



NOT IN THIS
LIFETIME

PINBALL MACHINE OWNERS MANUAL



JERSEY
JACK
PINBALL

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JERSEY JACK PINBALL

Limited Manufacturer's Warranty

JJP's LIMITED 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, alteration 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 the part 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 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 sale item.

Statutory Warranties: This Limited Warranty is distinct from any statutory rights under any mandatory consumer protection laws of your 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 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 are 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 recommended. Use of non-Jersey Jack Pinball® parts or modifications of game circuitry, may adversely affect game play, or 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 LINE CORD IS DAMAGED, it must be replaced with a cord provided by the game manufacturer (or an equivalent) in order to avoid a shock hazard.

Notice

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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.

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!**

CONGRATULATIONS ON YOUR GUNS N' ROSES PINBALL EXPERIENCE!

Everyone at Jersey Jack Pinball has worked very hard, with Passion for years to bring this amazing game to life.

In my longtime friendship with Slash we often spoke over the years about creating an amazing game that would bring the GnR concert excitement to the player. Eric and his Team have done that and perhaps even more.....it's sensory overload !

Our loyal customers and players love what we create (they have Patience ;-)
and we are grateful and mindful that our games are forever-treasured playable works of art. We strive to capture the best and to give our players the greatest pinball games possible.

Special thanks to Axl, Duff, Slash, Fernando, Meegan, everyone at GnR and all of the people backstage that we count on to create our games. Thanks to everyone at JJP for the love and attention to detail that went into this game, we hope it brings smiles and happiness forever.

Keep Rockin' the Pinball Machine.

Thank You,
Jack Guarnieri
Jersey Jack



GUNS N ROSES

GUNS N ROSES

DOCUMENT REVISION HISTORY

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Manual Written By: Barry Engler

Special thanks to
Ax Man D
Joe Katz
Mark Molitor
And the JJP Crew

FOR SERVICE CALL YOUR AUTHORIZED DISTRIBUTOR

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NOTICE

NOTICE

EXPLICIT MODE TURNED OFF

THIS GAME IS SET - UP FOR FAMILY FRIENDLY MODE OUT OF THE BOX.
YOU MUST CHANGE THE SETTINGS TO ENABLE EXPLICIT MODE.



EXPLICIT MODE FEATURES:



EXPLICIT SONGS NOT AVAILABLE IN FAMILY MODE:

IT'S SO EASY, MR BROWNSTONE,
OUT TA GET ME, COMA, DOUBLE TALKIN' JIVE
EXPLICIT AUDIO CALLS AND VIDEO CLIPS

TO CHANGE SETTINGS:

- OPEN COIN DOOR
- HIT ENTER BUTTON (TO ENTER DIAGNOSTICS)
- GO TO FULL MENU
- GO TO SETTINGS
- GO TO GAME SETTINGS
- UNDER THE GENERAL HEADER ALLOW ADULT CONTENT CHANGE TO YES

NOTE THE GAME WILL REBOOT AFTER SAVING THIS CHANGE



70-100007-00

GET THE MOST OUT OF YOUR GAME

Dont forget to adjust the mode setting

IT'S SO EASY
MR. BROWNSTONE
OUT TA GET ME
COMA
DOUBLE TALKIN' JIVE

ARE ONLY AVAILABLE WITH THE EXPLICIT MODE ENABLED



GN'R TOPPER INSTALLATION INSTRUCTIONS



TABLE OF CONTENTS:

SPEAKER BOX INSTALL
ATTACHING SPEAKER BRACKET
ATTACHING SPEAKER ASSEMBLY TO CABINET
ATTACHING CABLES

ACRYLIC SIGN INSTALL
MOUNTING ACRYLIC SIGN TO BRACKET
ATTACHING POWER CABLES FOR LIGHTS



IMPORTANT: TURN OFF & UNPLUG GAME FROM WALL BEFORE INSTALLING TOPPER. TOPPER IS HEAVY, USE 2 PEOPLE TO INSTALL.

SPEAKER BOX INSTALL ATTACHING SPEAKER BRACKET

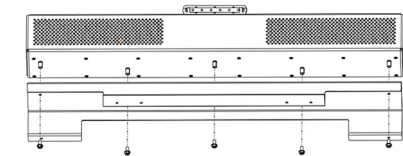
1

OPEN TOPPER BOX & CAREFULLY UN-PACK THE ENCLOSED ITEMS.



2

ATTACH SPEAKER BRACKET TO SPEAKER BOX BY TIGHTENING THE 5 SUPPLIED #10-32 SCREWS USING PHILLIPS SCREWDRIVER.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	10-100174-00	TOP SOUND BAR MOUNTING BRKT	1
2	51-005010-02	SOUND BAR	1
3	80-002010-06	#10-32 x 3/8" HWH Phillips MS. Serrated	5

ATTACHING SPEAKER ASSEMBLY TO CABINET

3

PLACE SPEAKER BOX WITH ATTACHED BRACKET ON TOP OF CABINET.



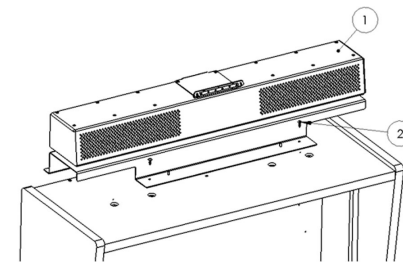
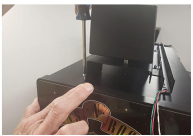
4

LINE-UP PRE-DRILLED HOLES IN CABINET WITH SPEAKER BRACKET.



5

TIGHTEN THE 4 SUPPLIED #6 x 1/2" SCREWS INTO PRE-DRILLED HOLES USING PHILLIPS SCREWDRIVER.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	51-100116-00	SOUND BAR TOPPER ASM	1
2	82-007006-08	#6 x 1/2" TH SMS	4

ATTACHING CABLES

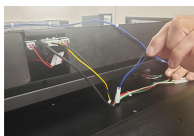
6

PLUG IN AUDIOJACK AND SPEAKER POWER CABLE.



7

PLUG IN LIGHT STRIPS AND FEED BLUE CABLE FROM TOPPER INTO THE BACKBOX.



PAGE 1 of 2

#71-100011-00

ACRYLIC SIGN INSTALL

MOUNTING ACRYLIC SIGN TO BRACKET

8

SLIDE ACRYLIC TOPPER SIGN INTO BRACKET. LINE-UP THE FOUR HOLES.



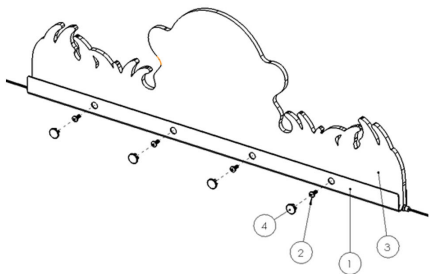
9

ATTACH THE 4 SUPPLIED #8 SCREWS BY SLIDING FASTENER THROUGH BRACKET HOLE AND ACRYLIC TOPPER BRACKET. TIGHTEN SCREW USING PHILLIPS SCREWDRIVER.



10

COVER HOLES WITH SNAP IN PLUGS BY PRESSING PLUGS IN BY HAND.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	10-100189-00	SLSH ACRYLIC TOPPER BRKT	1
2	80-000008-06	8-32 x 3/8" PPH MS	4
3	30-100064-00	SLSH ACRYLIC TOPPER	1
4	30-000095-01	.375 I.D. NYLON PLASTIC SNAP-IN PANEL PLUG	4

ATTACHING POWER CABLES FOR LIGHTS AND SPEAKERS

11

LOCATE THE BLUE CABLE (ACRYLIC TOPPER LIGHT) FROM STEP #7 AND PLUG IT INTO THE MATCHING BLUE CABLE AS SHOWN.



12

ATTACH SPEAKER POWER CABLE ON THE BACK OF THE TOPPER AS SHOWN.



PAGE 2 of 2

#71-100011-00

SETTING UP BLUETOOTH & WIFI

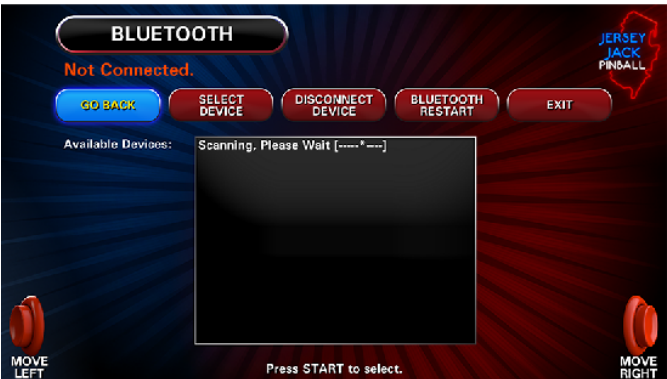
To set up Bluetooth you will need to access the Player Menu.

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).

*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.



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

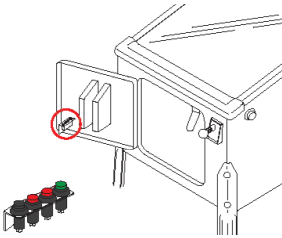
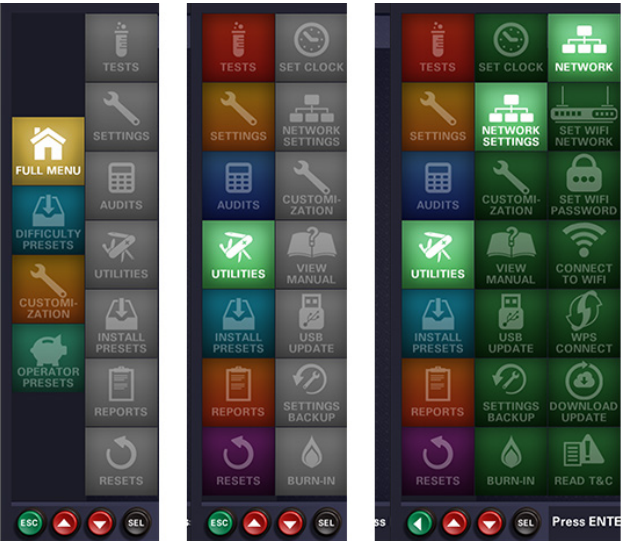


Once in Bluetooth menu it will attempt to scan for Bluetooth devices.
Make sure your device is in pairing mode.
Once the Bluetooth device shows up in the list, select it with the start button.
Bluetooth should pair the device and start working.

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.

Currently enabling WIFI allows for downloading code updates.
To setup WIFI on your machine.

Enter the “Test Menu” by pressing the black button once.
Using either red button, highlight “Utilities”, select with the black button.
Using either red button, highlight “Network Settings”, select with the black button.
Terms and Conditions.
Press the black button to read.
Press either red button to scroll through T&C.
Once “Terms Accepted” is displayed, press the green button to exit.
Using either red button, highlight “Set WIFI Network”, Select with the black button.
Press the black button to “Scan Available Networks”.
Using the red buttons highlight your Network, select with the black button.
Exit out of “Set WIFI” by pressing the green button.
Using the red buttons, highlight “Set WIFI Password”, select with the black button.
Use flipper buttons to change the character set.
Use black and green buttons to move cursor between characters.
Use red buttons to change characters within a character set.
Press “Start Button” to save password once you’re finished.
Exit out of “Set WIFI Password” by pressing the green button.
Using the red buttons, highlight “Connect to WIFI”, select with the black button.
Connected to Network “xxxx” will be shown once connected to network.
Using the red buttons, highlight “Network”, select with the black button.
Press the “Start Button” to test the Network.
Last Network test “Passed” displayed.
Press the red button to “Turn Off Network”.
Press the Black Button to “Forget Network”.
Press the green button to “Exit”.



71-100018-00

GUNS N ROSES

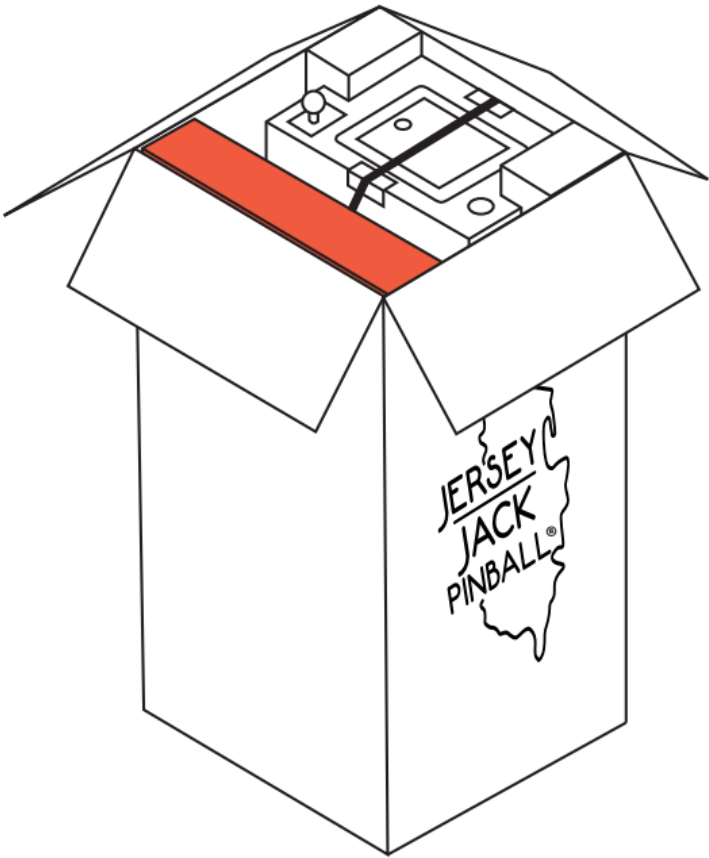
III

UNPACKING YOUR GUNS N ROSES GAME

1) Using wire cutters or scissors, remove all shipping bands from the outside of the carton, noting the side with the “TRUCK THIS SIDE ONLY” marking. With a utility knife and needle-nose pliers, carefully cut the tape and remove all staples along the seams of the carton’s top flaps, then fold them open. Remove the large, flat sheet of cardboard. Pull out the legs tray and remove all parts. Check all loose parts against the packing list on this page.



The “TRUCK THIS SIDE ONLY” side of the box.



Opening the shipping carton.

Tools Required:

- Wire cutters or Scissors
- Needle-nose pliers
- Utility knife
- Ratchet and 5/8” socket (or 5/8” wrench)
- #2 Phillips screwdriver
- Torpedo bubble level

Loose Parts Packing List

- 4 pinball machine legs, with levelers and tightening nuts
- 8 acorn-head leg bolts
- 6 steel mirror-finish pinballs
- 1 USA line power cable
- 1 “L”-shaped, 5/16” hex key
- 1 steel setup multi-tool
- 1 flipper gauge
- spare guitar pick spinner decals
- spare set of slingshot plastics
- assorted plastic game key fobs
- 1 mylar slingshot PF protector set
- set of ball drop and corner protector
- 1 GnR pricing card set
- 2 3/16” ID mini post silicone, clear
- 2 2” silicone ring, clear
- 2 black plastic push-in, ribbed rivets
- 2 spare slingshot silicone rings
- 1 3/8" OD silicone mini post rubber
- 2 3/16" ID silicone mini post rubbers
- 4 heavy, felt cabinet protectors
- 1 topper (CE games only)

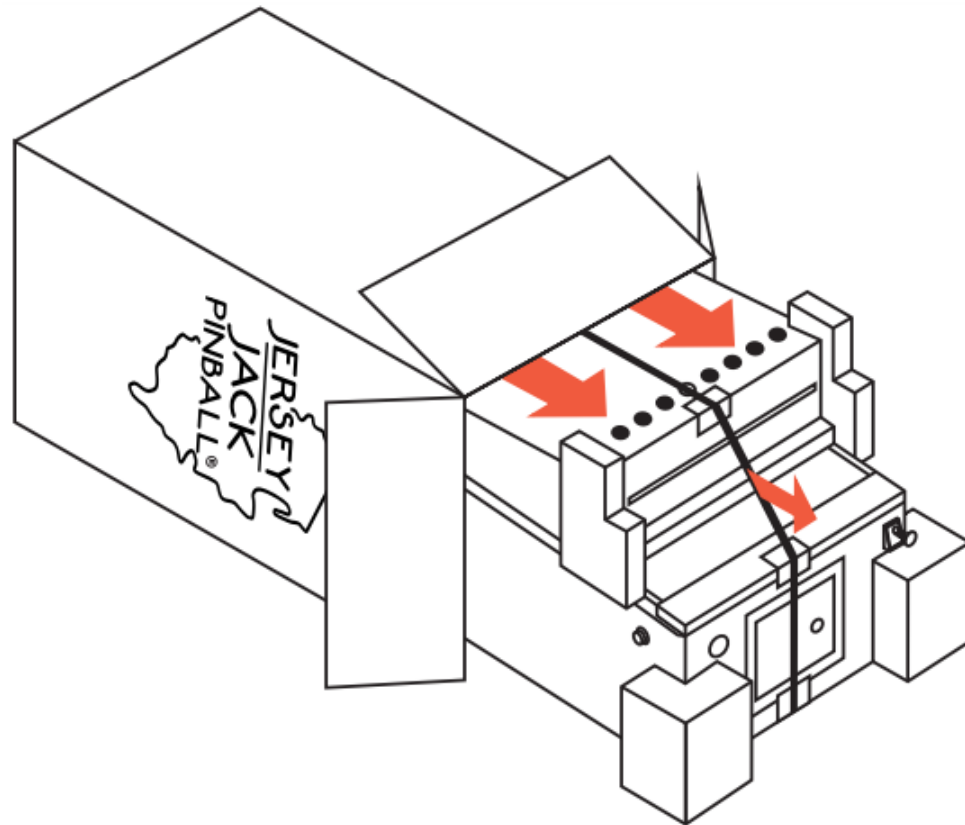
Note: If anything is missing from your loose parts, send an email to warranty@jerseyjackpinball.com for a replacement.

If you wish to save your shipping carton:

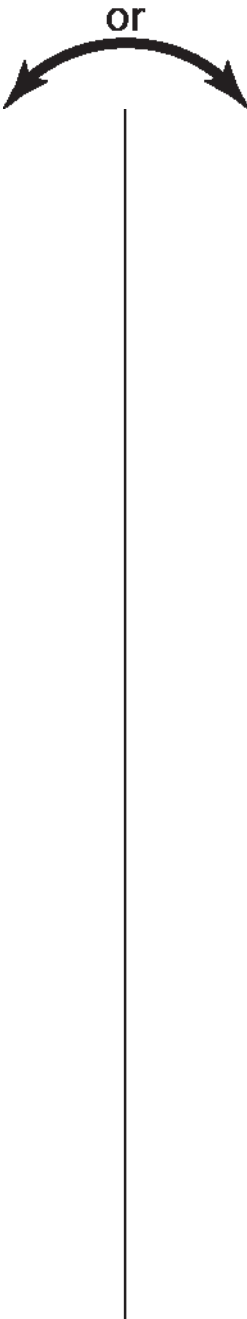
2) With the help of at least one other person, carefully tip the carton over and lay it on its “TRUCK THIS SIDE ONLY” side. Using the nylon strap as a handle (**DO NOT PULL ON THE GAME'S BALL SHOOTER!**), slide the game and packing materials out of the carton.

Note: You may need to spread a blanket or some other form of cushion under the game to protect the floor.

3) **DO NOT CUT THE NYLON STRAP** holding the backbox down at this point. Remove the foam padding from the corners of the game and carefully stand it upright again (as it was in the carton during shipping).



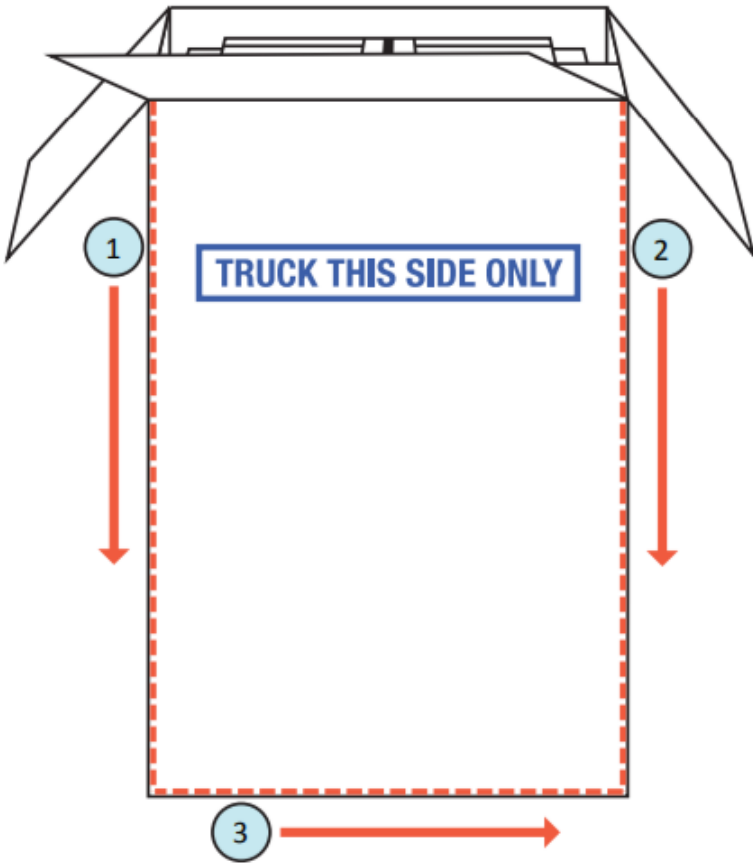
Sliding the game out of the carton.



If you do not wish to save your shipping carton:

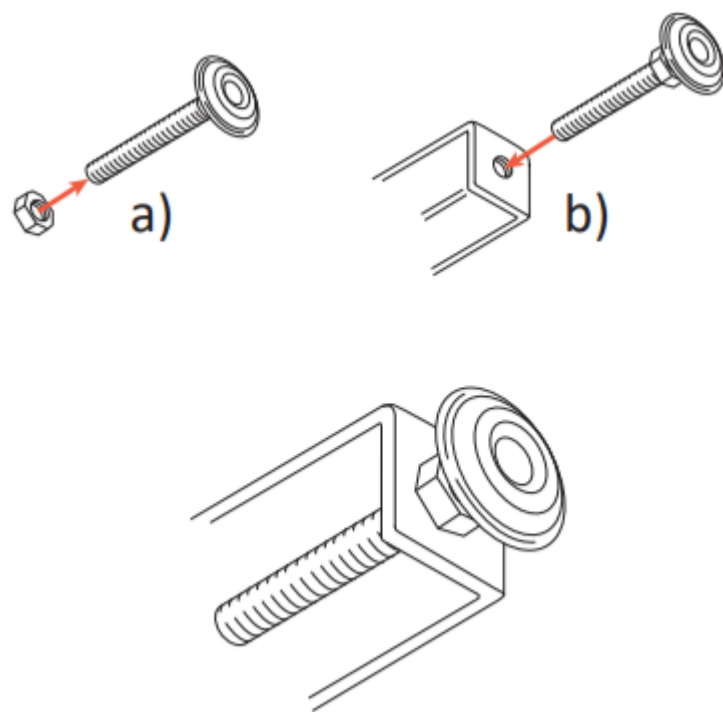
2) Using a utility knife, remove the “TRUCK THIS SIDE ONLY” side of the shipping carton. Carefully cut down the left and right sides of the box. Let the flap fall to the floor, then cut across the bottom edge (taking care not to damage the floor).

3) **DO NOT CUT THE NYLON STRAP** holding the backbox down at this point. Remove the foam padding from the corners of the game.



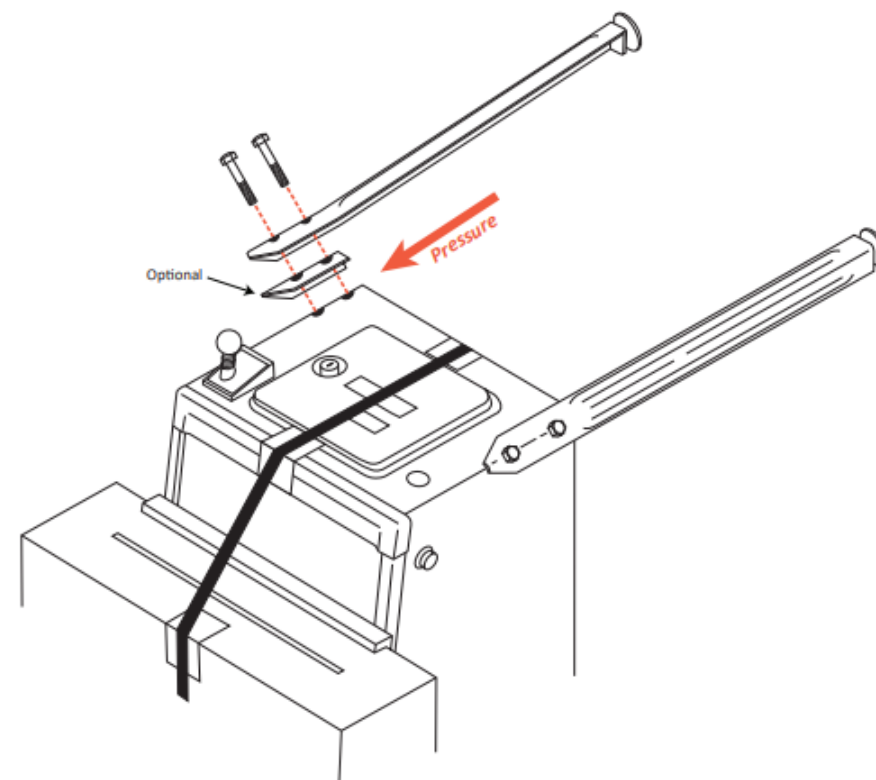
Removing the “TRUCK THIS SIDE ONLY” side of the carton.

4) Locate the game's four legs & four tightening nuts. Add a tightening nut and a leg leveler to each leg as shown in figure below: a) Install a tightening nut onto each leveler; hand thread it all the way down, next to the foot of the leveler. b) Hand thread the leveler/nut into each leg until the tightening nut is against the base of the leg. With the cabinet set up on a perfectly level surface, this should provide a playfield pitch of approximately 6.5°, front-to-back.



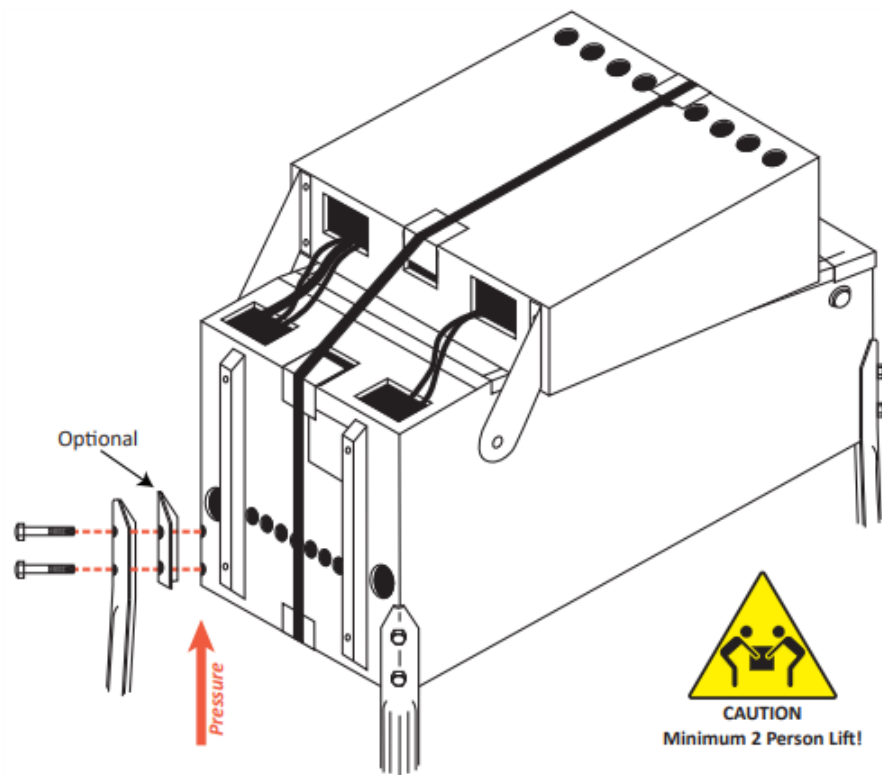
Installing a leg leveler and tightening nut.

5) Locate the eight acorn-head leg bolts in the loose parts. Thread 2 leg bolts through each leg (and through a heavy felt cabinet protector, if desired) and attach it to the cabinet. Using a 5/8" socket and ratchet, a 5/8" wrench, or the cut-out in the provided multi-tool, tighten the bolts firmly, while maintaining pressure (in the direction of the red arrow) on each leg.



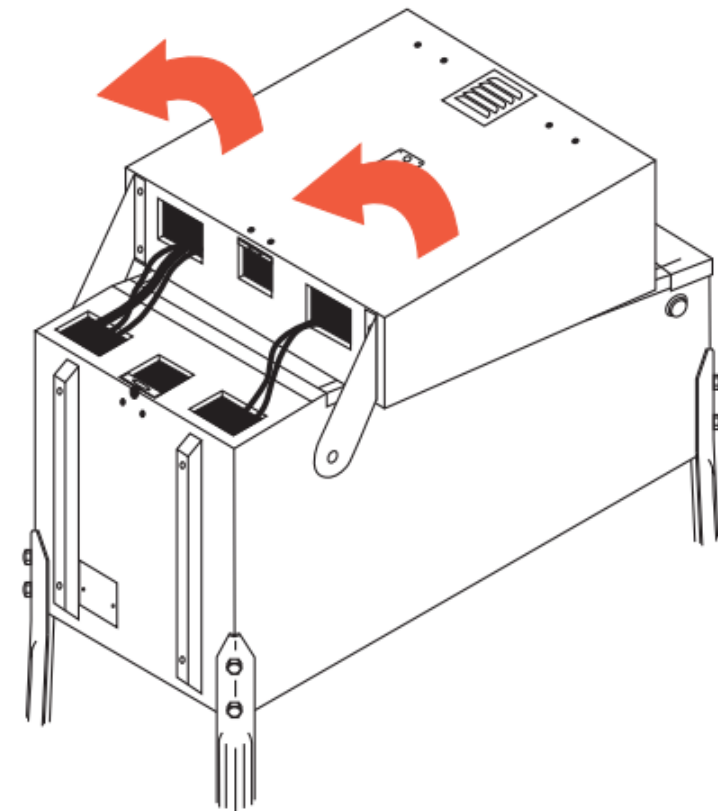
Installing the front legs and cabinet protectors.

6) With the help of at least one other person, carefully tip the game onto its front legs. Lift the rear of the cabinet and have **two people** hold it or place it on a sturdy support. As with the front legs, attach the two rear legs, using the four remaining acorn-head bolts (and heavy felt cabinet protectors, if desired). Tighten all bolts firmly, while maintaining upward pressure on the legs. Lower the game onto its four legs.

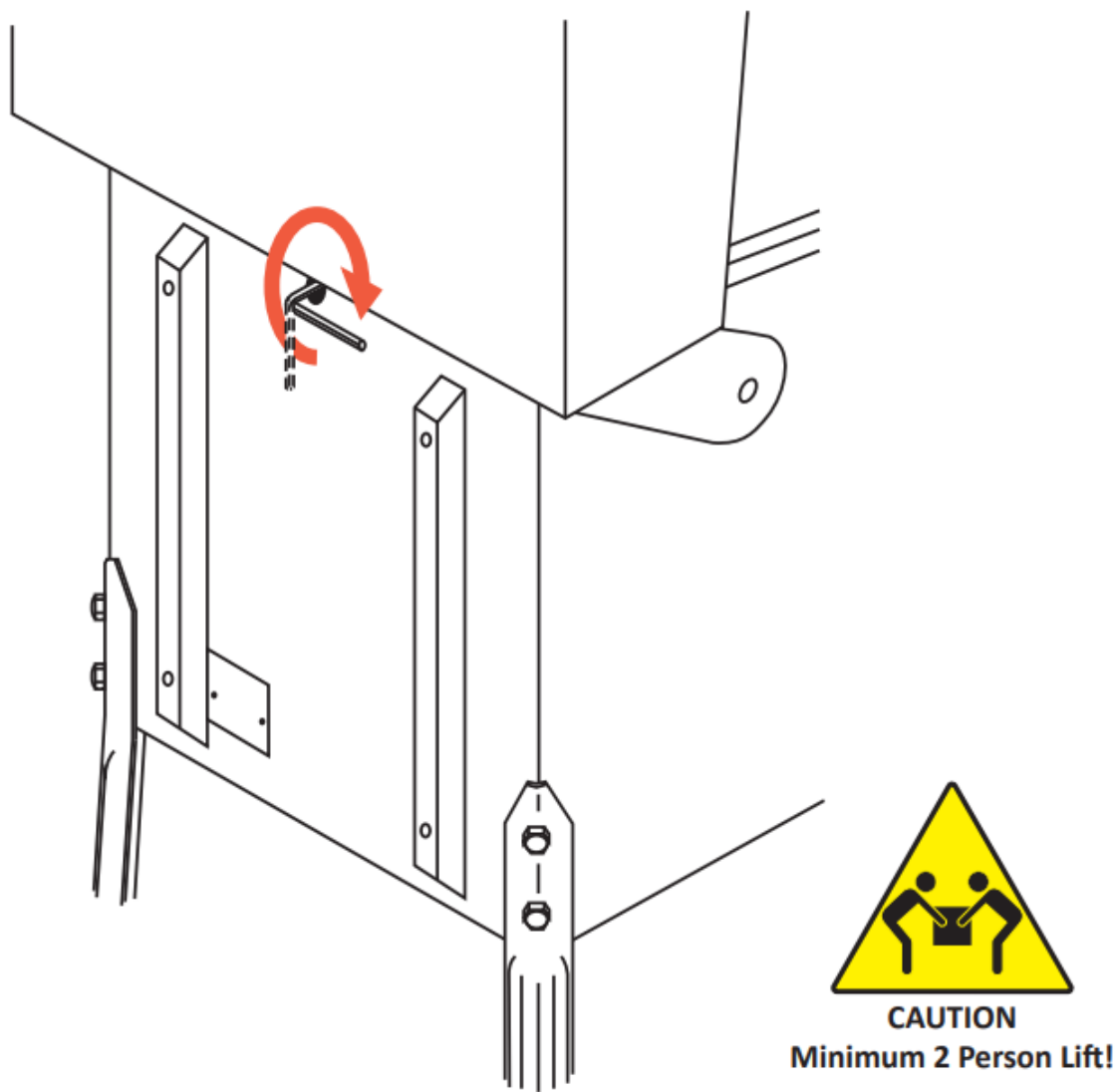


Installing the rear legs and cabinet protectors.

7) Using wire cutters or scissors, cut the nylon strap holding the backbox down (**CAUTION: PROTECT YOUR EYES** and have helpers/bystanders move away! The sharp ends of the cut strap may whip violently away from the game!). Remove the remainder of the packing material from the game and raise the backbox to its upright position. Ensure that the cables and wires in the neck of the game do not get pinched at any time during this process.



Raising the backbox to its upright position.



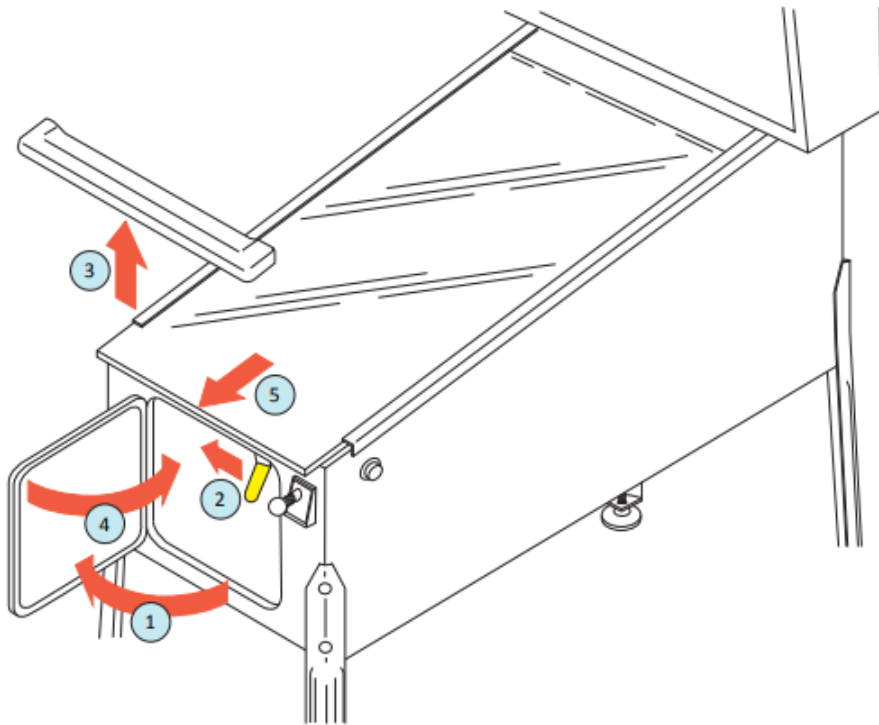
Locking the backbox in the upright position.

8) You will find the coin door keys attached to the ball shooter, on the front of the game. Cut them loose with a pair of wire cutters or scissors. Open the coin door, reach inside, remove the hairpin clip holding the cash box to the lower cabinet and remove the cash box from the game. Remove the loose parts from the cash box and compare to the packing list on [page 1](#). Locate the “L”-shaped, 5/16” hex key for the backbox Roto-Lock in the loose parts. Insert it into the hole at the base of the backbox and turn it a full 270 degrees, CW.

Note: When the Roto-Lock is in the fully locked position, the key will not turn any further in the CW direction.

9) Using at least **two people**, lift the game and move it to the intended play area. **DO NOT SLIDE LEGS ACROSS THE FLOOR.**

10) Remove the playfield glass: 1) open the coin door, 2) slide the yellow lockdown bar lever to the left, 3) lift the lockdown bar straight up and out, 4) CLOSE AND LOCK THE COIN DOOR (to prevent scratching of playfield glass), then 5) slide the playfield glass off of the front of the cabinet. Carefully set the glass aside. **CAUTION:** Lay the playfield glass flat or on a padded surface. NEVER place the playfield glass, on edge, on a hard surface! Protect and safeguard the edges; they are the weakest part of the glass. Shock to the edges could shatter the tempered glass!

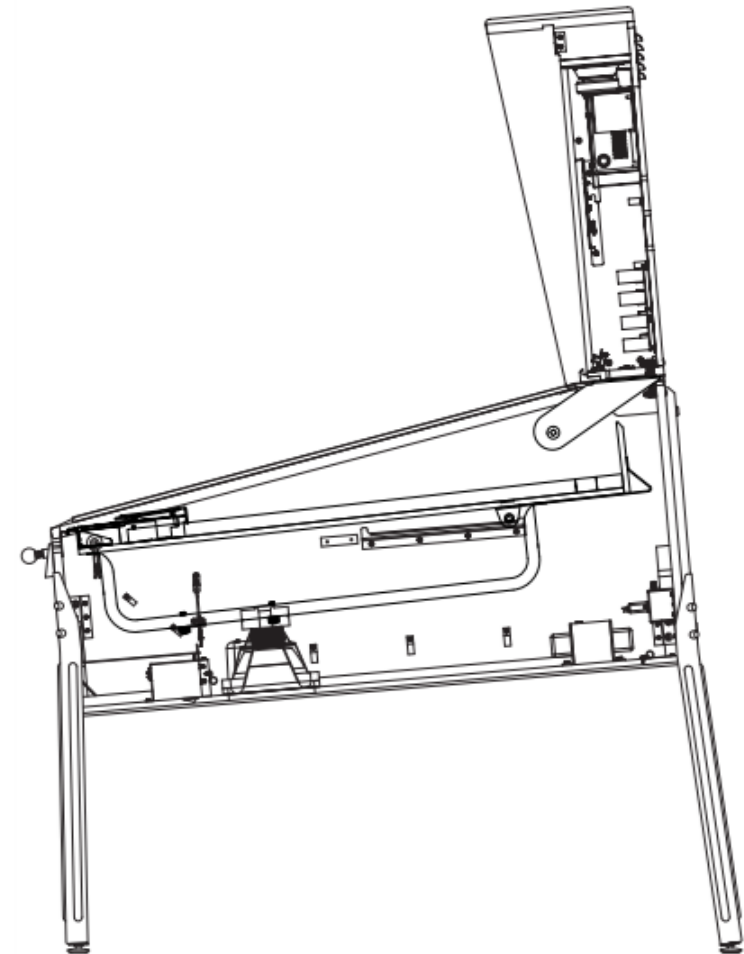


Removing the playfield glass.

11) Locate the game's six pinballs in the loose parts. Wipe the balls with a soft rag to remove any anti-rust compounds before use. Place all six balls in the ball trough (drop them onto the playfield, below the flippers, and allow them to drain). Level the game side-to-side by placing a bubble level on the playfield surface (top and bottom)

and adjusting the leg levelers and tightening nuts accordingly. When finished, secure the tightening nut against the underside of each leg.

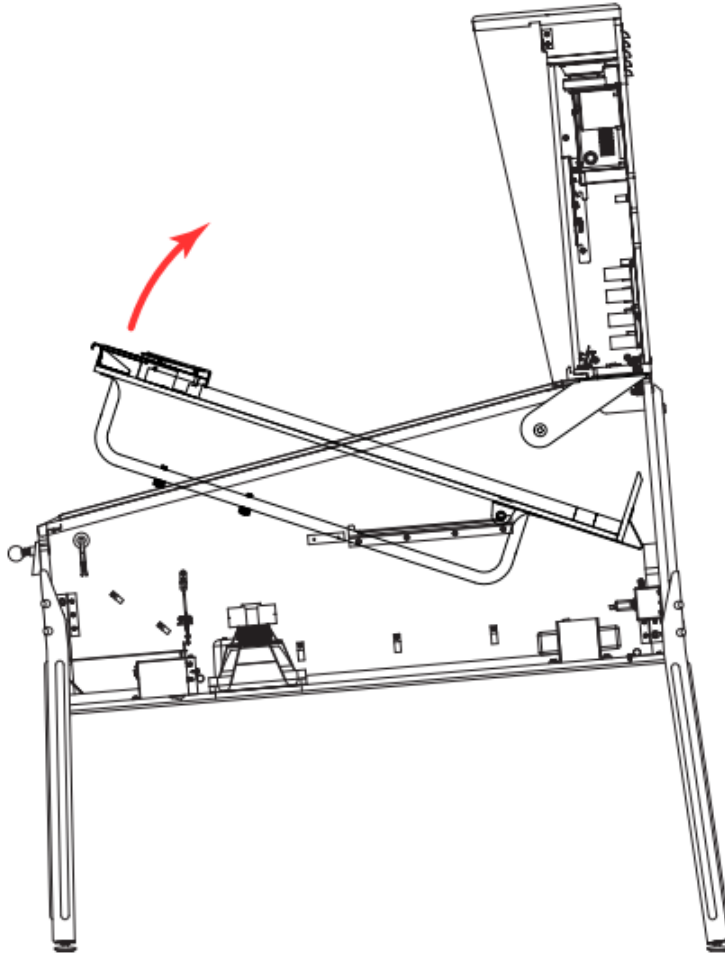
12) Your Jersey Jack Pinball® playfield is designed to rest in four distinct positions in its cabinet for game play, cleaning and maintenance. Figure below shows the playfield in its standard position.



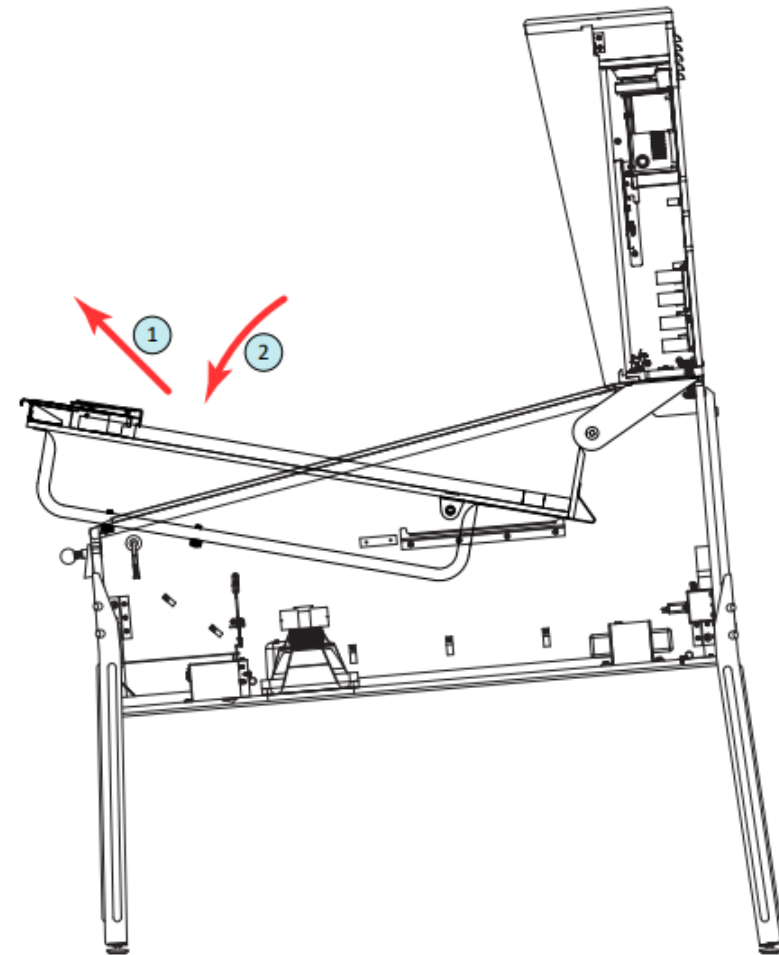
Playfield in the game play position.

13) Grasp the playfield under its bottom arch and swing it upward until the playfield support tubes underneath are fully visible. Move the playfield to position 2. Pull it upward and outward until the first pair of feet reach the top of the lockdown bar receiver; then lower the playfield, resting the feet in the steel channel.

Note: The game has a safety mechanism to keep the balls in the trough from falling out when the playfield is lifted.

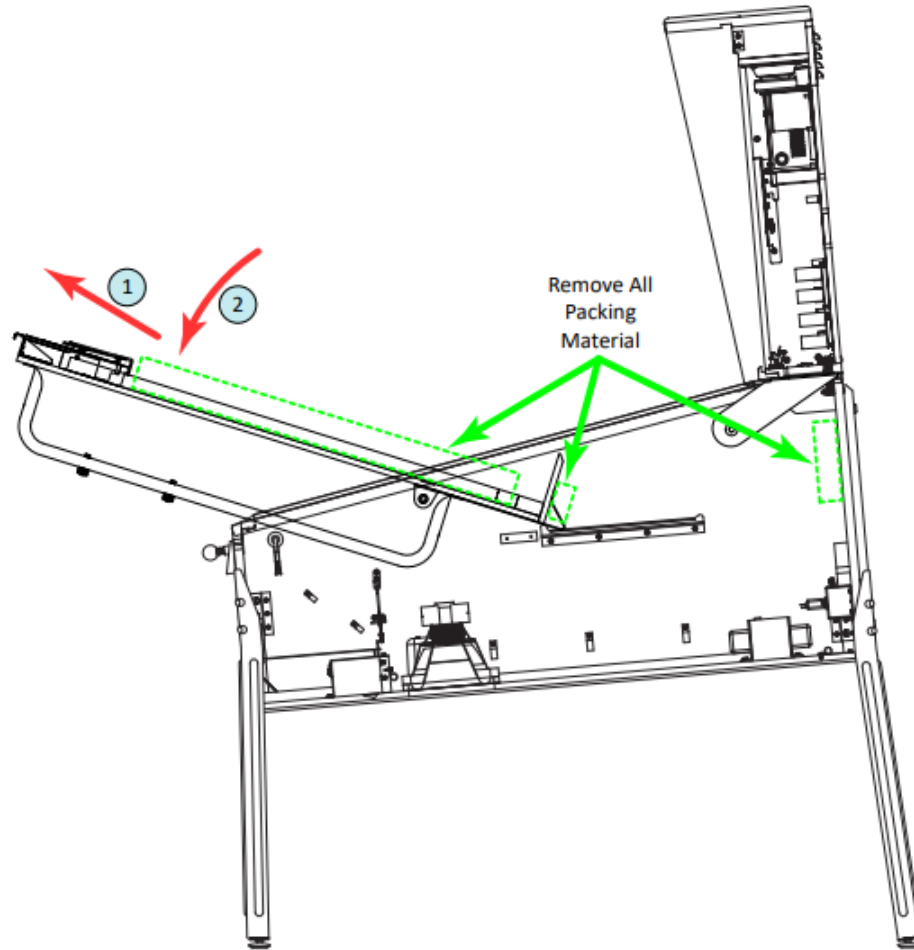


Swing the playfield upward.



