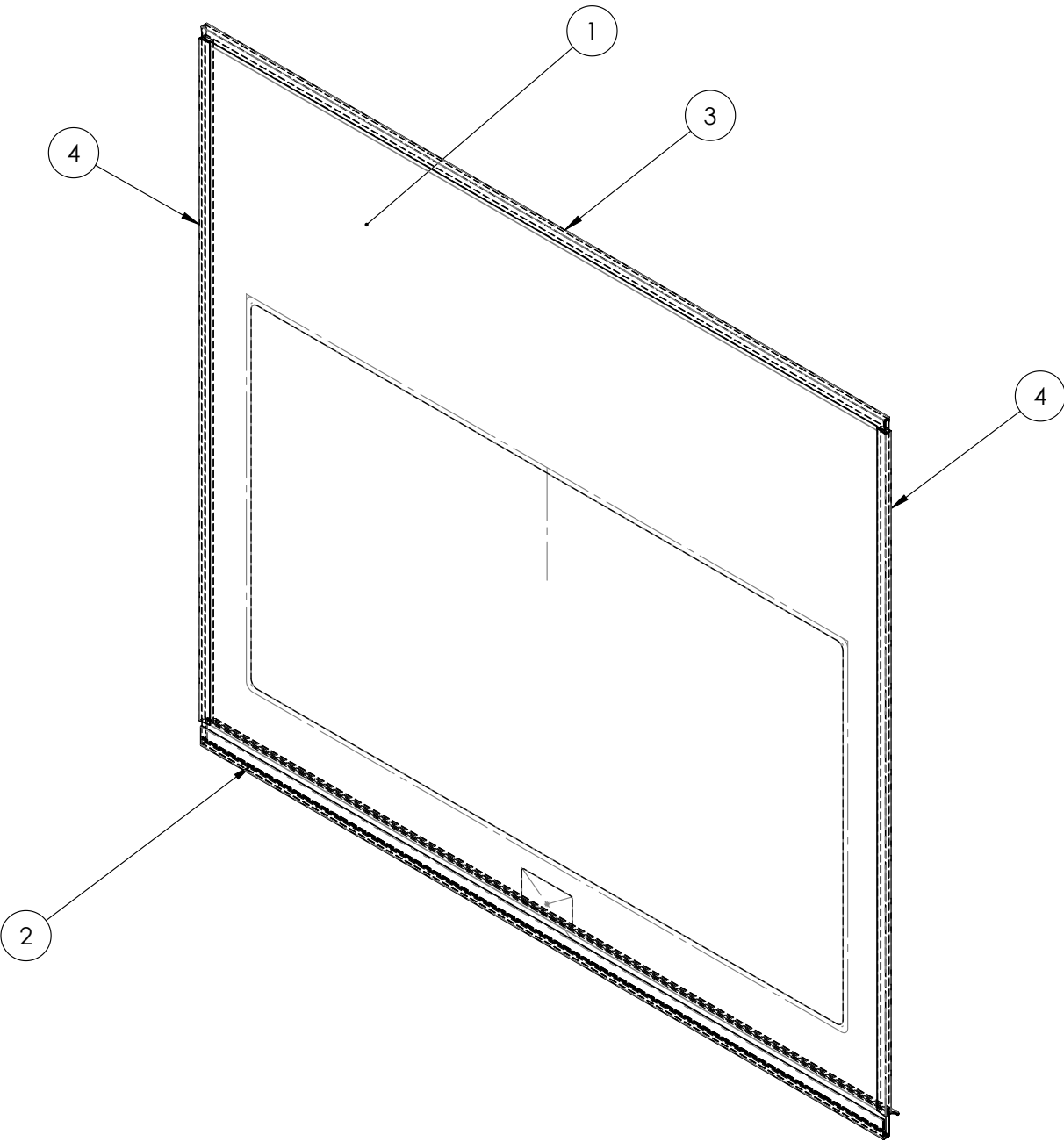
BACKBOX SPEAKER BAR, ASSY

51-100051-00



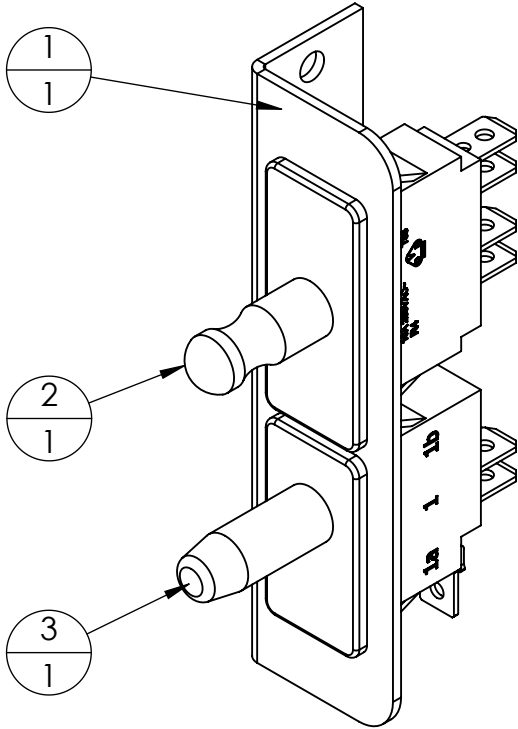
Item	Part Number	Description	Qty
1	05-100014-00	Speaker Bar Front Panel	1
2	10-000002-10	Tweeter Speaker Grill	2
3	10-000002-11	Mid-Range Speaker Grill	2
4	10-000224-00	Cam, Backglass Lock	1
5	82-000106-08	Sound Bar 2" Dome Tweeter	2
6	51-005012-02	Lock Assy. 1 1/8" 1 1/4" Cam	1
9	80-000108-12	8-32 X 3/4" PPH MS, BLACK OXIDE	2
10	82-000106-08	#6X1/2" PPH SMS, BLK	16
11	91-005008-00	#8-32 HEX DRIVE FLANGED INSERT	2

BACK GLASS, ASSY



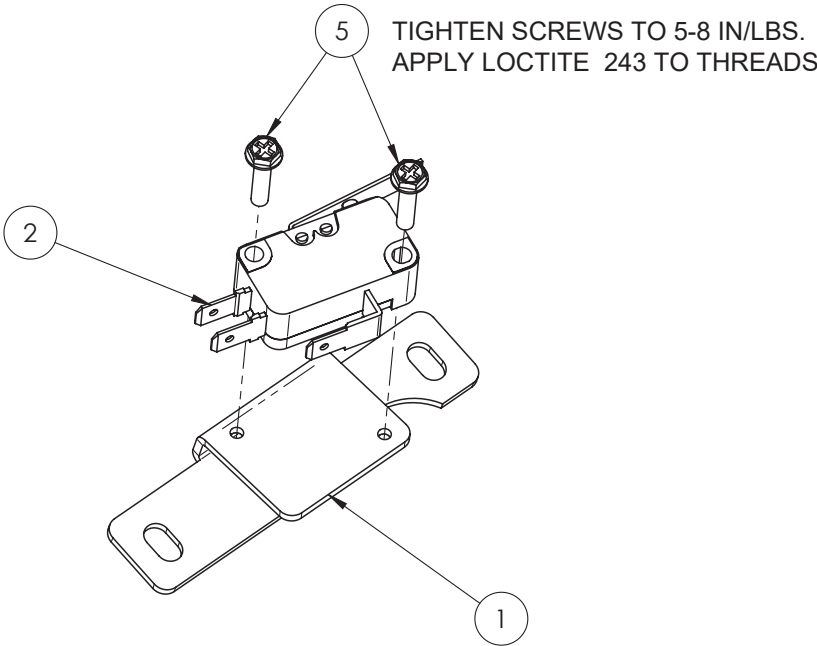
Item	Part Number	Description	Qty
1	60-100010-00	LE Printed Back Glass	1
1	60-100010-01	CE Printed Back Glass	1
2	30-008004-00	Backglass Lift Channel	1
3	30-008002-00	Backglass Top Plastic Channel	1
4	30-008002-01	Backglass Side Plastic Channel	2

**DOOR & INTERLOCK SWITCH, ASSY**  
**51-000035-00**



Item	Part Number	Description	Qty
1	10-000089-00	Door & Interlock Switch Brkt	1
2	18-003007-01	Safety Interlock Switch	1
3	18-003008-00	Coin Door Switch	1

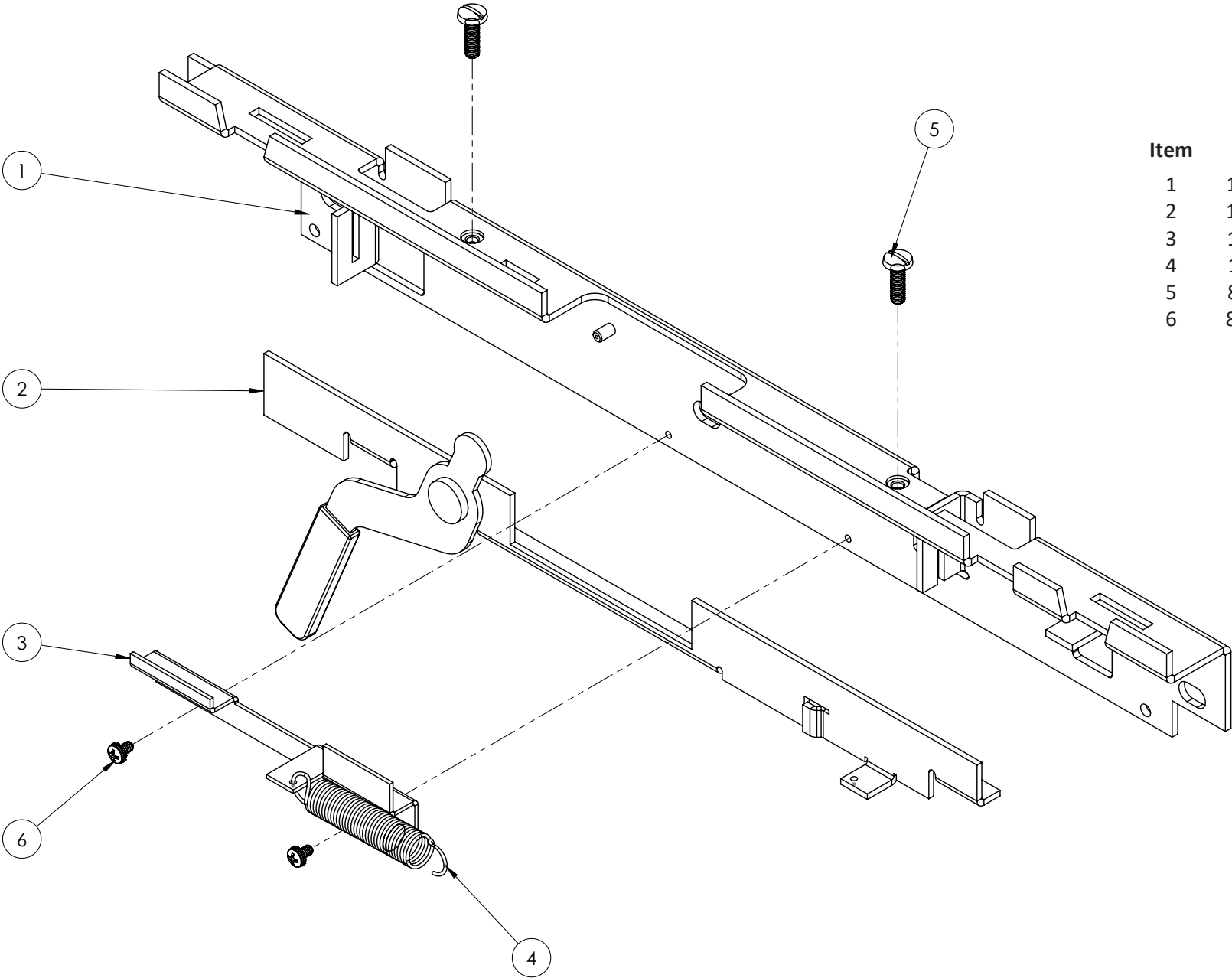
**CABINET LOCK DOWN SWITCH, ASSY**  
**51-000066-10**



Item	Part Number	Description	Qty
1	10-000167-10	LOCKDOWN SWITCH BRACKET	1
2	18-003015-00	LOCKDOWN SWITCH	1
3	19-003107-10	<i>NOT SHOWN</i> LOCKDOWN BAR SWITCH CABLE	1
4	25-100011-04	<i>NOT SHOWN</i> HEAT SHRINK TUBING, 1/4"	2"
5	80-002104-08	4-40X1/2" HWH PHILLIPS MS, BLK OXIDE	2



LOCKDOWN BAR RECEIVER NOTCHED  
10-008001-00

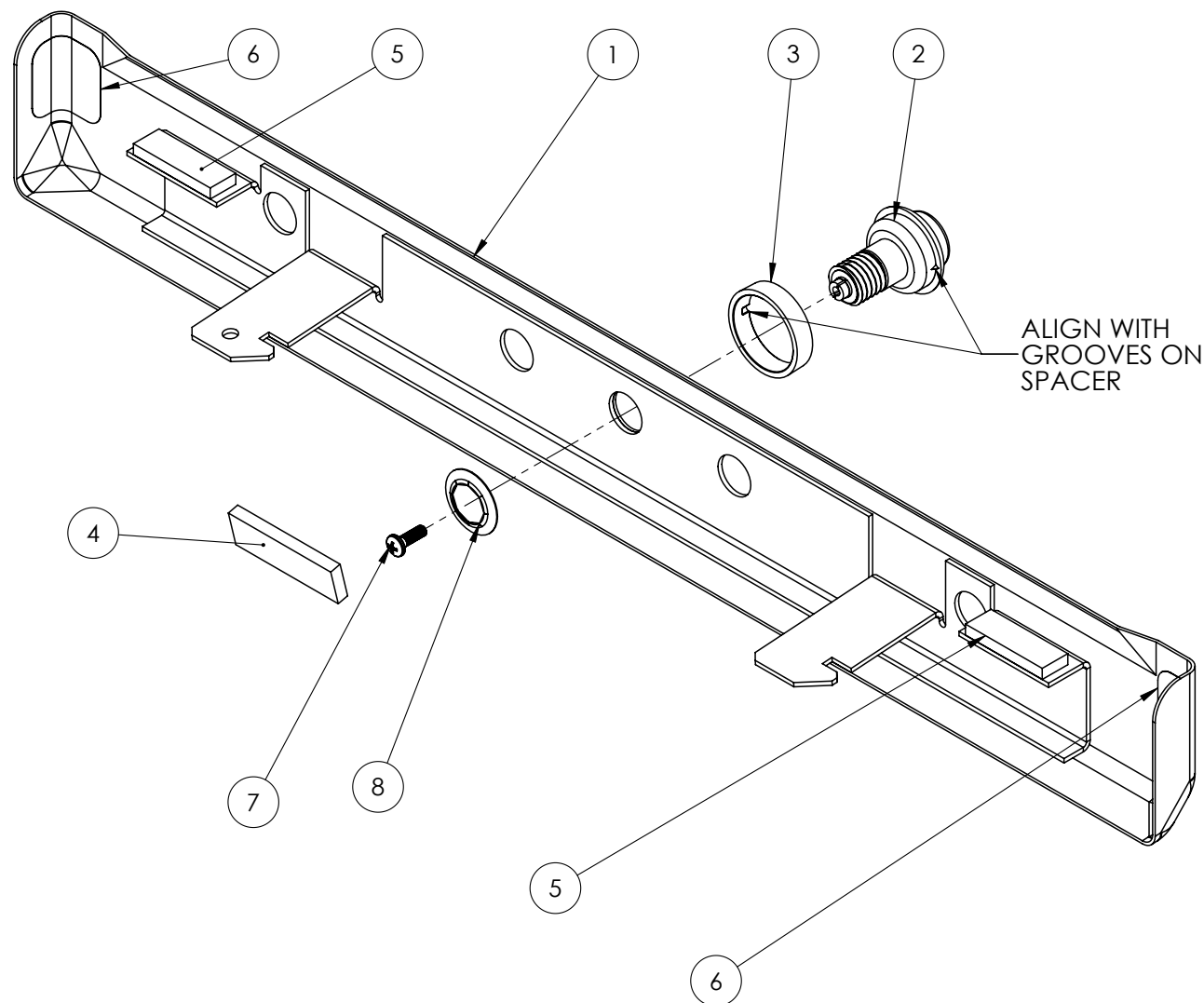


Item	Part Number	Description	Qty
1	10-005029-00	Lockdown Bar, Brkt Assy, Notched	1
2	10-005030-00	Lockdown Bar, Recvr Assy, Notched	1
3	10-000157-00	Recvr Slide Support Bracket, Notched	1
4	13-007017-00	Lockdown Bar Recvr Spring	1
5	80-000310-10	#10-32 x 5/8" Slot Head MS, Brass	2
6	80-001006-04	#6-32 x 1/4" PPH MS, SEMS	2

## LOCKDOWN BAR ASSY W/ ACTION BUTTON, ASSY

51-100288-02 LE

51-100288-03 CE



Item	Part Number	Description	Qty
1	See Note	Lockdown Bar, Standard, w/ Button Hole,	1
2	30-000124-13	FLIPPER BUTTON, 1.375" CLEAR	1
3	30-000126-00	ACTION BUTTON SPACER	1
4	61-009003-00	FOAM ADHESIVE TAPE, LOCKDOWN BAR SEAL	1
5	61-009003-01	FOAM ADH TAPE, QUICK-RECOVERY, 1/2" x 3/16"	2
6	62-100066-00	MYLAR SIDE RAIL PROTECTOR	2
7	80-000008-08	#8-32 x 1/2" PPH MS, ZINC PLATED	1
8	94-100000-00	PUSH NUT 5/8" SHAFT BLACK	1

### Item 1 Note

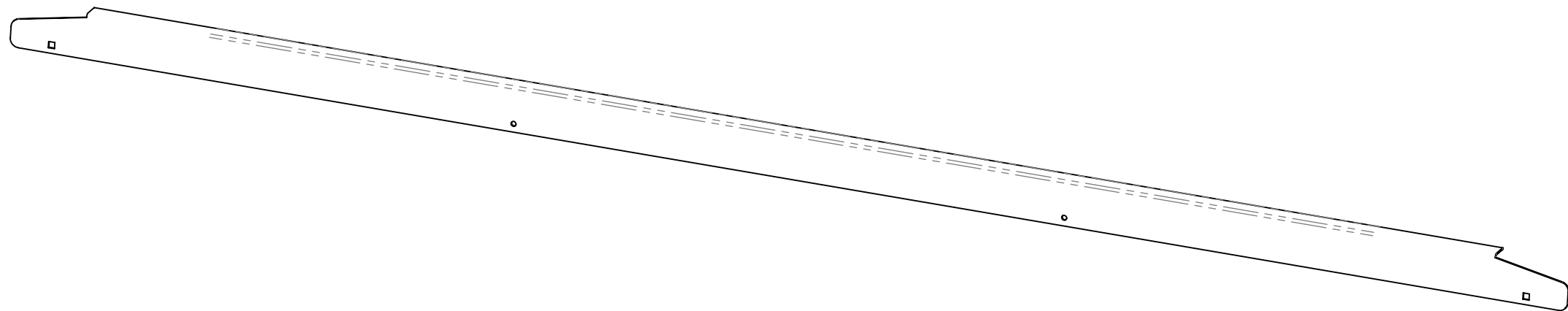
LE 10-000282-08

CE 10-000284-01

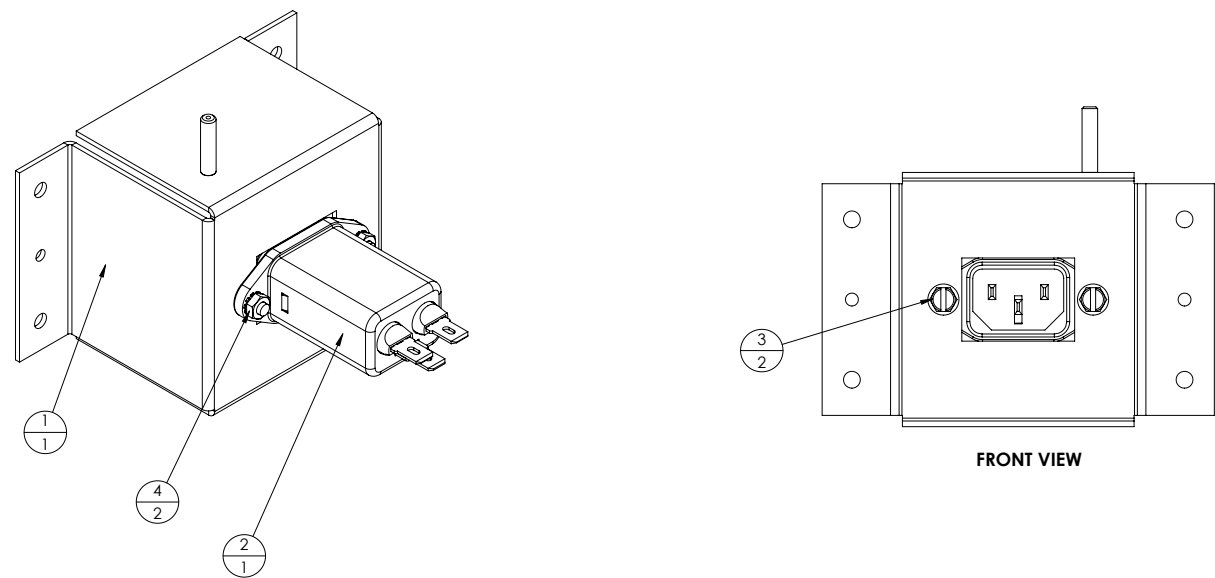
**SIDE RAIL AVATAR**

42-007004-03 LE

42-004005-01 CE

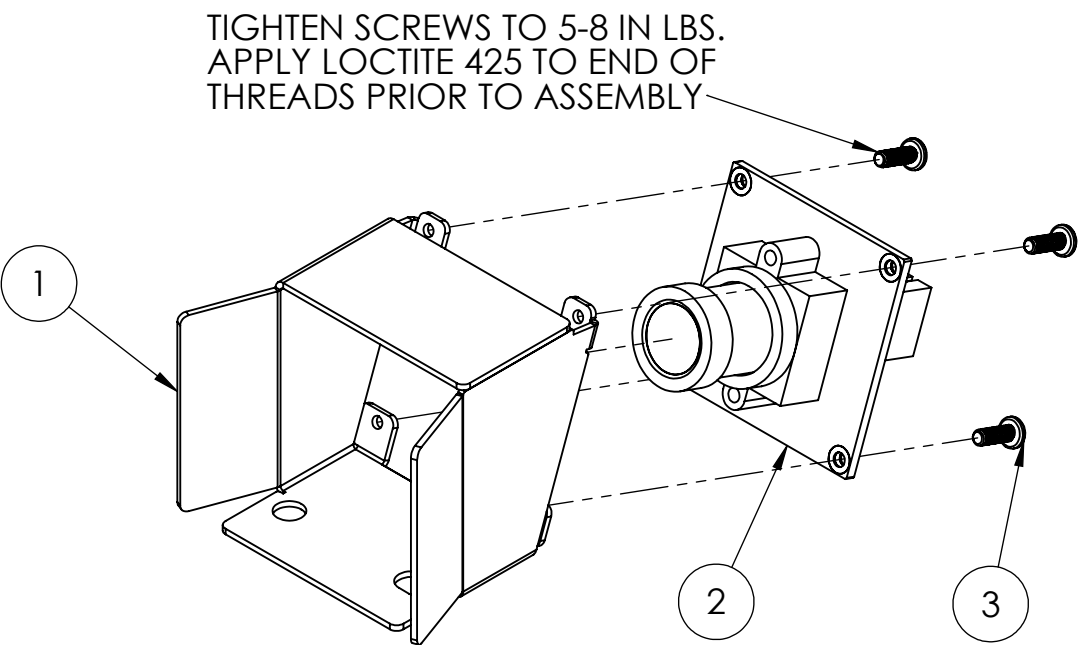


LINE FILTER BOX, ASSY  
51-005023-00



Item	Part Number	Description	Qty
1	10-000009-00	Mounting Bracket	1
2	22-000000-01	Line Filter with Resistor	1
3	80-002006-06	#6-32 x 3/8" MS	2
4	91-001006-00	#6-32 Keps Nut	2

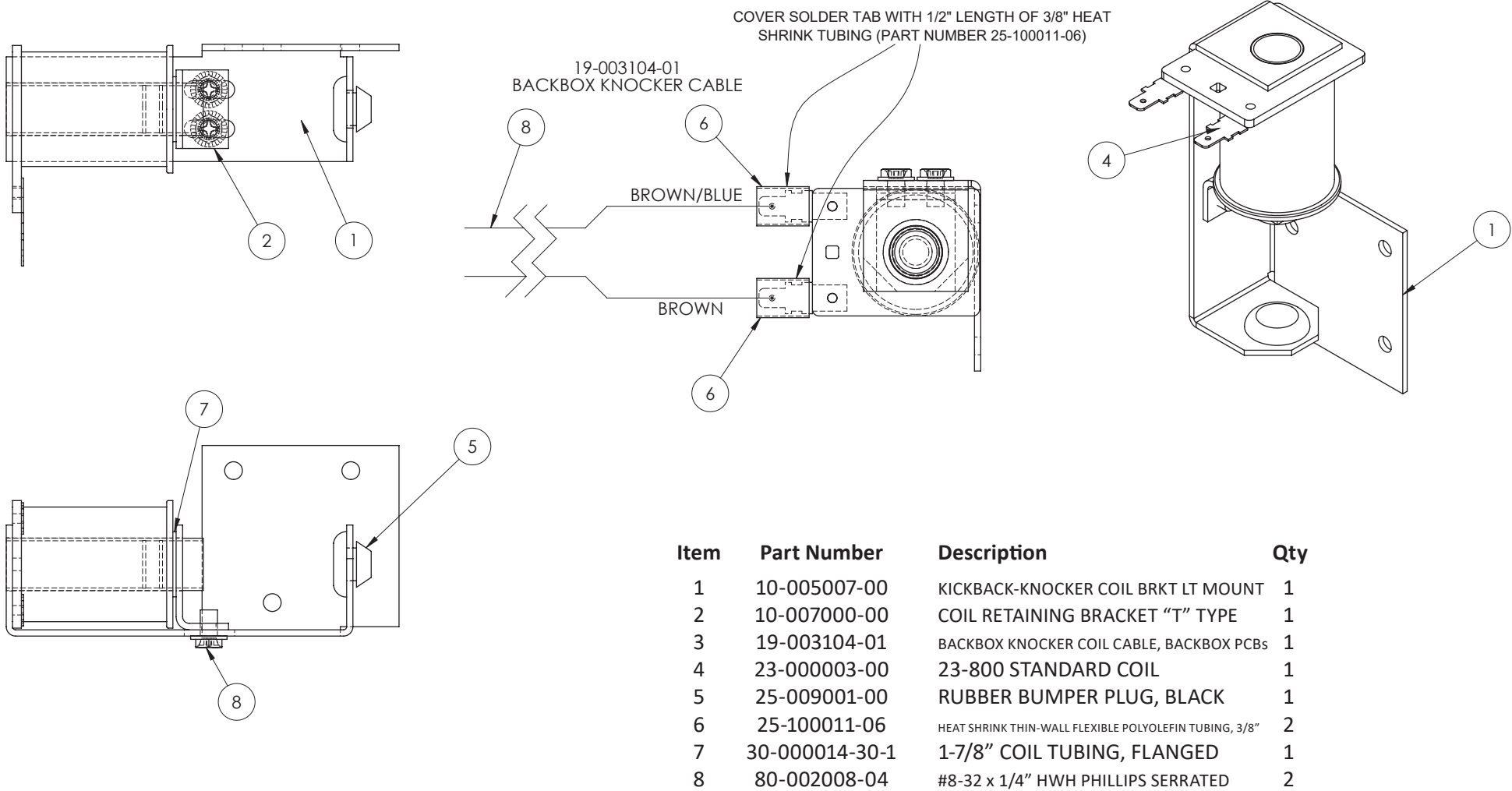
USB CAMERA COVERED, ASSY  
51-005041-01



Item	Part Number	Description	Qty
1	10-000226-01	Bracket, USB Camera, Cover	1
2	15-005034-00	Camera Module, 1mp, 720p, 3.6mm	1
3	80-000002-04	2-56 x 1/4" PPH MS	4

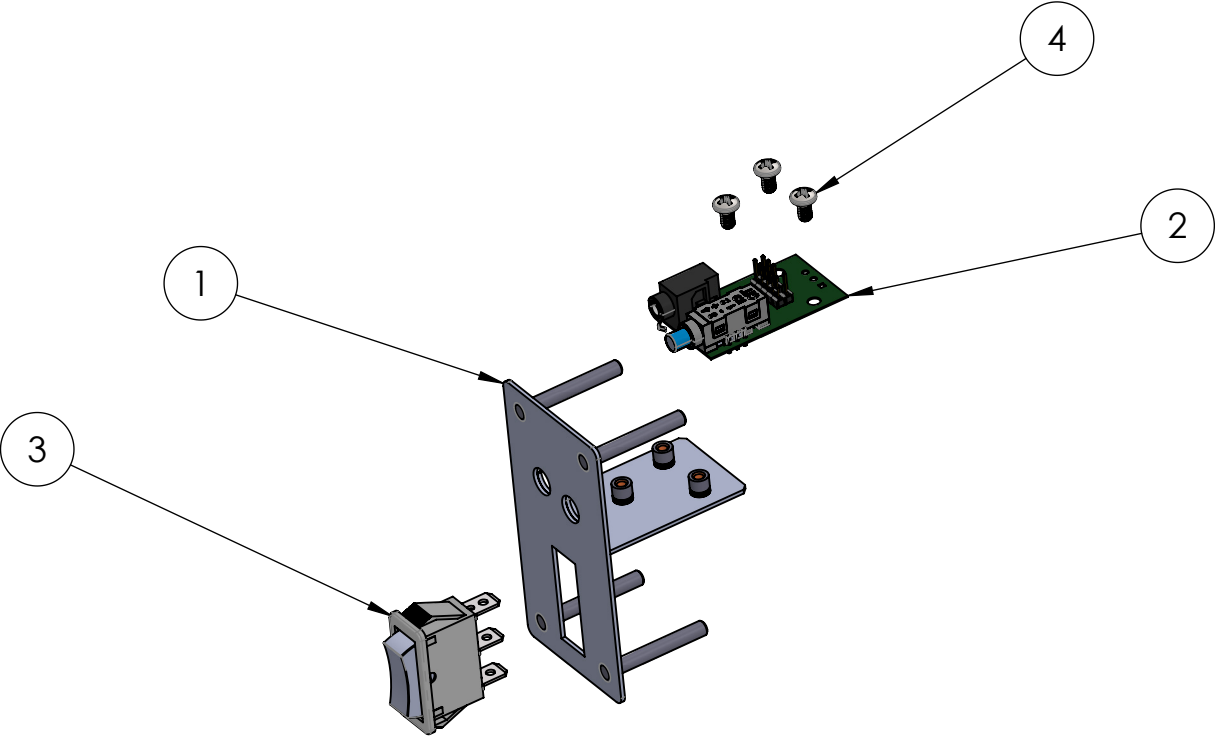


**KNOCKER & CABLE ASSY, VERTICAL MOUNT, 25"**  
**51-006014-25**



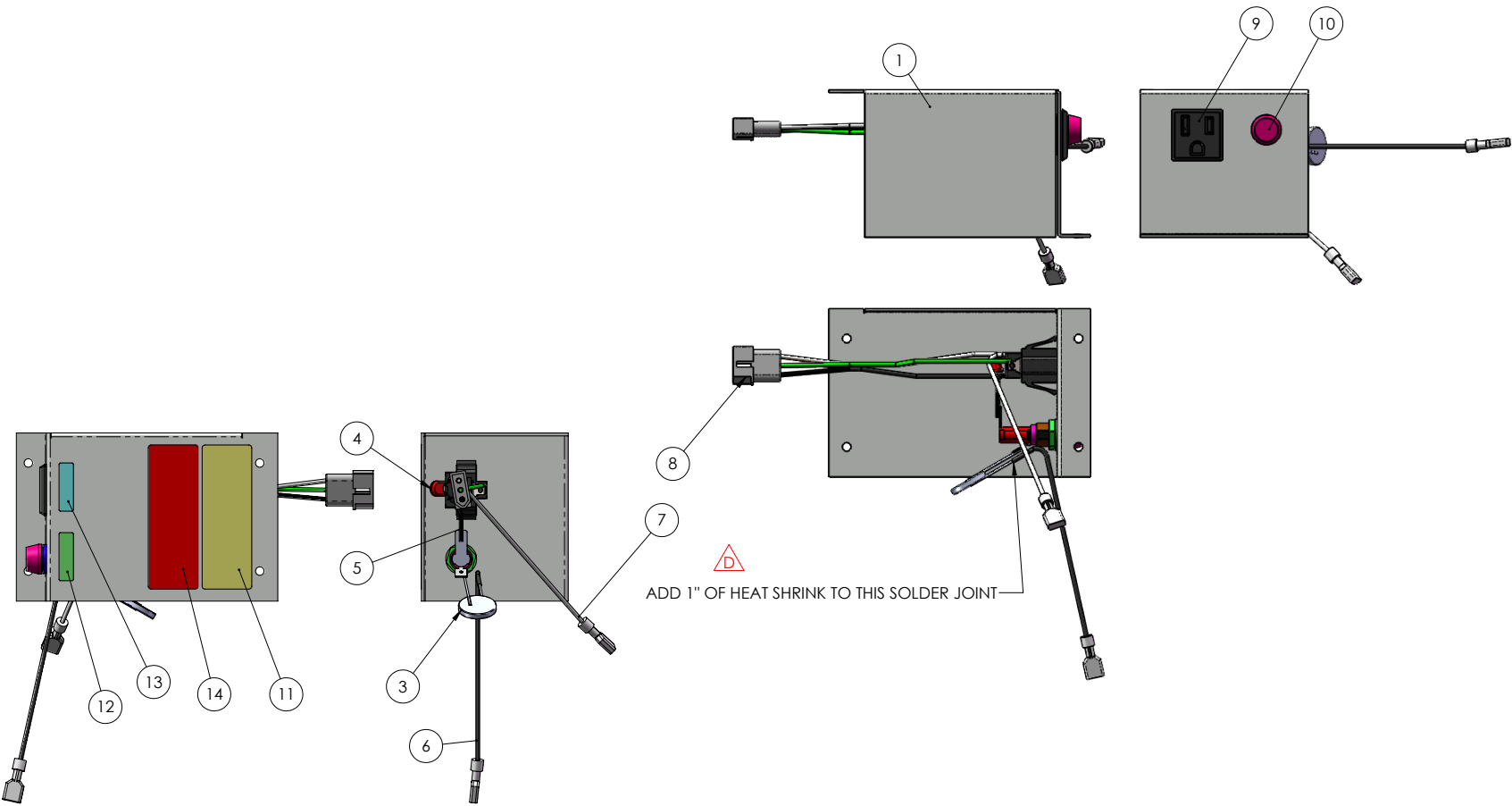
Item	Part Number	Description	Qty
1	10-005007-00	KICKBACK-KNOCKER COIL BRKT LT MOUNT	1
2	10-007000-00	COIL RETAINING BRACKET "T" TYPE	1
3	19-003104-01	BACKBOX KNOCKER COIL CABLE, BACKBOX PCBs	1
4	23-000003-00	23-800 STANDARD COIL	1
5	25-009001-00	RUBBER BUMPER PLUG, BLACK	1
6	25-100011-06	HEAT SHRINK THIN-WALL FLEXIBLE POLYOLEFIN TUBING, 3/8"	2
7	30-000014-30-1	1-7/8" COIL TUBING, FLANGED	1
8	80-002008-04	#8-32 x 1/4" HWH PHILLIPS SERRATED	2

HEADPHONE & BLUETOOTH, ASSY  
51-100113-00



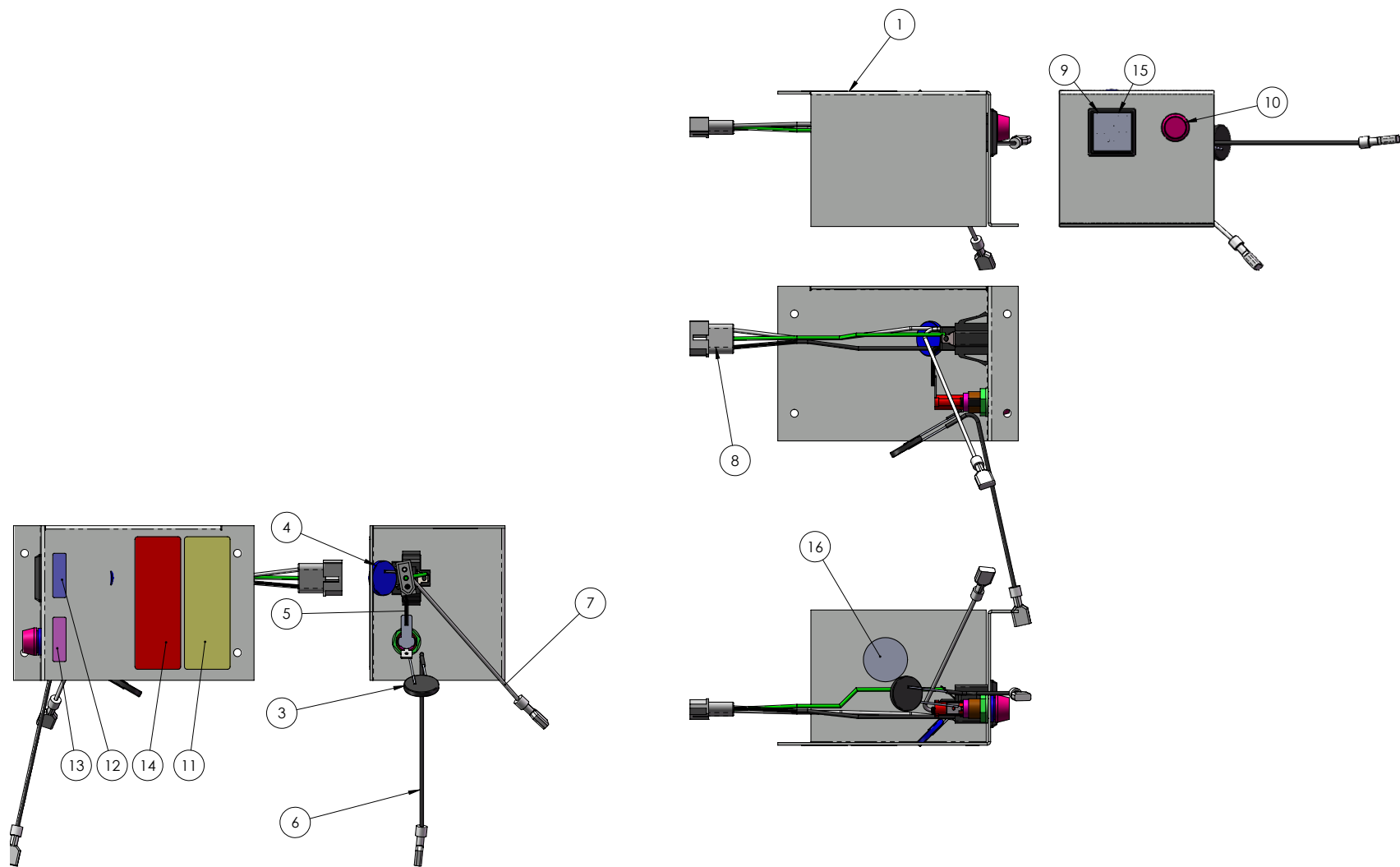
Item	Part Number	Description	Qty
1	10-100168-00	Mounting Plate	1
2	15-100025-00	PCB	1
3	18-003006-01	Volume Switch	1
4	80-000006-04	6-32 x 1/4" MSS	3
5	19-003115-01	Harness (Not Shown)	1

CABINET POWER BOX U.S., ASSY  
51-006001-02



Item	Part Number	Description	Qty
1	10-000008-01	Power Box	1
2	170-000110-SR	Fuse Slow Blow 10A 125V	1
3	22-008000-00	Varistor	1
4	180-000001-00	Thermistor	1
5	19-001000-18	Wire, 18 AWG, Black	3"
6	19-003052-00	Jump Wire 18AWG, Black	1
7	19-003053-00	Jump Wire 18AWG, White	1
8	19-100115-00	Power Box AC Pigtail	1
9	22-000001-00	USA Service Outlet	1
10	22-008000-00	Fuse Holder	1
11	62-000034-02	Decal Warning Shock Hazard	1
12	62-000034-04	Decal Fuse US	1
13	62-000034-05	Decal Amperage US	1
14	62-000034-08	Decal Warning Fire	1

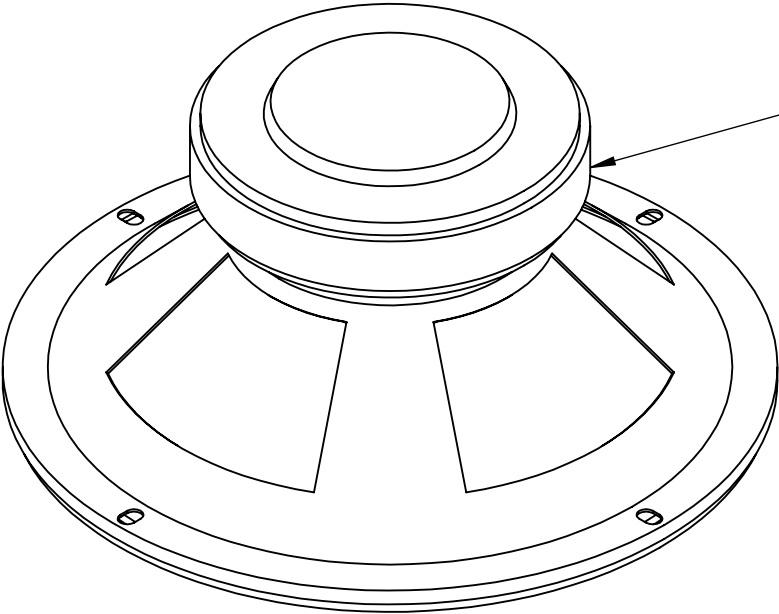
CABINET POWER BOX INT, ASSY  
51-006001-11



Item	Part Number	Description	Qty
1	10-000008-01	Power Box	1
2	170-000205-SR	Fuse Slow Blow 5A 250V	1
3	180-000002-00	European Varistor	1
4	180-000003-01	European Thermistor	1
5	19-001000-18	Wire 18AWG, Black	3"
6	19-003052-00	Jump Wire, 18 AWG, Black	1
7	19-003053-00	Jump Wire, 18 AWG, White	1
8	19-100115-00	Power Box AC Pigtail	1
9	22-000001-00	USA Service Outlet	1
10	22-008000-00	Fuse Holder	1
11	62-000034-02	Decal Warning Shock Hazard	1
12	62-000034-06	Decal Fuse International	1
13	62-000034-07	Decal Amperage International	1
14	62-000034-08	Decal Warning Fire	1
15	62-000039-00	Decal AC Socket Cover 220 VAC	1
16	62-100040-00	Decal AC 220 VAC	1

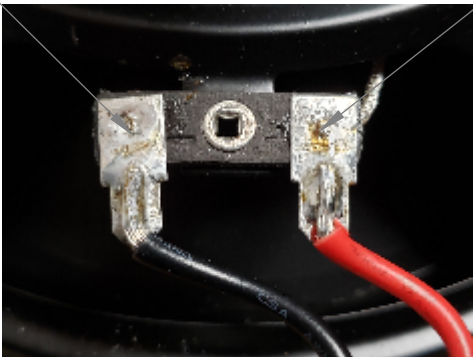


CABINET SUBWOOFER, ASSY  
51-006004-01



SOLDER PIGTAIL (19-003116-12)  
TO LUGS ON SPEAKER  
PIGTAIL NOT SHOWN

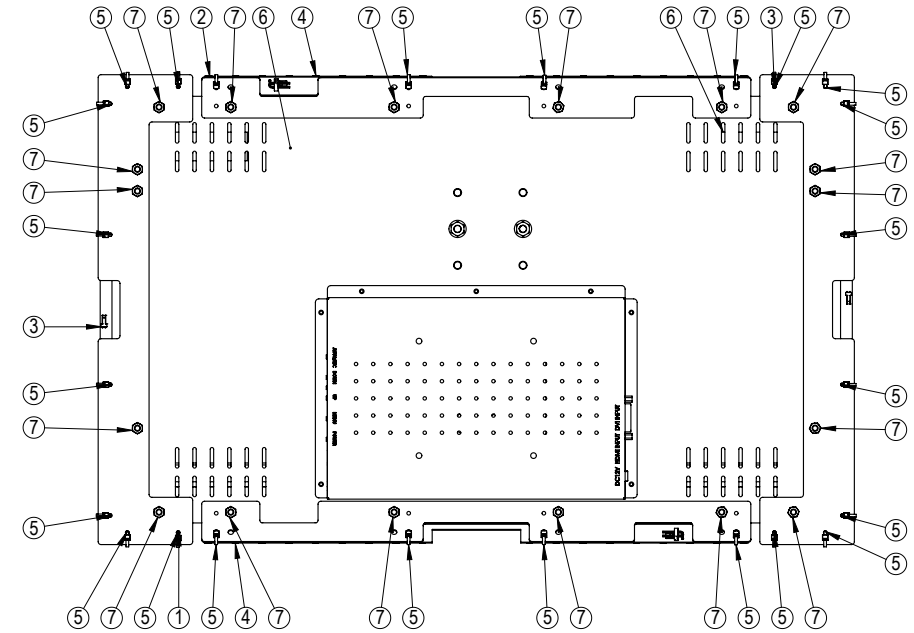
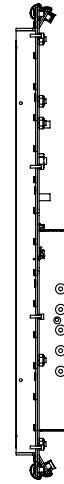
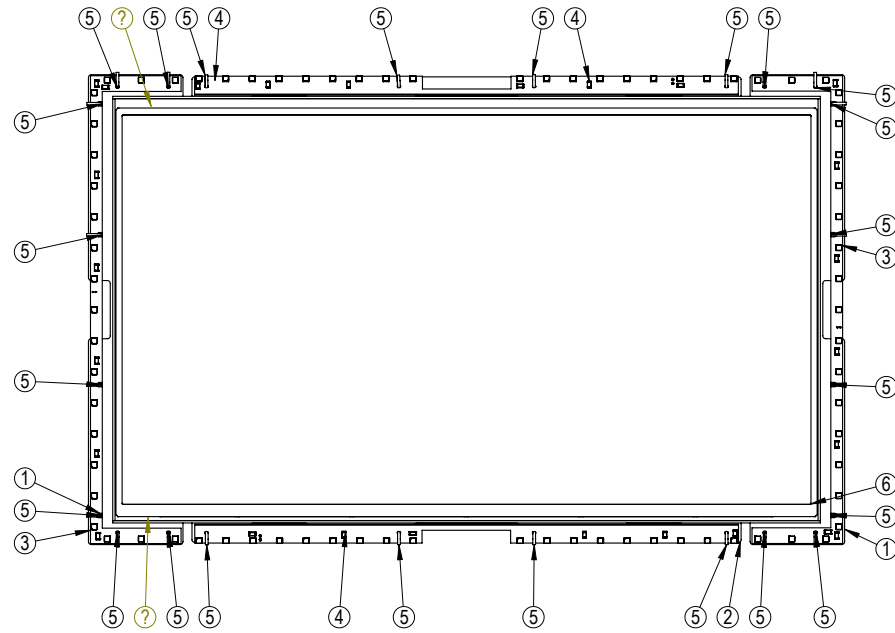
BLACK TO -



RED TO +

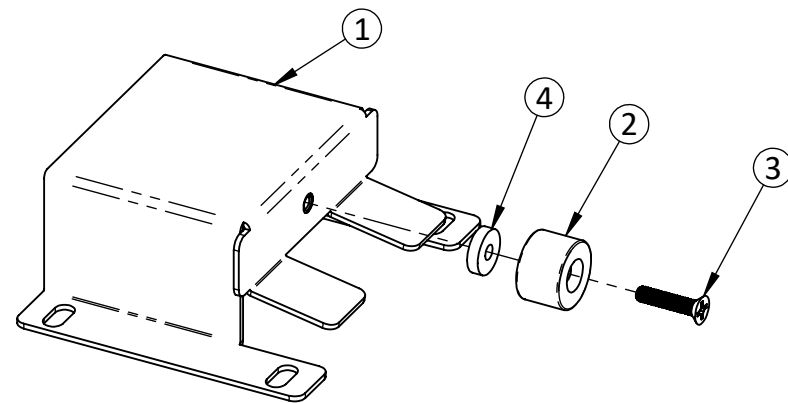
Item	Part Number	Description	Qty
1	17-006004-00	8" SUBWOOFER	1
2	19-003116-12	CABLE	1

## 27" LCD MONITOR WITH LEDS, ASSY 51-100021-03



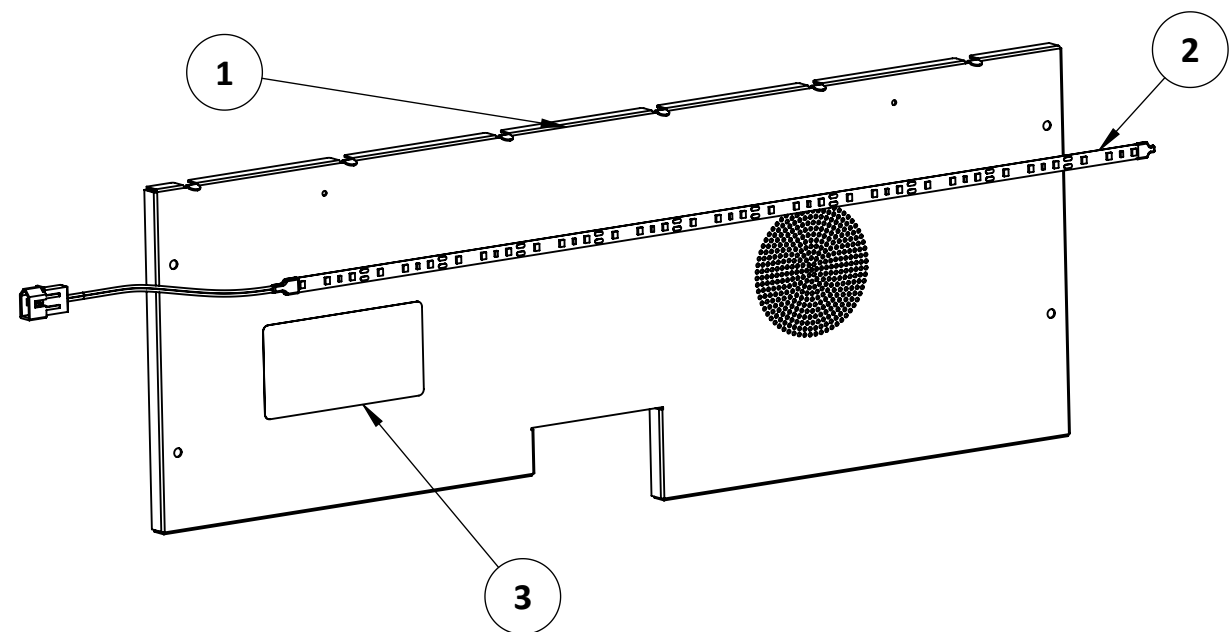
Item	Part Number	Description	Qty
1	10-100387-00	Bracket, Monitor LED Side	2
2	10-100387-01	Bracket, Monitor LED Top and Bottom	2
3	15-100058-00	Monitor Side LED Strip	2
4	15-100058-01	Monitor U-L LED Strip	2
5	30-000051-08	8" Wire Tie, Natural, Thin (18lbs)	24
6	51-100021-01	27" LCD Monitor Assy w/ Studs	1
7	91-000008-00	8-32 Nylon Stop Nut Thin	18

**MONITOR MAGNETIC LATCH, ASSY**  
**51-100050-00**



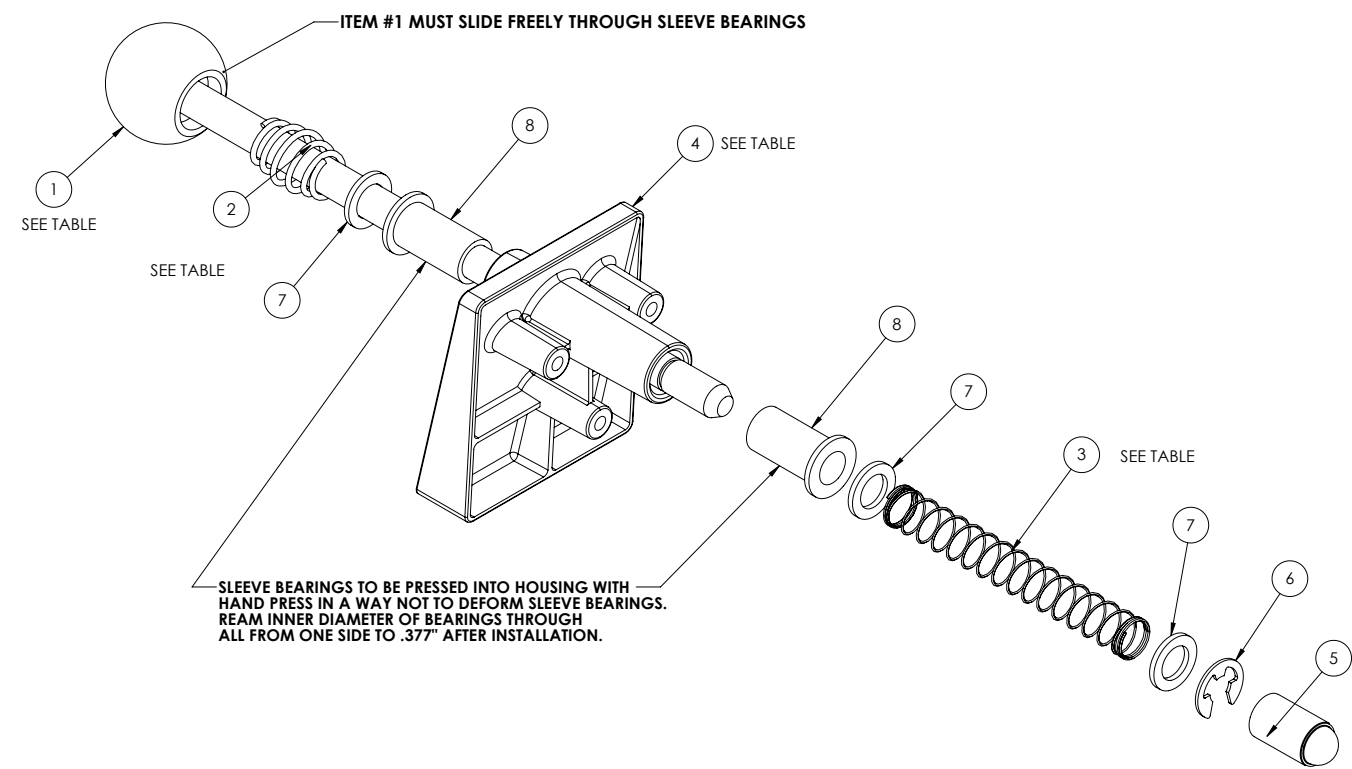
Item	Part Number	Description	Qty
1	10-100065-00	Bracket Screen Lock	1
2	23-100003-00	Magnet, .75 in x .50 thk, #8 hole	1
3	80-006008-12	#8-32 x 3/4" MS	1
4	92-000633-00	Nylon Washer, 0.166" ID, 0.500" OD, 0.125" TH	1

**EMI SHIELD LID WITH LED, ASSY**  
**51-100238-01**



Item	Part Number	Description	Qty
1	10-100296-00	Backbox PCBs EMI Shield Lid, 2021 Mobo	1
2	51-005042-00	Backbox LED Strip Assy w/ Cable	1
3	72-100060-00	Warning, Void Warranty Label	1

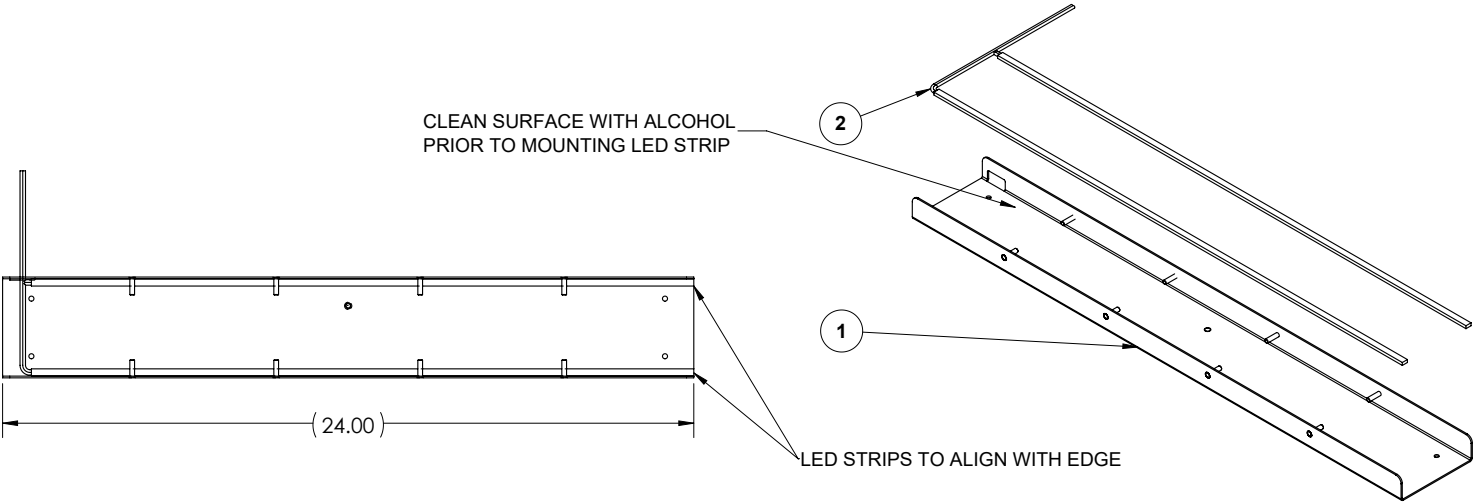
Ball Shooter, ASSY  
CE 51-100351-07  
LE 51-100351-06



Item	Part Number	Description	Qty
1	SEE NOTE 1	SHOOTER ROD	1
2	SEE NOTE 2	OUTER SPRING	1
3	13-007007-07	POWER SPRING	1
4	SEE NOTE 3	HOUSING	1
5	25-009003-00	SHOOTER TIP	1
6	94-004011-12	3/8" E-CLIP	1
7	95-002564-58-16	WASHER	3
8	96-000002-16	BEARING	2