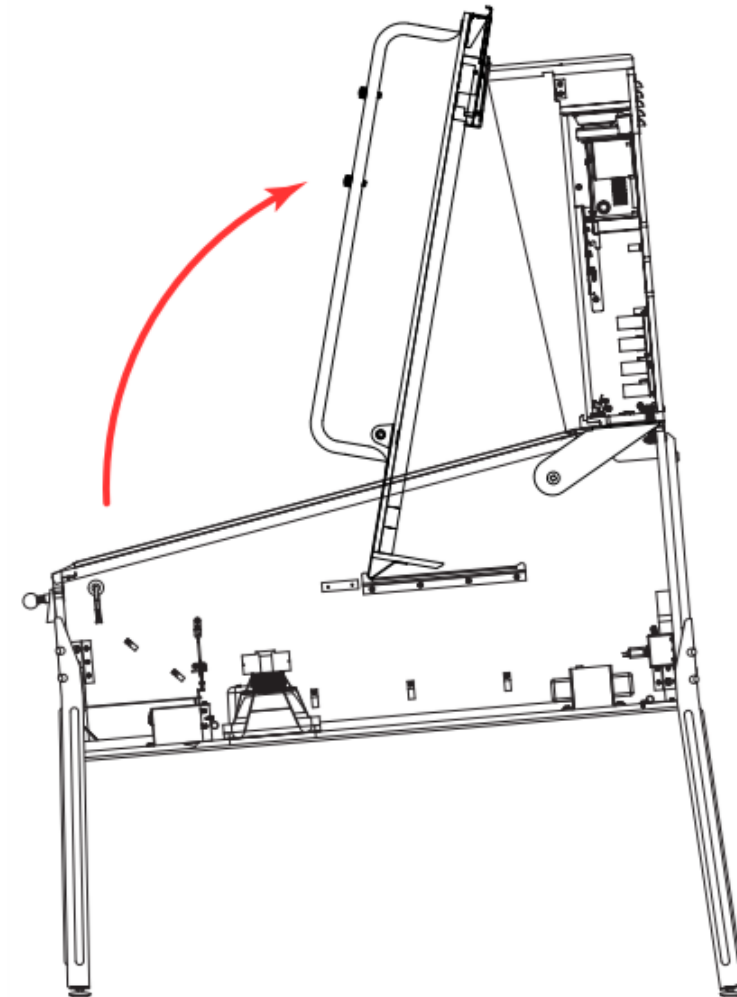
Moving the playfield to position 2.

14) Move the playfield from position 2 to 3. Pull it upward and outward until the second pair of feet in the support tubes reach the top of the lockdown bar receiver; again, lower the playfield, resting the feet in the channel. Remove any packing material from the playfield surface and/or shipping blocks from behind the back panel of the playfield/lower cabinet interior.



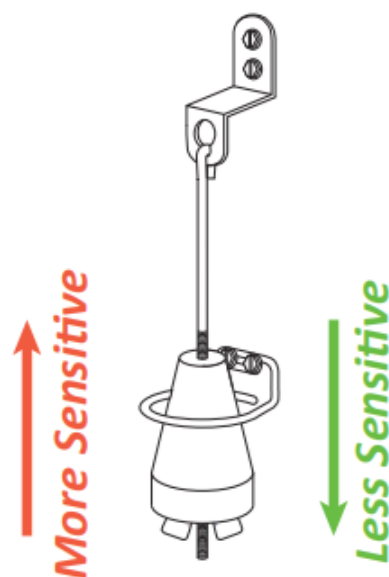
Moving the playfield to position 3; removing packing material.

15) Move the playfield from position 3 to 4. Grasp the two playfield support tubes and pull the playfield outward until the playfield support/slide bracket stop is reached; then swing the playfield up, carefully resting the bottom arch against the front of the backbox.



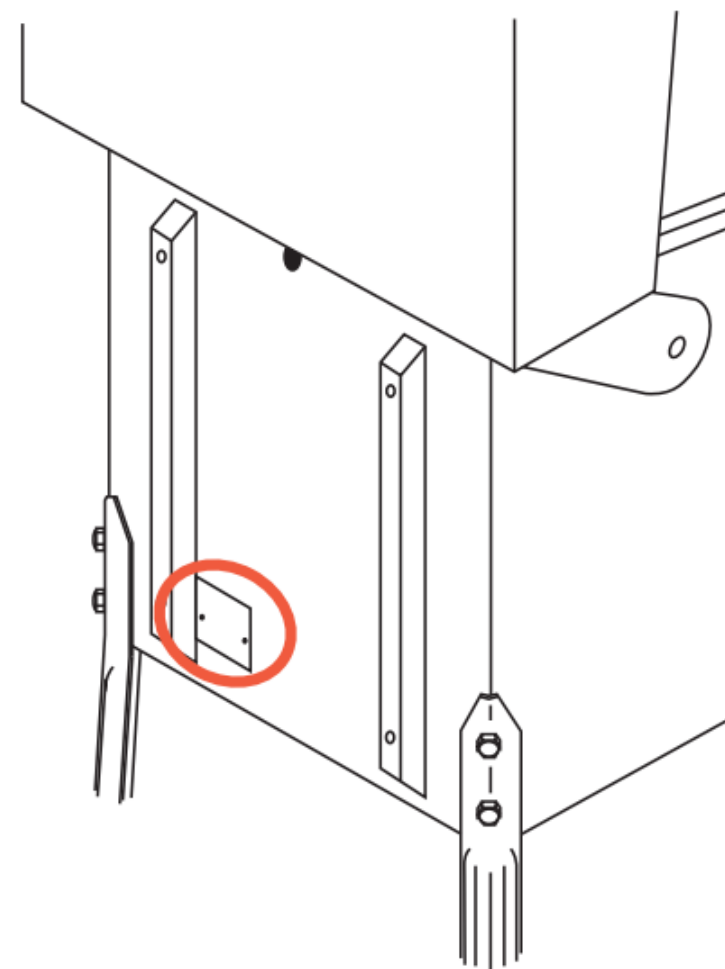
Moving the playfield to position 4.

16) 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. Carefully lower the playfield and slide it straight back into the cabinet, ensuring that the two hanger brackets rest in the slots in the lockdown bar receiver channel. Carefully reinstall the playfield glass and lockdown bar by reversing the steps in **10)** above.



Assembled plumb bob tilt mechanism.

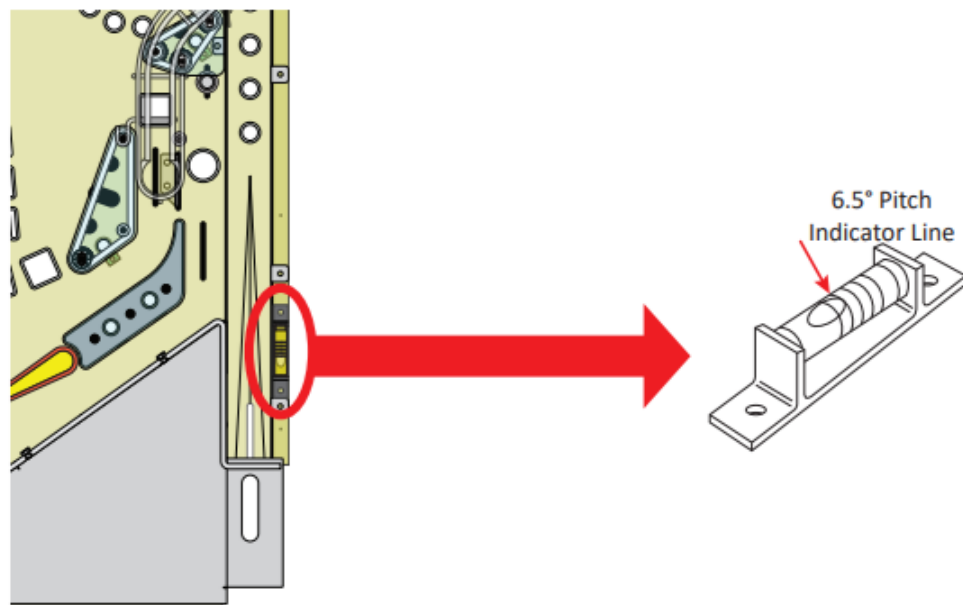
17) Locate the power cord in the loose parts. Using the slot end of the supplied multi-tool, remove the line cord cover plate from the rear of the lower cabinet. Plug the female end of the power cord into the exposed receptacle, inside of the back of the machine. Replace the line cord cover plate and plug the other end of the power cord into a grounded wall outlet. **DO NOT CUT THE GROUND LUG OFF OF THE POWER CORD!**



Line cord cover location.

18) A bubble level is attached to the playfield's right woodrail, 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°.

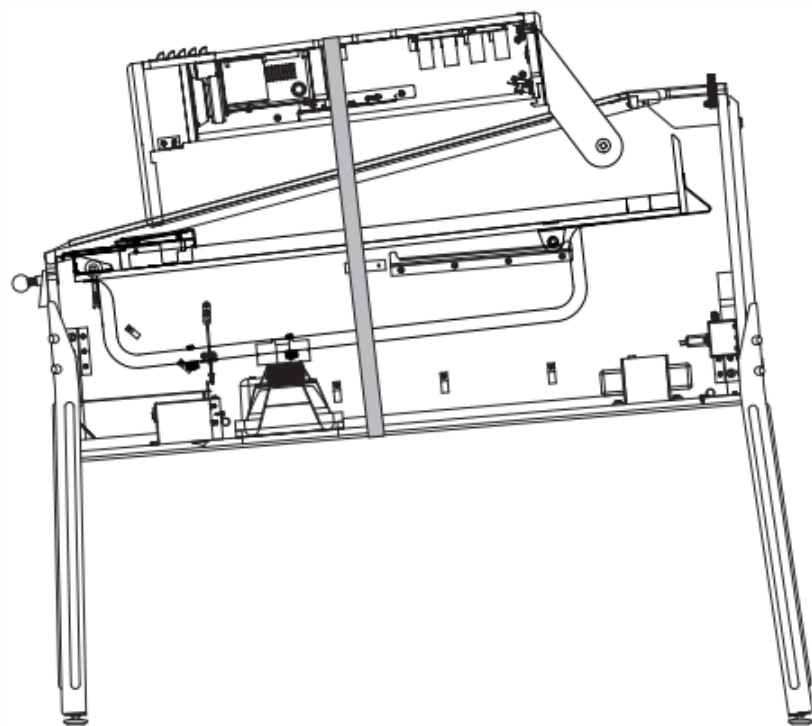
Note: Ensure that the playfield remains level, side-to-side, as you adjust its pitch.



Playfield pitch bubble level.

19) Power up the game (the on/off switch is located under the cabinet, just behind the right front leg; it rocks in one direction to turn the game on and in the reverse direction to turn it off) and test it for proper operation. Adjust game settings as appropriate (see [Game Menu System, page 33](#)). Your game is ready to play!

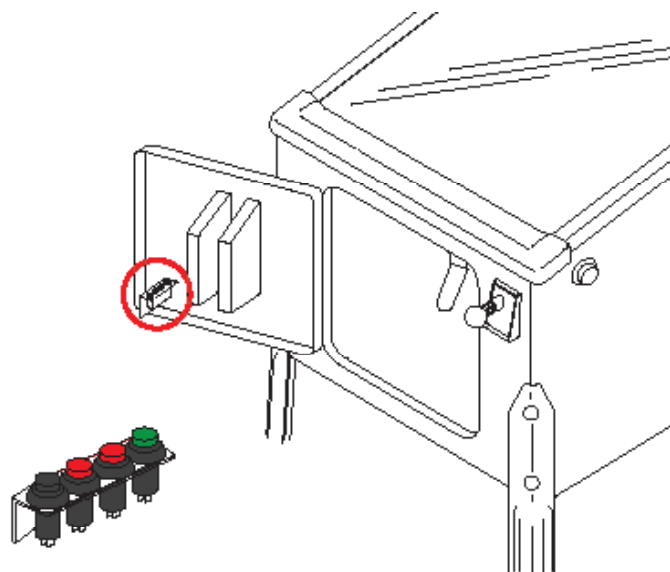
Note: Before transporting the game, lower the backbox. Insert the 5/16" hex key into the hole at the base of the backbox and turn it a full 270 degrees CCW. Ensure that cables and wires in the neck of the machine do not get pinched or pulled taut as the backbox is laid down. Place a large piece of cardboard (or the piece of foam used when the game was shipped) between the top lip of the backbox and the lower cabinet to protect the cabinet side rails. Tie or strap the backbox securely to the cabinet to prevent it from bouncing during transit.



Transport game with the backbox lowered and secured.



THE GNR MENU SYSTEM



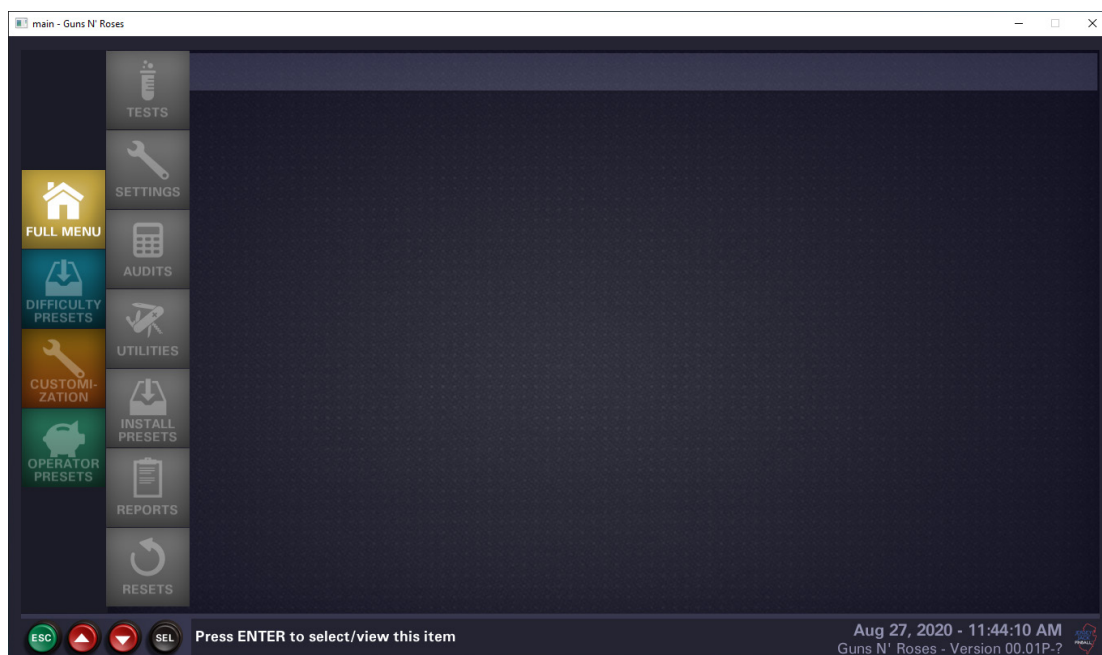
MENU SYSTEM BASICS

The GnR 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).

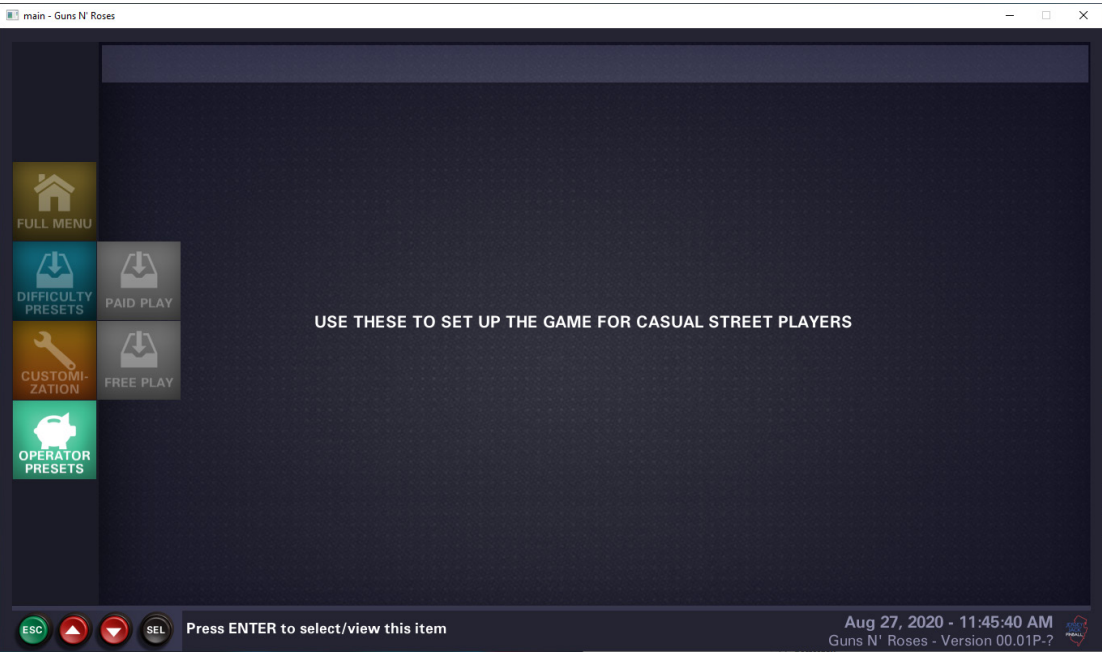
The buttons are labeled: black is **Enter**, red next to it is **Up/+**, next red is **Down/-** and green is **Back/Escape**. Each time you press a button, you will hear an audio response through the game's speakers. Use **Enter** to enter a sub-menu, select a menu item to change or execute a command. 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!**



GnR menu system's main menu screen.



Operator Presets screen.

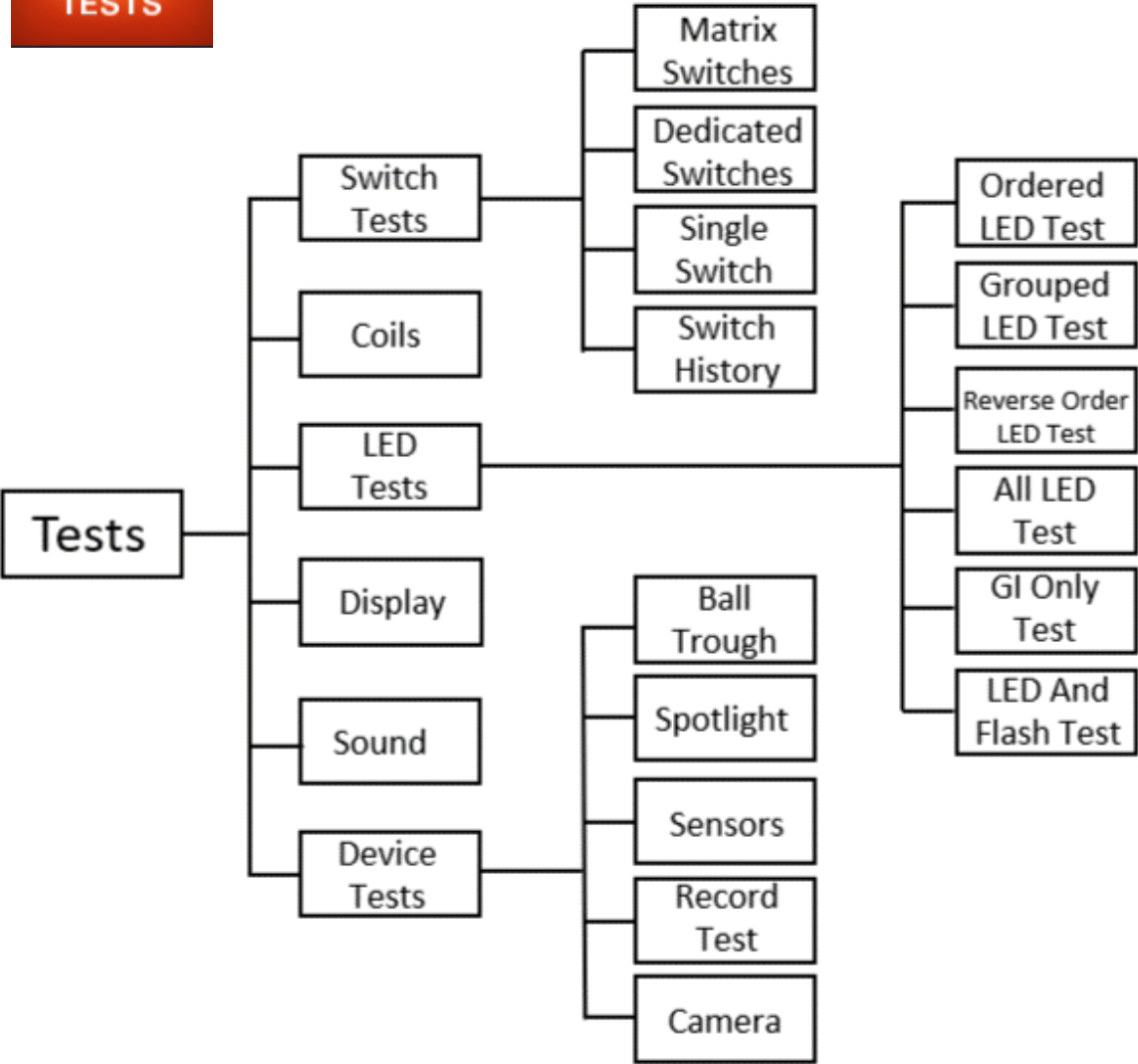
From the main menu screen, you can access the game's **Test Report**. From this screen, you can also readily jump into the **Difficulty Presets, Customization & Operator Presets** sub-menus to quickly customize your game. **Full Menu** gives you access to device/component tests, game settings, audits, utilities, presets, reports and resets. Simply move up/down in the list of menu icons, using **Up/+** and **Down/-**, then press **Enter** to select the sub-menu you'd like to explore. To exit the menu system and return to game play, press **Back/Escape** from the Main Menu screen. Specific details for each **Full Menu** item are included later in this section.

The **Difficulty Presets** sub-menu provides a quick shortcut to the **Difficulty Presets** branch of the **Install Presets** menu item. This sub-menu allows you to quickly change the rules/settings for your game, making it easier or more challenging to play. See page B-58 for additional information.

The **Customization** sub-menu provides a quick shortcut to the **Customization** branch of the **Utilities** menu item. This sub-menu allows you to add, edit or remove custom messages and/or graphics that display on the 27" LCD monitor, during the game's attract mode. See page 54 for additional information.

When you enter the **Operator Presets** sub-menu, the LCD monitor will display the screen shown. This sub-menu allows you to quickly change a group of predefined settings, designed to make your GnR game more approachable to new players. In short, the changing this group of settings will make the special features in the game more accessible to casual, street pinball players. **Paid Play** settings are intended for GnR games being operated in a pay-per-play setup, on location. **Free Play** settings are intended for GnR games in the home (or operated in a pay-for-entry location).

Each **Operator Presets** sub-menu page shows a table of the settings affected by the selection, so you can quickly and easily compare the preset value, the current value and the default value.



Tests menu tree.

TESTS

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

Switch Tests - test all matrixed or dedicated switches in the game. A screen will be displayed for the selected group (**Matrixed 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, Spotlight, Sensors, Record Test, 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.



To exit the **Matrixed Switch Test** at any time, press the **Back/Escape** button.

 MATRIXED SWITCHES		MATRIXED SWITCHES																	
Active switch		Inactive switch (n/o)		Inactive opto (n/o)		Inactive reflective (n/o)		Inactive reflective (n/c)		Unused position									
Bad switch		Inactive switch (n/c)		Inactive opto (n/c)		Inactive reflective (n/c)		Unused but closed (error)											
Return 1 J200-1	Drives 1 J201-1	Drives 2 J201-2	Drives 3 J201-3	Drives 4 J201-4	Drives 5 J201-5	Drives 6 J201-6	Drives 7 J201-7	Drives 8 J201-8	Drives 9 J202-1	Drives 10 J202-2	Drives 11 J202-3	Drives 12 J202-4	Drives 13 J202-5	Drives 14 J202-6	Drives 15 J202-7	Drives 16 J202-8	Drives 17 J202-9	Drives 18 J202-10	
WHT BLK	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			
Right Target	Right Orbit Hi	Bumper Rubber	Left Ramp Left Target	Upper Playfield Rubber	Left Ramp Enter	Right Ramp Left Target	Right Ramp Made Standby	not used	Center Spinner	not used	Shooter Lane 1 (Bottom)	Left Guitar Lock (Back)	not used	not used	not used	not used	not used	not used	
91	99	17	25	33	41	49	57	65	73	81	89	97	105	113	121				
Return 2 J200-2	Drives 1 J201-1	Drives 2 J201-2	Drives 3 J201-3	Drives 4 J201-4	Drives 5 J201-5	Drives 6 J201-6	Drives 7 J201-7	Drives 8 J201-8	Drives 9 J202-1	Drives 10 J202-2	Drives 11 J202-3	Drives 12 J202-4	Drives 13 J202-5	Drives 14 J202-6	Drives 15 J202-7	Drives 16 J202-8	Drives 17 J202-9	Drives 18 J202-10	
WHT BRN	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			
Right Top Lane	Right Top Lane	Bumper Rubber	Left Ramp Right Target	Upper Playfield Standby	Left Top Lane	Right Ramp Right Target	Center Scoop WJK	not used	Inner Loop Enter	not used	Shooter Lane 2 (Mid)	Left Guitar Lock (Top)	not used	not used	not used	not used	not used	not used	
92	10	18	26	34	42	50	58	66	74	82	90	98	106	114	122				
Return 3 J200-3	Drives 1 J201-1	Drives 2 J201-2	Drives 3 J201-3	Drives 4 J201-4	Drives 5 J201-5	Drives 6 J201-6	Drives 7 J201-7	Drives 8 J201-8	Drives 9 J202-1	Drives 10 J202-2	Drives 11 J202-3	Drives 12 J202-4	Drives 13 J202-5	Drives 14 J202-6	Drives 15 J202-7	Drives 16 J202-8	Drives 17 J202-9	Drives 18 J202-10	
WHT RED	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			
Right Ramp Enter	Keyboard Insert Left	Left Outline	Lockup Enter	Left Bumper	Right Inlane	Shooter Lane Target	not used	Upper Playfield Hole	not used	Wheel CW 1	not used	Shooter Lane 3	Left Guitar Lock (Top)	not used	not used	not used	not used	not used	
93	11	19	27	35	43	51	59	67	75	83	91	99	107	115	123				
Return 4 J200-4	Drives 1 J201-1	Drives 2 J201-2	Drives 3 J201-3	Drives 4 J201-4	Drives 5 J201-5	Drives 6 J201-6	Drives 7 J201-7	Drives 8 J201-8	Drives 9 J202-1	Drives 10 J202-2	Drives 11 J202-3	Drives 12 J202-4	Drives 13 J202-5	Drives 14 J202-6	Drives 15 J202-7	Drives 16 J202-8	Drives 17 J202-9	Drives 18 J202-10	
WHT ORN	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			
Keyboard Insert Middle	Left Inlane Left	not used	Left Orbit Hi	Right Sing Hi	not used	60	68	76	84	92	100	108	116	124					
94	12	20	28	36	44	52	60	68	76	84	92	100	108	116	124				
Return 5 J200-5	Drives 1 J201-1	Drives 2 J201-2	Drives 3 J201-3	Drives 4 J201-4	Drives 5 J201-5	Drives 6 J201-6	Drives 7 J201-7	Drives 8 J201-8	Drives 9 J202-1	Drives 10 J202-2	Drives 11 J202-3	Drives 12 J202-4	Drives 13 J202-5	Drives 14 J202-6	Drives 15 J202-7	Drives 16 J202-8	Drives 17 J202-9	Drives 18 J202-10	
WHT YEL	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			
Bottom Bumper	Keyboard Insert Right	Left Inlane Right	not used	Jam Target	Right Sing Lo	not used	not used	Wheel CW 2	not used	not used	Shooter Lane 5	not used	not used	not used	not used	not used	not used	not used	
95	13	21	29	37	45	53	61	69	77	85	93	101	109	117	125				
Return 6 J200-6	Drives 1 J201-1	Drives 2 J201-2	Drives 3 J201-3	Drives 4 J201-4	Drives 5 J201-5	Drives 6 J201-6	Drives 7 J201-7	Drives 8 J201-8	Drives 9 J202-1	Drives 10 J202-2	Drives 11 J202-3	Drives 12 J202-4	Drives 13 J202-5	Drives 14 J202-6	Drives 15 J202-7	Drives 16 J202-8	Drives 17 J202-9	Drives 18 J202-10	
WHT GRN	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			
6 Ball Trough Jam	Left Sing Hi	not used	Left Light Com Standup	Right Outline	not used	not used	Upper Playfield VUK	not used	not used	not used	Shooter Lane 6 (Top)	Right Guitar Lock (Top)	not used	not used	not used	not used	not used	not used	
96	14	22	30	38	46	54	62	70	78	86	94	102	110	118	126				
Return 7 J200-7	Drives 1 J201-1	Drives 2 J201-2	Drives 3 J201-3	Drives 4 J201-4	Drives 5 J201-5	Drives 6 J201-6	Drives 7 J201-7	Drives 8 J201-8	Drives 9 J202-1	Drives 10 J202-2	Drives 11 J202-3	Drives 12 J202-4	Drives 13 J202-5	Drives 14 J202-6	Drives 15 J202-7	Drives 16 J202-8	Drives 17 J202-9	Drives 18 J202-10	
WHT BLU	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			
Right Orbit Lo	not used	Left Sing Lo	not used	Left Ramp Made	Shooter Lane	not used	not used	Coma Lockup	not used	not used	not used	not used	not used	not used	not used	not used	not used	not used	
97	15	23	31	39	47	55	63	71	79	87	95	103	111	119	127				
Return 8 J200-8	Drives 1 J201-1	Drives 2 J201-2	Drives 3 J201-3	Drives 4 J201-4	Drives 5 J201-5	Drives 6 J201-6	Drives 7 J201-7	Drives 8 J201-8	Drives 9 J202-1	Drives 10 J202-2	Drives 11 J202-3	Drives 12 J202-4	Drives 13 J202-5	Drives 14 J202-6	Drives 15 J202-7	Drives 16 J202-8	Drives 17 J202-9	Drives 18 J202-10	
WHT VIO	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			
Right Ramp Made Target	not used	not used	not used	Inner Loop Made	not used	not used	not used	Left Orbit Spinner	not used	not used	not used	not used	not used	not used	not used	not used	not used	not used	
98	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128				






Press START to toggle playfield display.

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DEDICATED SWITCH TEST

When you enter the **Dedicated Switch Test**, the LCD monitor will display the screen shown. The four dedicated switch strings are shown, grouped by their common ground wire. Each square in each string corresponds to a specific switch; the color of the square represents the current state of that switch.

Active switches, regardless of their type, are displayed in bright green squares. Inactive opto switches are displayed in light tan (if normally unblocked) or dark tan (if normally blocked) squares; all other inactive switches are displayed in bright blue (if normally open) or navy blue (if normally closed) squares. Bad switches (switches that have been inactive for approximately 60 balls played) are displayed in red squares. Unused positions in the matrix are represented by gray squares; any unused position that is registering active (an error) is represented by a brown square.

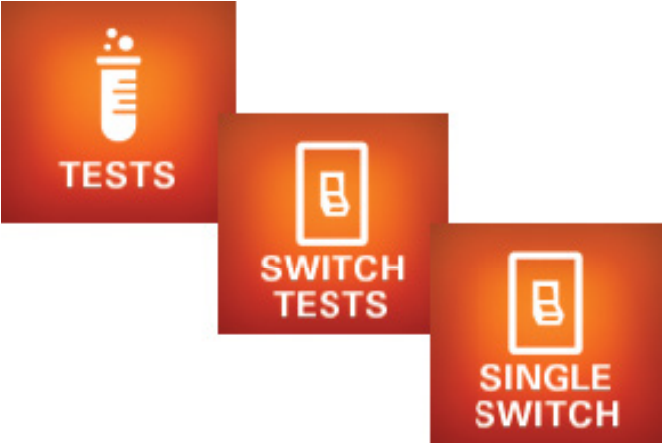
Wire colors and I/O Board connector/pin numbers are shown for each string of switches.

You can simultaneously test as many switches as you like, or repeatedly test a single switch, observing the results on the screen. The game also provides an audible response each time the state of a switch changes.

To exit the **Dedicated Switch Test** at any time, press the **Back/Escape** button.



Dedicated Switch Test screen.



SINGLE SWITCH TEST

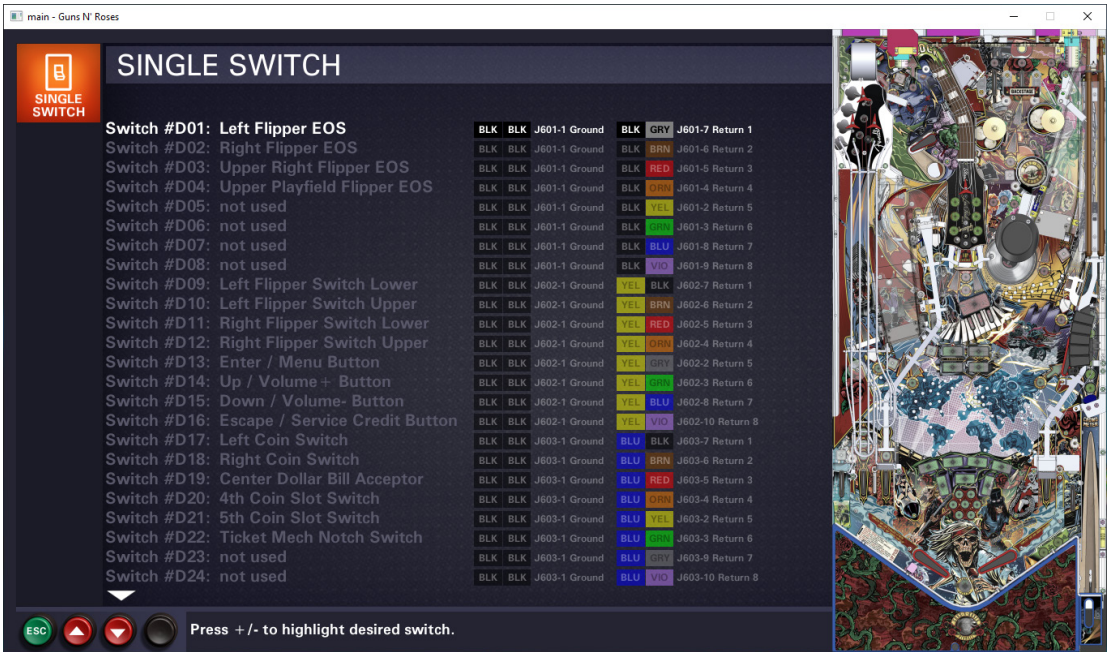
When you enter the **Single Switch Test**, the LCD monitor will display the screen shown. The entire list of dedicated and matrixed switches is shown alongside a window highlighting the location/state of the currently selected switch on the game’s playfield. The switch is displayed as a small, blinking square; the color of the square represents its current state.

An active switch, regardless of its type, is displayed as a bright green square. An inactive opto switch is displayed as a light tan (if normally unblocked) or dark tan (if normally blocked) square; any other inactive switch is displayed as a bright blue (if normally open) or navy blue (if normally closed) square. A bad switch (a switch that has been inactive for approximately 60 balls played) is displayed as a red square. Unused positions in the matrix are not displayed in the playfield window.

All switch driver (column) and return (row) numbers are shown, along with corresponding wire colors and I/O Board connector/pin numbers.

You can scroll through the list of matrixed switches, using the **Up/+** and **Down/-** buttons, and select any switch to test. You can then repeatedly open or close the selected switch, observing the results in the playfield window. The game also provides an audible response each time the state of the switch changes. Note: When adjusting a switch, the best method for testing it is to roll a pinball over it, through it or into it.

To exit the **Single Switch Test** at any time, press the **Back/Escape** button.



Single Switch Test screen.



SWITCH HISTORY TEST

When you enter the **Switch History Test**, the LCD monitor will display the screen shown. A list of the 24 most recent dedicated and/or matrixed switch inactive-to-active transitions is shown alongside a window depicting the game’s playfield.

All switch driver (column) and return (row) numbers are shown, along with corresponding wire colors and I/O Board connector/pin numbers.

You can clear the **Switch History Test** listing by pressing the *Enter* button.

To exit the **Switch History Test** screen at any time, press the *Back/Escape* button.



Switch History Test screen.



COILS TEST

When you enter the **Coils Test**, the LCD monitor will display the screen shown. The entire list of coils, magnets, motors and lights is shown alongside a window highlighting the location of the currently selected device on the game’s playfield. The device is displayed as a small, white, blinking square. Note: Devices in the list that cannot be activated in the **Coils Test** are highlighted in blue text (these devices have their own specific tests).

Coil number, power/trigger wire colors, I/O Board connectors/pins, drive transistor, in-line fuses and supply voltage level are provided for each device in the list.

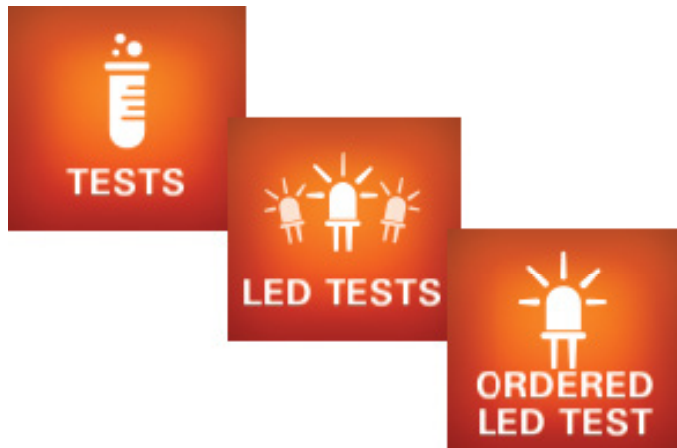
There are three different modes for triggering a device: **RUNNING**, **REPEAT** and **MANUAL**. The current mode is highlighted in green text at the top of the screen; you change the current mode by pressing the **Enter** button. In **RUNNING** mode, the game automatically cycles through the list, triggering each device once. In **REPEAT** mode, you scroll through the list (using the **Up/+** and **Down/-** buttons) and select a specific device; the game then repeatedly triggers it. In **MANUAL** mode, you select a specific device in the list and trigger it yourself using the **Start** button on the front of the cabinet.

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 the **Coils Test**, 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.

To exit the **Coils Test** at any time, press the **Back/Escape** button.

COILS	MANUAL	REPEAT	RUNNING	
Coil #001: not used			BRN BLK J104-0 Q308 70V J104-1 F701 F704	
Coil #002: Center Scoop VUK			BRN GRN J104-0 Q307 70V J104-1 F701 F704	
Coil #003: not used			BRN RED J104-2 Q306 70V J104-1 F701 F704	
Coil #004: not used			BRN GRN J104-6 Q305 70V J104-1 F701 F704	
Coil #005: not used			BRN YEL J104-5 Q304 70V J104-1 F701 F704	
Coil #006: not used			BRN GRN J104-4 Q303 70V J104-1 F701 F704	
Coil #007: Knocker			BRN BLU J104-3 Q302 70V J104-1 F701 F704	
Coil #008: not used			BRN PUR J104-2 Q301 70V J104-1 F701 F704	
Coil #009: Left Flipper Power			RED BLK J105-10 Q318 70V J105-1 F701 F705	
Coil #010: Left Flipper Hold			RED BRN J105-8 Q317 70V J105-1 F701 F705	
Coil #011: Right Flipper Power			RED GRN J105-7 Q316 70V J105-1 F701 F705	
Coil #012: Right Flipper Hold			RED GRN J105-6 Q315 70V J105-1 F701 F705	
Coil #013: Trough VUK			RED YEL J105-5 Q314 70V J105-1 F701 F705	
Coil #014: Auto Launch			RED GRN J105-4 Q313 70V J105-1 F701 F705	
Coil #015: Coma Lock Up Down Post			RED BLU J105-3 Q312 70V J105-1 F701 F705	
Coil #016: not used			RED PUR J105-2 Q311 70V J105-1 F701 F705	
Coil #017: Loop Magnet			GRN BLK J106-10 Q328 70V J106-1 F701 F706	
Coil #018: Upper Right Flipper Power			GRN BRN J106-9 Q327 70V J106-1 F701 F706	
Coil #019: Upper Right Flipper Hold			GRN RED J106-7 Q326 70V J106-1 F701 F706	
Coil #020: not used			GRN GRN J106-6 Q325 70V J106-1 F701 F706	
Coil #021: not used			GRN YEL J106-5 Q324 70V J106-1 F701 F706	
Coil #022: not used			GRN GRN J106-4 Q323 70V J106-1 F701 F706	
Coil #023: not used			GRN BLU J106-3 Q322 70V J106-1 F701 F706	
Coil #024: Right Ramp Diverter			GRN PUR J106-2 Q321 70V J106-1 F701 F706	

Coils Test screen.



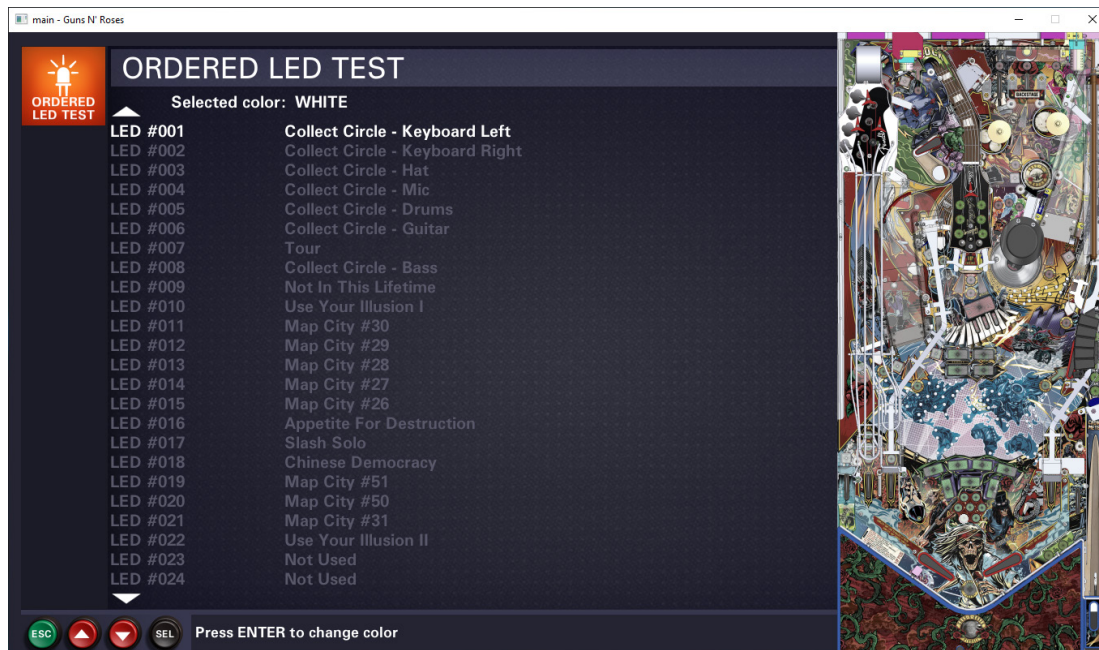
ORDERED LED TEST

When you enter the **Ordered LED Test**, the LCD monitor will display the screen shown. The entire list of RGB LEDs is shown alongside a window highlighting the location of the currently selected LED on the game's playfield. The LED is represented in the window by a small, white, blinking circle, while the actual LED flashes on the playfield.

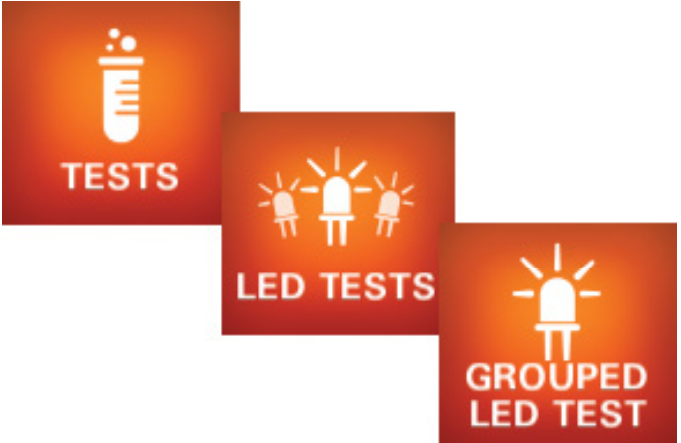
Initially, the selected LED flashes the color *white*. You can change the color to red, green, blue and back to white by repeatedly pressing the **Enter** button. The current color will be displayed at the top of the screen. You can scroll through the list of LEDs using the **Up/+** and **Down/-** buttons.

For this test, the RGB LEDs are listed in hardware order (the order that the RGB LED boards are physically connected to controller boards, under the playfield). In this regard, the GnR RGB LED string can be considered one long chain. The **Ordered LED Test** allows you to step through and test this entire chain, one LED at a time.

To exit the **Ordered LED Test** at any time, press the **Back/Escape** button.



Ordered LED Test screen.



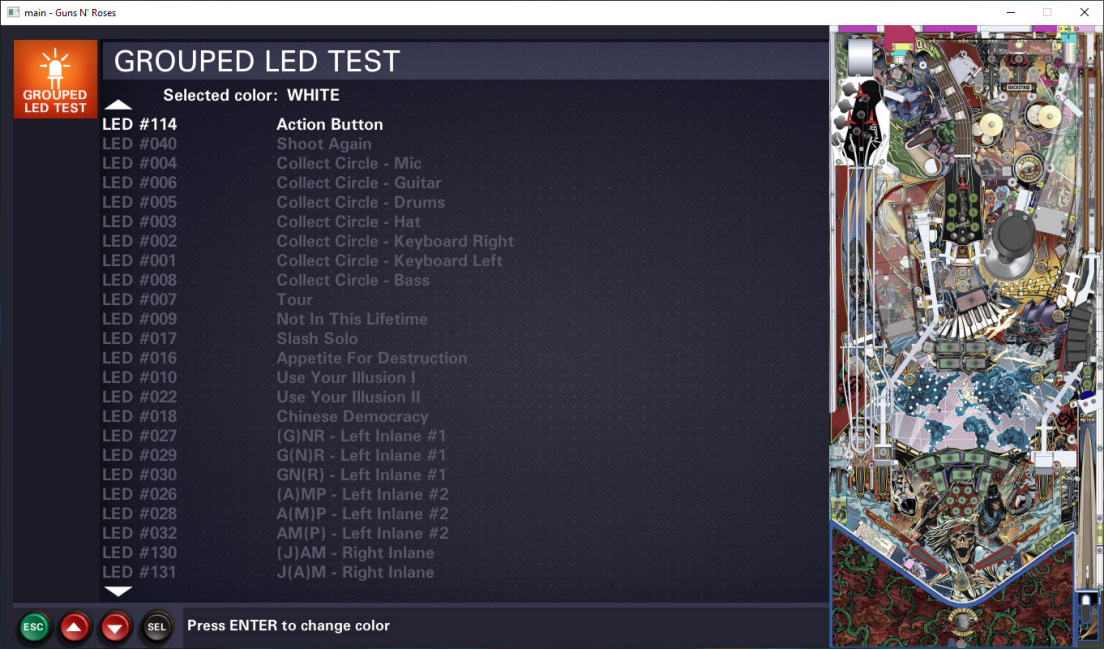
GROUPED LED TEST

When you enter the **Grouped LED Test**, the LCD monitor will display the screen shown. The entire list of RGB LEDs is shown alongside a window highlighting the location of the currently selected light on the game’s playfield. The light is displayed in the window as a small, white, blinking circle while the actual LED flashes on the playfield.

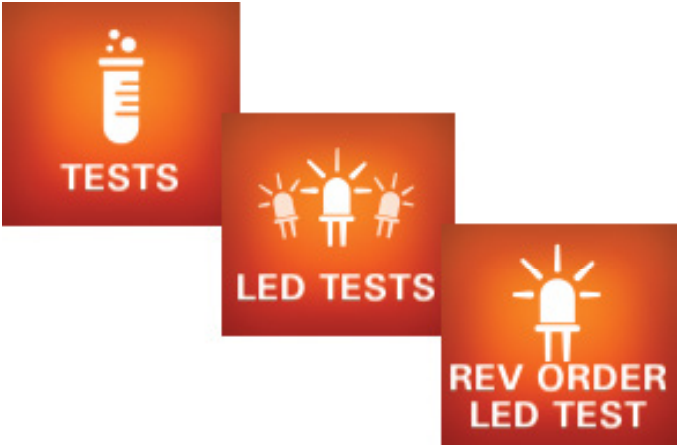
Initially, the selected LED flashes the color white. You can change the color to red, green, blue and back to white by repeatedly pressing the **Enter** button. The current color will be displayed at the top of the screen. You can scroll through the list of LEDs using the **Up/+** and **Down/-** buttons.

For this test, the RGB LEDs are listed in logical/grouped order. The GnR RGB LED string is one long chain. The **Grouped LED Test** allows you to step through and test the entire string of RGB LEDs, in groups, in logical order (words spelled in order), as they are associated on the playfield. The test begins with the LEDs in the lowest portion of the main playfield and progresses upward.

To exit the **Grouped LED Test** at any time, press the **Back/Escape** button.



Grouped LED Test screen.



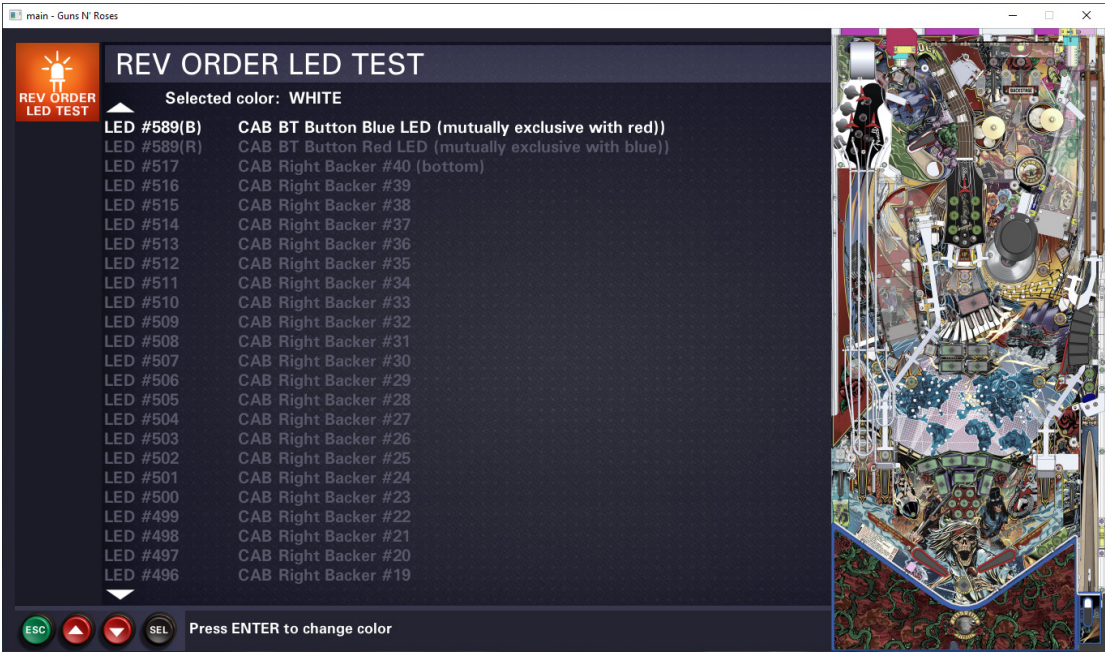
REVERSE ORDER LED TEST

When you enter the **Reverse Order LED Test**, the LCD monitor will display the screen shown. The entire list of RGB LEDs is shown alongside a window highlighting the location of the currently selected LED on the game’s playfield. The LED is represented in the window by a small, white, blinking circle, while the actual LED flashes on the playfield.

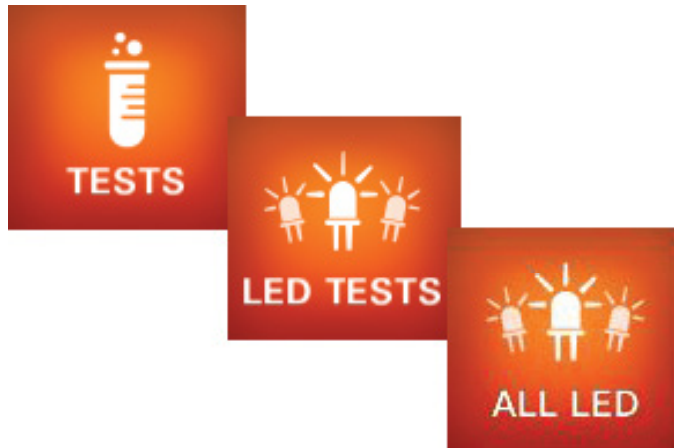
Initially, the selected LED flashes the color white. You can change the color to red, green, blue and back to white by repeatedly pressing the **Enter** button. The current color will be displayed at the top of the screen. You can scroll through the list of LEDs using the **Up/+** and **Down/-** buttons.

For this test, the RGB LEDs are listed in reverse hardware order (the reverse order that the RGB LED boards are physically connected to controller boards, under the playfield). The **Reverse Order LED Test** allows you to step through and test this entire chain, in reverse order, one LED at a time.

To exit the **Reverse Order LED Test** at any time, press the **Back/Escape** button.



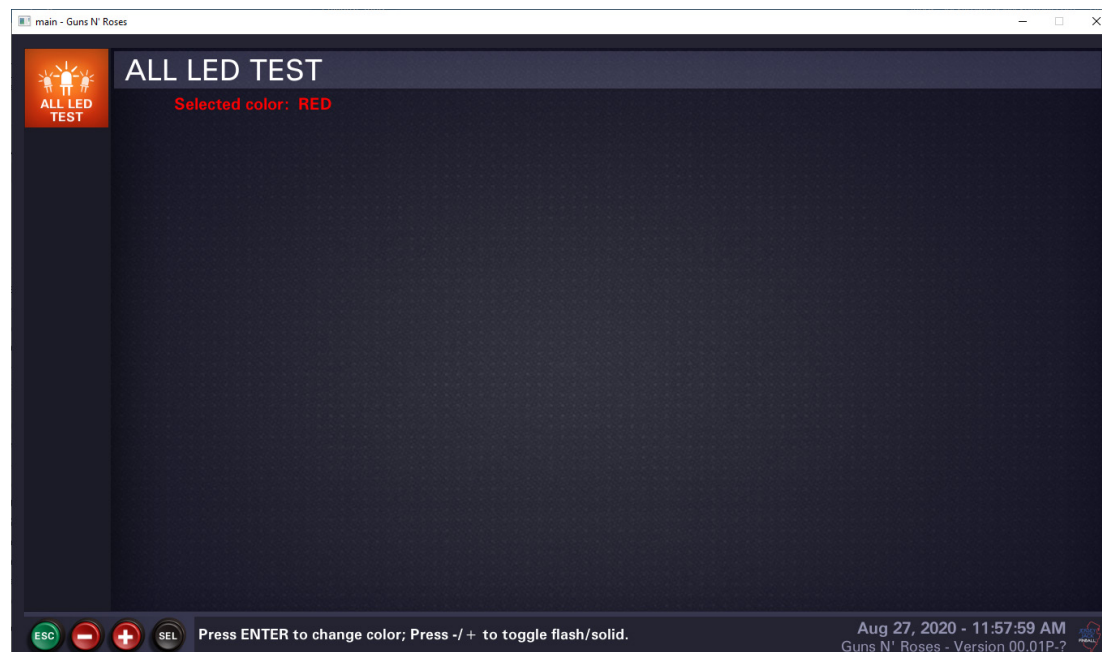
Reverse Order LED Test screen.



ALL LED TEST

When you enter the **All LED Test**, the LCD monitor will display the screen shown. The entire chain of RGB LEDs is lit at once. Initially, the LEDs are white and not flashing. You can change the color to red, green, blue and back to white by repeatedly pressing the **Enter** button. The current color will be displayed at the top of the screen. Press either the **Up/+** or **Down/-** button to toggle the LED string between flashing and constant-on.

To exit the **All LED Test** at any time, press the **Back/Escape** button.



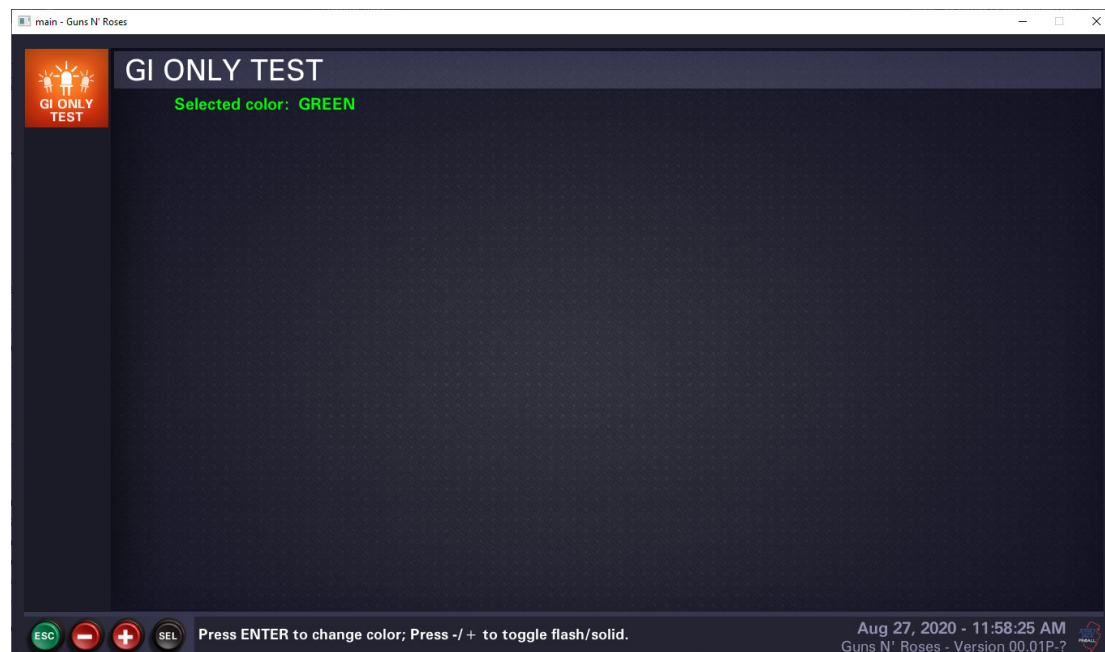
All LED Test screen.



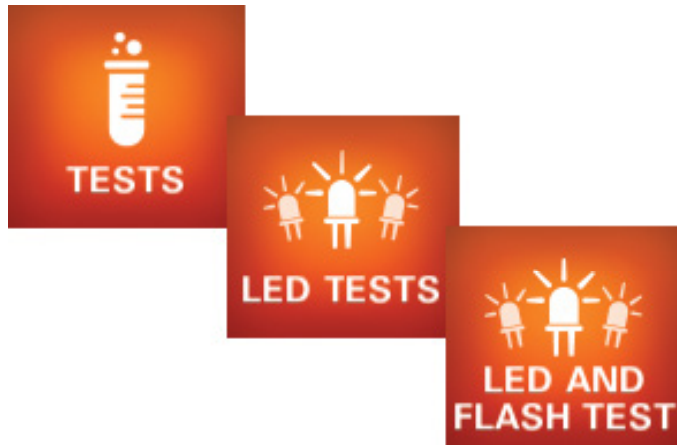
GI ONLY TEST

When you enter the **GI Only Test**, the LCD monitor will display the screen shown. All LEDs used for general illumination are lit at once. Initially, the LEDs are white and not flashing. You can change the GI color to red, green, blue and back to white by repeatedly pressing the **Enter** button. The current color will be displayed at the top of the screen. Press either the **Up/+** or **Down/-** button to toggle the GI LEDs between flashing and constant-on.

To exit the **GI Only Test** at any time, press the **Back/Escape** button.



GI Only Test screen.



LED AND FLASH TEST

When you enter the **LED And Flash Test**, the LCD monitor will display the screen shown. All RGB LEDs and GI LEDs are lit at once. All CPU-controlled lights (spotlights, Start button light, etc.) are flashing. Initially, the RGB and GI LEDs are white and not flashing. You can change the color of the RGB LEDs to red, green, blue and back to white by repeatedly pressing the **Enter** button. The current color will be displayed at the top of the screen. Press either the **Up/+** or **Down/-** button to toggle the RGB and GI LEDs between flashing and constant-on.

To exit the **LED And Flash Test** at any time, press the **Back/Escape** button.



LED And Flash Test screen.

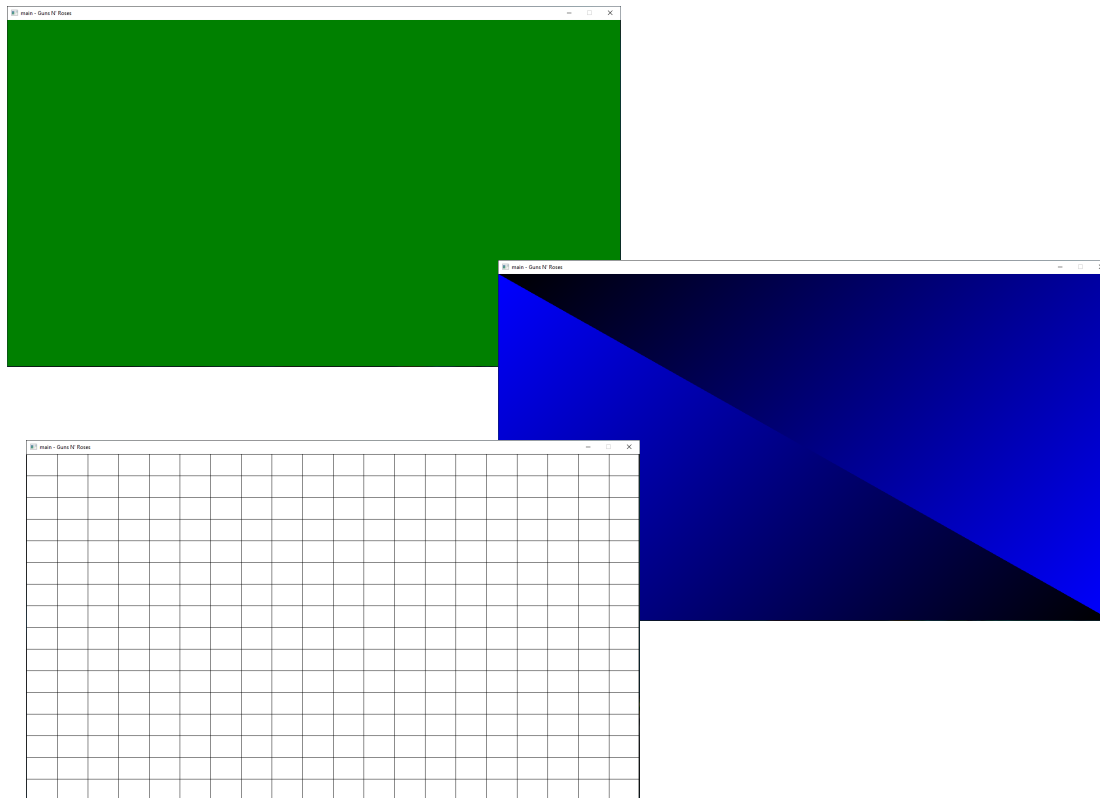


DISPLAY TEST

When you enter the **Display Test**, the LCD monitor will display an edge-to-edge red screen, as shown at left. You can change the full-screen color to green, blue then white by pressing the **Up/+**, **Down/-** or **Enter** button three times. Pressing one of these buttons again will fill the screen with a white grid against a black background; once more will change the grid to black against a white background.

The color screens allow you to test the LCD monitor's color saturation performance, from edge to edge. The grids allow you to test image alignment on the monitor.

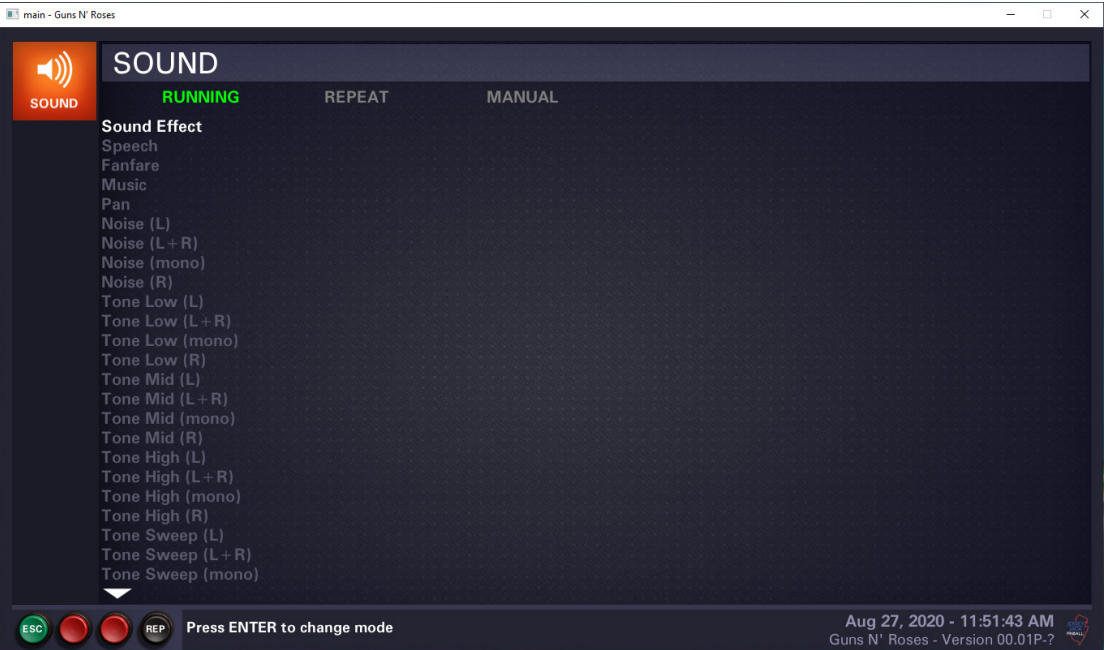
To exit the **Display Test** at any time, press the **Back/Escape** button.



Display Test screens.



SOUND TEST



Sound Test screen.

When you enter the **Sound Test**, the LCD monitor will display the screen shown. The list of programmed test sounds is displayed.

There are three different modes for testing sounds: **RUNNING**, **REPEAT** and **MANUAL**. The current mode is highlighted in green text at the top of the screen; you change the current mode by pressing the **Enter** button. In **RUNNING** mode, the game automatically cycles through the list, playing each sound once. In **REPEAT** mode, you scroll through the list (using the **Up/+** and **Down/-** buttons) and select a specific sound; the game then repeatedly plays it. In **MANUAL** mode, you select a specific sound in the list and trigger it yourself using the **Start** button on the front of the cabinet.

To exit the **Sound Test** at any time, press the **Back/Escape** button.



BALL TROUGH TEST

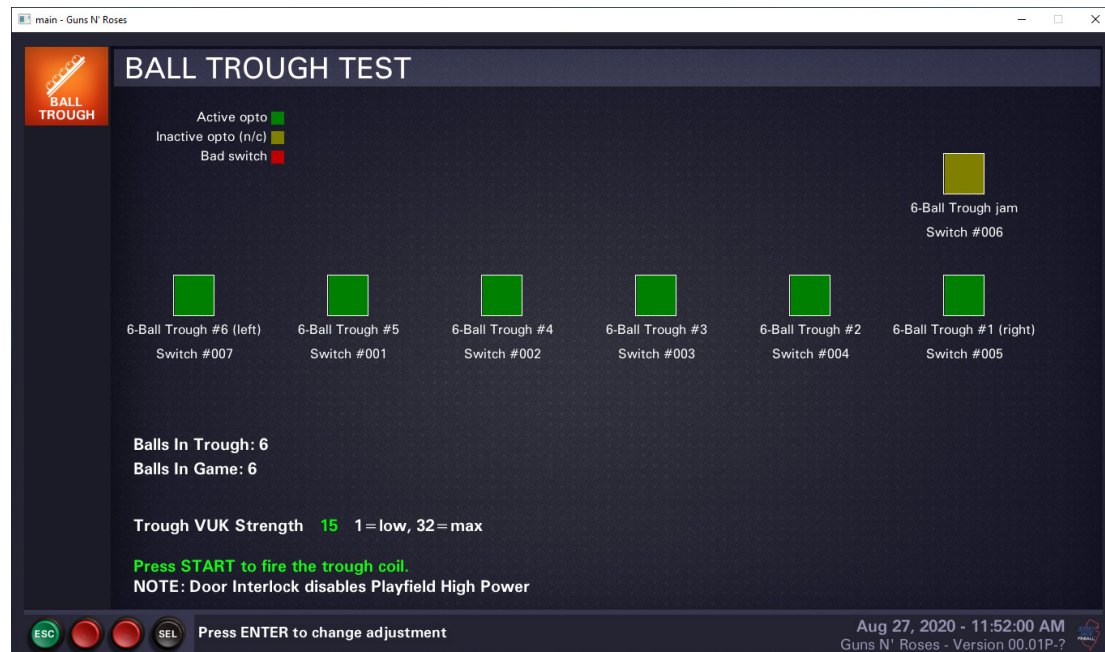
When you enter the **Ball Trough Test**, the LCD monitor will display the screen shown. The squares on the screen represent the current states of the seven opto switch transmitter/receiver pairs in the ball trough mechanism, under the lower part of the playfield. There are six opto switches in the bottom of the trough (labeled “#1” to “#6”) and one higher, in the neck of the trough VUK (labeled “jam”). A green square represents a blocked opto switch, typically caused by a ball in that position. A tan square represents an unblocked opto switch (no ball in that position). A red square represents a bad switch (a switch that has been inactive for approximately 60 balls played). For reference, corresponding matrixed switch numbers are shown under each square.

You can use the **Start** button to fire the trough VUK. The rightmost ball in the trough will be kicked into the shooter lane, then auto-launched up the playfield. 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 - **so be careful with your fingers!** You can empty the trough, one ball at a time (catching each one before it returns to the trough), and test all of the opto switches in the process.

Note: When the coin door is opened, the game’s safety interlock switch disables the 70-volt power running to the playfield. To allow coils to function in the **Ball Trough Test**, 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.

Press **Enter** to adjust the trough VUK strength setting. Use the **Up/+** and **Down/-** buttons to alter the highlighted strength value, then press **Enter** to accept the new value. Press **Back/Escape** to escape from the VUK strength adjustment function without saving changes.

To exit the **Ball Trough Test** at any time, press the **Back/Escape** button.



Ball Trough Test screen.

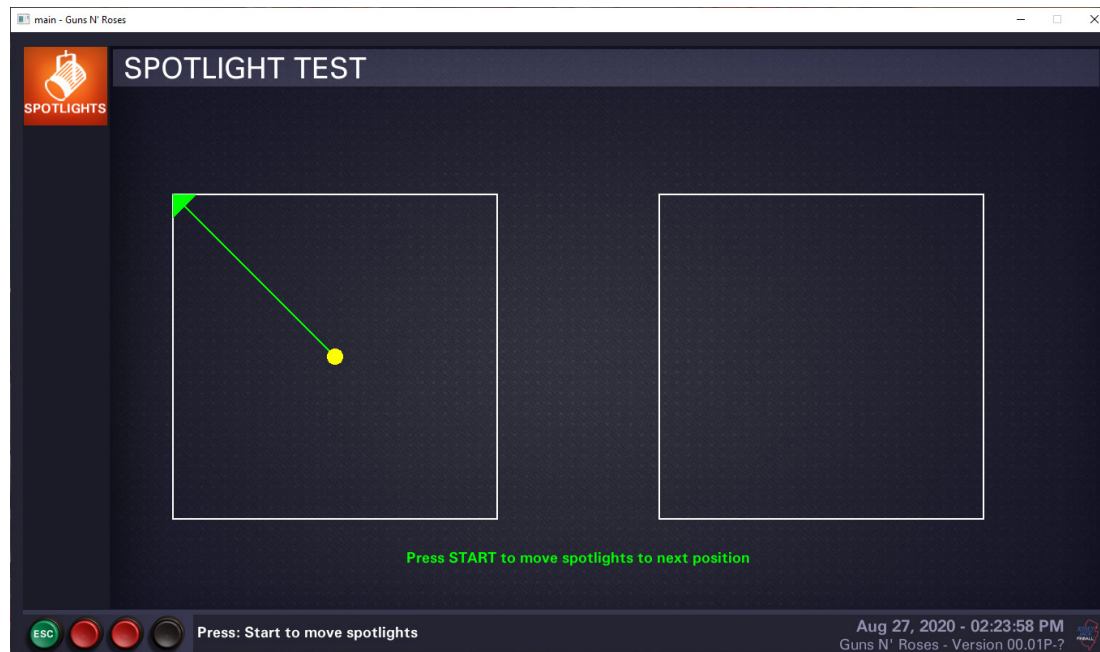


SPOT LIGHT TEST

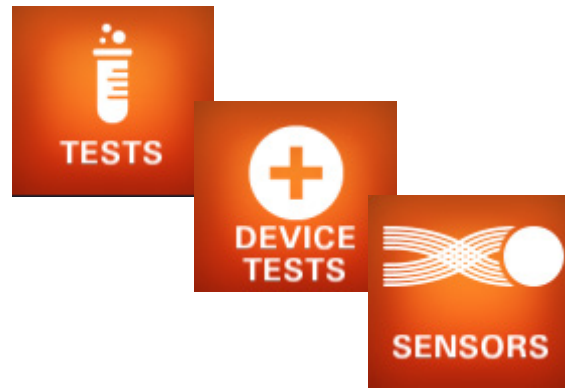
When you enter the **Spot Light Test**, the LCD monitor will display the screen shown. The two squares on the screen represent the two spot lights on the playfield and their current position

Pressing the start button will move the left spot light to the next position indicated by the green arrow. Pressing the start button again will move the spot light to the next position and so on, once the left spot light moves to all the positions then the right spotlight will start being tested. Pressing the start button again will move the right spot light to its next position. Once the right spot light has visited all of its positions, the left spot light will be tested again. This will continue until you exit the test.

To exit the **Spot Light Test** at any time, press the **Back/Escape** button.



Spot Light Test screen.



SENSOR TEST & CALIBRATION

When you enter the **Sensors Test**, the LCD monitor will display the screen shown. The three groups represent the Guitar Ball Lock (Left Group), The Keyboard (Middle Group) and the Shooter Skill Shot (Right Group). These sensors are used in place of traditional switches.

With no ball above the sensor, the sensor will display a blue circle on the test screen, if a ball is placed above the sensor, the sensor will display a green circle on the test screen. Each sensor can be tested this way.

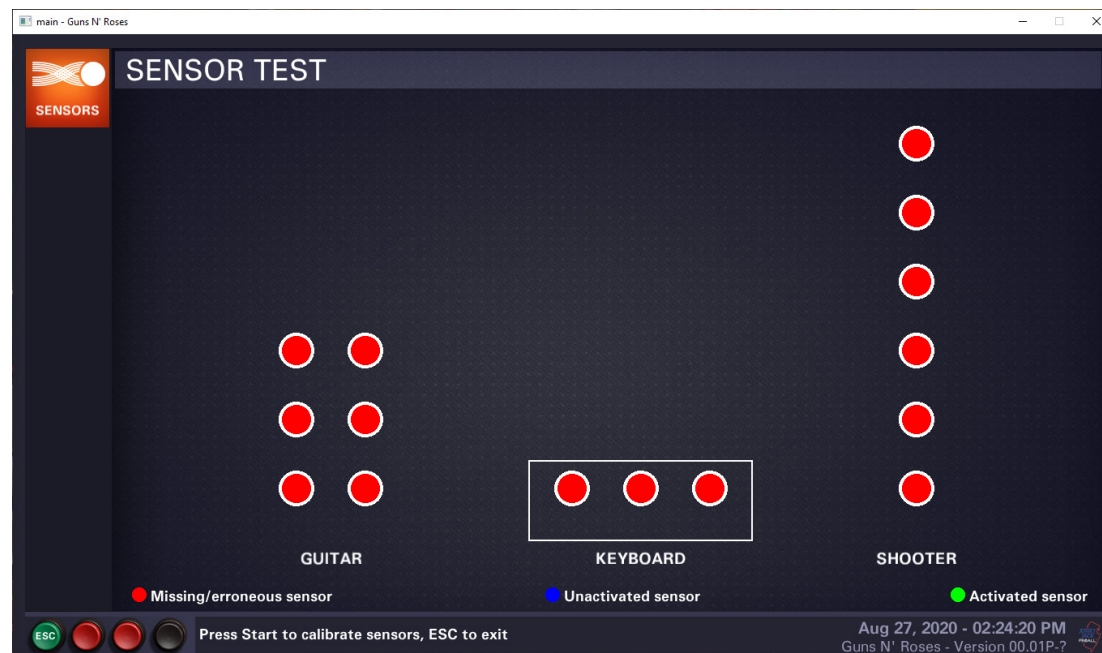
Sensor Calibration: If any of the sensors are red or not detecting the balls correctly, a re-calibration of the sensors will need to be preformed.

Remove all the balls from all the sensor areas.

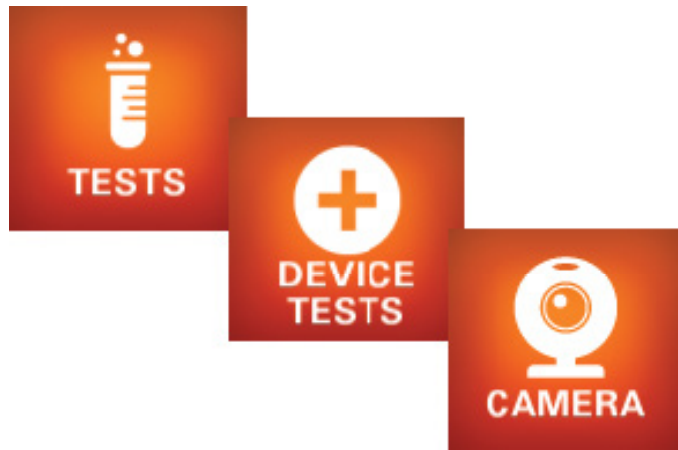
While still in the Sensor Test, press the START button. The sensor values should change and even fluctuate.

Re-test the sensors to ensure proper operation if the sensors are still not working properly, rerun the calibration process again until the sensors are working properly.

To exit the **Sensors Test** at any time, press the **Back/Escape** button.



Spot Light Test screen.

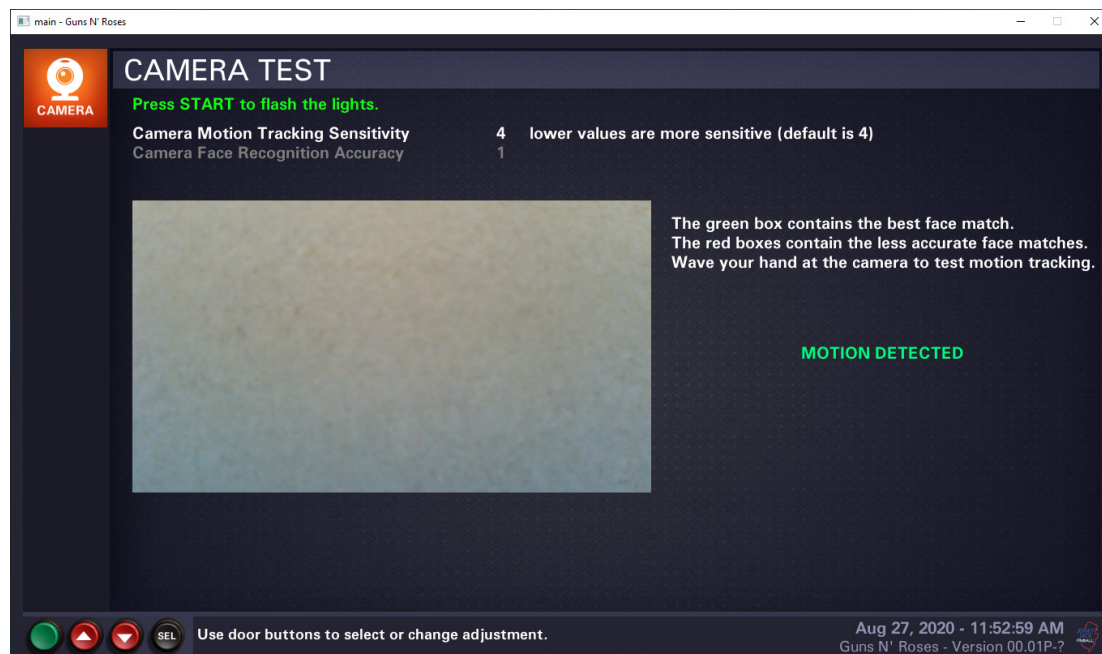


CAMERA TEST

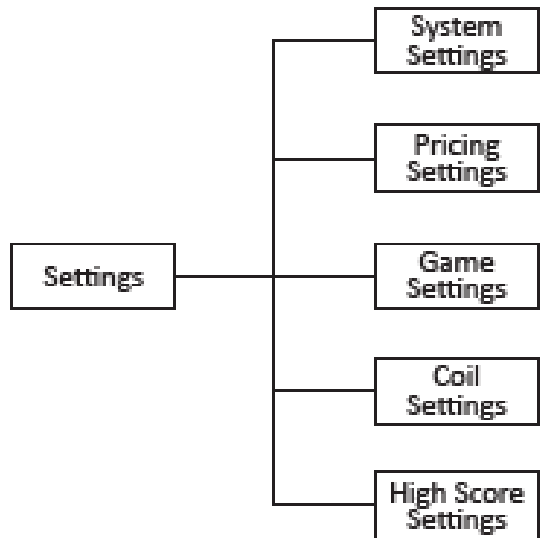
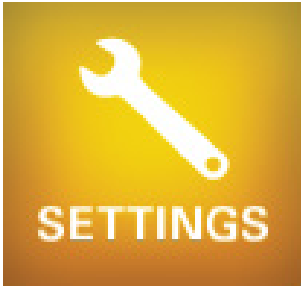
When you enter the **Camera Test**, the LCD monitor will display a screen similar to that shown. A large window on the left side of the screen will show what the game's camera (in the lower, center area of the backbox) currently "sees". Within that window, a green box will be placed around (what the software determines to be) the "best match" for a person's face. Red boxes will be placed around (what the software determines to be) "less accurate" face matches. You can wave your hand around to test motion detection. When the software recognizes your hand moving, the words "MOTION DETECTED" will appear, in green, in the center of the screen.

You select a sensitivity control to adjust (motion tracking or face recognition) with the **Up/+** and **Down/-** buttons. The currently selected control will be highlighted in white text. To make a change, press the **Enter** button, then use the **Up/+** and **Down/-** buttons to specify a new numeric value. You are providing relative sensitivity levels for the software to use to recognize faces and detect motion. The game software will apply these levels to the camera image data during game play in order to implement special features. Once you're finished adjusting a numerical value, press the **Enter** button once again to apply the change. To cancel the change, press the **Back/Escape** button.

To exit the **Camera Test** at any time, press the **Back/Escape** button.



Camera Test screen.



Settings menu tree.

SETTINGS

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.

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.

Timed Game Over Type: specify how a timed game will end.
INSTANT DEATH: game ends when timer reaches zero. Default: INSTANT DEATH
SUDDEN DEATH: game ends when timer reaches zero and the ball in play drains.
SUDDEN TIMER: game ends when timer reaches zero and the Sudden Death Timer reaches zero.

Sudden Death Timer: specify the amount of sudden death time.
2-15: 2-15 seconds Default: 10 seconds

Ball Save Time: specify the time, from ball launch, up to which the game will Auto-Launch a replacement ball into play, if a player’s ball drains for any reason (except a tilt).
OFF: ball save feature disabled Default: 6 seconds
1-20: 1-20 seconds

Money-In Auto-Start: specify whether the game will begin immediately when a credit equivalent, in money, has been inserted or not.
ON: begin game immediately Default: OFF
OFF: do not begin immediately

Auto-Launch Timeout: specify whether the game will auto-launch a served ball from the shooter lane, after a designated period of time or not.
30, 60, 90: 30, 60 & 90 second auto-lanch Default: OFF
OFF: never auto-launch a served ball

Flipper Auto-Launch: specify whether the flipper buttons can be used to launch a served ball into play or not.
LEFT FLIPPER: left button launches ball Default: OFF
RIGHT FLIPPER: right button launches ball
EITHER FLIPPER: either button launches ball
BOTH FLIPPERS: both buttons, simultaneously pressed, launch ball
OFF: flipper buttons don't launch ball

Competition Mode: specify whether the game will give random awards and allow carry-over features during gameplay or not.
ON: no random awards or carry-over features Default: OFF
OFF: allow random awards and carry-over features

Chase Ball: specify whether or not a chase ball will be auto-launched into play when ball search cannot locate the ball in play.
ON: use a chase ball Default: ON
OFF: do not use a chase ball

Game Restart: specify how the game responds to the start button being pressed in the middle of a game already in progress.
NEVER: never restart the game Default: NEVER
SLOW: restart the game only if the start button is held in for 1/2 second or more

Player Addable: specify when a new player can join a game already in progress. This setting is only available when *BALLS IN RESERVE* is selected as the **Ball Play Type** above.
ALWAYS: new player can join anytime Default: *BEFORE LAST BALL*
BEFORE LAST BALL: new player can only join before last ball begins

LED Brightness: specify the intensity level of LEDs under the playfield inserts.
LOW: lowest intensity Default: NORMAL
LOWER: low-medium intensity
NORMAL: medium intensity
HIGH: highest intensity

Match Percentage: specify the desired percentage of games, on average, that will be awarded a match at the end.
OFF: no match feature Default: 5%
1-20: 1-20%

Special Award: specify the award for scoring a Special during a game.
FREE GAME: a free game Default: FREE GAME
EXTRA BALL: an extra ball
POINTS: a predefined number of points

TEST REPORT

Display Error Dot: specify whether to display an error dot on the LCD screen when the game detects a potential problem or not.

- YES: display an error dot Default: NO
- NO: do not display an error dot

Test Report at Power On: specify whether or not to display a Test Report Message on the LCD screen, at power on, when the game detects a potential problem.

- YES: display a Test Report Message Default: YES
- NO: do not display a Test Report Message

STATUS REPORT

Status Report Start Time: specify how long the player has to hold a flipper down before a game Status Report is displayed.

- 6-10: 6-10 seconds Default: 6 seconds

Status Report Display Time: specify how long each page of the Status Report is displayed.

- 6-20: 6-20 seconds Default: 6 seconds

KNOCKER

Knocker Strength: specify the knocker's kick strength.

- NORMAL: normal kick strength Default: NORMAL
- LOW: low kick strength

Knocker Control: specify whether to allow the knocker to kick or not.

- ON: always use the knocker Default: ON
- OFF: disable the knocker
- SOMETIMES: occasionally use the knocker

EXTRA BALLS

Game Extra Ball Limit: specify the maximum number of extra balls that can be won in any game.

- 1-9: 1-9 extra balls Default: Unlimited
- Unlimited: unlimited extra balls
- No Extra Balls: no extra balls

Stacked Extra Ball Limit: specify the maximum number of extra balls that can be stacked by a player at any time during a game.

- 1-9: 1-9 extra balls Default: Unlimited
- Unlimited: unlimited extra balls
- No Extra Balls: no extra balls

TILT

Tilt Warning Type: specify whether tilt warnings accumulate per ball or per game.

- PER BALL: accumulate per ball Default: PER GAME
- PER GAME: accumulate per game

Tilt Warnings: specify the number of warnings issued before the game tilts.

- 0-10: 0-10 warnings Default: 2 warnings

SOUND

Master Volume: specify the overall volume level for the game.

- 0-50: 0-50 level Default: 26 level

Front Panel Headphone Volume: specify the headphone volume level for the game.

- 0-50: 0-50 level Default: 26 level

Front Panel Volume Control: specify whether the cabinet front controls will change the master volume level or not.

- ON: controls change master volume Default: W/FREE PLAY
- OFF: controls do not change master volume
- W/FREE PLAY: controls only change master volume in free play

Volume Effect Intensity: specify the intensity of volume effects (multiplies volume units).

- 1-5: 1-5 Default: 1

Maximum Volume Effect: specify how extra-loud the game can get, in volume units.

- 1-20: 0-50 level Default: 5 units
- OFF: not used

Music Mix: Specify the gain for the music in the game.
0-125: 0-125 Default: 75

Speech Mix: Specify the gain for the speech sounds in the game.
0-125: 0-125 Default: 75

Fanfare Mix: Specify the gain for the fanfares in the game.
0-125: 0-125 Default: 75

FX Mix: Specify the gain for the sound effects (FX) in the game.
0-125: 0-125 Default: 75

Attract Mode Sounds: Specify whether the game will play sounds during attract mode or not.
ON: Play sounds Default: ON
OFF: Do not play sounds

Attract Mode Music: specify whether the game will play music during attract mode or not.
ON: Play music Default: OFF
OFF: Do not play music

Attract Mode Jukebox (Only available in Free Play Mode)
OFF: Jukebox Disabled Default: OFF
JUKEBOX MANUAL: Jukebox starts when the “Action Button” is pressed
JUKEBOX AUTO: Jukebox starts automatically when in attract mode

Jukebox Mode
ORDERED: Songs play in order, by album Default: Ordered
SHUFFLE: Songs play in a random order

Jukebox Features: Sets what game features are enabled for Jukebox
MUSIC ONLY: Songs played in order, by album
MUSIC + VIDEO: Plays the music and shows the song video on the main screen
MUSIC+VIDEO+LIGHTS: Plays the music, video and the lamp show for the song

Attract Mode Motion Sounds: Specify whether the game will play attract mode sounds when motion is detected by the camera or not.
ON: play attract mode sounds Default: ON
OFF: do not play attract mode sounds

REPLAY AWARDS
Replay: Specify whether the game will use the automatic replay award system or not.
AUTO: use automatic replay award system Default: OFF
OFF: no replay awards

Replay Percent: specify the desired replay percentage (Replay: AUTO only).
1-30: 1-30% Default: 10%

Replay Levels: specify the number of scoring levels for replay awards (Replay: AUTO only). These Replay Scores will be set by the game. If configured, Replay Scores 2, 3 & 4 will be set at 2X, 3X & 4X the first Replay Score.
1-4: 1-4 levels Default: 1 level

Replay Award: specify the award for achieving any replay level (Replay: AUTO only).
FREE GAME: a free game Default: FREE GAME
EXTRA BALL: an extra ball
LIGHT SPECIAL: light the Special shot on the playfield
AUDIT: no award, just record in Audits

Replay Boost: specify whether to temporarily boost replay levels (when achieved) or not (Replay: AUTO only).
ON: use replay boost Default: ON
OFF: no replay boost

Replay Score: displays the current replay score, which is adjusted automatically by the game.

SCORE AWARDS
Score Award Levels: specify the number of score award levels. With the score award system, you can configure up to four fixed score Levels, along with specific awards for reaching each of those levels. You can also define and employ Score Award Boosts, if desired.
0-4: 0-4 levels Default: 0 levels

Score Level 1: specify 1st score award level (Score Award Levels: 1-4 only).
100000-1000000: 100,000-1,00,000 points Default: 500,000 points

Score Level 2: specify 2nd score award level (Score Award Levels: 2-4 only).
1000000-2000000: 1,000,000-2,000,000 points Default: 1,500,000 points

Score Level 3: specify 3rd score award level (Score Award Levels: 3-4 only).
2000000-4000000: 2,000,000-4,000,000 points Default: 2,500,000 points

Score Level 4: specify 4th score award level (Score Award Levels: 4 only).
4000000-8000000: 4,000,000-8,000,000 points Default: 5,000,000 points

Score Award 1: specify award for achieving score level 1 (Score Award Levels: 1-4 only).
FREE GAME: a free game Default: EXTRA BALL
EXTRA BALL: an extra ball
LIGHT SPECIAL: light the Special shot on the playfield
AUDIT: no award, just record in Audits

Score Award 2: specify award for achieving score level 2 (Score Award Levels: 2-4 only).
FREE GAME: a free game Default: EXTRA BALL
EXTRA BALL: an extra ball
LIGHT SPECIAL: light the Special shot on the playfield
AUDIT: no award, just record in Audits

Score Award 3: specify award for achieving score level 3 (Score Award Levels: 3-4 only).
FREE GAME: a free game Default: EXTRA BALL
EXTRA BALL: an extra ball
LIGHT SPECIAL: light the Special shot on the playfield
AUDIT: no award, just record in Audits

Score Award 4: specify award for achieving score level 4 (Score Award Levels: 4 only).
FREE GAME: a free game Default: EXTRA BALL
EXTRA BALL: an extra ball
LIGHT SPECIAL: light the Special shot on the playfield
AUDIT: no award, just record in Audits

Score Award Boost: specify whether to temporarily boost score levels (when achieved) or not (Score Award Levels: 1-4 only).
OFF: no score level boost Default: OFF
10000-500000: 10,000-500,000 point boost

MONITOR
Width Scale: the width extent of the game’s LCD screen, in pixels (1000 is the maximum).

Height Scale: the height extent of the game’s LCD screen, in pixels (1000 is the maximum).

X Offset: the left offset for the game’s LCD screen, in pixels.

Y Offset: the top offset for the game’s LCD screen, in pixels.

Player Menu
Menu Enabled: Enable or disable the player menu

Bluetooth Enable: Enable or disable the bluetooth menu

Camera Enable: Enable or disable the camera

Competition Enable: Enable or disable the competition menu

PRICING SETTINGS



Pricing Settings screen.

When you enter the **Pricing Settings** menu, the LCD monitor will display the screen shown. Settings that have been changed from factory defaults are displayed in red. Default settings are displayed in green, but only when a menu item is highlighted. Menu items that cannot be altered are displayed in gray. You can scroll through menu items with the **Up/+** and **Down/-** buttons; press **Enter** to select an item you would like to change. Use the **Up/+** and **Down/-** buttons to alter the highlighted data value, then press **Enter** to accept the new value. Press **Back/Escape** to escape from a selected menu item without saving changes.

To exit the **Pricing Settings** menu at any time, press the **Back/Escape** button.

GENERAL

Free Play: specify whether the game will play for free or not.

YES: play for free Default: YES

NO: require currency for play

Currency: specify currency for the game to accept. Default values and currency labels under COIN DOOR and PRICING SCHEME headings change with different types of currency. Values and labels shown below are for Dollars currency.

Dollars (\$): Dollars Default: Dollars

Euros (€): Euros

Pounds (£): Pounds

Yen (¥): Yen

Krone (kr): Krone

Krona (kr): Krona

Coins: coins

Tokens: tokens

Swipes: card swipes through a reader

Bills: bills through a bill acceptor

Frankens (Fr): Frankens

Money Limit: specify the maximum amount of money the game can accept at any time.

\$0.00: Unlimited dollar amount Default: \$0.00

\$0.01-\$100,000.00: \$0.01-\$100,000.00

Credit Limit: specify the maximum number of credits the game can hold at any time.

0: Unlimited credits Default: 0

1-100: 1-100 credits

COIN DOOR

Coin Switch 1 Pulse Amount: specify the amount of currency represented by one pulse from coin switch 1.

\$0.01-\$100,000.00: \$0.01-\$100,000.00 Default: \$0.25

Coin Switch 2 Pulse Amount: specify the amount of currency represented by one pulse from coin switch 2.

\$0.01-\$100,000.00: \$0.01-\$100,000.00 Default: \$0.25

Coin Switch 3 Pulse Amount: specify the amount of currency represented by one pulse from coin switch 3.

\$0.01-\$100,000.00: \$0.01-\$100,000.00 Default: \$0.25

Coin Switch 4 Pulse Amount: specify the amount of currency represented by one pulse from coin switch 4.

\$0.01-\$100,000.00: \$0.01-\$100,000.00 Default: \$0.25

Coin Switch 5 Pulse Amount: specify the amount of currency represented by one pulse from coin switch 5.

\$0.01-\$100,000.00: \$0.01-\$100,000.00 Default: \$0.25

Card Reader Installed: specify whether a card reader is installed in the game or not.

YES: card reader installed Default: NO

NO: no card reader installed

PRICING SCHEME

Pricing Levels: specify the number of desired pricing levels (or tiers).

1-10: 1-10 levels Default: 1 level

Tier 1 Cost: specify cost for pricing tier 1.

\$0.01-\$100,000.00: \$0.01-\$100,000.00 Default: \$1.00

Tier 1 Credits: specify the number of credits for pricing tier 1.

1-100: 1-100 credits Default: 1 credit

Tier 2 Cost: specify cost for pricing tier 2.