NOTE	
1	11-100034-00 LE 11-100113-00 CE
2	13-100036-00 LE 13-007006-00 CE
3	14-000003-06 LE 14-000004-01 CE

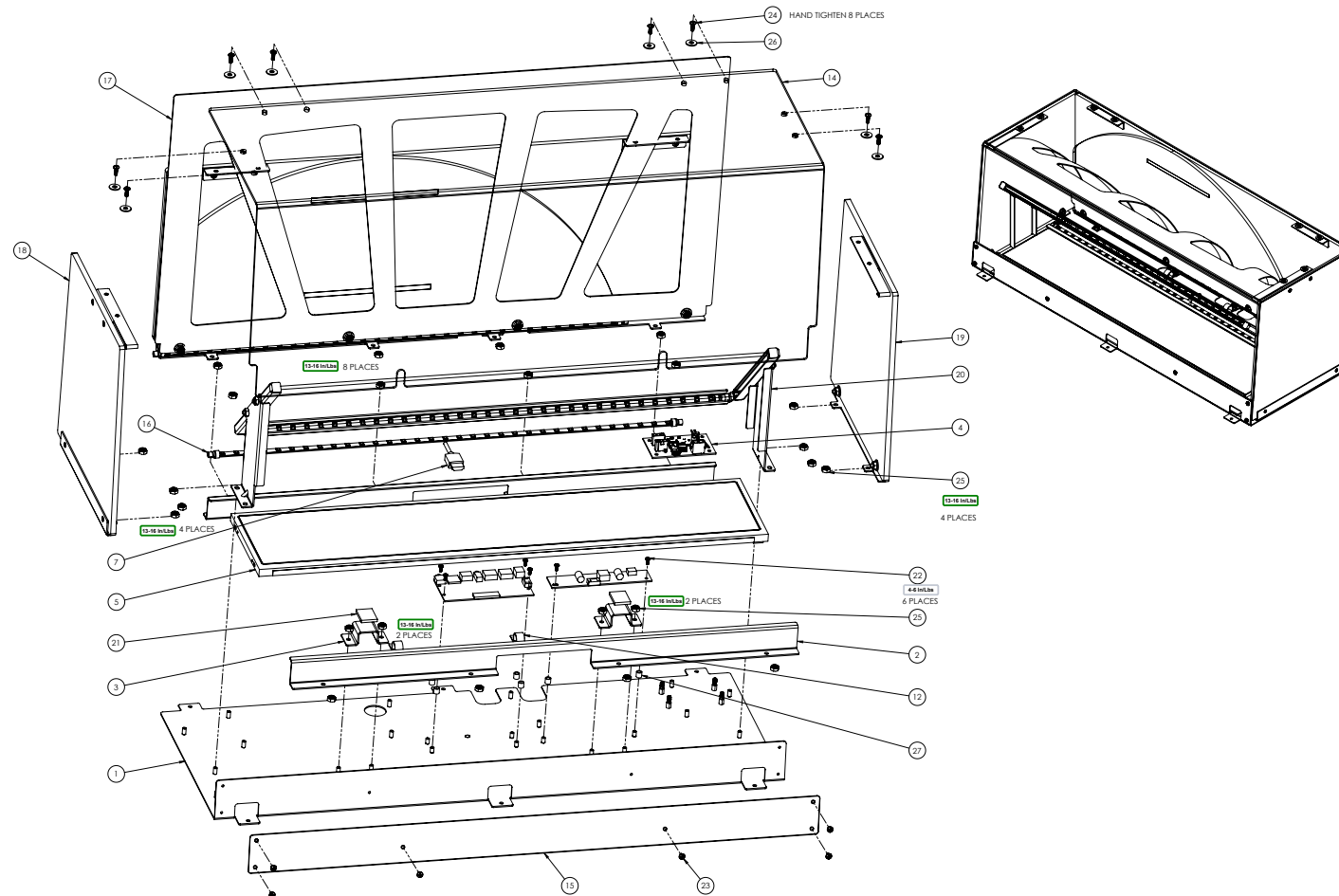
LE TOPPER, ASSY  
51-100506-00



Item	Part Number	Description	Qty
1	10-100422-00	Bracket	1
2	51-100397-00	LED Assy	1
Not Shown			
3	30-100199-00	Front Acrylic	1
4	30-100199-01	Rear Acrylic	1



# CE TOPPER, ASSY 51-100440-00

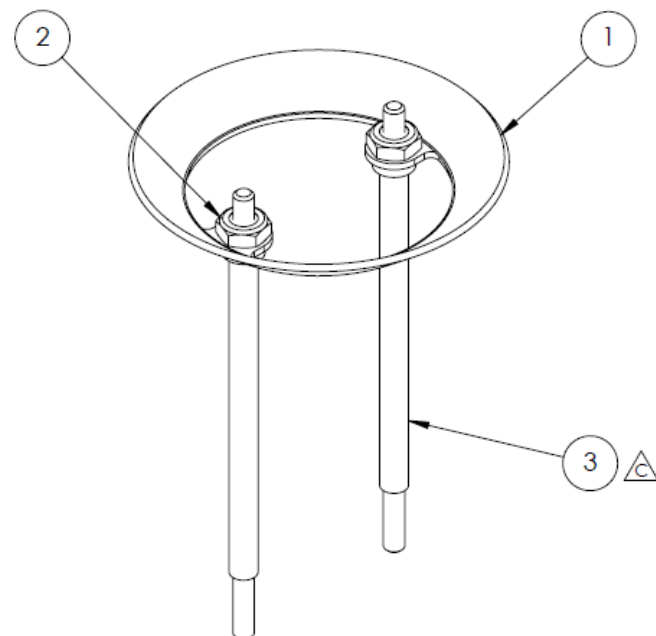


Item	Part Number	Description	Qty
1	10-100513-00	Base Plate	1
2	10-100514-00	LCD Mount Bracket	2
3	10-100528-00	LCD Support Bracket	2
4	15-100062-14	Controller Board	1
5	17-100004-00P	LCD	1
6	19-003100-06	USB Cable A to B, 6ft	1
7	19-100041-08	HDMI Cable, 8ft	1
8	19-100197-24	Extension Cable, NeoPixel, 2ft	2
9	19-100203-00	Power Cable 3ft	1
10	19-100214-00	LCD Power Cable 2ft	1
11	19-100215-00	Y Cable, 12V, 2 Pin	1
12	30-000049-08	Cable Clamp 1/2"	2
13	30-000051-08	8" Wire Tie	5
14	30-100210-00	Cover, Acrylic	1
15	30-100219-00	Cockpit Control Panel	1
16	51-100364-23	RGB LED Strip, 23-1/4"	1
17	51-100455-00	Background Assy	1
18	51-100456-00	Lrft Side Assy	1
19	51-100456-01	Right Side Assy	1
20	51-100458-00	Projection Glass Assy	1
21	61-009009-00	Foam Tape 1 x 3/4"	2
22	80-000004-04	4-40 x 1/4" MS	8
23	80-000106-03	6-32 x 3/16" MS, Black	24
24	80-000106-06	6-32 x 3/8" MS, Black	8
25	91-000108-00	8-32 Nylon Stop Nut	24
26	92-000608-01	Nylon Washer, Black	8
27	94-005208-08	#8 x 1/4" Round Spacer	6

# PLAYFIELD ASSEMBLIES AND PARTS

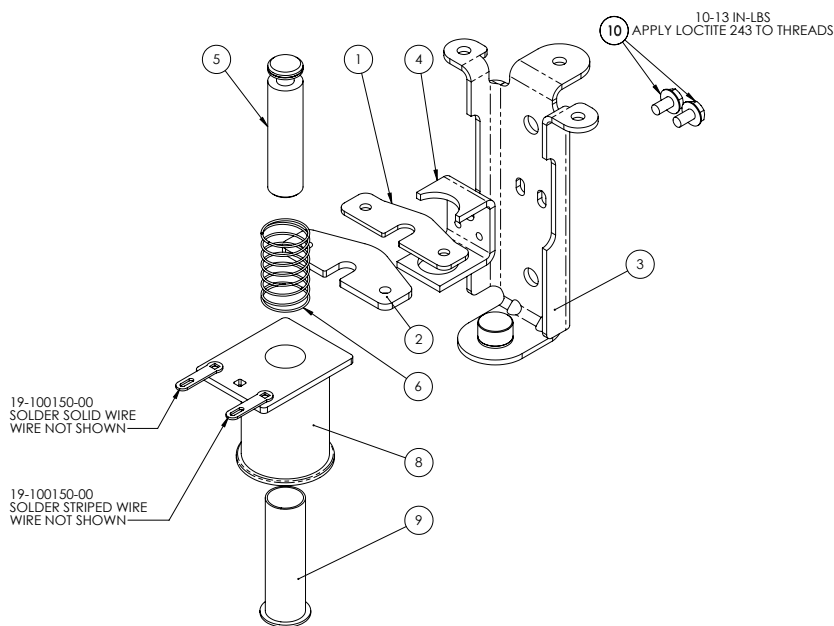


**POP BUMPER RING, ASSY**  
**11-005004-01**

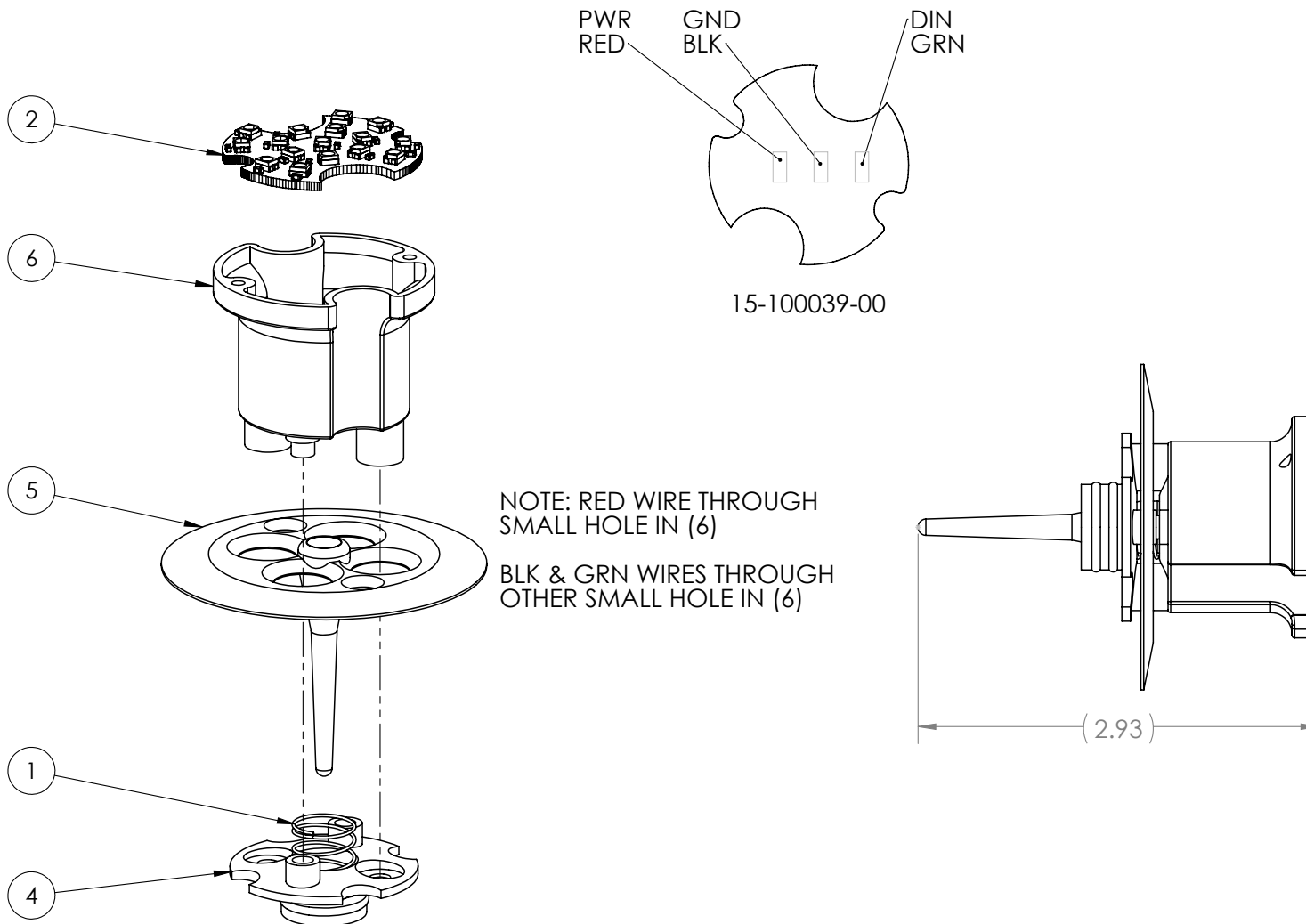


Item	Part Number	Description	Qty
1	11-000005-00	Pop Bumper Ring	1
2	91-000006-00	6-32 Nylon Stop Nut	2
3	11-100000-00	Bumper Rod	2

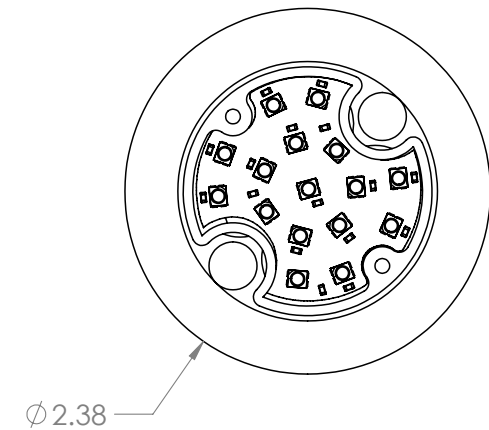
**POP BUMPER BOTTOM, ASSY**  
**51-000004-01**



Item	Part Number	Description	Qty
1	10-000021-00	Pop Bumper Yoke, Steel	1
2	10-000021-01	Pop Bumper Yoke, Bakelite	1
3	10-005003-00	Pop Bumper Coil Brkt	1
4	10-007003-00	Pop Bumper Coil Centering Brkt	1
5	11-000004-00	Bumper Plunger	1
6	13-007002-00	Pop Bumper Spring	1
7	19-100150-00	Coil Pigtail, 2-Lug, 4"	1
8	23-000010-00	26-1200 Standard Coil	1
9	30-000014-28	1-3/4" Coil Tubing, Straight	1
10	80-002006-04	6-32 x 1/4" HWH Phillips MS Serr	2

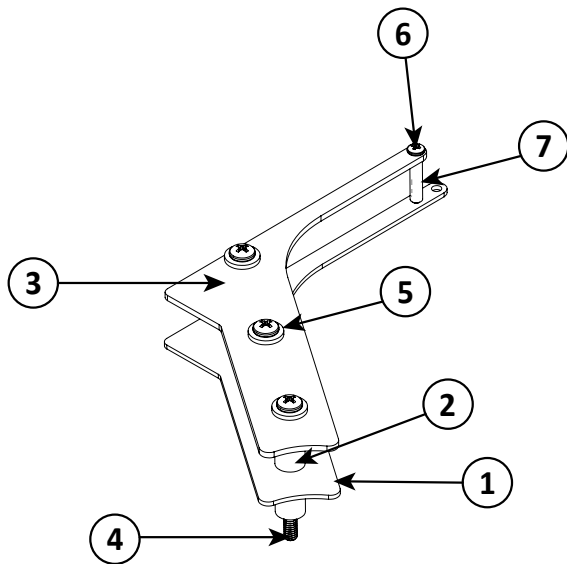


<p><b>POP BUMPER, ASSY</b></p> <p><b>51-100251-00</b></p>
---



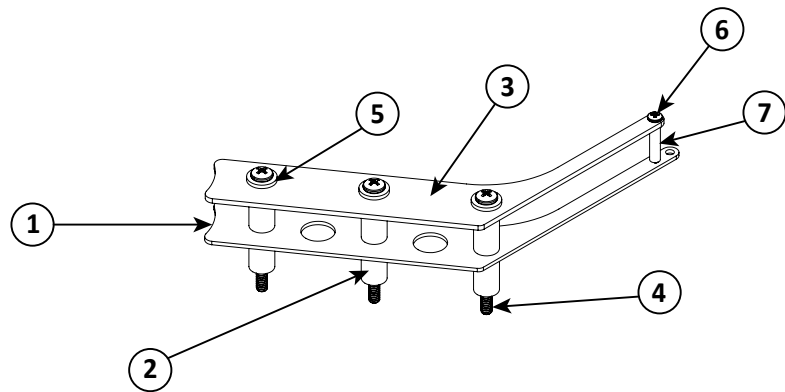
Item	Part Number	Description	Qty
1	13-007003-00	Pop Bumper Skirt Spring	1
2	15-100039-00	Glory Bumper LED Bd	1
3	19-100160-18	Universal Neo Pigtail, 18"	1
4	30-000003-09	Pop Bumper Base, White	1
5	30-000004-09	Pop Bumper Skirt, White	1
6	30-000005-09	Pop Bumper Body, White	1

CE RETURN LANE, LEFT, ASSY  
51-100314-10



Item	Part Number	Description	Qty
1	10-100365-00	BALL RETURN GUIDE, LEFT	1
2	30-000083-04	NYLON ROUND SPACER, SNAP IN, BLK	6
3	30-100163-51	PLASTIC, LEFT RETURN LANE, CE	1
4	80-000008-32	#8-32 x 2" PPH MS	3
5	92-000008-00	#8 FLAT WASHER	3
6	80-000004-14	#4-40 x 7/8" SCREW	1
7	94-003204-10	#4 x 5/8" ROUND SPACER .16" OD	1
NOT SHOWN			
	94-003204-08	#4 x 1/2" ROUND SPACER .16" OD	1
	92-000004-00	#4 FLAT WASHER	1
	82-000004-14	#4 x 7/8" SCREW	1

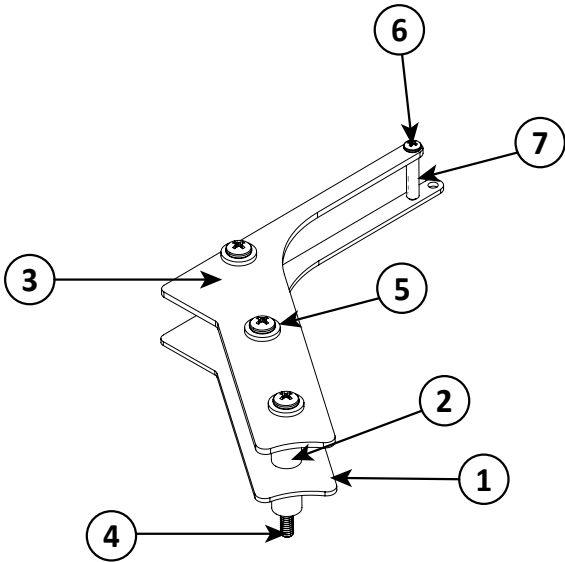
CE RETURN LANE, RIGHT, ASSY  
51-100314-11



Item	Part Number	Description	Qty
1	10-100365-01	BALL RETURN GUIDE, RIGHT	1
2	30-000083-04	NYLON ROUND SPACER, SNAP IN, BLK	6
3	30-100163-52	PLASTIC, RIGHT RETURN LANE, CE	1
4	80-000008-32	#8-32 x 2" PPH MS	3
5	80-000008-00	#8 FLAT WASHER	3
6	80-000004-14	#4-40 x 7/8" SCREW	1
7	94-003204-10	#4 x 5/8" ROUND SPACER .16" OD	1
NOT SHOWN			
	94-003204-08	#4 x 1/2" ROUND SPACER .16" OD	1
	92-000004-00	#4 FLAT WASHER	1
	82-000004-14	#4 x 7/8" SCREW	1

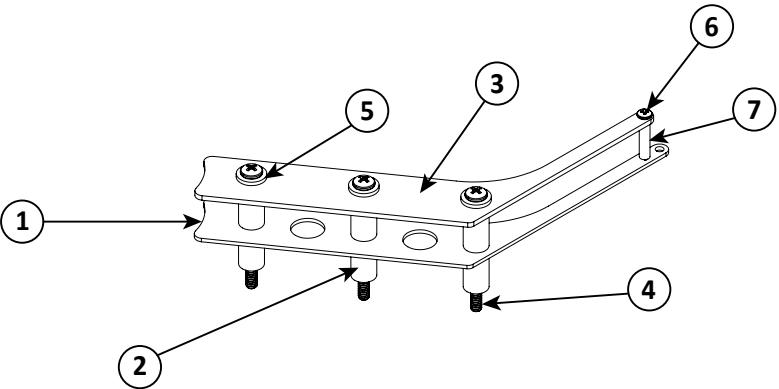


LE RETURN LANE, LEFT, ASSY  
51-100314-00



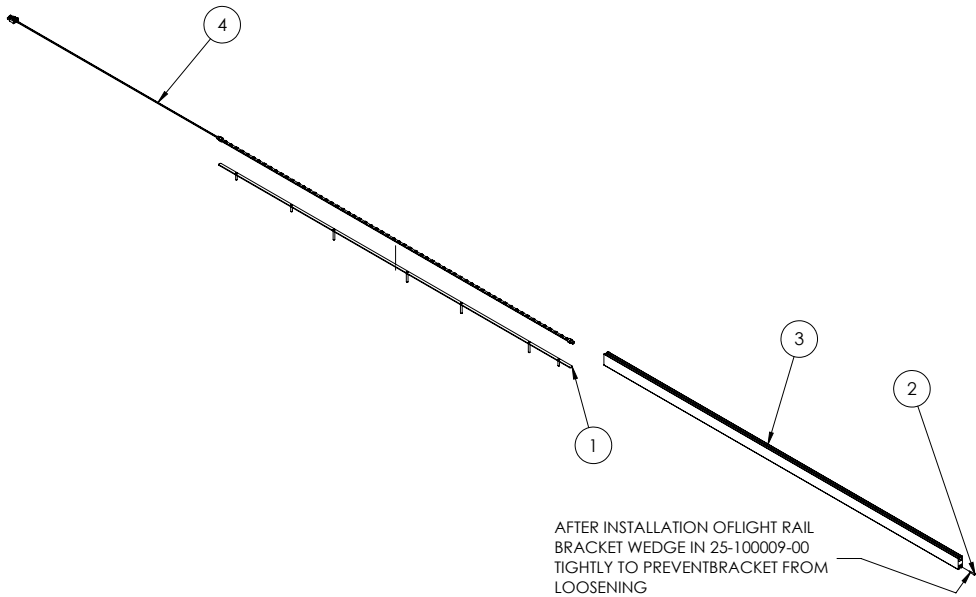
Item	Part Number	Description	Qty
1	10-100365-00	BALL RETURN GUIDE, LEFT	1
2	30-000083-04	NYLON ROUND SPACER, SNAP IN, BLK	6
3	30-100160-01	PLASTIC, LEFT RETURN LANE, LE	1
4	80-000008-32	#8-32 x 2" PPH MS	3
5	92-000008-00	#8 FLAT WASHER	3
6	80-000004-14	#4-40 x 7/8" SCREW	1
7	94-003204-10	#4 x 5/8" ROUND SPACER .16" OD	1
NOT SHOWN			
	94-003204-08	#4 x 1/2" ROUND SPACER .16" OD	1
	92-000004-00	#4 FLAT WASHER	1
	82-000004-14	#4 x 7/8" SCREW	1

LE RETURN LANE, Right, ASSY  
51-100314-01

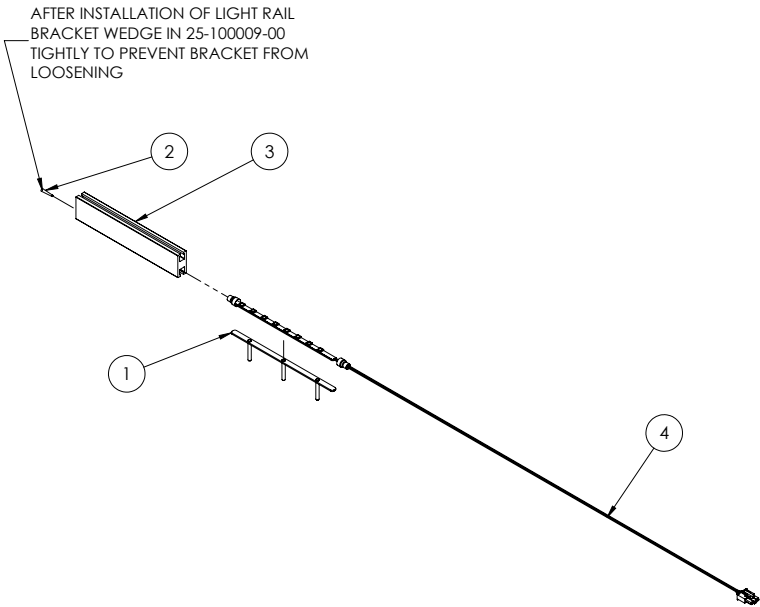


Item	Part Number	Description	Qty
1	10-100365-01	BALL RETURN GUIDE, RIGHT	1
2	30-000083-04	NYLON ROUND SPACER, SNAP IN, BLK	6
3	30-100160-02	PLASTIC, RIGHT RETURN LANE, LE	1
4	80-000008-32	#8-32 x 2" PPH MS	3
5	80-000008-00	#8 FLAT WASHER	3
6	80-000004-14	#4-40 x 7/8" SCREW	1
7	94-003204-10	#4 x 5/8" ROUND SPACER .16" OD	1
NOT SHOWN			
	94-003204-08	#4 x 1/2" ROUND SPACER .16" OD	1
	92-000004-00	#4 FLAT WASHER	1
	82-000004-14	#4 x 7/8" SCREW	1

LIGHT RAIL, 41.75", ASSY  
51-100313-00



LIGHT RAIL, SHOOTER LANE, 11.125", ASSY  
51-100313-01

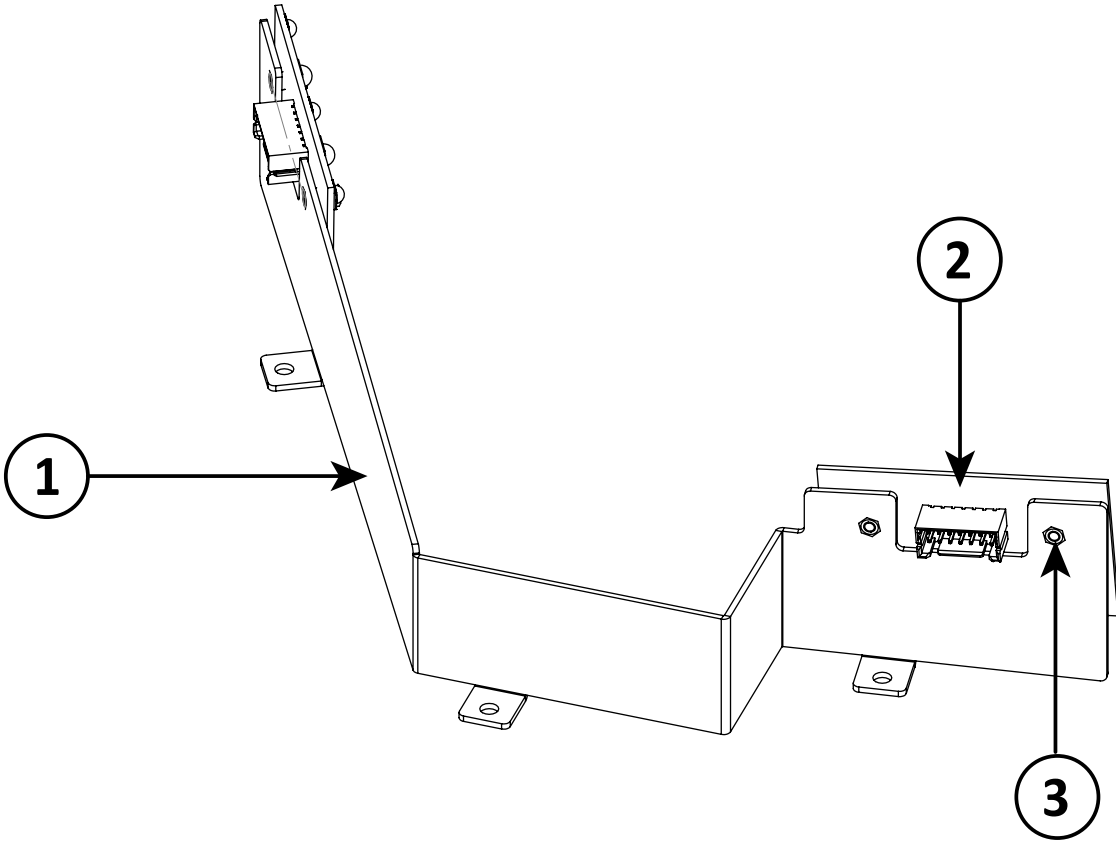


Item	Part Number	Description	Qty
1	10-100166-01	BRACKET, LIGHT RAIL, LONG	1
2	25-100009-00	PLUG RUBBER TAPERED	1
3	30-100030-00	EXTRUSION, SIDERAIL 41.75 INCH	1
4	51-100391-00	ASSEMBLY, LIGHT RAIL BRACKET, LONG (RGBU)	1

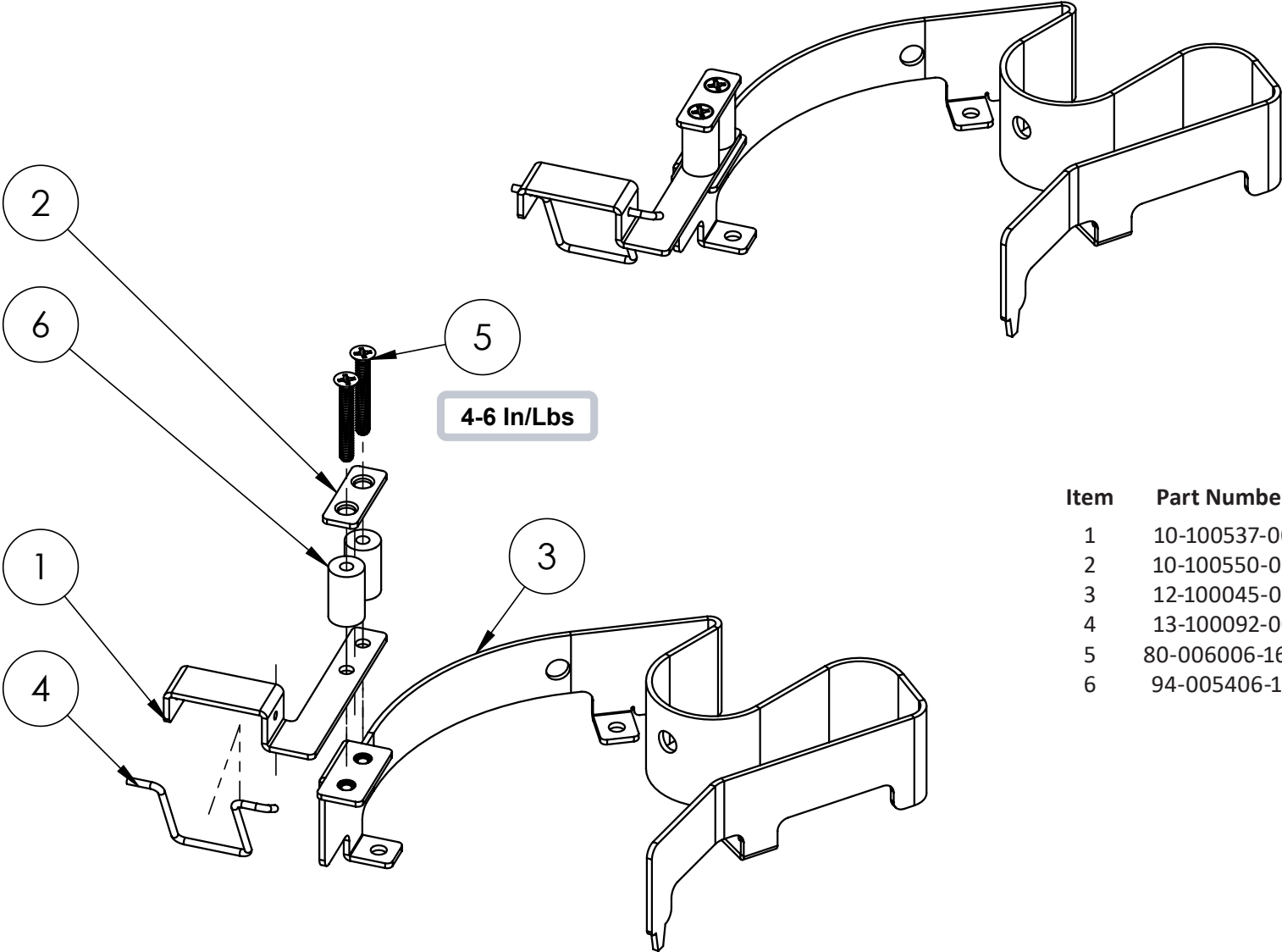
Item	Part Number	Description	Qty
1	10-100166-03	BRACKET, LIGHT RAIL, SHOOTER, 6"	1
2	25-100009-00	PLUG RUBBER TAPERED	1
3	30-100135-01	EXTRUSION, SHOOTER LANE 6"	1
4	51-100391-01	ASSEMBLY, LIGHT RAIL BRACKET, 6" (RGBU)	1

OUTHOLE FLATRAIL WITH LIGHTS, ASSY  
51-100454-00

Item	Part Number	Description	Qty
1	12-100042-00	OUTHOLE FLATRAIL	1
2	51-100482-00	RGBU Tri-Flood And Cable Assy.	1
3	80-002104-04	4-40 x 1/4" Screw	4
NOT SHOWN			
	19-100162-00	14 Pin Hirose Ext. Cable	2

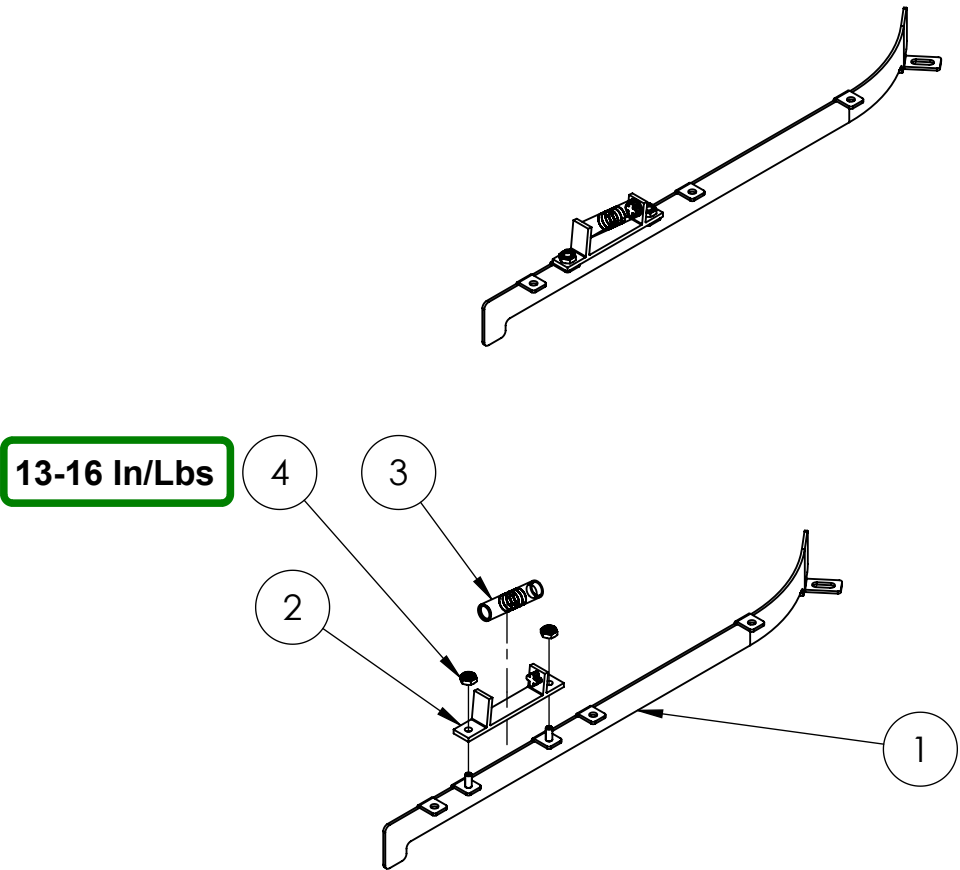


LEFT LOOP SUBWAY FLATRAIL, ASSY  
51-100479-00



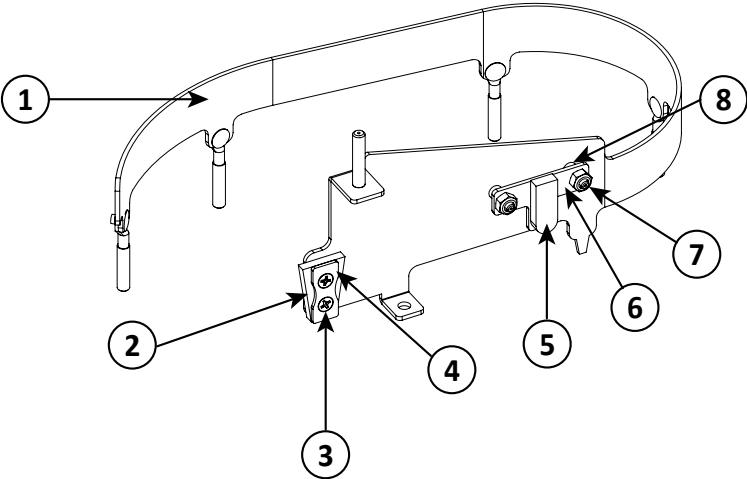
Item	Part Number	Description	Qty
1	10-100537-00	ONE WAY GATE	1
2	10-100550-00	PLATE, WIRE RAMP SUPPORT	1
3	12-100045-02	FLATRAIL, LEFT LOOPSUBWAY	1
4	13-100092-00	WIREFORM, GATE	1
5	80-006006-16U	6-32X1" PFM MS	2
6	94-005406-10	#6 X 5/8" ROUND SPACER, 3/8" OD	2

SHOOTER LANE FLATRAIL, ASSY  
51-100474-00



Item	Part Number	Description	Qty
1	12-100045-05	FLATRAIL, SHOOTER LANE	1
2	30-000081-00	BRACKET, BUBBLE LEVEL	1
3	30-000087-01	VIAL, BUBBLE LEVEL	1
4	91-000006-00	6-32 NYLON LOCKNUT	2

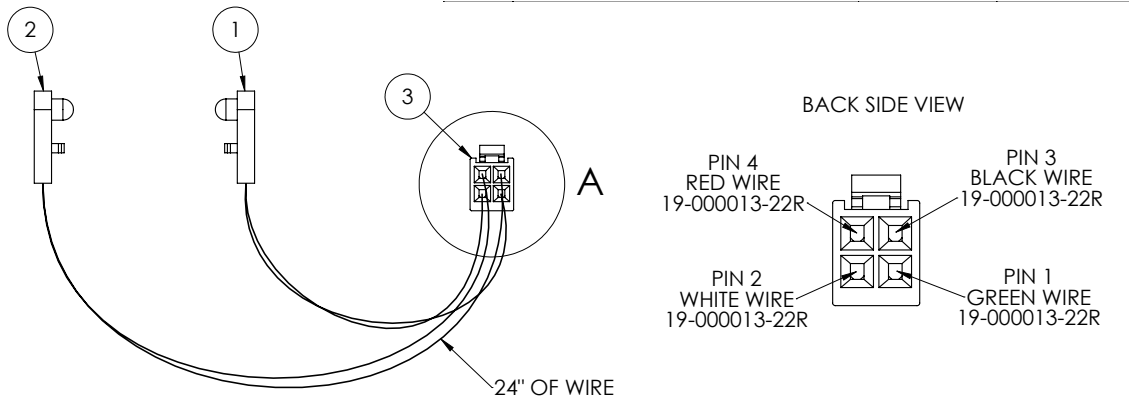
RIGHT LOOP OUTER FLATRAIL, ASSY  
51-100334-00



Item	Part Number	Description	Qty
1	12-100045-08	FLATRAIL, Right Loop Outer	1
2	25-100015-00	Ball Snubber	1
3	80-006004-04U	4-40 x 1/4" Screw	2
4	10-100309-00	Ball Snubber Retaining Bracket	1
5	18-007025-24	OPTO	1
6	10-100453-01	OPTO Bracket	1
7	91-000004-00	4-40 Nylon Nut	2
8	94-005204-04	#4 x 1/8" Spacer, 1/4" OD Nylon	2

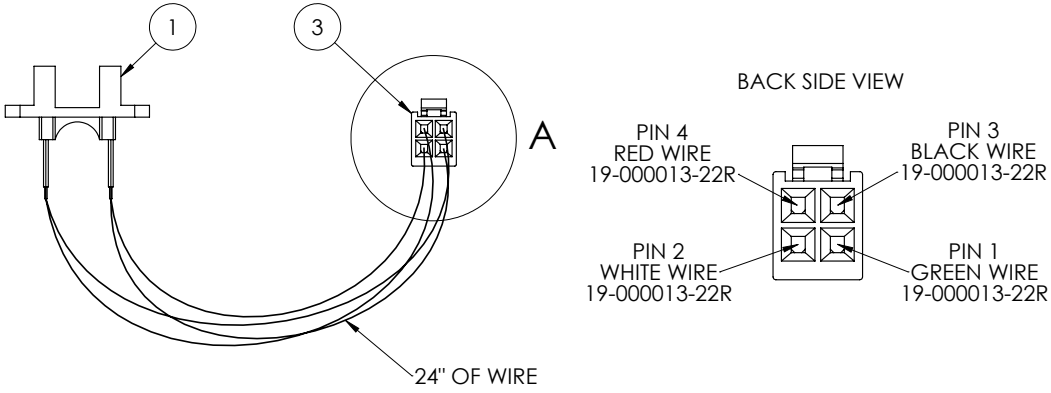


OPTO PAIR, ASSY  
18-007025-24



Item	Part Number	Description	Qty
1	18-005001-00	INFRARED LED ASSY.	1
2	18-005001-01	PHOTOTRANSISTOR ASSY.	1
3	30-002011-04	4.2MM MFJ RECEPTACLE	1
4	19-000013-22R	22-28 AWG FEMALE PIN	4

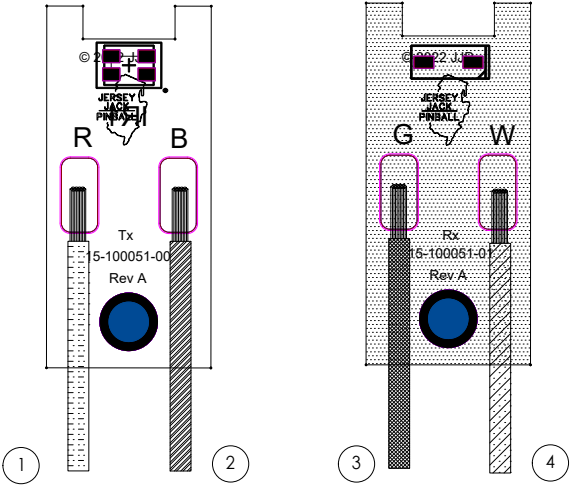
U-SHAPED OPTO, ASSY  
18-007026-24



Item	Part Number	Description	Qty
1	18-005003-00	OPTO, OPB812W	1
2	19-000013-22R	22-28 AWG MFJ FEMALE PIN	4
3	30-002011-04	4.2MM MFJ RECEPTACLE	1

**NOTCHED OPTO PAIR, ASSY**  
**51-100370-00**

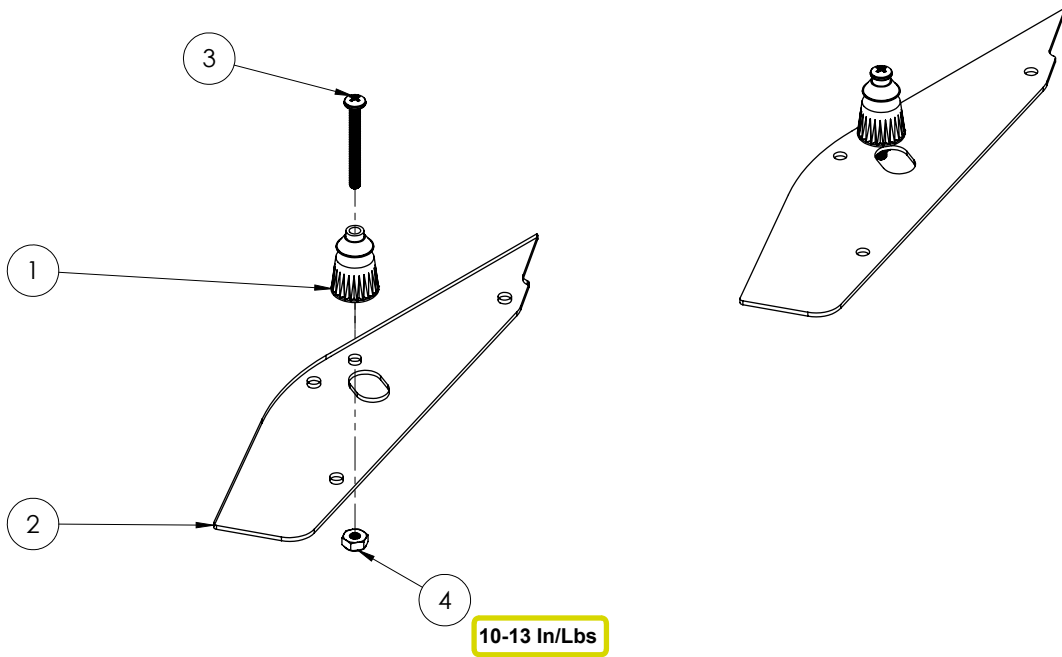
EXPLODED VIEW OF SOLDER CONNECTION



- ① Solder RED wire to "R" connection on 15-100051-00
- ② Solder BLACK wire to "B" connection on 15-100051-00
- ③ Solder GREEN wire to "G" connection on 15-100051-01
- ④ Solder WHITE wire to "W" connection on 15-100051-01

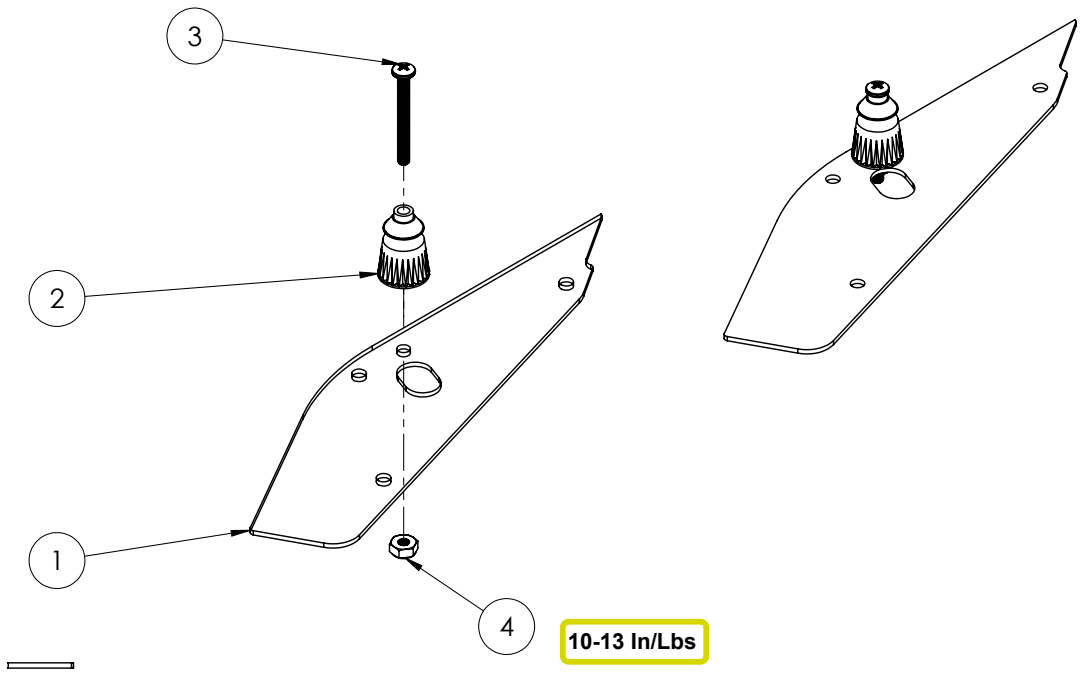
Item	Part Number	Description	Qty
1	15-100051-00	NOTCHED OPTO BD TX	1
2	15-100051-01	NOTCHED OPYO BD RX	1
3	19-003073-24	OPTO CABLE 24"	1

**LE UPPER SLINGSHOT, ASSY**  
**51-100489-00**



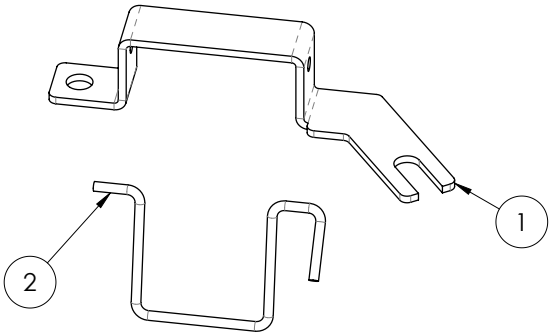
Item	Part Number	Description	Qty
1	30-009005-13	SINGLE STAR POST, CLEAR	1
2	30-100160-08	SLINGSHOT PLASTIC	1
3	80-000008-24	#8-32 X 1-1/2" PPH MS	1
4	91-000008-00	8-32 NYLON STOP NUT	1

**CE UPPER SLINGSHOT, ASSY**  
**51-100489-01**



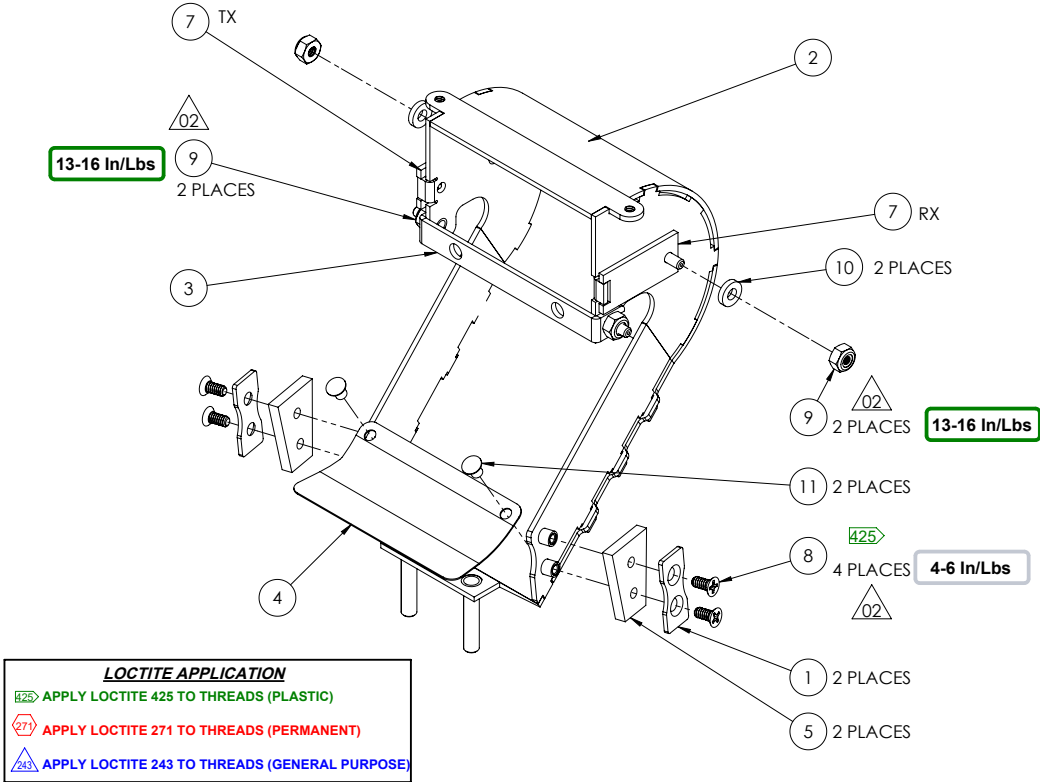
Item	Part Number	Description	Qty
1	30-100163-58	SLINGSHOT PLASTIC	1
2	30-009005-13	SINGLE STAR POST, CLEAR	1
3	80-000008-24	#8-32 X 1-1/2" PPH MS	1
4	91-000008-00	8-32 NYLON STOP NUT	1

VUK GATE, ASSY  
51-100399-00



Item	Part Number	Description	Qty
1	10-100451-00	BRACKET, GATE, VUK	1
2	13-100050-00	WIREFORM	1

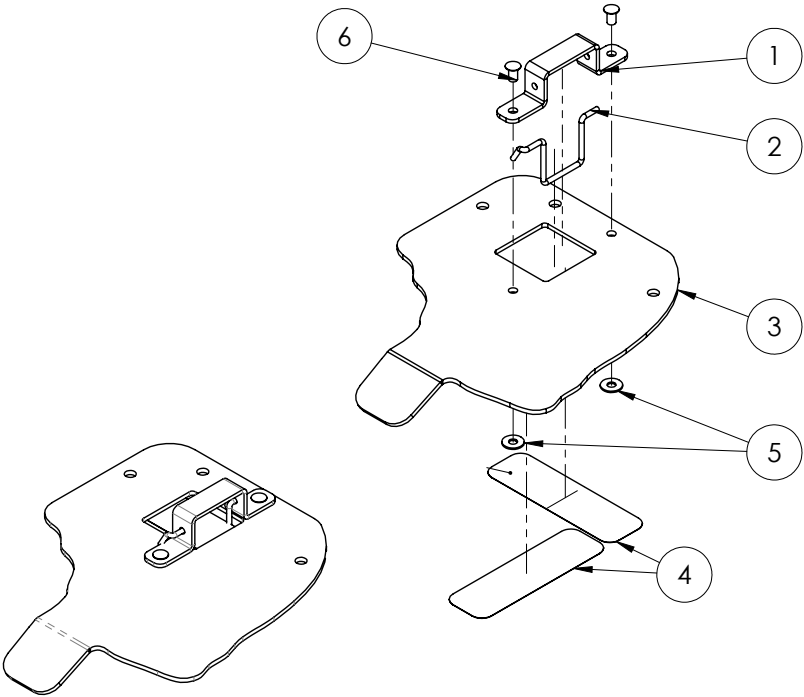
LOOPBACK RAMP, ASSY  
51-100319-00



**LOCTITE APPLICATION**  
425> APPLY LOCTITE 425 TO THREADS (PLASTIC)  
271> APPLY LOCTITE 271 TO THREADS (PERMANENT)  
243> APPLY LOCTITE 243 TO THREADS (GENERAL PURPOSE)

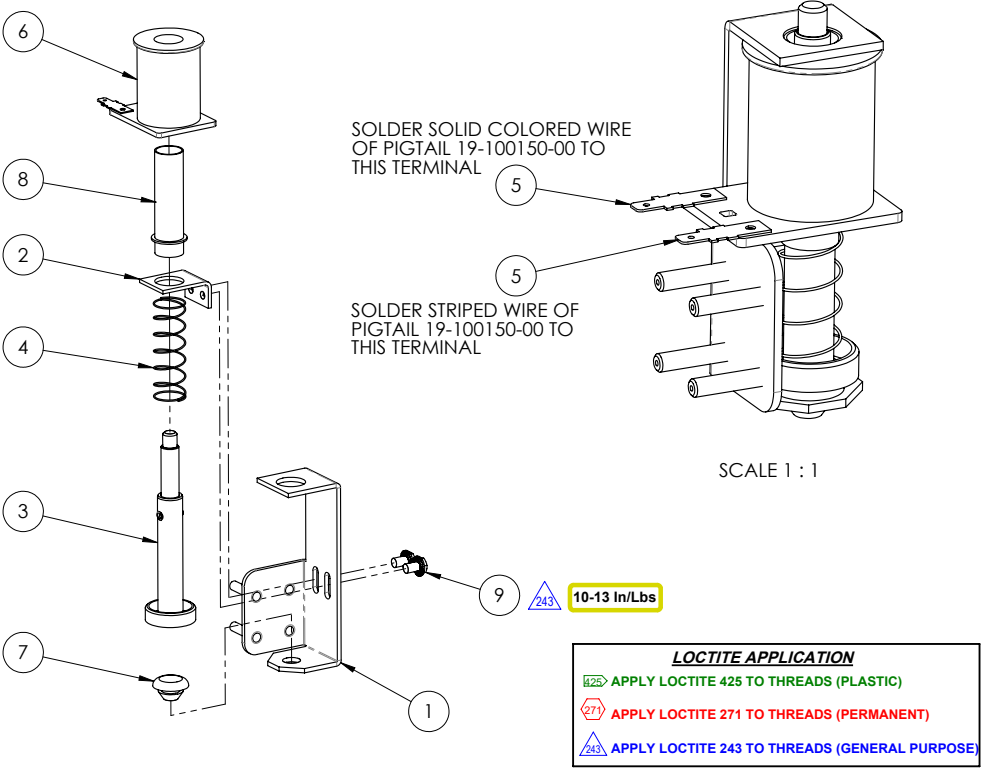
Item	Part Number	Description	Qty
1	10-100309-00	CLIP, SNUBBER BRACKET	2
2	10-100367-00	RAMP, LOOPBACK	1
3	10-100425-00	BRACKET, WIRE RAMP MOUNT	1
4	11-100083-00	RAMP FLAP	1
5	25-100015-00	BALL SNUBBER	2
6	30-000051-05-0	WIRE TIE, BLACK	1
7	51-100370-00	OPTO PAIR, 24"	1
8	80-006004-04U	4-40 PFH MS	4
9	91-000004-00	#4-40 NYLON LOCKNUT	4
10	92-000605-10	NYLON WASHER .13 ID, .25 OD	2
11	93-000003-00	1/8" X 5/32" RIVET, TH	2

**LEFT RAMP PLASTIC WITH GATE, ASSY**  
**51-100384-00**



Item	Part Number	Description	Qty
1	10-100426-00	BRACKET, GATE	1
2	13-100071-00	WIREFORM	1
3	30-100238-00	PLASTIC COVER with Art	1
4	62-100021-00	Mylar Lane Protector	1
5	92-000004-00	#4 SAE FLAT WASHER .125 ID, .312 OD	2
6	92-000000-00	1/8" X 7/32" RIVET	2

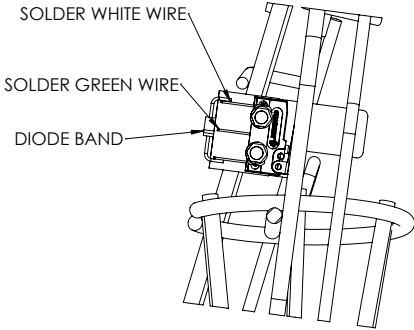
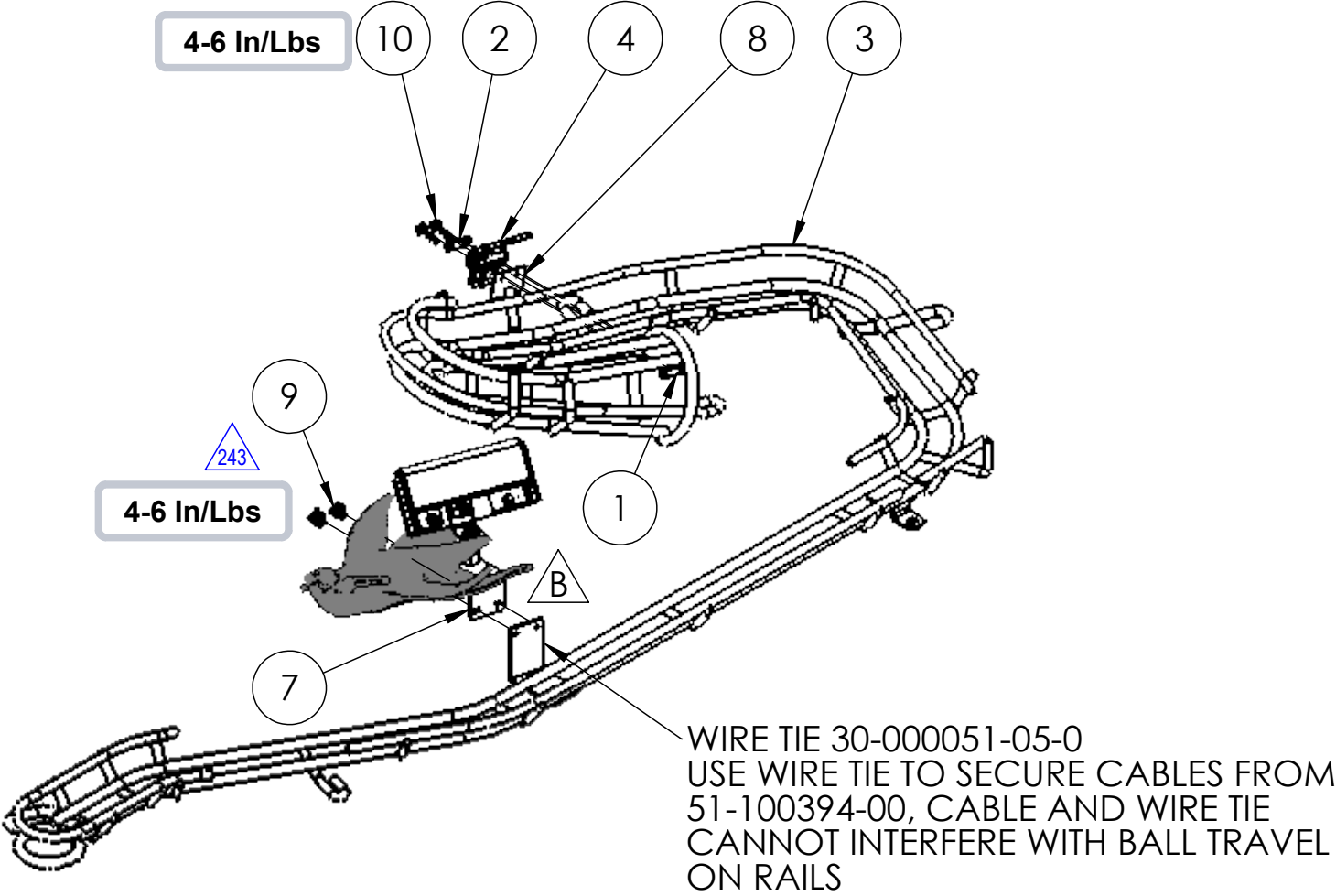
**KICKBACK, ASSY**  
**51-100194-00**