\$0.01-\$100,000.00: \$0.01-\$100,000.00 Default: \$2.00

Tier 2 Credits: specify the number of credits for pricing tier 2.

1-100: 1-100 credits Default: 2 credits

Tier 3 Cost: specify cost for pricing tier 3.

\$0.01-\$100,000.00: \$0.01-\$100,000.00 Default: \$3.00

Tier 3 Credits: specify the number of credits for pricing tier 3.

1-100: 1-100 credits Default: 3 credits

Tier 4 Cost: specify cost for pricing tier 4.

\$0.01-\$100,000.00: \$0.01-\$100,000.00 Default: \$4.00

Tier 4 Credits: specify the number of credits for pricing tier 4.

1-100: 1-100 credits Default: 4 credits

Tier 5 Cost: specify cost for pricing tier 5.

\$0.01-\$100,000.00: \$0.01-\$100,000.00 Default: \$5.00

Tier 5 Credits: specify the number of credits for pricing tier 5.

1-100: 1-100 credits Default: 5 credits

Tier 6 Cost: specify cost for pricing tier 6.

\$0.01-\$100,000.00: \$0.01-\$100,000.00 Default: \$6.00

Tier 6 Credits: specify the number of credits for pricing tier 6.

1-100: 1-100 credits Default: 6 credits

Tier 7 Cost: specify cost for pricing tier 7.

\$0.01-\$100,000.00: \$0.01-\$100,000.00 Default: \$7.00

Tier 7 Credits: specify the number of credits for pricing tier 7.

1-100: 1-100 credits Default: 7 credits

Tier 8 Cost: specify cost for pricing tier 8.

\$0.01-\$100,000.00: \$0.01-\$100,000.00 Default: \$8.00

Tier 8 Credits: specify the number of credits for pricing tier 8.

1-100: 1-100 credits Default: 8 credits

Tier 9 Cost: specify cost for pricing tier 9.

\$0.01-\$100,000.00: \$0.01-\$100,000.00 Default: \$9.00

Tier 9 Credits: specify the number of credits for pricing tier 9.

1-100: 1-100 credits Default: 9 credits

Tier 10 Cost: specify cost for pricing tier 10.

\$0.01-\$100,000.00: \$0.01-\$100,000.00 Default: \$10.00

Tier 10 Credits: specify the number of credits for pricing tier 10.

1-100: 1-100 credits Default: 10 credits



GAME SETTINGS

When you enter the **Game Settings** menu, the LCD monitor will display the screen shown. Settings that have been changed from factory defaults are displayed in red. Default settings are displayed in green, but only when a menu item is highlighted. Menu items that cannot be altered are displayed in gray. You can scroll through menu items with the **Up/+** and **Down/-** buttons; press **Enter** to select an item you would like to change. Use the **Up/+** and **Down/-** buttons to alter the highlighted data value, then press **Enter** to accept the new value. Press **Back/Escape** to escape from a selected menu item without saving changes.

To exit the **Game Settings** menu at any time, press the **Back/Escape** button.



Game Settings screen.

GENERAL

Allow Adult Content: Allow vulgar language and suggestive images.
ON or OFF Default: OFF

Game Number: shown in attract mode (for LE and CE games only).

Floating Scores:Show scores earned floating up the display

Protips: Whether tips are shown during bonus or not

Mode Intro Instructions: Whether mode intro instructions are shown or notS

EXTRA BALL

Difficulty: Default: NO JETS ALLOWED
NO JETS ALLOWER
NO JETS OR LOOPS ALLOWER
LIT ALWAYS

ACTION BUTTON

Enable Button Game Start: Action button can start a game
Never / Freeplay Default: NEVER

Devices This Game Settings section allows you to disable any broken or otherwise non-functional devices. Below are the possible options & default for each setting:	Inlanes Inlane Game Start Letter Spot: Determines how many letters are spotted at the start of the game. <i>0 - 6 Letters:</i> Default: <i>0</i>
Disable Left Ramp Diverter: Stops game from using diverter. <i>YES:</i> device disabled Default: NO <i>NO:</i> device enabled	Inlane Progress Memory: Keep inlane progress from ball to ball. <i>YES - NO</i> Default: YES
Diable Right Ramp Diverter: Stops game from using diverter. <i>YES:</i> device disabled Default: NO <i>NO:</i> device enabled	Lights Qualifying Light Qualifing Difficulty: Sets the difficulty for Light Qualifing. <i>1 (Very Easy) - 6 (Very hard)</i> Default: 2
Guitar Lockup Pass-Through: Allow balls not being locked to pass through. <i>ON; Enabled</i> Default: ON <i>OFF: Disabled</i>	Coma Qualifing Stage Difficulty: Sets the difficulty for Stage. <i>1 (Very Easy) - 6 (Very Hard)</i> Default: 1
Sensor Autocalibration: Enables autocalibration of ball snsors. <i>ON; Enabled</i> Default: ON <i>OFF: Disabled</i>	Shot Difficulty: Number of hits to light Coma. <i>2 - 10</i> Default: 3
Sensor Test Glitch Catching Mode: Enables glitch - catching mode sensor tests. <i>ON; Enabled</i> Default: OFF <i>OFF: Disabled</i>	Shot Timmer Difficulty: Amount of time for Coma target to be hit. <i>3 - 10</i> Default: 5
Concert Boosters Concert Booster Difficulty: Specify the Concert Booster Difficulty level <i>1 (Easy) - 10(Hard)</i> Default: 1	Progress Memory: Keeps Progress of Coma target hits in memory. <i>YES - NO</i> Default YES
Jackpot Score Level Reset: Do Jackpots earned reset after each song for score level. <i>YES - NO</i> Default: NO	One Combo Completion: Coma qualifing By a left loop to Coma Combo. <i>YES - NO</i> Default YES
Pyro Qualifing Pyro Qualifing Difficulty: <i>1 (Easy) - 4 (Hard)</i> Default: 1	

Coma Mode

- Timer Difficulty:** Is the Coma Mode timed.

YES - NO

Default YES
- Frenzy Stage Difficulty:** Switch hits required to complete Frenzy stage.

Easy - Medium - Hard

Default: EASY
- Timer Difficulty:** Timer allowed for completion of mode.

Easy - Medium - Hard

Default: MEDIUM
- Max Time Added:** Max seconds that can be added to the timer.

5 -30

Default: 15
- Shot Stage Difficulty:** Number of shots lit to start on final stage.

1 - 5

Default: 2
- Time Added After Frenzy:** Time added for completing the frenzy stage.

0 - 20

Default: 5
- Jet Hits Difficulty:** Number of jets to count as one switch hit.

1 - 10

Default: 3
- Coma Multiball**

Super Jackpot Combe Difficulty: Number of seconds between each shot.

1 - 15

Default: 3

Super Jackpot Difficulty Minimum: Minimum spinner hits to light super jackpot.

10 - 50

Default: 10

Super Jackpot Difficulty Maximum: Maximum spinner hits to light super jackpot

50 - 100

Default: 60

Super Jackpot Difficulty Increase: Increment spinner hits after super jackpoy.

5 - 15

Default: 5
- Skill Shot**
- Light Make Some Nose Difficulty Minimum:** Miniimum advaces to light Make Some Noise.

1 - 6

Default: 2

Light Make Some Nose Difficulty Maximum: Maximum advances to light Make Some Noise.

6 -20

Default: 6

Light Make Some Noise Difficulty Increment: Increment advances after Make Some Noise.

1 - 3

Default: 1

Throw The Lights Multiball

Combo Timer Difficulty: Sets the timer difficulty of Coma.

1 (Easy) - 3 (Hard)

Default: 2

Jackpot Roving Difficulty: Sets the Jackpot difficulty.

1 (Easy) - 5 (Hard)

Default: 3

Jackpot Roving Timer Difficulty: Sets theTimer Difficulty:

1 (Easy) - 3 (Hard)

Default: 2

Minimum Jackpot Ramps Difficulty: Minimum number of ramps made to light subsequent jackpots.

5 - 20

Default: 6

Subsequent Jackpot Ramps Made Difficulty: Maximum number of ramps made to light subsequent jackpots.

20 - 50

Default: 20

Subsequent Jackpot Ramps Made Difficulty: Number of ramps made to increment for next jackpot.

1 - 10

Default: 1

GUNS N ROSES

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Ignite The Flames Multiball

Minimum Jackpot Switch Difficulty: Number of switches to light subsequent lackpots.
1 - 500 Default: 300

Subsequent Jackpot Switch Difficulty: Number of maximum switches to light subsequent lackpots.
500 - 1500 Default: 600

Subsequent Jackpot Switch Difficulty: Number of switches to increment for next jackpot.
10 - 100 Default: 25

Turn It Up Multiball

Subsequent Jackpot Minimum Difficulty: Minimum number of hurrups made to light subsequent jackpots.
3 - 10 Default: 3

Subsequent Jackpot Maximum Difficulty: Maximum number of hurry ups made to light subsequent jackpots.
10 - 50 Default: 12

Subsequent Jackpot Increment Difficulty: Number of hurry ups made to increment for subsequent jackpots.
1 - 10 Default: 1

Make Some Noise Multiball

Minimum Shots Made Difficulty: Minimum number of shots made to light subsequent jackpots.
2 - 10 Default: 2

Subsequent Shot Made Difficulty: Minimum number of shots made to light subsequent jackpots.
5 - 15 Default: 5

Sebsequent Shots Made Difficulty: Number of shots made to increment for next jackpot.
1 - 2 Default: 1

JAM

Last Song Number With Easy Advance: JAM target always lit for this number of songs.
0 - 20 Default: 1

First Song With No Advance Available: JAM never lit starting this song number
0 - 50 Default: 10

Jam Promotional Timer Length: Seconds JAM spot band member promotion is available.
3 - 15 Default: 6

GNR Mystery

Spellout Difficulty Level: How hard is it to spell out GUNS N ROSES.
1 = Lit - 29 = very very hard Default: 5

Extra Ball Memory: Extra Ball carries over across balls.
ON / OFF Default: ON

Allow Tilt Warning Award: Allow the game to add tilt warnings to a player.
ON / OFF Default: ON

SONG

Song Difficulty:
1 = Easy - 10 = Hard Default: 3

Song Qualifing Spotting Difficulty
1 = Easy - 10 = Hard Default; 5

Drums Qualifing Dificulty
1 = Easy - 5 HARD Default: 3

Bass Qualifing Difficulty
1 = Easy - 5 = Hard Default: 3

Keybord Qualifing Difficulty
1 = Easy - 5 = Hard Default: 2

Keyboard 2 Qualifing Difficulty
1 = Easy - 5 = Hard Defauly: 2

Slash Qualifing Difficulty
1 = Easy - 5 = Hard Default: 3

Guitar Qualifing Difficulty
1 = Easy - 5 = Hard Default: 3

AXL Qualifing Difficulty
1 = Very Easy - 8 = Extreamply Hard Default: 2

Rose Rule Difficulty
1 = Very Easy - 8 = Extreamply Hard Default: 3

SONG CONTINUED

Rock Meter Encore Threshold	
<i>10000 - 1100000</i>	Default: 1000000
Rock Meter Booed Threshold	
<i>10000 - 250000</i>	Default: 50000
Rock Meter Flipper Penalty Start: How much meter goes down while holding flippers	
<i>0 - 500</i>	Default: 350
Rock Meter Flipper Penalty Increase: Increase of penalty each song played	
<i>0 - 100</i>	Default: 25
Boo Time	
<i>50 - 1000</i>	Default: 500
Time Needed To Qualify Album: Seconds	
<i>30 - 360</i>	Default: 180
Continue Add Ball: Enable / Disable Add - A - Ball on song continue	
<i>ON / OFF</i>	Default: ON
Super Jackpot Add Ball: Enable / Disable Add - A - Ball on Song Super Jackpot	
<i>ON / OFF</i>	Default: ON
Skip Song Intro: Hit both flippers to end song introductons.	
<i>YES / NO</i>	Default: NO
Change Song: Allow the player to change the song before starting.	
<i>ON / OFF</i>	Default: ON
Time Allowed to Choose A Song: Seconds.	
<i>15 - 180</i>	Default: 60
Change Song Left Flipper	
<i>Move Back / Next Album</i>	Default: NEXT ALBUM
Collect Balls: Setting when balls are collected at end of song.	
<i>OFF / ALWAYS / MULTIBALL</i>	Default: MULTIBALL
Applause Time: Seconds.	
<i>0 - 45</i>	Default: 15
Band Frenzy Timer Difficulty: Number of seconds for band frenzy to run.	
<i>10 - 40</i>	Default: 20
Extra Ball Memory: Extra Ball lit carries over across balls.	
<i>ON / OFF</i>	Default: ON
Song Is Lit Reminder: Does song is lit graphic shows at ball start.	
<i>ON / OFF</i>	Default: ON

Song Multiball

Lit Locks At Game Start: # of Lit Locks are Awarded at Game Start.	
<i>0 - 6</i>	Default: 0
Base Song Ball Save Time: Ball Save Time	
<i>0 - 25</i>	Default: 5
Song Ball Save Boost Seconds: Ball Save Boost Time.	
<i>0 - 5</i>	Default: 1
Member Max Song Ball Save Time: Ball Save Time Member.	
<i>10 - 30</i>	Default: 15
Maximum Song Ball Save Time: Ball Save Time Max.	
<i>10 - 90</i>	Default: 60
Superlock Timeout: How Long the Super Locks Last. (Zero for Disable)	
<i>0 - 25</i>	Default: 15
Bottom Lane Bonus	
Bottom Lane Bonus Difficulty: Light Song Collect Bonus Extra Ball.	
<i>1 = Trivial - 6 = Very Hard</i>	Default: 3
Song Modes	
Better Mode Difficulty:	
<i>1 - 8</i>	Default: 1
Civil War Mode Difficulty:	
<i>1 - 8</i>	Default: 1
Civil War Background Shaker: Background Shaker On or Off During Mode.	
<i>ON - OFF</i>	Default: ON
Don't Cry Mode Difficulty:	
<i>1 - 8</i>	Default: 1
Double Talkin' Jive Mode Difficulty:	
<i>1 - 8</i>	Default: 1
Its So Easy Mode Difficulty:	
<i>1 - 8</i>	Default: 1
Live And Let Die Mode Difficulty:	
<i>1 - 8</i>	Default: 1
My Michelle Mode Difficulty:	
<i>1 - 8</i>	Default: 1
My Macheele Lamp Intensity:	
<i>1 - 3</i>	Default: 2
Nighttrain Mode Difficulty:	
<i>1 - 8</i>	Default: 1

Song Modes Continued

Paradise City Mode Difficulty:	
1 - 8	Default: 1
Paradise City Jet Difficulty Min	
1 - 5	Default: 3
Paradise City Jet Difficulty Increment:	
0 - 5	Default: 0
Paradise City Jet Difficulty Max:	
5 - 10	Default: 5
You could Be Mine Mode Difficulty:	
1 - 8	Default: 1
This I Love Mode Difficulty:	
1 - 8	Default: 1
This I Love Lamp Difficulty:	
1 - 3	Default: 2
Nighttrain Mode Difficulty:	
1 - 8	Default: 1
Coma Mode Difficulty:	
1 - 8	Default: 1
Estranged Mode Difficulty:	
1 - 8	Default: 1
November Rain Mode Difficulty:	
1 - 8	Default: 1
Rocket Queen Mode Difficulty:	
1 - 8	Default: 1
Welcome To The Jungle Mode Difficulty:	
1 - 8	Default: 1
Mr. Brownstone Mode Difficulty:	
1 - 8	Default: 1
Sweet Child O' Mine Mode Difficulty:	
1 - 8	Default: 1
Chinese Democracy Difficulty:	
1 - 8	Default: 1
Patience Mode Difficulty:	
1 - 8	Default: 1

Patches

Extra Ball: Number of GNR Lane Completions Until Extra Ball is Available.	
0 - 10	Default: 0
Extra Ball Memory: Extra Ball Carries Over Across Balls.	
ON - OFF	Default: ON
Special: Number of GNR Lans Completions Until Special is Available.	
1 - 10	Default: 3
Firecracher: Number of Seconds Added to Ignite the Flames Timer.	
5 - 30	Default: 15
Horn Hands: Number of Failed Plunges Added to Allowable Amount.	
1 - 3	Default: 1
Spotlight: Number of Seconds Added to Throw the Lights Combo Timer.	
1 - 3	Default: 2
Speaker: Number of Seconds Added to Turn It Up Hurry Up Timer.	
1 - 3	Default: 2
IV Bag: Number of Seconds Added to Coma Timer.	
5 - 30	Default: 15
Concert Poster: Number of Seconds Added to On the Road Modes.	
5 - 30	Default: 30
Crash Cart: Number of Seconds Added to Coma MB Ball Saver.	
5 - 15	Default: 10
IV Bag & Crash Cart: Percent Score Increase of Coma MB.	
5 - 100	Default: 75
Bra: Percent Score Increase of Skill Shot.	
5 - 100	Default: 50
Bandana: Number of Seconds Added to JAM Hury Up Timer.	
2 - 10	Default: 5
Marshall: Percent of Shots Removed From Slash Solo to Light Stage Completion.	
5 - 75	Default: 25
Patience: Number of GNR Lane Completions Until Patience is Available.	
0 - 10	Default: 0
Sunglasses: Number of Tour Cities to Spot.	
1 - 5	Default: 5
Album Sales	
Album Sales Memory: Do Album Sales Reset at Ball Start.	
YES - NO	Default: NO

Slash Solo Qualifing

Minimum Spins Difficulty: Miinimum Number of Spins to Light Slash Solo.

100 - 2500 Default: 2000

Maximum Spins Difficulty: Maximum Number of Spins to Light Slash Solo.

2500 - 5000 Default: 2500

Subsuquent Spins Needed Difficulty: Number of Spins to Increment for Next Slash Solo.

100 - 500 Default: 100

Thirst For Carnage

Difficulty:

1 = Easy - 9 = Hard Default: 5

Mode Time: Time Limit for Mode.

1 = Easy - 9 = Hard Default: 5

Desert Demolition:

Difficulty:

1 = Easy - 9 = Hard Default: 5

Mode Time: Time Limit for Mode.

30 - 120 Default: 60

Tear Down The Wall

Aim First: Does the Mode Require Aim First Before a Sot is Lit.

YES - NO Default: NO

Max Multiplier Per Shot: Max X Pe rShot Prior to Clearin g Poster First Time.

6 - 200 Default: 100

Ammo Allowed: Total Ammo Allowed Before Mode Ends.

6 - 24 Default: 10

Shot Multiplier: Multiplier Increase by X for Each Shot.

1 - 5 Default: 3

Shall We Play A Game

Timer Difficulty: Max Time Allowed for Mode.

15 - 60 Default: 60

Shot Difficulty: Number of Shots Required to Win Mode.

5 - 15 Default: 10

Slash Solo

Stage 1 Difficulty: Number of Slash Spinner Switches Needed.

25 - 200 Default: 75

Stage 2 Difficulty: Number of Pick Spinner Spins Needed

25 - 200 Default: 75

Tour Multiball

Super Jackpot Minimum Difficulty: Minimum Number of Jackpots Made to Light Super Jackpots.

3 - 6 Default: 3

Super Jackpot Increment Difficult: Number of Jackpots to Increment for Subsequent Super Jackpots.

1 - 10 Default: 1

Super Jackpot Maximum Difficulty: Maximum Number of Jackpots Made to Light Super Jackpots.

6 - 12 Default: 9

Super Jackpot Roving Time Difficulty:

1 = Easy - 3 = Hard Default: 2

Add-A-Ball Earned Maximumm: Max Number of Add-A-Balls Allowed to be Earned.

1 - 4 Default: 4

Camera

Disable Camera:

YES - NO Default: NO

Disable High Score Photos: Turn Off Photos Taken for High Scores.

YES - NO Default NO

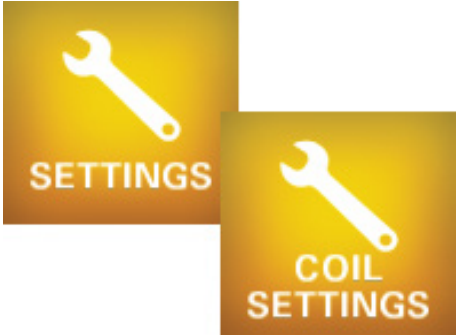
Show Attract Mode Camera Message: Show Camera Message is Attract Mode.

YES - NO Default: YES

Camera

Disable High Score Photo Decorations: Turn Off Adding Decorations to Photos Taken for High Score.

YES - NO Default: NO



COIL SETTINGS

When you enter the **Coil Settings** menu, the LCD monitor will display the screen shown. Settings that have been changed from factory defaults are displayed in red. Default settings are displayed in green, but only when a menu item is highlighted. Menu items that cannot be altered are displayed in gray. You can scroll through menu items with the **Up/+** and **Down/-** buttons; press **Enter** to select an item you would like to change. Use the **Up/+** and **Down/-** buttons to alter the highlighted data value, then press **Enter** to accept the new value. Press **Back/Escape** to escape from a selected menu item without saving changes.

From the **Coil Settings** menu, virtually every single coil strength in the game is adjustable. This feature allows the owner/operator to fine tune game play and operation for specific uses.

CAUTION: Be careful when adjusting the values in this menu; making certain coils too strong can result in breakage or excessive wear on certain parts of the game.

To exit the **Coil Settings** menu at any time, press the **Back/Escape** button.



Coil Settings screen.

TROUGH		
Trough VUK Strength: specify the firing strength for the trough VUK coil.		
1-32: 1-32 firing strength	Default: 15	
Auto-Launch Strength: specify the firing strength for the ball Auto-Launch coil.		
1-32: 1-32 firing strength	Default: 10	
Trough: Restrict Kickout on Error: specify whether or not to restrict ball kickout and game start functions when a trough error is encountered.		
YES - NO	Default: YES	
GENERAL		
Kickouts: Restrict Kickout on Error YES / NO	Default: YES	
Maximum Shaker Strength: Adjust to Extreme at Your Own Risk.		
OFF - EXTREME	Default: MEDIUM	
FLIPPERS		
Left Flipper Strength: Specify the firing strength for the left flipper power coil.		
1 - 32	Default: 22	
Right Flipper Strength: Specify the firing strength for the right flipper power coil.		
1 - 32	Default: 25	
Upper Right Flipper Strength: Specify the firing strength for the upper right flipper power coil.		
1 - 32	Default: 18	
Upper PF Flipper Strength: Specify the firing strength for the upper left flipper power coil.		
1 - 32	Default: 10	
BUMPERS		
Left Bumper Strength: Specify the firing time.		
20 - 36	Default: 24	
Right Bumper Strength: Specify the firing time.		
20 - 36	Default: 24	
Top Bumper Strength: Specify the firing time.		
20 - 36	Default: 24	
SLINGSHOTS		
Left Slingshot Strength: Specify the firing time.		
14 - 64	Default: 32	
Right Slingshot Strength: Specify the firing time.		
14 - 64	Default: 32	
VERTICLE UP KICKERS		
Upper Playfield VUK Strength: Specify the firing time.		
Factory Set	Default: 10	
Center Scoop VUK Strength: Specify the firing time.		
1 - 32	Default: 13	
Left Guitar Release Fire Time: Specify the firing time.		
Factory Set	Default: 3	
Right Guitar Release Fire Time: Specify the firing time.		
Factory Set	Default: 3	
Coma Release Fire Time:		
1 - 5	Default: 3	
DIVERTERS		
Left Ramp Diverter Fire Strength: Specify the firing strength.		
50 - 1000	Default: 250	
Right Ramp Diverter Fire Strength: Specify the firing strength.		
50 - 1000	Default: 250	
Right Ramp Diverter Hold Strength: Specify the hold strength.		
1 - 32	Default: 6	



HIGH SCORE SETTINGS

When you enter the **High Score Settings** menu, the LCD monitor will display the screen shown. Settings that have been changed from factory defaults are displayed in red. Default settings are displayed in green, but only when a menu item is highlighted. Menu items that cannot be altered are displayed in gray. You can scroll through menu items with the **Up/+** and **Down/-** buttons; press **Enter** to select an item you would like to change. Use the **Up/+** and **Down/-** buttons to alter the highlighted data value, then press **Enter** to accept the new value. Press **Back/Escape** to escape from a selected menu item without saving changes.

To exit the **High Score Settings** menu at any time, press the **Back/Escape** button.

GAME FEATURE HIGH SCORES

Tear Down The Wall Champ Credits: Specify the number of credits awarded.

0-10: 0-10 credits Default: 0 credits

Desert Demolition Champ Credits: Specify the number of credits awarded.

0-10: 0-10 credits Default: 0 credits

Thirst For Carnage Champ Credits: Specify the number of credits awarded.

0-10: 0-10 credits Default: 0 credits

Shall We Play A Game Champ Credits: Specify the number of credits awarded.

0-10: 0-10 credits Default: 0 credits

Ignite The Flames Champ Credits: Specify the number of credits awarded.

0-10: 0-10 credits Default: 0 credits

Throw The Lights Champ Credits: Specify the number of credits awarded.

0-10: 0-10 credits Default: 0 credits



High Score Settings screen.

Turn It Up Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Make Some Noise Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Coma Multiball Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Better Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Chinese Democracy Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Civil War Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Coma Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Don't Cry Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Double Talkin Jive Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Estranged Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

It's So Easy Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Live And Let Die Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Mr. Brownstone Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

My Michelle Champ Credit: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Nightrain Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

November Rain Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Out Ta Get Me Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

H.S.T.D. 3 Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

H.S.T.D. 4 Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Paradise City Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Patience Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Rocket Queen Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Sweet Child O' Mine Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

This I Love Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Welcome To The Jungle Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

You Could Be Mine Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Slash Solo Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

Tour Multiball Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

No Sympathy For The Devil Champ Credits: Specify the number of credits awarded.
0-10: 0-10 credits Default: 0 credits

REGULAR HIGH SCORES
Keep High Scores: ON / OFF. Defaults: ON

High Score Award: AUDIT / FREE GAME Default: FREE GAME

High Score Name Length: 3 - 11 Default: 11

H.S.T.D. Rest Every: 200 - OFF Default: OFF

Champion Credits: 0 - 10 Default: 1

H.S.T.D. 1 Credits: 0 - 10 Default:1

H.S.T.D. 2 Credits: 0 - 10 Default:1

H.S.T.D. 3 Credits: 0 - 10 Default:1

H.S.T.D. 4 Credits: 0 - 10 Default:1

H.S.T.D. 5 Credits: 0 - 10 Default:1

H.S.T.D. 6 Credits: 0 - 10 Default:1

H.S.T.D. 7 Credits: 0 - 10 Default:1

H.S.T.D. 8 Credits: 0 - 10 Default:1

Default Grand Champion: 500000 - 1000000 Default: 500,000 points

Default H.S.T.D. 1: 400000 - 900000 Default: 400,000 points

Default H.S.T.D. 2: 300000 - 800000 Default: 300,000 points

Default H.S.T.D. 3: 250000 - 700000 Default: 250,000 points

Default H.S.T.D. 4: 200000 - 600000 Default: 200,000 points

Default H.S.T.D. 5: 150000 - 500000 Default: 150,000 points

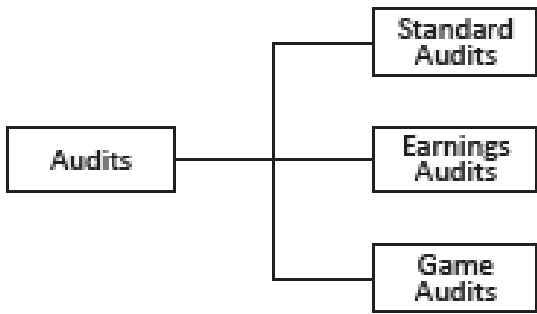
Default H.S.T.D. 6: 125000 - 400000 Default: 125,000 points

Default H.S.T.D. 7: 100000 - 250000 Default: 100,000 points

Default H.S.T.D. 8: 75000 - 200000 Default: 75,000 points

DAILY HIGH SCORES
Keep Daily High Scores: ON / OFF Default: ON

Minimum Daily High Score: Minimum Score to Qualify for the Daily High Scores Table.
10000-100000 Default: 20,000



Audits menu tree.

AUDITS

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).

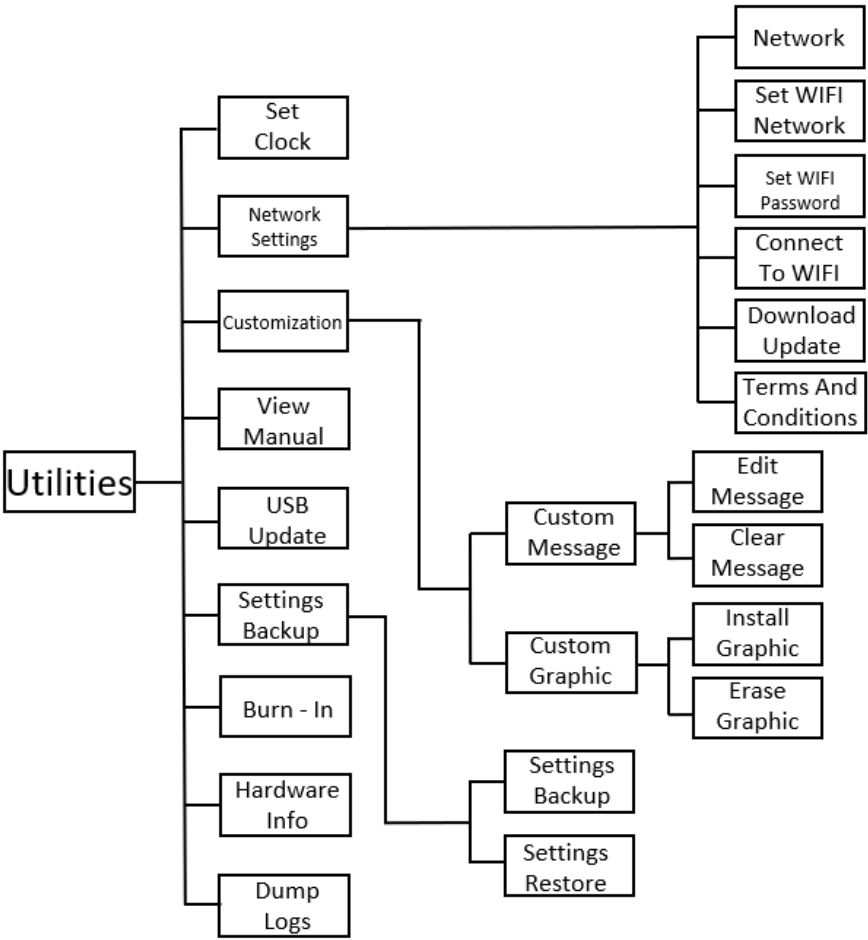
Standard Audits - view game-related totals such as free plays, 1-, 2-, 3- & 4-player games started, extra balls, replays, matches, etc.

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



Utilities menu tree.

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, dump data logs and view this manual and/or game hardware information.

Set Clock - adjust the system date and time.

Network Settings - Manage Your games Wireless Network Connection and check for software updates.

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.

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

USB Update - update the game’s software via a USB memory stick. Note: The update must be downloaded from the JJP® support website (<https://www.jerseyjackpinball.com/support/>), using a separate computer.

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

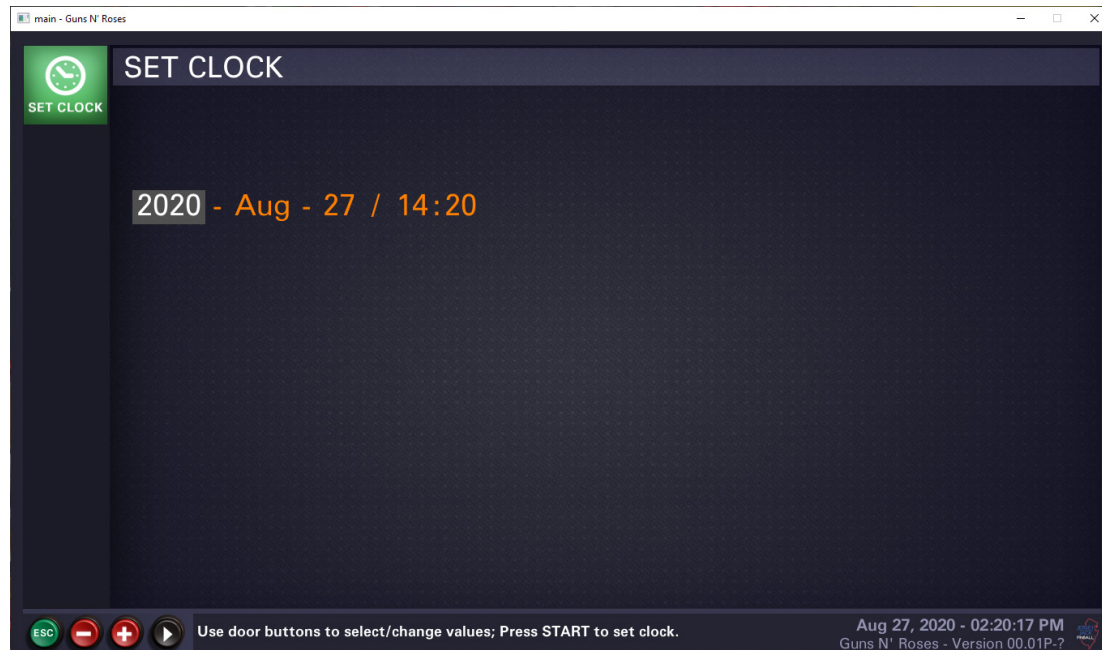
Burn-In - run a preset routine to exercise all of the critical devices in the game, repeatedly, to test for reliable, long-term system operation.

Hardware Info - view game hardware characteristics such as game serial number, firmware revision levels, motherboard type, display Information, available RAM, processor speed & solid state disk size.

Dump Logs - dump diagnostics software logs from the game to allow off-line analysis and troubleshooting of game issues.



SET CLOCK



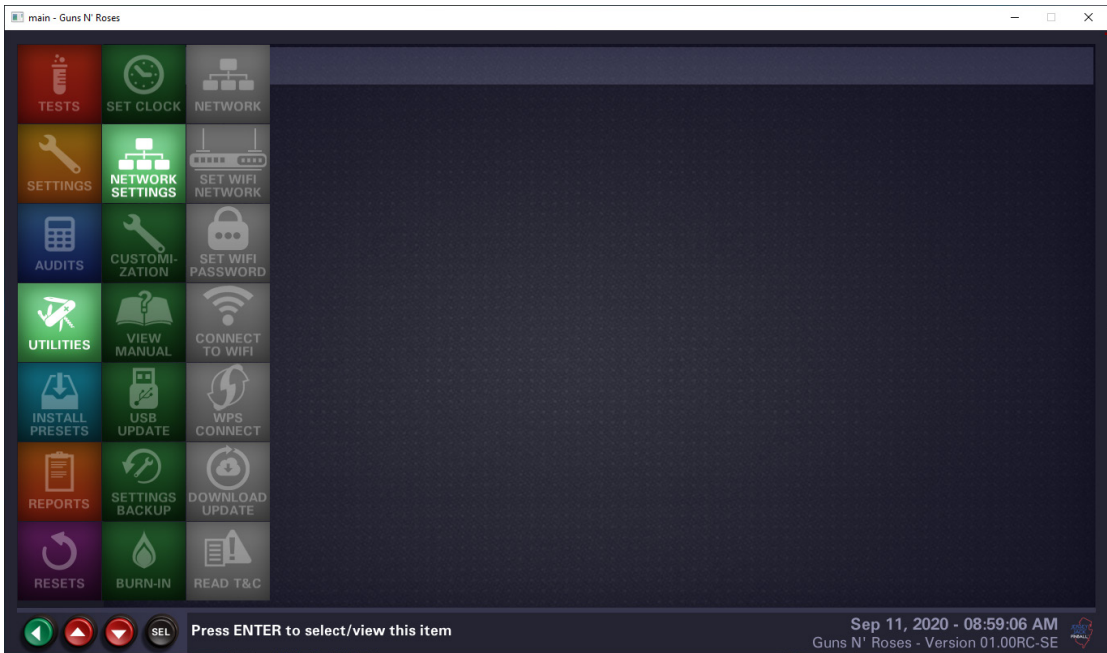
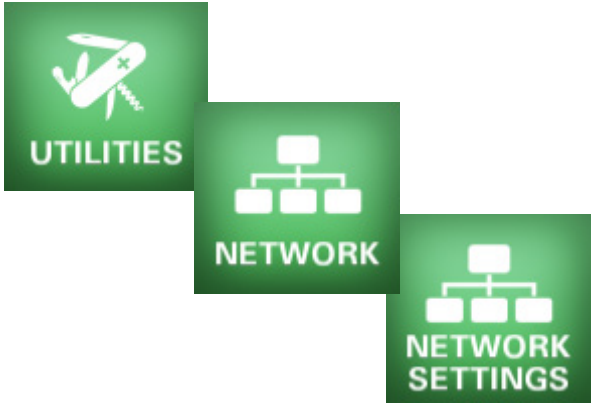
Set Clock utility screen.

When you enter the **Set Clock** utility, the LCD monitor will display the screen shown. To maneuver to the portion of the display that requires adjustment, use the **Back/Escape** (left) and **Enter** (right) buttons. Use the **Up/+** and **Down/-** buttons to alter the highlighted value, then press the **Start** button to save the time and date, as displayed on the screen.

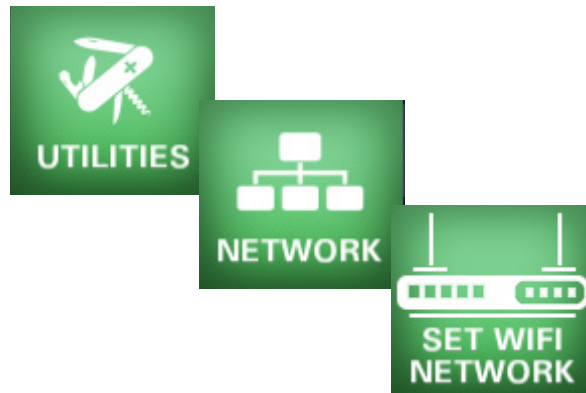
To exit the **Set Clock** utility, move the cursor to the position shown, then press the **Back/Escape** button. Note: The **Start** button moves the cursor to this position after saving the time/date.

NETWORK SETTINGS

Use the **NetWork Settings** utility to configure your games wireless internet connection and check for software updates. See page III for more information on how to setup your WIFI.



NetWork utility screen.

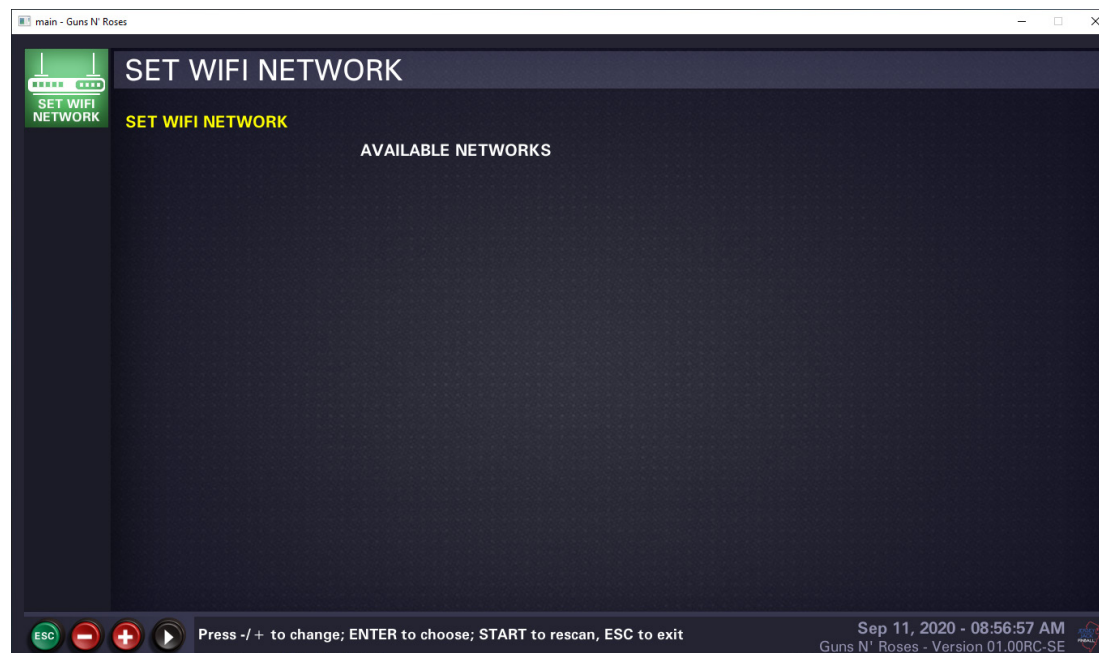


SET WIFI NETWORK SETTINGS

When you enter **Set WIFI Network Settings**, the LCD monitor will display the screen shown. Set WIFI Network is used to scan available WIFI networks.

Press the black **Enter** button to scan for available networks.
Use the red **Up/+** and **Down/-** buttons to highlight the network you want to connect to. Select your network with the black **Enter** button.

Use the green **Back/Escape** button to Exit.



Set WIFI NetWork utility screen.



SET WIFI PASSWORD SETTINGS

When you enter **Set WIFI Password Settings**, the LCD monitor will display the screen shown. Set WIFI Password is used to input the network password.

Use flipper buttons to change the character set.

Use black **Enter** button and green **Back/Escape** button to move cursor between characters.

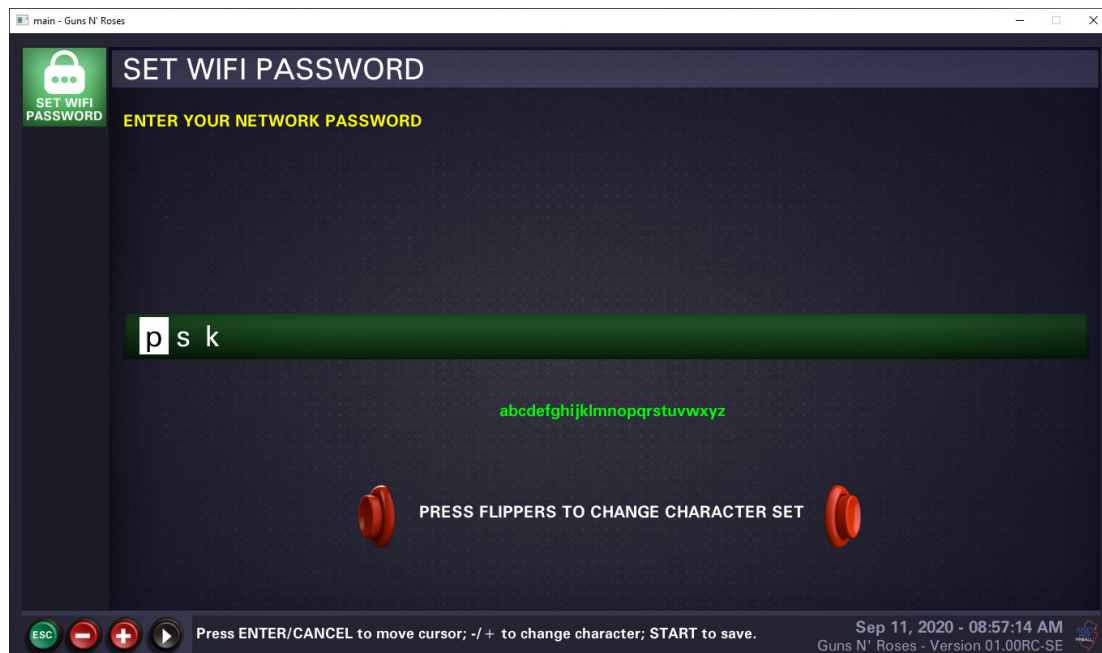
Use red **Up/+** and **Down/-** buttons to change characters within a character set.

Press “Start Button” to save password once you’re finished.

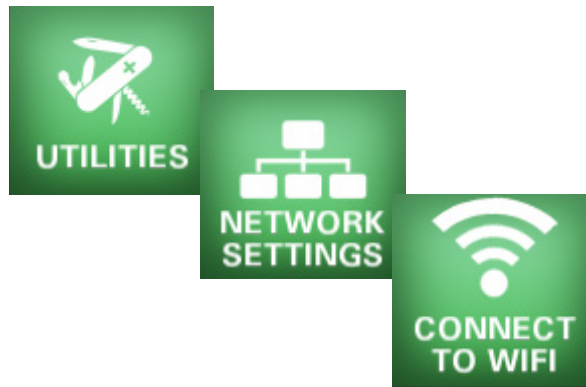
Press the black **Enter** button to scan for available networks.

Use the red **Up/+** and **Down/-** buttons to highlight the network you want to connect to. Select your network with the black **Enter** button.

Use the green **Back/Escape** button to Exit.



Set WIFI Password Utility Screen.



CONNECT TO WIFI SETTINGS

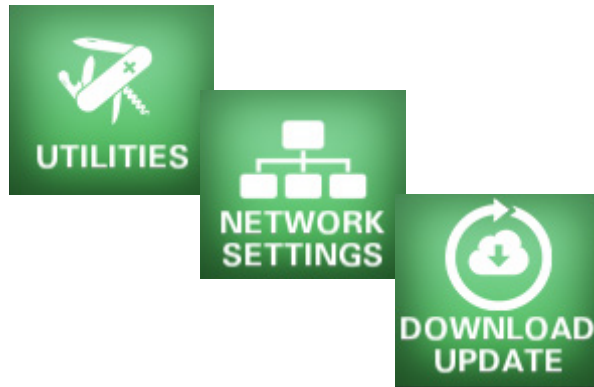
When you enter **Connect to WIFI Settings**, the LCD monitor will display the screen shown. Connect to WIFI Settings is used to connect to the network.

Use black **Enter** button to connect to the WIFI Network.
Connected to Network “xxx” will be shown once connected to the network.

Use the green **Back/Escape** button to Exit.



Connect to WIFI utility screen.



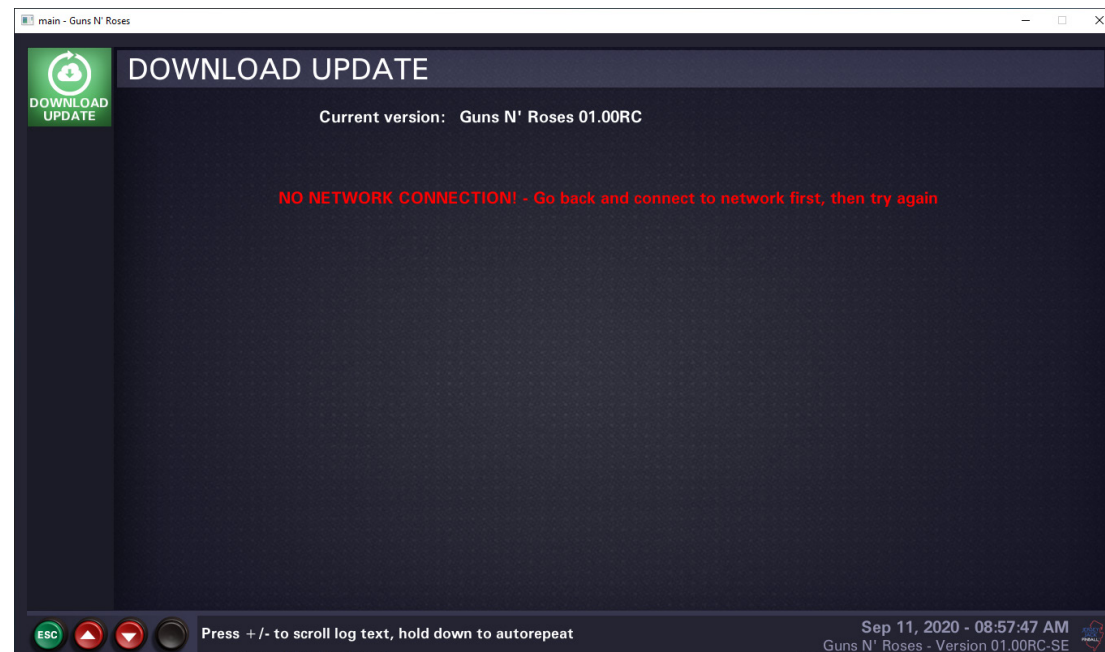
DOWNLOAD UPDATE SETTINGS

When you enter **Download Update Settings**, the LCD monitor will display the screen shown. Download Update Settings is used to update the game code.

Once entered, the current software version will be displayed along with any available updates.

Use black **Enter** button to highlight the available update and follow the onscreen instructions.

Use the green **Back/Escape** button to Exit.



Download Update utility screen.

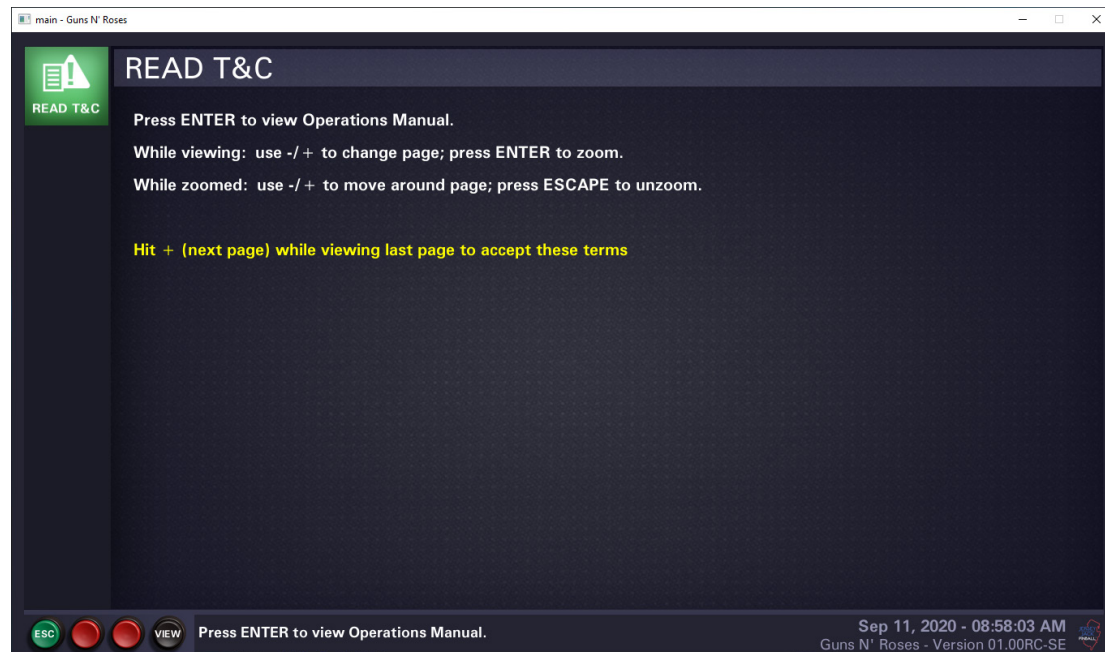


TERMS AND CONDITIONS SCREEN

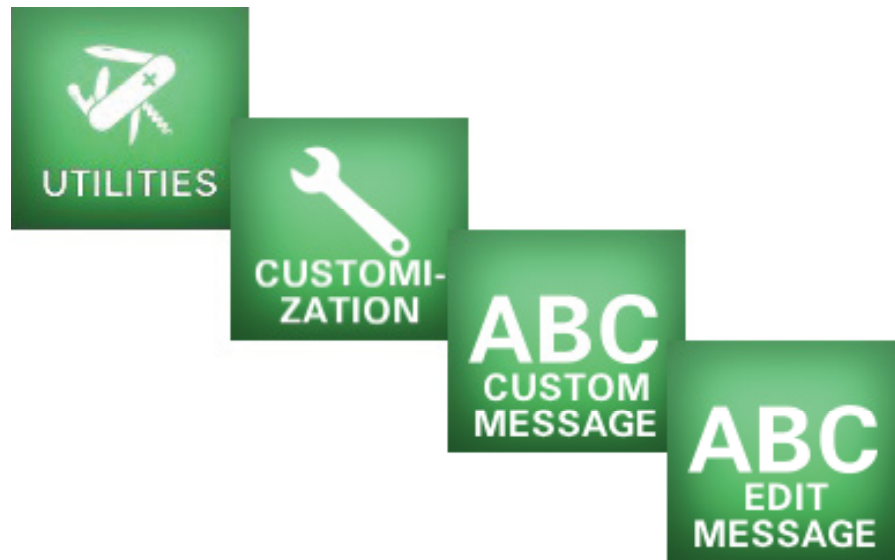
When you enter **Terms and Conditions**, the LCD monitor will display the screen shown.

Use red **Up/+** and **Down/-** buttons to scroll through the different T&C pages. Once all pages are viewed, “Terms Accepted” will be displayed.

Use the green **Back/Escape** button to Exit.



Terms and Conditions Utility Screen.



EDIT MESSAGE

Use the **Custom Message** utility to enter a message that will be displayed on the LCD monitor, periodically, during the game's attract mode. The message is entered or modified using the **Edit Message** utility.

When you enter the **Edit Message** utility, the LCD monitor will display the screen shown. To move the cursor around in the message, use the **Back/Escape** (move left) and **Enter** (move right) buttons. Use the **Up/+** and **Down/-** buttons to change the highlighted character, then press the **Start** button to save your custom message, as displayed on the screen.

To exit the **Edit Message** utility, move the cursor to the position shown (The upper left hand corner), then press the **Back/Escape** button. Note: The **Start** button moves the cursor to this position after saving the message.



Edit Message utility screen.

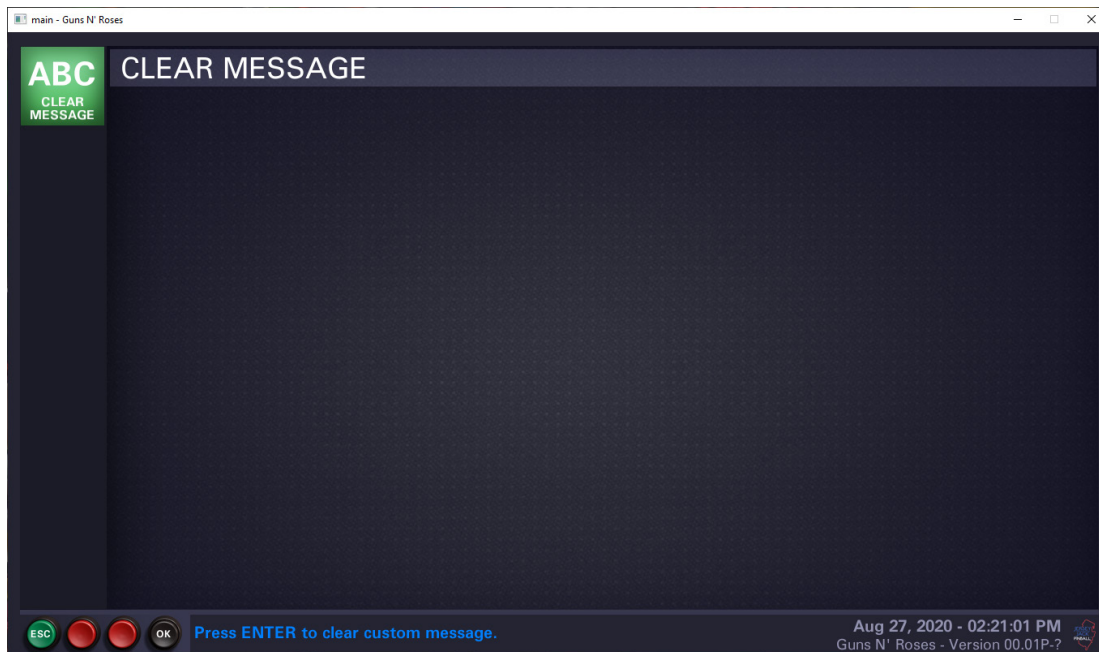


CLEAR MESSAGE

Use the **Clear Message** utility to delete a previously entered custom message.

When you enter the **Clear Message** utility, the LCD monitor will display the screen shown. To clear the current custom message, press the **Enter** button. You will be prompted to hit the **Start** button to confirm and complete the operation.

To exit the **Clear Message** utility at any time, press the **Back/Escape** button.



Clear Message utility screen.



INSTALL GRAPHIC

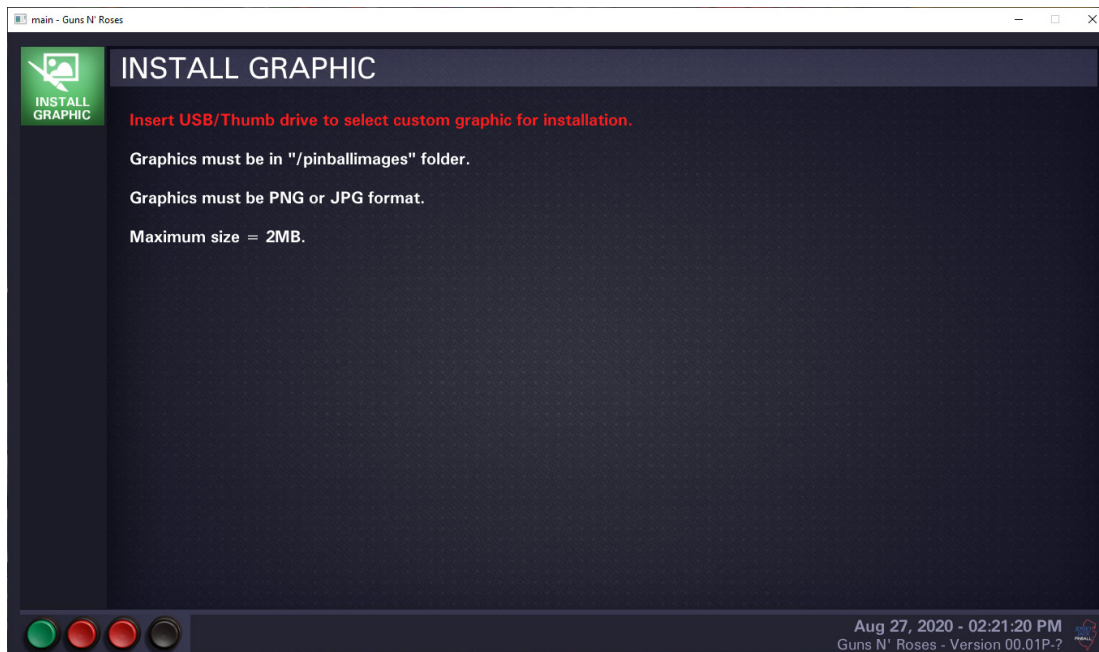
Use the **Custom Graphic** utility to install an image that will be displayed on the LCD monitor, periodically, during the game's attract mode. The custom image is uploaded or changed using the **Install Graphic** utility.

Note: The image must be loaded onto a USB memory stick, using a separate computer. It must be in PNG or JPG format and under 2MB in size. Create a folder named "pinballimages" in the root directory of the USB stick, then copy your graphic(s) into the folder. Power up the game, open the coin door, and use the diagnostics buttons to enter the **Install Graphic** utility; the LCD monitor will display the screen shown on the left.

Locate the end of the USB extension cable, just inside the open coin door. Fully insert the USB stick into the connector at the end of the cable (if your USB stick is equipped with an "in-use" light, it will illuminate). A screen will come up automatically, showing a listing of the available graphics in your USB stick's "pinballimages" folder.

Use the **Up/+** and **Down/-** buttons to select the graphic you wish to install, then press the **Enter** button to complete the operation.

To exit the **Install Graphic** utility at any time, press the **Back/Escape** button.



Install Graphic utility screens.

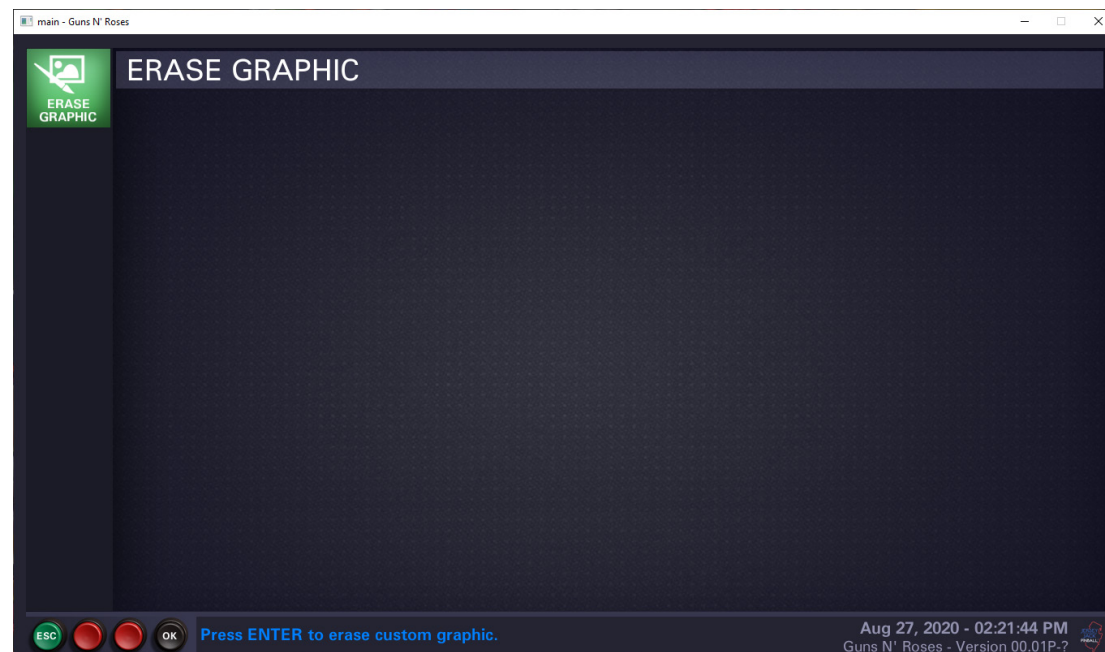


ERASE GRAPHIC

Use the **Erase Graphic** utility to delete a previously installed custom graphic.

When you enter the **Erase Graphic** utility, the LCD monitor will display the screen shown. To clear the current custom graphic, press the **Enter** button. You will be prompted to hit the **Start** button to confirm and complete the operation.

To exit the **Erase Graphic** utility at any time, press the **Back/Escape** button.



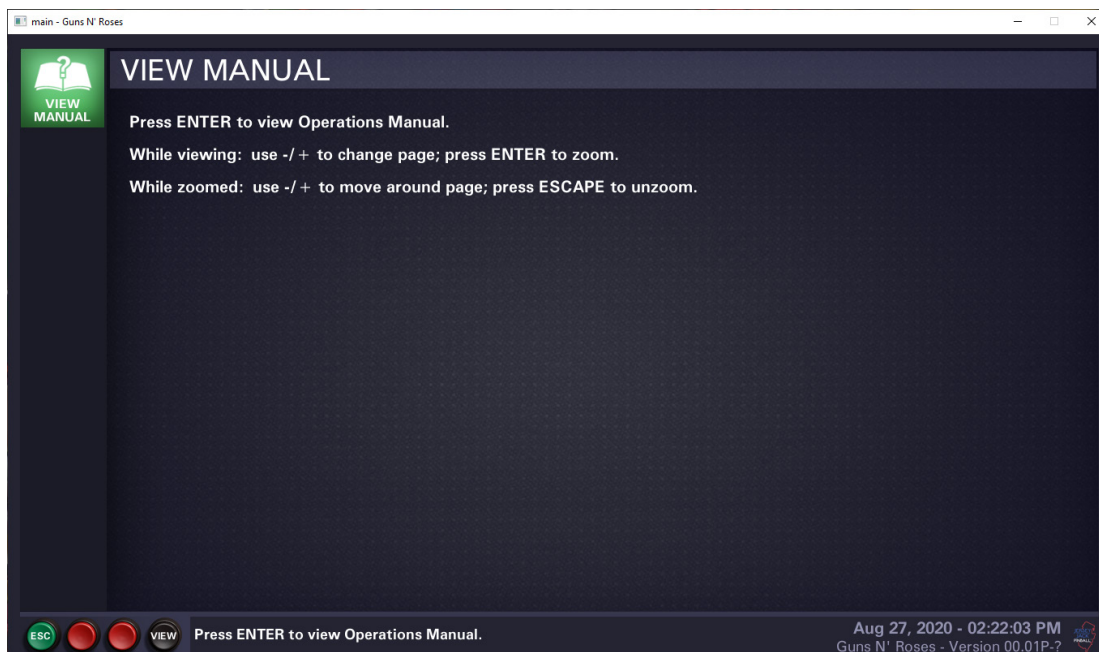
Erase Graphic utility screen.



VIEW MANUAL

When you enter the **View Manual** utility, the LCD monitor will display the screen shown. To view the GnR Operations Manual (this document), press the **Enter** button. While viewing, use the **Up/+** and **Down/-** buttons to move from page to page; use the **Enter** button to zoom in on the current page. When zoomed in, use the **Up/+** and **Down/-** buttons to move around the current page; use the **Back/Escape** button to cancel the zoom function.

To exit the **View Manual** utility, press the **Back/Escape** button while in the viewing mode.



View Manual utility screen.



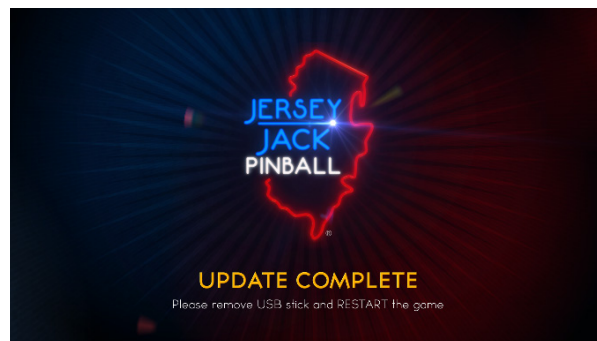
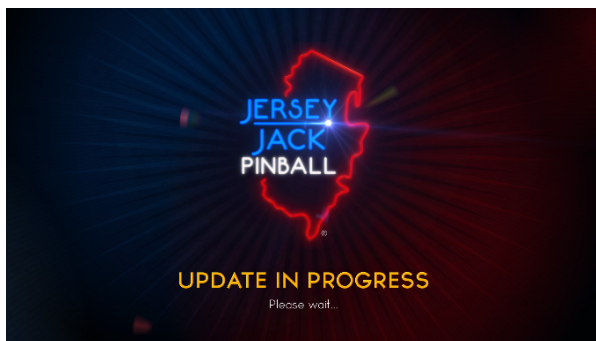
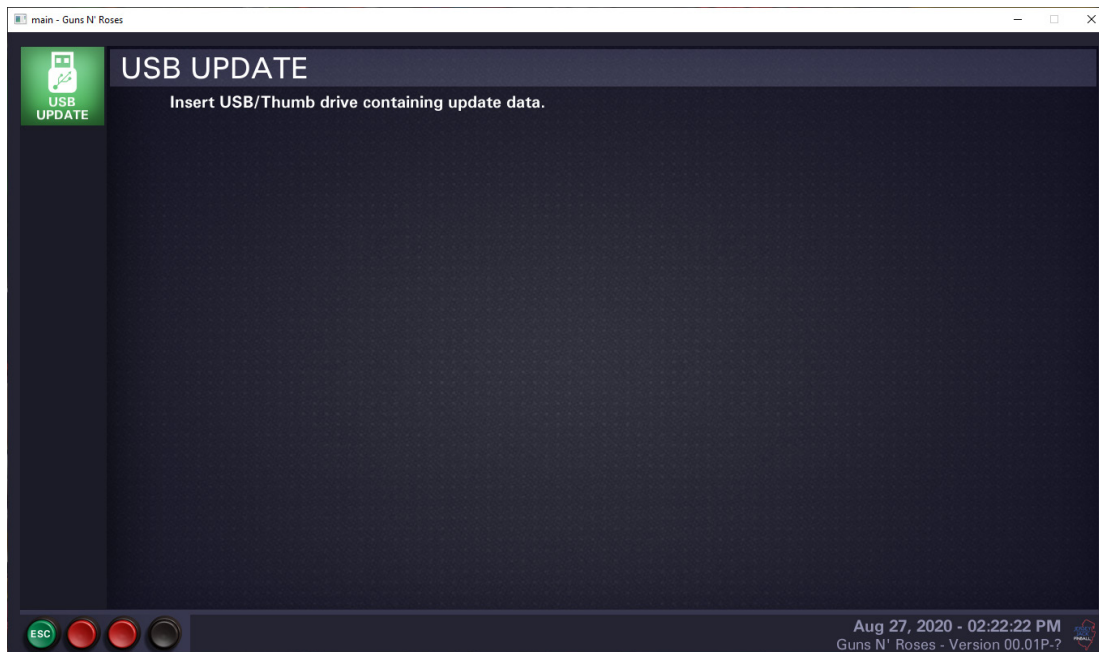
USB UPDATE

Use the **USB Update** utility to apply a GnR delta software update to your game. Note: The update must be downloaded from the JJP® support website (<https://www.jerseyjackpinball.com/support/>), using a separate computer. Copy the “gunsnroses_update” folder from your computer onto an empty USB memory stick (i.e. it should be the only folder on the stick). Power up the game, open the coin door, and use the diagnostics buttons to enter the **USB Update** utility; the LCD monitor will display the screen shown.

Locate the end of the USB extension cable, just inside the open coin door. Fully insert the USB stick into the connector at the end of the cable (if your USB stick is equipped with an “in-use” light, it will illuminate).

To attempt the USB delta update, press the **Enter** button. The game’s playfield will go dark for approximately 15-30 seconds (depending upon the size of the update); the LCD monitor will display the bottom, left screen. You can abort the update process by pressing the **Back/Escape** button. When the delta update is complete, the LCD monitor will prompt you to remove the USB stick and restart the game. Power the game down, remove your USB stick from the end of the USB cable, then power the game back up again. Once the game has rebooted, verify that the delta update installed successfully by re-entering the GnR Menu System. The installed software version is displayed in the lower, right hand corner of most menu system screens.

To exit the **USB Update** utility, press the **Back/Escape** button.



USB Update utility screens.



SETTINGS BACKUP

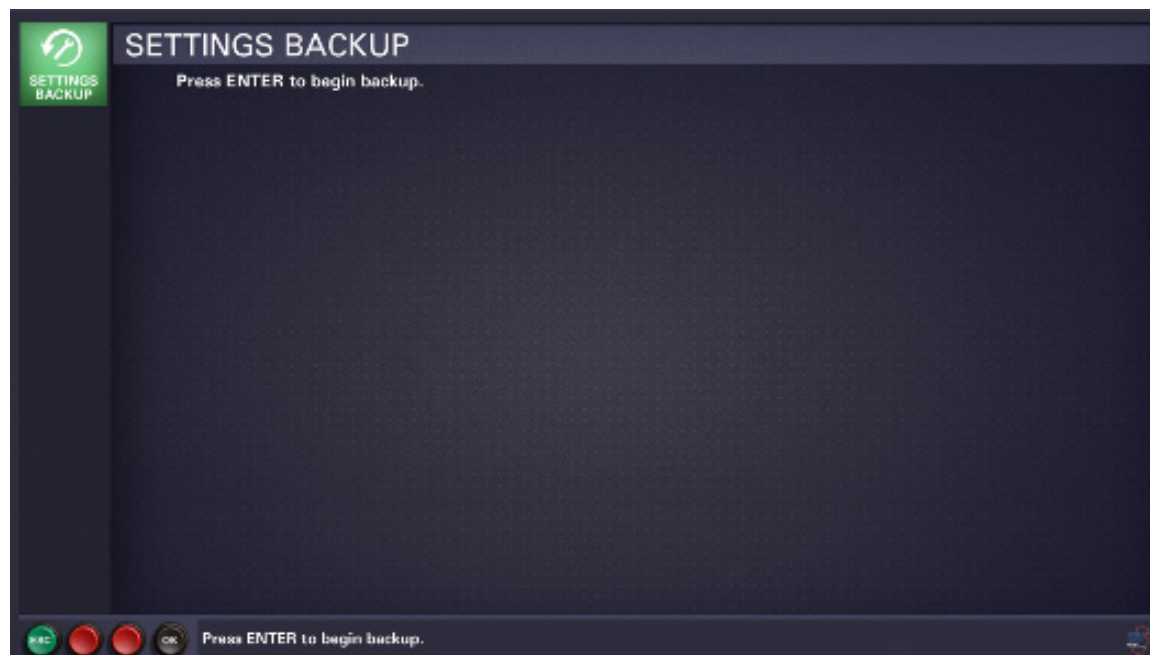
The **Settings Backup** & **Settings Restore** utilities allow you to quickly and easily backup & restore your game's settings, audits, reports, replay information and custom message. Your settings will be stored on a USB memory stick.

When you enter the **Settings Backup** utility, the LCD monitor will display the screen shown in figure B39. Locate the end of the USB extension cable, just inside the open coin door. Fully insert a USB stick into the connector at the end of the cable (if your USB stick is equipped with an "in-use" light, it will illuminate).

Note: The saved settings file is unique to each game (allowing you to use the same USB stick to backup settings for several different games, without fear of overwriting anything). The file is also time- and date-stamped, using the game's internal clock.

Press the **Enter** button to perform the backup. If there is an existing settings file for the game on the USB stick, you will be prompted to hit the **Start** button to confirm and complete overwriting the backup.

To exit the **Settings Backup** utility, press the **Back/Escape** button.



Settings Backup utility screen.



SETTINGS RESTORE

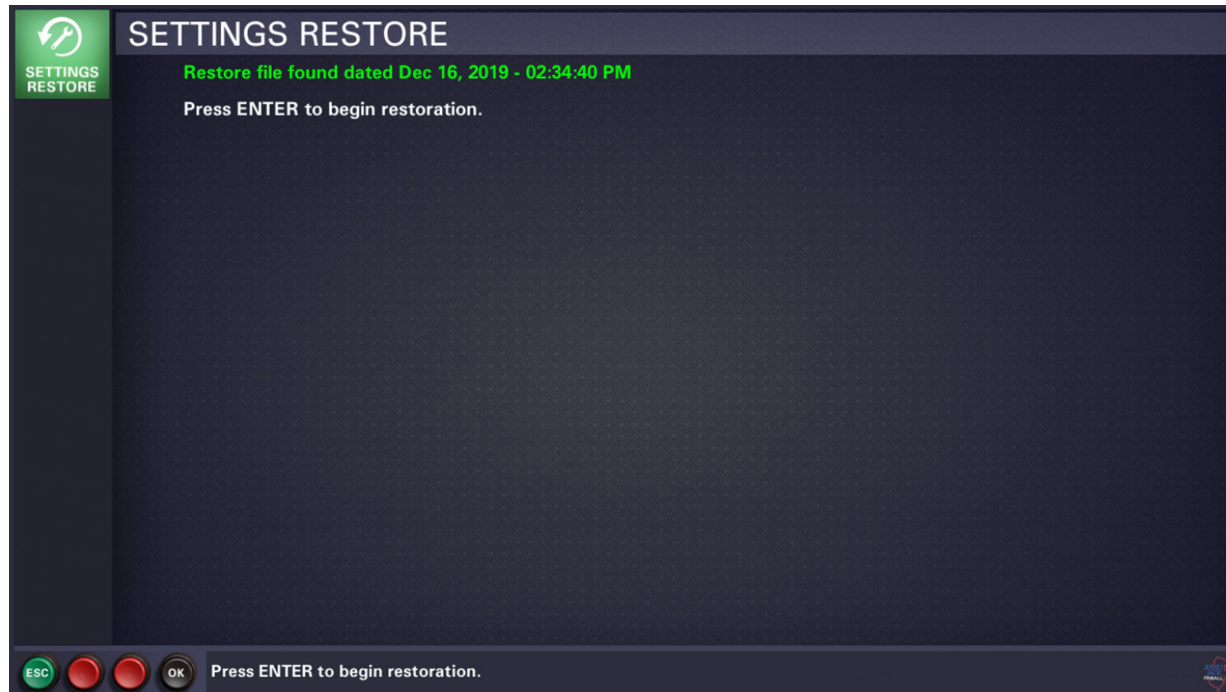
The **Settings Backup** & **Settings Restore** utilities allow you to quickly and easily backup & restore your game’s settings, audits, reports, replay information and custom message. Your settings will be restored from a USB memory stick.

When you enter the **Settings Restore** utility, the LCD monitor will display the screen shown in figure B40. Locate the end of the USB extension cable, just inside the open coin door. Fully insert the USB stick containing your settings file into the connector at the end of the cable (if your USB stick is equipped with an “in-use” light, it will illuminate).

Note: The saved settings file is unique to each game (so you can use the same USB stick to backup settings for several different games, without fear of overwriting anything). The file is also time- and date-stamped, using the game’s internal clock.

If a settings file for the game is found on the USB stick, its date and time will be displayed as shown. Press the **Enter** button to perform the settings restore operation.

To exit the **Settings Restore** utility, press the **Back/Escape** button.



Settings Restore utility screen.



BURN IN

The **Burn In** utility allows you to repeatedly exercise/test virtually all of the critical devices in the GnR game. When you enter the utility, the game will cycle through a preset routine to simultaneously fire coils, activate magnets, run motors, flash colors on the LCD screen, play sounds, etc. - indefinitely.

To exit the **Burn In** utility at any time, press the ***Back/Escape*** button.



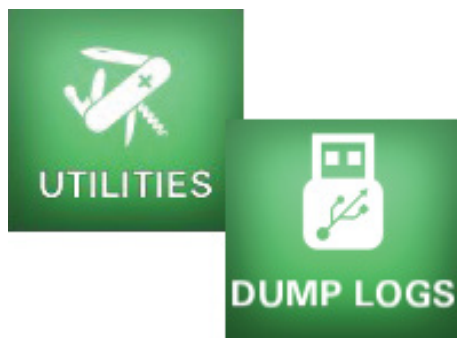
HARDWARE INFO



Hardware Info utility screen.

Use the **Hardware Info** utility to view your game’s hardware characteristics such as serial number, firmware revision levels, motherboard type, available RAM, processor speed & solid state disk size. When you enter the **Hardware Info** utility, the LCD monitor will display the screen shown.

To exit the **Hardware Info** utility at any time, press the **Back/Escape** button.



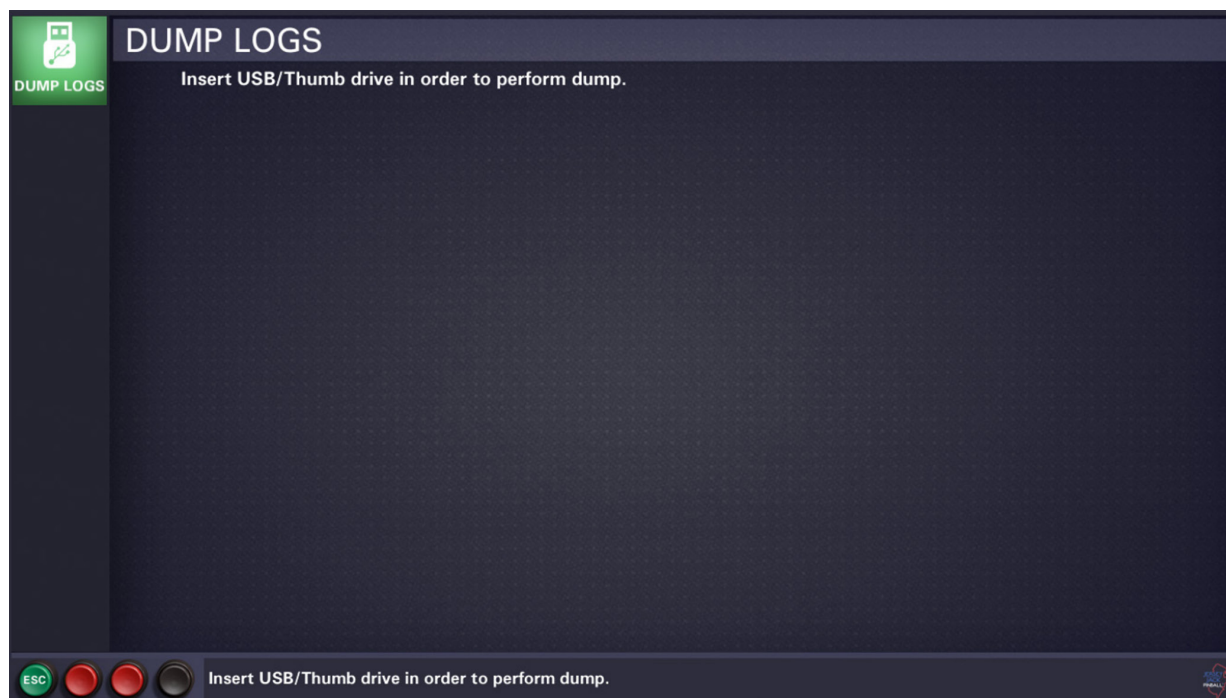
DUMP LOGS

The **Dump Logs** utility allows you to dump your game’s diagnostics software logs to a USB stick. These logs can then be analyzed, off-line, as an aid for troubleshooting difficult game issues.

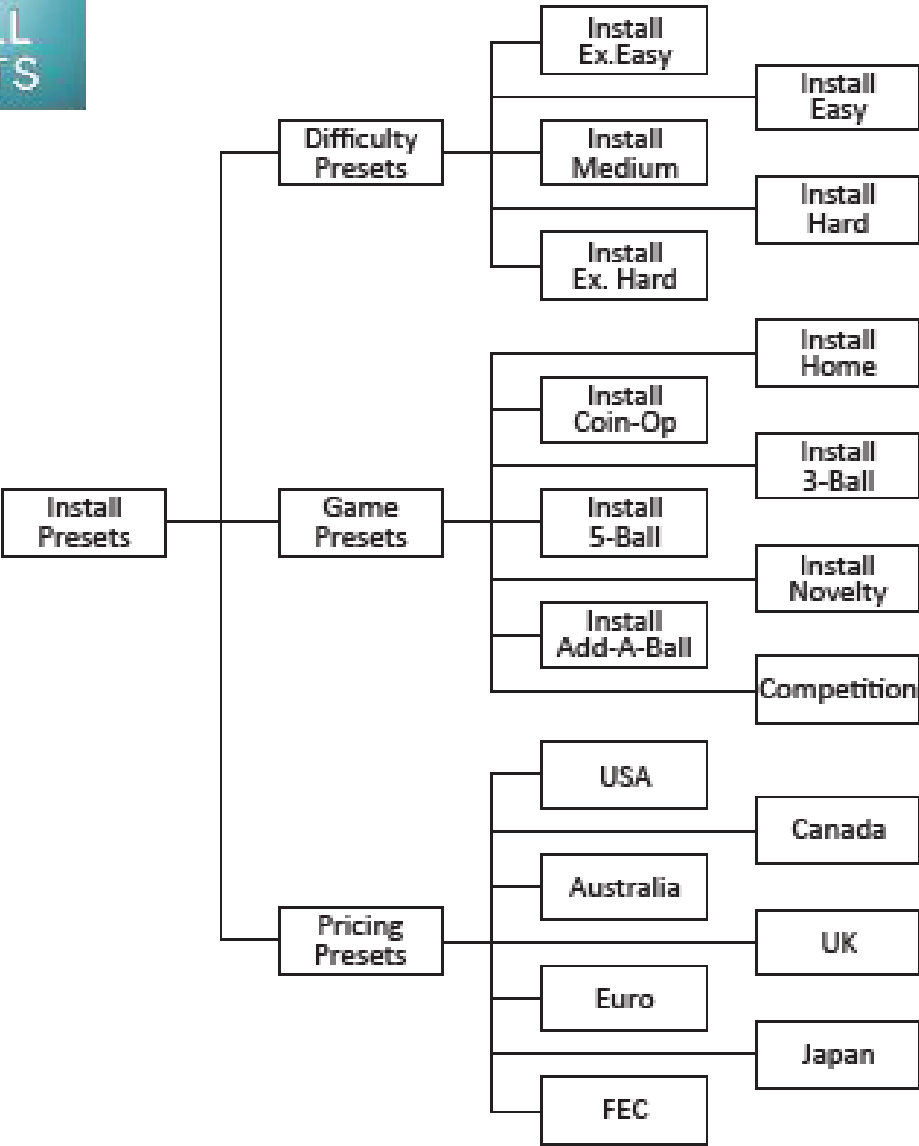
When you enter the **Dump Logs** utility, the LCD monitor will display the screen shown. Locate the end of the USB extension cable, just inside the open coin door. Fully insert a USB stick into the connector at the end of the cable (if your USB stick is equipped with an “in-use” light, it will illuminate).

Press the **Enter** button to perform the data dump. The game will create a new file folder in the root folder of the USB stick, then write all of the pertinent log data to it. When the write function is complete, the game will reboot and enter attract mode. You can then remove the USB stick and share the game logs data with Tech Support or other game owners, via email or any other form of messaging.

To exit the **Dump Logs** utility, press the **Back/Escape** button.



Dump Logs utility screen.



Install Presets menu tree.

INSTALL PRESETS

The **Install Presets** menu allows the user to quickly make *quantum*, predefined changes to game play settings (as opposed to changing settings individually, in other sub-menus).

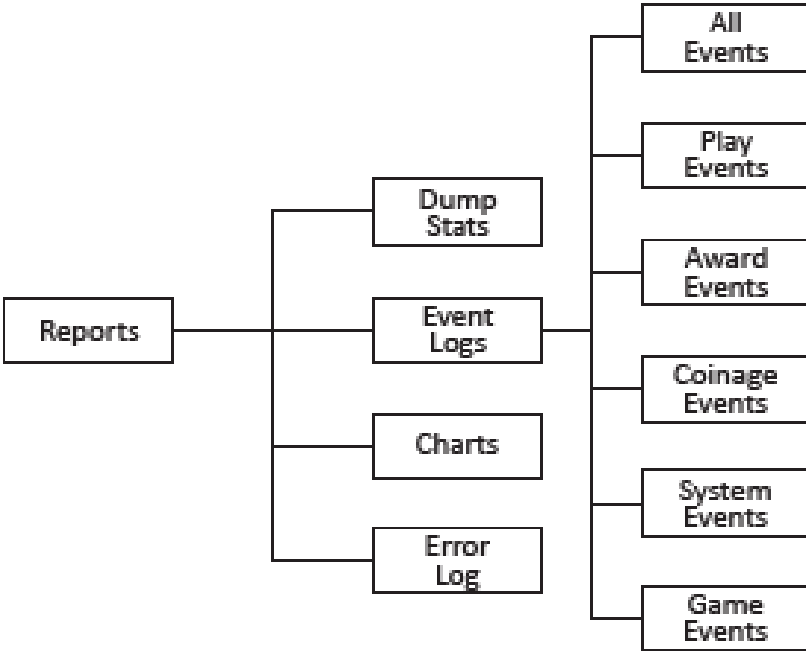
Difficulty Presets - change a predefined group of game/system settings to quickly make the game easier or more difficult to play. The difficulty level options are listed.

Game Presets - change a predefined group of game/system settings to quickly configure the game to play in one of the standard modes listed.

Pricing Presets - change a predefined group of pricing settings to quickly configure the game to accept coinage from one of the countries listed.



REPORTS



Reports menu tree.

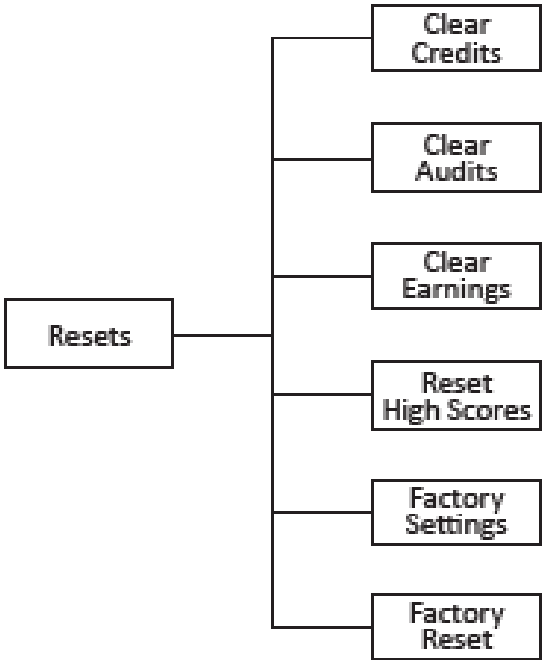
The **Reports** menu allows the user to view logs and graphs of events of interest in the game including bad switch alerts, device errors, game power-ups, service credits, game statistics, awards, etc.

Dump Stats - dump game statistics to a USB drive for records or detailed, offline 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.

Charts - view charts of statistics such as games played per day, game times, game scores, etc.

Error Log - view the contents of the game’s error log.



Resets menu tree.

RESETS

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.

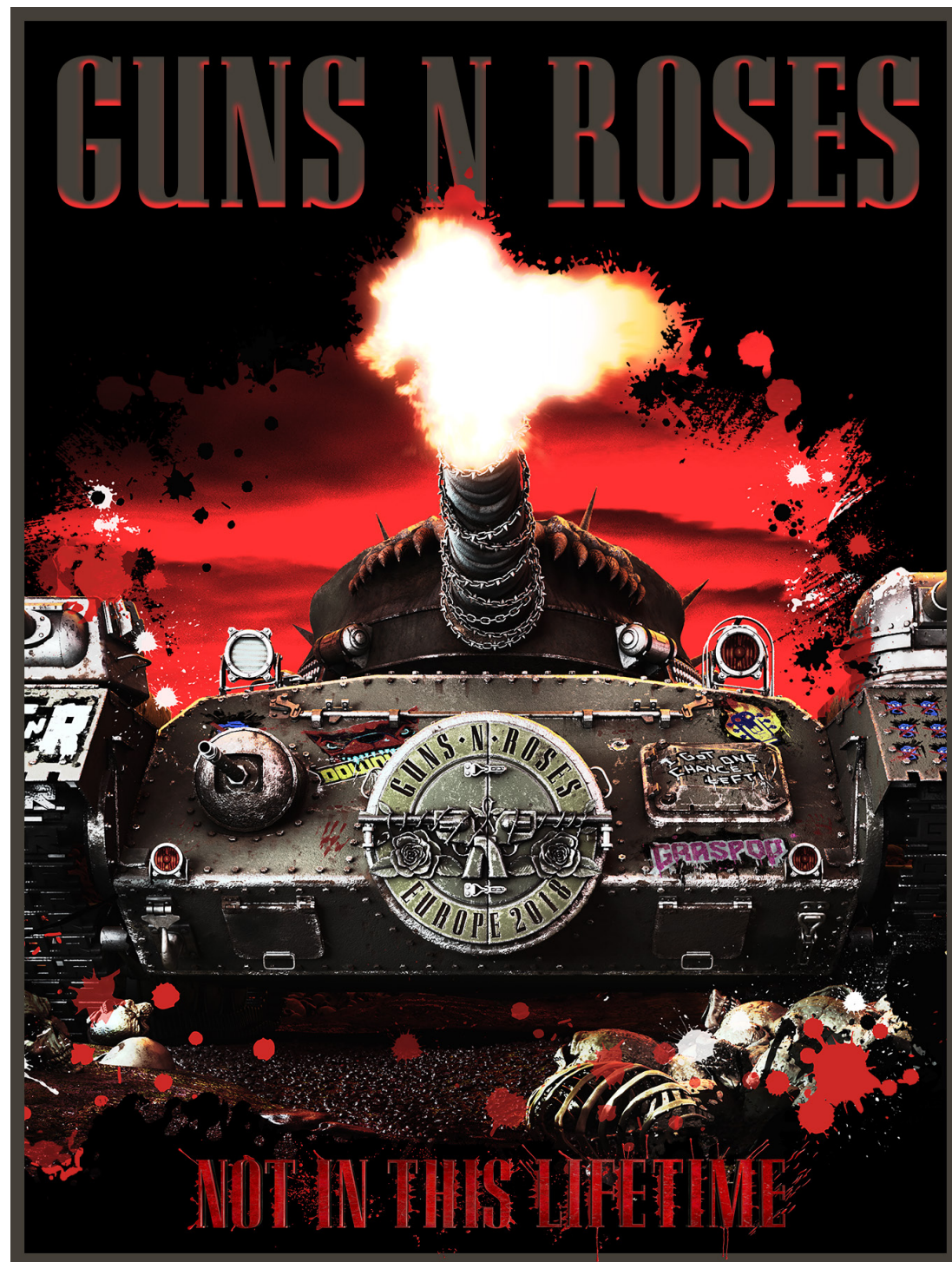
Clear Audits - reset audits data.

Clear Earnings - reset earnings data.

Reset High Scores - reset high scores to default values (see **High Score Settings** in Section B.3).

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

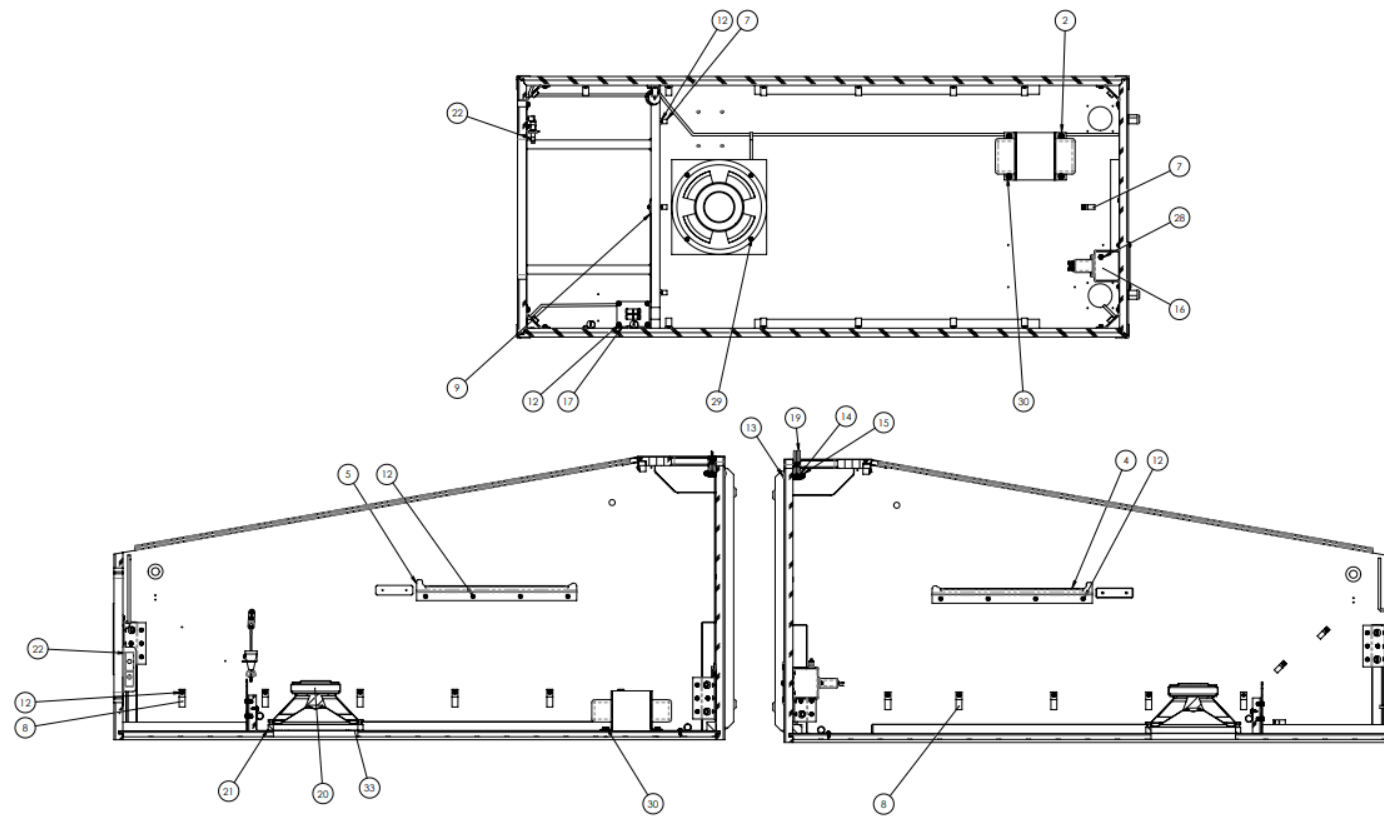
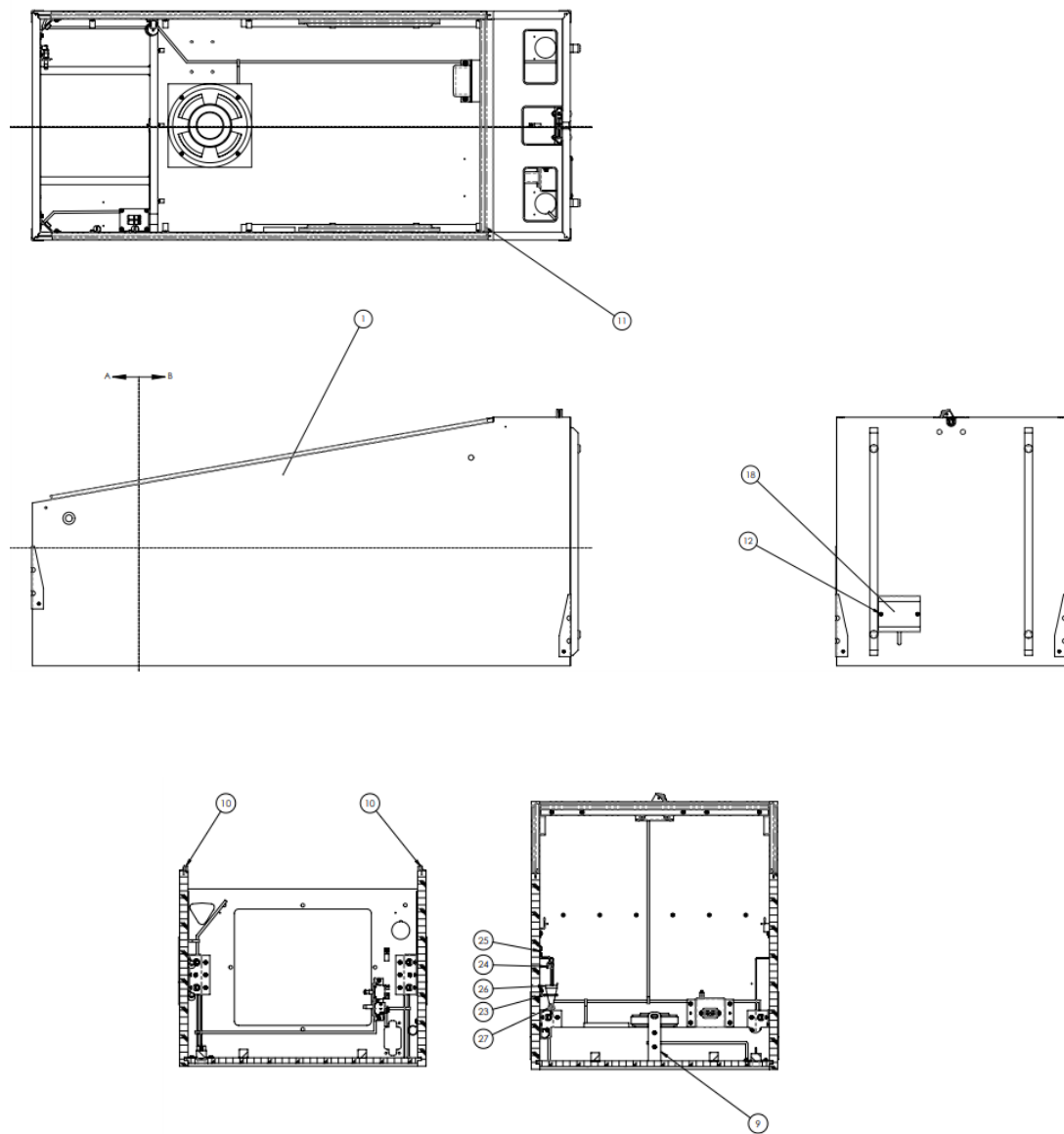
Factory Reset - reset factory settings (as above) plus reset audits and alarm counters.