Item	Part Number	Description	Qty
1	10-005007-02	BRACKET, NARROW KICKBACK	1
2	10-007000-00	BRACKET, COIL RETAINING	1
3	11-005012-00	PLUNGER ASSEMBLY	1
4	13-007005-00	SPRING	1
5	19-100150-00	4" PIGTALE, 2-LUG	1
6	23-000003-00	23-800 COIL	1
7	25-009001-00	RUBBER BUMPER PLUG, BLACK	1
8	30-000014-30	1-7/8" COIL SLEEVE, FLANGED	1
9	80-002008-04	#8-32 X 1/4" HWH PHILLIPS	2



HORN RAMP WIREFORM, ASSY  
51-100372-00



Item	Part Number	Description	Qty
1	10-000024-00	NUT PLATE 2/56	1
2	10-000024-01	MICROSWITCH PROTECTOR PLATE	1
3	13-100077-01	RAMP, WIREFORM	1
4	18-003003-00	MICROSWITCH	1
5	19-100156-00	MICROSWITCH PIGTALE	1
6	30-000051-05-0	Wire Tie, Black	1
7	51-100394-00	ILU, Assy	1
8	70-009002-00	FISH PAPER	1
9	80-001006-04	6-32 X 1/4" MS	2
10	80-002102-08	2-56 X 1/2" HWH MS	2

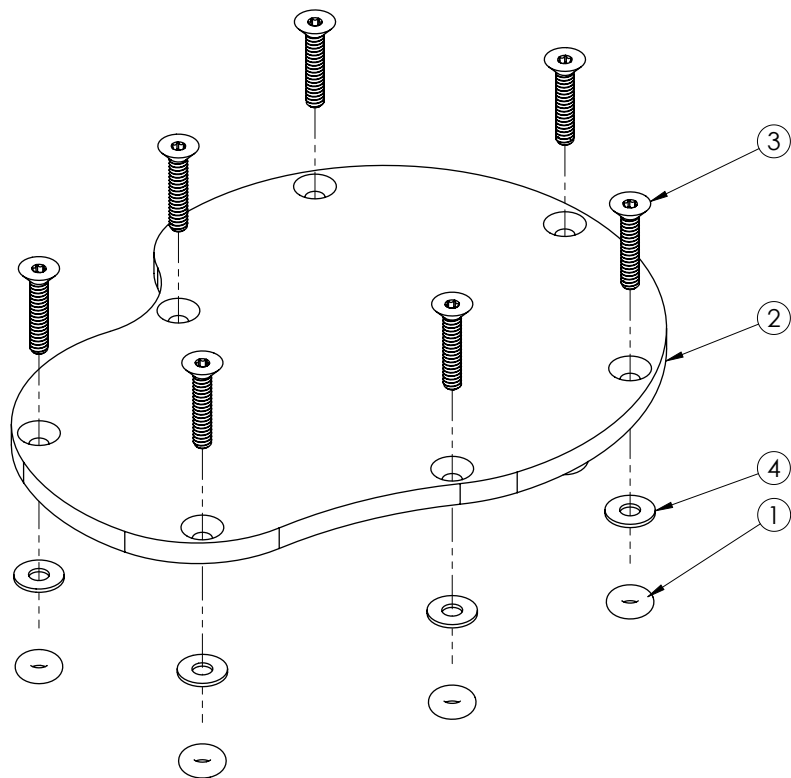
**LOCTITE APPLICATION**

425 APPLY LOCTITE 425 TO THREADS (PLASTIC)

271 APPLY LOCTITE 271 TO THREADS (PERMANENT)

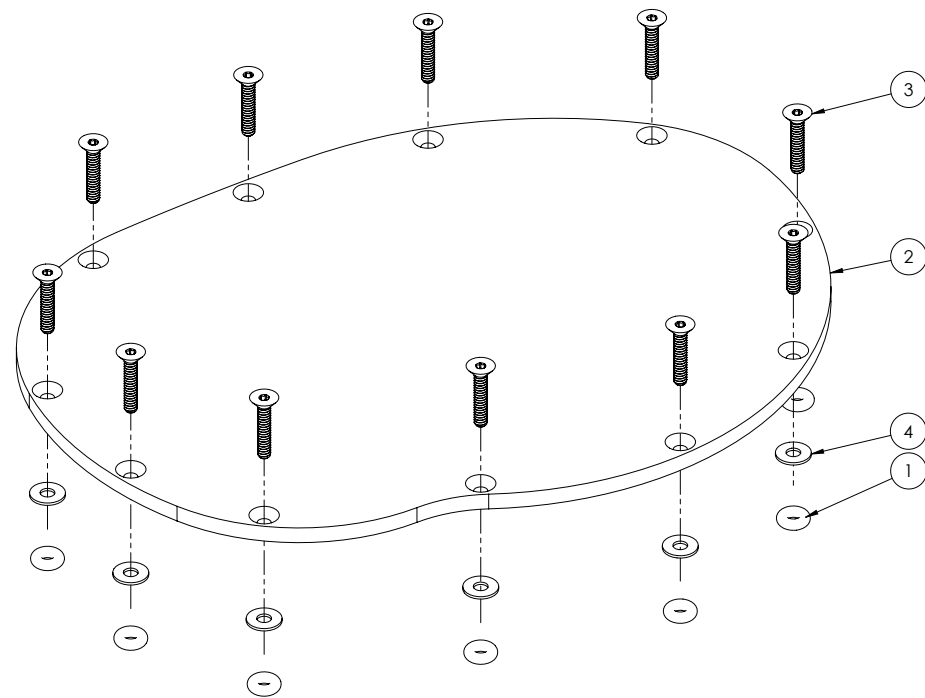
243 APPLY LOCTITE 243 TO THREADS (GENERAL PURPOSE)

**WINDOW UPPER RIGHT, ASSY**  
**51-100442-00**



Item	Part Number	Description	Qty
1	25-100018-00	O-RING, BLACK	7
2	30-100137-00	WINDOW	1
3	80-008106-12	6-32 X 3/4" TORX FH MS, BLACK	7
4	92-000006-00	#6 FLAT WASHER .156" ID, .375" OD	7

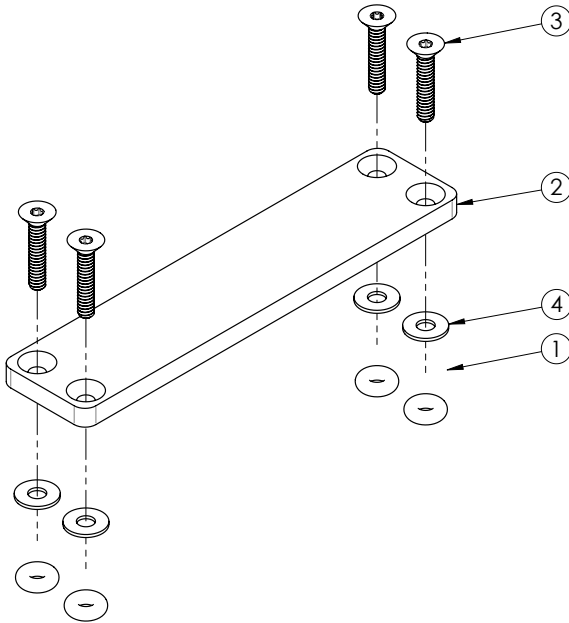
**WINDOW LOWER RIGHT, ASSY**  
**51-100442-01**



Item	Part Number	Description	Qty
1	25-100018-00	O-RING, BLACK	11
2	30-100137-00	WINDOW	1
3	80-008106-12	6-32 X 3/4" TORX FH MS, BLACK	11
4	92-000006-00	#6 FLAT WASHER .156" ID, .375" OD	11

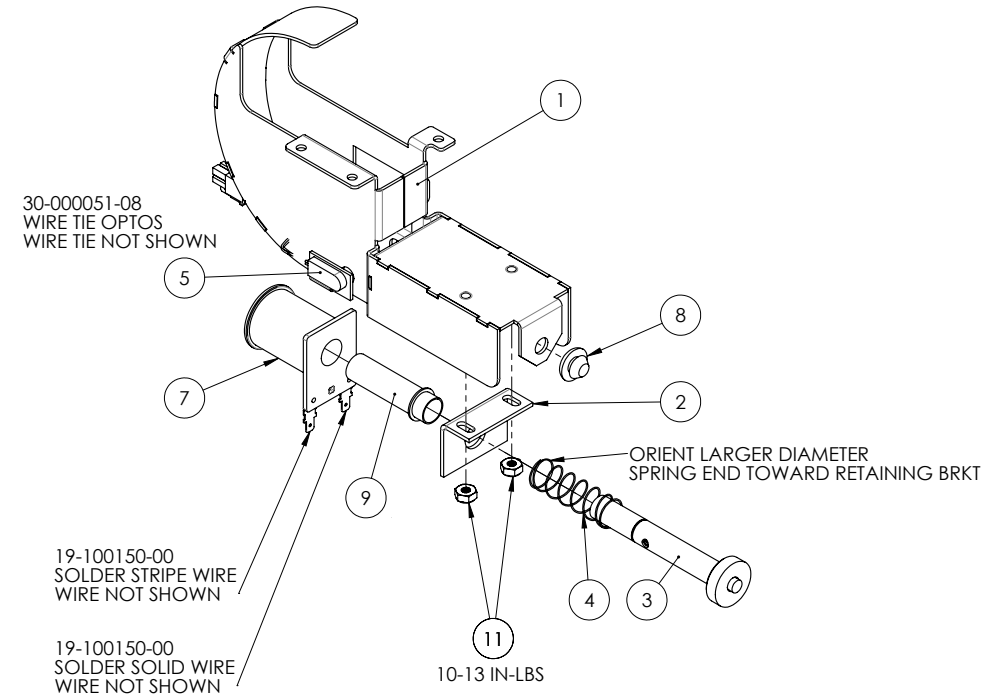
## TWO WAY MIRROR, ASSY

### 51-100442-02



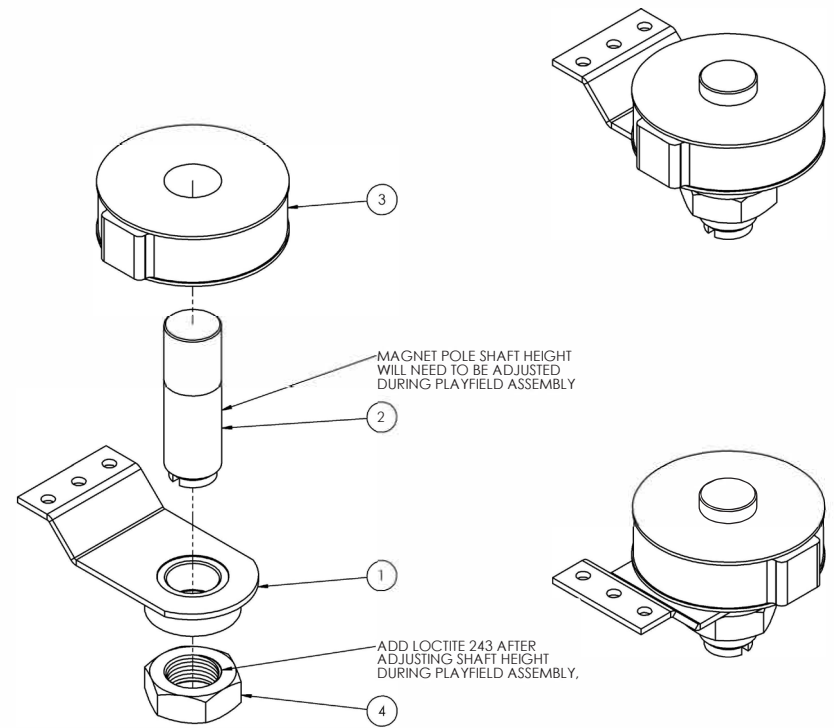
Item	Part Number	Description	Qty
1	25-100018-00	O-RING, BLACK	4
2	30-100149-00	WINDOW	1
3	80-008106-12	6-32 X 3/4" TORX FH MS, BLACK	4
4	92-000006-00	#6 FLAT WASHER .156" ID, .375" OD	4

## SCOOP WITH PIGTAIL, ASSY 51-100339-00



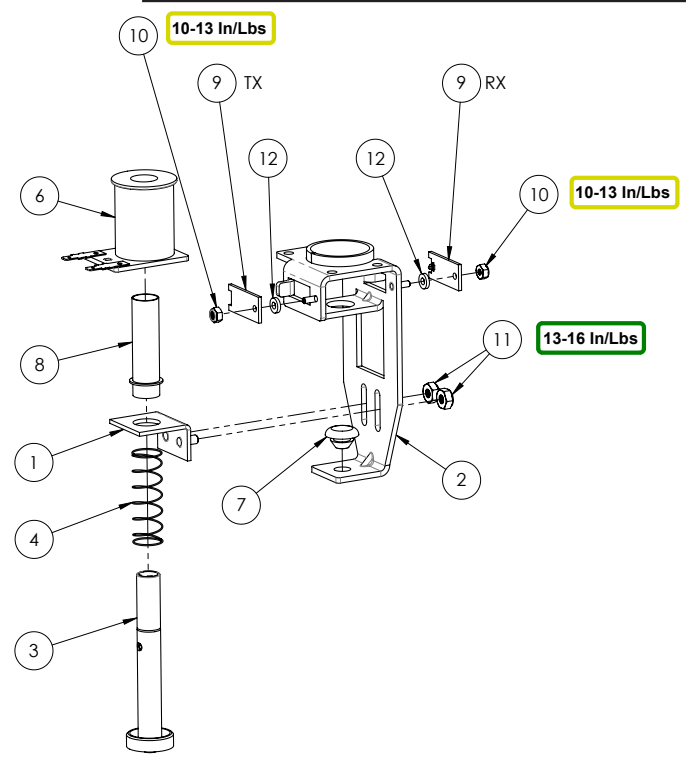
Item	Part Number	Description	Qty
1	10-005036-01	BALL SCOOP WELDMENT	1
2	10-007014-02	COIL CENTERING BRACKET	1
3	11-005001-00	PLUNGER	1
4	13-007005-00	SPRING	1
5	18-007025-24	OPTO	1
6	19-100150-00	COIL PIGTALE, 2 LUG	1
7	23-000003-00	23 - 800 COIL	1
8	25-009001-00	RUBBER BUMPER, BLACK	1
9	30-000014-30-1	1-7/8" COIL SLEEVE, FLANGED	1
10	30-000051-08	8" WIRE TIE, WHITE	2
11	91-000008-00	8-32 NYLON STOP NUT	2

PLAYFIELD MAGNET WITH ADJUSTABLE CORE, ASSY  
51-000024-00



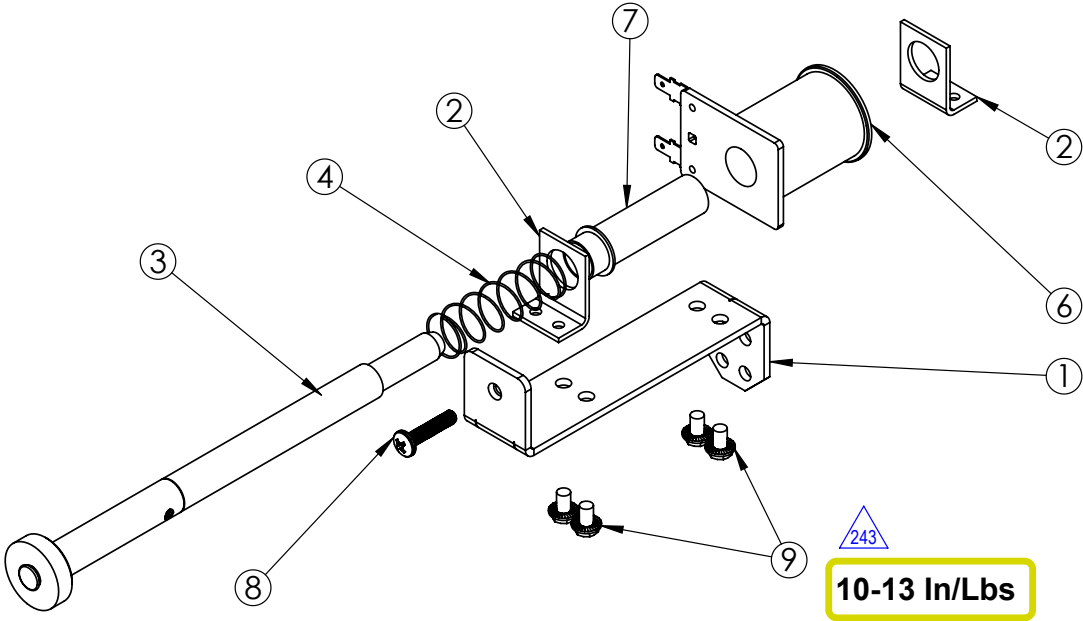
Item	Part Number	Description	Qty
1	10-005008-00	BRACKET, PLAYFIELD MAGNET	1
2	11-000012-00	MAGNET POLE SHAFT	1
3	23-004005-00	22-675 LG MAGNET COIL	1
4	91-002034-00	3/4"-16 HEX JAM NUT	1

VUK, ASSY  
51-100293-00



Item	Part Number	Description	Qty
1	10-007004-00	BRACKET, COIL CENTERING	1
2	10-100339-00	BRACKET	1
3	11-005001-00	PLUNGER	1
4	13-007005-00	SPRING	1
5	19-100153-00	COIL PIGTAIL, 2 LUG	1
6	23-000003-00	23-800 COIL	1
7	23-009001-00	RUBBER PLUG, BLACK	1
8	30-000014-30-1	1-7/8" COIL SLEEVE, FLANGED	1
9	51-100370-00	OPTO	1
10	91-000004-00	#4-40 NYLON LOCK NUT	2
11	91-000008-00	8-32 NYLON STOP NUT	2
12	92-000605-10	NYLON WASHER .13" ID, .285" OD	2

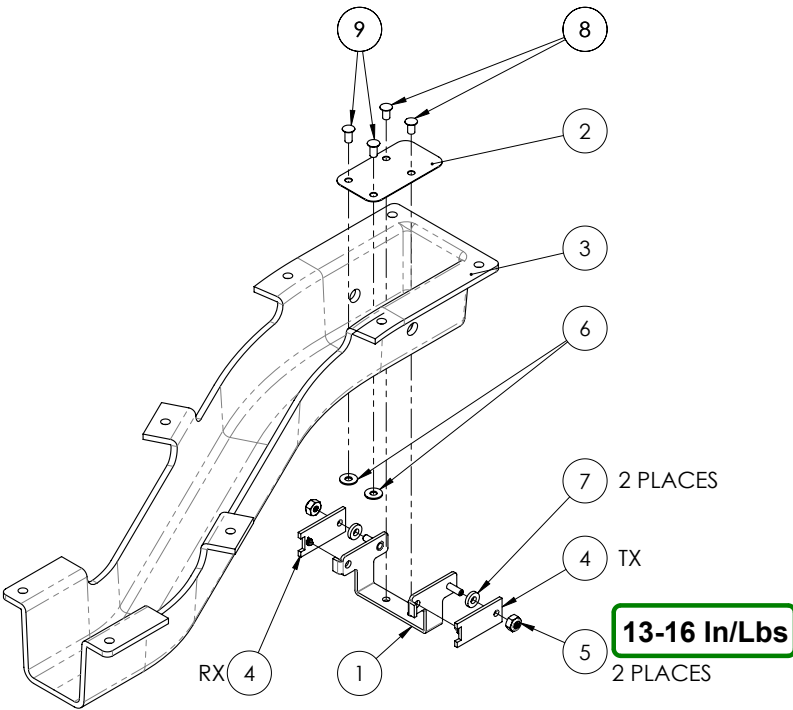
UP POST, ASSY  
51-100330-00



Item	Part Number	Description	Qty
1	10-005027-00	BRACKET, COIL	1
2	10-007000-00	BRACKET, COIL CENTERING	2
3	11-100086-01	PLUNGER	1
4	13-007005-00	SPRING	1
5	19-100150-00	COIL PIGTAIL, 2 LUG	1
6	23-000010-00	26-1200 COIL	1
7	30-000014-30-1	1-7/8" COIL SLEEVE, FLANGED	1
8	80-000308-12	#8-32 X 3/4" PPH MS	1
9	80-002008-04	#8-32 X 1/4" HWH PHILLIP	4

**LOCTITE APPLICATION**  
425 APPLY LOCTITE 425 TO THREADS (PLASTIC)  
271 APPLY LOCTITE 271 TO THREADS (PERMANENT)  
243 APPLY LOCTITE 243 TO THREADS (GENERAL PURPOSE)

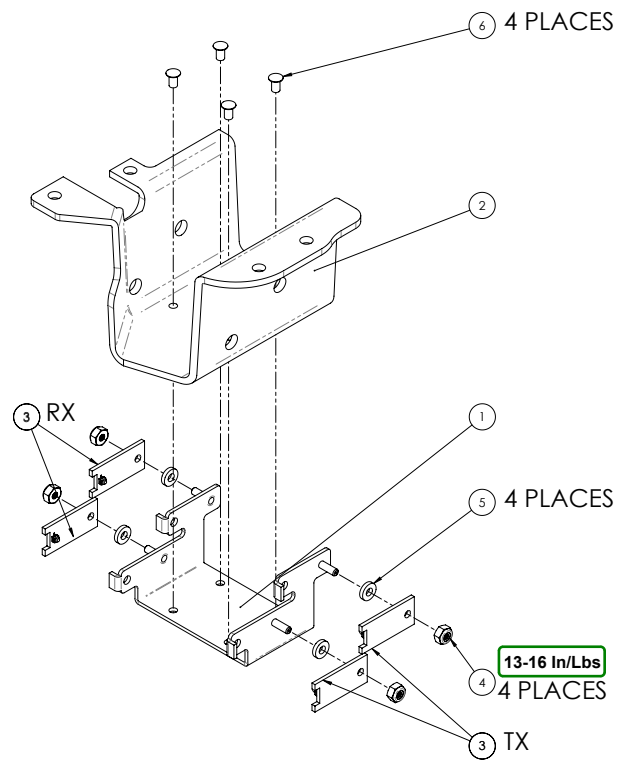
UPPER SUBWAY, ASSY  
51-100352-00



Item	Part Number	Description	Qty
1	10-100407-00	BRACKET, SUBWAY	1
2	11-100100-00	FLAP	1
3	31-100017-00	SUBWAY	1
4	51-100370-00	OPTO	1
5	91-000004-00	#4-40 NYLON LOCK NUT	2
6	92-000004-00	#4 SAE FLAT WASHER .125 ID .312 OD	2
7	92-000605-10	NYLON WASHER .13 ID .285 OD	2
8	93-000000-00	1/8" X 7/32" RIVET	2
9	93-000000-08	1/8" 1/4" RIVET	2



SCOOP SUBWAY, ASSY  
51-100354-00



Item	Part Number	Description	Qty
1	10-100406-00	BRACKET, OPTO	1
2	31-100019-00	SUBWAY	1
3	51-1000370-00	OPTO	2
4	91-000004-00	#4-40 NYLON LOCK NUT	4
5	92-000605-10	NYLON WASHER .13 ID .285 OD	4
6	93-000000-00	1/8" X 7/32" RIVET	4

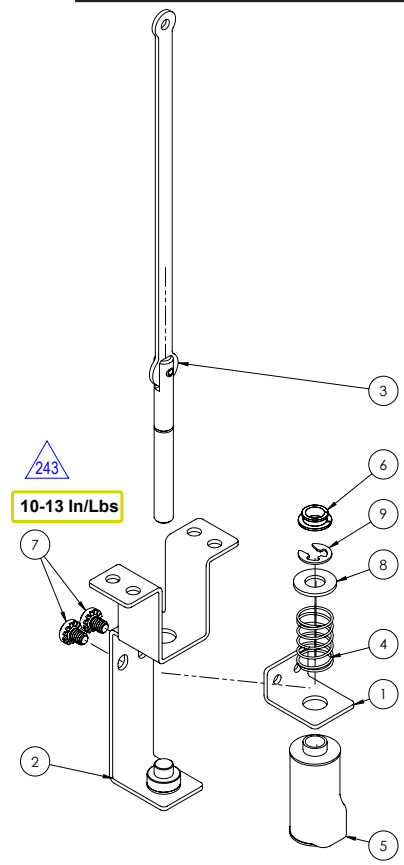
**LOCTITE APPLICATION**

425 APPLY LOCTITE 425 TO THREADS (PLASTIC)

271 APPLY LOCTITE 271 TO THREADS (PERMANENT)

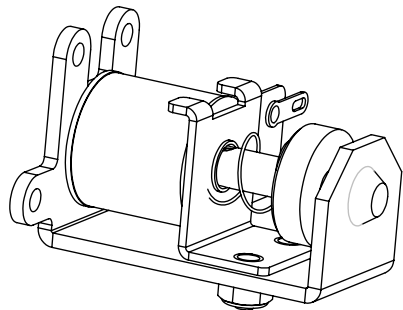
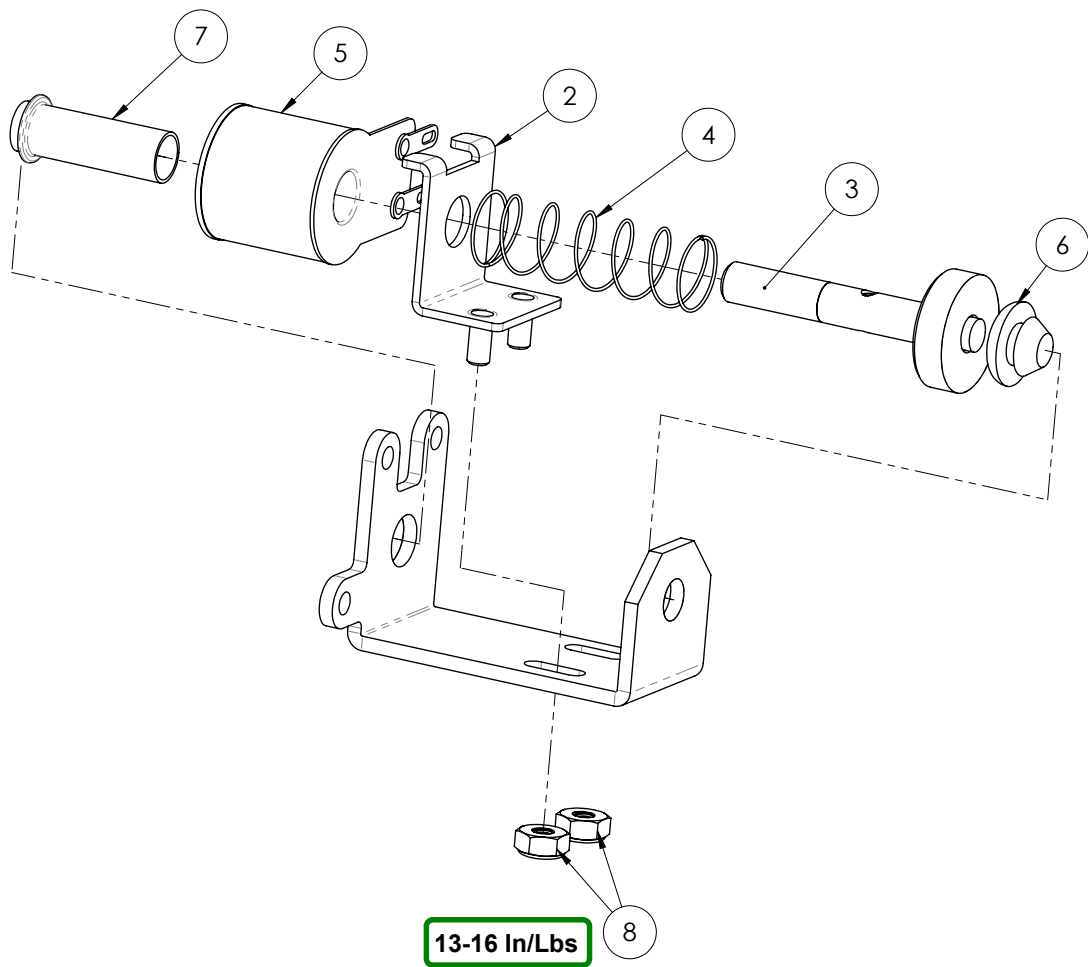
243 APPLY LOCTITE 243 TO THREADS (GENERAL PURPOSE)

AMP SUIT ARM COIL, ASSY  
51-100459-00



Item	Part Number	Description	Qty
1	10-100440-00	BRACKET, COIL CENTERING	1
2	10-100493-00	BRACKET COIL	1
3	11-100117-00	PLUNGER, WARRIOR SUIT	1
4	13-100079-00	SPRING	1
5	23-100011-00	29-1400 COIL	1
6	30-000071-00	NYLINER	1
7	80-001008-04	#8-32 X 1/4" PPH MS	2
8	92-000008-03	FLAT WASHER .266 X .562 X .03	1
9	94-004011-07	7/32" E CLIP	1

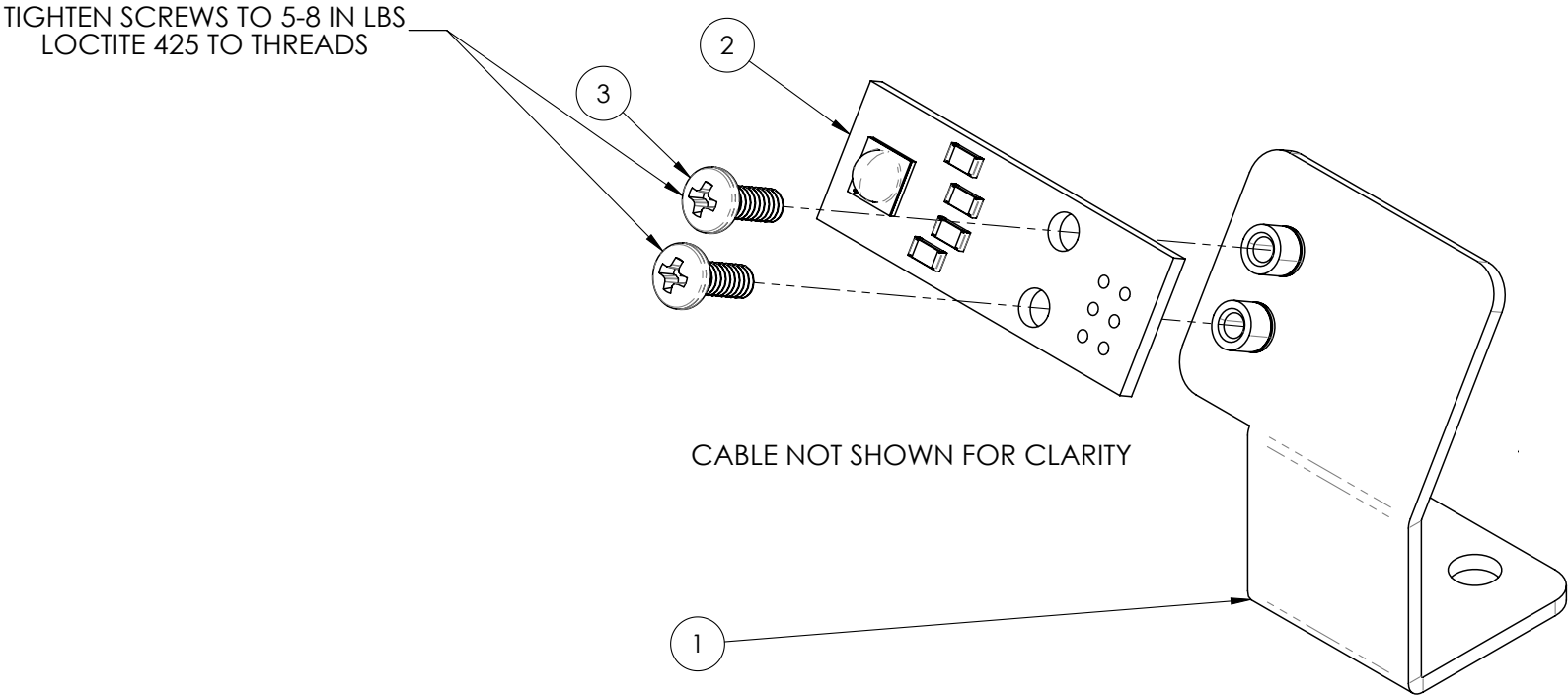
MINI VUK, ASSY  
51-100360-00



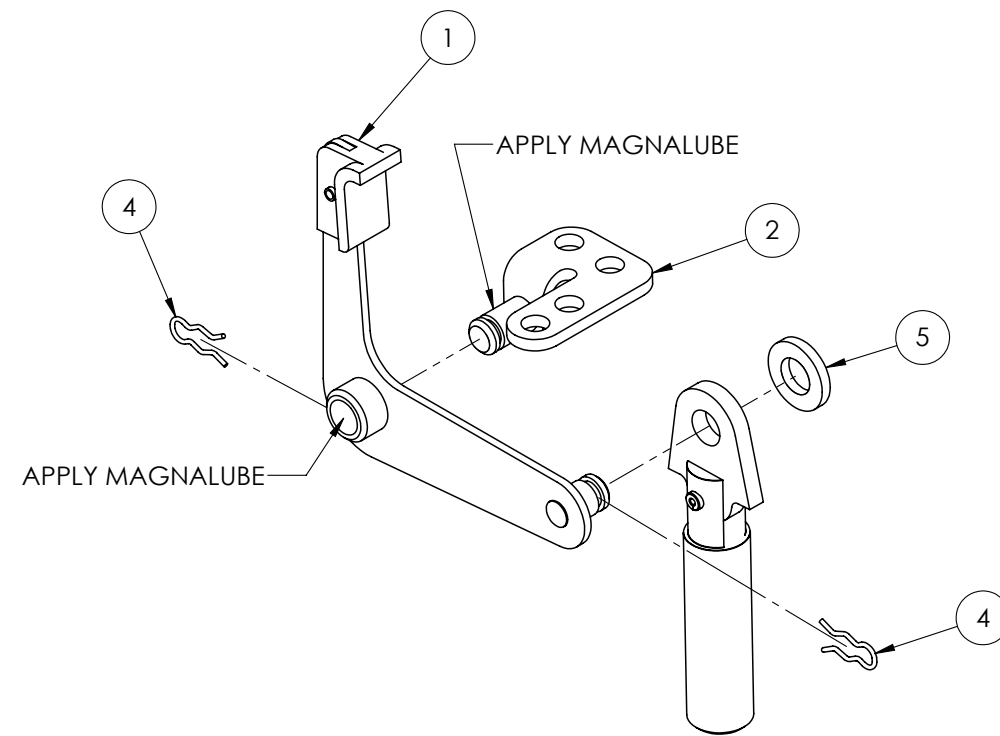
Item	Part Number	Description	Qty
1	10-100408-00	BRACKET, MINI VUK	1
2	10-100409-00	BRACKET, COIL	1
3	11-100094-00	PLUNGER	1
4	13-007005-00	SPRING	1
5	23-100008-00	27-950 COIL	1
6	25-009001-00	RUBBER BUMPER, BLACK	1
7	30-100134-38-1	1-3/16" COIL SLEEVE, FLANGED	1
8	91-000008-00	8-32 NYLON STOP NUT	2

**ACTION BUTTON LIGHT, ASSY**  
**51-100286-00**

Item	Part Number	Description	Qty
1	10-100334-00	BRACKET, MOUNTING, ACTION BUTTON LIGHT	1
2	51-100287-00	ACTION BUTTON RGB LED & CABLE ASSY	1
3	80-000004-05	#4-40 x 5/16" L PPH MS	2

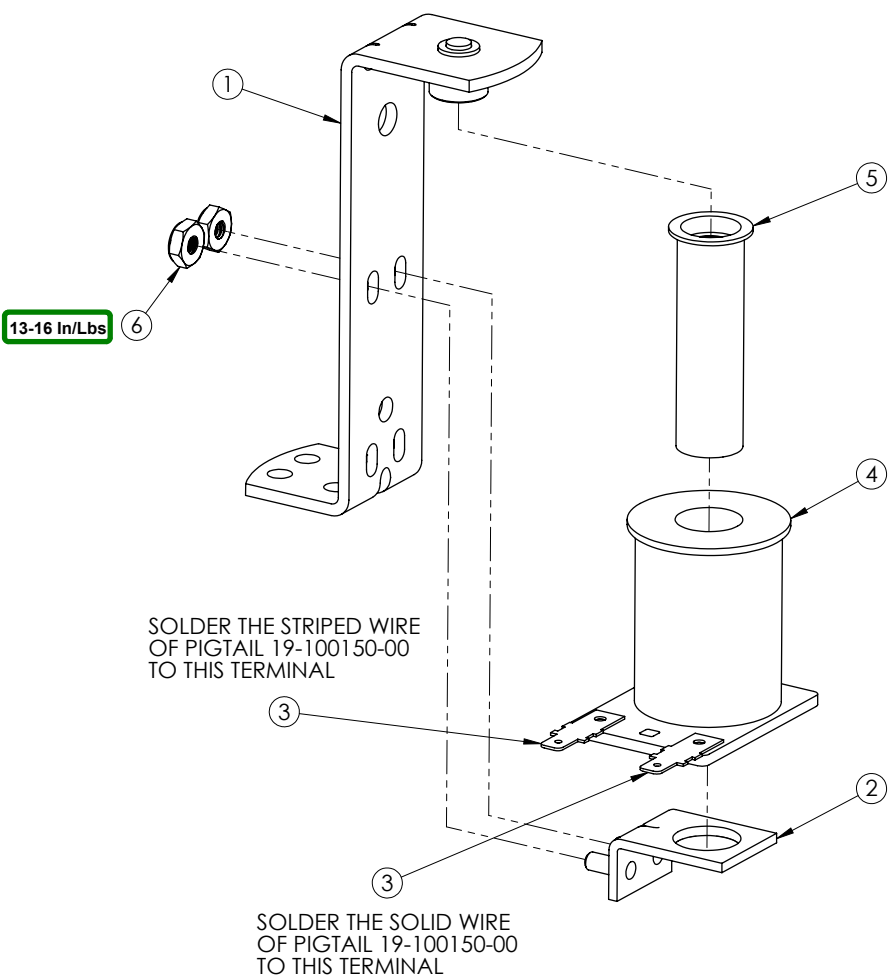


**SLINGSHOT CRANK AND PLUNGER, ASSY**  
**51-100446-00**



Item	Part Number	Description	Qty
1	10-000042-00	SLINGSHOT KICKER CRANK ASSY	1
2	10-000043-00	SLINGSHOT KICKER CRANK MTG BRKT	2
3	11-005003-00	SLINGSHOT PLUNGER & LINK ASSY	1
4	13-009002-00	HAIRPIN CLIP	1
5	95-002651-20-67	FLAT WASHER, 0.265" ID, 0.5" OD, 0.067" TH	1

**SLINGSHOT COIL, ASSY**  
**51-100409-00**

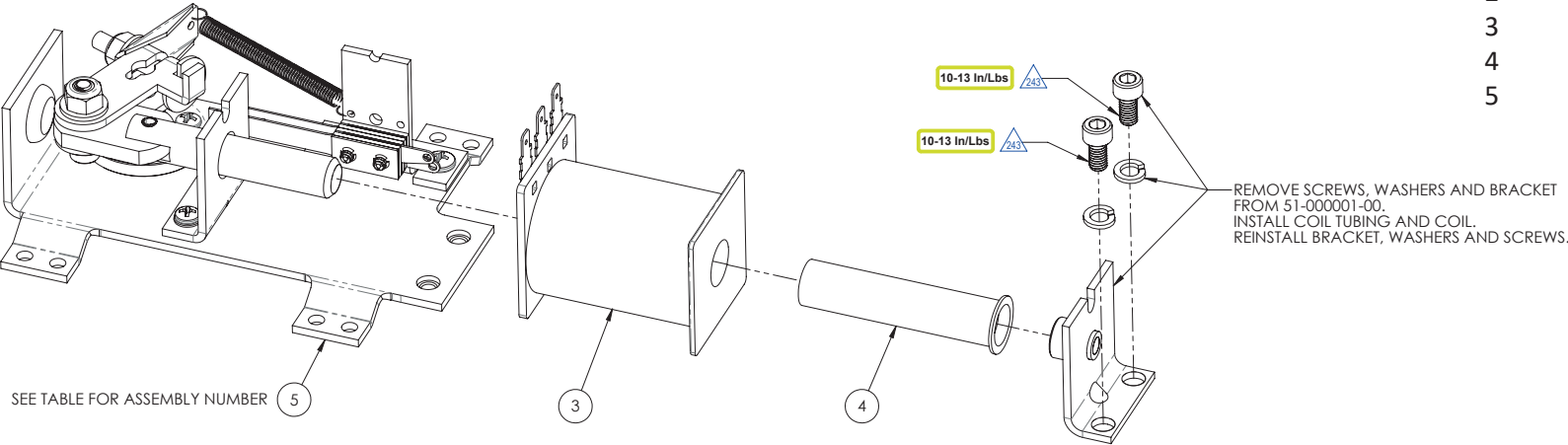


Item	Part Number	Description	Qty
1	10-005004-00	SLINGSHOT COIL BRKT	1
2	10-007000-01	COIL CENTERING BRKT .625 8-32	1
3	19-100150-00	COIL PIGTAIL, 2-LUG, 4"	1
4	23-000003-00	23-800 STANDARD COIL	1
5	30-000014-28	1-3/4" COIL TUBING, STRAIGHT	1
6	91-000006-00	6-32 NYLON LOCKNUT, ZINC PLATED, THIN	2

RIGHT FLIPPER ASSEMBLY  
AND EOS PIGTAILS  
52-020131-00 (Upper Right) / 52-020121-11 (Lower Right) / 52-020131-12 (Right Lower Playfield)

Item	Part Number	Description	Qty
1	19-100154-00	COIL PIGTAIL, 3-LUG, 4"	1
2	19-100155-00	MICROSWITCH PIGTAIL, 6"	1
3	See Note	FLIPPER COIL	1
4	30-000014-35	2 3/16" COIL TUBING, STRAIGHT	1
5	51-000001-XX	RIGHT FLIPPER ASSEMBLY	1

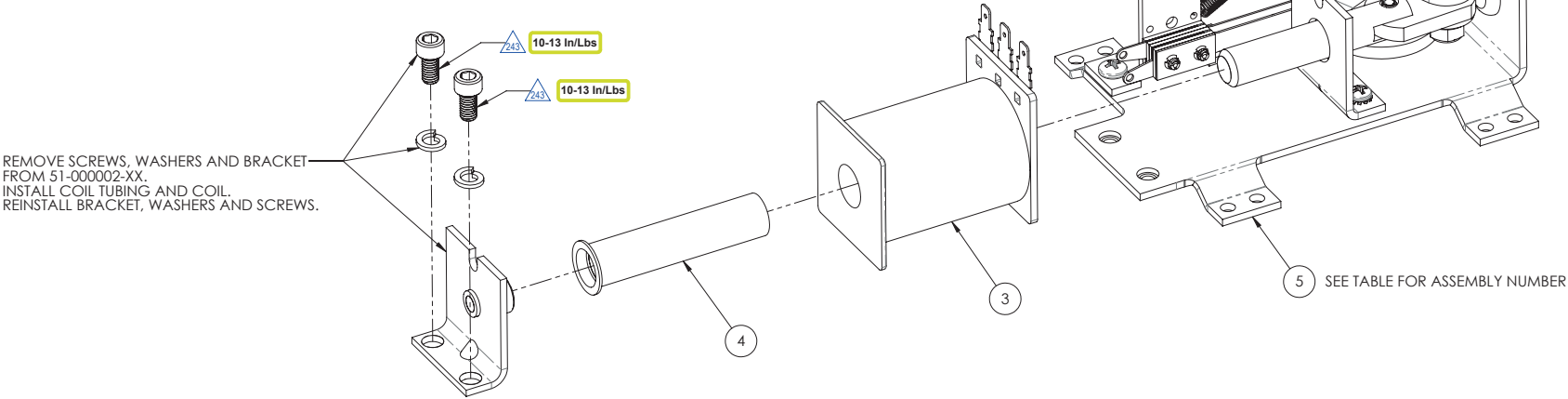
**Note**  
Bottom Flipper 23-002002-00 FL-11629  
All Other Flippers 23-002003-00 FL-15411



LEFT FLIPPER ASSEMBLY  
AND EOS PIGTAILS  
52- 020132-00 (Upper Left) / 52-020122-00 (Lower Left) / 52-020132-13 (Left Lower Playfield)

Item	Part Number	Description	Qty
1	19-100154-00	COIL PIGTAIL, 3-LUG, 4"	1
2	19-100155-00	MICROSWITCH PIGTAIL, 6"	1
3	See Note	FLIPPER COIL	1
4	30-000014-35	2 3/16" COIL TUBING, STRAIGHT	1
5	51-000002-XX	LEFT FLIPPER ASSEMBLY	1

**Note**  
Bottom Flipper 23-002002-00 FL-11629  
All Other Flippers 23-002003-00 FL-15411

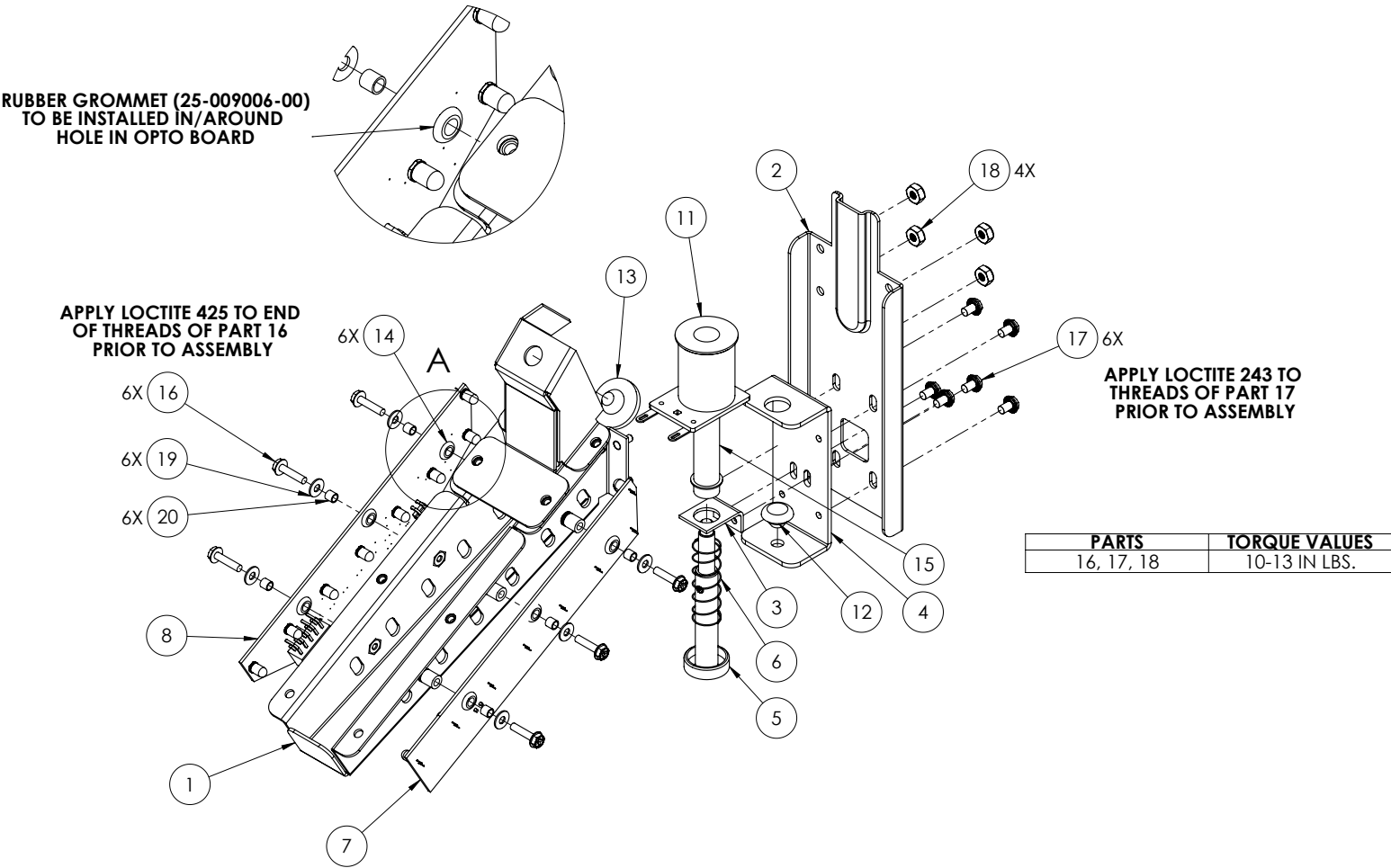


**LOCTITE APPLICATION**  
425 APPLY LOCTITE 425 TO THREADS (PLASTIC)  
271 APPLY LOCTITE 271 TO THREADS (PERMANENT)  
243 APPLY LOCTITE 243 TO THREADS (GENERAL PURPOSE)



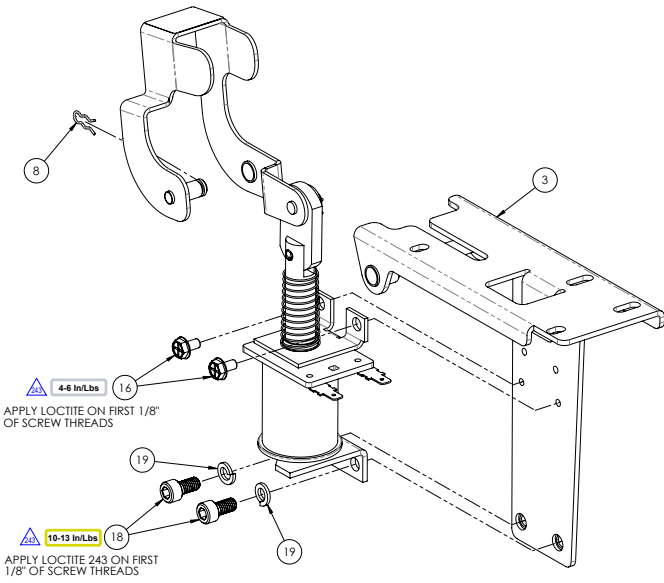
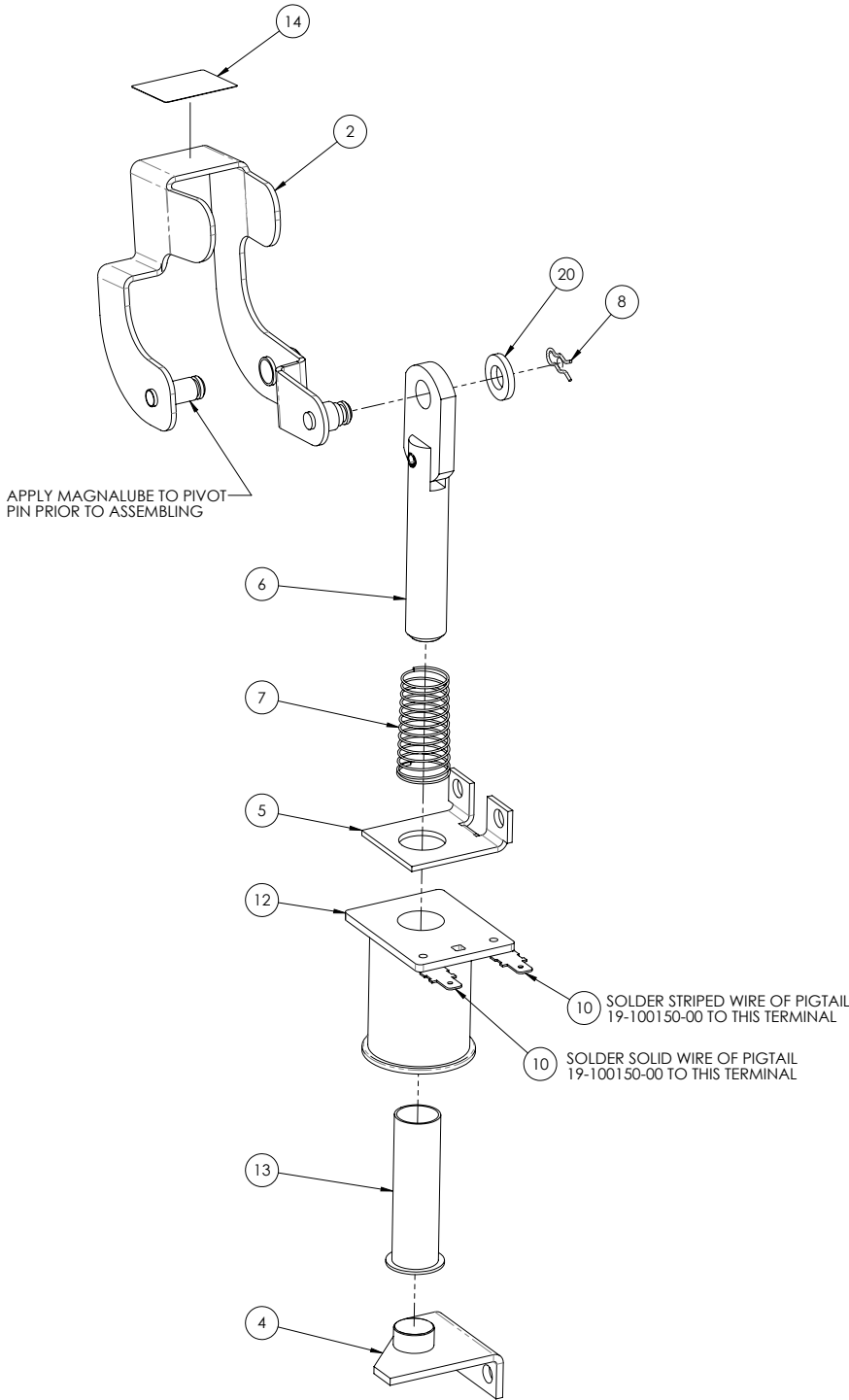
6 - BALL TROUGH, ASSY

51-100311-00



Item	Part Number	Description	Qty
1	10-005010-00	Main Bracket	1
2	10-005010-01	Coil Bracket	1
3	10-007000-00	Coil Retaining Bracket	1
4	10-007006-00	Coil Mounting Brkt	1
5	11-005012-00	Plunger Assy.	1
6	13-007005-00	Spring	1
7	15-100002-00	Transmitter Board	1
8	15-100004-00	Reciever Board	1
9	19-009019-00	Power Cable (Not Shown)	1
10	19-100150-00	Coil Pigtail, 2-Lug, 4"	1
11	23-000010-00	26-1200 Standard Coil	1
12	25-009001-00	Bumper Plug, Black	1
13	25-009001-01	Bumper Plug, Blue	1
14	25-009006-00	Rubber Grommet	6
15	30-000014-30-1	1 7/8" Coil Sleeve	1
16	80-002006-10	#6 x 5/8" HWH SMS	6
17	80-002008-04	#8-32 x 1/4" HWH Phillips Serr	6
18	91-000008-00	8-32 Nylon Stop Nut	4
19	92-000006-00	#6 Flat Washer	6
20	94-003002-00	Bushing	6

AUTOLAUNCH WITH PIGTAILS, ASSY
51-100410-00

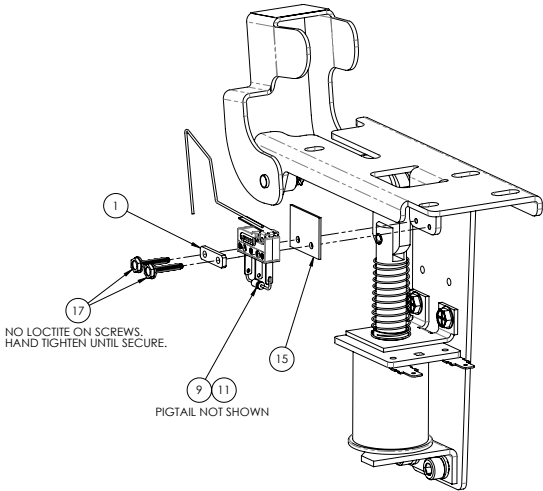


LOCTITE APPLICATION

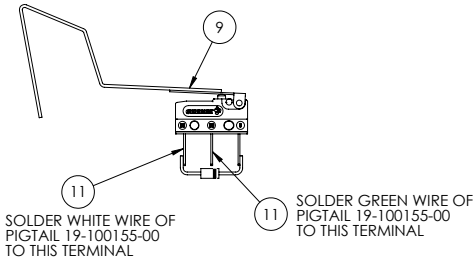
425
APPLY LOCTITE 425 TO THREADS (PLASTIC)

271
APPLY LOCTITE 271 TO THREADS (PERMANENT)

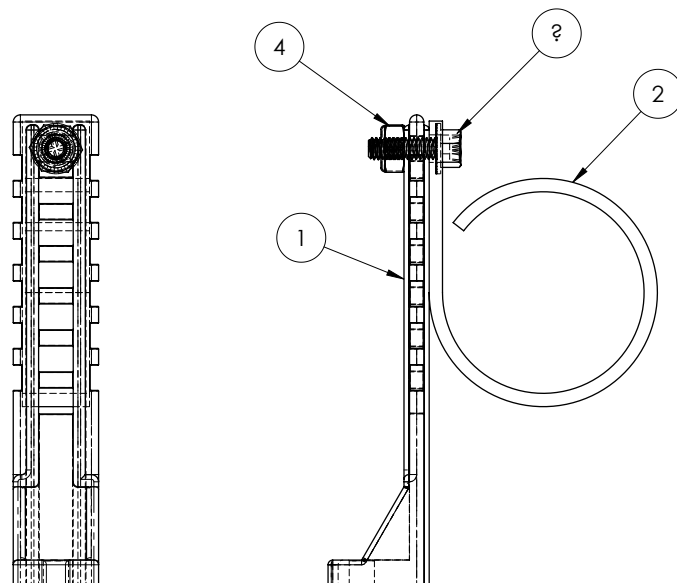
243
APPLY LOCTITE 243 TO THREADS (GENERAL PURPOSE)



Item	Part Number	Description	Qty
1	10-000024-01	MICROSWITCH PROTECTOR PLATE, #2	1
2	10-000028-00	AUTO-LAUNCH CRANK BRKT	1
3	10-005009-00	AUTO-LAUNCH COIL BRKT	1
4	10-007005-00	AUTO-LAUNCH COIL STOP BRKT	1
5	10-007009-00	TOP COIL MTG BRACKET	1
6	11-005000-00	PLUNGER & LINK ASSY	1
7	13-007004-00	SLINGSHOT PLUNGER RETURN SPRING	1
8	13-009002-00	HAIRPIN CLIP	2
9	18-003001-00	AUTO-LAUNCH MICROSWITCH & WIREFORM	1
10	19-100150-00	COIL PIGTAIL, 2-LUG, 4"	1
11	19-100155-00	MICROSWITCH PIGTAIL, 6"	1
12	23-000003-00	23-800 STANDARD COIL	1
13	30-000014-28	1-3/4" COIL TUBING, STRAIGHT	1
14	62-000002-00	AUTO-LAUNCH CRANK DECAL	1
15	70-009002-00	MICROSWITCH INSULATOR, FISH PAPER	1
16	80-002006-04	6-32 X 1/4" HWH PHILLIPS MS, SERRATED	2
17	80-002102-08	2-56 X 1/2" HWH MS, BLACK	2
18	90-004010-06	10-32 x 3/8" SH CS, BLACK OXIDE	2
19	92-001010-00	#10 SPLIT LOCK WASHER, 0.200 ID, 0.334 OD, 0.047 TH	2
20	95-002651-20-67	FLAT WASHER, 0.265" ID, 0.5" OD, 0.067" TH	1

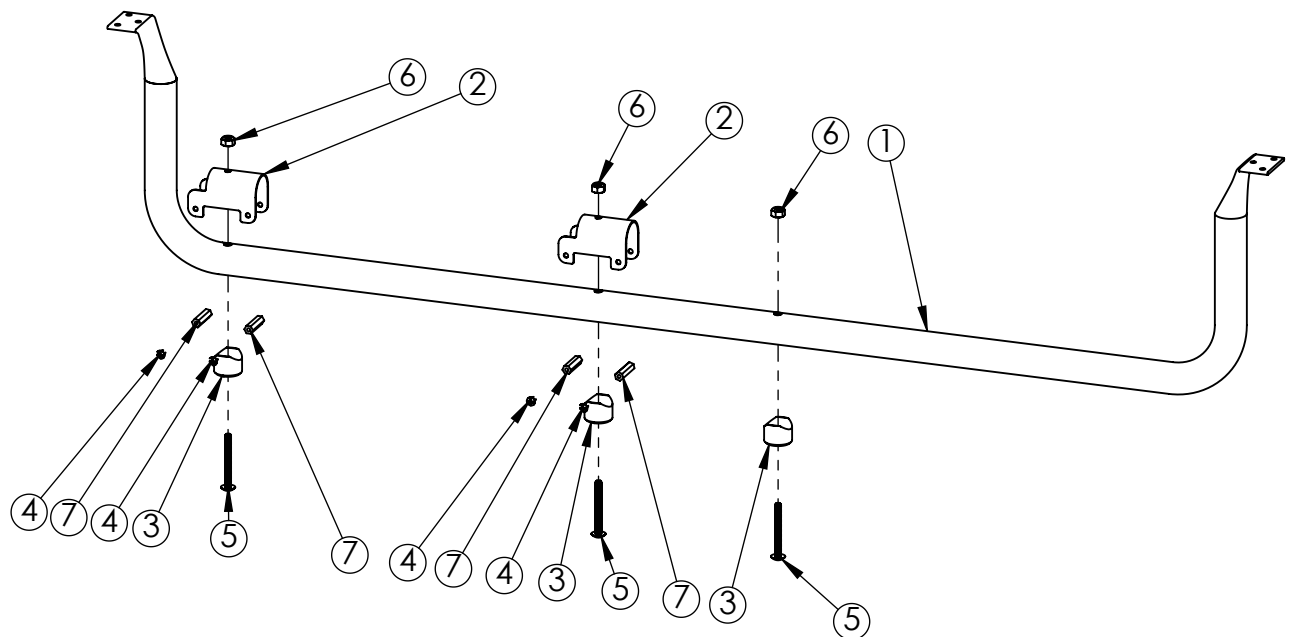


**LADDER AND CLAMP 1.00 DIA, ASSY**  
**51-100212-24**



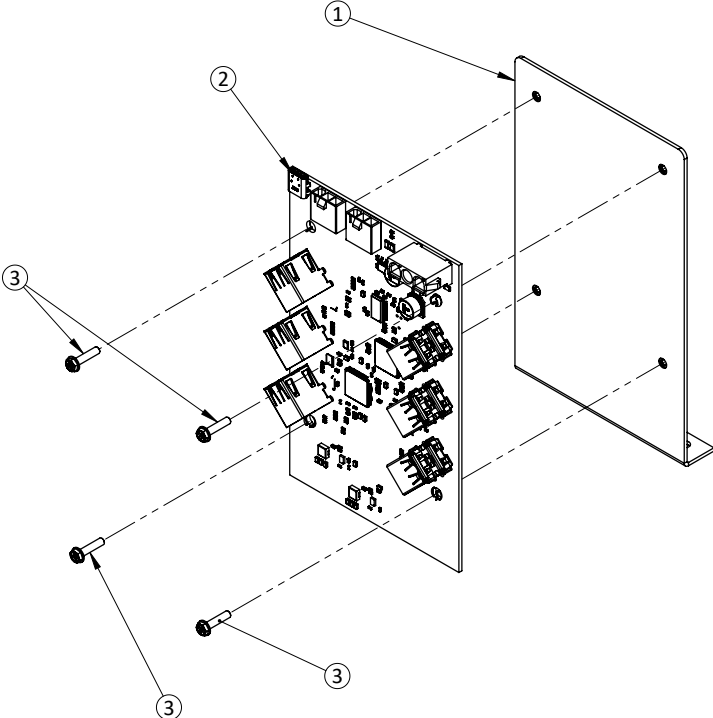
Item	Part Number	Description	Qty
1	30-000033-01	Nylon Cable Ladder, 3.5"	1
2	30-000049-24	Nylon Cable Clamp, Open 1-1/2"	1
3	80-002008-08	8-32 x 1/2" HWH Phillips MS, Serr	1
4	91-000008-00	8-32 Nylon Stop Nut Thin	1

**PLAYFIELD SUPPORT, ASSY**  
**51-100001-00**



Item	Part Number	Description	Qty
1	10-000093-00	Support Tube	1
2	10-000280-00	Foot Bracket	2
3	25-009008-00	Rubber Spacers	1
4	80-000006-04	6-32 x 5/16" MS	8
5	80-007010-28	10-24 x 1 3/4" MS	3
6	91-000011-00	#10-24 Nylon Stop Nut	3
7	94-001406-16	#6-32 Female Hex Spacer	4

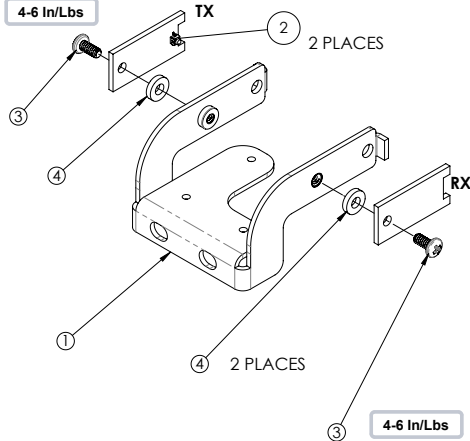
**PLAYFIELD CONTROLLER BOARD, ASSY**  
**51-000103-07**



TIGHTEN THREADS TO 10 IN/LBS  
APPLY LOCTITE 243 TO THREADS

Item	Part Number	Description	Qty
1	10-005035-00	LED Controller Mounting Bracket	1
2	15-100055-00	PF USB Controller Board	1
3	80-002104-08	4-40 x 1/2" HWH Phillips MS, Blk	4

**LEFT RAMP OPTO, ASSY**  
**51-100331-00**

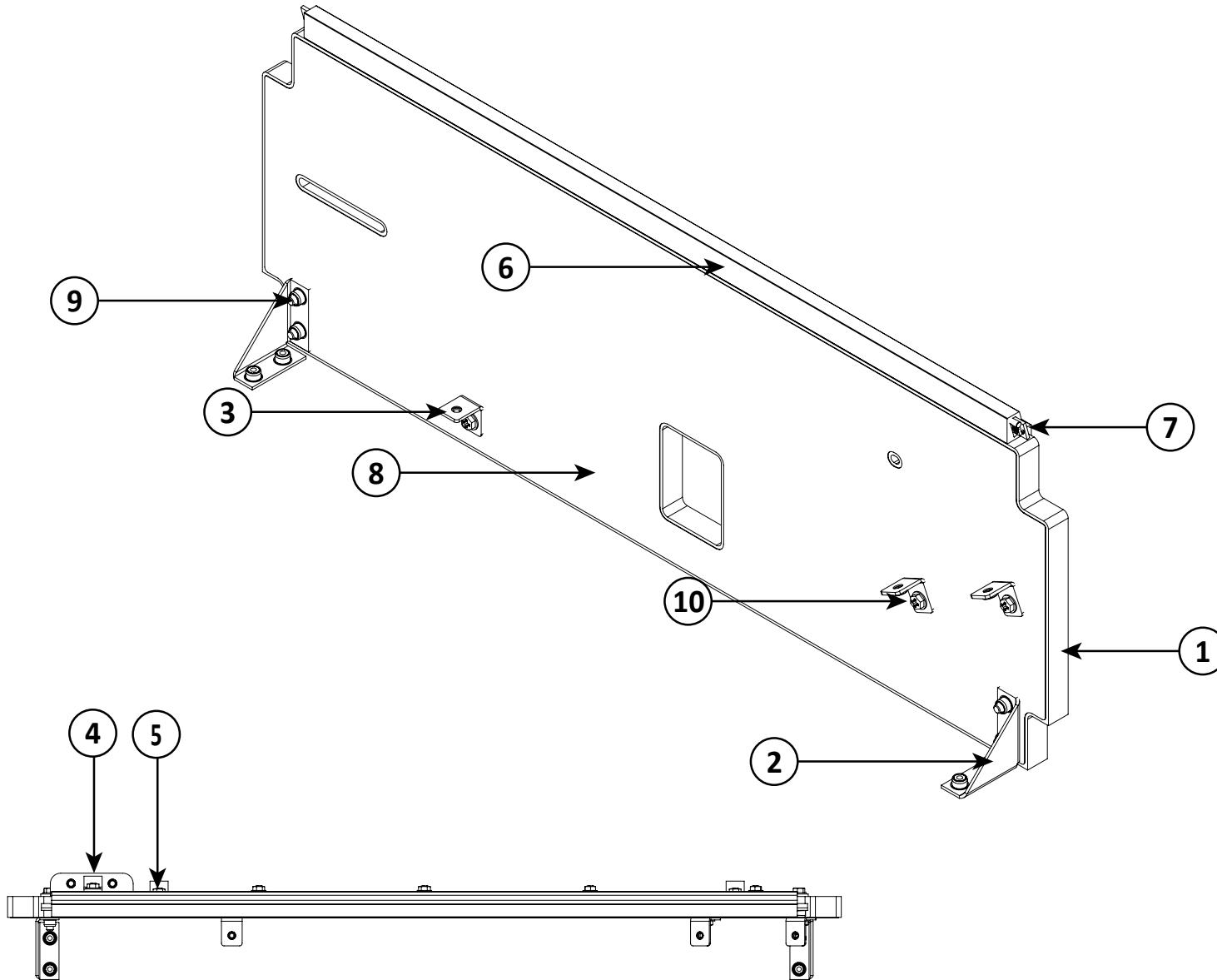


Item	Part Number	Description	Qty
1	10-100377-00	OPTO Bracket	1
2	51-100370-00	Notched OPTO Pair	1
3	80-000004-04	4-40 x 1/4" MS	2
4	92-000605-10	Nylon Washer	2

<b>BACK PANEL, ASSY</b> <b>51-100312-01 CE</b> <b>51-100312-00 LE</b>
---

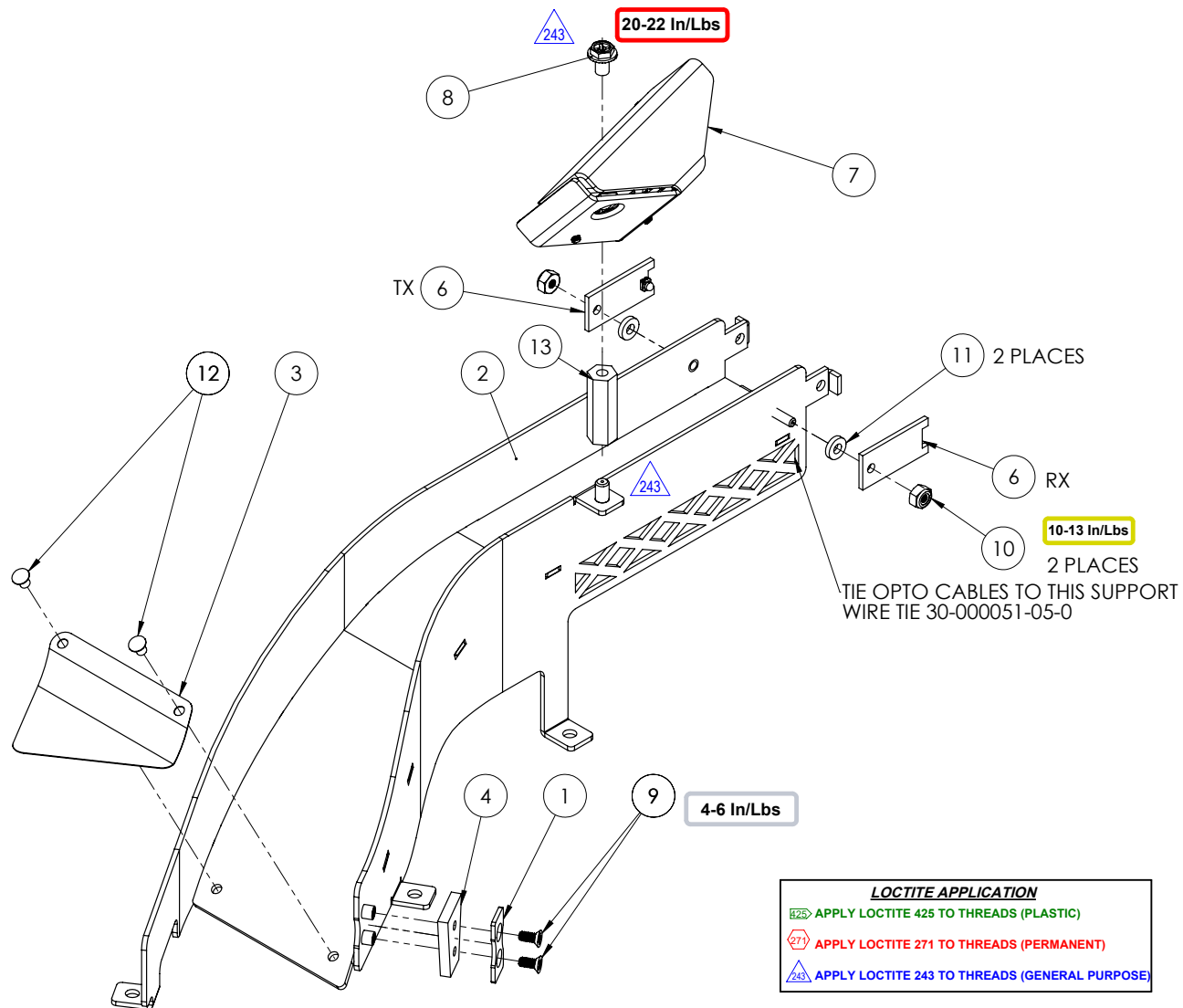
<b>BACK PANEL, ASSY</b> <b>51-100312-01 CE</b> <b>51-100312-00 LE</b>
---

<b>BACK PANEL, ASSY</b> <b>51-100312-01 CE</b> <b>51-100312-00 LE</b>
---



Item	Part Number	Description	Qty
1	05-100040-00	Back Panel	1
2	10-000162-01	Back Panel Bracket	2
3	10-100342-00	Mounting Bracket	3
4	10-100536-00	Ramp Mounting Bracket	1
5	30-000049-04	1/4" Cable Clamp	3
6	30-100120-00	LED Strip Cover 18"	1
7	51-100427-00	NEO LED with Cable RGBU	1
8	**See Note**		
9	80-002008-14	8/32" x 7/8" Phillips MS	4
9	92-000008-00	#8 Flat Washer (not shown)	4
10	82-009008-08	#8 x 1/2" SM Screw	12
Item 8			
	62-100093-00	Back Panel Decal, LE	1
	62-100093-01	Back Panel Decal, CE	1

## LOWER LEFT RAMP, ASSY 51-100317-00



Item	Part Number	Description	Qty
1	10-100309-00	Retaining clip, Ball Snubber	1
2	10-100366-00	Ramp	1
3	11-100082-02	Ramp Flap	1
4	25-100015-00	Ball Snubber	1
6	51-100370-00	Notched Opto Pair	1
7	51-100497-04	Floodlight Assy	1
8	80-002008-04	8-32 x 1/4" MS	1
9	80-006004-04U	4-40 x 1/4" MS, Undercut	2
10	91-000004-00	4-40 Nylon Stop Nut	2
11	92-000605-10	Nylon Washer .13 ID, .285 OD	2
12	93-000003-00	1/8" x 5/32" x 7/32" Rivet	2
13	95-001508-15	5/16" x 15/16" Hex Spacer	1



## LEFT RAMP, ASSY 51-100322-00



3 PLACES

**4-6 In/Lbs**

4 PLACES

**13-16 In/Lbs**

3 PLACES

**13-16 In/Lbs**

4 PLACES

4 PLACES

RX

TX

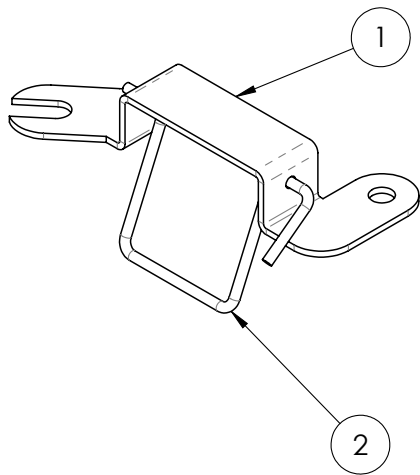
Item

## Part Number

### Description

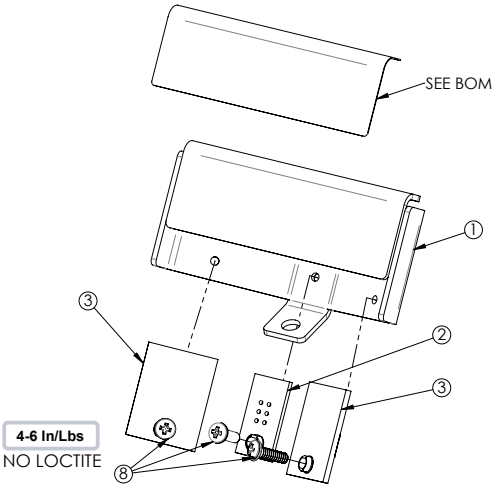
Qty

SHOOTER LANE GATE, ASSY  
51-100323-00



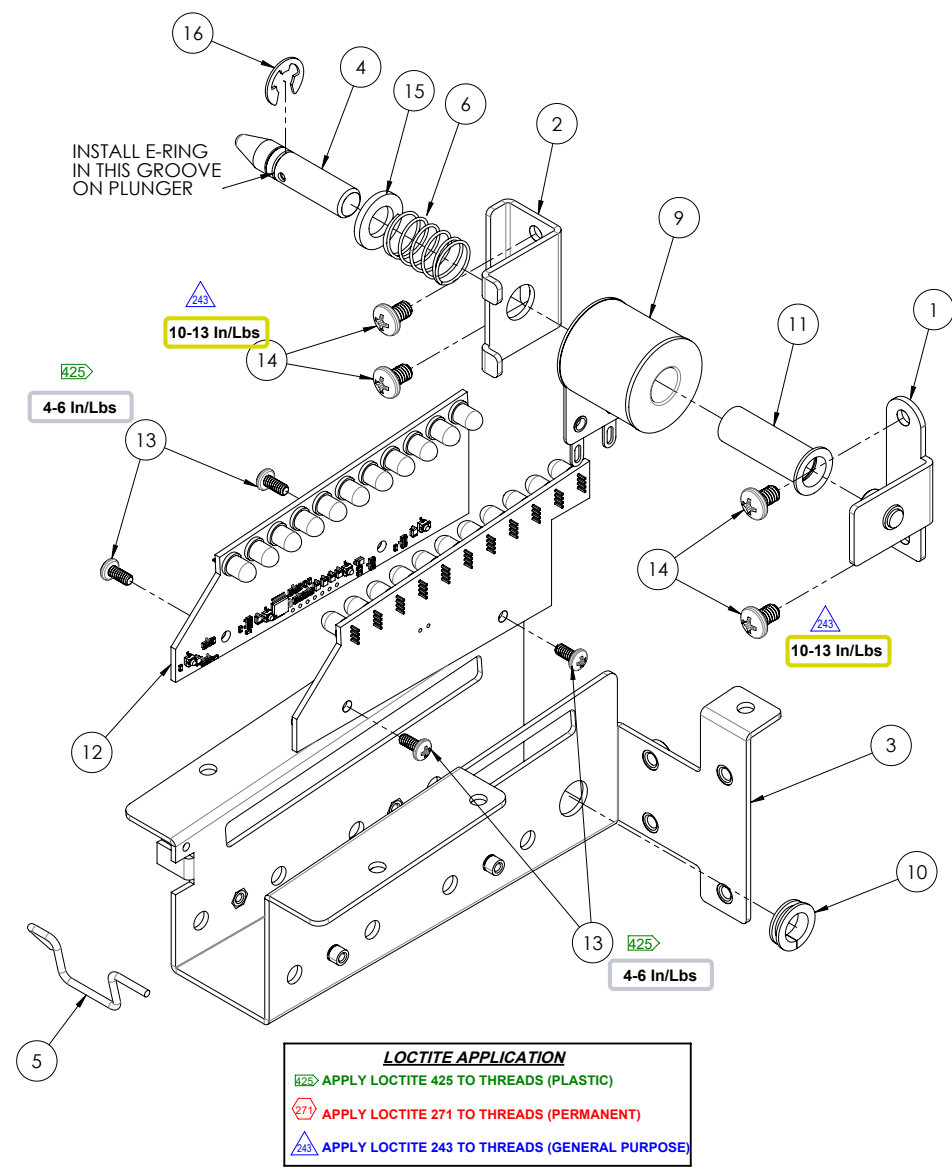
Item	Part Number	Description	Qty
1	10-100368-00	Gate Bracket	1
2	13-100050-00	Gate Wireform	1

FLOODLIGHT, ASSY 2 UV, 1 RGBW  
51-100497-04



Item	Part Number	Description	Qty
1	10-100565-00	Bracket Floodlight	1
2	51-100235-00	RGBW Floodlight and Cable Assy.	1
3	51-100467-00	UV Floodlight and Cable Assy.	1
4-7	See Below	Decal	1
8	80-000004-06	4/40 x 3/8" MS	3
4	62-100102-01	Space Decal	
5	62-100102-02	Kelp Decal	
6	62-100102-03	Fire Decal	
7	62-100102-04	Industrial Decal	

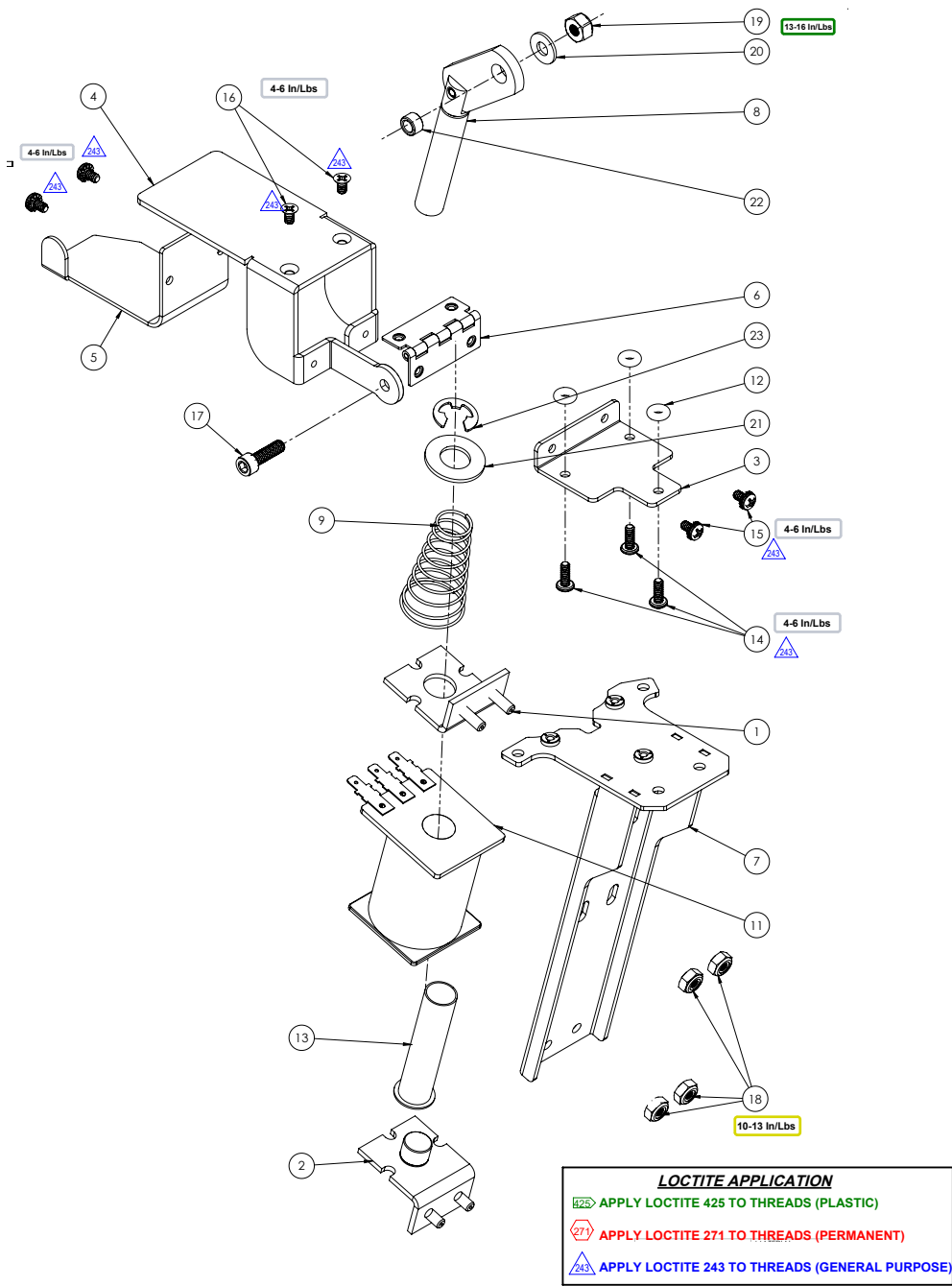
INFINITY LOCK, ASSY  
51-100346-00



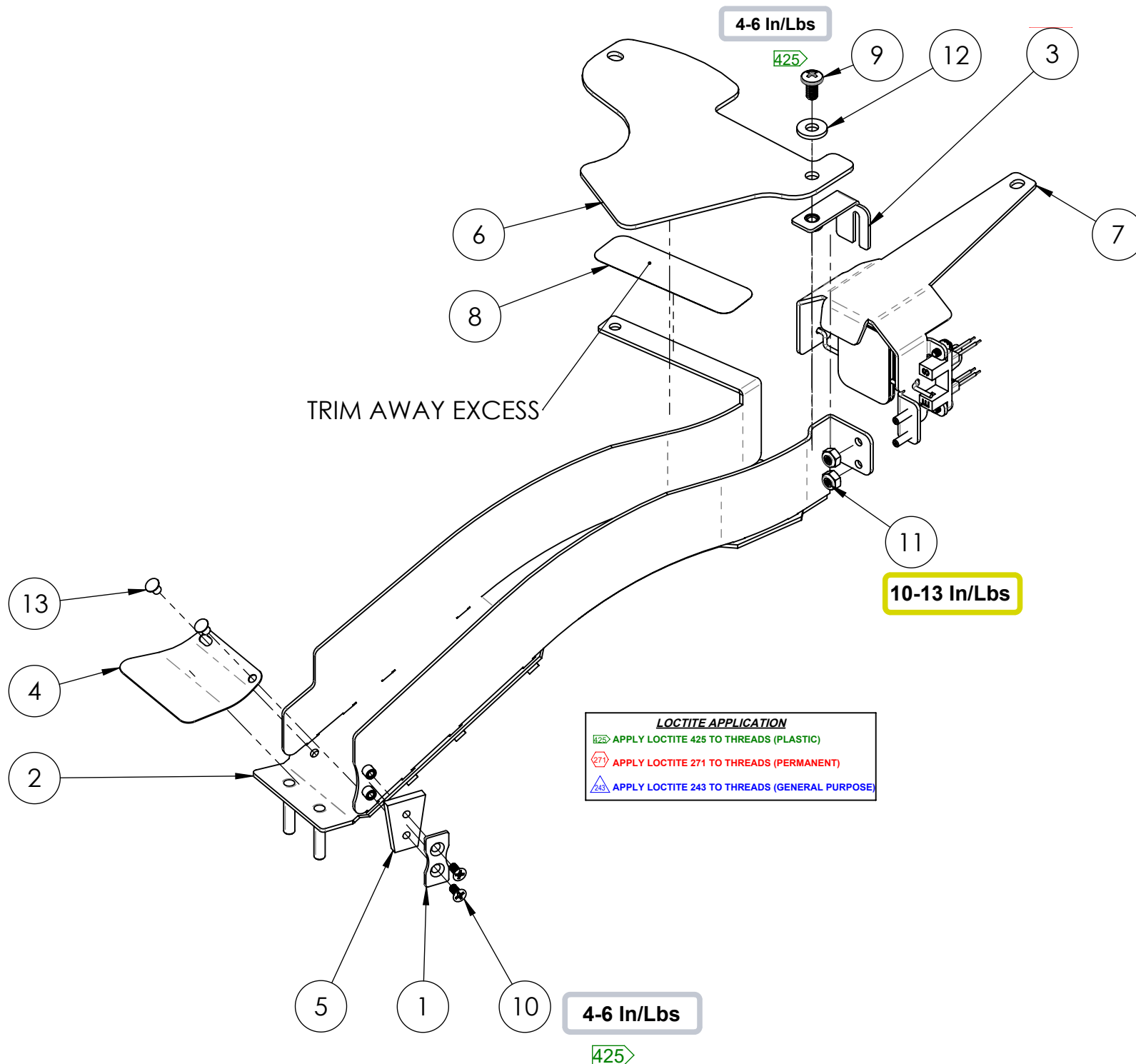
Item	Part Number	Description	Qty
1	10-100352-00	Mini Coil Mounting Bracket	1
2	10-100353-00	Mini Coil Alignment Bracket	1
3	10-100392-00	3 - Ball Lock Bracket	1
4	11-100115-00	Mini Coil Plunger Assy.	1
5	13-100057-00	Gate Wireform	1
6	13-100079-00	Spring	1
7	19-100150-00	4" Pigtail, 2 Lug	1
8	19-100217-00	2-pin Extension Cable	1
9	23-100008-00	Mini Coil 27-950	1
10	30-000071-05	Nyliner	1
11	30-100134-35	1 1/8" Coil Tubing, Mini	1
12	51-100444-00	Infinity Lock PCB's w/ Cable	1
13	80-000004-04	4-40 x 1/4" MS	4
14	80-000008-04	8-32 x 1/4" MS	4
15	92-0000M8-00	M8 Flat Washer	1
16	94-004011-10	5/16" E-Clip	1

SCOOP POP UP, ASSY

51-100324-00



Item	Part Number	Description	Qty
1	10-100200-00	Coil Centering Bracket	1
2	10-100201-00	Coil Stop Bracket	1
3	10-100370-00	Bracket for Hinge	1
4	10-100371-00	Pop Up Scoop	1
5	10-100486-00	Scoop Floor	1
6	10-100554-00	Hinge	1
7	10-100556-00	Bracket, Main	1
8	11-100135-00	Plunger and Link Assy.	1
9	13-100026-00	Spring	1
10	19-100154-00	Pigtail, 3- Lug, 4"	1
11	23-002003-00	FL-15411 Flipper Coil	1
12	25-100018-00	O-Ring	3
13	30-000014-35	2 3/16" Coil Tubing	1
14	80-000006-06	6-32 x 3/8" MS	3
15	80-001006-04	6-32 x 1/4" MS	4
16	80-006006-04U	6-32 x 1/4" Undercut MS	2
17	90-004010-10	10-32 x 5/8" Cap Screw	1
18	91-000008-00	8-32 Nylon Stop Nut	4
19	91-000010-00	#10-32 Nylon Stop Nut	1
20	92-000010-00	#10 Flat Washer	1
21	92-000044-02	7/16" Flat Washer	1
22	94-003001-00	Flipper Link Bushing	1
23	94-004011-14	7/16" E-Clip	1

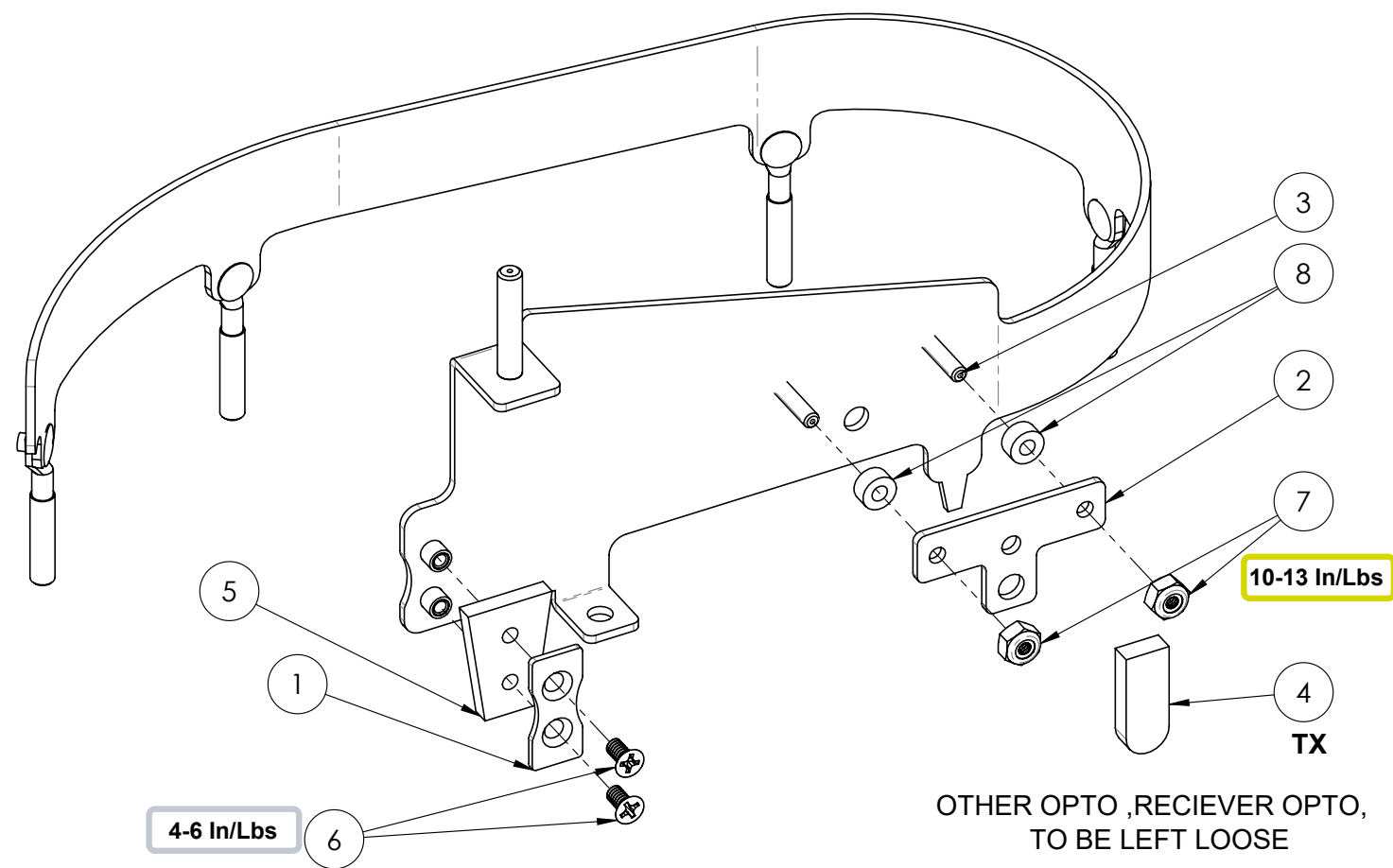


RIGHT RAMP, ASSY

51-100325-00

Item	Part Number	Description	Qty
1	10-100309-00	Snubber Retaining Bracket	1
2	10-100372-00	Ramp	1
3	10-100364-00	Bracket	1
4	11-100080-00	Ramp Flap	1
5	25-100015-00	Snubber Rubber	1
6	30-100243-00	Ramp Cover	1
7	51-100400-00	Spinner Assy.	1
8	62-100021-00	Mylar	1
9	80-000008-05	8-32 X 5/16" MS	1
10	80-006004-04U	4-40 MS, Undercut	2
11	91-000004-00	#4-40 Locknut	2
12	92-000008-00	#8 Flat Washer	1
13	93-000003-00	1/8" x 5/32" Rivet	2

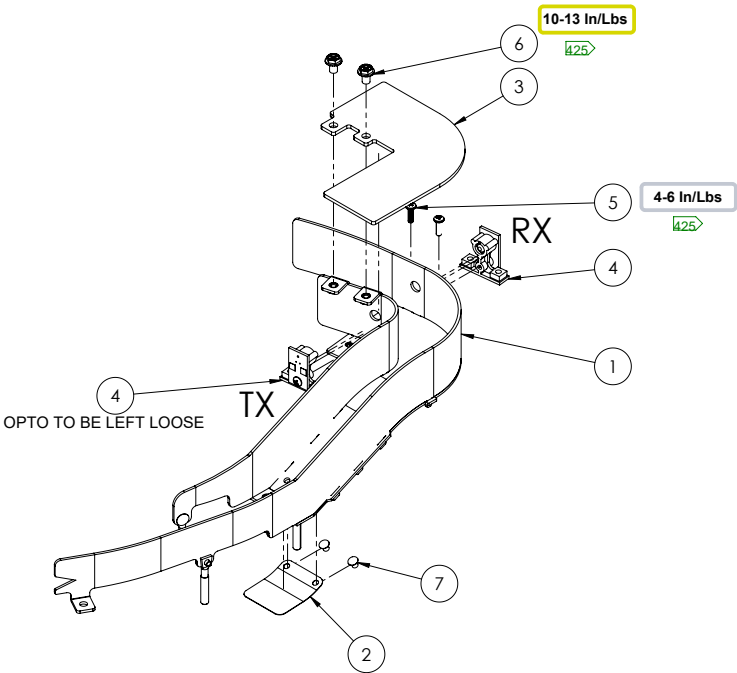
RIGHT LOOP OUTER FLAT RAIL, ASSY  
51-100334-00



Item	Part Number	Description	Qty
1	10-100309-00	Snubber Retaining Bracket	1
2	10-100453-01	Opto mounting Bracket	1
3	12-100045-08	Flatrail	1
4	18-007025-24	Opto Pair	1
5	25-100015-00	Snubber Rubber	1
6	80-006004-04U	4-40 MS, Undercut	2
7	91-000004-00	#4-40 Nylon Locknut	2
8	94-005204-04	#4 x 1/8" Spacer	2



LEFT LOOP RAMP, ASSY  
51-100344-00



NOTE: PAIRED OPTO PCBs MUST BE MATCHED

Item	Part Number	Description	Qty
1	10-100389-00	Ramp	1
2	11-100093-00	Ramp Flap	1
3	30-100201-17	Cover, Plastic	1
4	51-100243-00	OPTO Pair	1
5	80-000004-06	4-40 x 1/4" MS	2
6	80-002008-04	#8-32 x 1/4" HWH	2
7	93-000003-00	1/8" x 5/32" Rivet	2

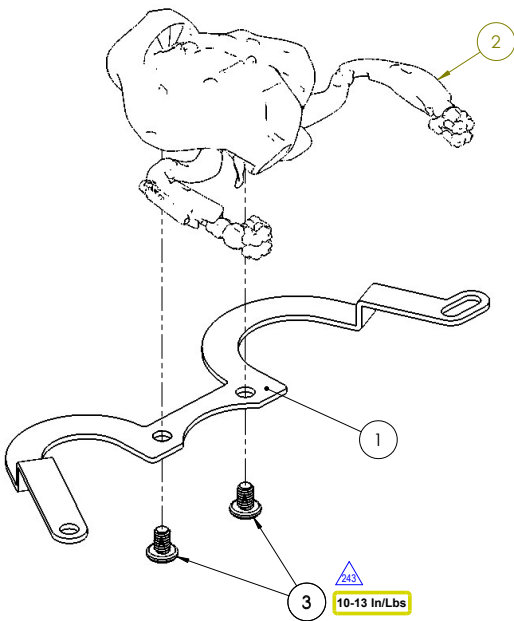
**LOCTITE APPLICATION**

425 APPLY LOCTITE 425 TO THREADS (PLASTIC)

271 APPLY LOCTITE 271 TO THREADS (PERMANENT)

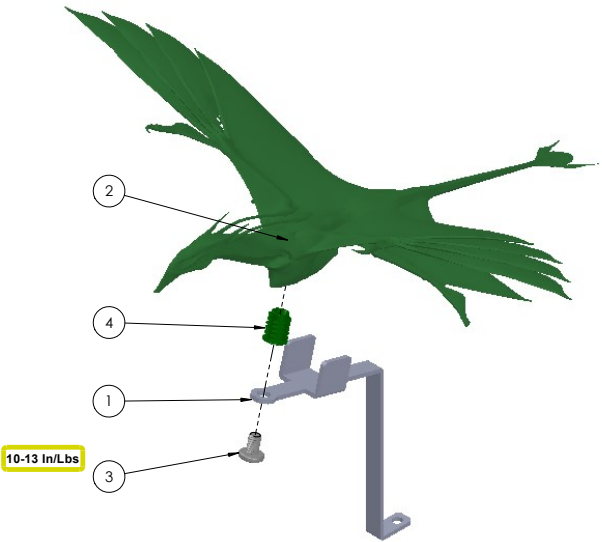
243 APPLY LOCTITE 243 TO THREADS (GENERAL PURPOSE)

CRAB SUIT, ASSY  
51-100416-00



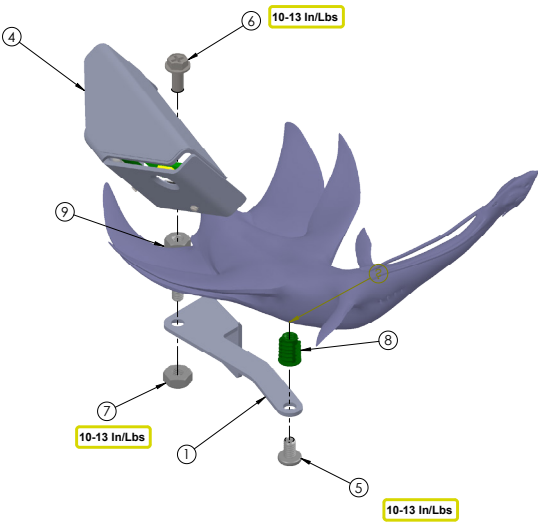
Item	Part Number	Description	Qty
1	10-100470-00	Bracket	1
2	32-100040-00	Crab Suit Sculpture	1
3	80-000008-04	8-32 x 1/4" MS	2

**BANSHEE, ASSY**  
**51-100393-00**



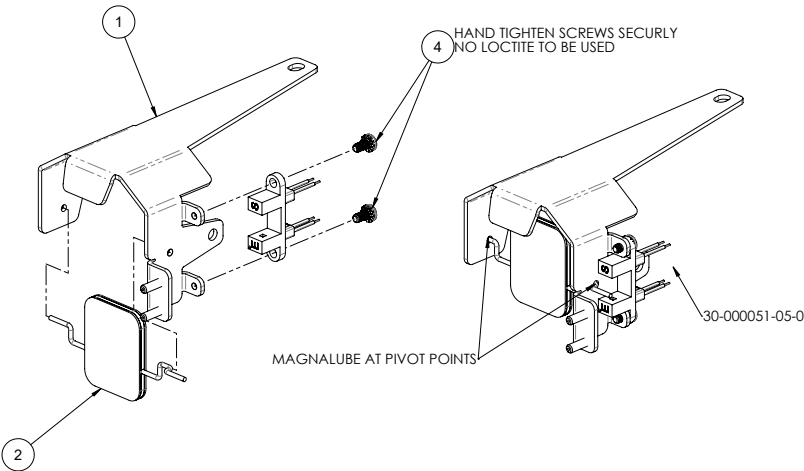
Item	Part Number	Description	Qty
1	10-100441-00	Bracket	1
2	32-100037-00	Banshee Sculpture	1
3	80-000008-04	8-32 x 1/4" MS	1
4	91-005008-00	#8-32 Insert, Hex Drive	1

**IIU, ASSY**  
**51-100394-00**



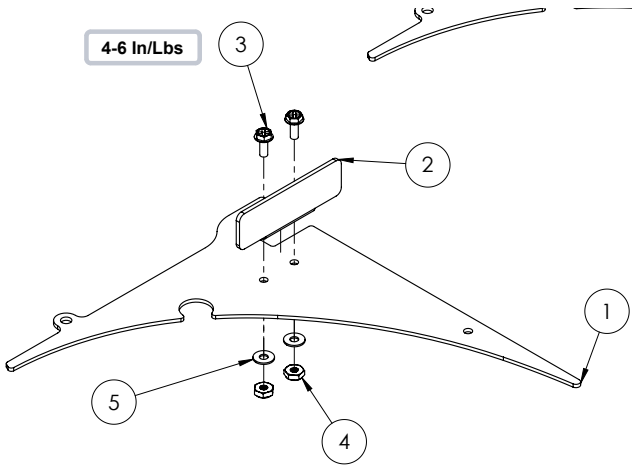
Item	Part Number	Description	Qty
1	10-100442-00	Bracket	1
2	30-000051-05-0	6" Wire Tie, Black	1
3	32-100038-00	IIU Sculpture	1
4	51-100497-02	Floodlight Assy.	1
5	80-000008-04	8-32 x 1/4" MS	1
6	80-002008-06	8-32 x 3/8" MS	1
7	91-000008-00	8-32 Nylon Stop Nut	1
8	91-005008-00	#8-32 Insert, Hex Drive	1
9	95-001518-10	Hex Spacer	1

SPINNER, ASSY  
51-100400-00



Item	Part Number	Description	Qty
1	10-100452-00	Bracket	1
2	10-100416-01	Spinner	1
3	18-007026-24	Opto	1
4	80-001004-04	4-40 x 1/4" MS	2
5	30-000051-05-0	Wire Tie, Black	1

BACK LEFT PLASTIC, ASSY  
51-100441-00 LE  
E51-100441-01CE



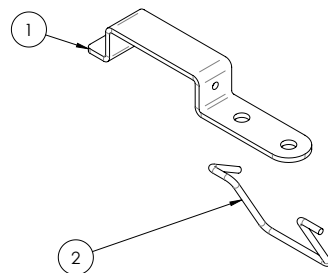
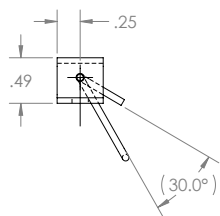
Item	Part Number	Description	Qty
1	SEE NOTE	PLASTIC	1
2	30-100201-36	BALL TRAP PLASTIC	1
3	80-002006-06	#6-32 X 3/8" MS	2
4	91-000006-00	6-32 NYLON LOCKNUT	2
5	92-000006-00	#6 FLAT WASHER	2

ITEM 1, NOTE

CE 30-100163-61, PLASTIC

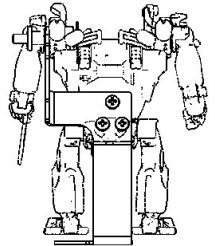
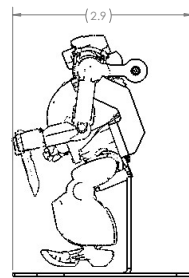
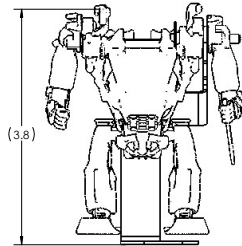
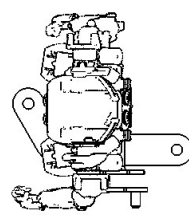
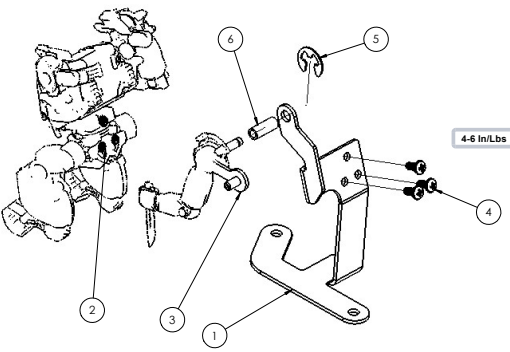
LE 30-100160-11, PLASTIC

**REAR LOWER PLAYFIELD GATE, ASSY**  
**51-100345-00**



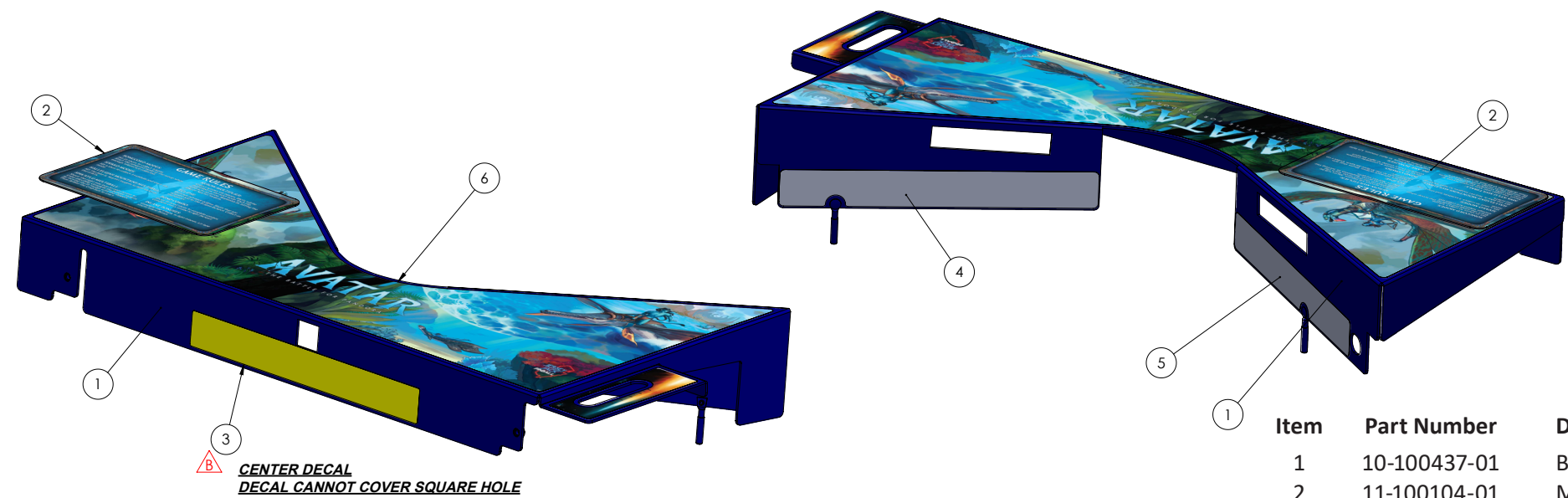
Item	Part Number	Description	Qty
1	10-100391-00	Bracket	1
2	13-100050-00	Gate	1

**WARRIOR SUIT, ASSY**  
**51-100430-00**



Item	Part Number	Description	Qty
1	10-100496-00	Bracket	1
2	32-100042-00	Warrior Suit Sculpture	1
3	32-100042-01	Warrior Arm Sculpture	1
4	80-000004-04	4-40 x 1/4" MS	3
5	94-004011-05	E-Ring, 5/32"	1
6	96-000008-08-1	Sleeve Bearing	1

BOTTOM ARCH, ASSY  
51-100392-00 LE  
51-100392-01 CE

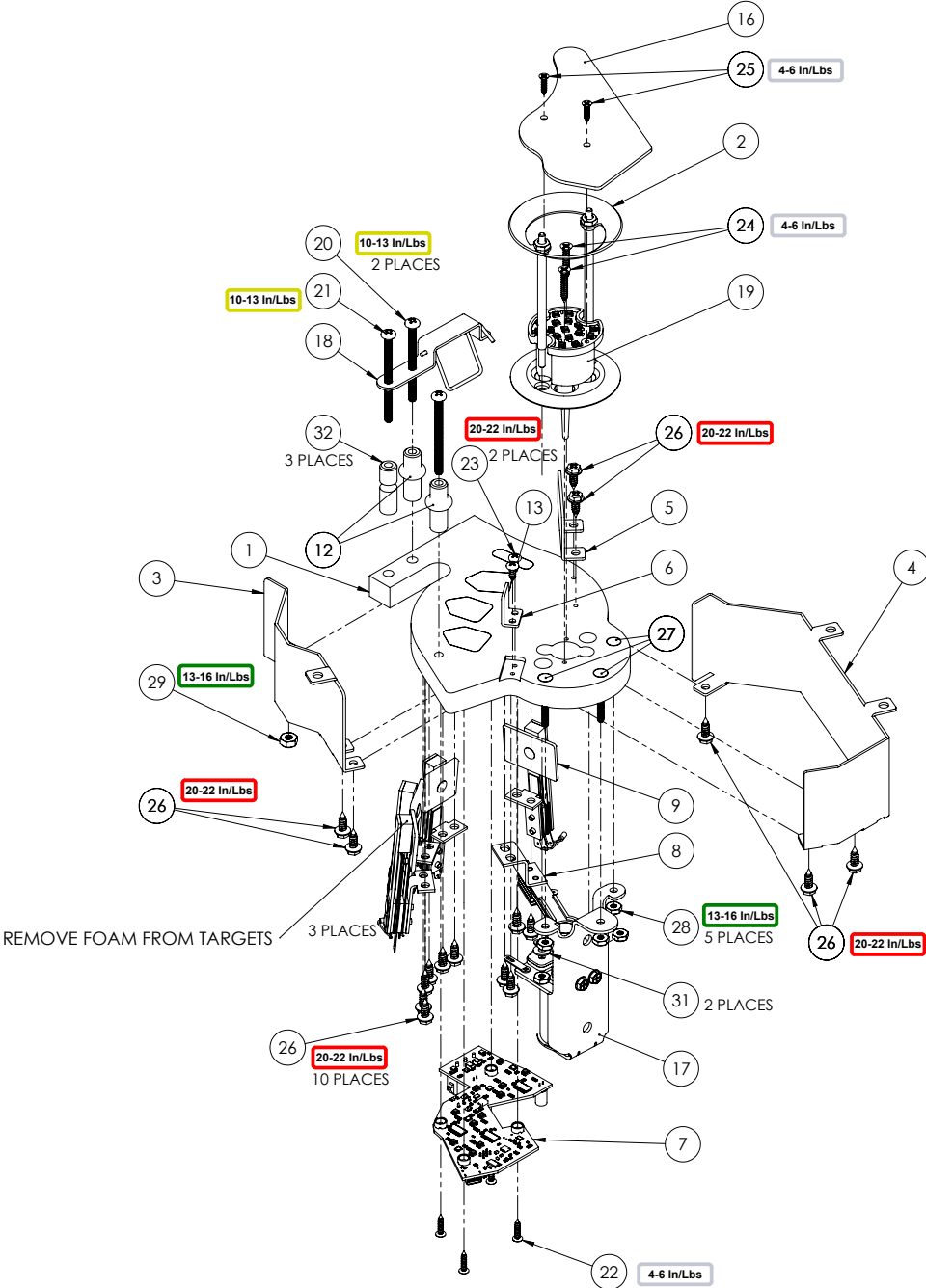


Item	Part Number	Description	Qty
1	10-100437-01	Bottom Arch w/ Kickback	1
2	11-100104-01	Magnetic Rule Card	1
3	62-000034-09	Warniong Decal	1
4	62-100080-01	Mylar w/ Kickback, Left	1
5	62-100080-02	Mylar w/ Kickback, Right	1
6	See Table	Decal, Bottom Arch	1
7	See Table	Decal, Shooter Gauge	1

Table			
Item	Part Number	Description	Qty
6	62-100090-15	LE	1
7	62-100090-16	LE	1
OR			
6	62-100091-65	CE	1
7	62-100091-66	CE	1
Not Shown			
	11-100104-00	CE Signature Card	1

LOWER PLAYFIELD REAR, LE, ASSY

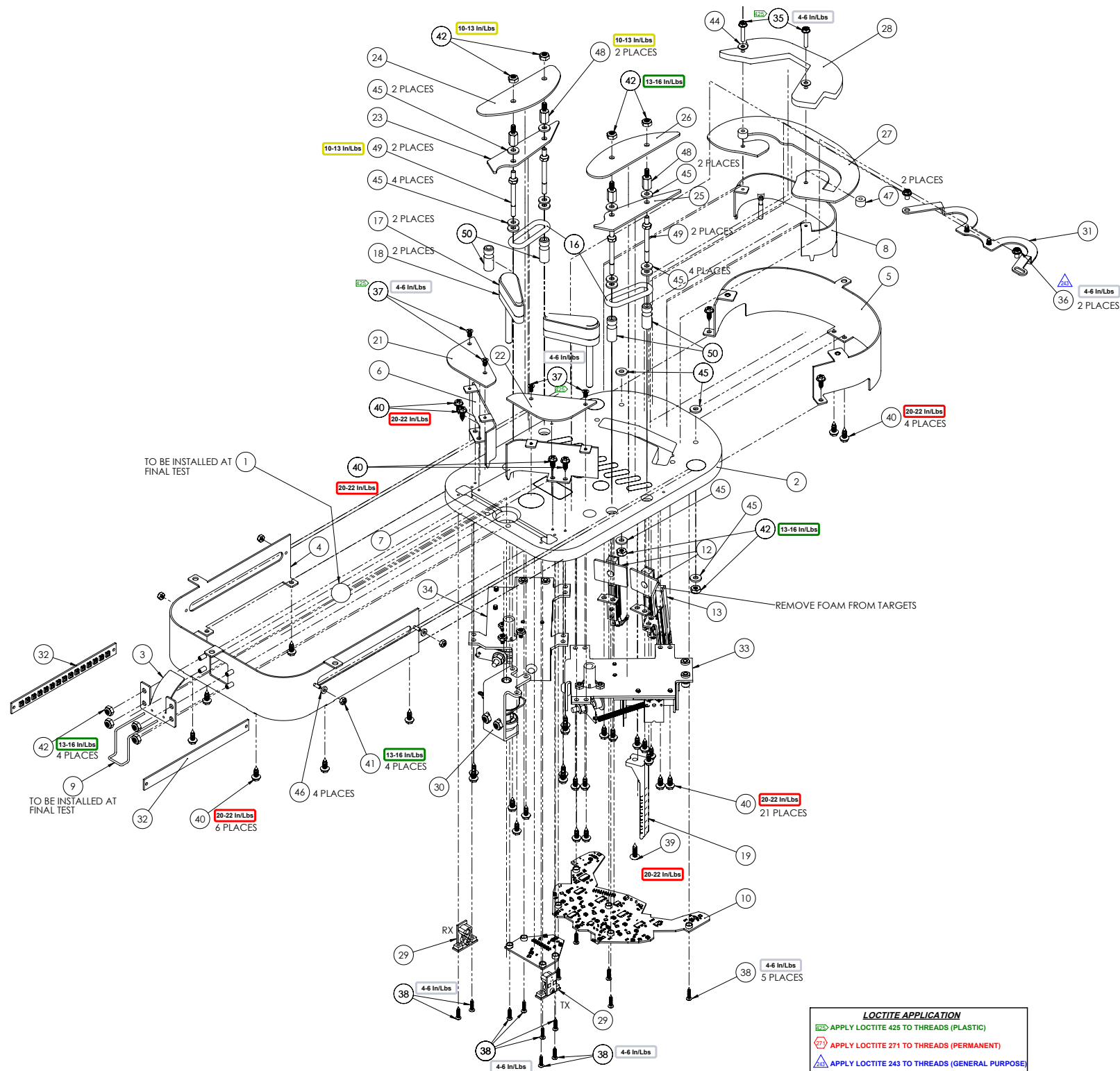
51-100348-00



Item	Part Number	Description	Qty
1	05-100042-00	Playfield	1
2	11-005004-01	Ring & Rod Assy	1
3	12-100045-03	Flatrail Left	1
4	12-100045-04	Flatrail Right	1
5	12-100045-17	Flatrail Rear	1
6	12-100045-18	Flatrail Ball Trap	1
7	15-100062-12	Lillypad Board	1
8	18-007007-01	Pop Bumper Switch	1
9	18-009106-00	Rectanagle Target Front Mount	1
10	18-009114-00	Square Target Front Mount	3
11	19-100192-00	Cable Harness	1
12	25-006003-03-9	3/16" Post Rubber, White	2
15	30-000051-08	8" Wire Tie	2
16	30-100160-26	Pop Bumper Plastic, LE	1
17	51-000004-01	Pop Bumper Bottom Assy	1
18	51-100345-00	Gate Assy	1
19	51-100515-09	Pop Bumper Top Assy	1
20	80-000008-32	8-32 x 2" MS	2
21	80-000006-36	8-32 x 2-1/4" MS	1
22	82-000004-08	#4 x 1/2" SMS	4
23	82-000006-06	#6 SMS	2
24	82-006006-14	#6 x 7/8" SMS 82 Deg CA	2
25	82-006104-08	#4 1/2" SMS, Black	2
26	82-009008-08	#8 x 1/2" SMS, Phillips	17
27	85-008006-00	#6-32 x 1/4" Fin Shank Screw	3
28	91-000006-00	6-32 Nylon Lock Nut	5
29	91-000008-00	8-32 Nylon Stop Nut	1
30	91-004008-00	8-32 x 1/4" T Nut	3
31	92-000006-00	#6 Flat Washer	2
32	97-000100-01	Steel Post	3