GAME PARTS INFORMATION



LOWER CABINET BASE ASSEMBLY



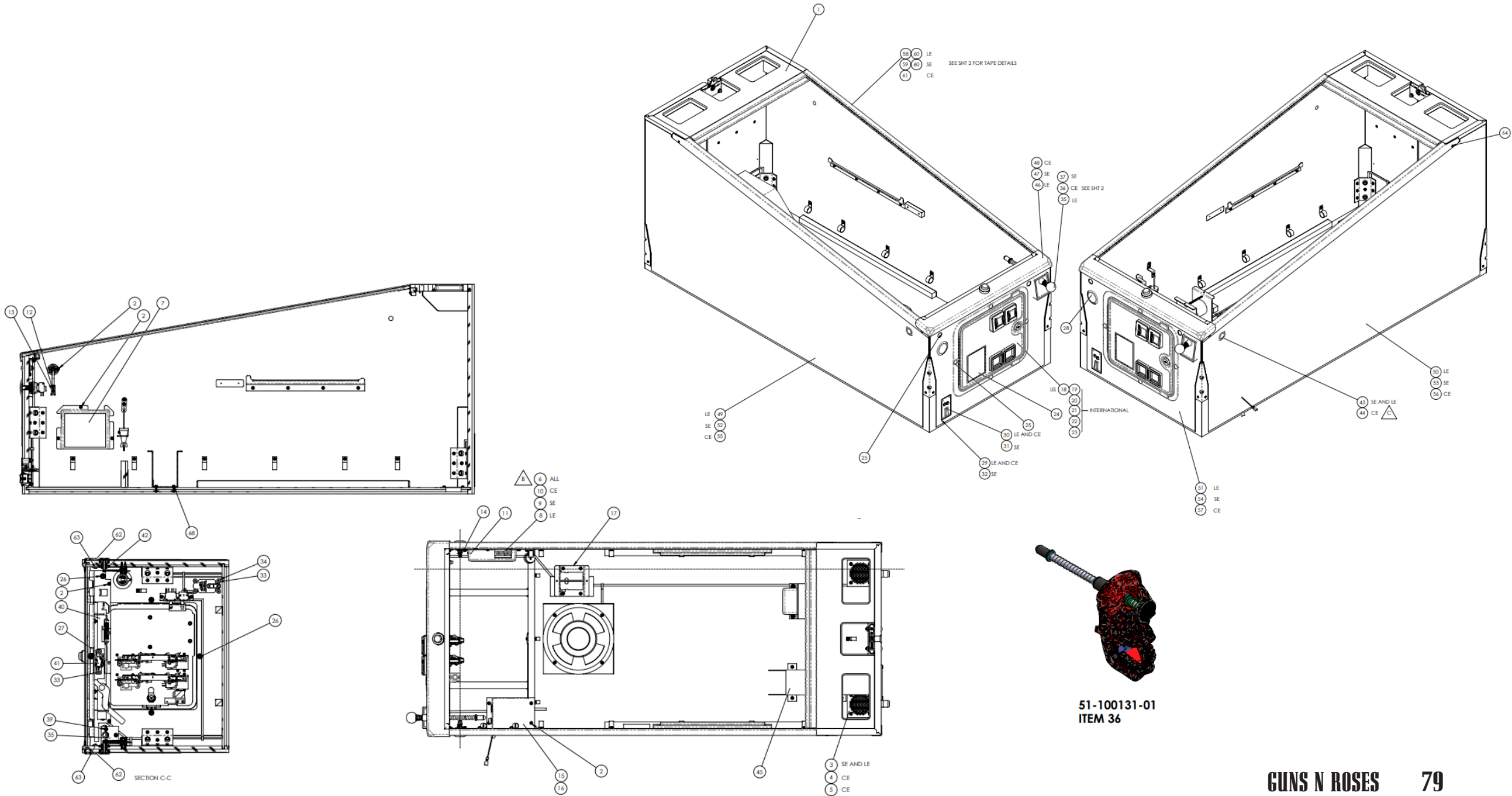
LOWER CABINET BASE ASSEMBLY

Item	Part Number	Description	Qty	Pg.	Item	Part Number	Description	Qty	Pg.
1	05-000005-00	Cabinent Base Assembly	1	-	18	10-000010-01	Line Cord Cover Plate	1	-
2	16-005000-02	Main Transformer	1	-	19	42-005001-00	ROTO - LOCK LATCH	1	-
3	10-000002-00	Speaker Grill 8"	1	-	20	51-006004-01	Subwoofer Speaker Assembly	1	-
4	10-000033-00	Right Side Support Bracket	1	-	21	05-003007-00	Subwoofer Mounting Panel	1	-
5	10-000033-01	Left Side Support Bracket	1	-	22	51-000035-00	Door & Interlock Switch Assembly	1	-
6	30-000118-24	Black Tubing 1-1/2"	1	-	23	13-003008-00	Tilt Wire Form Bracket	1	-
7	30-000049-08	Cable Clamp Open 1/2"	7	-	24	13-003009-00	Tilt Hanger Wire	1	-
8	30-000049-12	Cable Clamp Open 3/4"	11	-	25	10-000086-00	Tilt Hanger Wire Bracket	1	-
9	10-000026-00	Cashbox Lock Bracket	1	-	26	11-000028-00	Plumb Bob	1	-
10	30-008000-00	Side Glass Channel	2	-	27	91-03406-00	#6-32 Wing Nut	1	-
11	30-008001-02	Rear Glass Channel	1	-	28	91-001008-00	#8-32 Keps Nut	3	-
12	82-009008-08	#8 x 1/2" Phillips SMS	49	-	29	80-002008-20	8-32 x 1-1/4" Phillips MS	4	-
13	81-005011-28	#10-24 x 1-3/4" Carriage Bolt, Black	2	-	30	80-002025-08	#1/4 - 20 x 5/8" Phillips MS	4	-
14	92-000010-00	#10 Flat Washer	2	-	31	19-009027-02	Transformer Secondary Cable	1	-
15	91-000011-00	#10-24 Nylon Stop Nut	2	-	32	19-003052-55	Bround Cable 18AWS	1	-
16	51-005023-00	Line Filter Box Assembly	1	-	33	19-009011-00	Ground Braid	206"	-
17	18-007012-00	ON/OFF Switch Assembly	1	-					

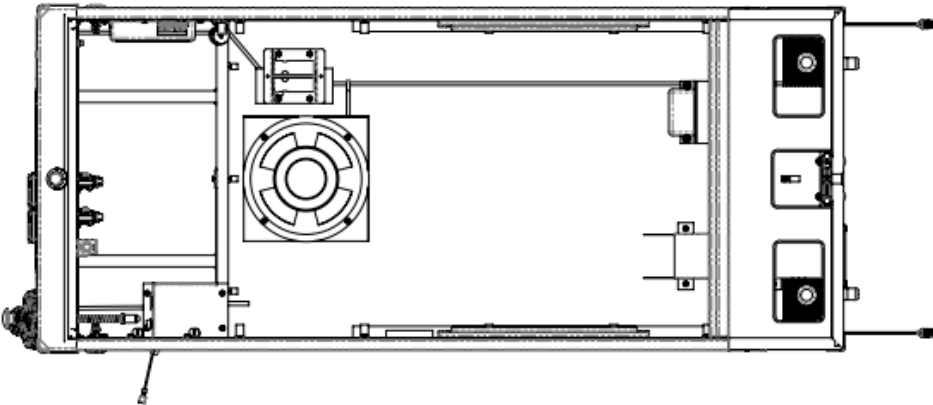
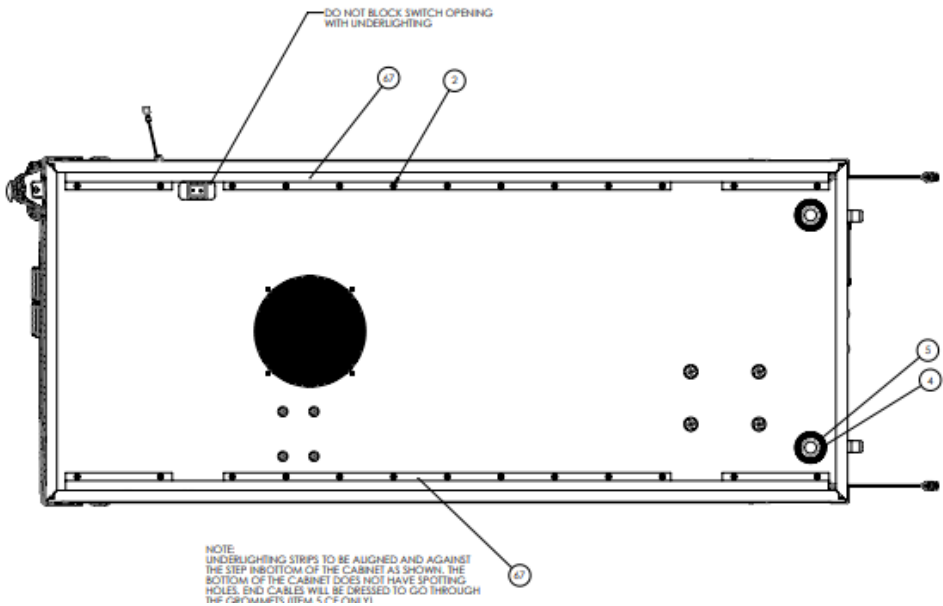
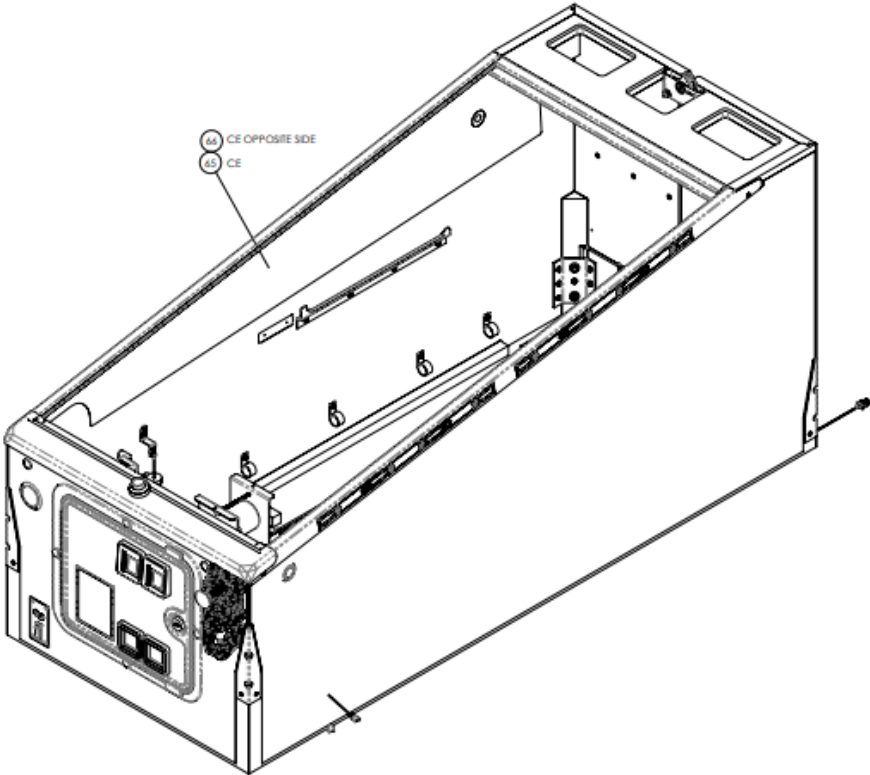
LEGS

10-000031-11	SE Black River
10-000031-15	LE Wild Copper
10-000031-07	CE Purple

GNR LOWER CABINET ASSEMBLY



GNR LOWER CABINET ASSEMBLY



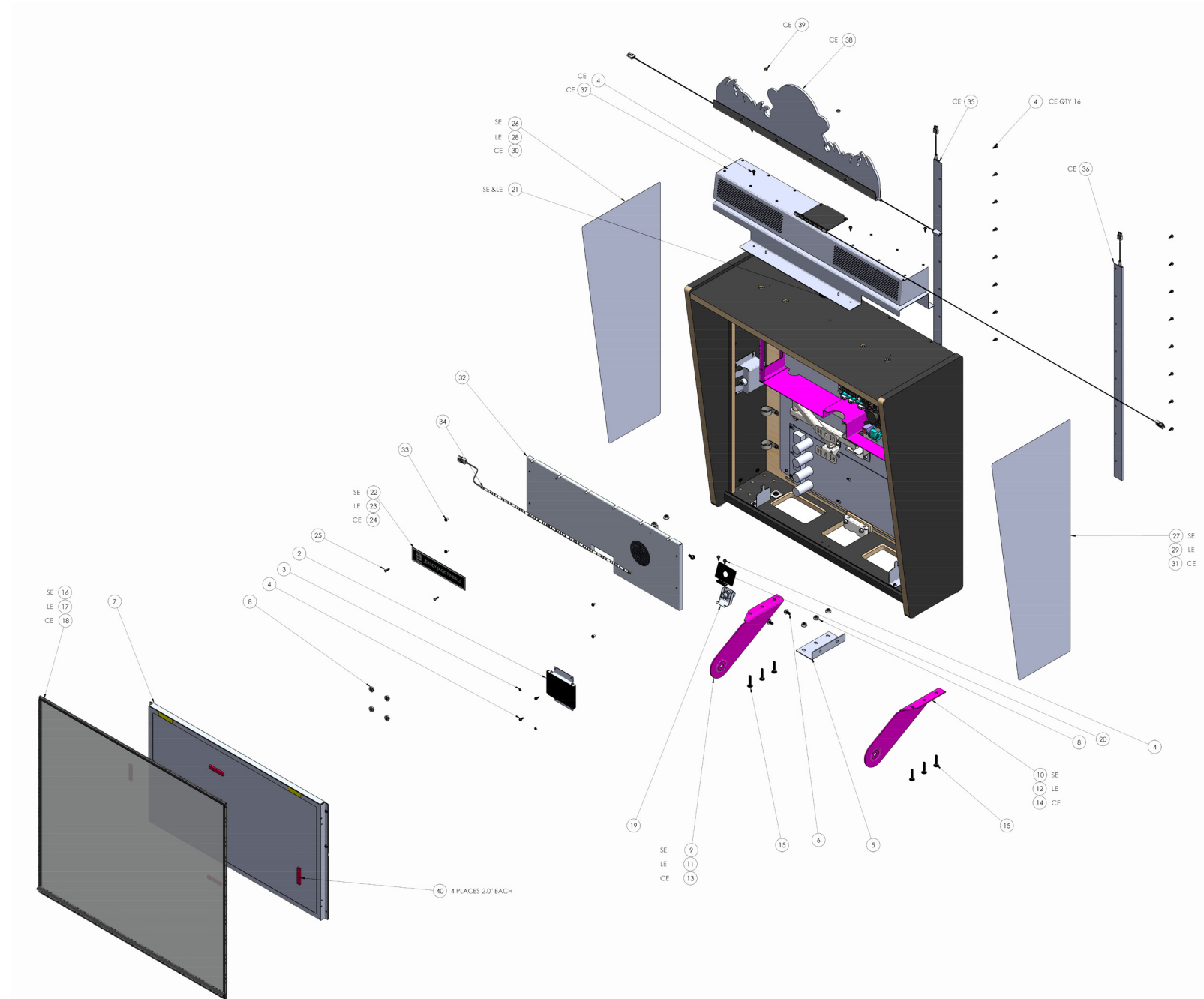
GNR LOWER CABINET ASSEMBLY

Item	Part Number	Description	Qty	Pg.	Item	Part Number	Description	Qty	Pg.
1	50-005040-02	Lower Cabinet Base Assembly	1	-	35	51-000092-08	LE Ball Shooter Assembly	1	-
2	82-009008-08	#8 x 1/2" Phillips SMS	27	-	36	51-100131-01	CE Ball Shooter Assembly	1	-
3	10-000003-01	LE & SE Cabinet Vent Grill	2	-	37	51-000092-09	SE Ball Shooter Assembly	1	-
4	10-000003-02	CE Vent Grill With Grommet	2	-	38	10-000025-00	Ball Shooter Mounting Plate	1	-
5	25-100008-00	CE Grommet	2	-	39	80-002010-08	#10-32 x 3/8" MS	3	-
6	82-000004-10	LE #4 x 5/8" SMS	4	-	40	10-008001-00	Lockdown Bar Receiver Assembly	1	-
7	62-100025-00	LE Decal Cover	1	-	41	51-000066-10	Lockdown Switch Assembly	1	-
8	15-100020-00	LE Cabinet Controller Board	1	-	42	91-000001-10	Flipper Button PAL Nut	2	-
9	15-100020-01	SE Cabinet Controller Board	1	-	43	30-000009-04	SE & LE Flipper Button, Yellow	2	-
10	15-100020-02	CE Cabinet Controller Board	1	-	44	30-000009-02	CE Flipper Button, Red	2	-
11	30-100066-00	Cabinet Controller Board Cover	1	-	45	30-000125-00	Line Filter Box Cover	1	-
12	10-000002-01	Switch Plate	2	-	46	51-100101-00	LE Lockdown Bar, Cinnamon	1	-
13	82-002006-20	#6 x 1-1/4" SMS	4	-	47	51-100101-01	SE Lockdown Bar, Black	1	-
14	51-006000-00	Flipper Switches & Cable Assembly	1	-	48	51-100134-00	CE Lockdown Bar	1	-
15	51-006001-01	Power Box & Cable Assembly, U.S.	1	-	49	61-100005-03	LE Left Cabinet Decal	1	-
16	51-006001-10	Power Box & Cable Assembly, International	1	-	50	61-100005-04	LE Right Cabinet Decal	1	-
17	51-005027-01	Shaker Motor Assembly	1	-	51	61-100005-05	LE Front Cabinet Decal	1	-
18	40-000006-20	USA Coin Door Assembly 12VDC	1	-	52	61-100009-03	SE Left Cabinet Decal	1	-
19	40-000011-74	European Coin Door Assembly 12VDC	1	-	53	61-100009-04	SE Right Cabinet Decal	1	-
20	19-003011-00	European Coin Door Cable	1	-	54	61-100009-05	SE Front Cabinet Decal	1	-
21	15-000017-00	European Coin Door Board	1	-	55	30-100047-01	CE Left RAD-CAL	1	-
22	83-000006-04	6-32 Type 25 TCS, International Bd	1	-	56	30-100047-02	CE Right RAD-CAL	1	-
23	24-000006-13	555 12V LED, International	1	-	57	30-100047-03	CE Front RAD-CAL	1	-
24	62-100018-21	Decal Coin Door	1	-	58	42-007003-16	LE Side Rail, Cinnamon	2	-
25	81-005125-20	# 1/4 - 20 x 1-1/4" Carriage Bolt, Black	6	-	59	42-007003-09	SE Side Rail, Black	2	-
26	91-002025-00	# 1/4 - 20 Flange Nut	5	-	60	61-009000-00	LE & SE Foam Tape	10	-
27	91-000025-01	# 1/4 - 20 Lock Nut	1	-	61	51-100135-00	CE Side Rail	2	-
28	18-007023-04	Start Button Assembly	1	-	62	81-005108-16	#8-32 x 1" Carriage Bolt, Black	2	-
29	51-100113-00	LE & CE Cab BT & Headphone Jack Assembly	1	-	63	91-001008-00	#8-32 KEPS Nut	2	-
30	62-100018-15	LE & CE Headphone Jack Decal	1	-	64	82-006104-08	# 4 x 1/2" SMS, Black	2	-
31	10-000197-01	SE Cab BT & Headphone Jack Assembly	1	-	65	61-100010-01	CE Left Side Blade	1	-
32	62-100022-15	SE Headphone Jack Decal	1	-	66	61-100010-02	CE Right Side Blade	1	-
33	91-000008-00	8-32 Nylon Stop Nut	6	-	67	51-100145-00	CE LED Strip Assembly	1	-
34	92-000008-00	#8 Flat Washer	4	-	68	80-002008-10	# 8-32 x 5/8" Phillips MS	4	-

CABLES NOT SHOWN

Item	Part Number	Description	Qty	Pg.
70	19-003100-10	CE USB 2.0 A to Mini B, M/M	1	-
71	19-003115-02	LE & CE Headphone Board Jumper	1	-

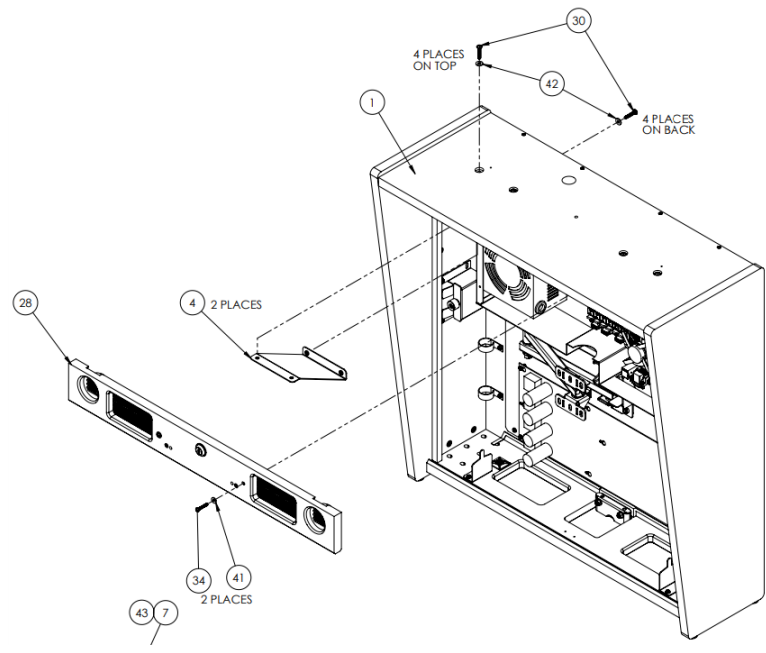
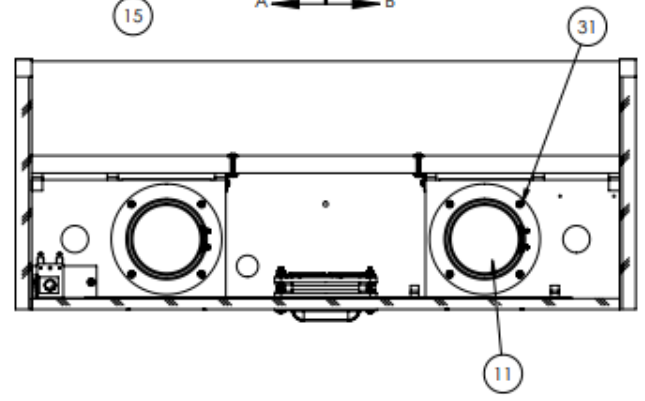
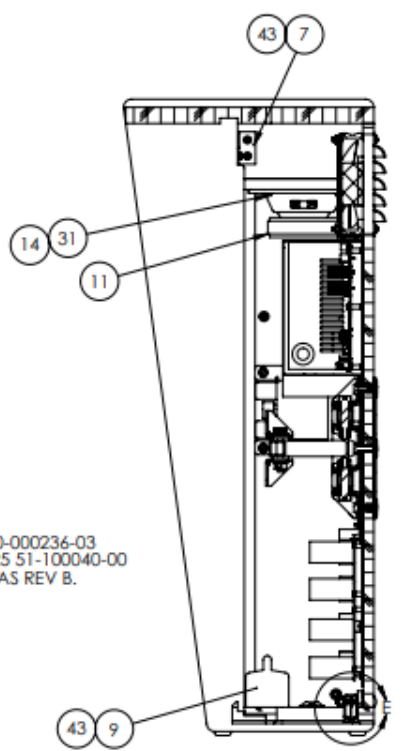
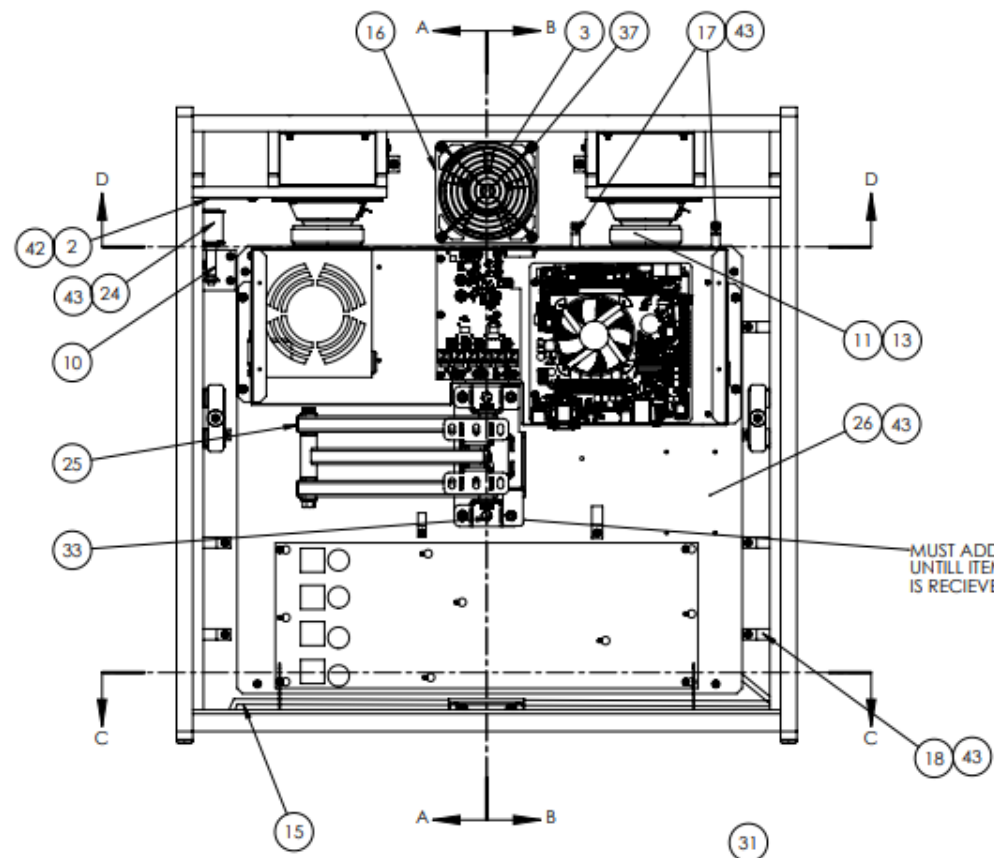
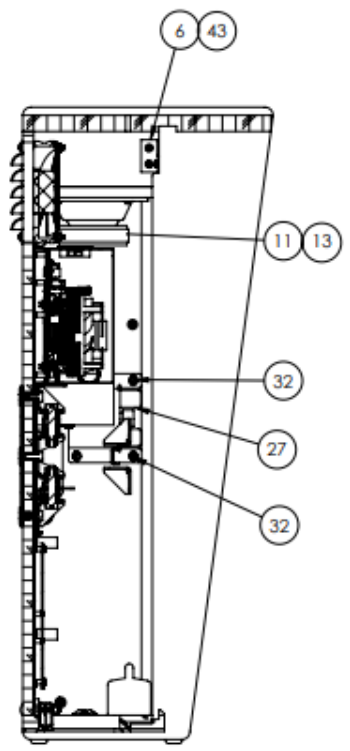
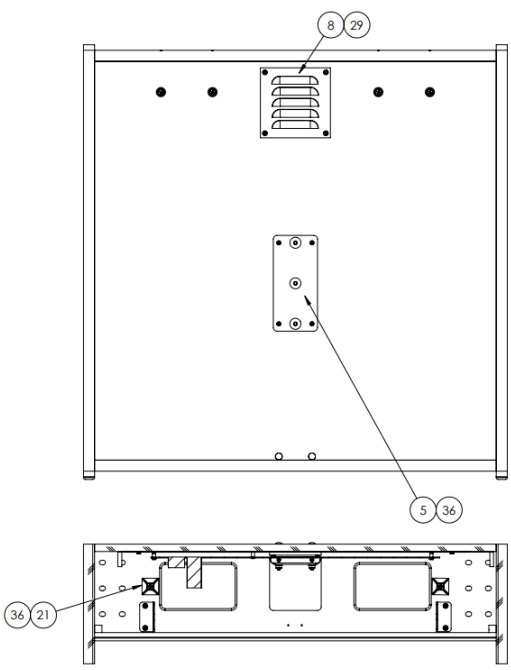
BACKBOX ASSEMBLY OUTSIDE



BACKBOX ASSEMBLY OUTSIDE

Item	Part Number	Description	Qty	Pg.	Item	Part Number	Description	Qty	Pg.
1	05-100010-00	Backbox Wood Assy	1	-	26	61-100009-01	SE Left Decal	1	-
2	51-005044-03	SSD Assembly	1	129	27	61-100009-02	SE Right Decal	1	-
3	91-001006-00	#6-32 Keps Nut	2	-	28	61-100005-01	LE Left Decal	1	-
4	82-009008-08	#8 x 1/2" Phillips SMS	-	-	29	61-100005-02	LE Right Decal	1	-
5	10-000034-01	Backbox Corner Bracket	2	-	30	30-100047-04	CE Left RAD-CAL	1	-
6	80-002025-08	#1/4 - 20 Philipps MS	4	-	31	30-100047-05	CE Right RAD-CAL	2	-
7	51-100021-00	27" LCD Monitor Assembly	1	130	32	10-100080-00	Backbox PCB EMI Shield	1	-
8	91-002025-00	#1/4 - 20 Flange Nut	10	-	33	80-002008-04	#8-32 x 1/4" Phillips Hex Head Screw	4	-
9	42-007001-18	SE Backbox Left Hinge Black	1	-	34	51-005042-00	Backbox LED Strip Assembly	1	-
10	42-007001-19	SE Backbox Right Hinge Black	1	-	35	51-100143-01	CE LED Strip Left Assembly	1	-
11	42-007001-32	LE Backbox Left Hinge Wild Copper	1	-	36	51-100143-02	CE LED Strip Right Assembly	1	-
12	42-007001-33	LE Backbox Right Hinge Wild Copper	1	-	37	51-100116-00	CE Sound Bar Topper Assembly	1	-
13	42-007001-21	CE Backbox Left Hinge Purple	1	-	38	51-100132-00	CE Slash Acrylic Topper Assembly	1	-
14	42-007001-20	CE Backbox Right Hinge Purple	1	-	39	91-000008-00	8-32 Nylon Stop Nut	2	-
15	81-005125-20	#1/4 - 20 x 1-1/4" Carriage Bolt Black	6	-	40	61-009004-01	Foam Adhesive Tape	8"	-
16	51-100105-00	SE GnR Printed Backglass Assembly	1	-			Parts not shown		
17	51-100105-01	LE GnR Printed Backglass Assembly	1	-	16-005001-00	Ground Loop Isolator	1	-	
18	51-100105-02	CE GnR Printed Backglass Assembly	1	-	15-100013-00	GnR Security Dongle	1	-	
19	51-005041-00	USB Camera Assembly	1	128	19-100102-00	Amplifier Extension Cable	1	-	
20	30-000094-00	USB Camera Cover	1	-	19-003043-01	AUX Input Cable	1	-	
21	30-000093-01	Button Plug, 1.0" Black	1	-					
22	30-100073-00	SE JJP LOGO Name Plate	1	-					
23	10-100088-00	LE JJP LOGO Name Plate	1	-					
24	10-100088-10	CE JJP LOGO Name Plate	1	-					
25	80-000108-08	8-32 x 1/2" MS, Black	2	-					

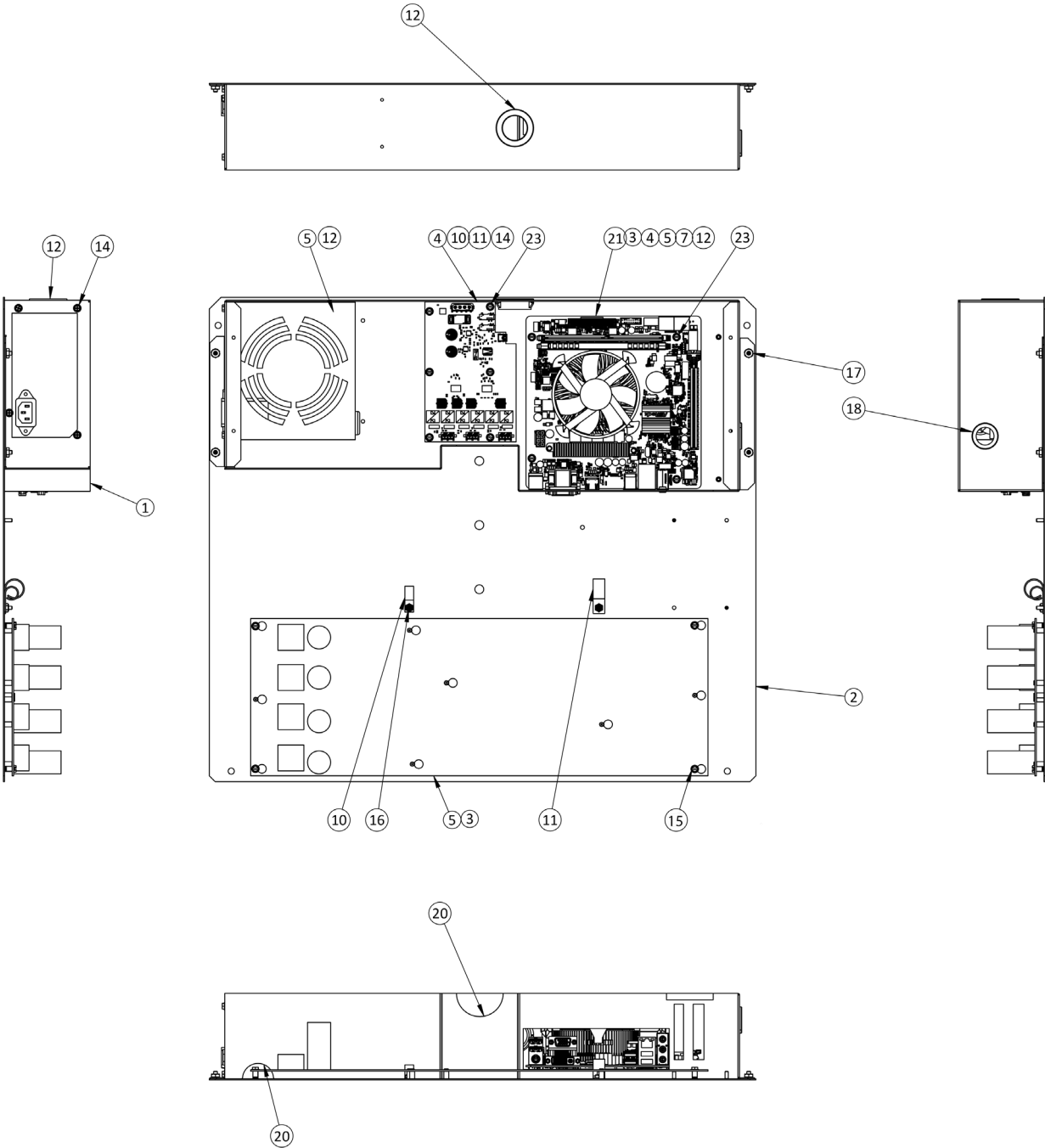
BACKBOX ASSEMBLY INSIDE



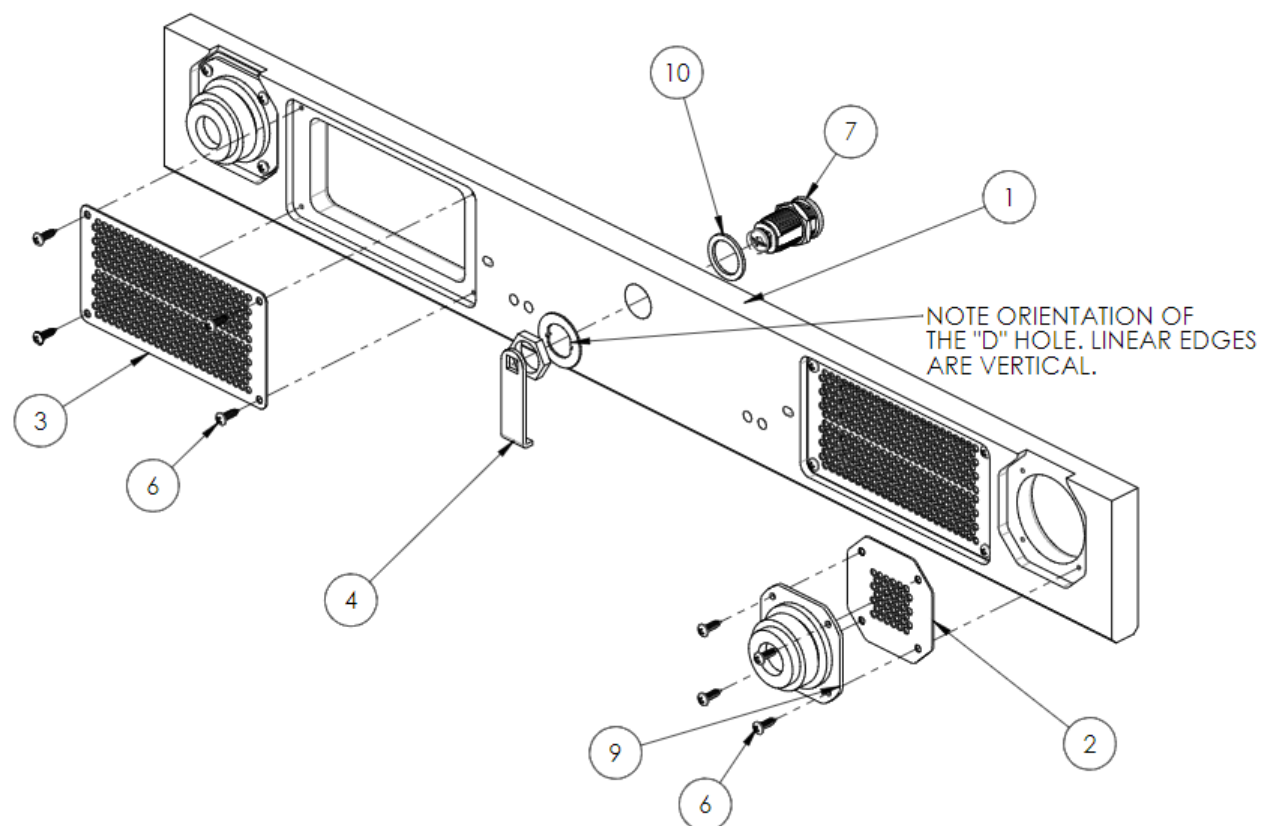
BACKBOX ASSEMBLY INSIDE

Item	Part Number	Description	Qty	Pg.	Item	Part Number	Description	Qty	Pg.
1	50-100028-00	Backbox Wood Assy	1	-	23	42-005002-00	Roto-Lock Receptacle	1	-
2	10-000016-00	Knocker Plate	1	-	24	51-006014-25	Knocker & Cable Assembly	1	-
3	10-000110-01	Fan Guard	1	-	25	51-100040-00	27" LCD Pivot / Wsing Assembly	1	-
4	10-000201-00	Acoustic Plate	2	-	26	51-100041-01	Backbox Mount PCB Assembly	1	-
5	10-000206-09	27" LCD Panel Face Plate	1	-	27	51-100050-00	Assembly Magnetic Latch	2	-
6	10-000207-01	Speaker Panel Mounting Brkt Right	1	-	28	51-100051-00	Backbox Speaker Bas & Cable Assy.	1	132
7	10-000207-00	Speaker Panel Mounting Brkt Left	1	-	29	80-000108-32	#8-32 x 2" MS, Black	4	-
8	10-000234-00	Vent Hole Cover, Louvered	1	-	30	80-000110-16	10-32 x 1" MS, Black	8	-
9	10-100077-00	Screen Brace	2	-	31	80-002008-08	8-32 x 1/2" Phillips MS	8	-
10	11-000011-00	Knocker Plunger Assembly	1	-	32	80-002010-06	#10-32 3/8" MS	6	-
11	17-006003-00	5.25" Midrange Speaker 8 Ohm	2	-	33	80-002025-12	1/4"-20 x 3/4" MS	3	-
12	19-000030-22	Crimp Pin, Female	2	-	34	80-008108-16	8-32 x 1" T25 TORX MS, Black	2	-
13	19-003116-10	Speaker Bar Cable, Right	1	-	35	81-005011-28	#10-24 x 1-3/4" Carriage Bolt, Black	2	-
14	19-003116-11	Speaker Bar Cable, Left	1	-	36	82-006106-08	#6 x 1/2" SMS, Black	6	-
15	19-009011-00	Ground Braid	47"	-	37	91-000008-00	8-32 Nylon Stop Nut	4	-
16	23-005004-03	Fan 12 VDC 120 x 25mm	1	-	38	91-000011-00	#10-24 Nylon Stop Nut	2	-
17	30-000049-08	Nylon Cable Clamp, Open 1/2"	2	-	39	92-000008-00	#8 Flat Washer	4	-
18	30-000049-16	Nylon Cable Clamp, Open 1"	7	-	40	92-000010-00	#10 Flat Washer	2	-
19	30-000051-04	4" Wire Tie	2	-	41	92-000108-00	#8 Flat Washer, Black	2	-
20	30-000051-08	8" Wire Tie	2	-	42	92-000110-00	#10 Flat Washer, Black	8	-
21	30-000115-06	1.1" Cable Tie Mount #6 Screw	2	-	43	82-009008-08	#8 x 1/2" SMS	26	-
22	30-002105-03	Housing Female, 3 Pin	1	-					

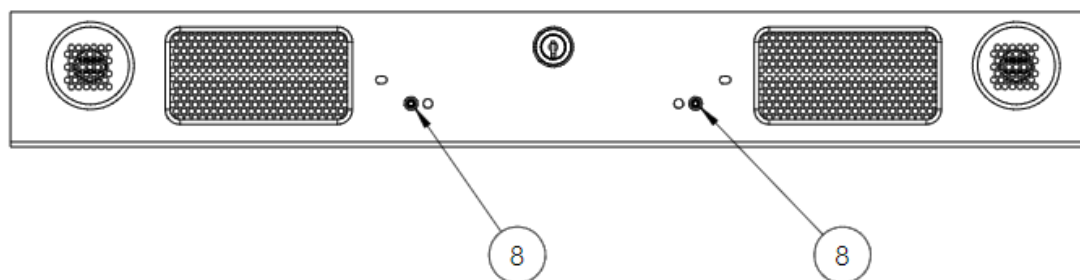
BACKBOX PCB BASE ASSY
51-100041-01



Item	Part Number	Description	Qty
1	10-100079-01	Backbox PCBs EMI Shield	1
2	10-100082-00	Backbox PEM Plate	1
3	15-004001-01	I/O PCB Fully Populated	1
4	15-004002-01	Sound Amplifier PCB	1
5	16-000013-00	ATX Power Supply, 150 Watts	1
6	19-003043-01	AUX Input Cable	1
7	19-003072-03	27" LCD Power Cable	1
8	19-003100-01	USB Cable 2.0 A to Mini - B	1
9	19-009015-02	Sound Amp Power Cable	1
10	30-000049-08	Cable Clamp Open 1/2"	1
11	30-000049-12	Cable Clamp Open 3/4"	1
12	30-000108-02	Locking Grommet 1 1/2"	1
13	30-008005-00	Plastic Edge Trim	7"
14	Part of ATX	6-32 x 1/4" MS	4
15	80-002006-06	#6-32 x 3/8" MS	14
16	91-000006-00	6-32 Nylon Stop Nut	2
17	91-001008-00	#8-32 Keps Nut	4
18	25-009013-00	PCB Chassis Grommet 1"	1
19	19-100002-00	ATX Power Cable	1
20	19-003127-03	DVI-D to HDMI, 3ft	1
21	15-000000-05	CPU H310CM-HDV	1
22	15-000012-03	4GB DDR4-2400 SDRAM 288 Pin	1
23	15-000014-02	Intel Celeron G4900 or G4920	1



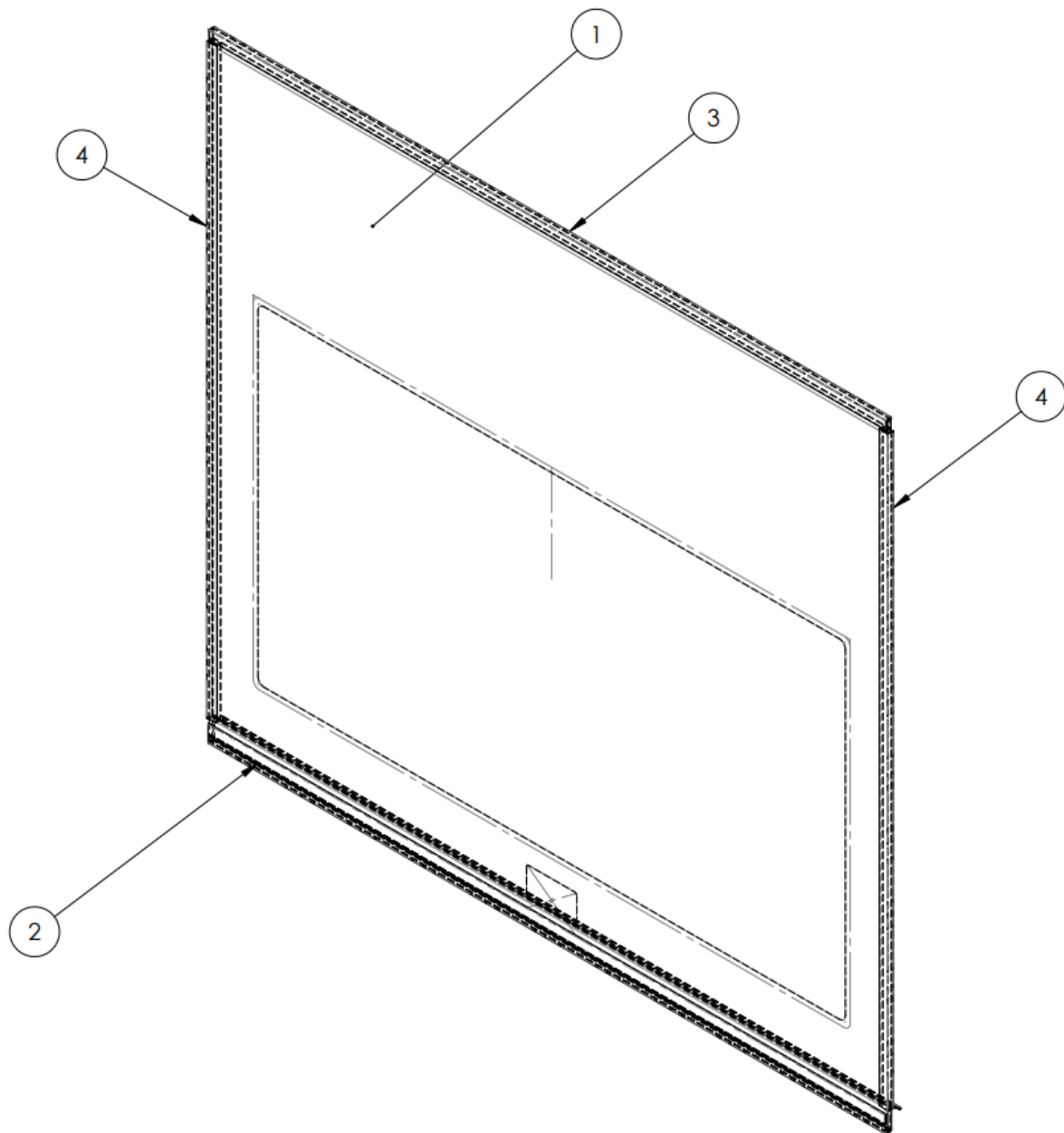
FRONT VIEW



INSERT ITEM 9 FROM
FRONT AS SHOWN

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, Lock	1
5	109-475M-100	Capacitor 4.7MF, 100V, 20%	1
6	82-000106-08	#6 x 1/2" SMS	16
7	51-005012-02	Lock Assy. 1 1/8" 1 1/4" Cam	1
8	91-005008-00	#8-32 Hex Drive	2
9	17-006000-00	Sound Bar 2" Dome Tweeter	2
10	30-100074-00	Washer	1



BACKGLASS ASSEMBLY

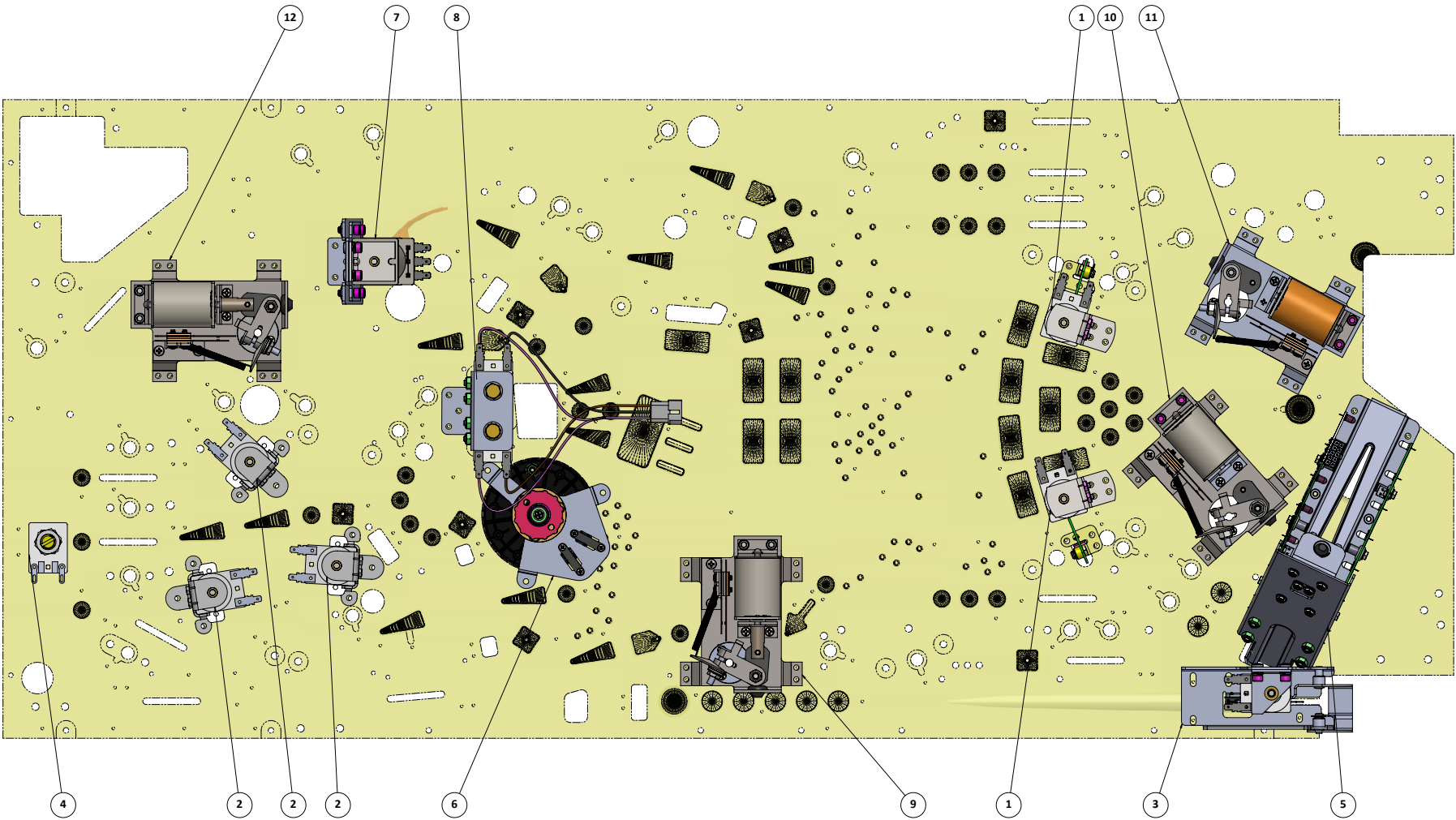
51-100105-00 SE

-01 LE -02 CE

Item	Part Number	Description	Qty
1	60-100002-00	SE GNR Printed Back Glass	1
1	60-100002-01	LE GNR Printed Back Glass	1
1	60-100002-02	CE GNR 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

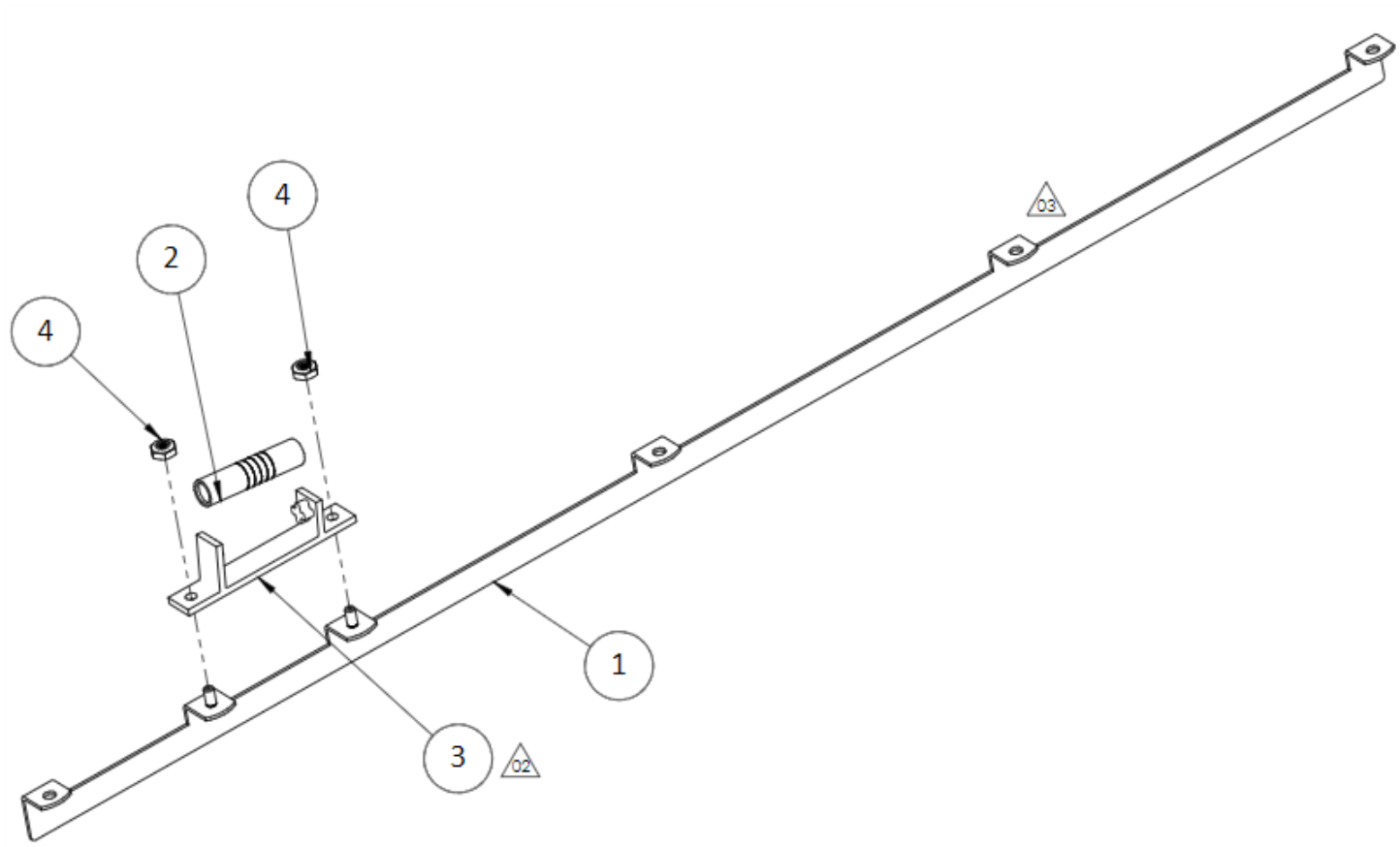
ABOVE - PLAYFIELD ASSEMBLIES

UNDER PLAYFIELD ASSEMBLIES



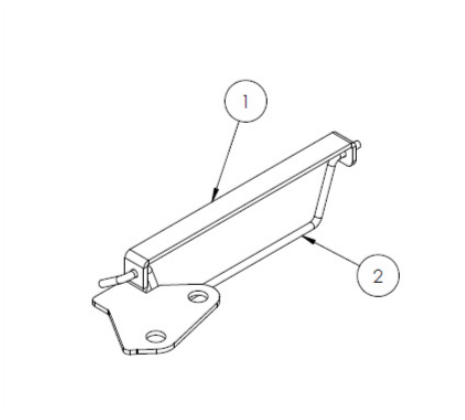
Item	Part Number	Description	Qty	Pg.	Item	Part Number	Description	Qty	Pg.
1	51-000003-00	Slingshot Assy. 23-800	2	-	7	51-100063-00	Left Ramp Diverter	1	-
2	51-000004-01	Pop Bumper Bottom Assy.	3	-	8	51-100067-00	Dual UP Down Post Assy.	1	-
3	51-000026-00	Auto - Launch Assy.	1	-	9	52-000121-00	Upper Right Flipper Assy.	1	-
4	51-100012-00	Magnet, Single Coil Through Playfield	1	-	10	52-000131-00	Right Flipper Assy. FL-15411	1	-
5	51-100022-00	6 Ball Trough Assy.	1	-	11	52-000132-00	Left Flipper Assy. FL-15411	1	-
6	51-100058-00	Record Spin Assy.	1	-	12	52-000151-00	Flipper Assy. Right, Extended Bushing	1	-

SHOOTER LANE RAIL ASSY.
51-100103-00



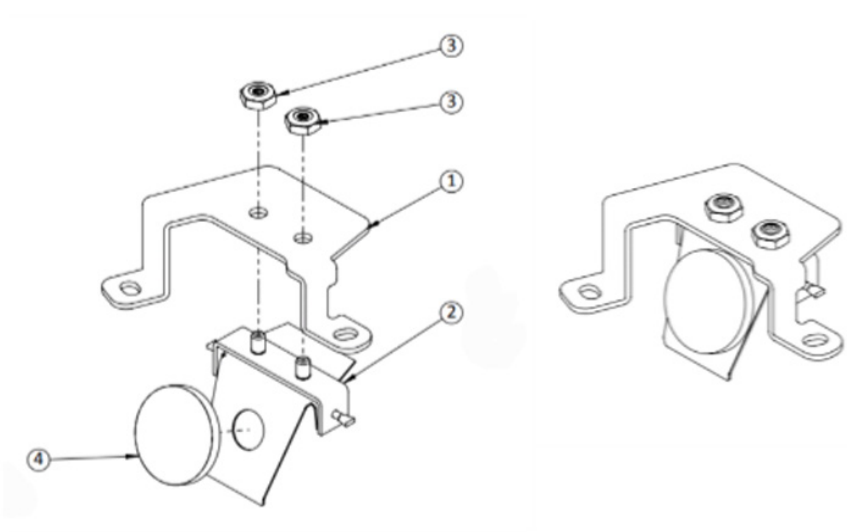
Item	Part Number	Description	Qty
1	12-100025-02	Flatrail	1
2	30-000087-01	Buble Level	1
3	30-000087-00	Buble Level Bracket	1
4	91-000006-00	6-32 Nylon Stop Nut	2

LOWER BUMPER EXIT GATE ASSY.
51-100118-00



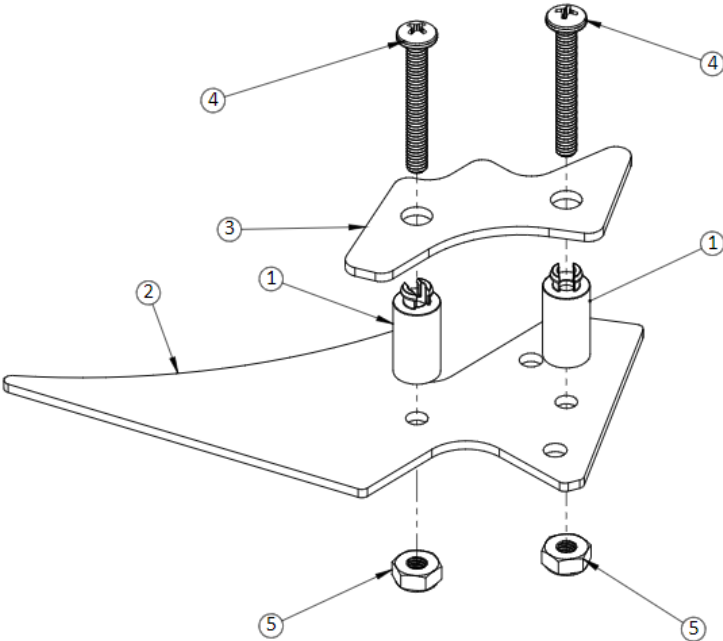
Item	Part Number	Description	Qty
1	10-100178-00	Lower Exit Gate Brkt	1
2	13-100019-00	Wire	2

SHOOTER LANE GATE ASSY.
51-100121-00



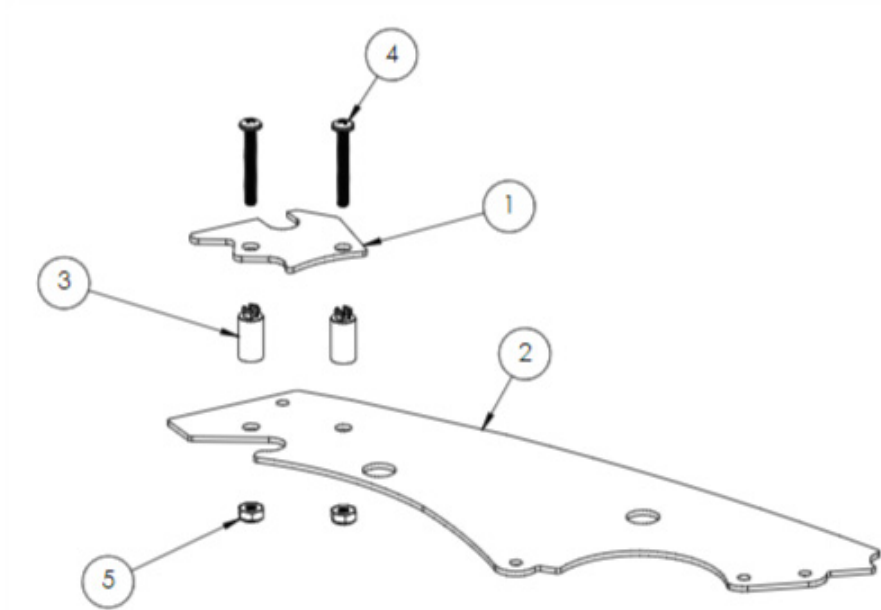
Item	Part Number	Description	Qty
1	10-100180-00	Bracket Shooter Lane	1
2	51-100133-00	Flap Gate Assy.	1
3	91-000006-00	6-32" Nylon Stop Nut	2
4	25-009001-01	Ball Trough Bumper Plug	1

CENTER SPINNER GUARD ASSY. LE
51-100124-00



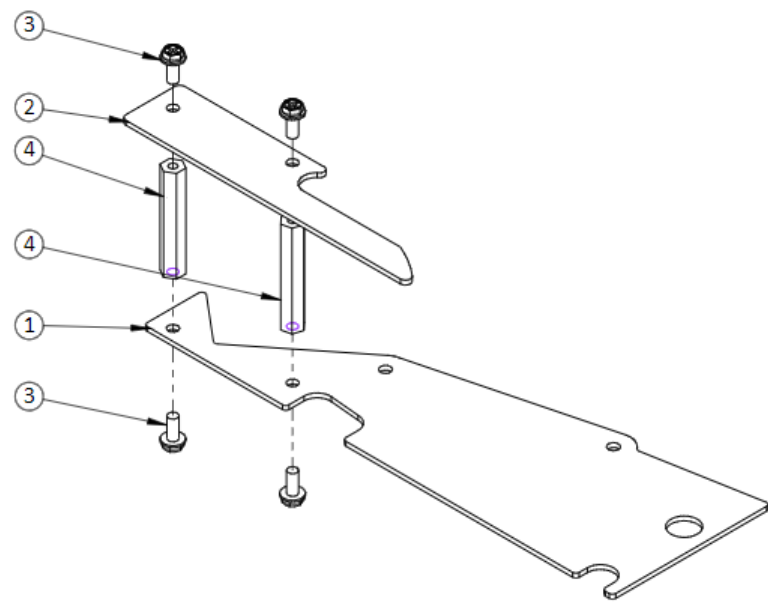
Item	Part Number	Description	Qty
1	30-000083-04	Spacer	2
2	30-100048-08	Center Spinner Left	1
3	30-100048-36	Ball Trap	1
4	80-000008-20	8-32 x 1 1/4" MS	2
5	91-000008-20	8-32 Nylon Stop Nut	2

CENTER SPINNER GUARD ASSY. SE
51-100124-01



Item	Part Number	Description	Qty
1	30-100060-25	Center Spinner Left Ball Trap	1
2	30-100060-08	Center Spinner Left	1
3	30-000083-04	Nylon Round Spacer	2
4	80-000008-20	8-32" x 1-1/4" Screw	2
5	91-000008-00	8-32" Nylon Stop Nut	2

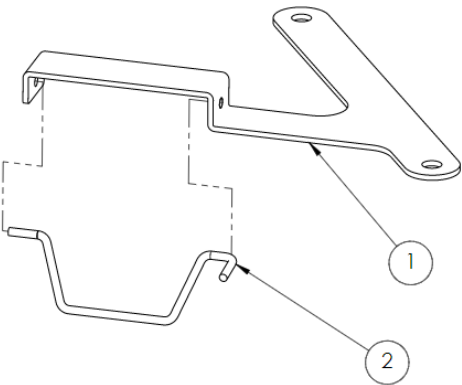
UPPER PLAYFIELD BALL TRAP ASSY.
51-100112-00 LE
51-100112-02 CE



Item	Part Number	Description	Qty
1	See Table	Plastic, Left	1
2	See Table	Ball Trap	1
3	80-002008-06	8-32 x 3/8 MS	4
4	95-001508-28	5/16" x 1 3/4" Hex Spacer 8-32	1

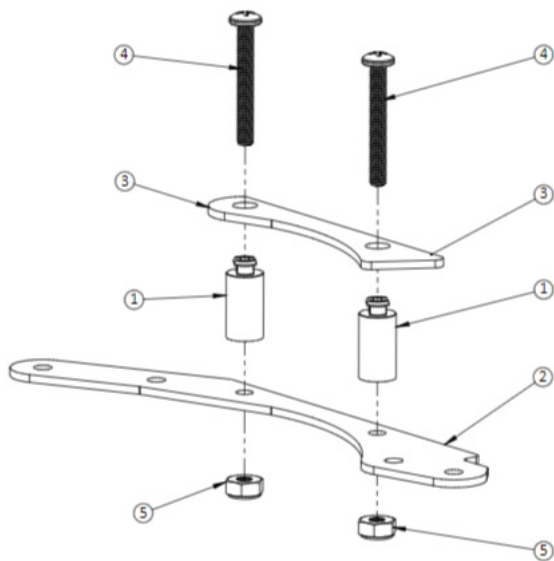
	ITEM # 1	ITEM # 2
LE	30-100048-19	30-100048-25
CE	30-100057-19	30-100057-25

UPPER PLAYFIELD GATE ASSY, LE & CE
51-100096-00



Item	Part Number	Description	Qty
1	10-100162-00	Bracket	1
2	13-100016-00	Wire	1

POP BUMPER PLASTIC GUARD
51-100110-01 SE - 51-100110-00 LE
51-100110-02 CE



51-100110-00 LE

Item	Part Number	Description	Qty
1	30-000083-04	Nylon Spacer	2
2	30-100048-14	Right Orbit High	1
3	30-100048-33	Right Orbit High Ball Trap	1
4	80-000008-20	8-32 x 1-1/4" Screw	2
5	91-000008-00	8-32 Nylon Stop Nut	2

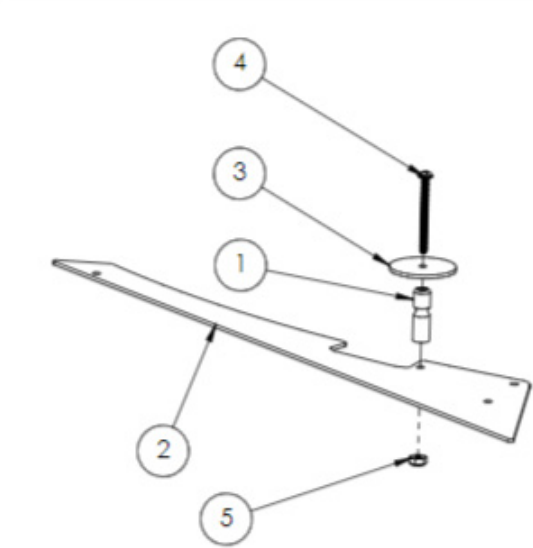
51-100110-01 SE

Item	Part Number	Description	Qty
1	30-000083-04	Nylon Spacer	2
2	30-100060-14	Right Orbit High	1
3	30-100060-33	Right Orbit High Ball Trap	1
4	80-000008-20	8-32 x 1-1/4" Screw	2
5	91-000008-00	8-32 Nylon Stop Nut	2

51-100110-02 CE

Item	Part Number	Description	Qty
1	30-000083-04	Nylon Spacer	2
2	30-100057-14	Right Orbit High	1
3	30-100057-33	Right Orbit High Ball Trap	1
4	80-000008-20	8-32 x 1-1/4" Screw	2
5	91-000008-00	8-32 Nylon Stop Nut	2

LEFT ORBIT BALL TRAP ASSY.
51-100125-01 SE - 51-100125-00 LE
51-100125-02 CE



51-100125-00 LE

Item	Part Number	Description	Qty
1	30-009000-12	1.188" Post Clear	1
2	30-100048-06	Left Drain Left Orbit	1
3	30-100048-27	Left Orbit Low Ball Trap	1
4	80-000008-28	8-32 x 1-3/4" Screw	1
5	91-000008-00	8-32 Nylon Stop Nut	1

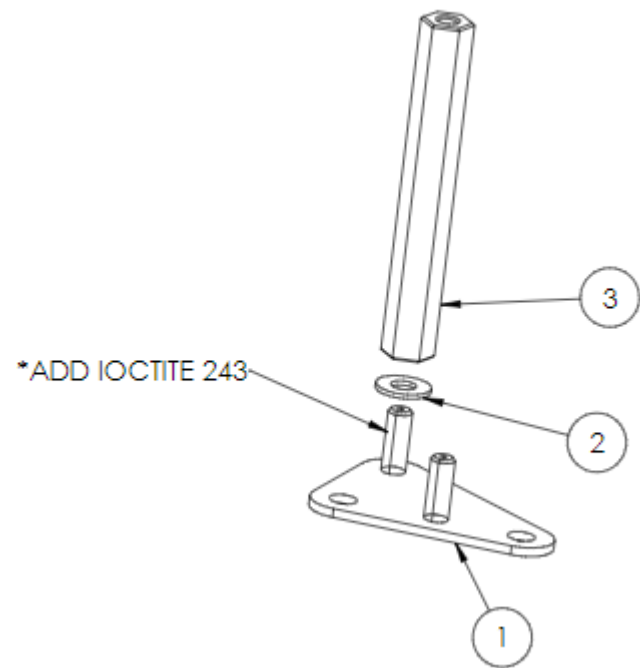
51-100125-01 SE

Item	Part Number	Description	Qty
1	30-009000-12	1.188" Post Clear	1
2	30-100060-06	Left Drain Left Orbit	1
3	30-100060-27	Left Orbit Low Ball Trap	1
4	80-000008-28	8-32 x 1-3/4" Screw	1
5	91-000008-00	8-32 Nylon Stop Nut	1

51-100125-02 CE

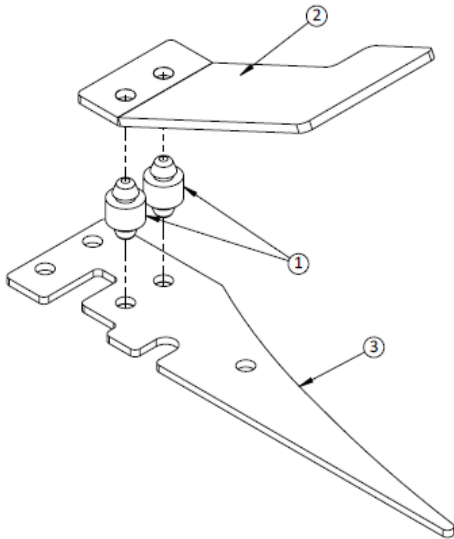
Item	Part Number	Description	Qty
1	30-009000-12	1.188" Post Clear	1
2	30-100057-06	Left Drain Left Orbit	1
3	30-100057-27	Left Orbit Low Ball Trap	1
4	80-000008-28	8-32 x 1-3/4" Screw	1
5	91-000008-00	8-32 Nylon Stop Nut	1

SLASH RIGHT RAMP MOUNT BRACKET
51-100081-00



Item	Part Number	Description	Qty
1	10-100142-00	Slash Right Ramp Mount Brkt	1
2	92-000008-00	#8 Flat Washer	1
3	95-001508-38	.313 Hex Spacer 38-32	1

UPPER RIGHT PLASTIC GUARD
51-100111-01 SE - 51-100111-00 LE
51-100111-02 CE

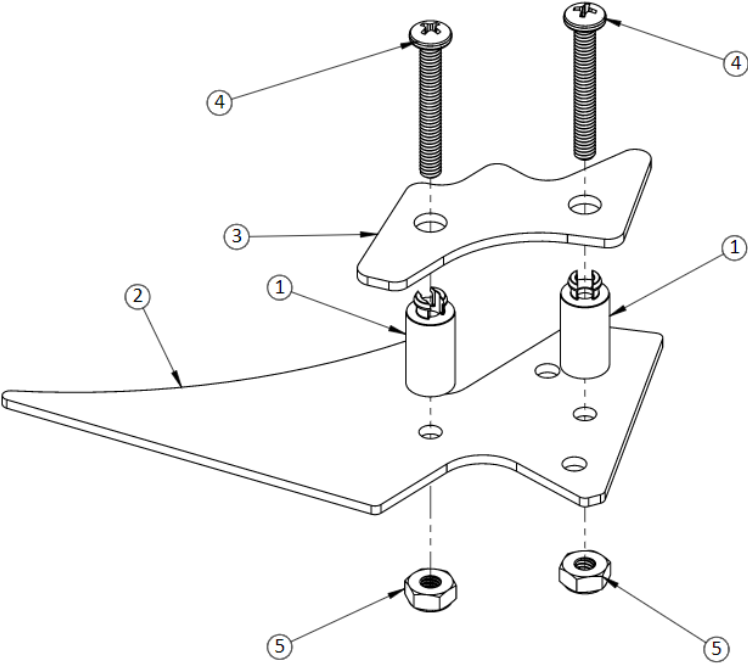


51-100111-01 SE			
Item	Part Number	Description	Qty
1	25-009005-04	1/4" DN Rubber Posyt	2
2	30-100060-15	Monitor Loop Deflector	1
3	30-100060-31	Rear Right Corner	1

51-100111-00 LE			
Item	Part Number	Description	Qty
1	25-009005-04	1/4" DN Rubber Posyt	2
2	30-100048-15	Monitor Loop Deflector	1
3	30-100048-31	Rear Right Corner	1

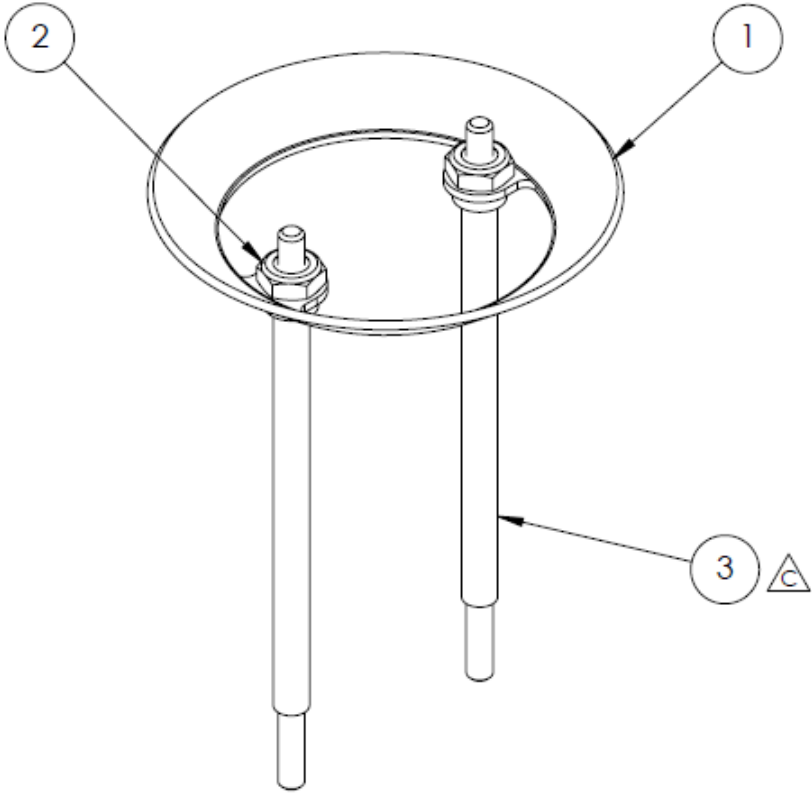
51-100111-02 CE			
Item	Part Number	Description	Qty
1	25-009005-04	1/4" DN Rubber Posyt	2
2	30-100057-15	Monitor Loop Deflector	1
3	30-100057-31	Rear Right Corner	1

CENTER SPINNER GUARD ASSY. CE
51-100124-02



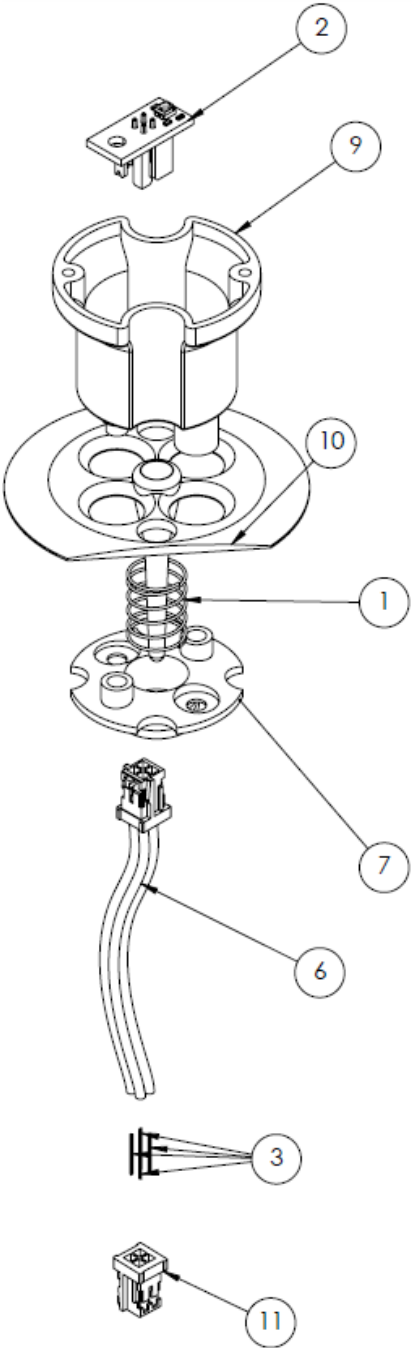
Item	Part Number	Description	Qty
1	30-000083-04	Spacer	2
2	30-100057-08	Center Spinner Left	1
3	30-100057-36	Ball Trap	1
4	80-000008-20	8-32 x 1 1/4" MS	2
5	91-000008-00	8-32 Nylon Stop Nut	2

POP BUMPER RING ASSY.
11-005004-01

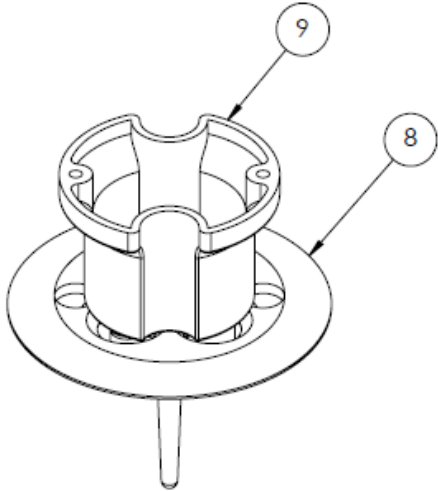


Item	Part Number	Description	Qty
1	11-000005-00	Pop Bumper Ring	1
2	91-000006-00	6-32 Nylon Stop Nut	2
3	11-100000-00	Bumper Rod	2

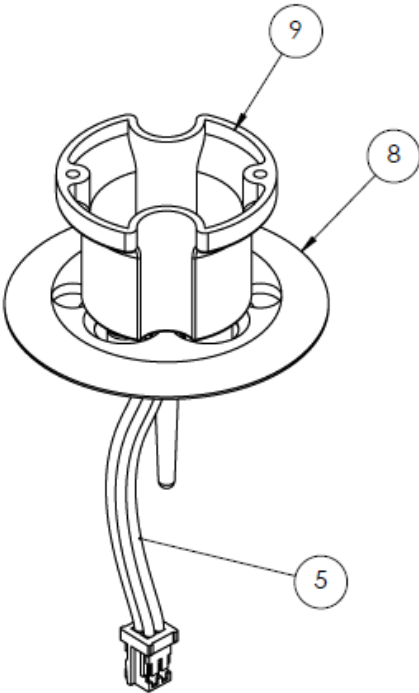
POP BUMPER TOP ASSY.
51-100162-XXX



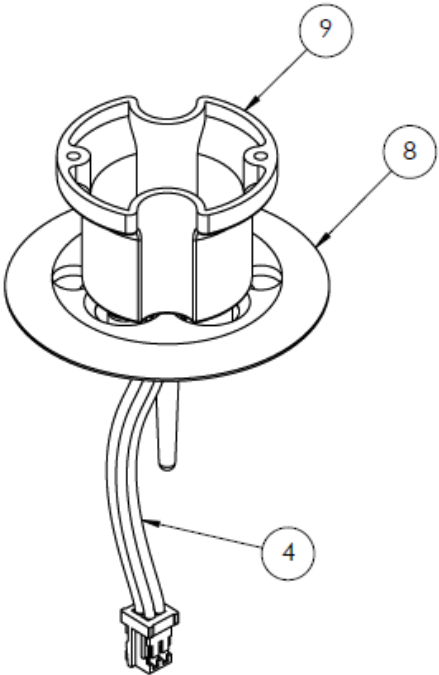
51-100162-00



51-100162-01



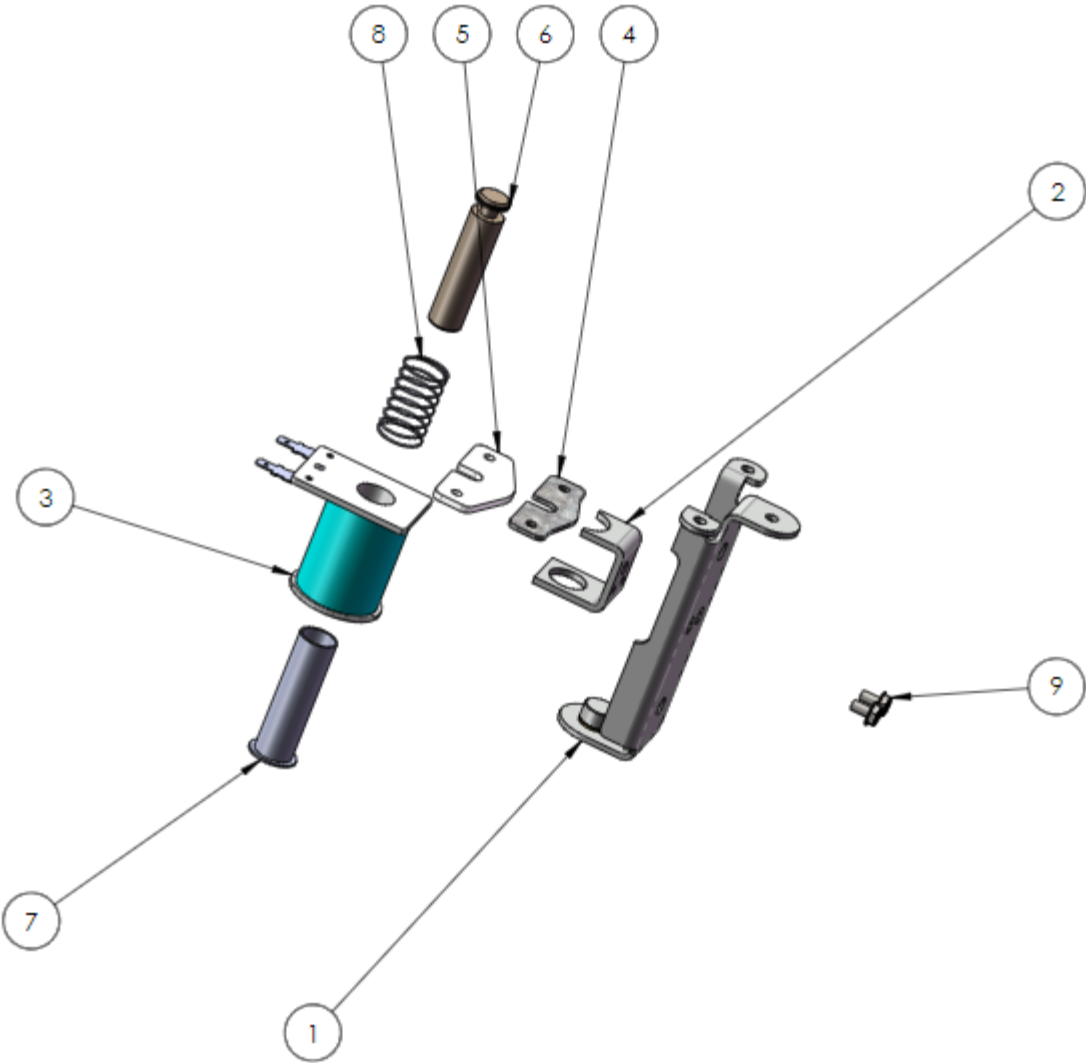
51-100162-02



51-100162-03

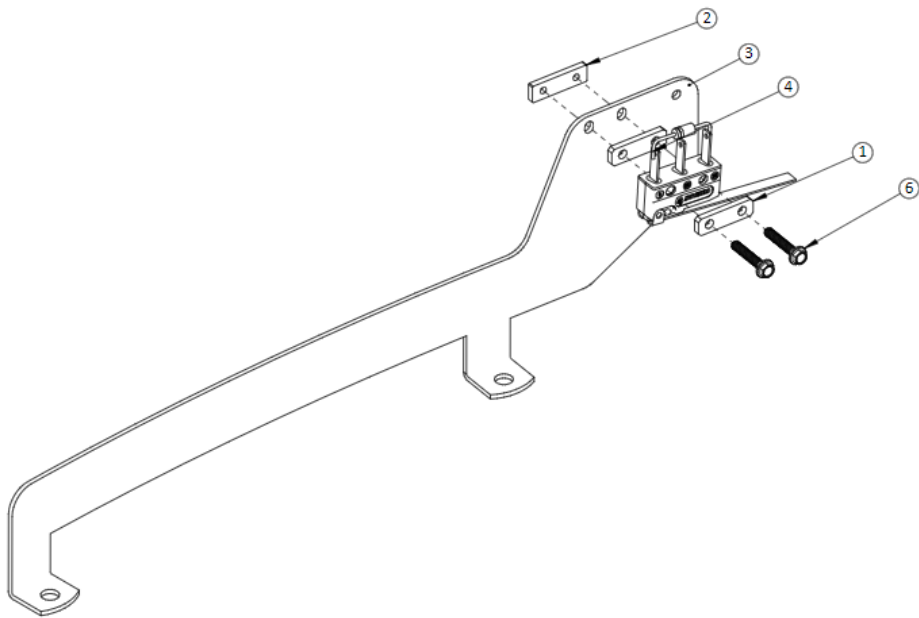
ITEM NO.	PART NUMBER	DESCRIPTION	51-100162-00/QTY.	51-100162-01/QTY.	51-100162-02/QTY.	51-100162-03/QTY.
1	13-007003-00	POP BUMPER SKIRT SPRING	1	1	1	1
2	15-004251-05	RGB GI PCB ASSY, T LED FP, 5V	1	-	1	1
3	19-000020-24S	CRIMP PIN, FEMALE, 24-28AWG	4	-	4	4
4	19-100078-00	GNR LOWER POP BUMPER LED EXTENSION CABLE	-	-	-	1
5	19-100079-00	GNR LOWER POP BUMPER LED EXTENSION CABLE	-	-	1	-
6	19-100080-00	GNR LOWER POP BUMPER LED EXTENSION CABLE	1	-	-	-
7	30-000003-09	POP BUMPER BASE, WHITE	1	1	1	1
8	30-000004-09	POP BUMPER SKIRT WHITE	-	1	1	1
9	30-000005-09	POP BUMPER BODY, WHITE	1	1	1	1
10	30-100059-09	POP BUMPER SKIRT, WHITE	1	-	-	-
11	DF1B-4DS-2.5RC	4 PIN RECTANGULAR CONNECTOR WHITE 0.098"	1	-	1	1

POP BUMPER BOTTTOM ASSY.
51-000004-01



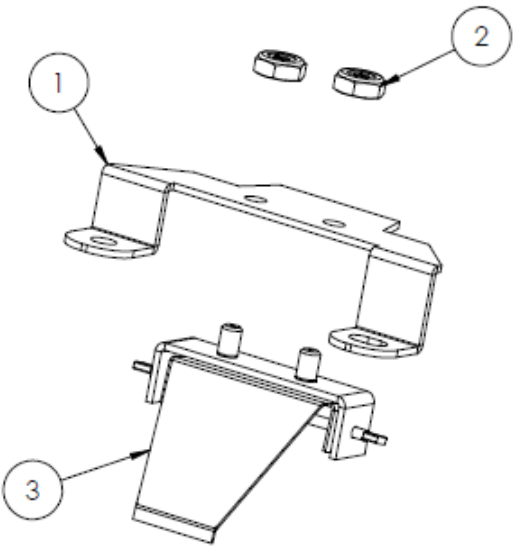
Item	Part Number	Description	Qty
1	10-005003-00	Pop Bumper Coil Brkt	1
2	10-007003-00	Pop Bumper Coil Centering Brkt	1
3	23-000010-00	26-1200 Coil	1
4	10-000021-00	Pop Bumper Yoke, Steel	1
5	10-000021-01	Pop Bumper Yoke, Backlite	1
6	11-000004-00	Pop Bumper Plunger	1
7	30-000014-28	1 3/4" Coil Tubing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

UPPER LOOP RAMP SWITCH
51-100077-00



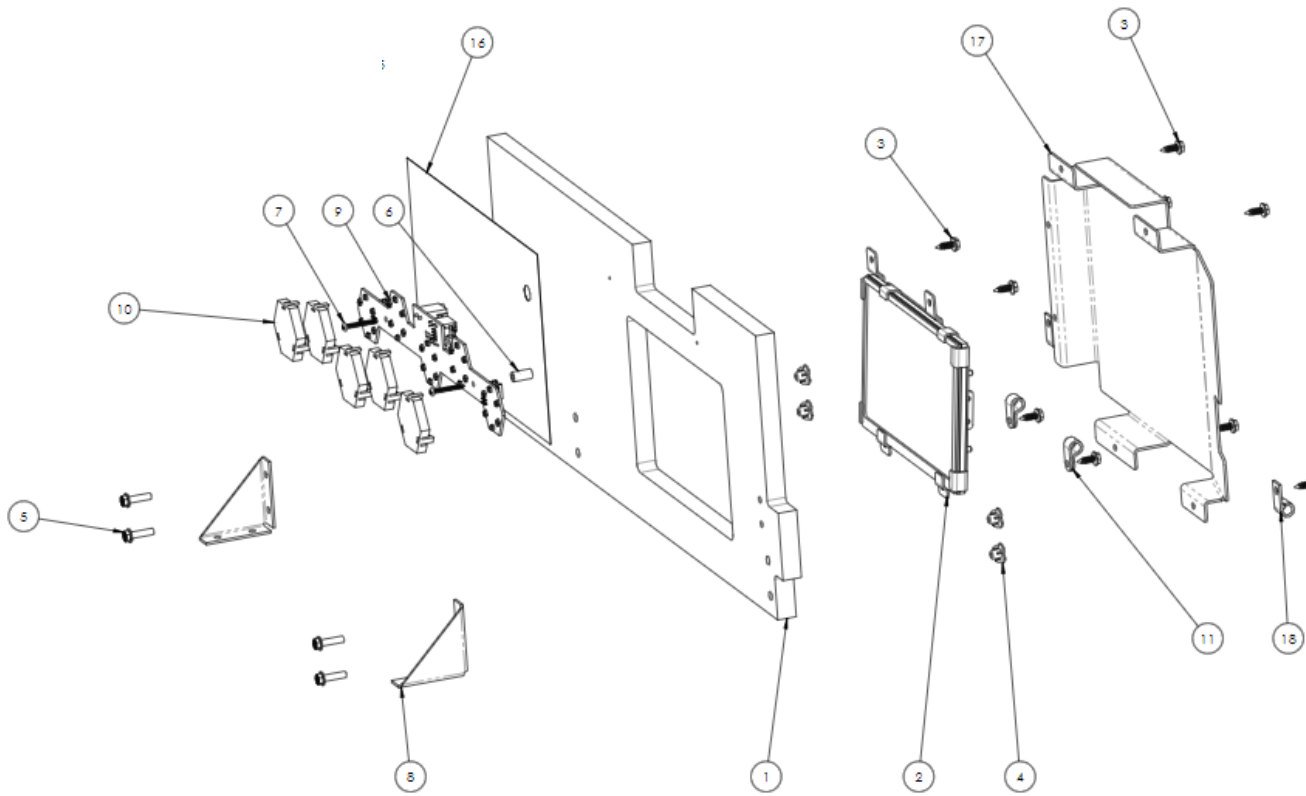
Item	Part Number	Description	Qty
1	10-000024-01	Microswitch Plate	2
2	10-000024-00	Microswitch Nut Plate 2-56	1
3	12-100025-10	Flatrail Upper Loop Ramp	1
4	18-003011-00	Microswitch	1
5	19-100082-00	Wire Harness (Not Shown)	1
6	80-002102-08	2-56 x 1/2" MS	2