# LOWER PLAYFIELD FRONT, LE, ASSY 51-100349-00

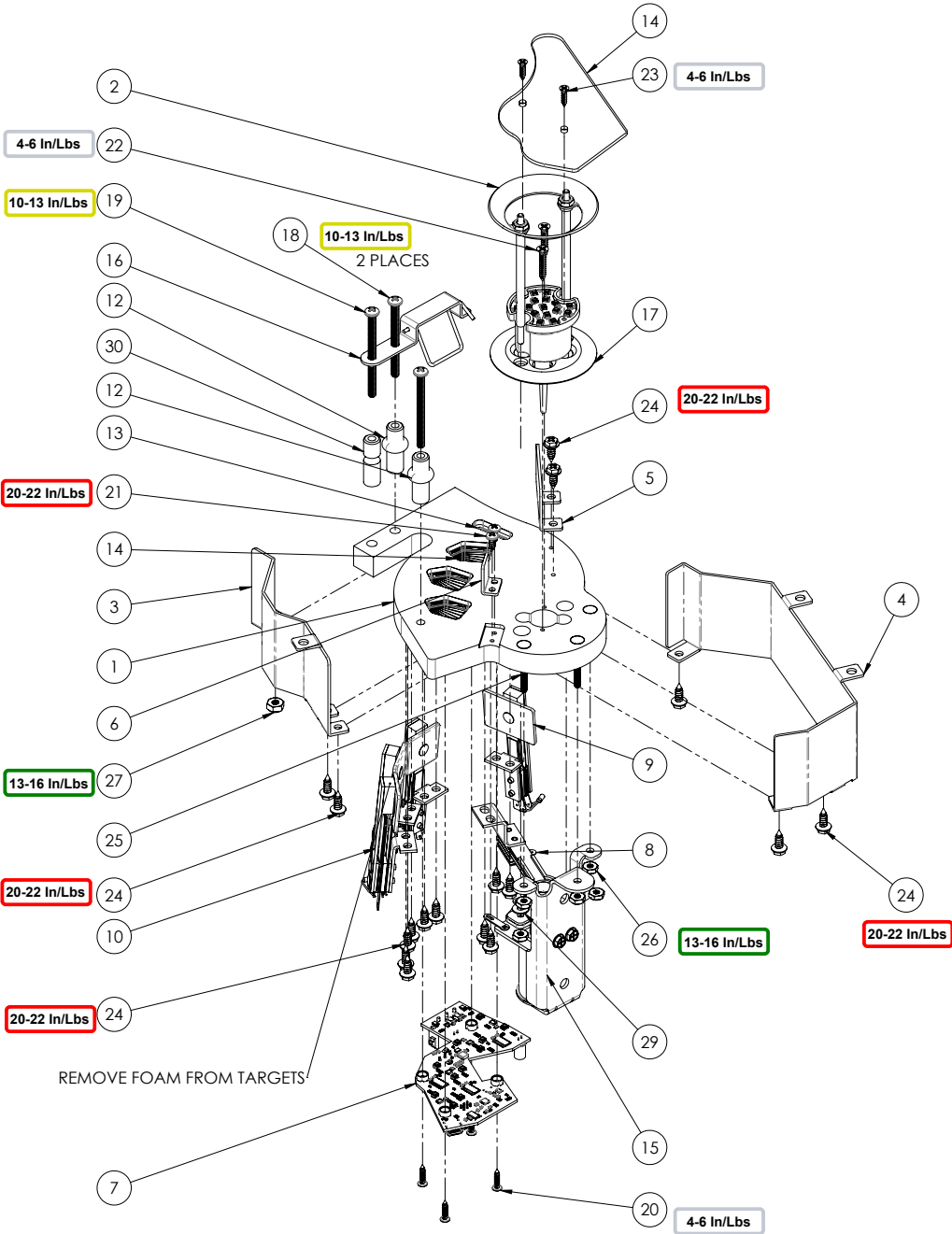


**LOWER PLAYFIELD FRONT, LE, ASSY**  
**51-100349-00**

Item	Part Number	Description	Qty
1	00-000003-00	3/4" Mini Pinball	1
2	05-100043-00	Playfield, LE	1
3	10-100410-00	Mini Scoop Bracket	1
4	12-100045-12	Flatrail, Bottom	1
5	12-100045-13	Flatrail, Orbit	1
6	12-100045-14	Flatrail, Left Flipper	1
7	12-100045-15	Flatrail, Right Flipper	1
8	12-100045-16	Flatrail, Inner Orbit	1
9	13-100072-00	Shipping Pin	1
10	15-100062-05	Lillypad Board	1
11	15-100062-06	LED Extension Board	1
12	18-009106-00	Rectangular Target. Front Mount	2
13	18-009114-00	Square Target Front mount	1
14	19-100190-03	RGB Extension Cable	1
15	19-100193-00	Playfield Wire Harness	1
16	25-002003-16-9	1" Rubber Ring, White	2
17	25-002006-07	1" Mini Flipper Ring, Black	2
18	30-000013-06-00	Mini Flipper Bat	2
19	30-000033-01	Nylon Cable Ladder	1
20	30-000051-08	8" Wire Tie	6
21	30-100160-19	Plastic	1
22	30-100160-20	Plastic	1
23	30-100160-21	Plastic	1
24	30-100160-22	Plastic	1
25	30-100160-23	Plastic	1

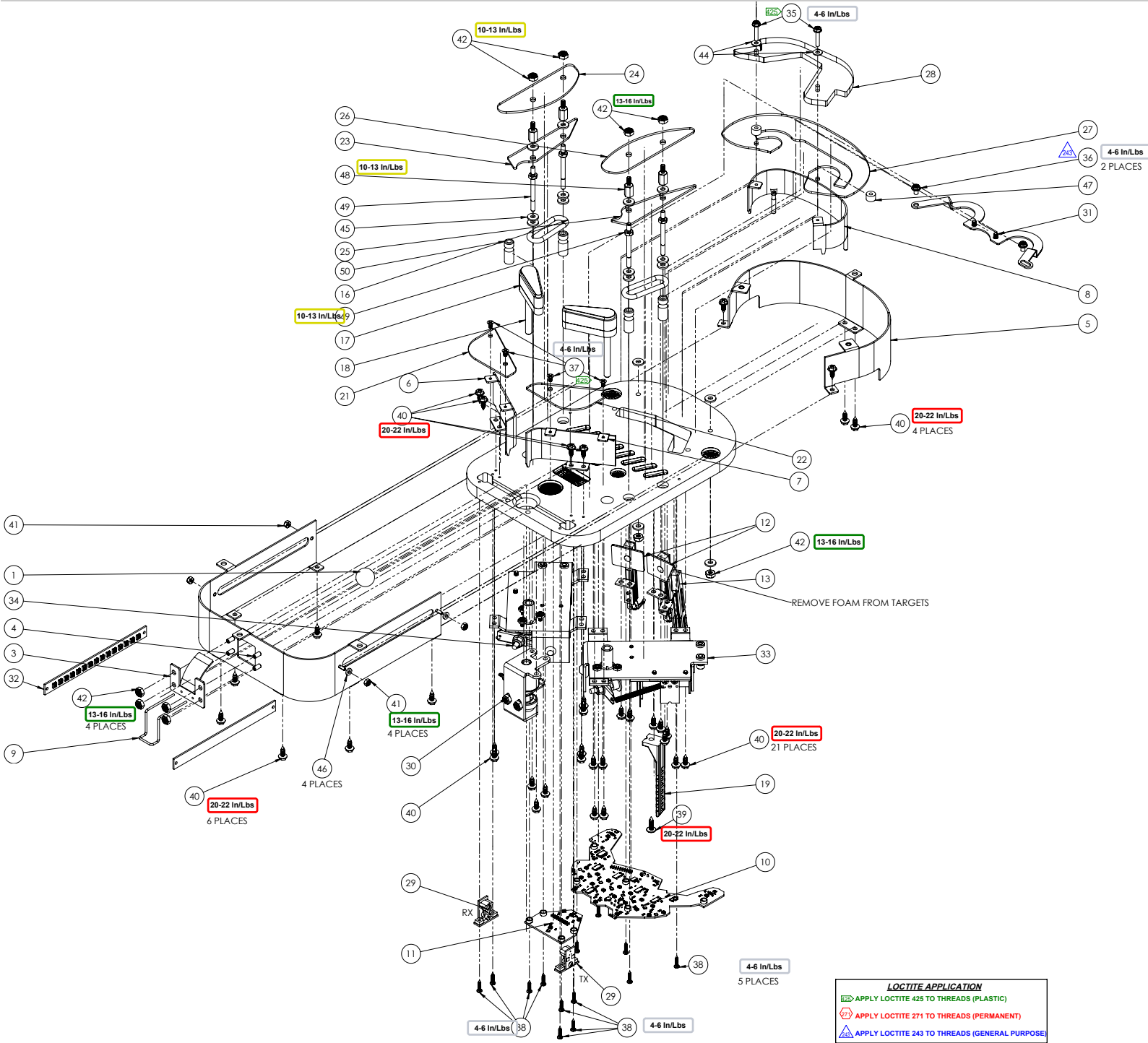
Item	Part Number	Description	Qty
26	30-100160-24	Plastic	1
27	30-100160-25	Plastic	1
28	30-100203-00	Plastic	1
29	51-100243-00	OPTO	1
30	51-100360-00	Mini VUK, Assy	1
31	51-100416-00	Crab Suit, Assy	1
32	51-100445-00	Arena LED BOards	1
33	52-020131-12	Right Flipper, Assy	1
34	52-020132-13	Left Flipper, Assy	1
35	80-002006-12	6-32 x 3/4" MS	2
36	80-002008-04	#8-32 x 1/4" Phillips	2
37	80-006006-04U	6-32 x 1/4" MS 82 DEG Undercut	4
38	82-000004-08	#4 x 1/2" SMS	13
39	82-007008-10	#8 x 5/8" Phillip SMS	1
40	82-009008-08	#8 x 1/2" Phillip SHS	35
41	91-000004-00	#4-40 Nylon Lock Nut	4
42	91-000008-00	8-32 Nylon Stop Nut	10
43	91-004008-00	8-32 x 1/4" T Nut	4
44	92-000006-00	#6 Flat Washer	2
45	92-000008-00	#8 Flat Washer	16
46	92-000605-10	Nylon Washer	4
47	94-005406-04	#6 x 1/4" Spacer	2
48	95-001518-08	5/16"-1/2" Hex Spacer M/F	4
49	97-000008-00	Butyrate Post	4
50	97-000100-00	Teel Post	4

LOWER PLAYFIELD REAR, CE, ASSY  
 51-100348-01



Item	Part Number	Description	Qty
1	05-100042-01	Playfield	1
2	11-005004-01	Ring & Rod Assy	1
3	12-100045-03	Flatrail Left	1
4	12-100045-04	Flatrail Right	1
5	12-100045-17	Flatrail Rear	1
6	12-100045-18	Flatrail Ball Trap	1
7	15-100062-12	Lillypad Board	1
8	18-007007-01	Pop Bumper Switch	1
9	18-009106-00	Rectanagle Target Front Mount	1
10	18-009114-00	Square Target Front Mount	3
11	19-100192-00	Cable Harness	1
12	25-006003-03-96	3/16" Post Rubber, Silicone	2
13	30-000051-08	8" Wire Tie	2
14	30-100162-76	Plastic	1
15	51-000004-01	Pop Bumper Bottom Assy	1
16	51-100345-00	Gate Assy.	1
17	51-100515-09	Pop Bumper Top Assy.	1
18	80-000008-32	#8-32 MS	2
19	80-000008-36	8-32 x 2-1/4" MS	1
20	82-000004-08	#4 x 1/2" SMS	2
21	82-000006-06	#6 SMS	2
22	82-006006-14	#6 x 7/8" SMS 82 DEG CA	2
23	82-006104-08	#4 x 1/2" SMS Black	2
24	82-009008-08	#8 x 1/2" SMS	17
25	85-008006-20	#6-32 x 1/4" Fin Shank Screw	3
26	91-000006-00	6-32 Nylon Lock Nut	5
27	91-000008-00	8-32 Nylon Stop Nut	1
28	91-004008-00	8-32 x 1/4" T Nut	3
29	92-000006-00	#6 Flat Washer	2
30	97-000100-01	Steel Post	3

LOWER PLAYFIELD FRONT, CE, ASSY  
 51-100349-01



**LOWER PLAYFIELD FRONT, CE, ASSY**  
**51-100349-01**

Item	Part Number	Description	Qty
1	00-000003-00	3/4" Mini Pinball	1
2	05-100043-01	Playfield, LE	1
3	10-100410-00	Mini Scoop Bracket	1
4	12-100045-12	Flatrail, Bottom	1
5	12-100045-13	Flatrail, Orbit	1
6	12-100045-14	Flatrail, Left Flipper	1
7	12-100045-15	Flatrail, Right Flipper	1
8	12-100045-16	Flatrail, Inner Orbit	1
9	13-100072-00	Shipping Pin	1
10	15-100062-05	Lillypad Board	1
11	15-100062-06	LED Extension Board	1
12	18-009106-00	Rectangular Target. Front Mount	2
13	18-009114-00	Square Target Front mount	1
14	19-100190-03	RGB Extension Cable	1
15	19-100193-00	Playfield Wire Harness	1
16	25-002003-16-96	1" Rubber Ring, Silicone	2
17	25-002006-96	1" Mini Flipper Ring, Silicone White	2
18	30-000013-06-00	Mini Flipper Bat	2
19	30-000033-01	Nylon Cable Ladder	1
20	30-000051-08	8" Wire Tie	6
21	30-100163-69	Plastic	1
22	30-100163-70	Plastic	1
23	30-100163-71	Plastic	1
24	30-100163-72	Plastic	1
25	30-100163-73	Plastic	1

Item	Part Number	Description	Qty
26	30-100163-74	Plastic	1
27	30-100163-75	Plastic	1
28	30-100203-00	Plastic	1
29	51-100243-00	OPTO	1
30	51-100360-00	Mini VUK, Assy	1
31	51-100416-00	Crab Suit, Assy	1
32	51-100445-00	Arena LED BOards	1
33	52-020131-12	Right Flipper, Assy	1
34	52-020132-13	Left Flipper, Assy	1
35	80-002006-12	6-32 x 3/4" MS	2
36	80-002008-04	#8-32 x 1/4" Phillips	2
37	80-006006-04U	6-32 x 1/4" MS 82 DEG Undercut	4
38	82-000004-08	#4 x 1/2" SMS	13
39	82-007008-10	#8 x 5/8" Phillip SMS	1
40	82-009008-08	#8 x 1/2" Phillip SHS	35
41	91-000004-00	#4-40 Nylon Lock Nut	4
42	91-000008-00	8-32 Nylon Stop Nut	10
43	91-004008-00	8-32 x 1/4" T Nut	4
44	92-000006-00	#6 Flat Washer	2
45	92-000008-00	#8 Flat Washer	16
46	92-000605-10	Nylon Washer	4
47	94-005406-04	#6 x 1/4" Spacer	2
48	95-001518-08	5/16"-1/2" Hex Spacer M/F	4
49	97-000008-00	Butyrate Post	4
50	97-000100-00	Teel Post	4





# DIAGRAMS

## RUBBER

## MYLAR

## OPTOS

## LED BOARDS

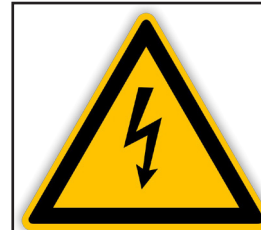
## SWITCHES

## COILS



### WARNING

**PINCH POINT HAZARD.**  
this equipment is to be serviced  
by trained personnel only.

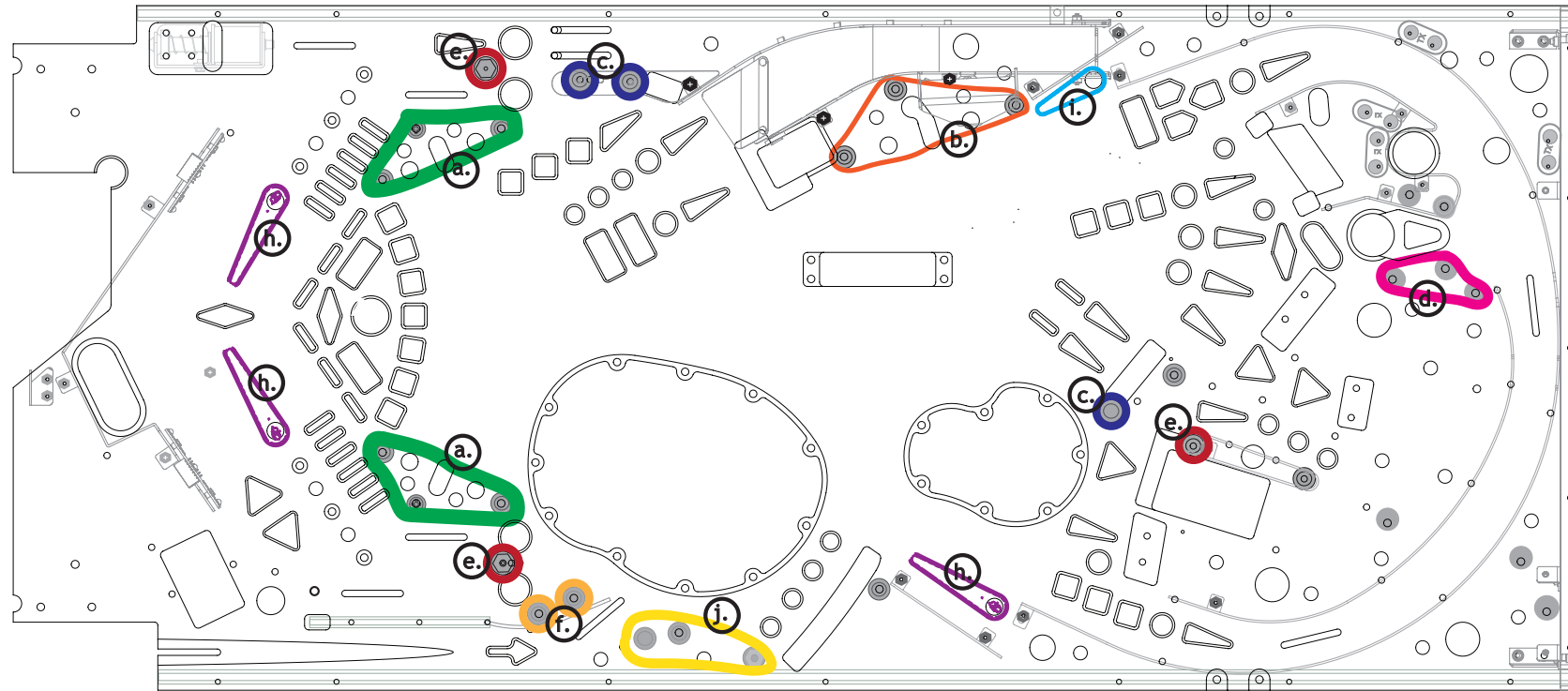


### WARNING

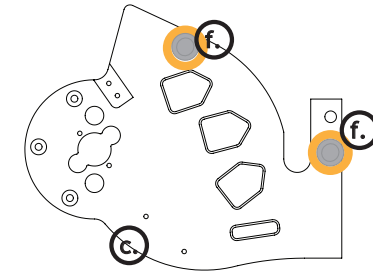
**ELECTRIC SHOCK HAZARD.**  
this equipment is to be serviced  
by trained personnel only.



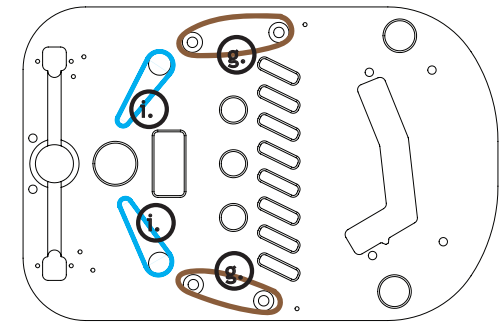
# RUBBER DIAGRAM



## REAR LOWER PLAYFIELD



## FRONT LOWER PLAYFIELD



LE

a. 25-002003-32-9 2 1/2" Rubber Ring
b. 25-002003-48-9 3" Rubber Ring, White
c. 25-006013-09 1-1/16" Post Sleeve, White
d. 25-002003-24-9 1-1/2" Rubber Ring, White
e. 25-006003-06-9 3/8" O.D. Post Rubber, White

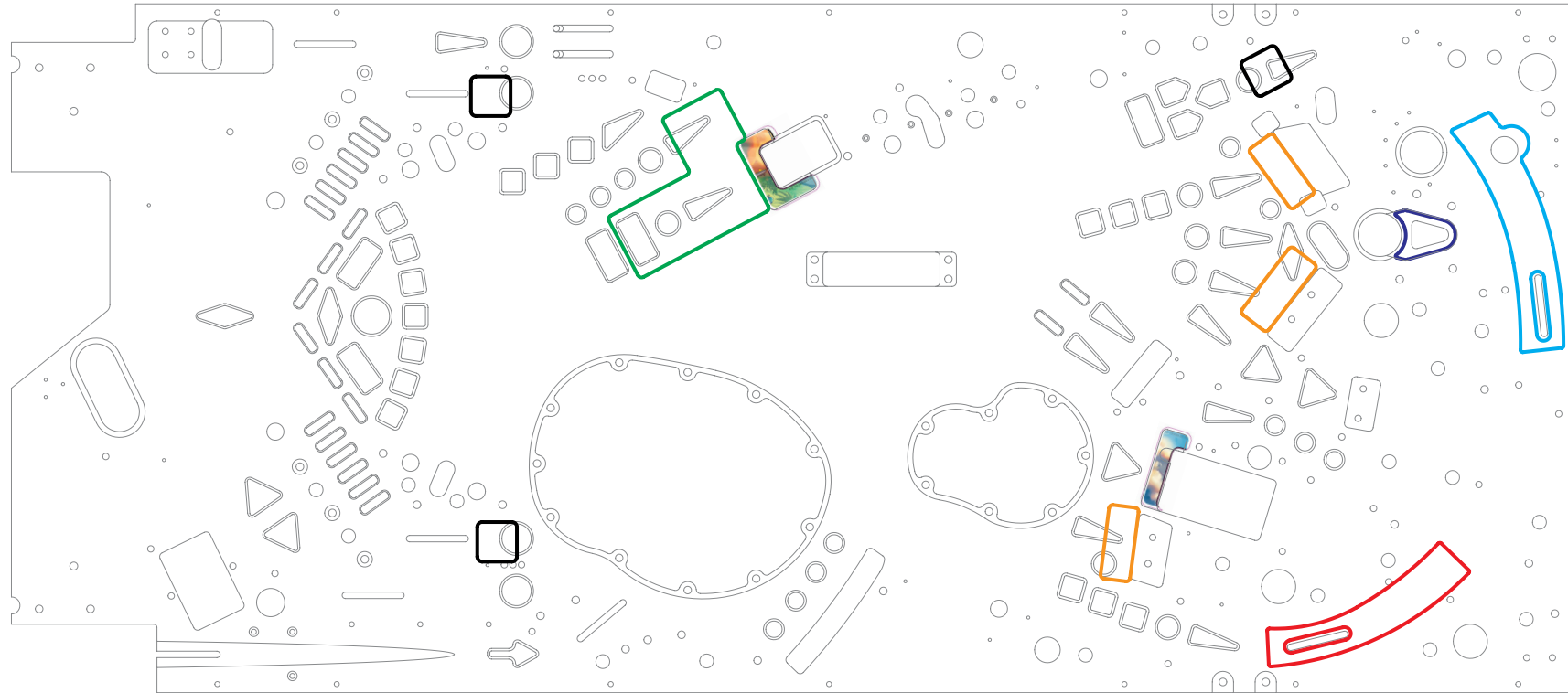
f. 25-006003-03-9 3/16" I.D. Post Rubber, White
g. 25-002003-16-9 1" Rubber Ring, White
h. 25-002007-07 1-1/2" Flipper Ring, Violet
i. 25-002006-07 1" Flipper Ring, Violet
j. 25-002006-xx 2" Rubber Ring, White

CE

a. 25-002004-40-96 2 1/2" Rubber Ring, Silicone
b. 25-002004-48-96 3" Rubber Ring, Silicone
c. 25-006013-96 1-1/16" Post Sleeve, Silicone
d. 25-002004-24-96 1-1/2" Rubber Ring, Silicone
e. 25-006005-06-96 3/8" O.D. Post Rubber, Silicone

f. 25-006004-03-96 3/16" I.D. Post Rubber, Silicone
g. 25-002004-16-96 1" Rubber Ring, Silicone
h. 25-002007-96 1-1/2" Flipper Ring, Silicone
i. 25-002006-96 1" Flipper Ring, Silicone
j. 25-002004-32-96 2" Rubber Ring, Silicone

# MYLAR DIAGRAM



62-100080-03  
Ball Drop Mylar

62-100080-05  
Right Orbit Mylar

62-100080-07  
Scoop Runaway Mylar

62-100095-00  
Scoop Mylar



62-100080-04  
Ramp Mylar

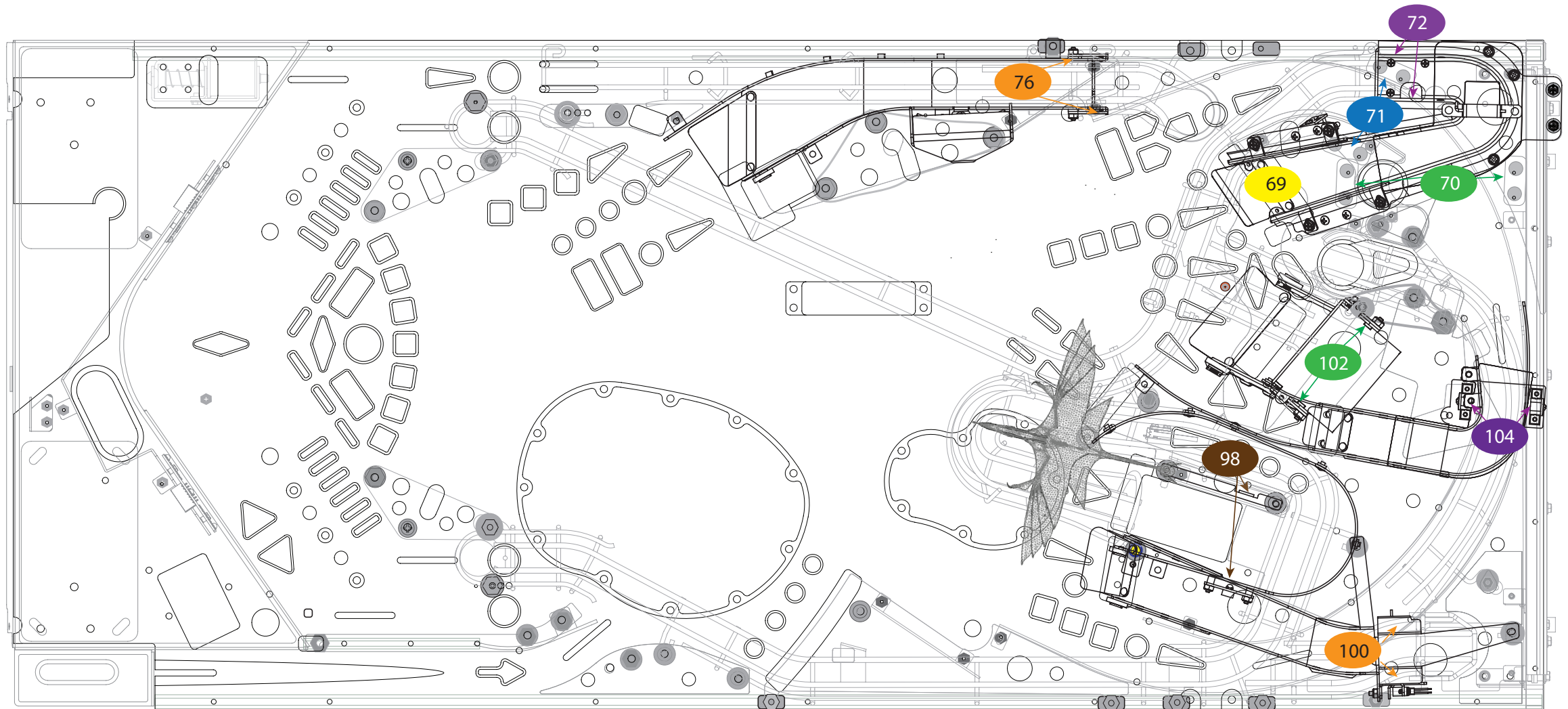
62-100080-06  
Rear Orbit Mylar

62-100097-00  
VUK Mylar

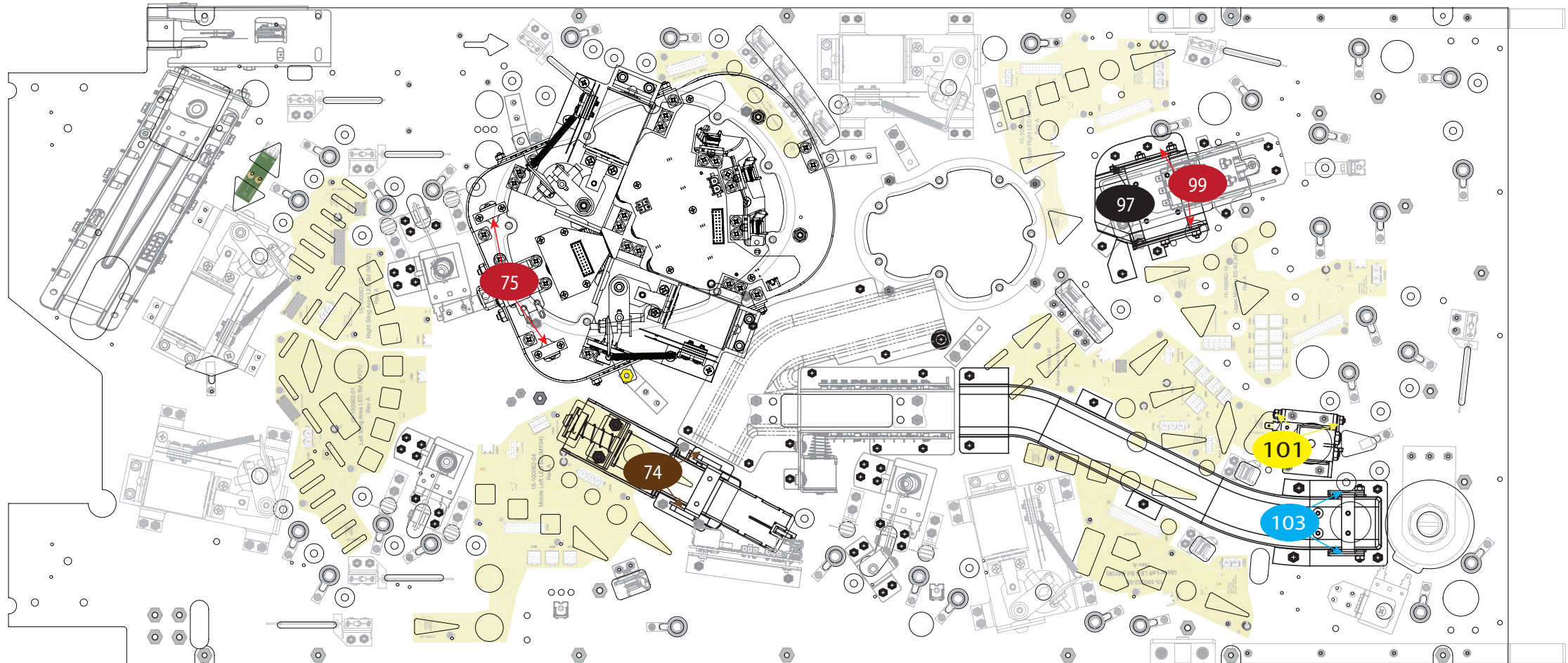
62-100099-00  
Pop Up Scoop Mylar



## OPTO MAP TOP

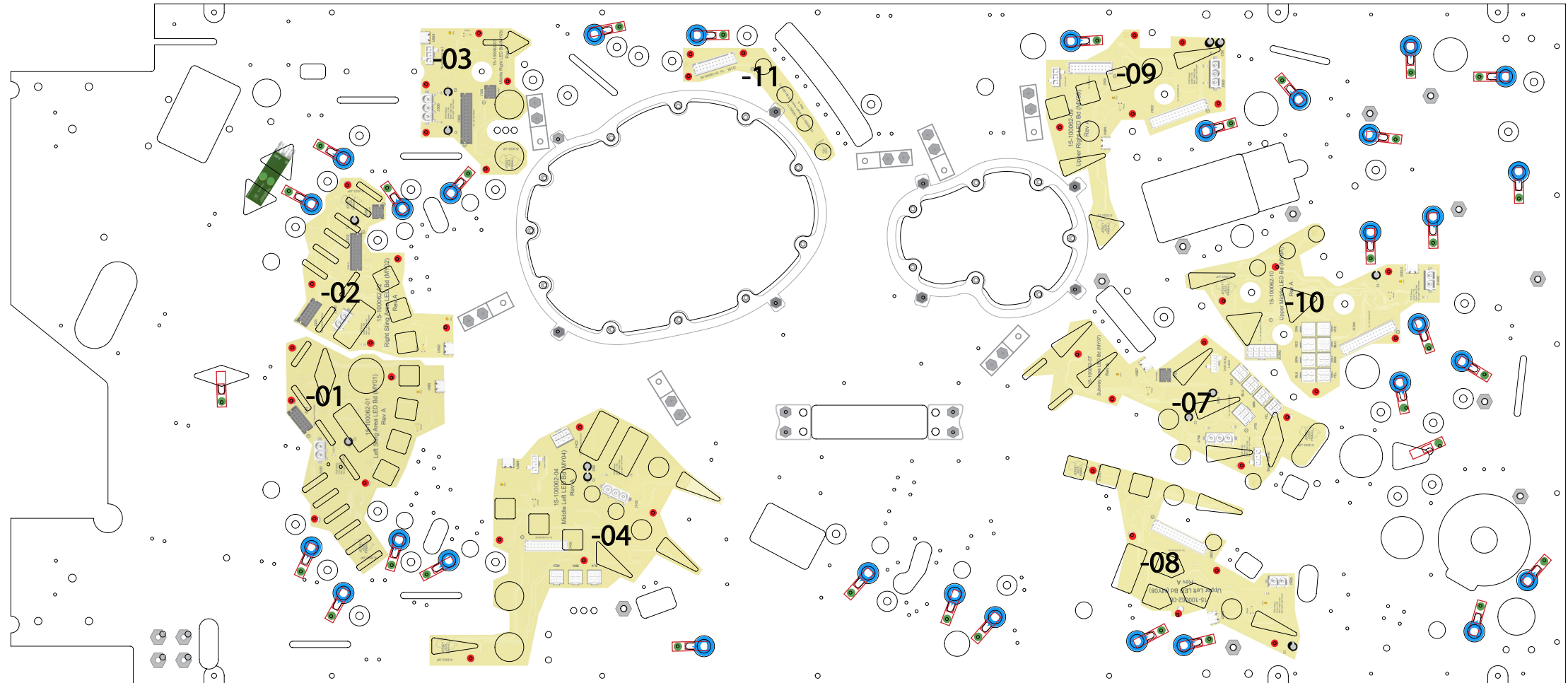


## OPTO MAP BOTTOMS





## LED BOARD LOCATION



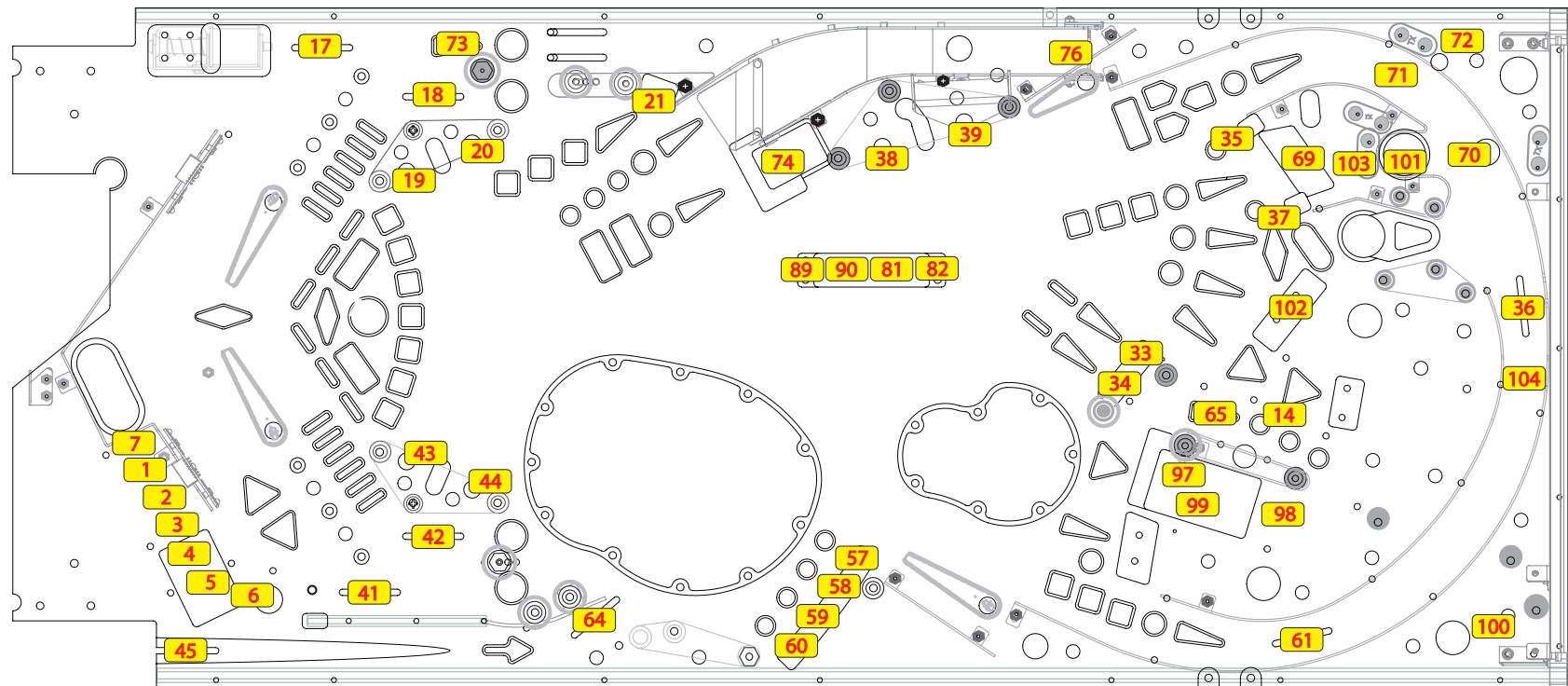
Board	Part Number
<a href="#">15-100062-01</a>	Left Sling Area
<a href="#">15-100062-02</a>	Right Sling Area
<a href="#">15-100062-03</a>	Middle Right
<a href="#">15-100062-04</a>	Middle Left
<a href="#">15-100062-05</a>	Lower Sub Playfield

Board	Part Number
<a href="#">15-100062-06</a>	Lower Sub Ext
<a href="#">15-100062-07</a>	SubWay Area
<a href="#">15-100062-08</a>	Upper Left
<a href="#">15-100062-09</a>	Upper Right
<a href="#">15-100062-10</a>	Upper Middle

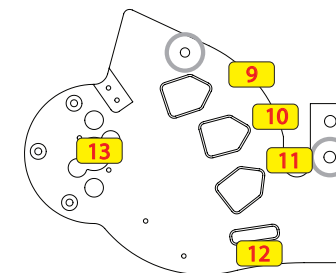
Board	Part Number
<a href="#">15-100062-11</a>	Target Area
<a href="#">15-100062-12</a>	Upper Sub Playfield

See individual boards in schematic section for connector pinout, starting on page [123](#)

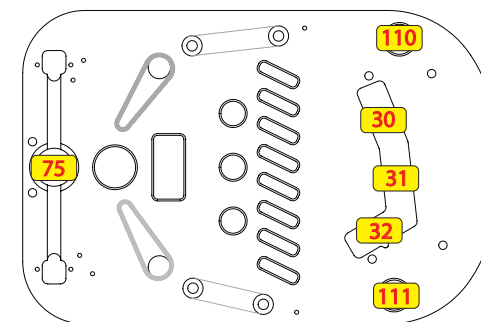
## SWITCH MAP



## REAR LOWER PLAYFIELD

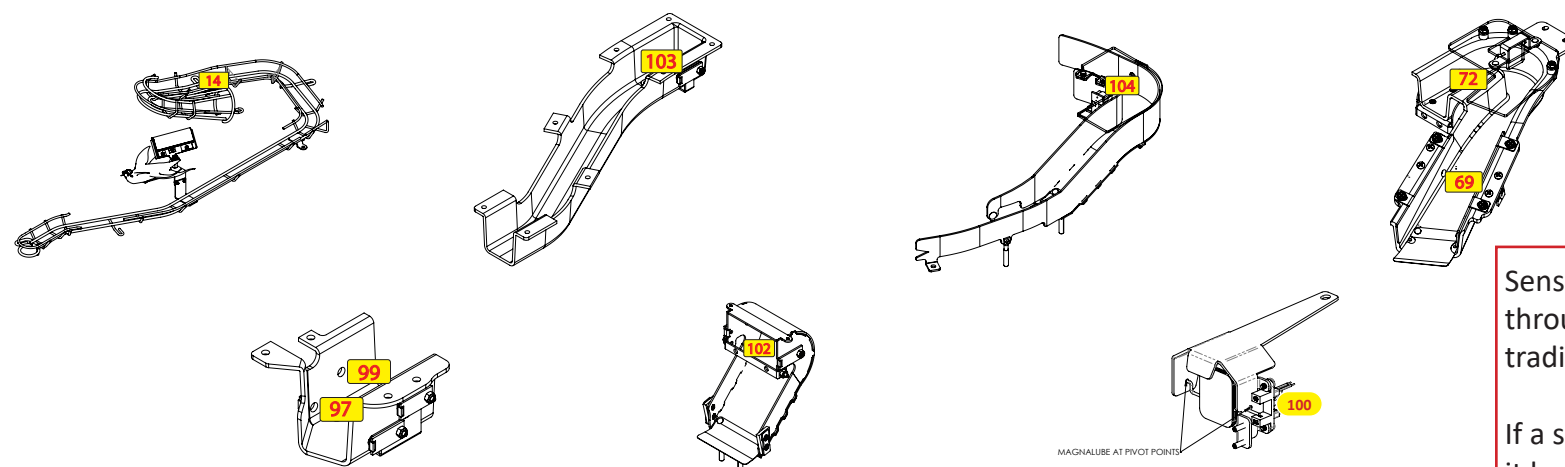


## FRONT LOWER PLAYFIELD



## SENSOR LOCATION

Switch	Location
65	Board 10
73	Board 04
110 & 111	Board 05

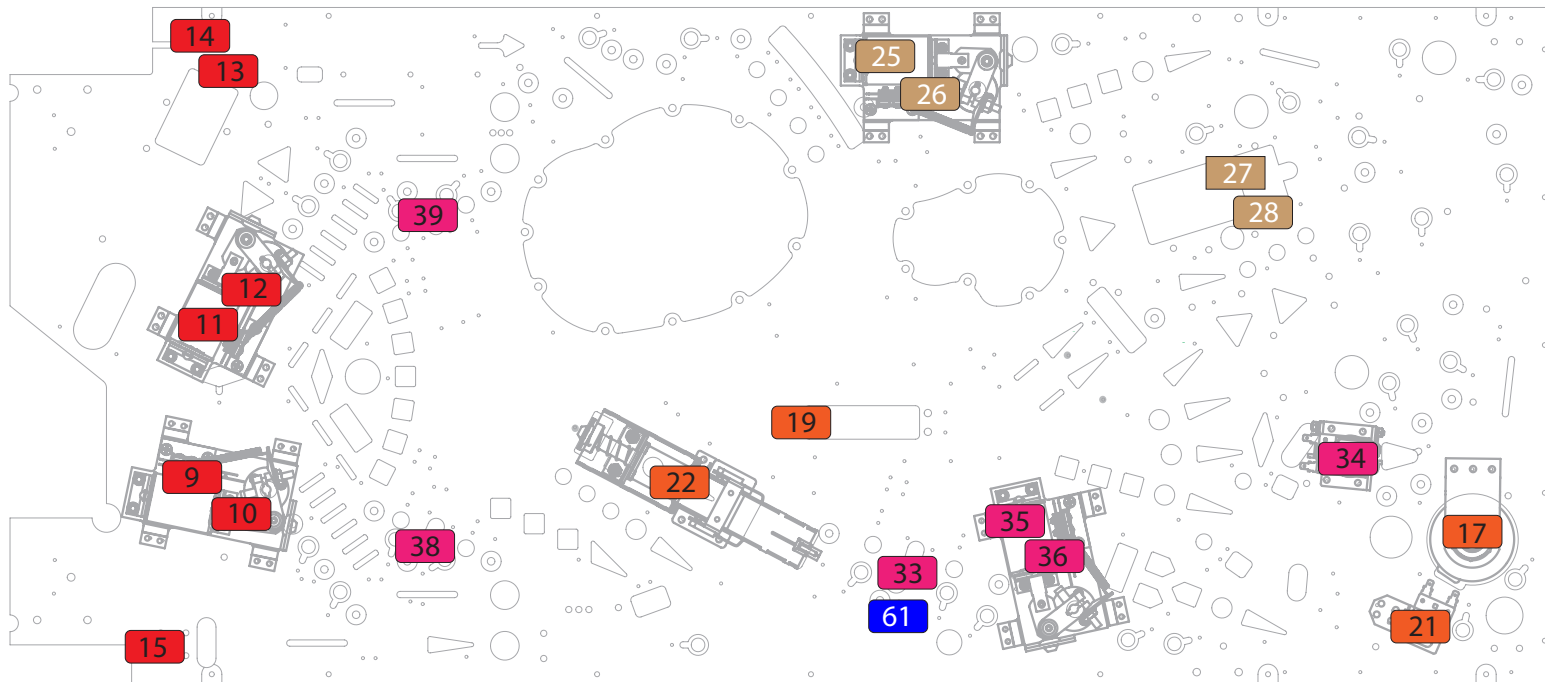


Sensors are mounted directly on the LED board and read the ball through the light lens directly above it. They work just like a traditional OPTO pair with a transmitter and receiver.

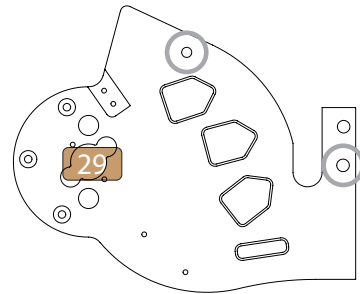
If a sensor stops working, clean the sensor and the light lens that it looks through with rubbing alcohol and a Q-Tip, anything blocking the sensor will not allow it to work.



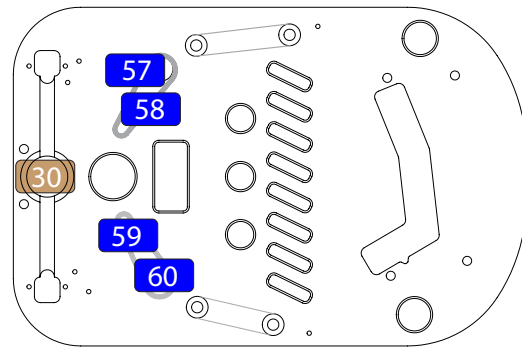
## COIL MAP



## REAR LOWER PLAYFIELD



## FRONT LOWER PLAYFIELD



70V Power F705	Drive 9		Drive 10		Drive 11		Drive 12		Drive 13		Drive 14		Drive 15		Drive 16	
	J105-10, Q318		J105-8, Q317		J105-7, Q316		J105-6, Q315		J105-5, Q314		J105-4, Q313		J105-3, Q312		J105-2, Q311	
	RED	BLK	RED	BRN	RED	GRY	RED	ORN	RED	YEL	RED	GRN	RED	BLU	RED	VIO
J105-1 RED	Left Flipper Power		Left Flipper Hold		Right Flipper Power		Right Flipper Hold		Trough VUK		Auto Launch		Kickback			

70V Power F706	Drive 17		Drive 18		Drive 19		Drive 20		Drive 21		Drive 22		Drive 23		Drive 24	
	J106-10, Q328		J106-9, Q327		J106-7, Q326		J106-6, Q325		J106-5, Q324		J106-4, Q323		J106-3, Q322		J106-2, Q321	
	ORN	BLK	ORN	BRN	ORN	RED	ORN	GRY	ORN	YEL	ORN	GRN	ORN	BLU	ORN	VIO
J106-1 ORN	Orbit Magnet				Subway Lock Release				Ramp Post		Scoop					

70V Power	Drive 25		Drive 26		Drive 27		Drive 28		Drive 29		Drive 30		Drive 31		Drive 32	
	J107-10, Q338		J107-9, Q337		J107-8, Q336		J107-6, Q335		J107-5, Q334		J107-4, Q333		J107-3, Q332		J107-2, Q331	
	TAN	BLK	TAN	BRN	TAN	RED	TAN	ORN	TAN	YEL	TAN	GRN	TAN	BLU	TAN	VIO
J107-1	Upper Right Flipper Power		Upper Right Flipper Hold		Pop Up Scoop Power		Pop Up Scoop Hold		Jet Bumper		Lower Playfield Ball Launch					
TAN																

70V Power	Drive 33		Drive 34		Drive 35		Drive 36		Drive 37		Drive 38		Drive 39		Drive 40	
	J108-10, Q408		J108-9, Q407		J108-8, Q406		J108-7, Q405		J108-5, Q404		J108-4, Q403		J108-3, Q402		J108-2, Q401	
	PNK	BLK	PNK	BRN	PNK	RED	PNK	ORN	PNK	YEL	PNK	GRN	PNK	BLU	PNK	VIO
J108-1	Top Left Slingshot		VUK		Upper Left Flipper Power		Upper Left Flipper Hold				Right Slingshot		Left Slingshot			
PNK																

20V Power F711	Drive 57		Drive 58		Drive 59		Drive 60		Drive 61		Drive 62		Drive 63		Drive 64	
	J111-2, Q431		J111-4, Q432		J111-5, Q433		J111-6, Q434		J111-7, Q435		J111-8, Q436		J111-9, Q437		J111-10, Q438	
	BLU	BLK	BLU	BRN	BLU	GRY	BLU	ORN	BLU	YEL	BLU	GRN	BLU	GRY	BLU	VIO
J111-1 BLU	Lower Level Left Flipper Power		Lower Level Left Flipper Hold		Lower Level Right Flipper Power		Lower Level Right Flipper Hold		Amp Suit							



# ELECTRONICS

## PCB'S

### SCHEMATICS

### WIRING

### TABLES



**WARNING**

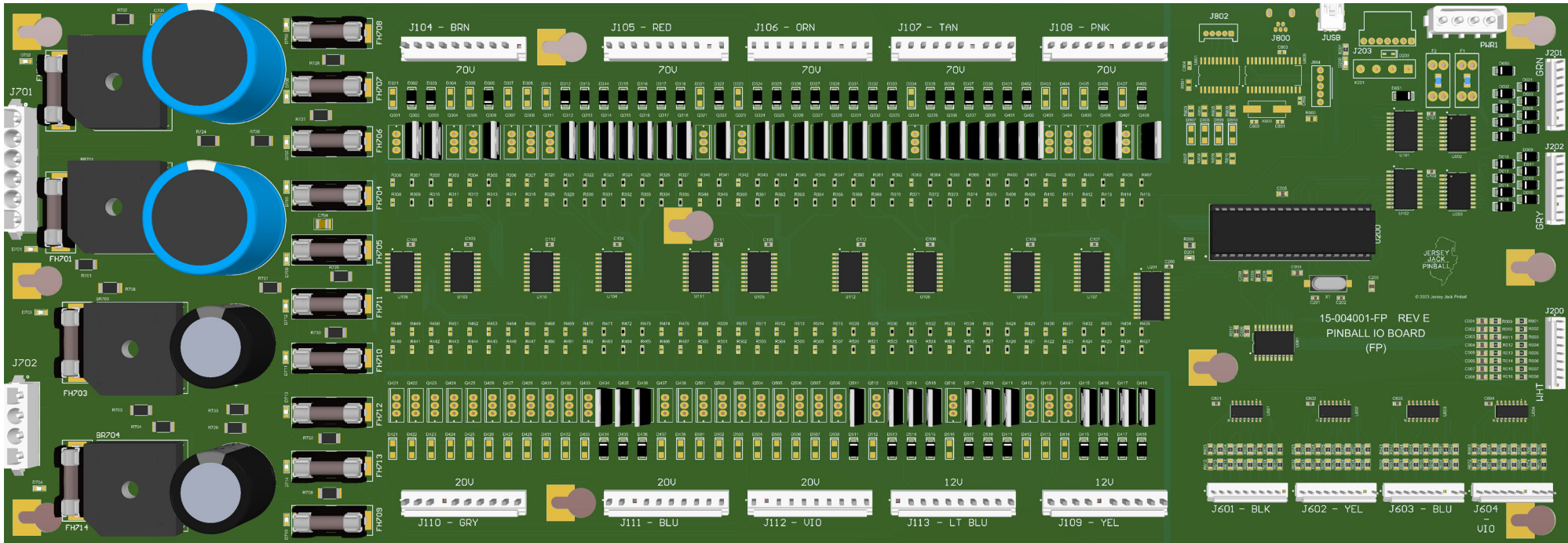
**ELECTRIC SHOCK HAZARD.**  
this equipment is to be serviced  
by trained personnel only.



**WARNING**

**PINCH POINT HAZARD.**  
this equipment is to be serviced  
by trained personnel only.

IO BOARD 15-004001-10



J104 70 Volt Coil Drives (1 - 8)

PIN		
1	BROWN	+ 70 VDC Supply to Coils Below
2	BRN-VIO	Not Used
3	BRN-BLU	Knocker
4	BRN-GRN	Not Used
5	BRN-YEL	Not Used
6	BRN-ORN	Not Used
7	BRN-RED	Not Used
8	BRN-GRY	Not Used
9	BRN-BLK	Not Used
10	KEY	

J105 70 Volt Coil Drives (9 - 16)

PIN		
1	RED	+ 70 VDC Supply to Coils Below
2	RED-VIO	Not Used
3	RED-BLU	Kickback
4	RED-GRN	Auto Launch
5	RED-YEL	Trough VUK
6	RED-ORN	Right Flipper Hold
7	RED-GRY	Right Flipper Power
8	RED-BRN	Left Flipper Hold
9	KEY	
10	RED-BLK	Left Flipper Power

J106 70 Volt Coil Drives (17 - 24)

PIN		
1	ORANGE	+ 70 VDC Supply to Coils Below
2	ORN-VIO	Not Used
3	ORN-BLU	Not Used
4	ORN-GRN	Scoop
5	ORN-YEL	Ramp Post
6	ORN-GRY	Not Used
7	ORN-RED	Subway Lock Release
8	KEY	
9	ORN-BRN	Not Used
10	ORN-BLK	Orbit Magnet



IO BOARD 15-004001-10

### J107 70 Volt Coil Drives (25 - 32)

PIN		
1	TAN	+ 70 VDC Supply to Coils Below
2	TAN-VIO	Not Used
3	TAN-BLU	Not Used
4	TAN-GRN	Lower Plyfld Ball Launch
5	TAN-YEL	Jet Bumper
6	TAN-ORN	Pop Up Scoop Hold
7	KEY	
8	TAN-RED	Pop Up Scoop Power
9	TAN-BRN	Upper Right Flipper Hold
10	TAN-BLK	Upper Right Flipper Power

### J108 70 Volt Coil Drives (33 - 40)

PIN		
1	PINK	+ 70 VDC Supply to Coils Below
2	PNK-VIO	Not Used
3	PNK-BLU	Left Slingshot
4	PNK-GRN	Right Slingshot
5	PNK-YEL	Not Used
6	KEY	
7	PNK-ORN	Upper Left Flipper Hold
8	PNK-RED	Upper Left Flipper Power
9	PNK-BRN	VUK
10	PNK-BLK	Top Left Slingshot

### J109 12 Volt Coil Drives (41 - 48)

PIN		
1	YELLOW	+ 12 VDC Supply to Coils Below
2	YEL-BLK	Lower Right UV Spotlight
3	YEL-BRN	Upper Right UV Spotlight
4	YEL-RED	Upper Left UV Spotlight
5	KEY	
6	YEL-ORN	Lower Left UV Spotlight
7	YEL-GRY	Apron UV Spotlight
8	YEL-GRN	Not Used
9	YEL-BLU	Not Used
10	YEL-VIO	Not Used

### J110 20 Volt Coil Drives (49 - 56)

PIN		
1	GRAY	+ 20 VDC Supply to Coils Below
2	GRY-BLK	Not Used
3	GRY-BRN	Not Used
4	KEY	
5	GRY-RED	Not Used
6	GRY-ORN	Not Used
7	GRY-YEL	Not Used
8	GRY-GRN	Not Used
9	GRY-GRY	Not Used
10	GRY-VIO	Not Used

### J111 20 Volt Coil Drives (57 - 64)

PIN		
1	BLUE	+ 20 VDC Supply to Coils Below
2	BLU-BLK	Lower Level Left Flipper Power
3	KEY	
4	BLU-BRN	Lower Level Left Flipper Hold
5	BLU-RED	Lower Level Right Flipper Power
6	BLU-ORN	Lower Level Right Flipper Hold
7	BLU-YEL	Amp Suit
8	BLU-GRN	Not Used
9	BLU-GRY	Not Used
10	BLU-VIO	Not Used

### J112 20 Volt Coil Drives (65 - 72)

PIN		
1	VIOLET	+ 20 VDC Supply to Coils Below
2	KEY	
3	VIO-BLK	Not Used
4	VIO-BRN	Not Used
5	VIO-RED	Not Used
6	VIO-ORN	Not Used
7	VIO-YEL	Not Used
8	VIO-GRN	Not Used
9	VIO-BLU	Not Used
10	VIO-GRY	Not Used

### J113 12 Volt Coil Drives (73 - 80)

PIN		
1	KEY	
2	LIGHT BLUE	+ 12 VDC Supply to Coils Below
3	LT BLU-BLK	Shaker
4	LT BLU-BRN	Not Used
5	LT BLU-RED	Ticket Mech Motor Drive
6	LT BLU-ORN	Not Used
7	LT BLU-YEL	Not Used
8	LT BLU-GRN	Not Used
9	LT BLU-GRY	Start Button Light
10	LT BLU-VIO	Flash Bulb Topper

### J200 Matrix Switch Rows

PIN		
1	WHT-BLK	Row 1 to Playfield Switches
2	WHT-BRN	Row 2 to Playfield Switches
3	WHT-RED	Row 3 to Playfield Switches
4	WHT-ORN	Row 4 to Playfield Switches
5	WHT-YEL	Row 5 to Playfield Switches
6	WHT-GRN	Row 6 to Playfield Switches
7	WHT-BLU	Row 7 to Playfield Switches
8	WHT-VIO	Row 8 to Playfield Switches
9	KEY	

### J201 Matrix Switch Columns (1 - 8)

PIN		
1	GRN-BLK	Column 1 to Playfield Switches
2	GRN-BRN	Column 2 to Playfield Switches
3	GRN-RED	Column 3 to Playfield Switches
4	GRN-ORN	Column 4 to Playfield Switches
5	GRN-YEL	Column 5 to Playfield Switches
6	GRN-GRY	Column 6 to Playfield Switches
7	GRN-BLU	Column 7 to Playfield Switches
8	KEY	
9	GRN-VIO	Column 8 to Playfield Switches

[Back to TOC](#)

J202 Matrix Switch Columns (9 - 16)

PIN		
1	GRY-BLK	Not Used
2	GRY-BRN	Column 10 to Playfield Switches
3	GRY-RED	Not Used
4	GRY-ORN	Not Used
5	GRY-YEL	Column 13 to Playfield Switches
6	GRY-GRN	Column 14 to Playfield Switches
7	KEY	
8	GRY-BLU	Not Used
9	GRY-VIO	Not Used

J203 Serial Communications

PIN	
1	Not Used
2	Not Used
3	Not Used
4	Not Used
5	Not Used
6	Not Used
7	Not Used

J601 Dedicated Switches (1 - 8)

PIN		
1	BLACK	Dedicated Switch Common
2	BLK-YEL	Not Used
3	BLK-GRN	Not Used
4	BLK-ORN	Upper Playfield Flipper EOS
5	BLK-RED	Upper Right Flipper EOS
6	BLK-BRN	Right Flipper EOS
7	BLK-GRY	Left Flipper EOS
8	BLK-BLU	Not Used
9	BLK-VIO	Not Used
10	KEY	

J602 Dedicated Switches (6 - 16)

PIN		
1	BLACK	Dedicated Switch Common
2	YEL-GRY	Enter / Menue Button
3	YEL-GRN	Up / Volume Button
4	YEL-ORN	Right Flipper Switch Upper
5	YEL-RED	Right Flipper Switch Lower
6	YEL-BRN	Not Used
7	YEL-BLK	Left Flipper Switch Lower
8	YEL-BLU	Down / Volume Button
9	KEY	
10	YEL-VIO	Escape / Service Credit Button

J603 Dedicated Switches (17 - 24)

PIN		
1	BLACK	Dedicated Switch Common
2	BLU-YEL	5th Coin Slot Switch
3	BLU-GRN	Ticket Mech Notch Switch
4	BLU-ORN	4th Coin Slot Switch
5	BLU-RED	Center Dollar Bill Acceptor
6	BLU-BRN	Right Coin Switch
7	BLU-BLK	Left Coin Switch
8	KEY	
9	BLU-GRY	Not Used
10	BLU-VIO	Not Used

J604 Dedicated Switches (25 - 32)

PIN		
1	BLACK	Dedicated Switch Common
2	VIO-YEL	Action Button
3	VIO-GRN	Headphone Panel Volume Up
4	VIO-ORN	Bluetooth
5	VIO-RED	Plumb Bob Tilt
6	VIO-BRN	Coin Door Open Switch
7	KEY	
8	VIO-BLK	Start Button
9	VIO-BLU	Headphone Panel Volume Up
10	VIO-GRY	Headphone Panel Jack Sense

J701 AC Power Input High

PIN		
1	RED	50 VAC From Transformer
2	RED	50 VAC From Transformer
3	BLUE	50 VAC From Transformer
4	BLUE	50 VAC From Transformer
5	GREEN	Chassis Ground
6	GREEN	Chassis Ground

J702 AC Power Input Low

PIN		
1	YELLOW	24 VAC From Transformer
2	YELLOW	24 VAC From Transformer
3	GRAY	12 VAC From Transformer
4	GRAY	12 VAC From Transformer

J800 CPU Communication

Not Used / Unpopulated

J802 RGB LED Control

Not Used / Unpopulated

J804 Flash Programing Access

Not Used / Unpopulated

JUSB CPU Communications

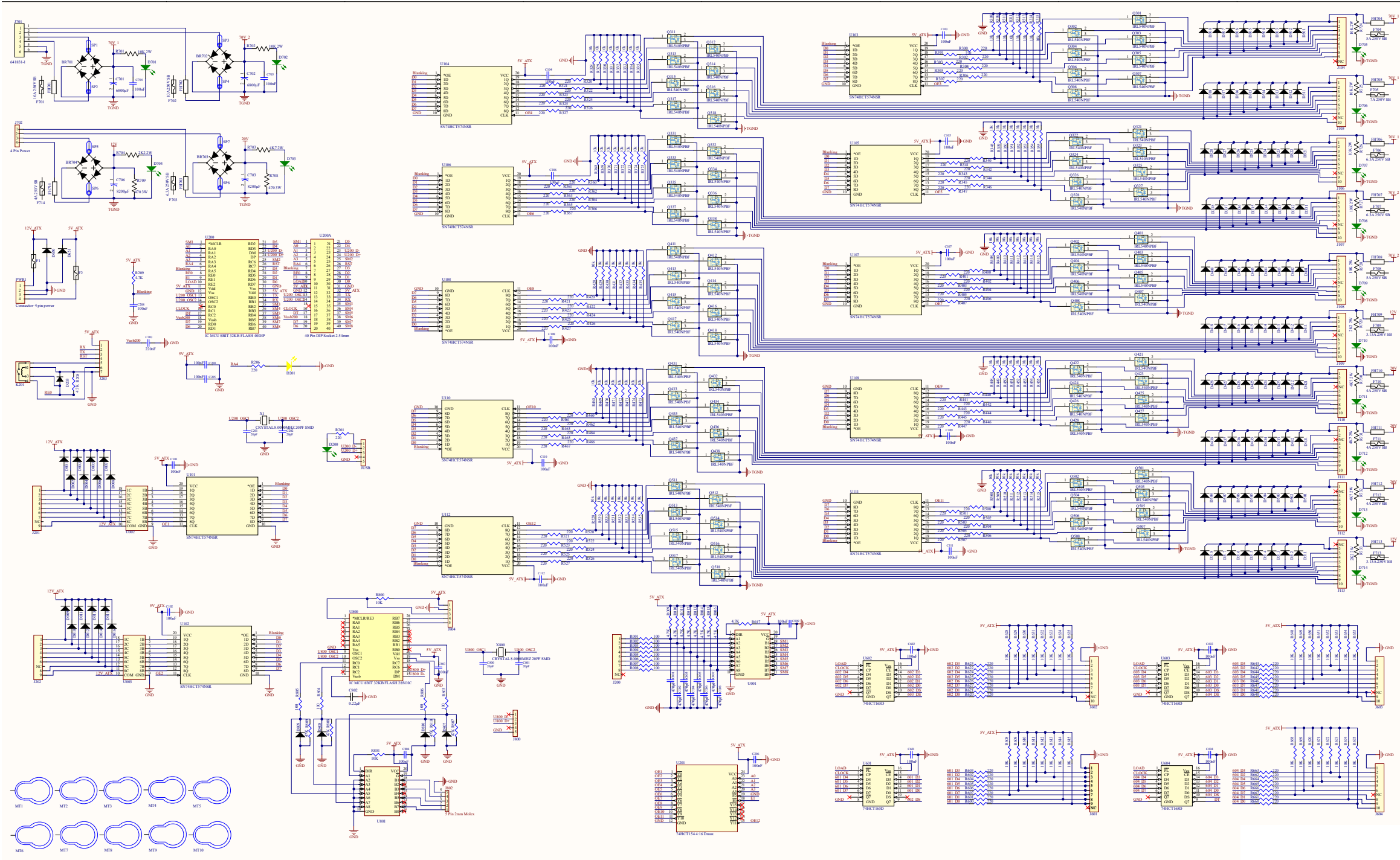
Connect to USB on computer

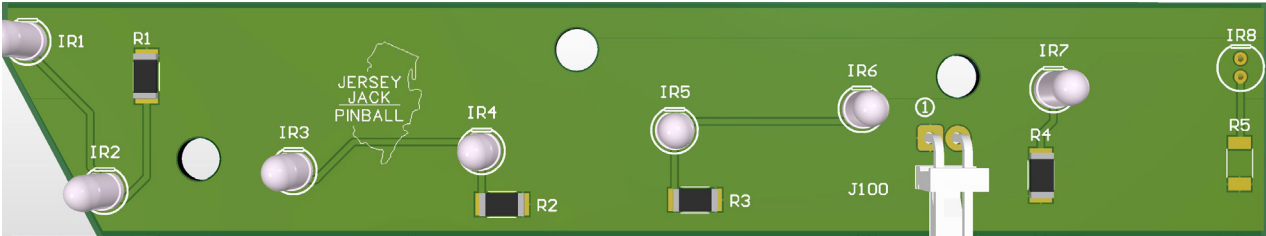
PWR1 DC Power Input

PIN		
1	YELLOW	+12 VDC From ATX Power Supply
2	BLACK	Ground From ATX Power Supply
3	BLACK	Ground From ATX Power Supply
4	RED	+5 VDC From ATX Power Supply



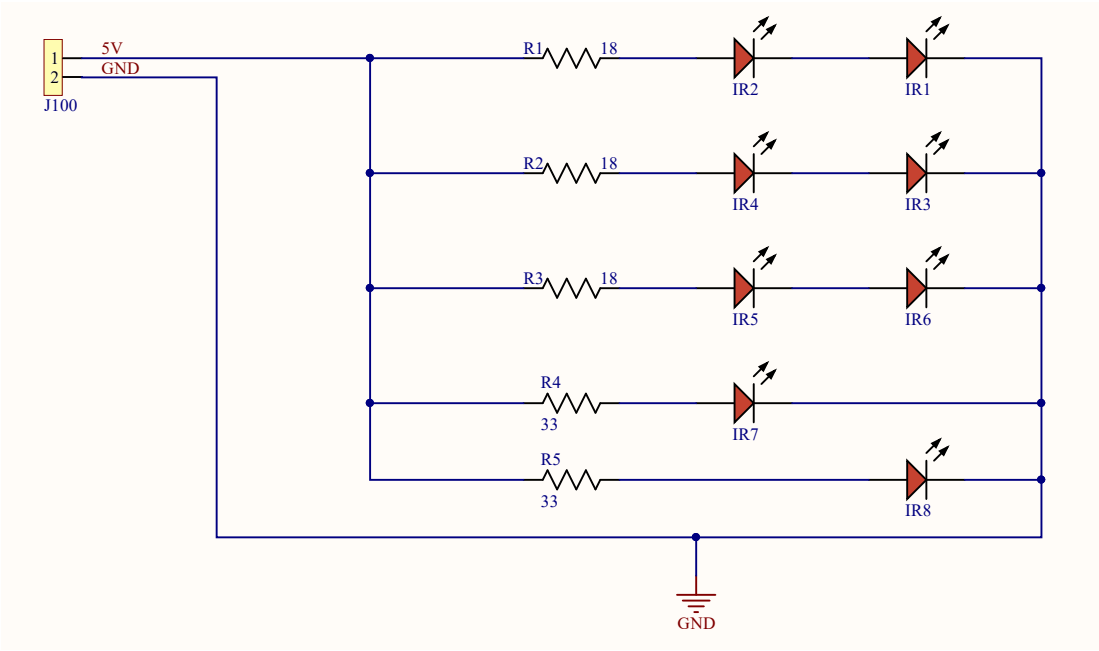
IO BOARD 15-004001-10
-----------------------



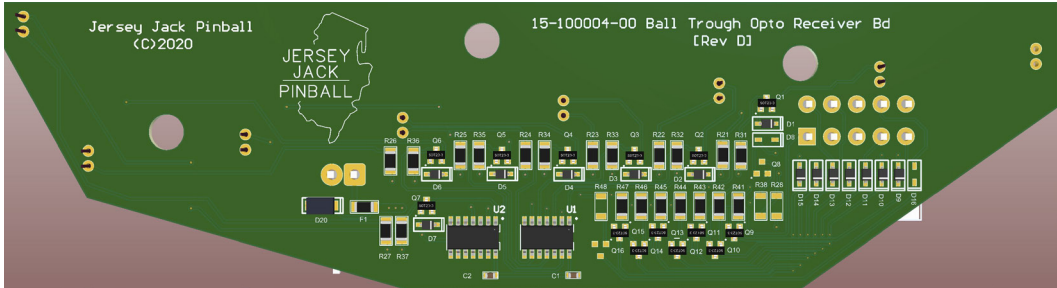


**J100 Power Input**

- Pin
- 1 Black Ground from ATX Power Supply
  - 2 Red +5VDC from ATX Power Supply



TROUGH RX PCB  
15-100004-00



### J1 Switch Inputs

Pin

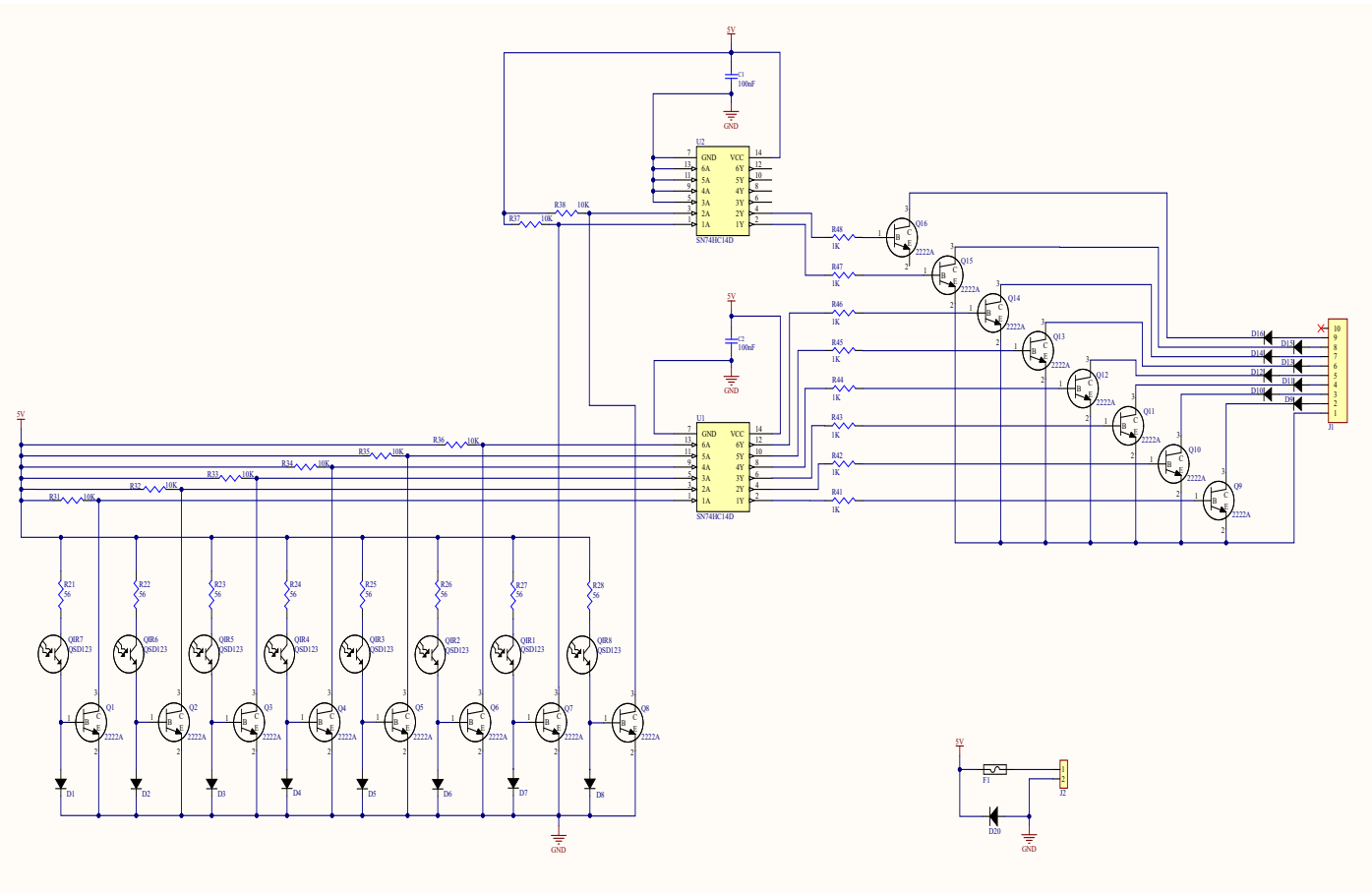
- 1 Black / Green
- 2 White / Blue
- 3 White / Black
- 4 White / Brown
- 5 White / Red
- 6 White / Orange
- 7 White / Yellow
- 8 White / Green
- 9 White / Violet
- 10 Key

Column 1 From I/O Board J201-1  
Row 7 from I/O Board J200-7  
Row 1 from I/O Board J200-1  
Row 2 from I/O Board J200-2  
Row 3 from I/O Board J200-3  
Row 4 from I/O Board J200-4  
Row 5 from I/O Board J200-5  
Row 6 from I/O Board J200-6  
Row 8 from I/O Board J200-8

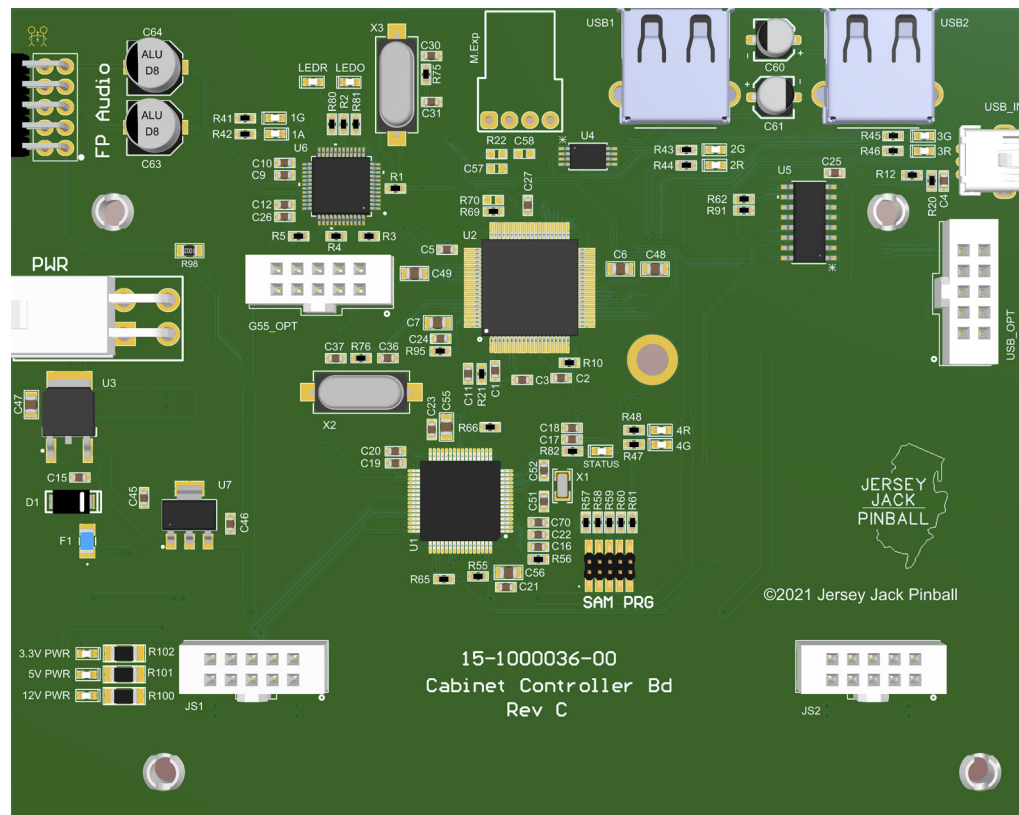
### J2 Power Input

Pin

- 1 Black Ground from ATX Power Supply
- 2 Red +5VDC from ATX Power Supply



CABINET CONTROLLER PCB  
15-100036-00



### PWR Input

Pin

- |   |        |                              |
|---|--------|------------------------------|
| 1 | Yellow | +12VDC from ATX Power Supply |
| 2 | Black  | Ground from ATX Power Supply |
| 3 | Black  | Ground from ATX Power Supply |
| 4 | N/C    | No Connection                |

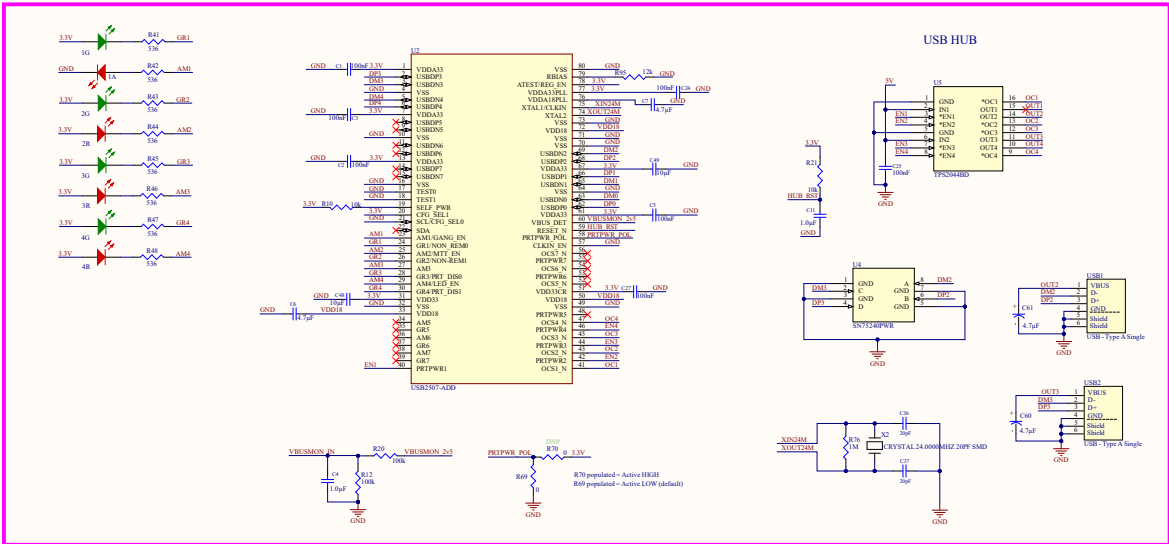
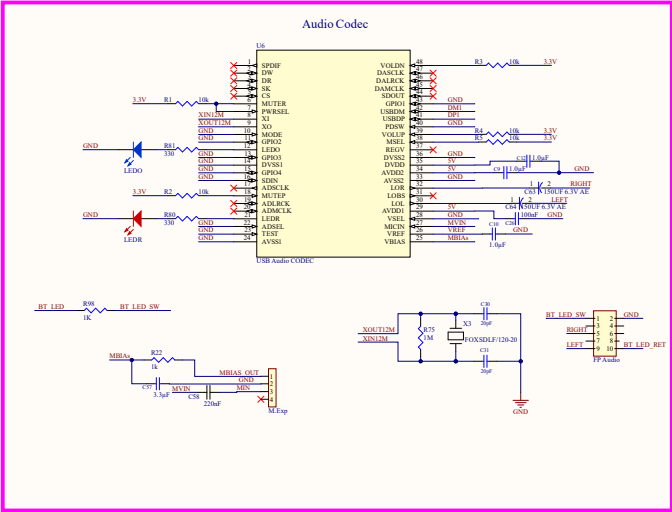
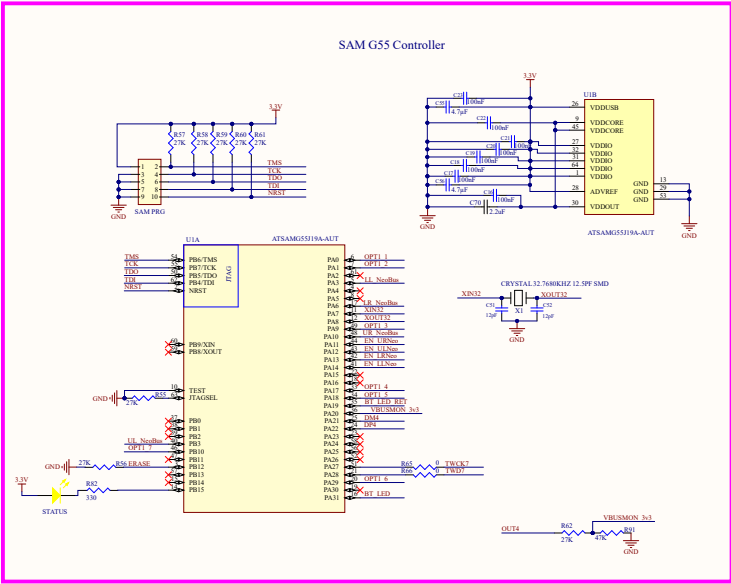
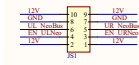
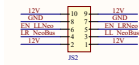
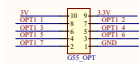
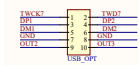
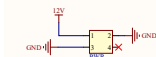
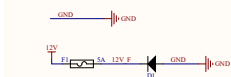
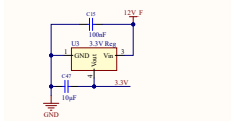
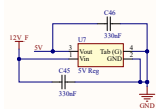
## USB IN

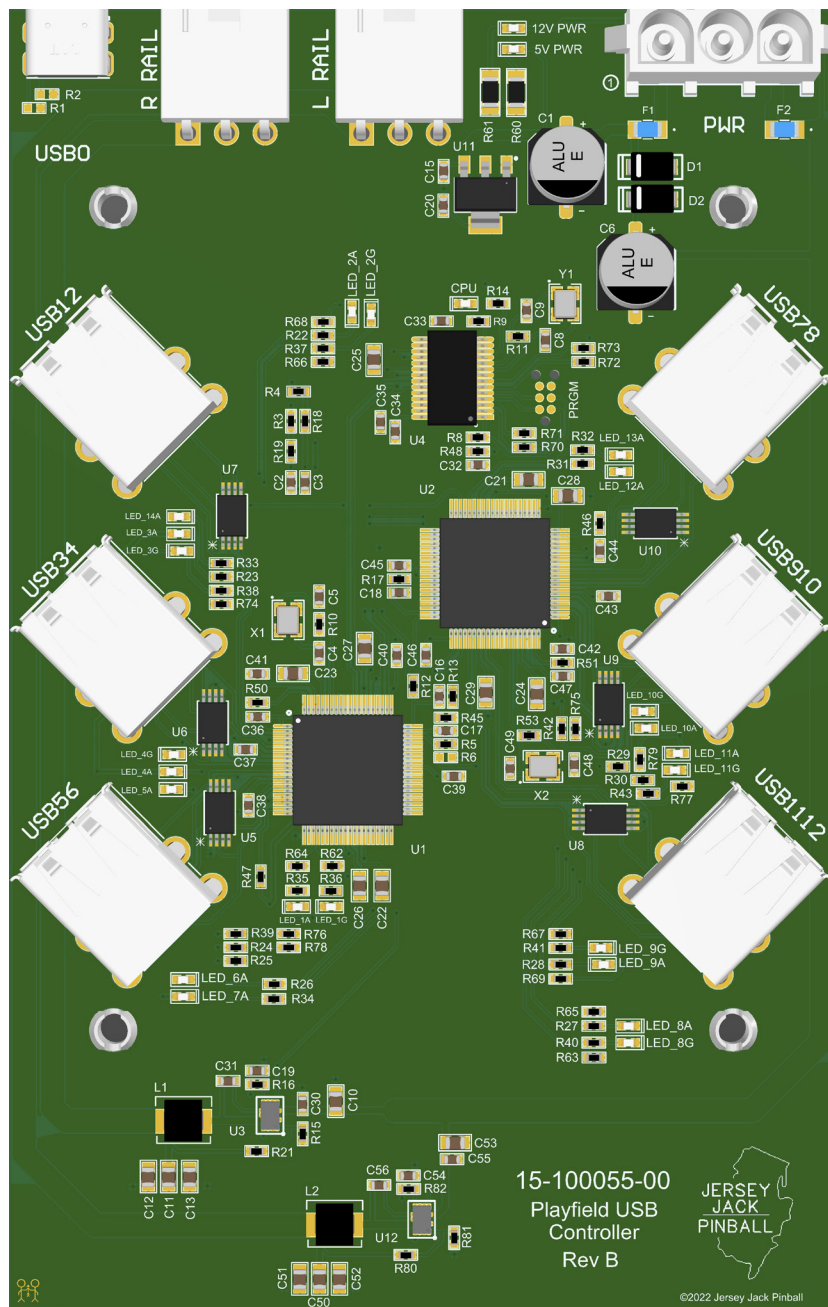
Connect to an open USB on computer

## USB 1 & 2

### Available USB ports for dongles and updates

CABINET CONTROLLER PCB  
15-100036-00





## PLAYFIELD USB CONTROLLER PCB

### 15-100055-00

#### PWR

Pin

- 1 Red +5VDC from ATX Power Supply
- 2 Black Ground from ATX Power Supply
- 3 Yellow +12VDC from ATX Power Supply

#### R Rail - Right Hotrail

Pin

- 1 Red +5VDC from ATX Power Supply
- 2 Green NEO
- 3 White Ground from ATX Power Supply

#### L Rail - Left Hotrail

Pin

- 1 Red +5VDC from ATX Power Supply
- 2 Green NEO
- 3 White Ground from ATX Power Supply

#### USB 0

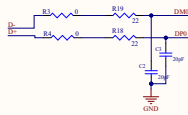
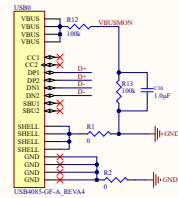
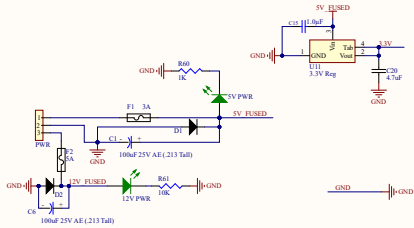
Connect to open USB on computer

#### USB 1 -12

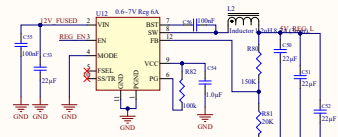
Connect each LED Board to 1 of the USB connectors, makes no difference which one.



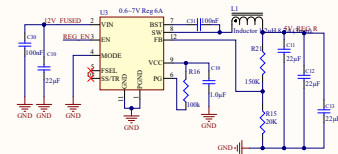
# PLAYFIELD USB CONTROLLER PCB 15-100055-00



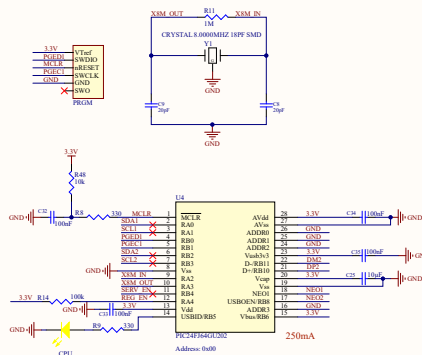
## 12V -> 5V REG 6A



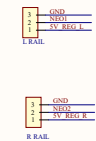
## 12V -> 5V REG 6A



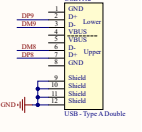
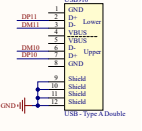
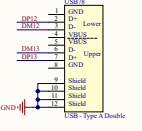
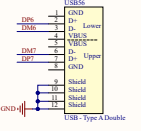
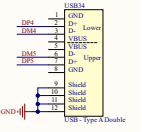
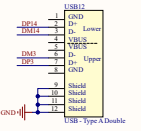
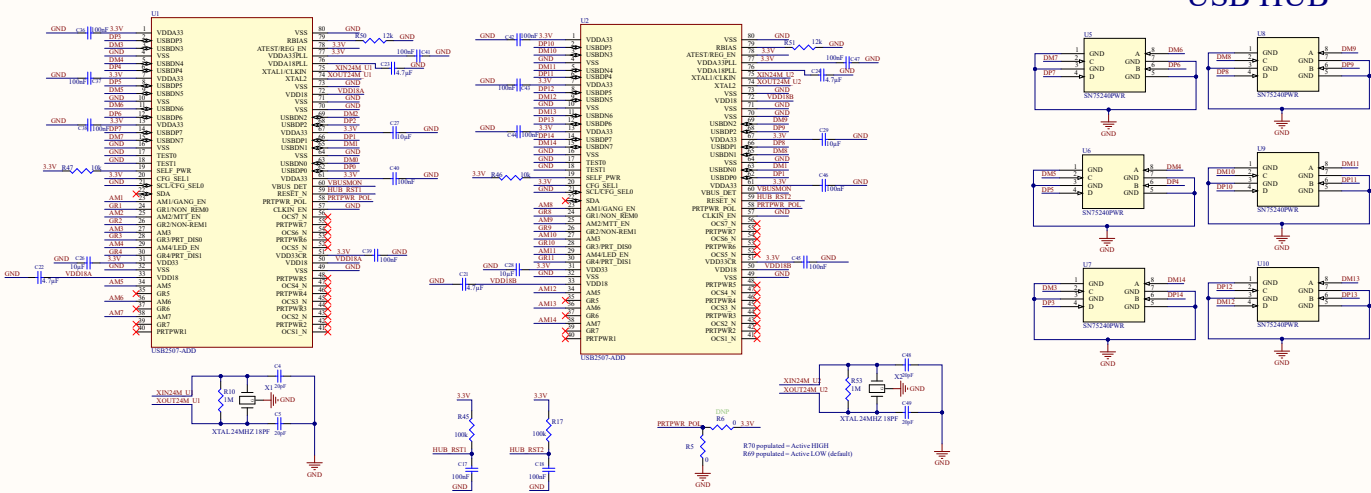
## NODE 0



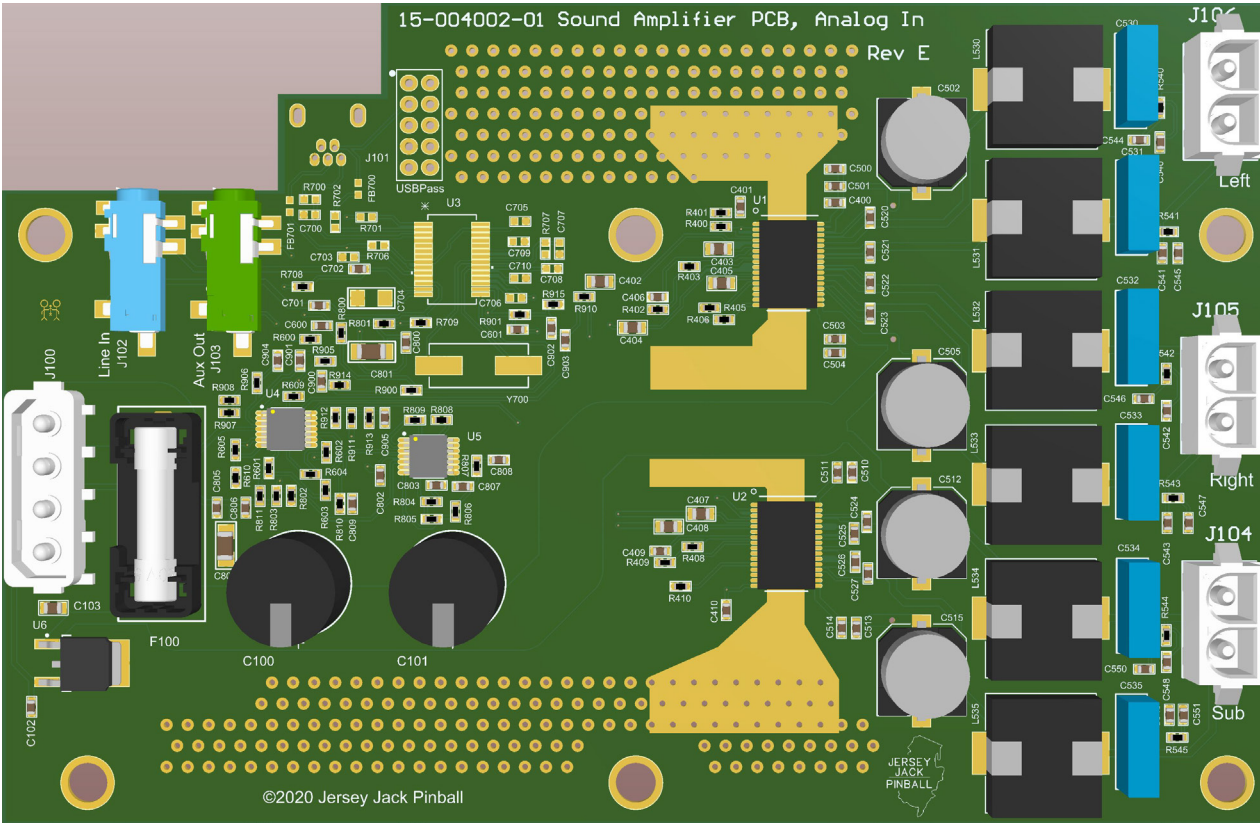
## NEO



## USB HUB



AMPLIFIER PCB  
15-004002-01



J100 Power Input

Pin

- 1 Yellow +12VDC from ATX Power Supply
- 2 N/C No Connection
- 3 Black Ground from ATX Power Supply
- 4 N/C No Connection

J102 Line In

Black connector from Computer Audio Output

J103 Aux Output

No Connection

J104 Sub Output

Pin

- 1 Black Sub -
- 2 Red Sub +

J105 Right Channel Output

Pin

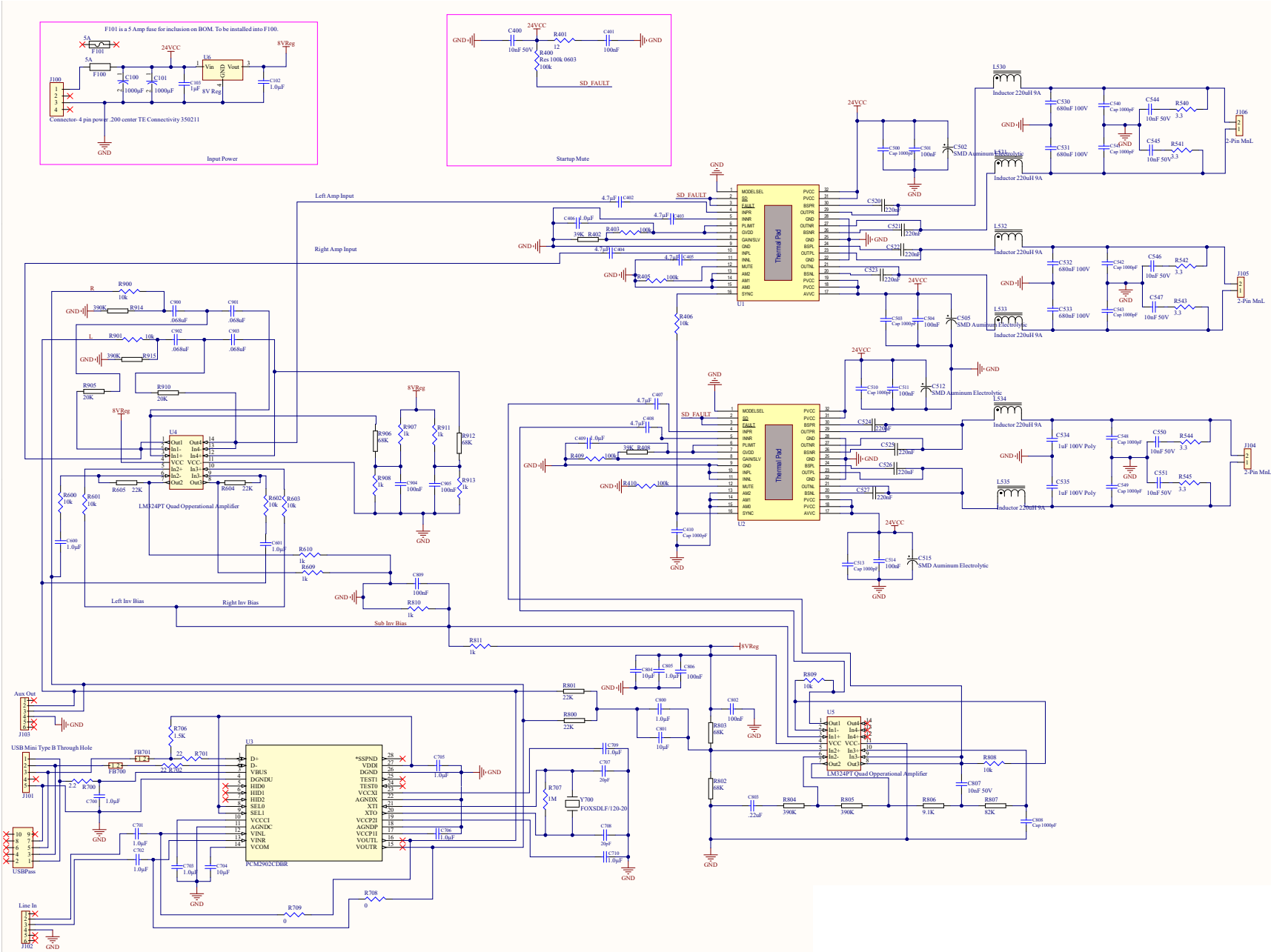
- 1 Black Right -
- 2 Black Right +

J106 Left Channel Output

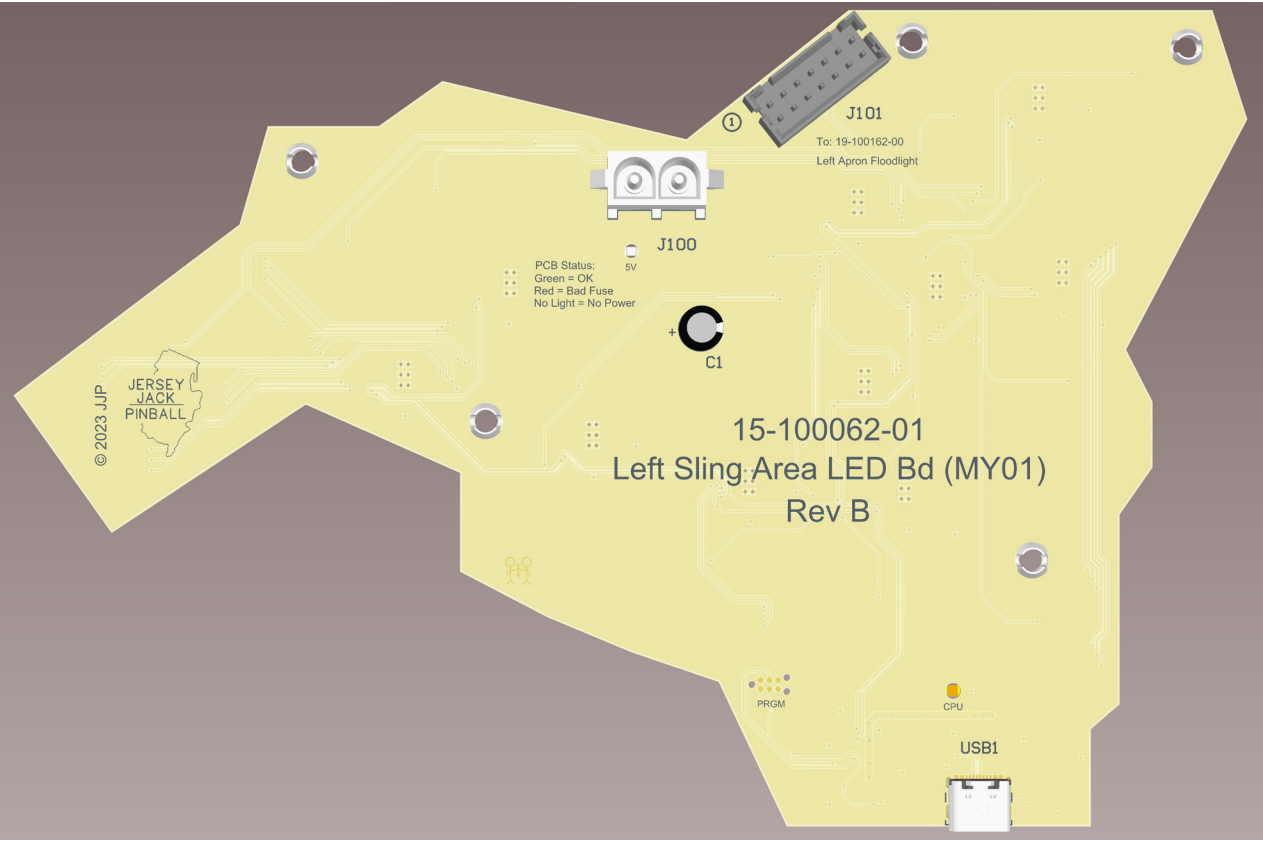
Pin

- 1 Red Left -
- 2 Red Left +

AMPLIFIER PCB  
15-004002-01



LEFT SLING AREA LED PCB  
15-100062-01



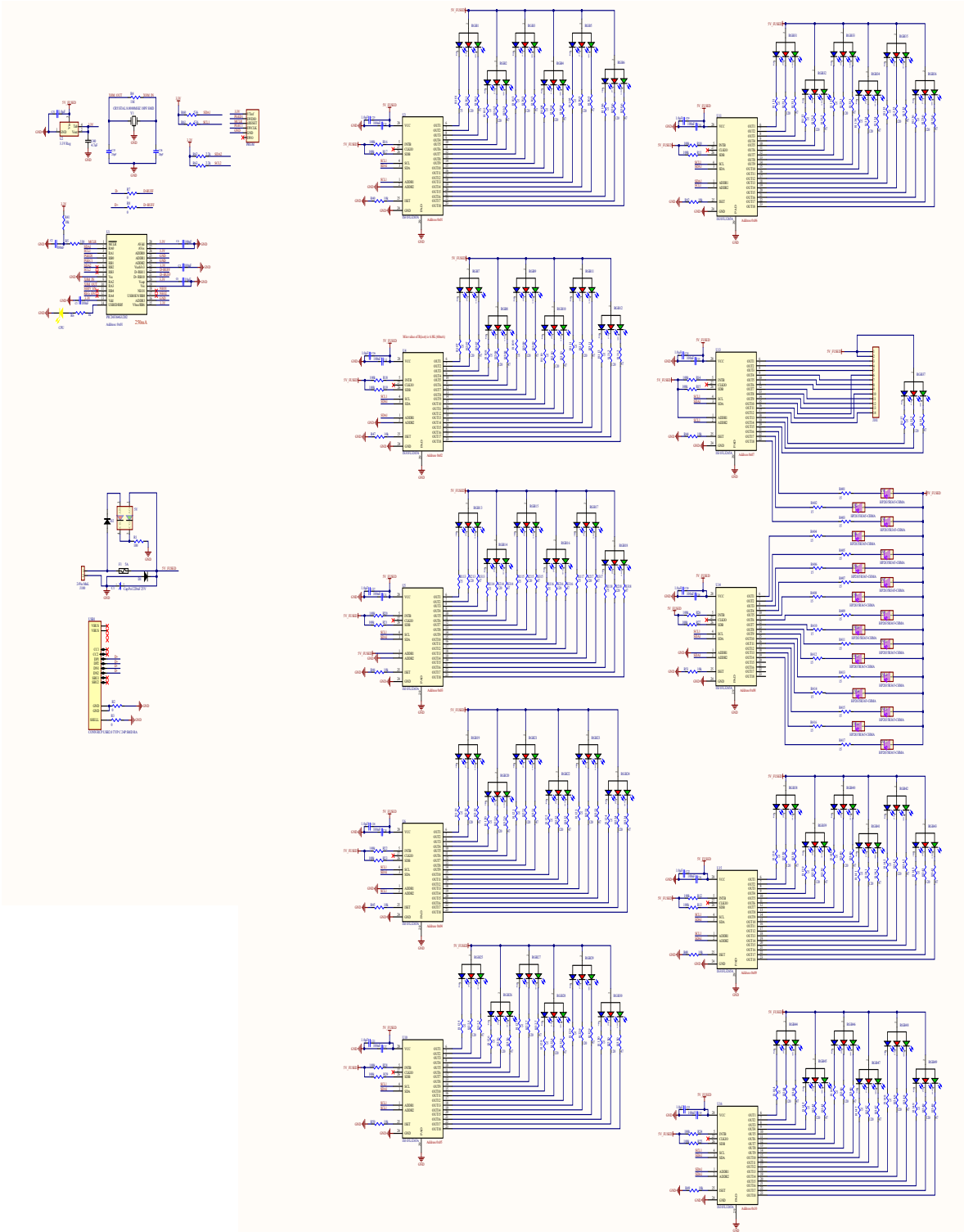
- J100 Power Input
- Pin
- 1

Red

+5VDC from ATX Power Supply
- 2

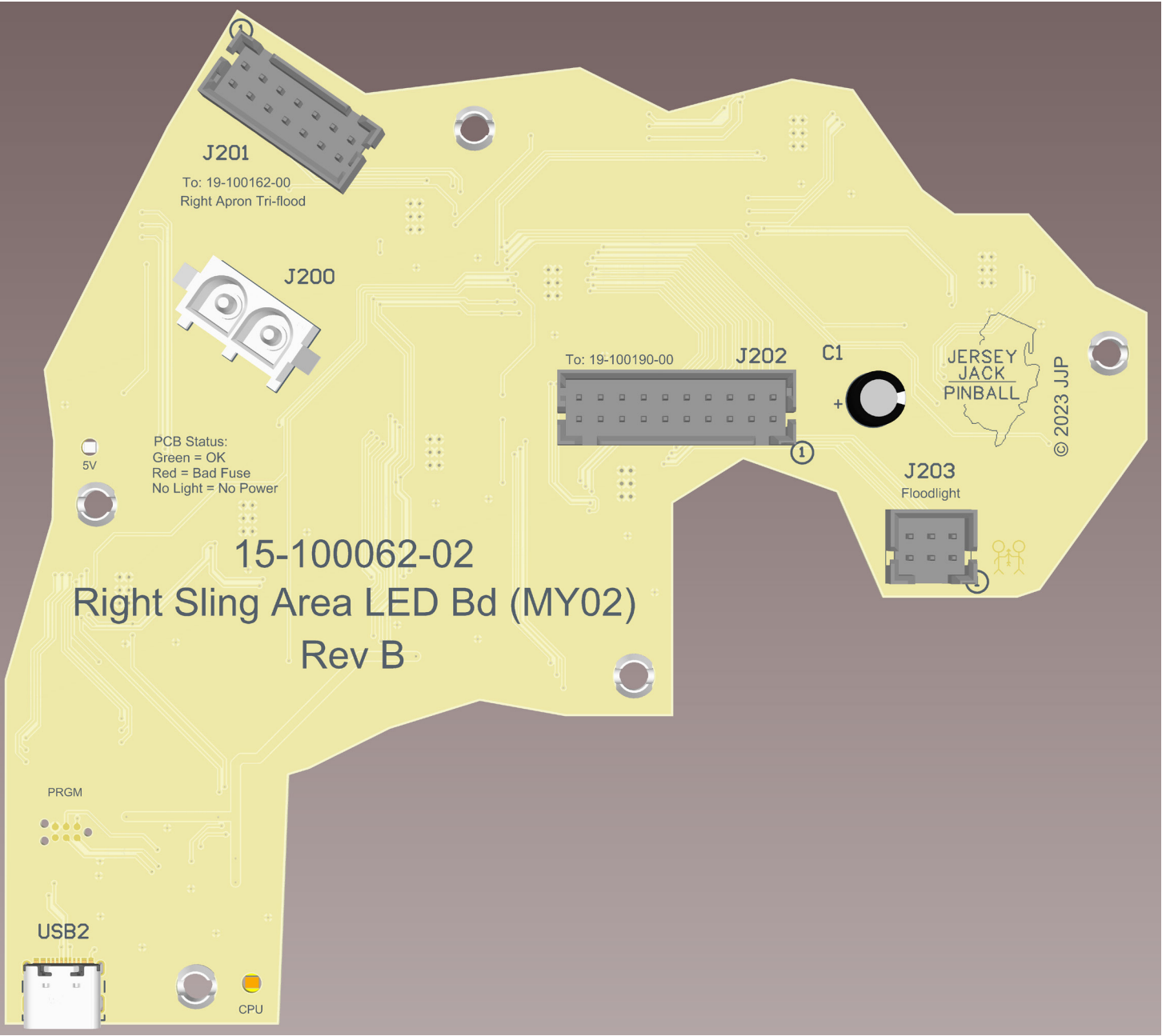
Black

Ground from ATX Power Supply
- J101
- Left Apron Floodlight



LEFT SLING AREA LED PCB  
15-100062-01

RIGHT SLING AREA LED PCB  
15-100062-02



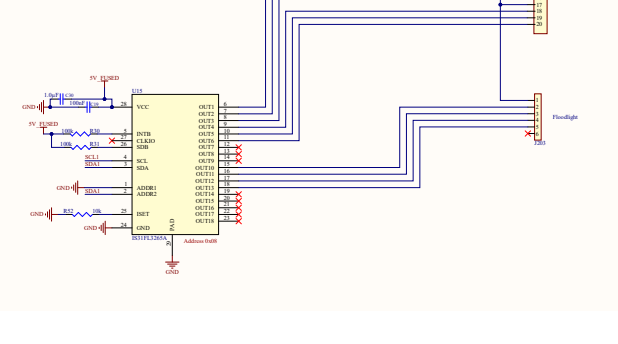
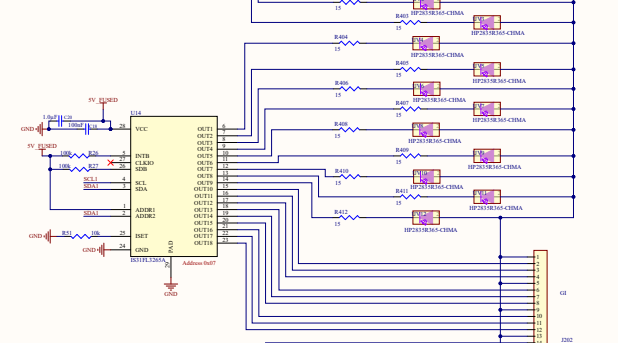
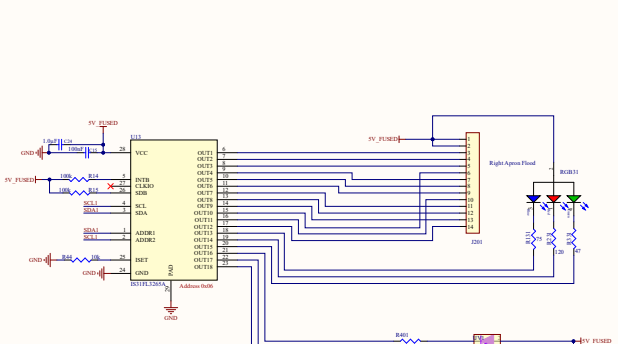
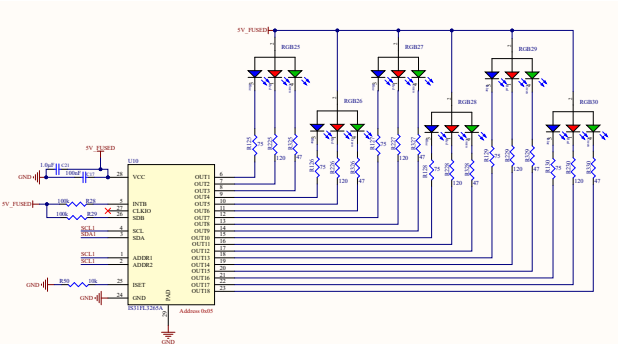
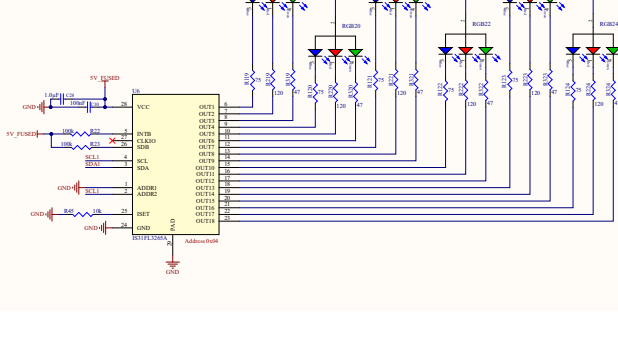
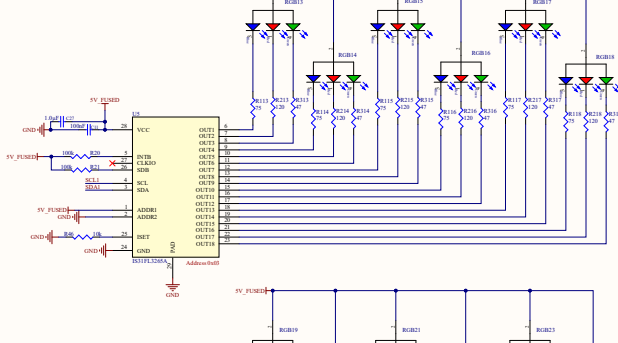
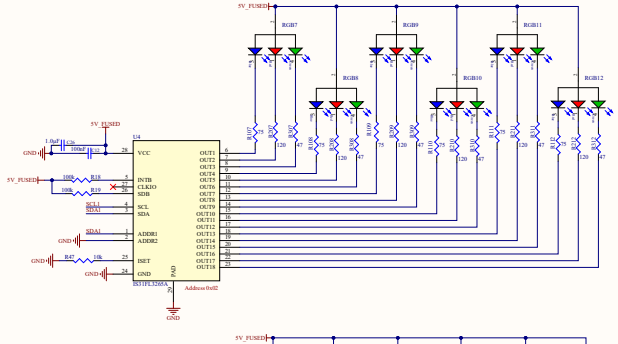
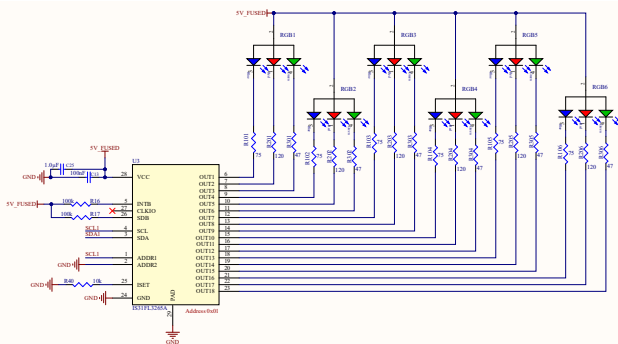
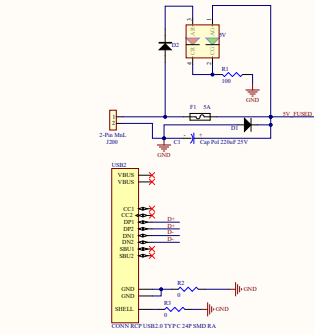
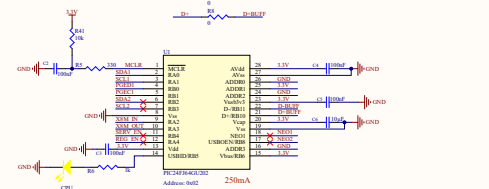
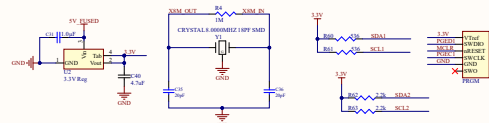
- J200 Power Input**
- Pin
- 1 Red +5VDC from ATX Power Supply
  - 2 Black Ground from ATX Power Supply

**J201**  
Right Apron Floodlights

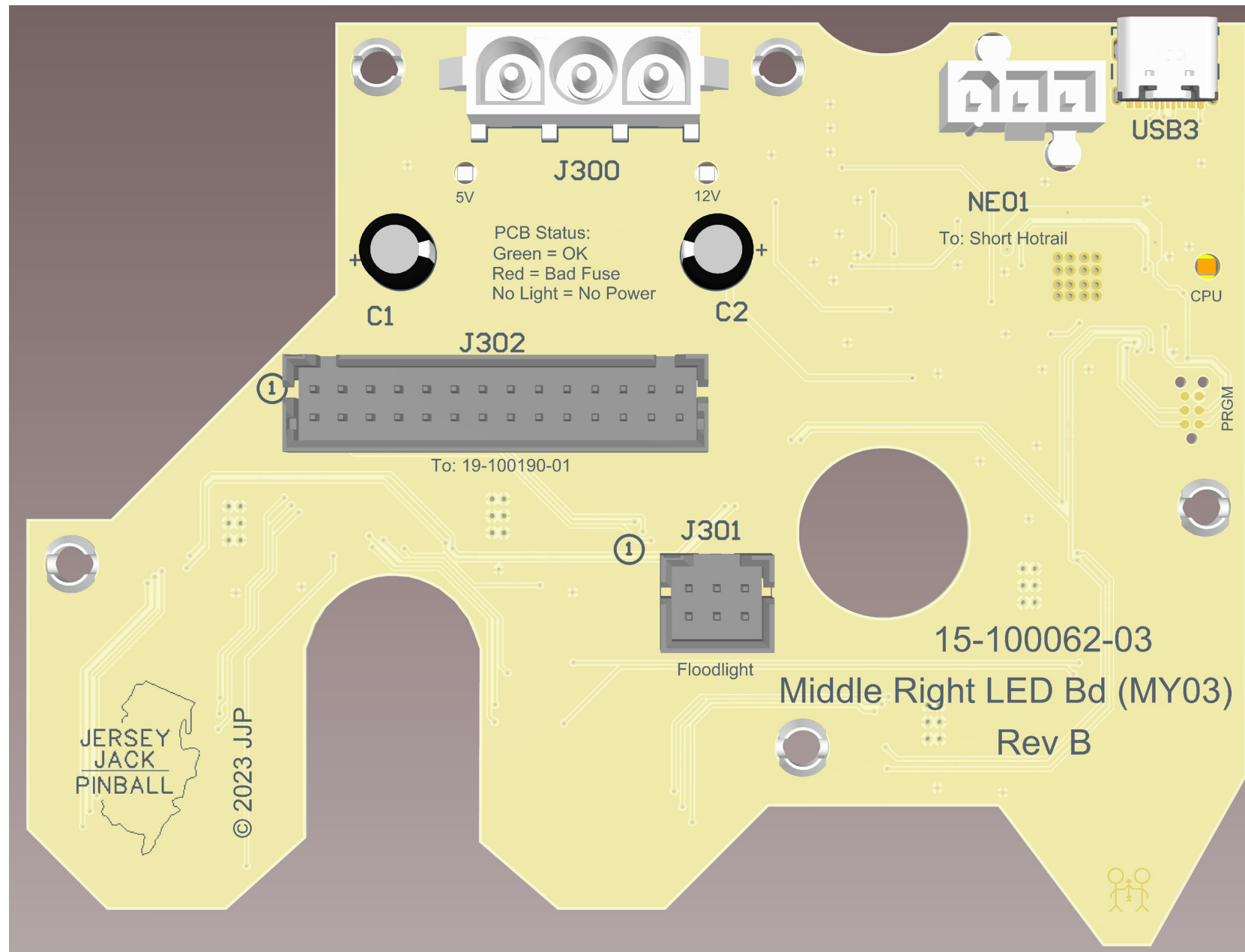
**J203**  
Not Used



# RIGHT SLING AREA LED PCB 15-10062-02



MIDDLE RIGHT LED PCB  
15-100062-03



**J300 Power Input**

Pin

- 1 Red +5VDC from ATX Power Supply
- 2 Black Ground from ATX Power Supply
- 3 Yellow +12VDC from ATX Power Supply

**NEO1 - Short Hotrail**

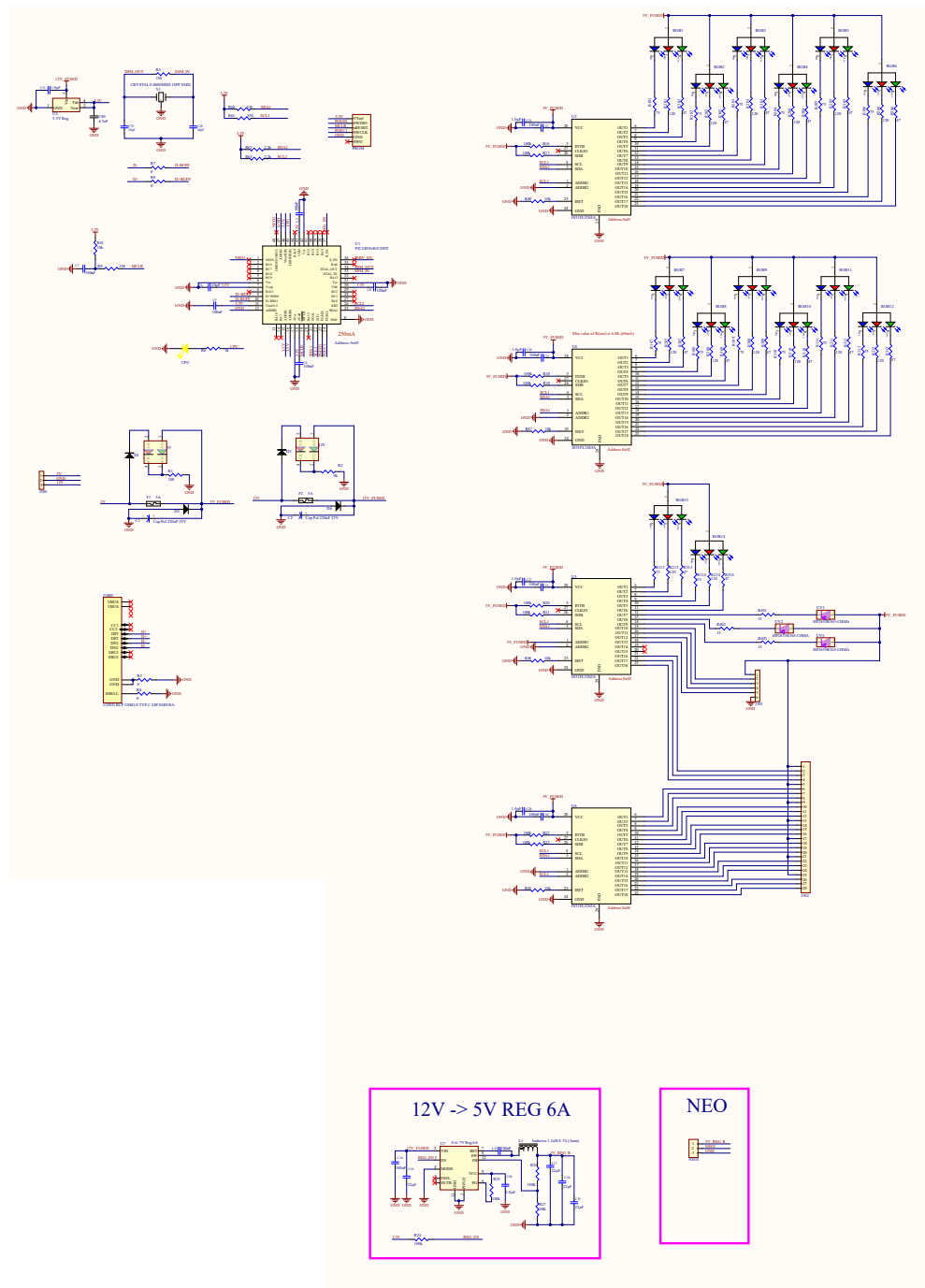
Pin

- 1 Red +5VDC from ATX Power Supply
- 2 Green NEO
- 3 White Ground from ATX Power Supply

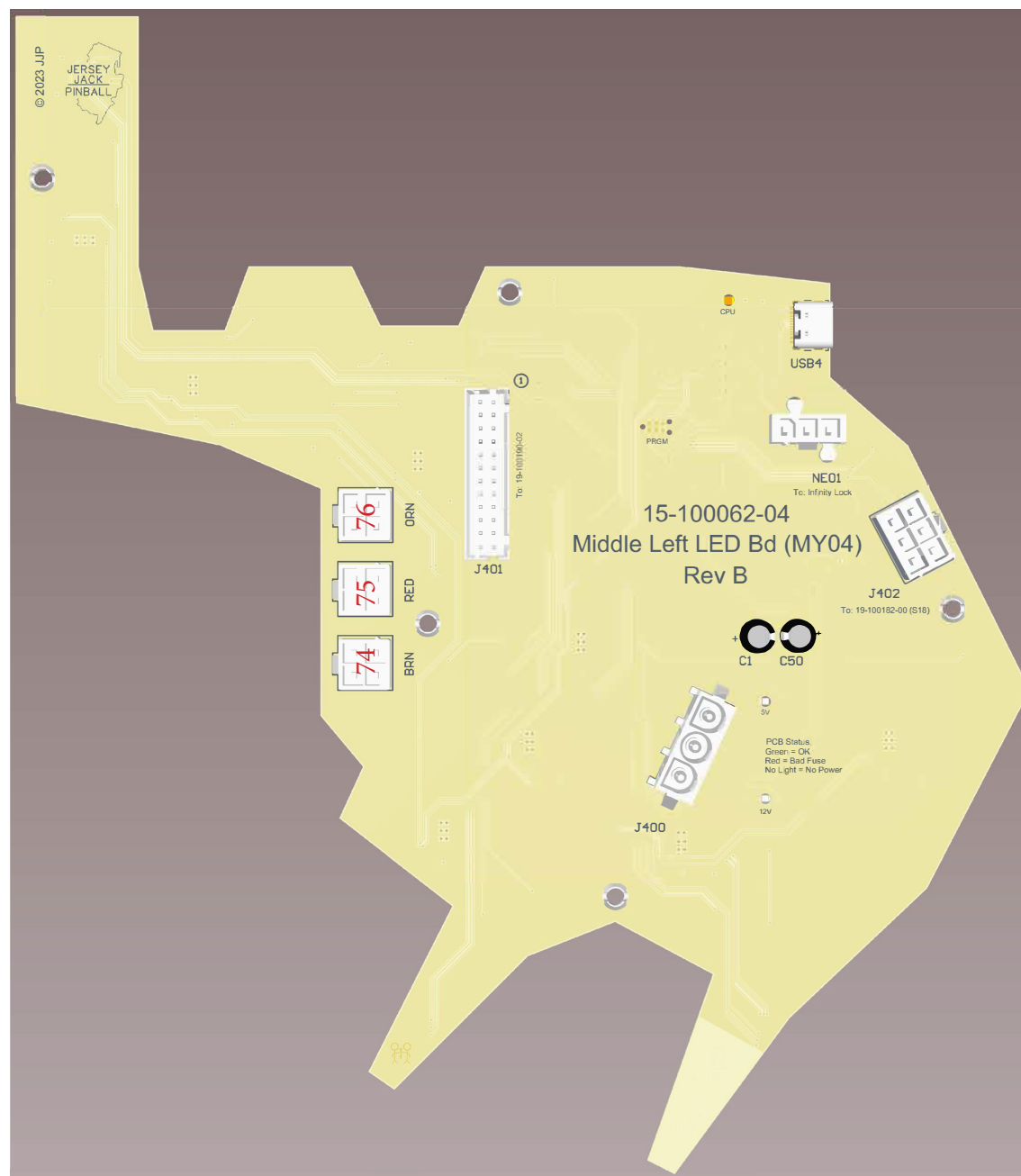
**J301**

Not Used

# MIDDLE RIGHT LED PCB 15-100062-03



## MIDDLE LEFT LED PCB 15-100062-04



### J400 Power Input

Pin

- 1 Red +5VDC from ATX Power Supply
- 2 Black Ground from ATX Power Supply
- 3 Yellow +12VDC from ATX Power Supply

### NE01 - Infinity Lock

Pin

- 1 NC
- 2 Green Infinity LED Board
- 3 NC

### BRN - Switch 74

Pin

- 1 Green
- 2 White
- 3 Black
- 4 Red

### RED - Switch 75

Pin

- 1 Green
- 2 White
- 3 Black
- 4 Red

### ORN - Switch 76

Pin

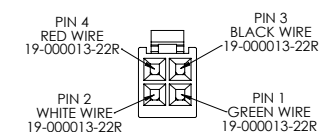
- 1 Green
- 2 White
- 3 Black
- 4 Red

### J402 - Switch Input

Pin

- 1 GRY/BRN
- 2 WHT/BLK
- 3 WHT/BRN
- 4 WHT/RED
- 5 WHT/ORN
- 6 WHT/YEL

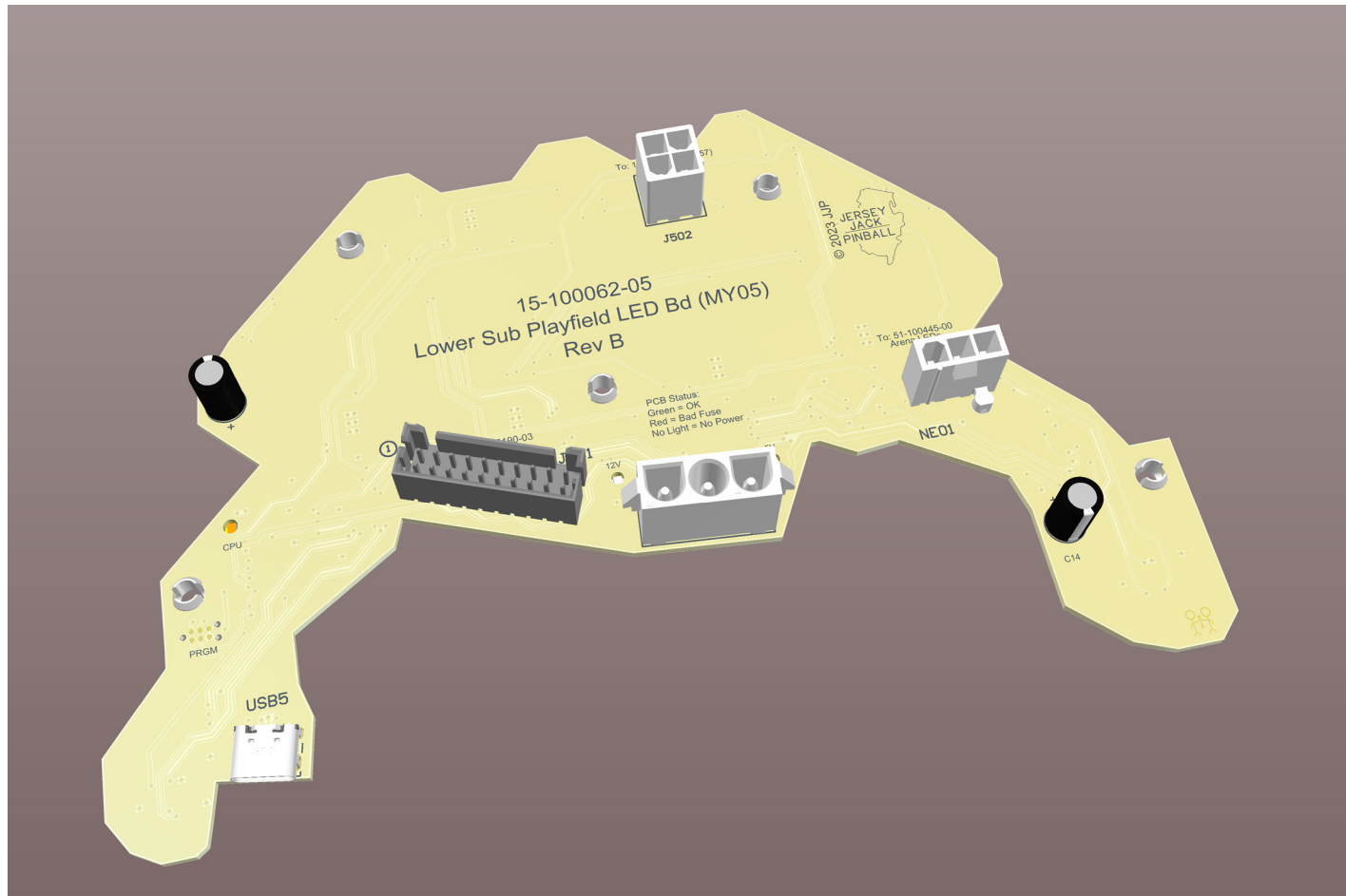
### OPTO PINOUT



**Switch 73**  
Reflective OPTO Switch



## LOWER SUB PLAYFIELD LED PCB 15-100062-05



### J500 Power Input

Pin

- 1 Red +5VDC from ATX Power Supply
- 2 Black Ground from ATX Power Supply
- 3 Yellow +12VDC from ATX Power Supply

### NEO1 - Arena LED's

Pin

- 1 Red +5VDC from ATX Power Supply
- 2 Green NEO
- 3 White Ground from ATX Power Supply

### J502 - Switch Input

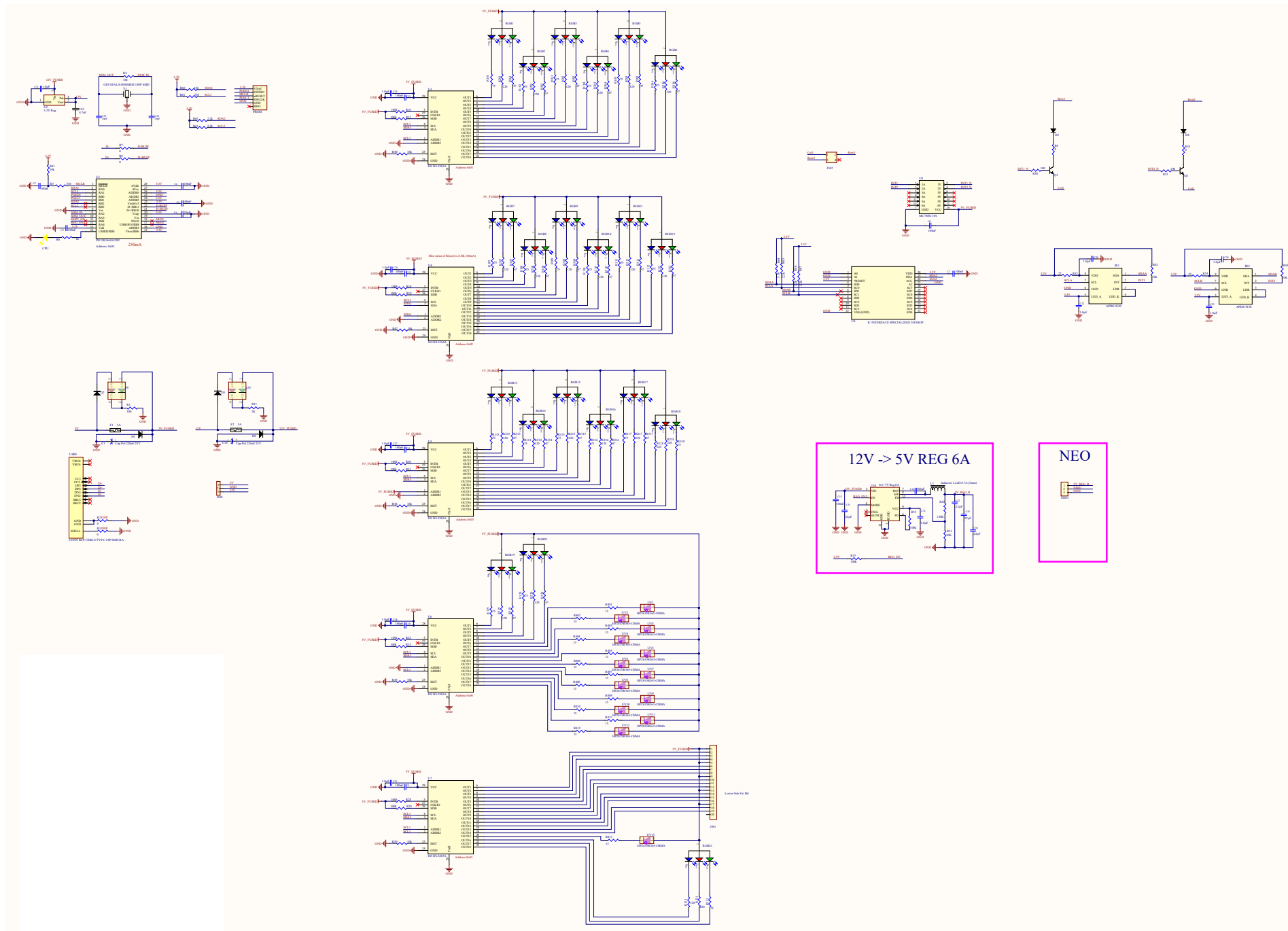
Pin

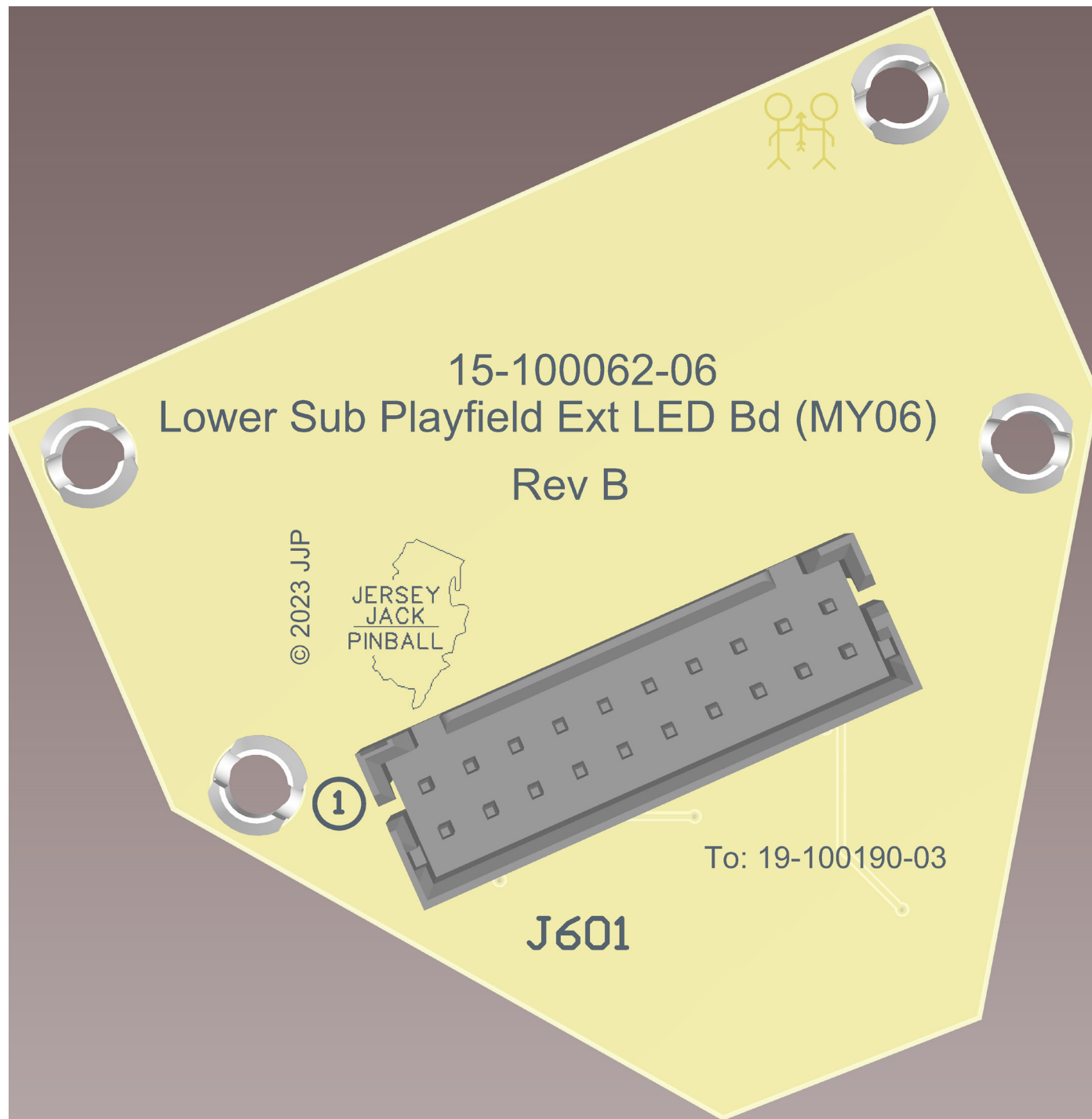
- 1 Column 1
- 2 Row 1
- 3 Row 2
- 4 NC

**Switch 110 & 111**  
Reflective OPTO Switch



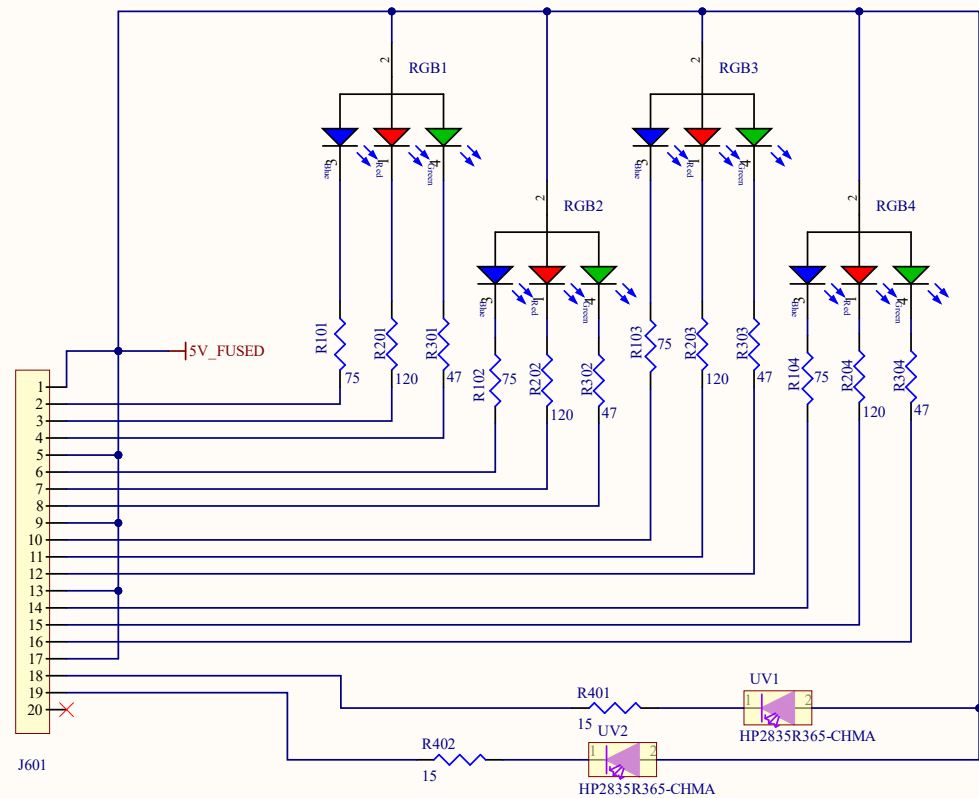
# LOWER SUB PLAYFIELD LED PCB 15-100062-05

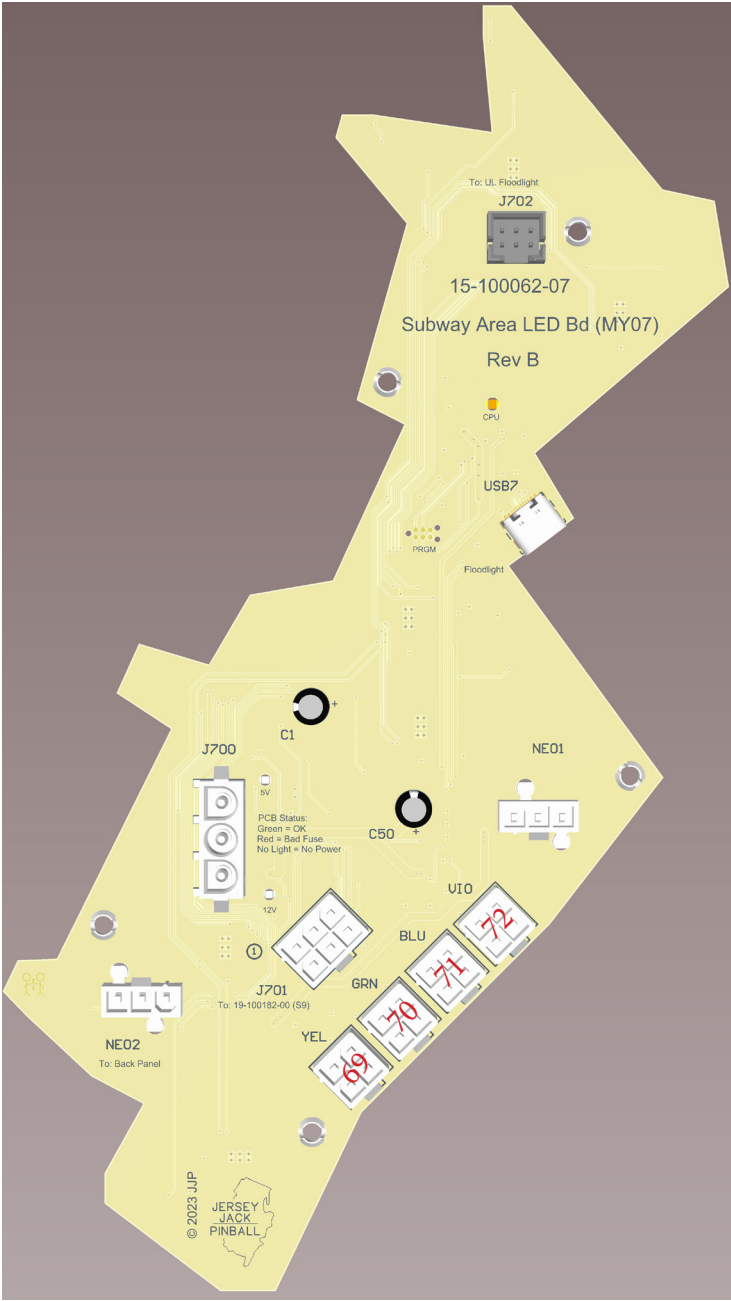




LOWER SUB PLAYFIELD Ext LED PCB  
15-100062-06

To 15-100062-05 J101





**J700 Power Input**

- Pin
- 1 Red +5VDC from ATX Power Supply
  - 2 Black Ground from ATX Power Supply
  - 3 Yellow +12VDC from ATX Power Supply

**NEO1**  
Not Used

**NEO2 - BACK PANEL**

- Pin
- 1 Red +5VDC from ATX Power Supply
  - 2 Green NEO
  - 3 White Ground from ATX Power Supply

**J701 - Switch Input**

- Pin
- 1 GRY/BLK
  - 2 WHT/YEL
  - 3 WHT/GRN
  - 4 WHT/BLU
  - 5 WHT/VIO
  - 6 NC

**J702**  
Lower Left Floodlight

**SUBWAY AREA LED PCB**  
15-100062-07

**YEL - Switch 69**

- Pin
- 1 Green
  - 2 White
  - 3 Black
  - 4 Red

**GRN - Switch 70**

- Pin
- 1 Green
  - 2 White
  - 3 Black
  - 4 Red

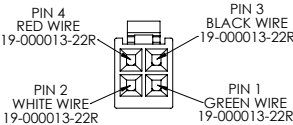
**BLU - Switch 71**

- Pin
- 1 Green
  - 2 White
  - 3 Black
  - 4 Red

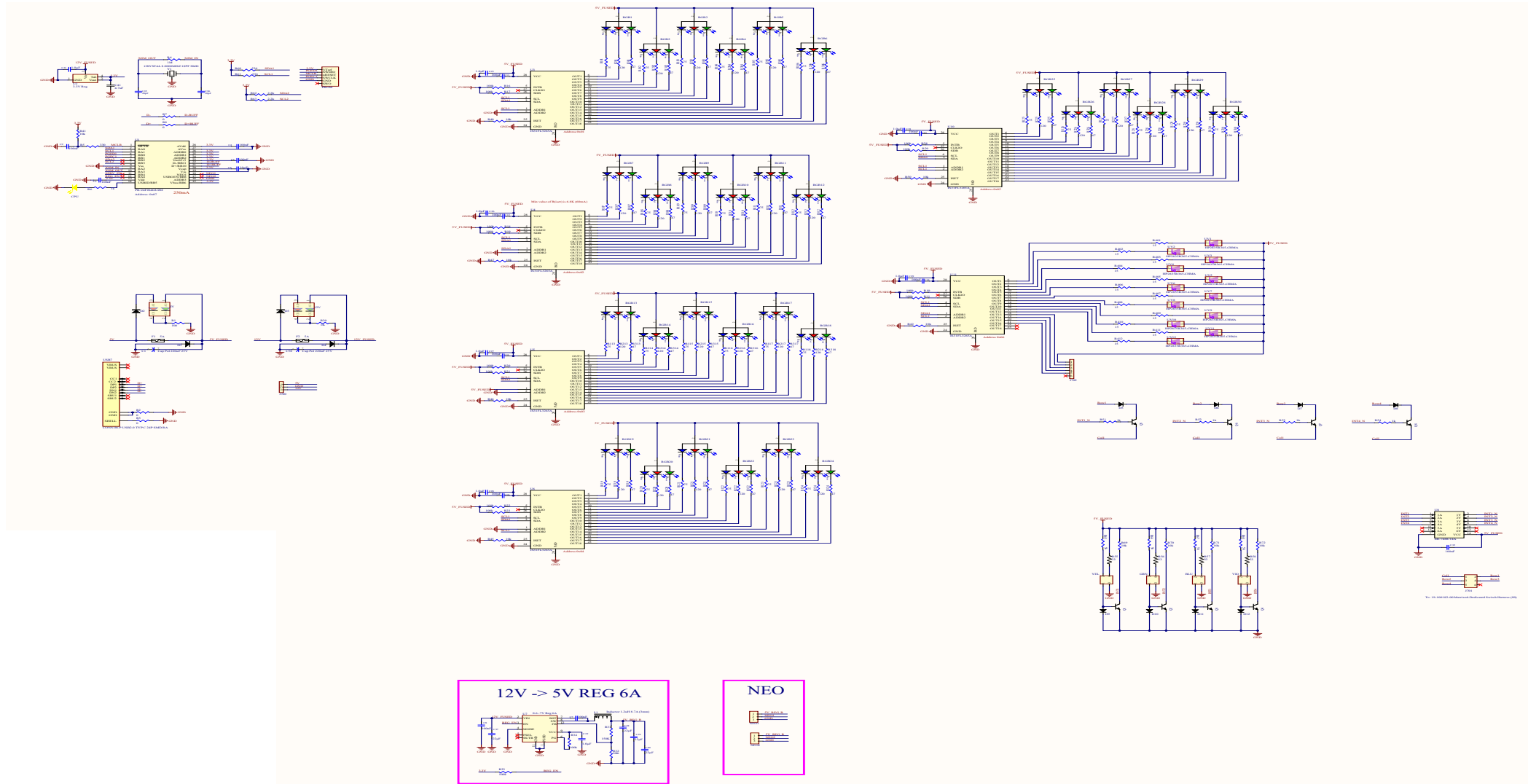
**VIO - Switch 72**

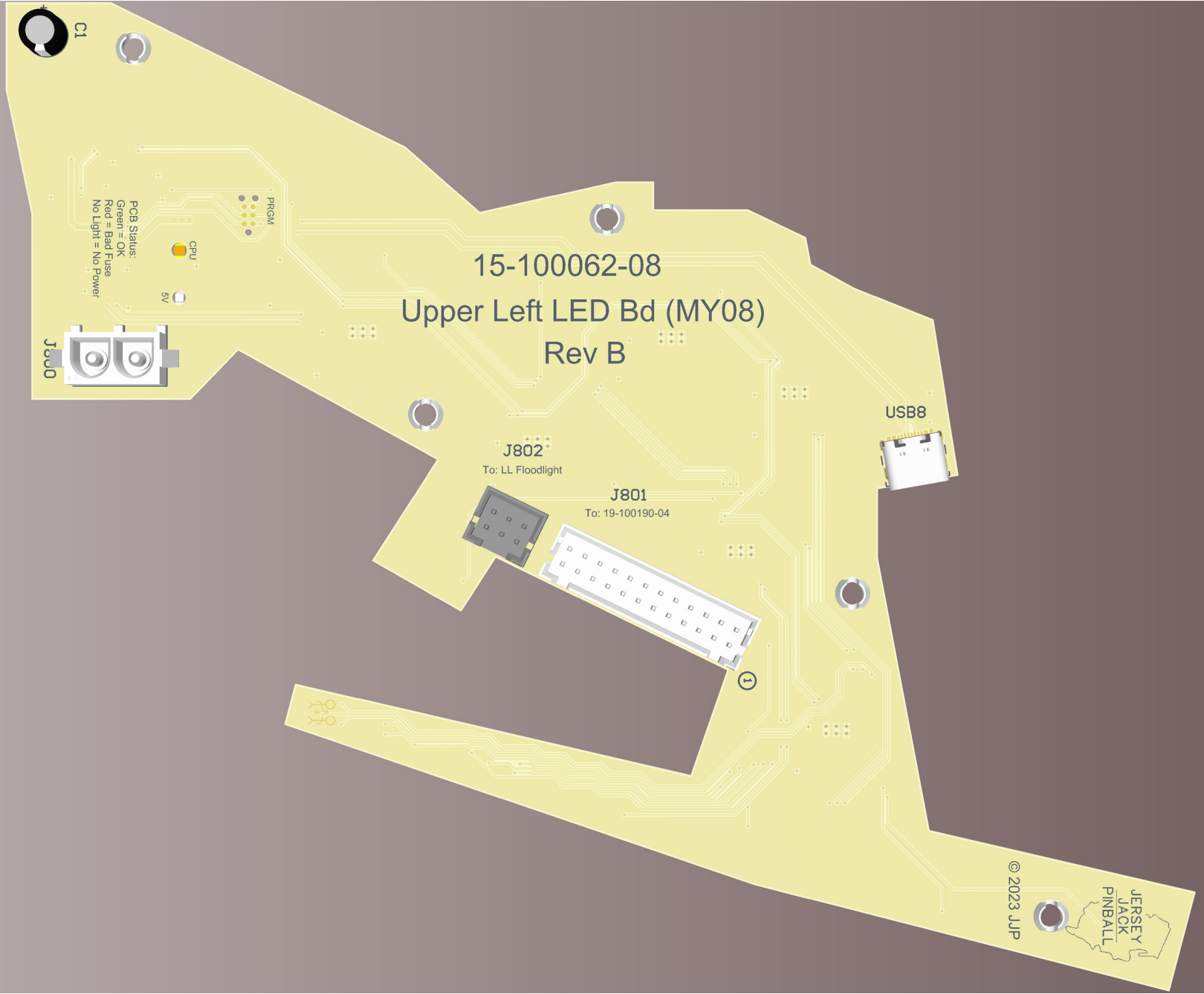
- Pin
- 1 Green
  - 2 White
  - 3 Black
  - 4 Red

**OPTO  
PINOUT**



# SUBWAY AREA LED PCB 15-100062-07





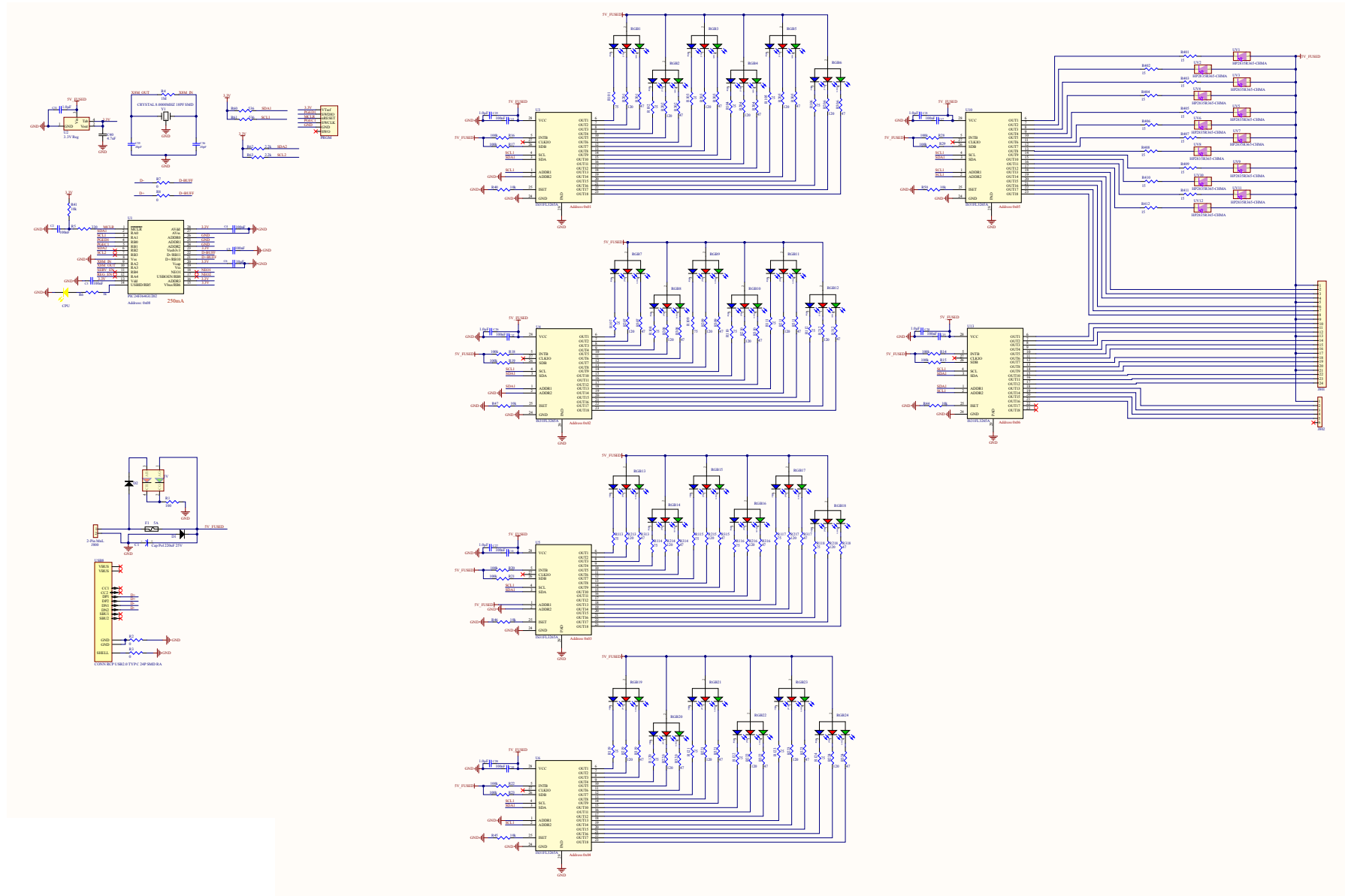
UPPER LEFT LED PCB  
15-100062-08

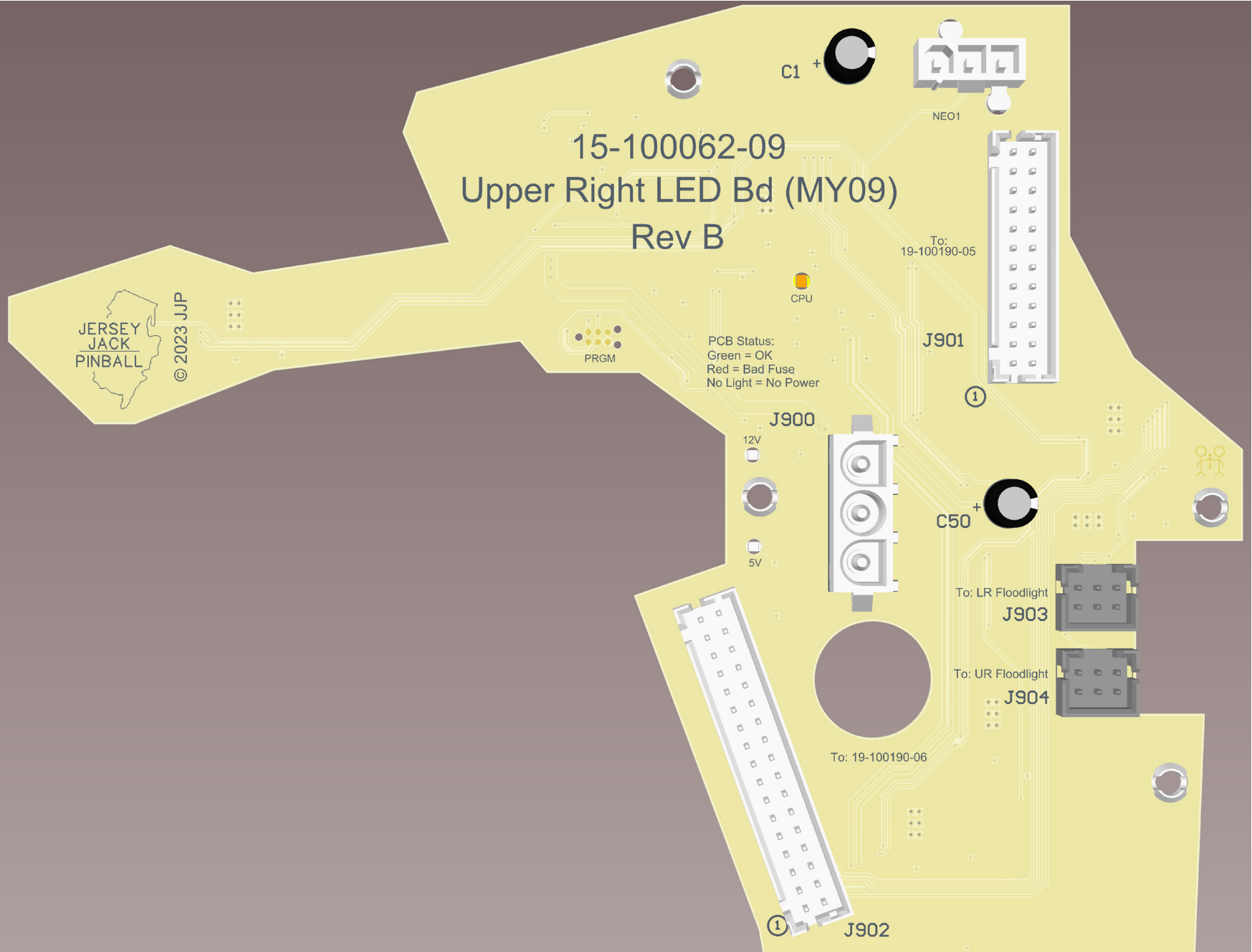
- J700 Power Input**  
Pin
- |         |                              |
|---------|------------------------------|
| 1 Red   | +5VDC from ATX Power Supply  |
| 2 Black | Ground from ATX Power Supply |

**J802**  
Upper Left Floodlight



# UPPER LEFT LED PCB 15-100062-08





UPPER RIGHT LED PCB  
15-100062-09

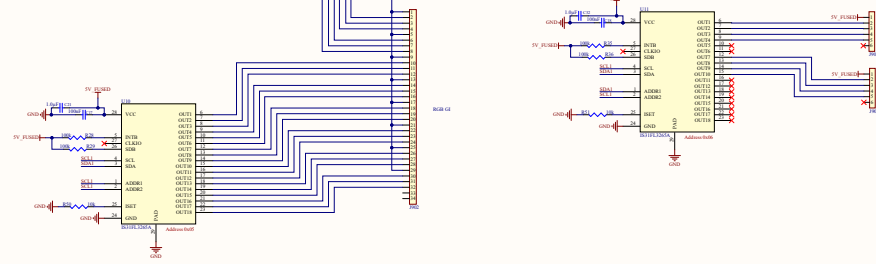
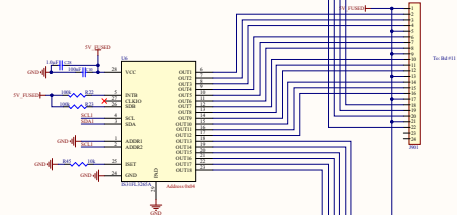
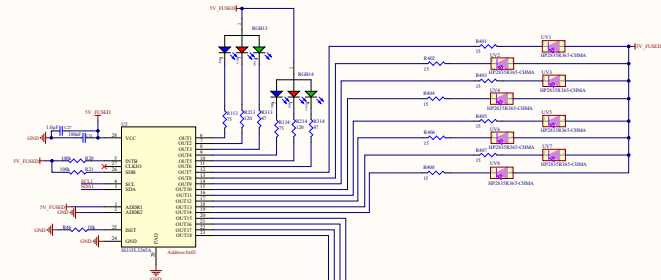
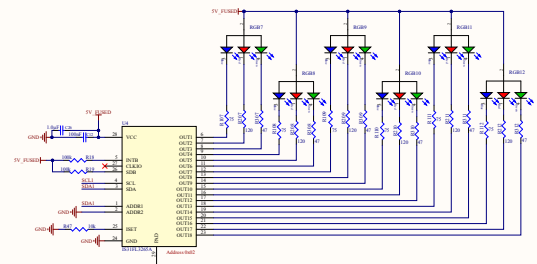
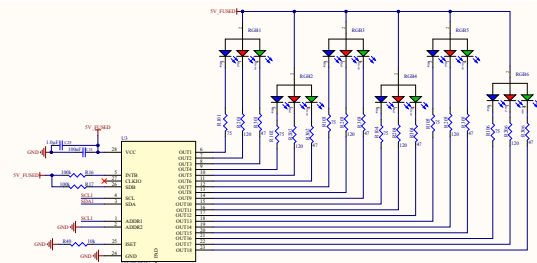
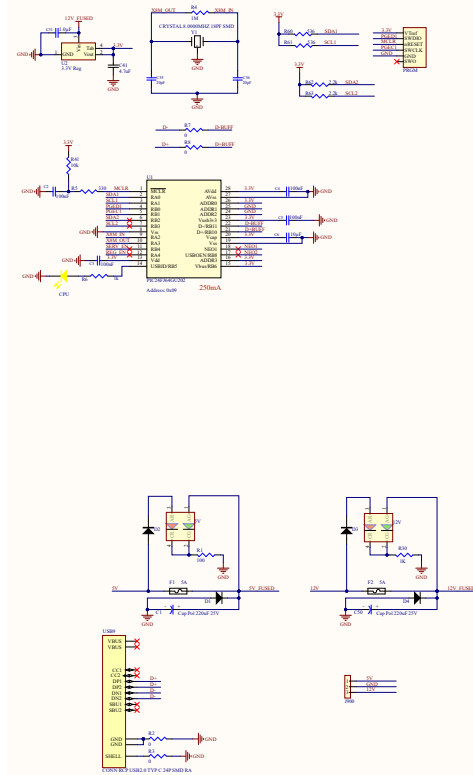
- J900 Power Input**
- Pin
- 1 Red +5VDC from ATX Power Supply
  - 2 Black Ground from ATX Power Supply
  - 3 Yellow +12VDC from ATX Power Supply

**NEO1**  
Not Used

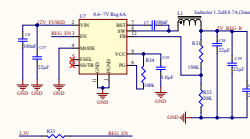
**J903**  
Lower Right Floodlight

**J904**  
Upper Right Floodlight

# UPPER RIGHT LED PCB 15-100062-09

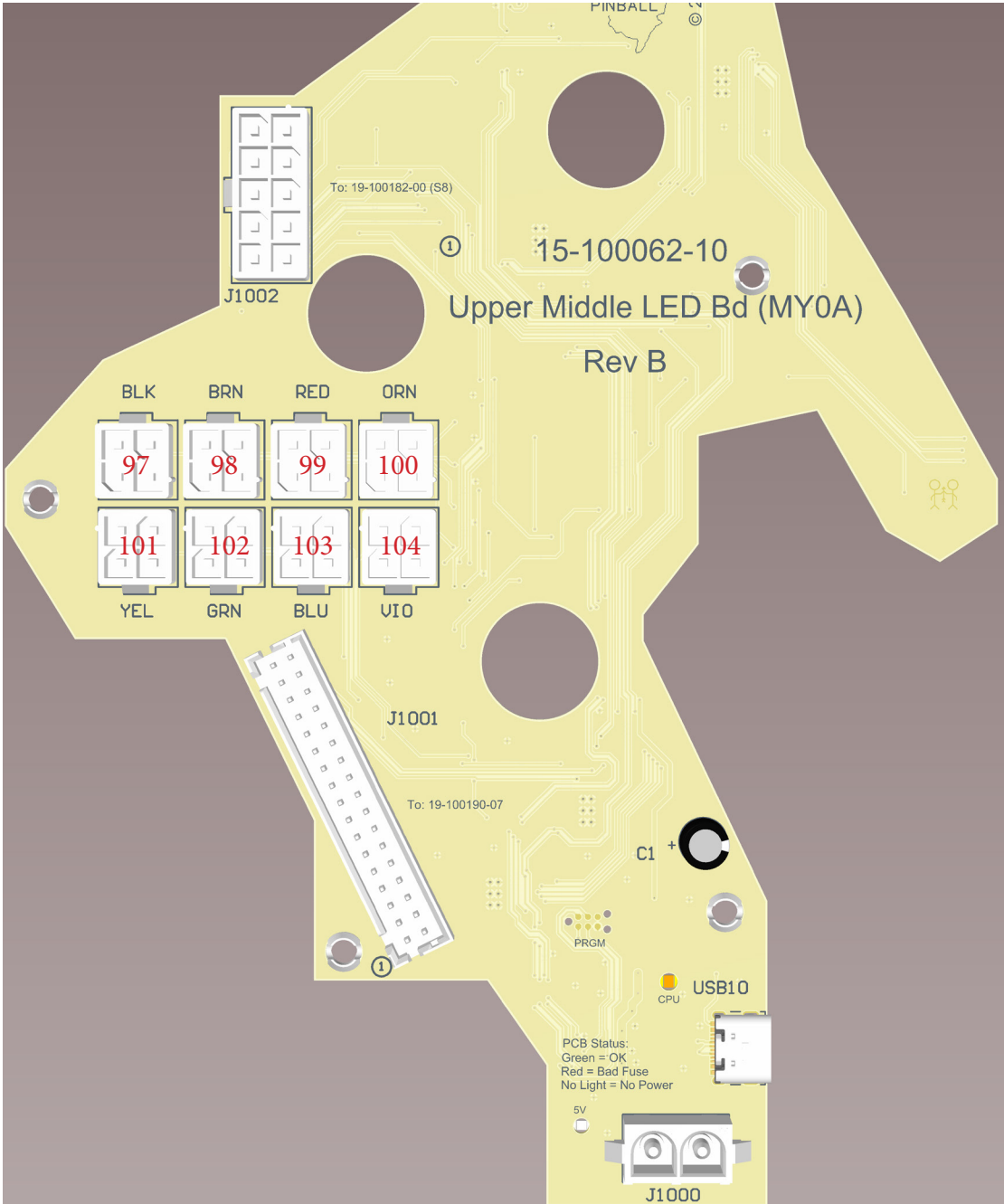


12V -> 5V REG 6A



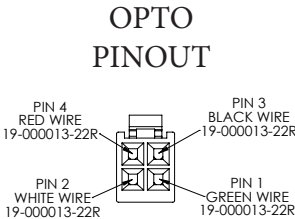
NEO





- J1000 Power Input**
- Pin
- 1 Red +5VDC from ATX Power Supply
  - 2 Black Ground from ATX Power Supply

- J1002 Switch Matrix Input**
- Pin
- 1 GRY/YEL
  - 2 WHT/BLK
  - 3 WHT/BRN
  - 4 WHT/RED
  - 5 WHT/ORN
  - 6 WHT/YEL
  - 7 WHT/GRN
  - 8 WHT/BLU
  - 9 WHT/VOL
  - 10 N/C



**Switch 65**  
Reflective OPTO Switch

UPPER MIDDLE LED PCB  
15-100062-10

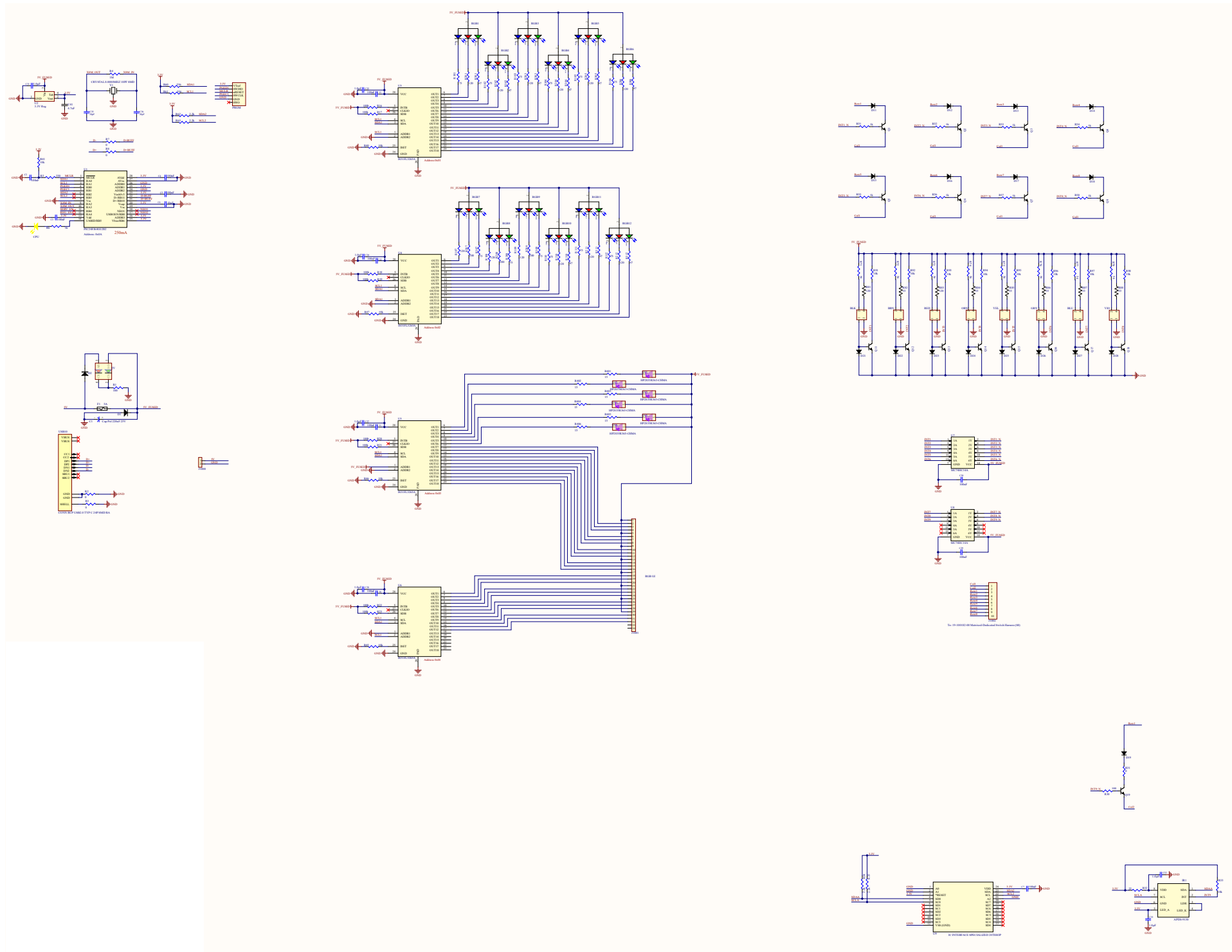
- | BLK - Switch 97 | YEL - Switch 101 |
|-----------------|------------------|
| Pin             | Pin              |
| 1 Green         | 1 Green          |
| 2 White         | 2 White          |
| 3 Black         | 3 Black          |
| 4 Red           | 4 Red            |

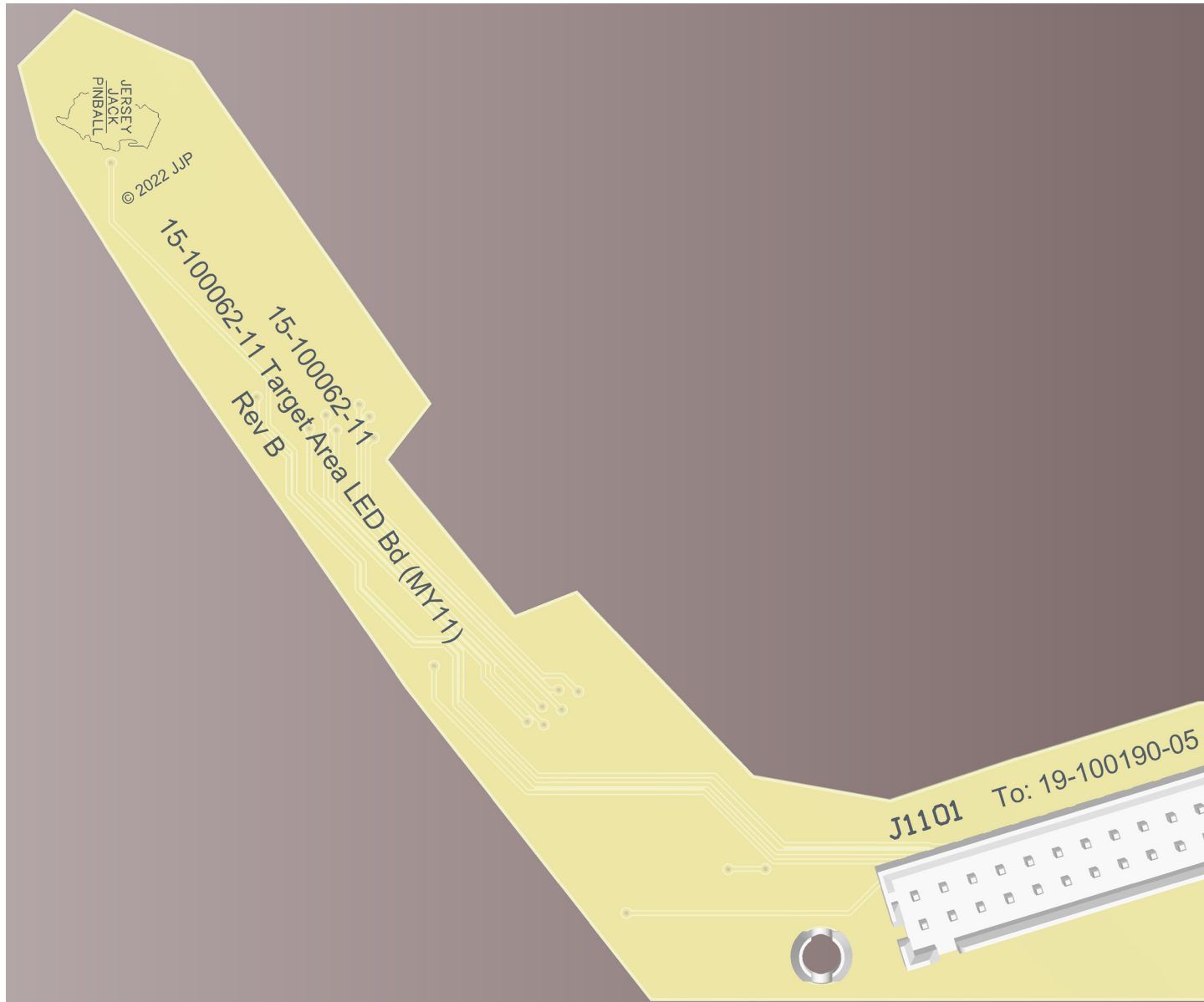
- | BRN - Switch 98 | GRN - Switch 102 |
|-----------------|------------------|
| Pin             | Pin              |
| 1 Green         | 1 Green          |
| 2 White         | 2 White          |
| 3 Black         | 3 Black          |
| 4 Red           | 4 Red            |

- | YRED - Switch 99 | BLU - Switch 103 |
|------------------|------------------|
| Pin              | Pin              |
| 1 Green          | 1 Green          |
| 2 White          | 2 White          |
| 3 Black          | 3 Black          |
| 4 Red            | 4 Red            |

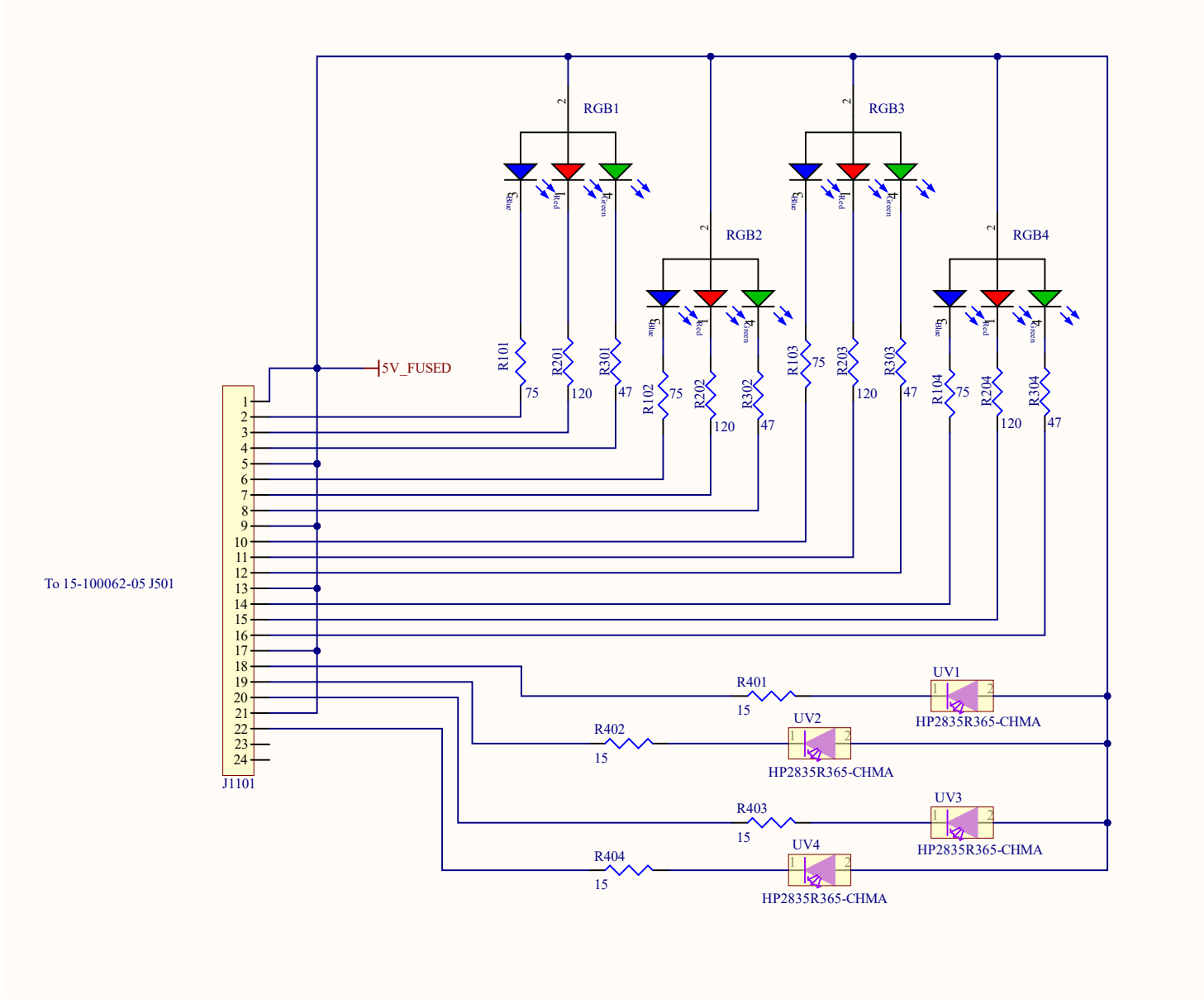
- | ORN - Switch 100 | VIO - Switch 104 |
|------------------|------------------|
| Pin              | Pin              |
| 1 Green          | 1 Green          |
| 2 White          | 2 White          |
| 3 Black          | 3 Black          |
| 4 Red            | 4 Red            |

# UPPER MIDDLE LED PCB 15-100062-10

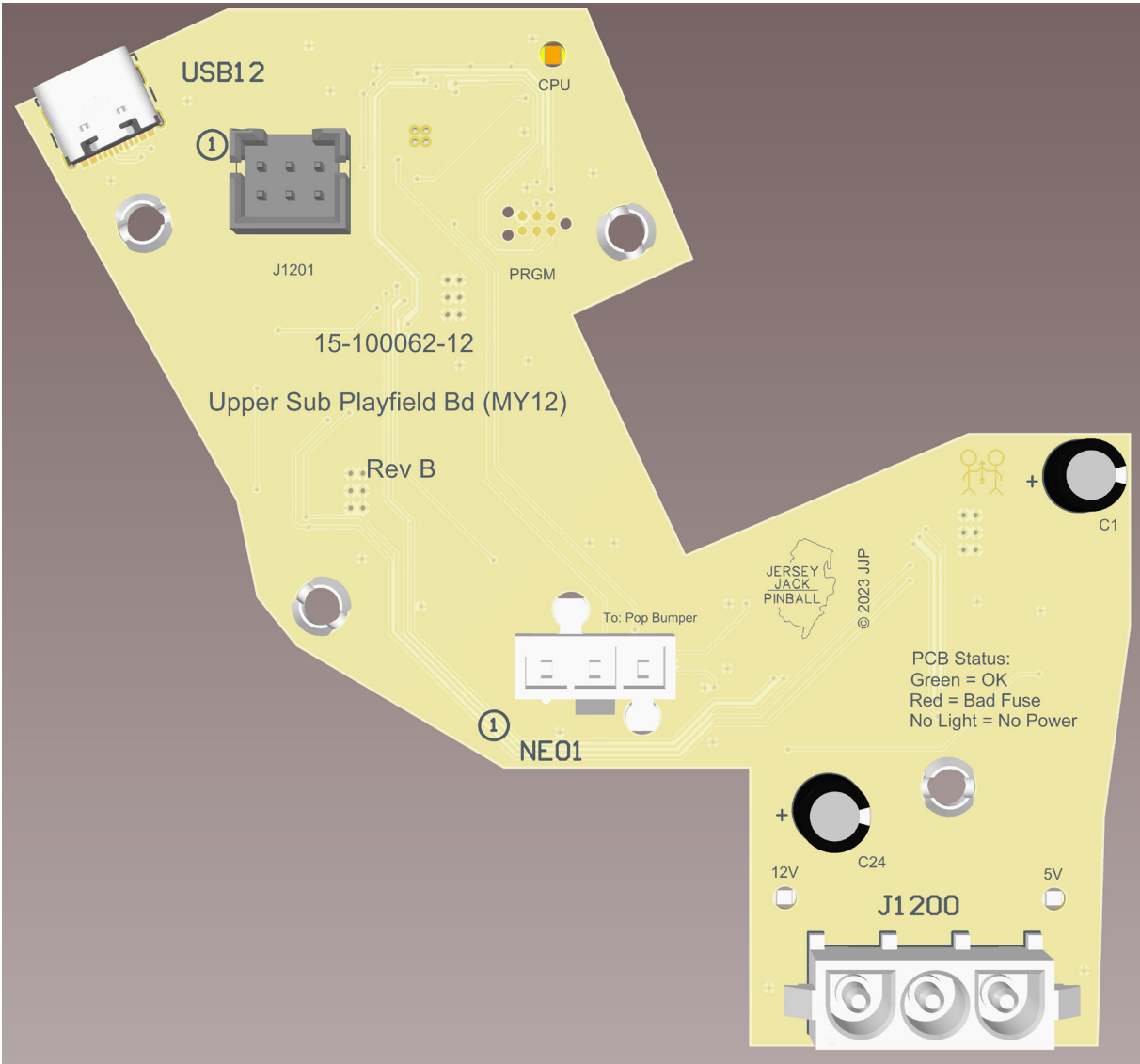








UPPER SUB PLAYFIELD LED PCB  
 15-100062-12



**J1200 Power Input**

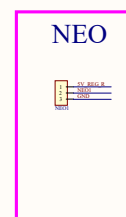
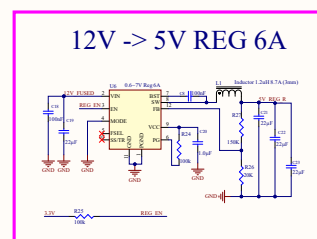
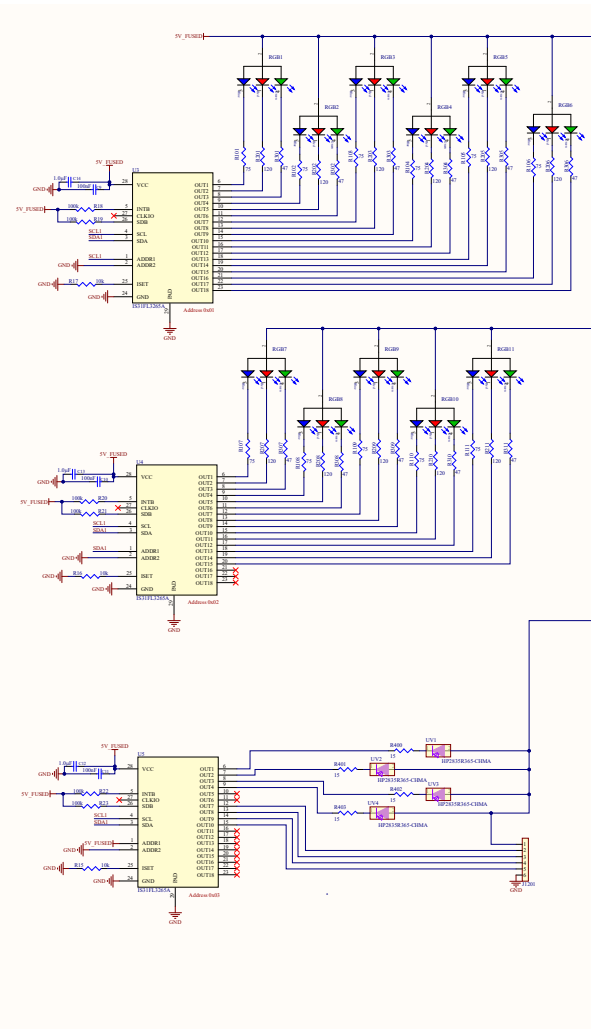
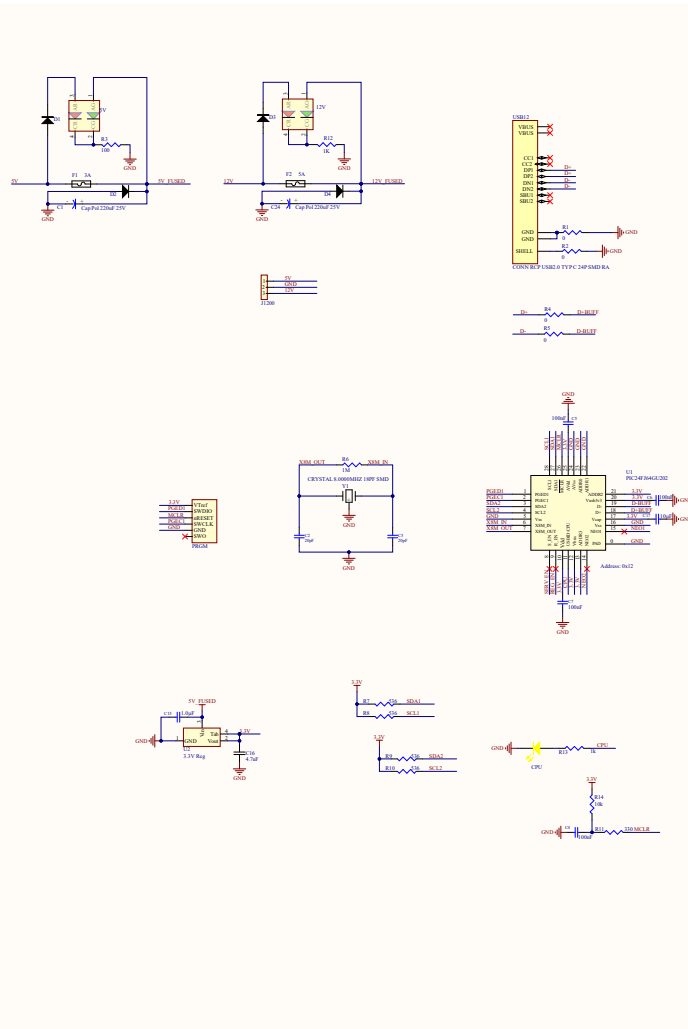
- Pin
- 1 Red +5VDC from ATX Power Supply
  - 2 Black Ground from ATX Power Supply
  - 3 Yellow +12VDC from ATX Power Supply

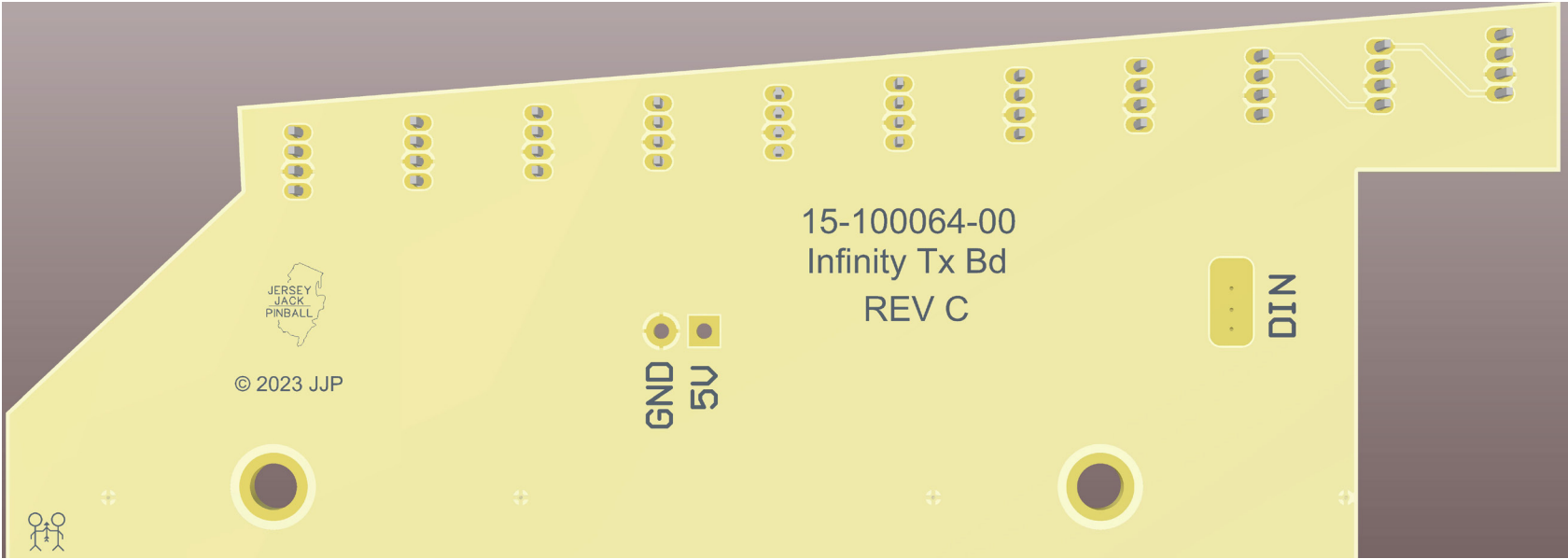
**NEO1 - POP BUMPER**

- Pin
- 1 Red +5VDC from ATX Power Supply
  - 2 Green NEO
  - 3 White Ground from ATX Power Supply

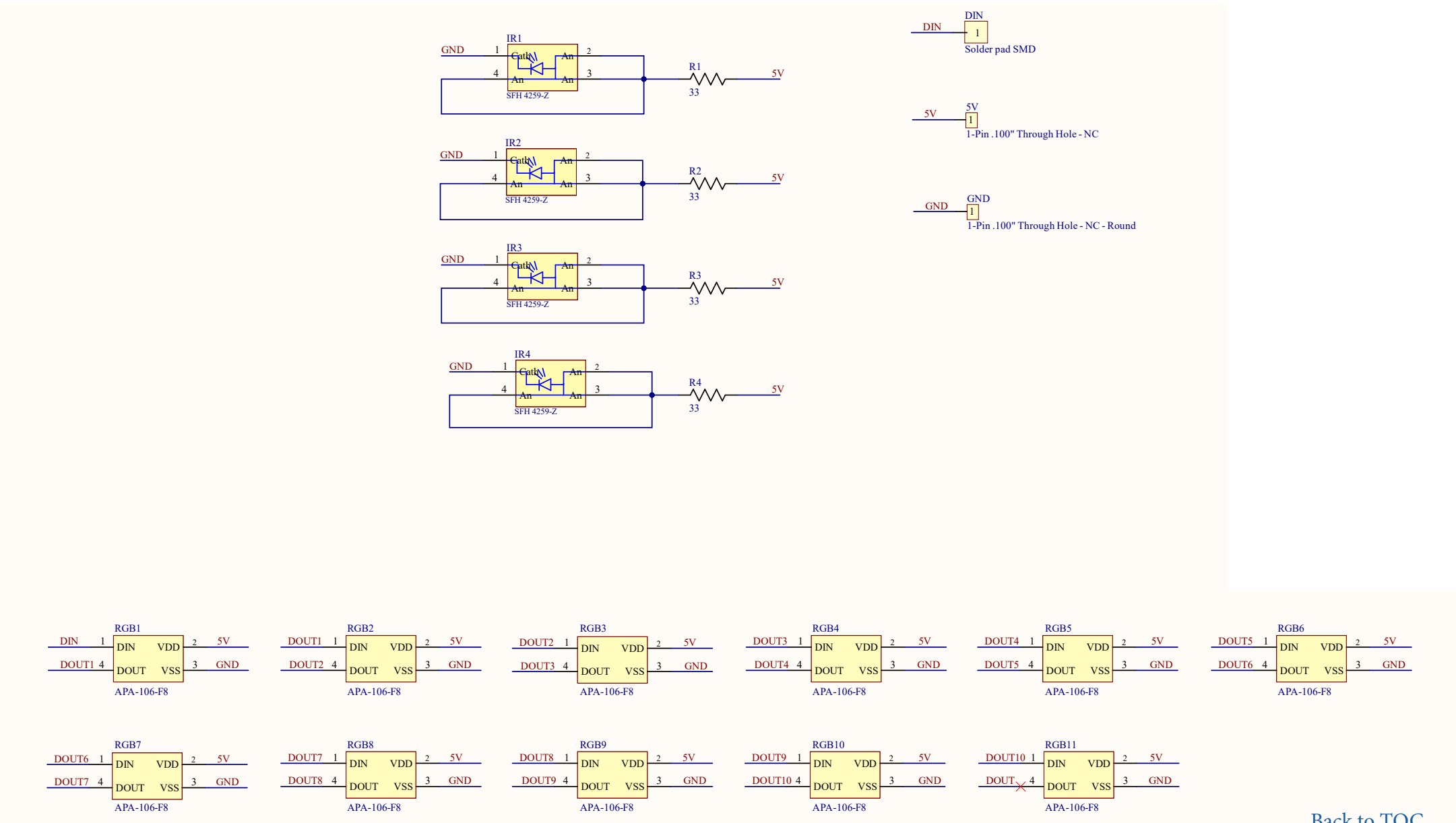
**J1201**  
Not Used

UPPER SUB PLAYFIELD LED PCB  
15-100062-12

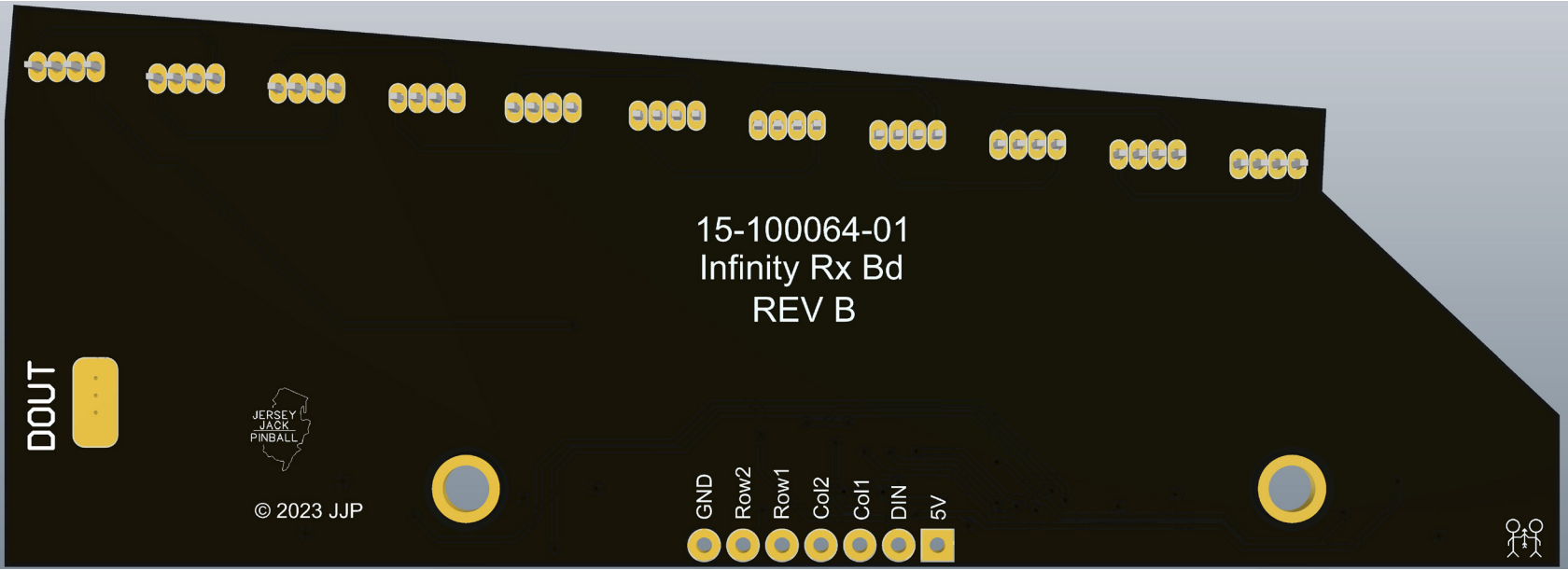




- GND** GND from ATX Power Supply
- 5V** 5VDC from ATX Power Supply
- DIN** DOUT from Rx Board

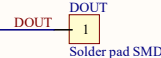
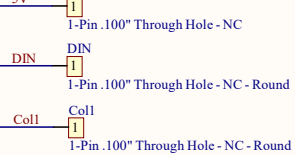
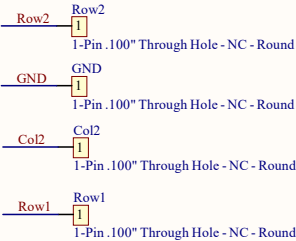
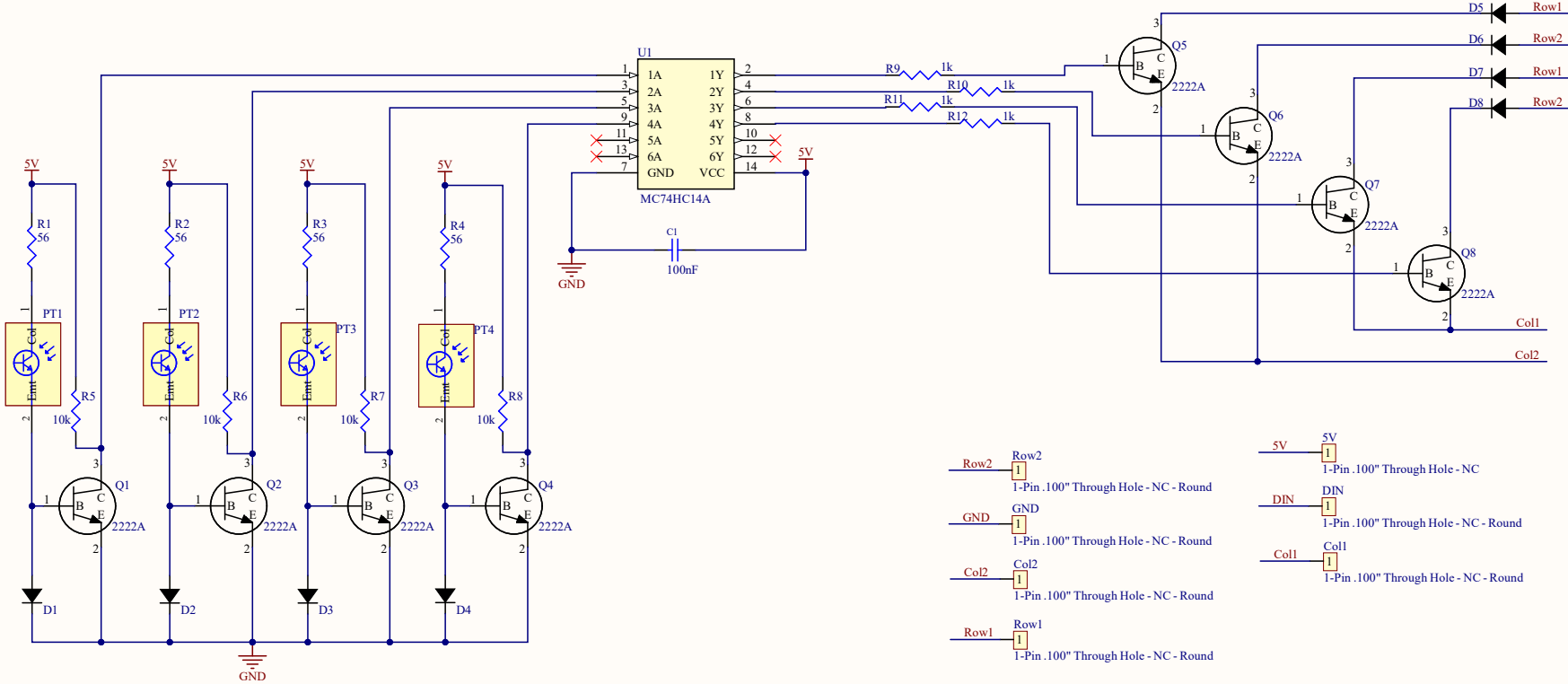
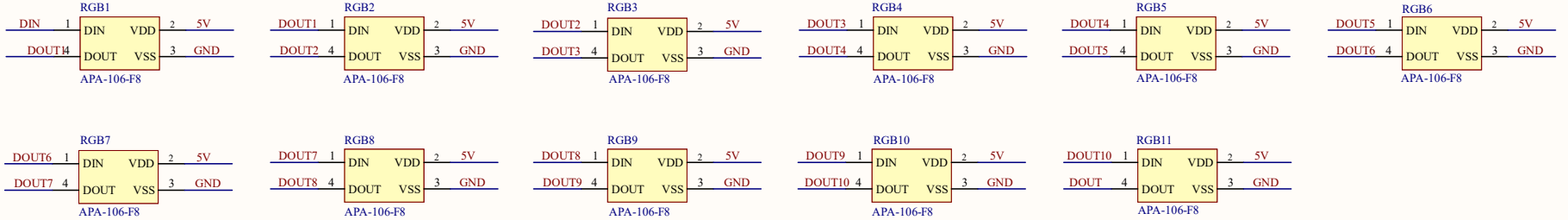


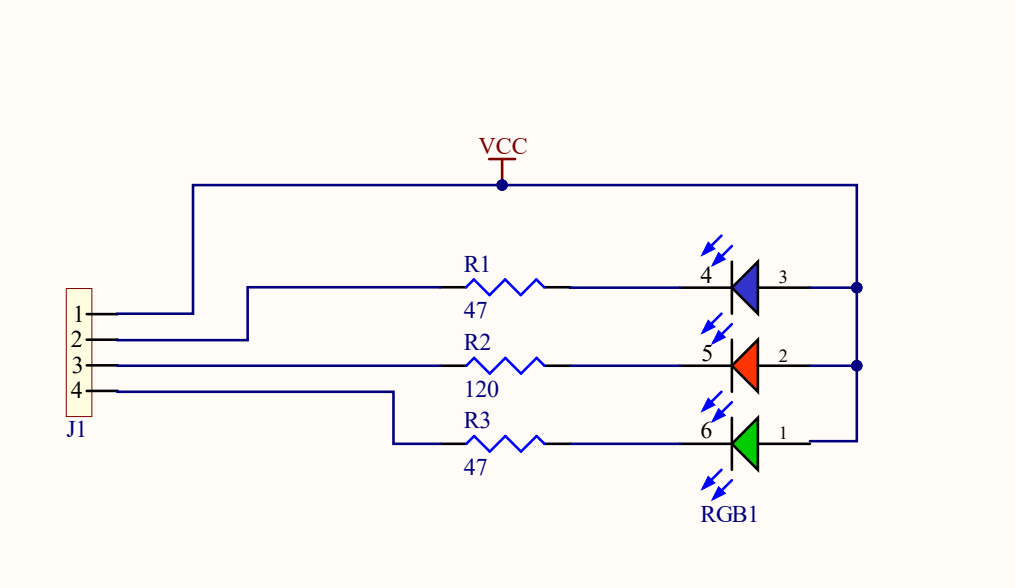
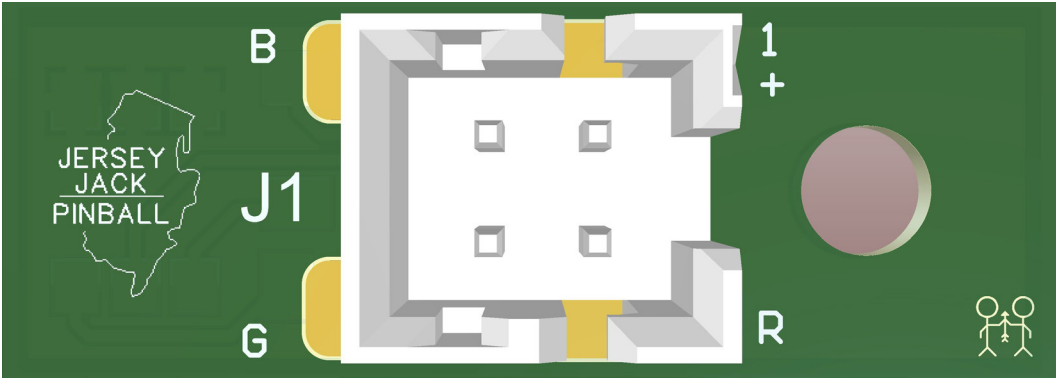
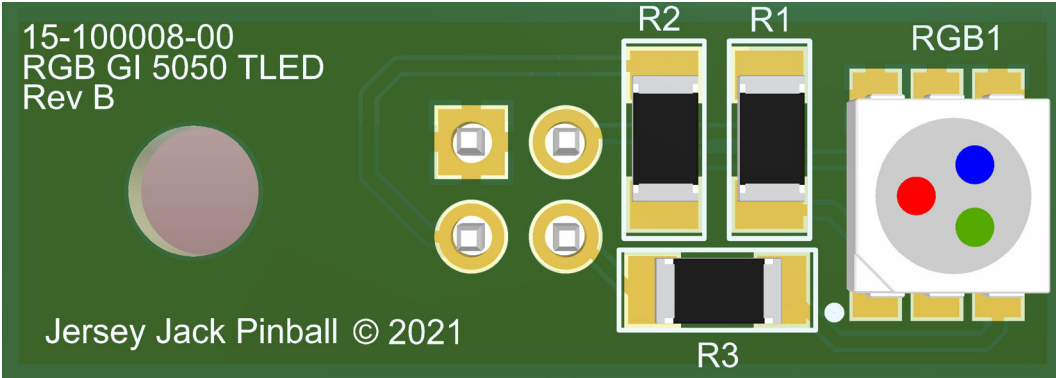
INFINITY Rx PCB  
15-100064-01



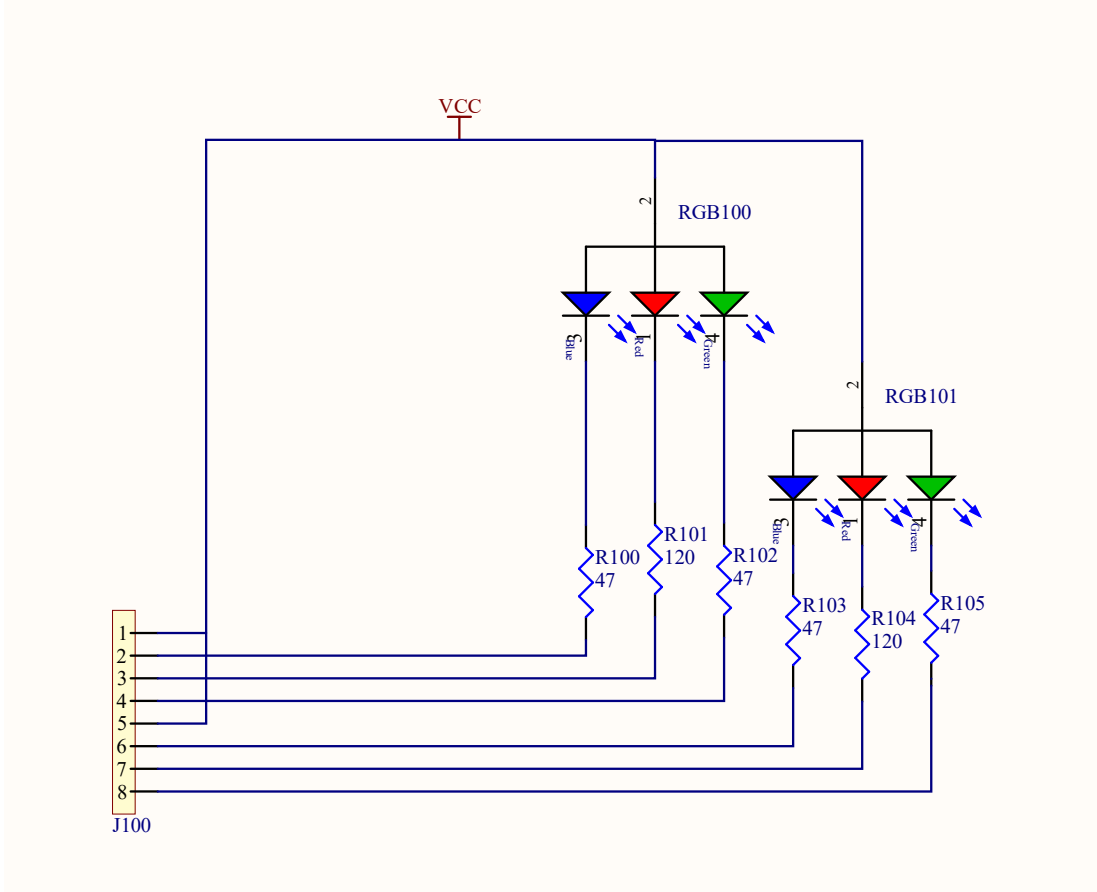
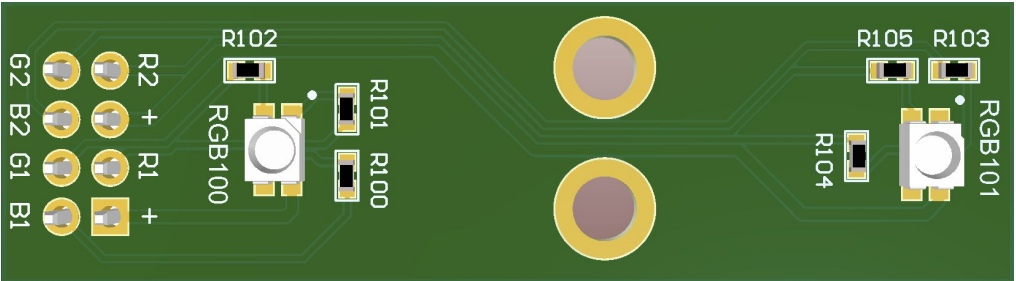
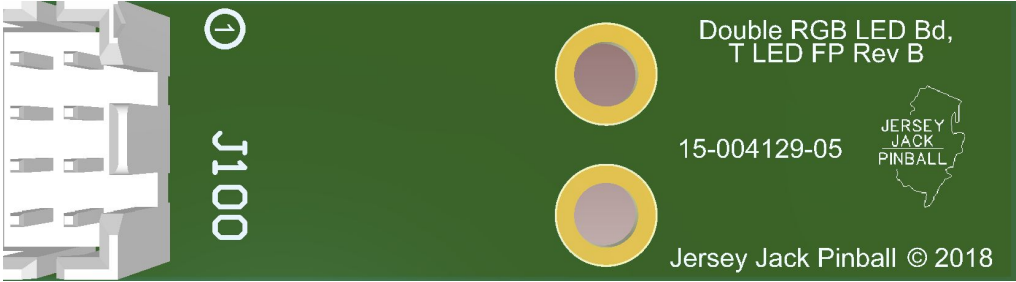
DOUT	to Ry DIN
GND	GND from ATX Power Supply
Row2	Switch Matrix Row 2 WHT/BRN
Row1	Switch Matrix Row 1 WHT/BLK
Col2	Switch Matrix Column 12 GRY/ORN
Col1	Switch Matrix Column 11 GRY/RED
DIN	Input from 15-100062-04
5V	5VDC from ATX Power Supply



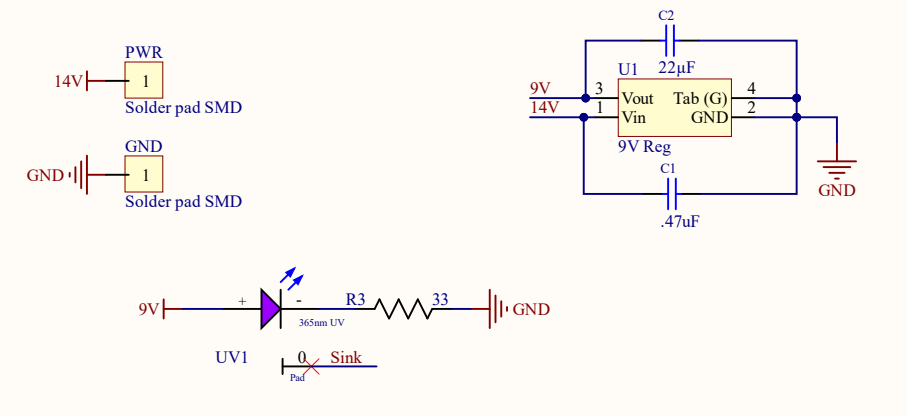
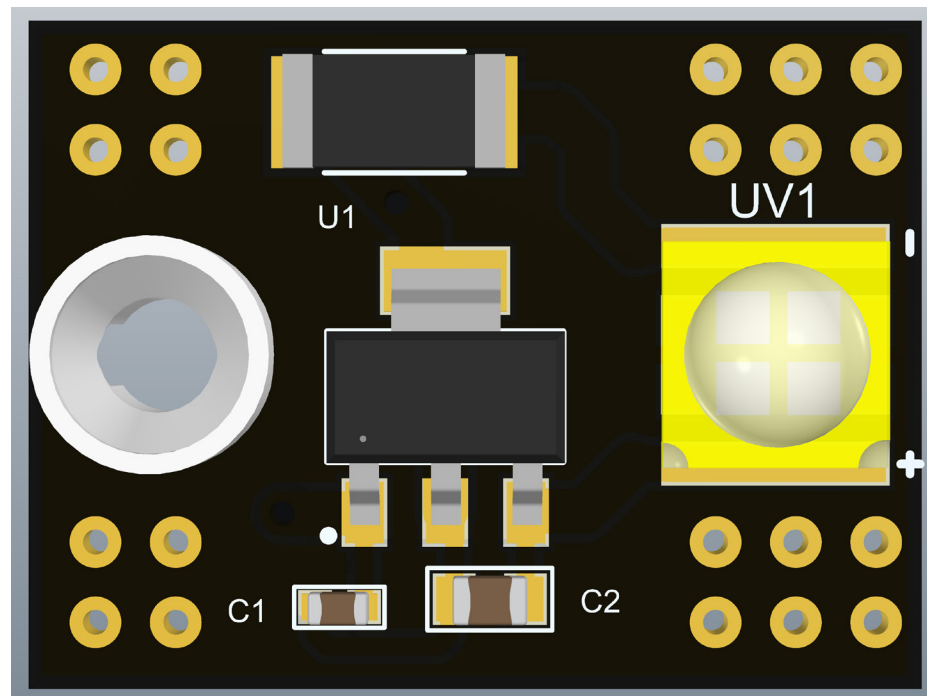




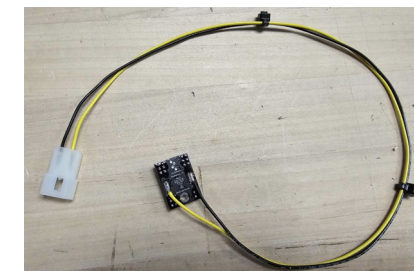
DOUBLE RGB PCB  
15-004129-05



FLOODLIGHT PCB  
15-100069-00



FLOODLIGHT WITH CABLE, ASSY  
51-100467-00



# SWITCH MATRIX TABLE

AVATAR	Column 1 J201-1		Column 2 J201-2		Column 3 J201-3		Column 4 J201-4		Column 5 J201-5		Column 6 J201-6		Column 7 J201-7		Column 8 J201-9		Column 9 J202-1		Column 10 J202-2		Column 11 J202-3		Column 12 J202-4		Column 13 J202-5		Column 14 J202-6		Column 15 J202-8		Column 16 J202-9	
	GRN	BLK	GRN	BRN	GRN	RED	GRN	ORN	GRN	YEL	GRN	GRY	GRN	BLU	GRN	VIO	GRY	BLK	GRY	BRN	GRY	RED	GRY	ORN	GRY	YEL	GRY	GRN	GRY	BLU	GRY	VIO
Row 1 J200-1	6-Ball Trough #5 1		Rear Lower Playfield - Target #1 9		Left Outlane (Kickback) 17		 25		Center Target Left 33		Right Outlane 41		 49		Right Target 1 57		Upper Right Loop - Left Sensor 65		Left Outlane Enter 73		Lockup Subway 3 81		Lockup Subway 1 89		Pop Up Scoop - Up 97		 105		 113		 121	
WHT																																
Row 2 J200-2	6-Ball Trough #4 2		Rear Lower Playfield - Target #2 10		Left Inlane 18		 26		Center Target Right 34		Right Inlane 42		 50		Right Target 2 58		 66		Lower Left Scoop 74		Lockup Subway 4 82		Lockup Subway 2 90		Upper Right Loop Right 98		 106		 114		122	
WHT																																
Row 3 J200-3	6-Ball Trough #3 3		Rear Lower Playfield - Target #3 11		Left Sling Lo 19		 27		Left Ramp Target 1 (Left) 35		Right Sling Lo 43		 51		Right Target 3 59		 67		Front Lower Playfield - Drain 75		 83		 91		Pop Up Scoop - Enter 99		 107		 115		123	
WHT																																
Row 4 J200-4	6-Ball Trough #2 4		Rear Lower Playfield - Target #4 12		Left Sling Hi 20		 28		Center Orbit 36		Right Sling Hi 44		 52		Right Target 4 60		 68		Lower Left Ramp - Made 76		 84		 92		Spinner 100		 108		 116		124	
WHT																																
Row 5 J200-5	6-Ball Trough #1 (right) 5		Lower Playfield Bumper 13		Left Target 21		 29		Left Ramp Target 2 (Right) 37		Shooter Lane 45		 53		Right Orbit 61		Upper Left Ramp - Enter 69		 77		 85		 93		Center VUK 101		 109		 117		125	
WHT																																
Row 6 J200-6	Trough Jam 6		Jump Ramp 14		 22		Front Lower Playfield - Target 1 30		Upper Left Sling Lo 38		 46		 54		 62		Left Orbit Magnet 70		 78		 86		 94		Loop Back Ramp 102		Front Lower Playfield Orbit Left 110		 118		126	
WHT																																
Row 7 J200-7	6-Ball Trough #6 (Left) 7		 15		 23		Front Lower Playfield - Target 3 31		Upper Left Sling Hi 39		 47		 55		 63		Left Orbit 71		 79		 87		 95		Lockup Subway Enter 103		Front Lower Playfield Orbit Right 111		 119		127	
WHT																																
Row 8 J200-8	 8		 16		 24		Front Lower Playfield - Target 2 32		 40		 48		 56		Shooter Lane Exit 64		Upper Left Ramp Made 72		 80		 88		 96		Upper Left Loop 104		 112		 120		128	
WHT																																

Not Used

Standard Switch

Opto Switch

Reflective Opto Switch

# OPTO LOOKUP TABLE

Switch Number	Board Number	Color	Device
1 - 7	15-100004-00	NA	Trough
65	15-100062-10	NA	Right Loop, Left Sensor
69	15-100062-07	YEL	Upper Left Ramp Enter
70	15-100062-07	GRN	Upper Left Orbit Magnet
71	15-100062-07	BLU	Left Orbit
72	15-100062-07	VIO	Upper Left Ramp Made
73	15-100062-04	NA	Left Outlane Enter Sensor
74	15-100062-04	BRN	Lower Left Scoop
75	15-100062-04	RED	Front Lower Playfield Drain
76	15-100062-04	ORN	Lower Left Ramp Made
81, 82, 89, 90	15-100064-01	NA	Infinity Lockup Subway
97	15-100062-10	BLK	Pop Up, Scoop-Up
98	15-100062-10	BRN	Upper Right Loop Right
99	15-100062-10	RED	Pop up, Scoop-Enter
100	15-100062-10	ORN	Spinner
101	15-100062-10	YEL	Center VUK
102	15-100062-10	GRN	Loop Back Ramp
103	15-100062-10	BLU	Lockup Subway Enter
104	15-100062-10	VIO	Upper Left Loop
110	15-100062-05	NA	Front Lower Playfield Orbit Left Sensor
111	15-100062-05	NA	Front Lower Playfield Orbit Right Sensor

Sensors are mounted directly on the LED board and read the ball through the light lens directly above it. They work just like a traditional OPTO pair with a transmitter and receiver.

If a sensor stops working, clean the sensor and the light lens that it looks through with rubbing alcohol and a Q-Tip, anything blocking the sensor will not allow it to work.



# DEDICATED SWITCH TABLE

J601	
Ground J601-1	
BLK	
Return -1 J601-7	Left Flipper EOS D01
BLK GRY	
Return -2 J601-6	Right Flipper EOS D02
BLK BRN	
Return -3 J601-5	Upper Left Flipper EOS D03
BLK RED	
Return -4 J601-4	Lower Playfield Right Flipper EOS D04
BLK ORN	
Return -5 J601-2	Upper Right Flipper EOS D05
BLK YEL	
Return -6 J601-3	
BLK GRN	
Return -7 J601-8	
BLK BLU	
Return -8 J601-9	Lower Playfield Left Flipper EOS D08
BLK VIO	

J602	
Ground J602-1	
BLK	
Return -1 J602-7	Left Flipper Switch Lower D09
YEL BLK	
Return -2 J602-6	Left Flipper Switch Upper D10
YEL BRN	
Return -3 J602-5	Right Flipper Switch Lower D11
YEL RED	
Return -4 J602-4	Right Flipper Switch Upper D12
YEL ORN	
Return -5 J602-2	Enter / Menu Button D13
YEL GRY	
Return -6 J602-3	Up/Volume + Button D14
YEL GRN	
Return -7 J602-8	Down/Volume - Button D15
YEL BLU	
Return -8 J602-10	Escape/Service Credit Button D16
YEL VIO	

J603	
Ground J603-1	
BLK	
Return -1 J603-7	1st Coin Switch (Right Chute) D17
BLU BLK	
Return -2 J603-6	2nd Coin Switch (Left Chute) D18
BLU BRN	
Return -3 J603-5	3rd Coin Switch (DBA) D19
BLU RED	
Return -4 J603-4	4th Coin Switch D20
BLU ORN	
Return -5 J603-2	5th Coin Switch D21
BLU YEL	
Return -6 J603-3	Ticket Notch Switch D22
BLU GRN	
Return -7 J603-9	
BLU GRY	
Return -8 J603-10	
BLU VIO	

J604	
Ground J604-1	
BLK	
Return -1 J604-8	Start Button D25
VIO BLK	
Return -2 J604-6	Coin Door Open D26
VIO BRN	
Return -3 J604-5	Plumb Bob Tilt D27
VIO RED	
Return -4 J604-4	Blue Tooth D28
VIO ORN	
Return -5 J604-2	Action Button D29
VIO YEL	
Return -6 J604-3	Headphone Panel Volume Down D30
VIO GRN	
Return -7 J604-9	Headphone Panel Volume Up D31
VIO BLU	
Return -8 J604-10	Headphone Panel Jack Sense D32
VIO GRY	



Flipper EOS Switch



Coin Door Switch



Cabinet Switch



Not Used

# 70 VOLT COIL TABLE

70V Power F704	Drive 1		Drive 2		Drive 3		Drive 4		Drive 5		Drive 6		Drive 7		Drive 8	
	J104-9, Q308		J104-8, Q307		J104-7, Q306		J104-6, Q305		J104-5, Q304		J104-4, Q303		J104-3, Q302		J104-2, Q301	
	BRN	BLK	BRN	GRY	BRN	RED	BRN	ORN	BRN	YEL	BRN	GRN	BRN	BLU	BRN	VIO
J104-1 BRN													Knocker			

70V Power F705	Drive 9		Drive 10		Drive 11		Drive 12		Drive 13		Drive 14		Drive 15		Drive 16	
	J105-10, Q318		J105-8, Q317		J105-7, Q316		J105-6, Q315		J105-5, Q314		J105-4, Q313		J105-3, Q312		J105-2, Q311	
	RED	BLK	RED	BRN	RED	GRY	RED	ORN	RED	YEL	RED	GRN	RED	BLU	RED	VIO
J105-1 RED	Left Flipper Power		Left Flipper Hold		Right Flipper Power		Right Flipper Hold		Trough VUK		Auto Launch		Kickback			

70V Power F706	Drive 17		Drive 18		Drive 19		Drive 20		Drive 21		Drive 22		Drive 23		Drive 24	
	J106-10, Q328		J106-9, Q327		J106-7, Q326		J106-6, Q325		J106-5, Q324		J106-4, Q323		J106-3, Q322		J106-2, Q321	
	ORN	BLK	ORN	BRN	ORN	RED	ORN	GRY	ORN	YEL	ORN	GRN	ORN	BLU	ORN	VIO
J106-1 ORN	Orbit Magnet				Subway Lock Release				Ramp Post		Scoop					

70V Power F707	Drive 25		Drive 26		Drive 27		Drive 28		Drive 29		Drive 30		Drive 31		Drive 32	
	J107-10, Q338		J107-9, Q337		J107-8, Q336		J107-6, Q335		J107-5, Q334		J107-4, Q333		J107-3, Q332		J107-2, Q331	
	TAN	BLK	TAN	BRN	TAN	RED	TAN	ORN	TAN	YEL	TAN	GRN	TAN	BLU	TAN	VIO
J107-1 TAN	Upper Right Flipper Power		Upper Right Flipper Hold		Pop Up Scoop Power		Pop Up Scoop Hold		Jet Bumper		Lower Playfield Ball Launch					

70V Power F708	Drive 33		Drive 34		Drive 35		Drive 36		Drive 37		Drive 38		Drive 39		Drive 40	
	J108-10, Q408		J108-9, Q407		J108-8, Q406		J108-7, Q405		J108-5, Q404		J108-4, Q403		J108-3, Q402		J108-2, Q401	
	PNK	BLK	PNK	BRN	PNK	RED	PNK	ORN	PNK	YEL	PNK	GRN	PNK	BLU	PNK	VIO
J108-1 PNK	Top Left Slingshot		VUK		Upper Left Flipper Power		Upper Left Flipper Hold				Right Slingshot		Left Slingshot			

# 20 VOLT COIL & MOTOR TABLE

20V Power F710	Drive 49	Drive 50	Drive 51	Drive 52	Drive 53	Drive 54	Drive 55	Drive 56
	J110-2, Q421	J110-3, Q422	J110-5, Q423	J110-6, Q424	J110-7, Q425	J110-8, Q426	J110-9, Q427	J110-10, Q428
	GRY BLK	GRY BRN	GRY RED	GRY ORN	GRY YEL	GRY GRN	GRY BLU	GRY VIO
J110-1 GRY								

20V Power F711	Drive 57	Drive 58	Drive 59	Drive 60	Drive 61	Drive 62	Drive 63	Drive 64
	J111-2, Q431	J111-4, Q432	J111-5, Q433	J111-6, Q434	J111-7, Q435	J111-8, Q436	J111-9, Q437	J111-10, Q438
	BLU BLK	BLU BRN	BLU GRY	BLU ORN	BLU YEL	BLU GRN	BLU GRY	BLU VIO
J111-1 BLU	Lower Level Left Flipper Power	Lower Level Left Flipper Hold	Lower Level Right Flipper Power	Lower Level Right Flipper Hold	Amp Suit			

20V Power F712	Drive 65	Drive 66	Drive 67	Drive 68	Drive 69	Drive 70	Drive 71	Drive 72
	J112-3, Q501	J112-4, Q502	J112-5, Q503	J112-6, Q504	J112-7, Q505	J112-8, Q506	J112-9, Q507	J112-10, Q508
	VIO BLK	VIO BRN	VIO RED	VIO ORN	VIO YEL	VIO GRN	VIO BLU	VIO GRY
J112-1 VIO								

# 12 VOLT COIL, LIGHT & MOTOR TABLE

12V Power F709	Drive 41	Drive 42	Drive 43	Drive 44	Drive 45	Drive 46	Drive 47	Drive 48
	J109-2, Q 411	J109-3, Q412	J109-4, Q413	J109-6, Q414	J109-7, Q415	J109-8, Q416	J109-9, Q417	J109-10, Q418
	YEL BLK	YEL BRN	YEL RED	YEL ORN	YEL GRY	YEL GRN	YEL BLU	YEL VIO
J109-1 YEL	Lower Right UV Spotlight	Upper Right UV Spotlight	Upper Left UV Spotlight	Lower Left UV Spotlight	Apron UV Spotlight			

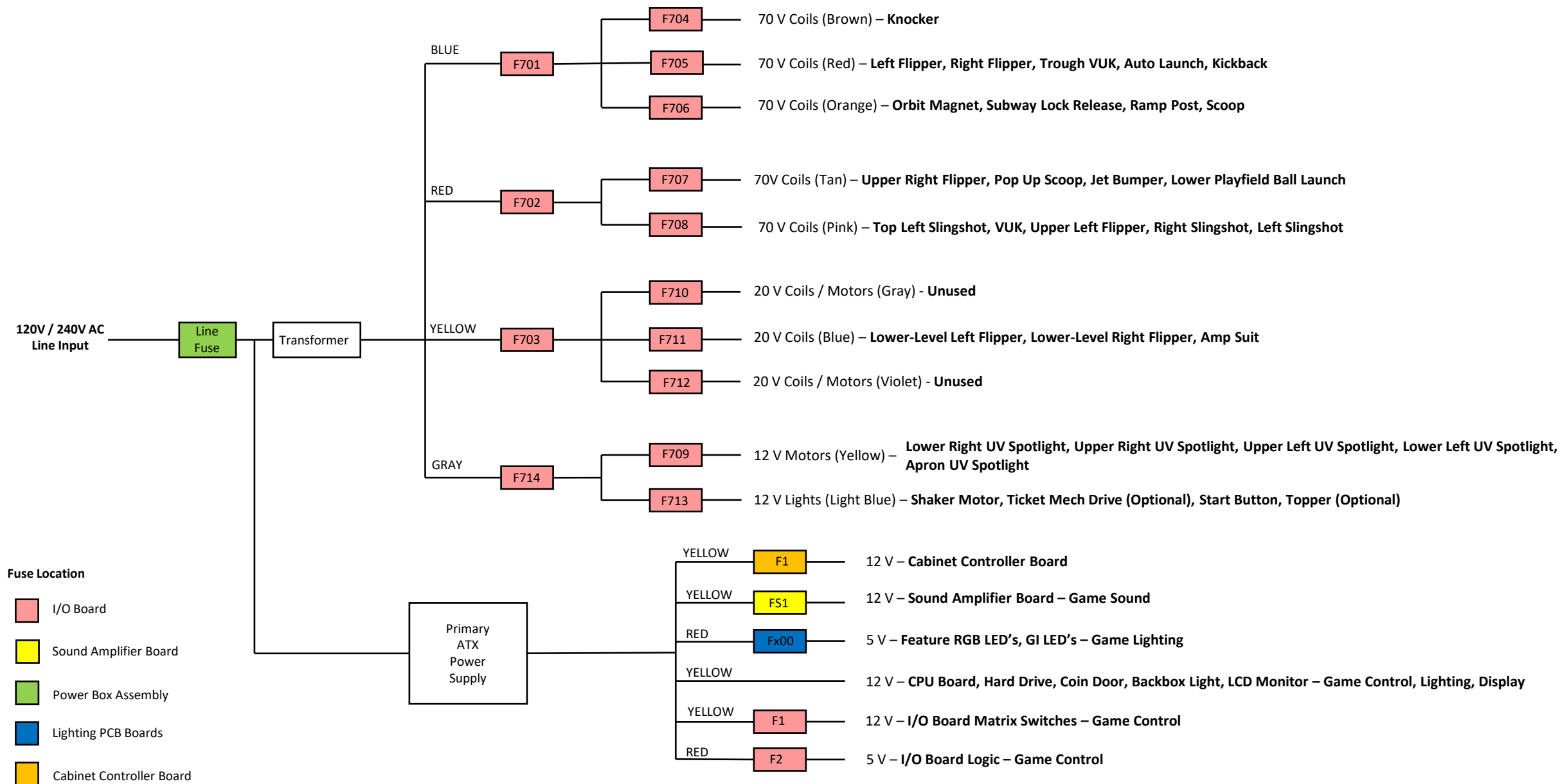
12V Power F713	Drive 73	Drive 74	Drive 75	Drive 76	Drive 77	Drive 78	Drive 79	Drive 80
	J113-3, Q511	J113-4, Q512	J113-5, Q513	J113-6, Q514	J113-7, Q515	J113-8, Q516	J113-9, Q517	J113-10, Q518
	LT BLU BLK	LT BLU BRN	LT BLU RED	LT BLU ORN	LT BLU YEL	LT BLU GRN	LT BLU GRY	LT BLU VIO
J113-2 LT BLU	Shaker Motor		Ticket Mech Motor Drive				Start Button Light	Topper

# FUSE TABLE

LOCATION	PART #	DESCRIPTION
<b>Power Box</b>		
Line Fuse Domestic	170-000110-SR	10A Slow Blow 125V .25x1.25"
Line Fuse International	170-000205-SR	5A Slow Blow 250V .25x1.25"
<b>Amplifier</b>		
FS1	170-000105-SM	5A 125V 5x20mm
<b>IO Board</b>		
F1		1A Slow Blow 32V SMT
F2		1A Slow Blow 32V SMT
701	170-000110-SM	10A Slow Blow 250V 5x20mm
702	170-000110-SM	10A Slow Blow 250V 5x20mm
703	170-000163-SM	6.3A Slow Blow 250V 5x20mm
704	170-000105-SM	5A Slow Blow 250V 5x20mm
705	170-000107-SM	6.3A Slow Blow 250V 5x20mm
706	170-000163-SM	6.3A Slow Blow 250V 5x20mm
707	170-000163-SM	6.3A Slow Blow 250V 5x20mm
708	170-000105-SM	5A Slow Blow 250V 5x20mm
709	170-000132-SM	3.15A Slow Blow 250V 5x20mm
710	170-000104-SM	4A Slow Blow 250V 5x20mm
711	170-000104-SM	4A Slow Blow 250V 5x20mm
712	170-000104-SM	4A Slow Blow 250V 5x20mm
713	170-000132-SM	3.15A Slow Blow 250V 5x20mm
714	170-000104-SM	4A Slow Blow 250V 5x20mm

BOARD	LOCATION	DESCRIPTION
<b>Lilypad Light Boards</b>		
Left Sling Area 15-100062-01	F1	5A Slow Blow 63V SMT
Right Sling Area 15-100062-02	F1	5A Slow Blow 63V SMT
Middle Right 15-100062-03	F1, F2	5A Slow Blow 63V SMT
Middle Left 15-100062-04	F1, F2	5A Slow Blow 63V SMT
Lower Sub Playfield 15-100062-05	F1, F2	5A Slow Blow 63V SMT
Lower Sub Playfield 15-100062-06	NO FUSE	
Subway Area 15-100062-07	F1, F2	5A Slow Blow 63V SMT
Upper Left 15-100062-08	F1	5A Slow Blow 63V SMT
Upper Right 15-100062-09	F1, F2	5A Slow Blow 63V SMT
Upper Middle 15-100062-10	F1	5A Slow Blow 63V SMT
Target Area 15-100062-11	NO FUSE	
Upper Sub Playfield 15-100062-12	F1 F2	3A Slow Blow 63V SMT 5A Slow Blow 63V SMT
Lower Sub Playfield Arena 15-100062-13	NO FUSE	

# POWER STREAM



# AVATAR

Copyright 2024 all rights reserved.

## JERSEY JACK PINBALL

1850 Greenleaf Ave.  
Elk Grove Village, IL 60007  
630.830.5225