SLASH FLAP GATE
51-100079-00

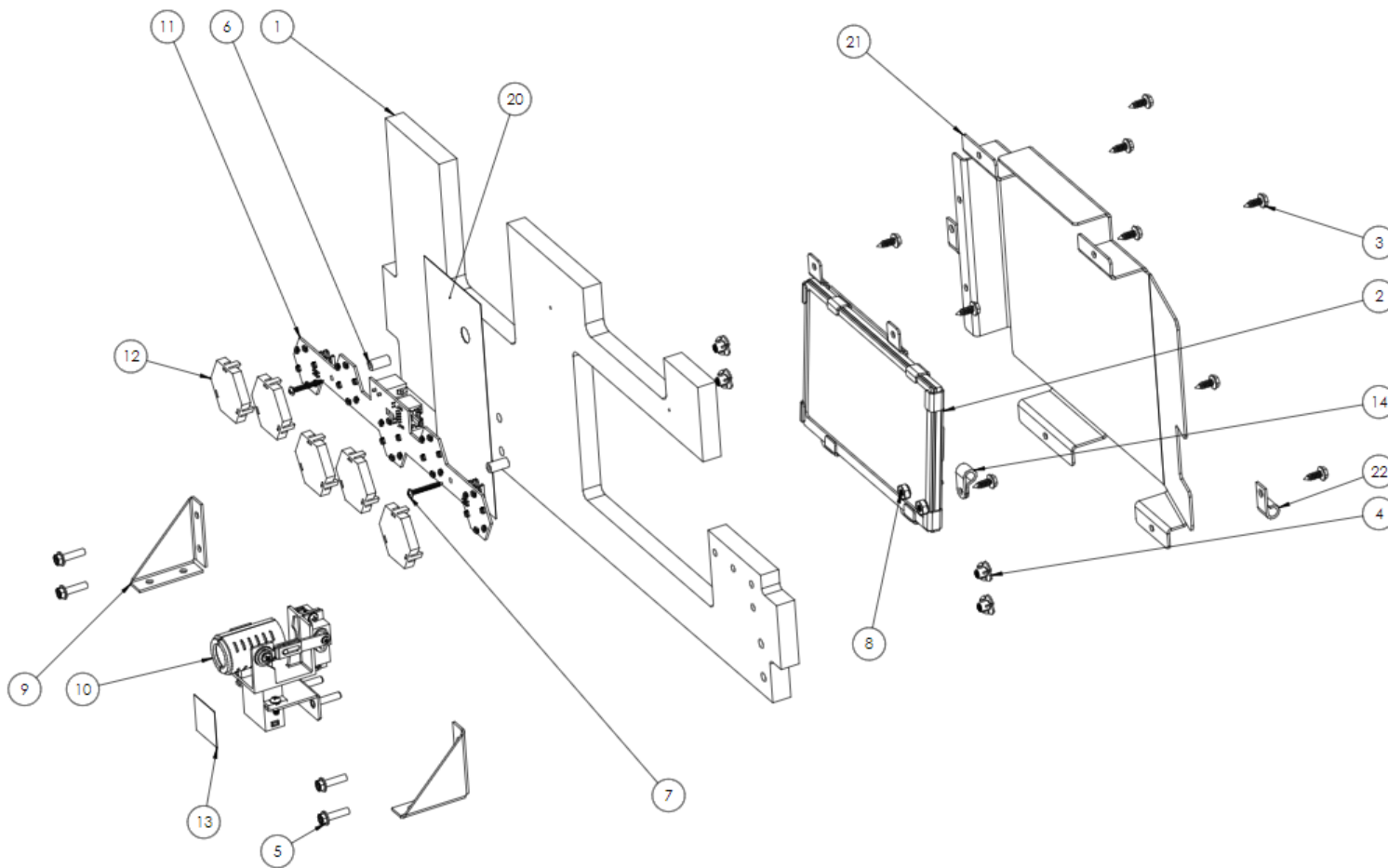


Item	Part Number	Description	Qty
1	10-100137-00	Flap Gate Mtg Brkt	1
2	91-000006-00	6-32 Nylon Stop Nut	2
3	51-000085-10	Flap Gate Pem Brkt Assy	1

BACK PANEL ASSY. SE **51-100052-01**



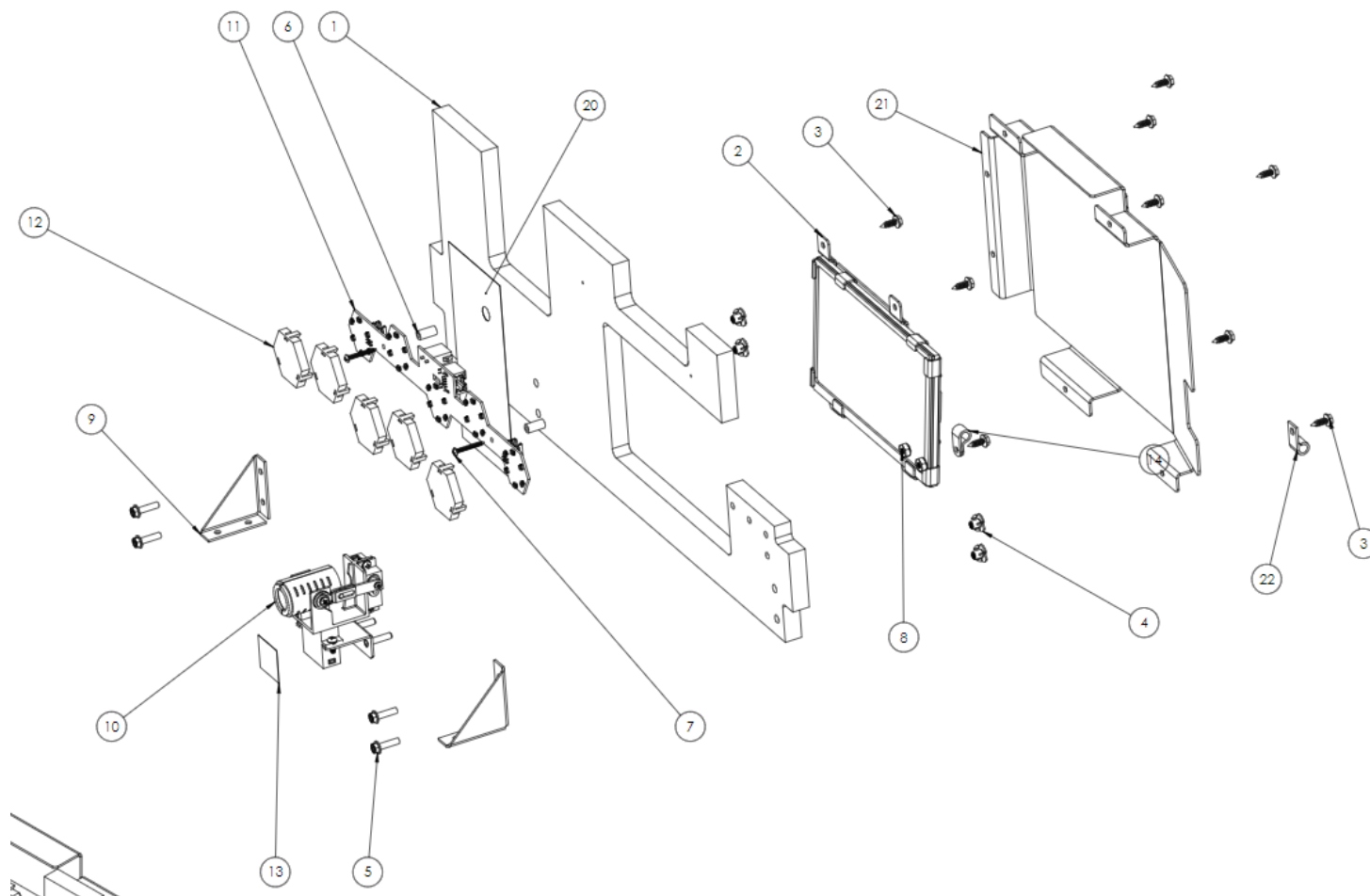
Item	Part Number	Description	Qty
1	05-100017-01	Back Panel	1
2	51-100059-00	LCD	1
3	82-009008-08	#8 x 1/2" PHILLIPS SMS	11
4	91-004008-00	8-32 x 1/4" T-Nut	4
5	80-002008-10	8-32 xx 5/8" PHILIPS MS	4
6	94-003003-01	Nylon Spacer	2
7	82-000004-14	#4 x 7/8" SMS	2
8	10-000162-00	Back Panel Support Brkt	2
9	15-100016-13	Lighting Truss LED Bd	1
10	30-100044-00	Lens Cover	5
11	30-000052-04	1/4" Cable Clamp Closed	2
12	19-100085-01	Power Cable	1
13	19-100041-08	8 Ft HDMI Cable	1
14	19-003111-03	Cat 5e, 3 Ft	1
15	30-000051-04	4" Wire Tie	1
16	62-100022-36	Decal	1
17	10-100160-00	Back Pan	1
18	30-000049-04	1/4" open Cable Clamp	2



BACK PANEL ASSY. LE

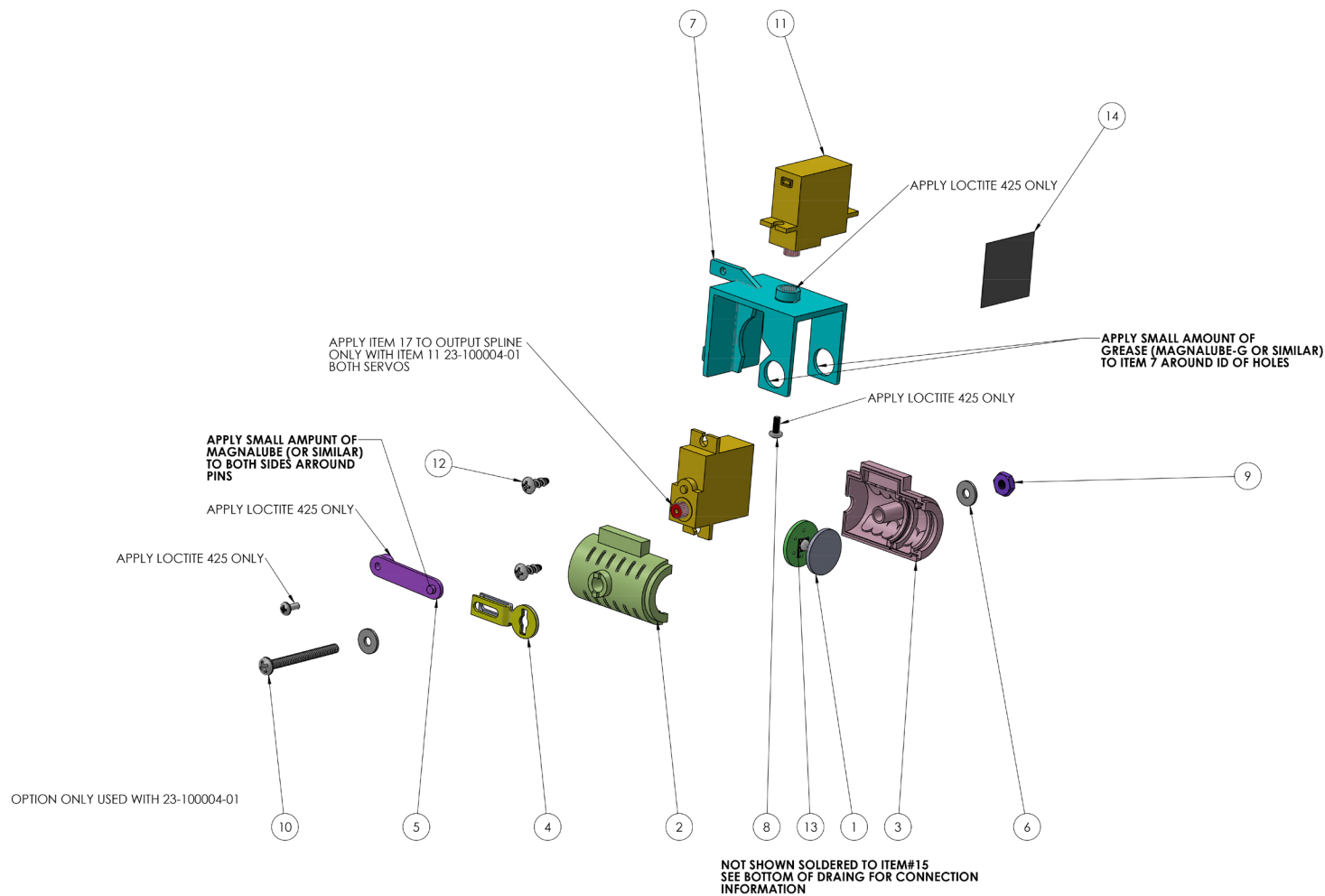
51-100052-00

Item	Part Number	Description	Qty
1	05-100017-01	Back Panel	1
2	51-100059-00	LCD	1
3	82-009008-08	#8 x 1/2" PHILLIPS SMS	11
4	91-004008-00	8-32 x 1/4" T-Nut	4
5	80-002008-10	8-32 xx 5/8" PHILIPS MS	4
6	94-003003-01	Nylon Spacer	2
7	82-000004-14	#4 x 7/8" SMS	2
8	91-000008-00	8-32 Nylon Stop Nut	2
9	10-000162-00	Back Panel Support Brkt	2
10	51-100094-00	Spot Light Assy., Right	1
11	15-100016-13	Lighting Truss LED Bd	1
12	30-100044-00	Lens Cover	5
13	62-100018-18	Decal	1
14	30-000052-04	1/4" Cable Clamp Closed	2
15	30-000051-04	4" Wire Tie	1
16	19-100041-08	HDMI Cable 8ft	1
17	19-100053-00	Spotlight Cable	1
18	19-100085-01	Power Cable	1
19	19-003111-03	Cat 5e, 3 Ft	1
20	62-100024-36	Decal	1
21	10-100160-00	Back Pan	1
22	30-000049-04	1/4" open Cable Clamp	3



BACK PANEL ASSY. CE **51-100052-02**

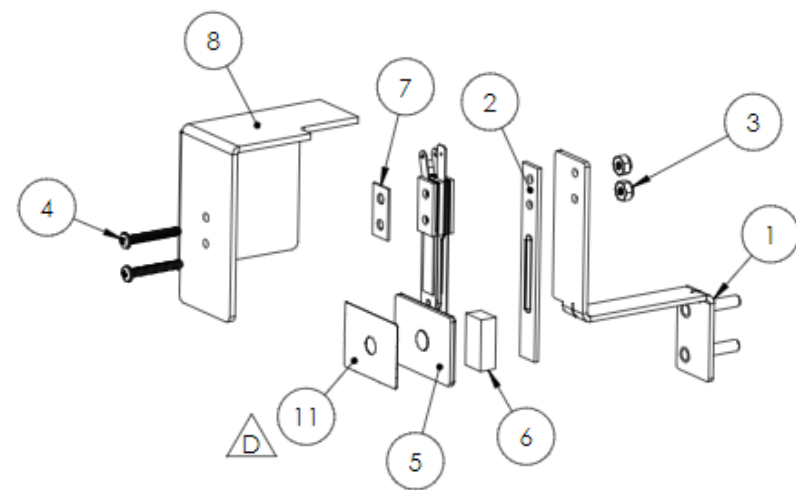
Item	Part Number	Description	Qty
1	05-100017-00	Back Panel	1
2	51-100059-00	LCD	1
3	82-009008-08	#8 x 1/2" PHILLIPS SMS	11
4	91-004008-00	8-32 x 1/4" T-Nut	4
5	80-002008-10	8-32 xx 5/8" PHILIPS MS	4
6	94-003003-01	Nylon Spacer	2
7	82-000004-14	#4 x 7/8" SMS	2
8	91-000008-00	8-32 Nylon Stop Nut	2
9	10-000162-00	Back Panel Support Brkt	2
10	51-100094-00	Spot Light Assy., Right	1
11	15-100016-13	Lighting Truss LED Bd	1
12	30-100044-00	Lens Cover	5
13	62-100018-18	Decal	1
14	30-000052-04	1/4" Cable Clamp Closed	2
15	30-000051-04	4" Wire Tie	1
16	19-100041-08	HDMI Cable 8ft	1
17	19-100053-00	Spotlight Cable	1
18	19-100085-01	Power Cable	1
19	19-003111-03	Cat 5e, 3 Ft	1
20	62-100023-36	Decal	1
21	10-100160-00	Back Pan	1
22	30-000049-04	1/4" open Cable Clamp	3



SPOT LIGHT LEFT ASSY. 51-100093-00

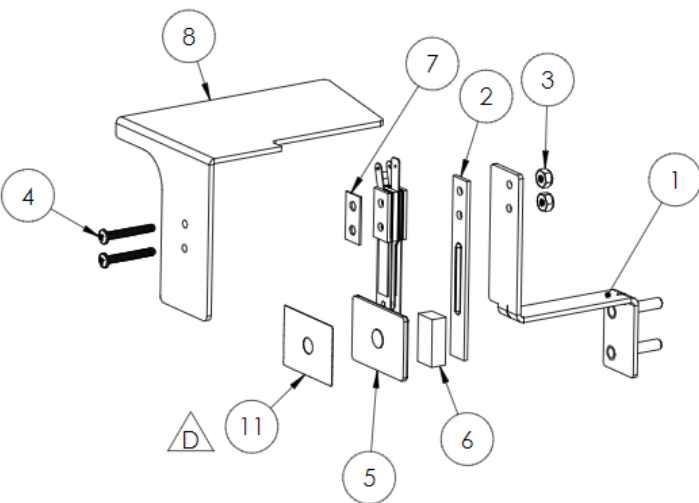
Item	Part Number	Description	Qty
1	30-100041-00	Lens	1
2	30-100040-00	Housing - Left	1
3	30-100040-01	Housing - Right	1
4	30-100040-04	Servo Arm	1
5	30-100040-03	Spot Light Arm	1
6	92-100006-00	#6 Flat Washer	2
7	30-100040-02	Main Bracket	1
8	30-000M25-06	M2.5X6mm MS	2
9	91-1000106-00	6-32 Nylon Stop Nut	1
10	80-000207-24	6-32 x 1-1/2" MS	1
11	23-100004-00	Servo Digital	2
12	83-001006-06	#6 x 3/8" THD Forming Screw	2
13	15-100018-00	RGBW Spot Light board	1
14	62-100018-17	Decal	1

DRUMSTICK TARGET ASSY. SE
51-100053-01



Item	Part Number	Description	Qty
1	10-100092-00	Drumstick Target Brkt	1
2	10-000095-00	Target Back Plate	1
3	91-000004-00	#4-40 Nylon Stop Nut	2
4	80-000004-14	Pan Head Screw	2
5	18-009015-00	Rectangle Stand up Target	1
6	25-001005-00	Foam	1
7	10-000022-01	Switch Plate	1
8	30-100060-30	Cover	1
9	19-100063-00	Cable (Not Shown)	1
10	30-000051-04	4" Wire Tie	2
11	62-100018-13	Decal	1

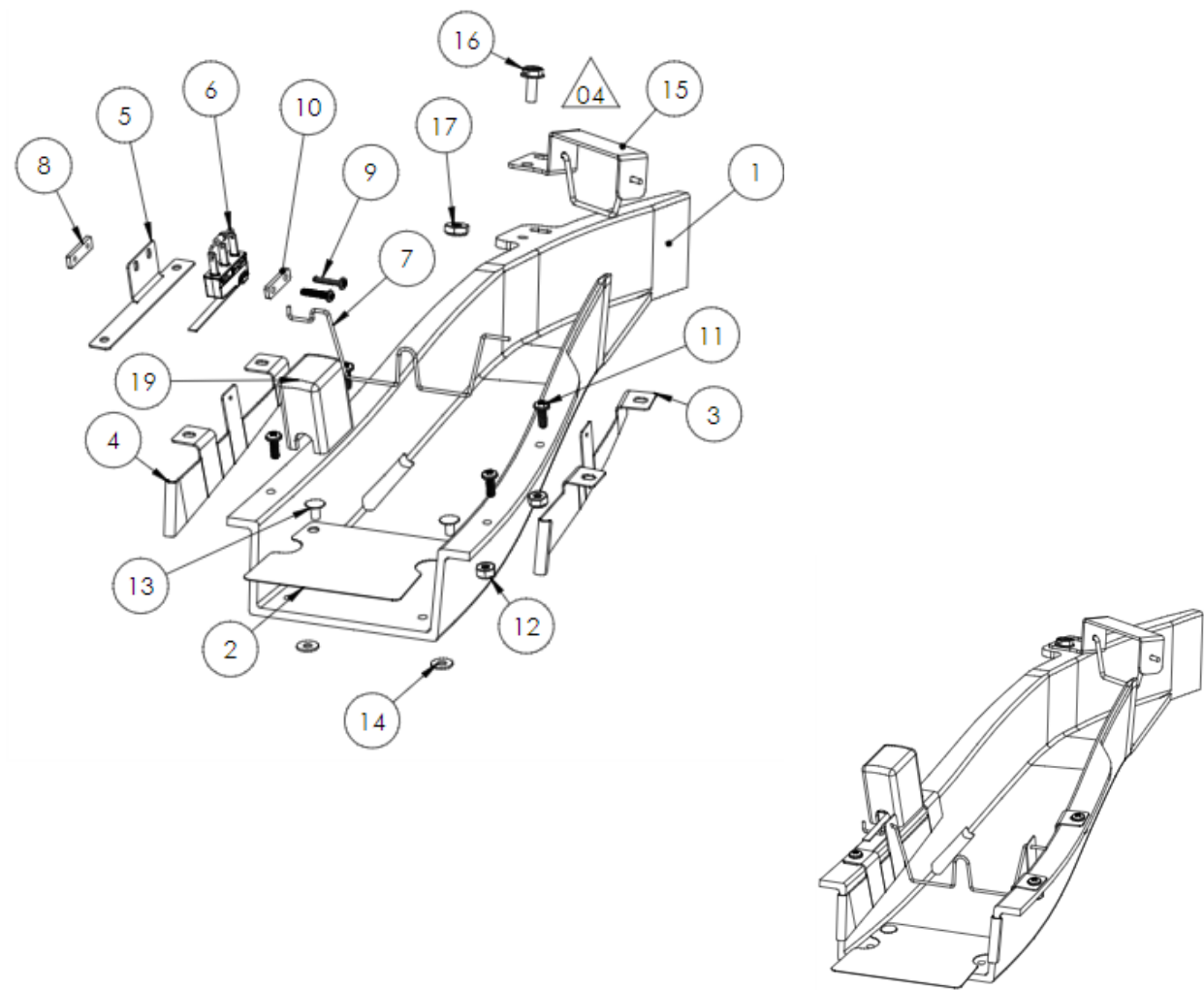
DRUMSTICK TARGET ASSY.
51-100053-00 LE
51-100053-02 CE



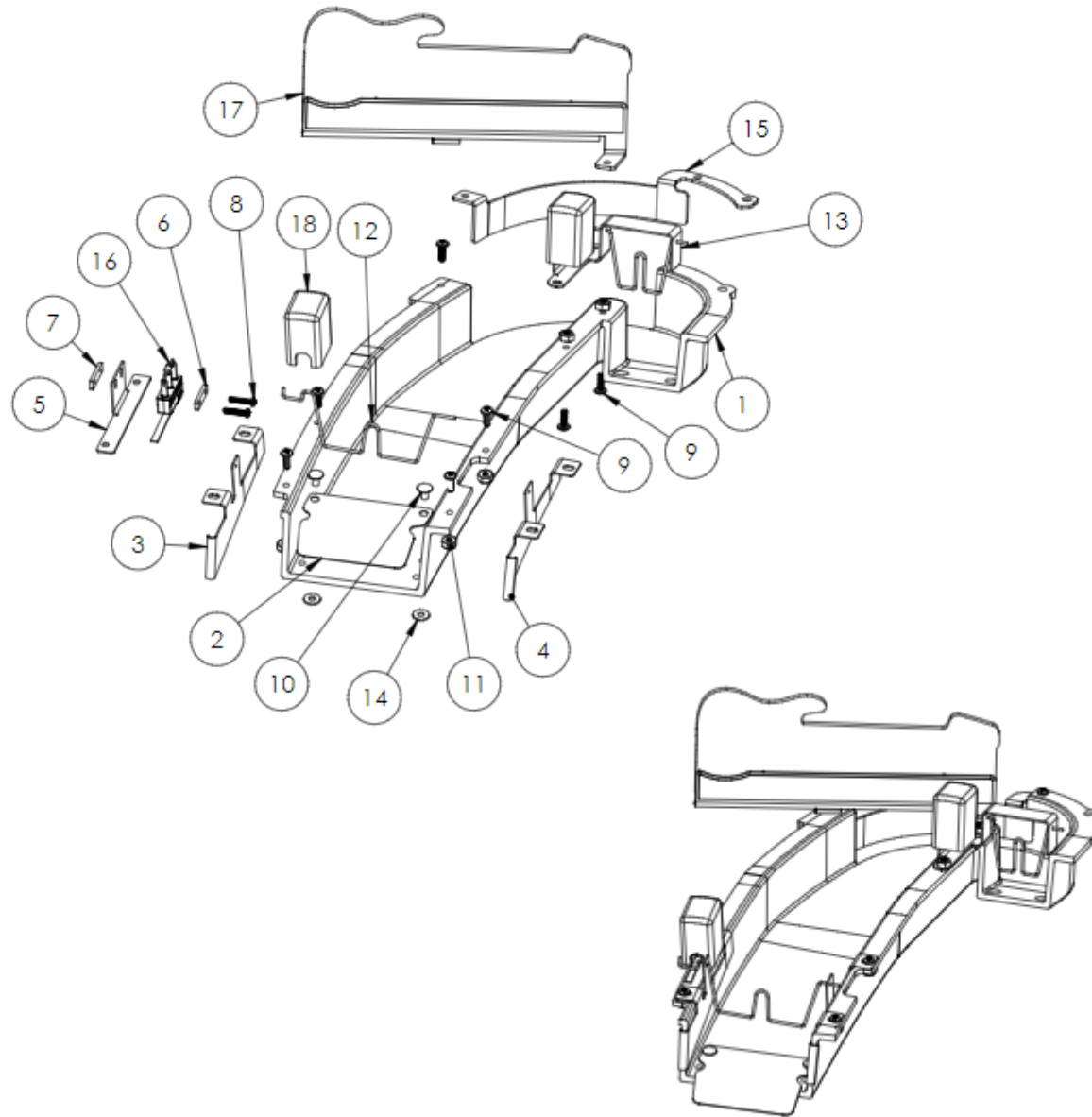
Item	Part Number	Description	Qty
1	10-100092-00	Drumstick Target Brkt	1
2	10-000095-00	Target Back Plate	1
3	91-000004-00	#4-40 Nylon Stop Nut	2
4	80-000004-14	Pan Head Screw	2
5	18-009015-00	Rectangle Stand up Target	1
6	25-001005-00	Foam	1
7	10-000022-01	Switch Plate	1
8	See Table	Cover	1
9	19-100063-00	Cable (Not Shown)	1
10	30-000051-04	4" Wire Tie	2
11	62-100018-13	Decal	1

ITEM # 8	
LE	30-100048-30
CE	30-100057-30

PLASTIC RIGHT RAMP ASSEMBLY
51-100054-00

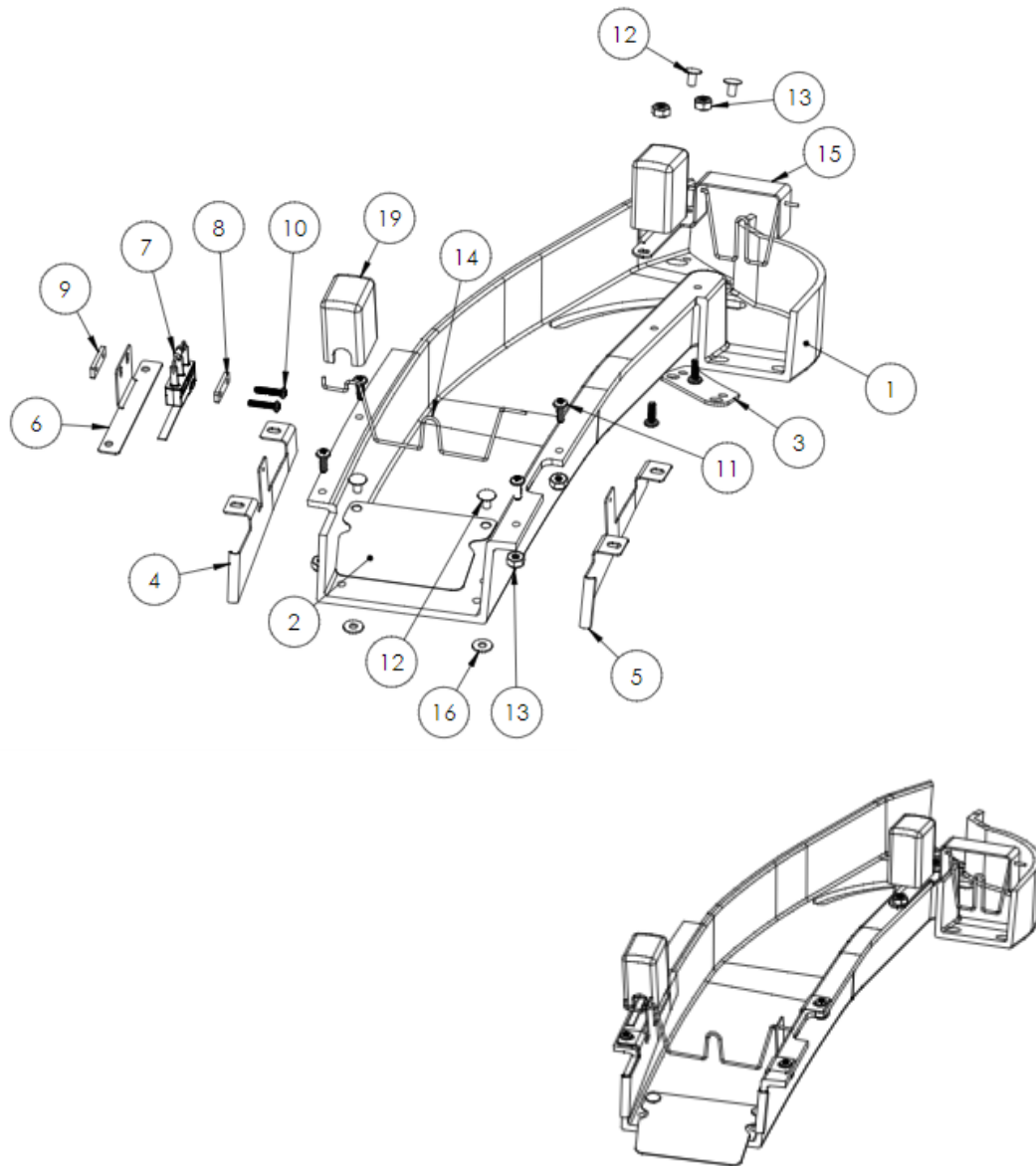


Item	Part Number	Description	Qty
1	31-100003-00	Plastic Ramp Right	1
2	10-100121-00	Ramp Flap	1
3	10-100122-00	Right Ramp Protector	1
4	10-100122-01	Left Ramp Protector	1
5	10-100122-02	Switch Bracket	1
6	18-003003-00	Microswitch	1
7	13-100008-00	Switch Wire	1
8	10-000024-00	Nut Plate 2-56	1
9	80-000002-07	2-56 x 7/16" MS	2
10	10-000024-01	Microswitch Plate	1
11	80-000004-05	#4-40 x 5/16" MS	4
12	91-000004-00	#4-40 Nylon Stop Nut	4
13	93-000000-00	1/8" x 7/32" Rivet	2
14	92-000004-00	#4 Flat Washer	2
15	51-100122-00	Ramp Gate Assy	1
16	80-002006-06	#6-32 x 3/8" MS	1
17	91-000006-00	6-32 Nylon Stop Nut	1
18	19-100062-00	Cable (Not Shown)	1
19	25-007001-02	Microswitch Cover	1



PLASTIC LEFT RAMP ASSEMBLY SE 51-100061-01

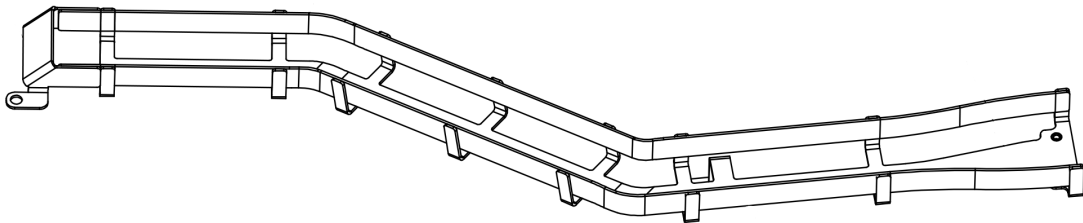
Item	Part Number	Description	Qty
1	31-100006-01	Plastic Ramp Left	1
2	10-100102-00	Ramp Flap	1
3	10-100125-00	Left Ramp Protector	1
4	10-100125-01	Right Ramp Protector	1
5	10-100125-02	Switch Bracket	1
6	10-000024-01	Microswitch Plate	1
7	10-000024-00	Nut Plate 2-56	1
8	80-000002-07	2-56 x 7/16" MS	2
9	80-000004-05	#4-40 x 5/16" MS	8
10	93-000000-00	1/8" x 7/32" Rivet	2
11	91-000004-00	#4-40 Nylon Stop Nut	8
12	13-100010-00	Ramp Switch Wire	1
13	51-100074-00	Return Switch	1
14	92-000004-00	#4 Flat Washer	2
15	10-100179-00	Rear Ball Guide	1
16	18-003003-00	Microswitch	1
17	51-100128-00	Acrylic Guitar	1
18	25-007001-02	Microswitch Cover	1



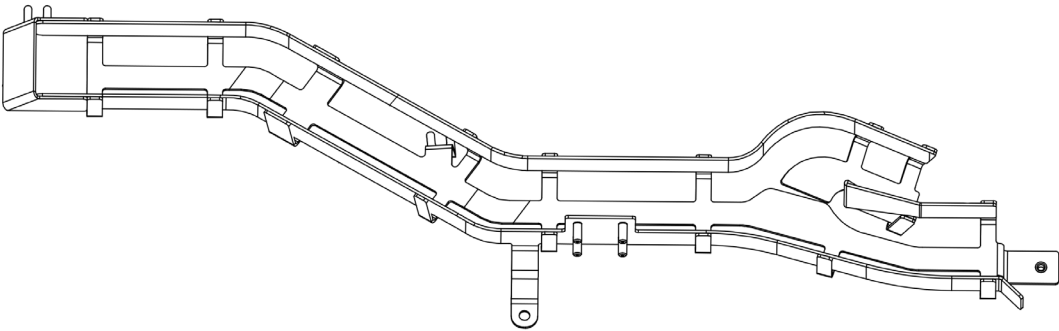
PLASTIC LEFT RAMP ASSEMBLY LE & CE 51-100061-00

Item	Part Number	Description	Qty
1	31-100006-00	Plastic Ramp Left	1
2	10-100102-00	Ramp Flap	1
3	10-100126-00	Bumper Plate	1
4	10-100125-00	Right Ramp Protector	1
5	10-100125-01	Left Ramp Protector	1
6	10-100125-02	Switch Bracket	1
7	18-003003-00	Microswitch	1
8	10-000024-01	Switch Plate	1
9	10-000024-00	Nut Plate 2-56	1
10	80-000002-07	2-56 x 7/16" MS	2
11	80-000004-05	#4-40 x 5/16" MS	6
12	93-000000-00	1/8" x 7/32" Rivet	4
13	91-000004-00	#4-40 Nylon Stop Nut	6
14	13-100010-00	Switch Wire	1
15	51-100074-00	Return Switch	1
16	92-000004-00	#4 Flat Washer	2
17	19-100066-00	Enter Cable (Not Shown)	1
18	19-100067-00	Made Cable (Not Shown)	1
19	25-007001-02	Switch Cover	1

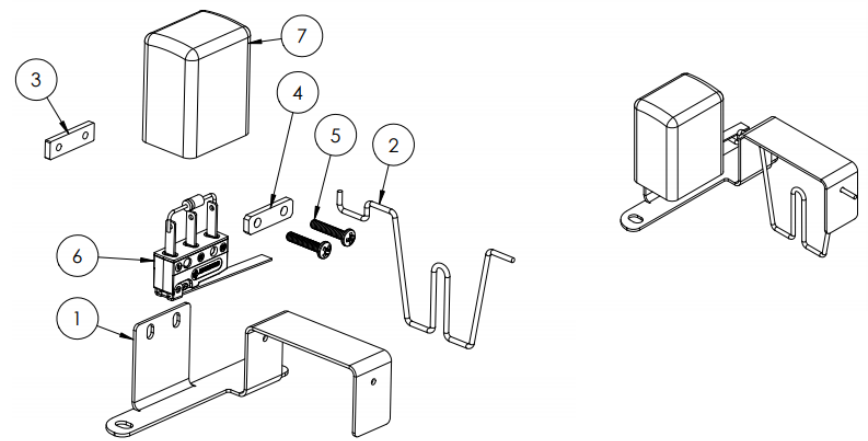
LEFT CAT WALK RAMP
10-100103-00



RIGHT CAT WALK RAMP
10-100091-00

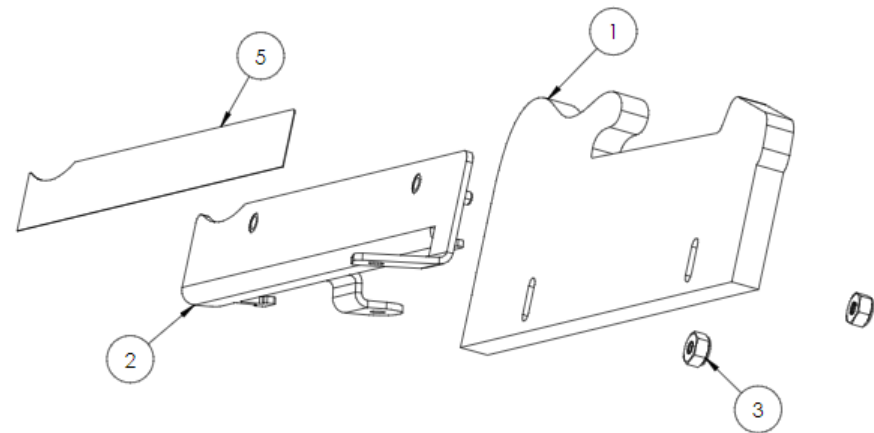


Slash Return Switch Left
51-100074-00



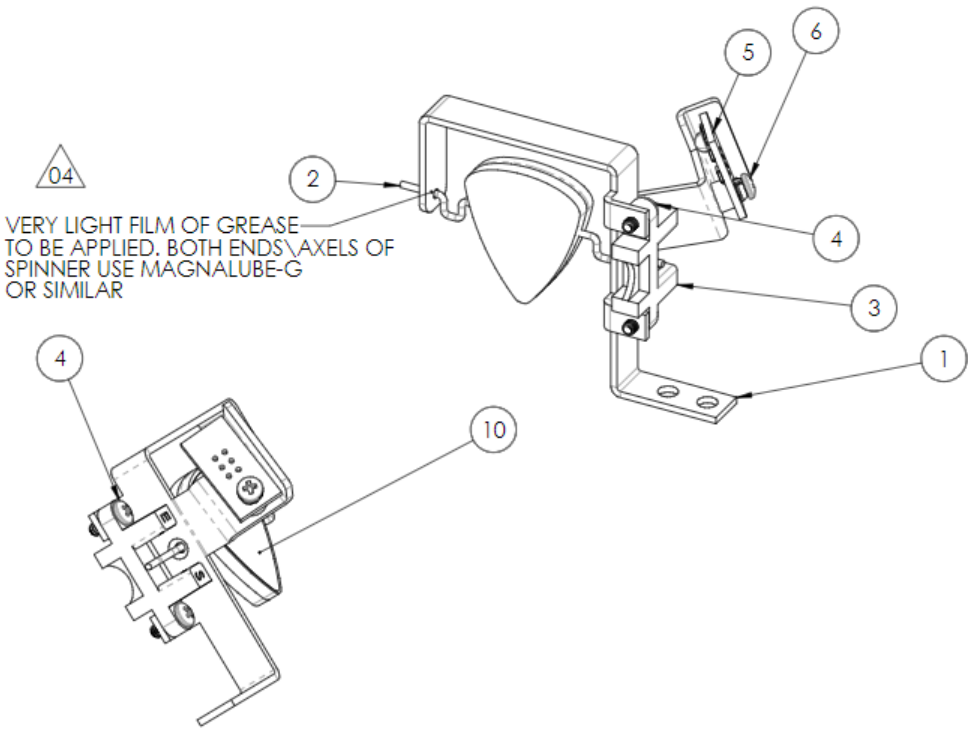
Item	Part Number	Description	Qty
1	10-100124-00	Bracket	1
2	13-100009-00	Wire	1
3	10-000024-00	Nut Plate, 2-56	1
4	10-000024-01	Protector Plate	1
5	80-000002-07	2-56 x 7/16" MS	2
6	18-003003-00	Microswitch	1
7	25-007001-02	Vinyl Cover	1

ACRYLIC GUITAR ASSY SE
51-100128-00



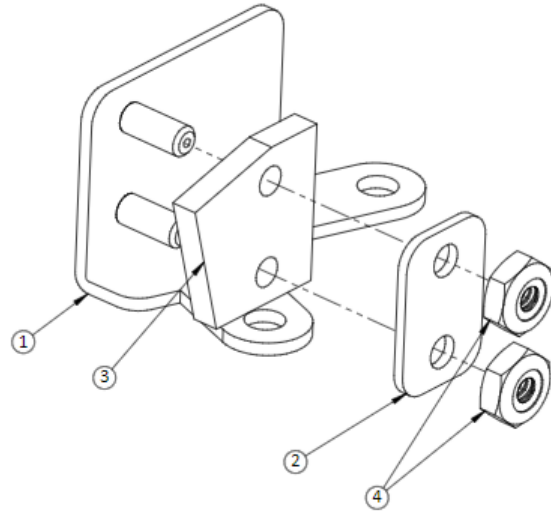
Item	Part Number	Description	Qty
1	30-100061-00	Acrylic Guitar	1
2	10-100185-00	Bracket	1
3	91-000004-00	#4-40 Nylon Stop Nut	2
4	51-100130-00	LED Strip Assy	1
5	62-100022-37	Decal Bass SE	1

SPINNING GUITAR PICK ASSY
51-100066-00



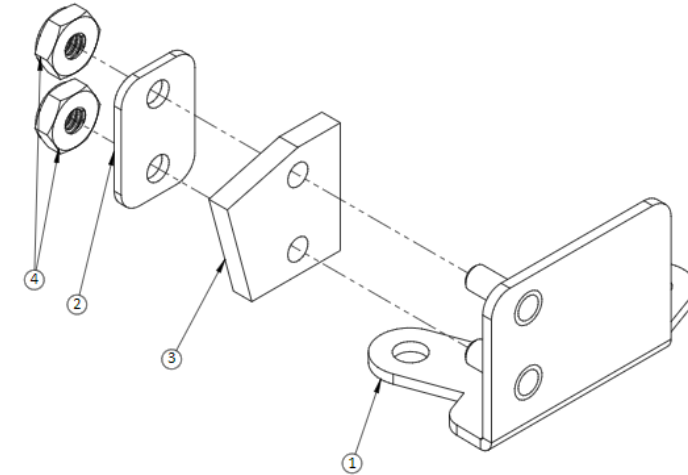
Item	Part Number	Description	Qty
1	10-100112-00	Spinner Brkt W/ LED	1
2	30-100037-00	Guitar Pick Spinner	1
3	18-005003-00	U Shaped OPTO	1
4	80-000004-05	#4-40 x 5/16" MS	2
5	15-100023-01	RGB W/ PCB Assy	1
6	80-000004-08	4-40 x 1/2" MS	1
7	19-000013-22R	MFJ Pins (Not Shown)	4
8	30-002011-04	MFJ Receptacle (Not Shown)	1
9	19-100046-00	Spinner Cable (Not Shown)	1
10	62-100015-00	Decal	1

SNUBBER SIDE BRACKET ASSY., LEFT
51-100065-00



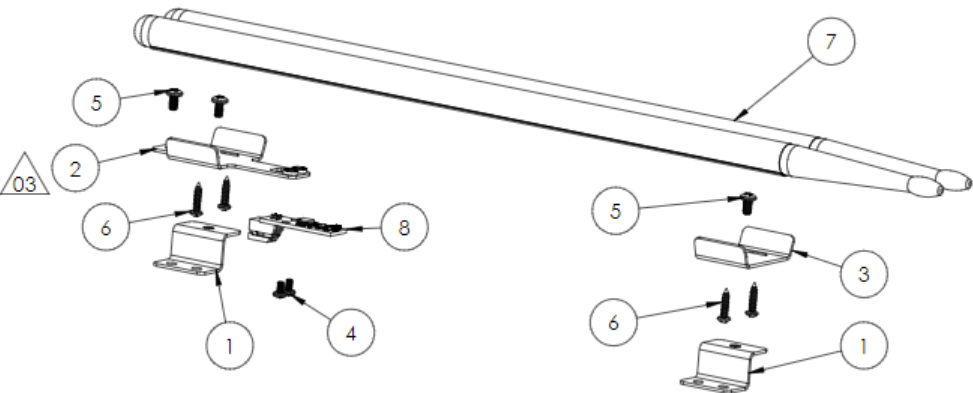
Item	Part Number	Description	Qty
1	10-100110-00	Snubber Brkt, Left	1
2	10-100113-00	Retaining Plate	1
3	25-100007-00	Snubber Block	1
4	91-000006-00	6-32 Nylon Stop Nut	2

SNUBBER SIDE BRACKET ASSY., RIGHT
51-100065-01



Item	Part Number	Description	Qty
1	10-100110-01	Snubber Brkt, Right	1
2	10-100113-00	Retaining Plate	1
3	25-100007-00	Snubber Block	1
4	91-000006-00	6-32 Nylon Stop Nut	2

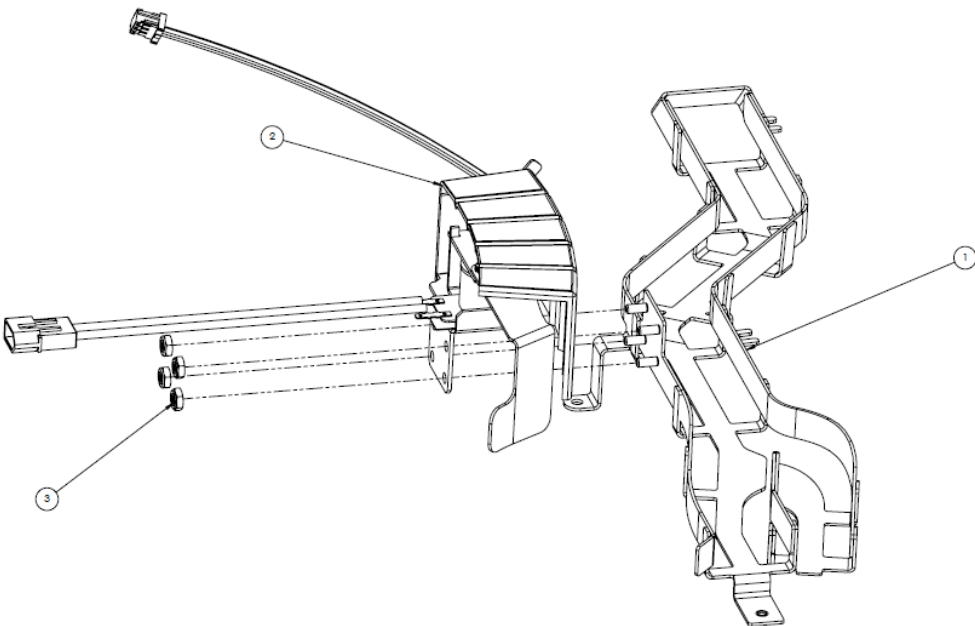
DRUMSTICK RAMP
51-100055-00 SE & LE
51-100055-01 CE



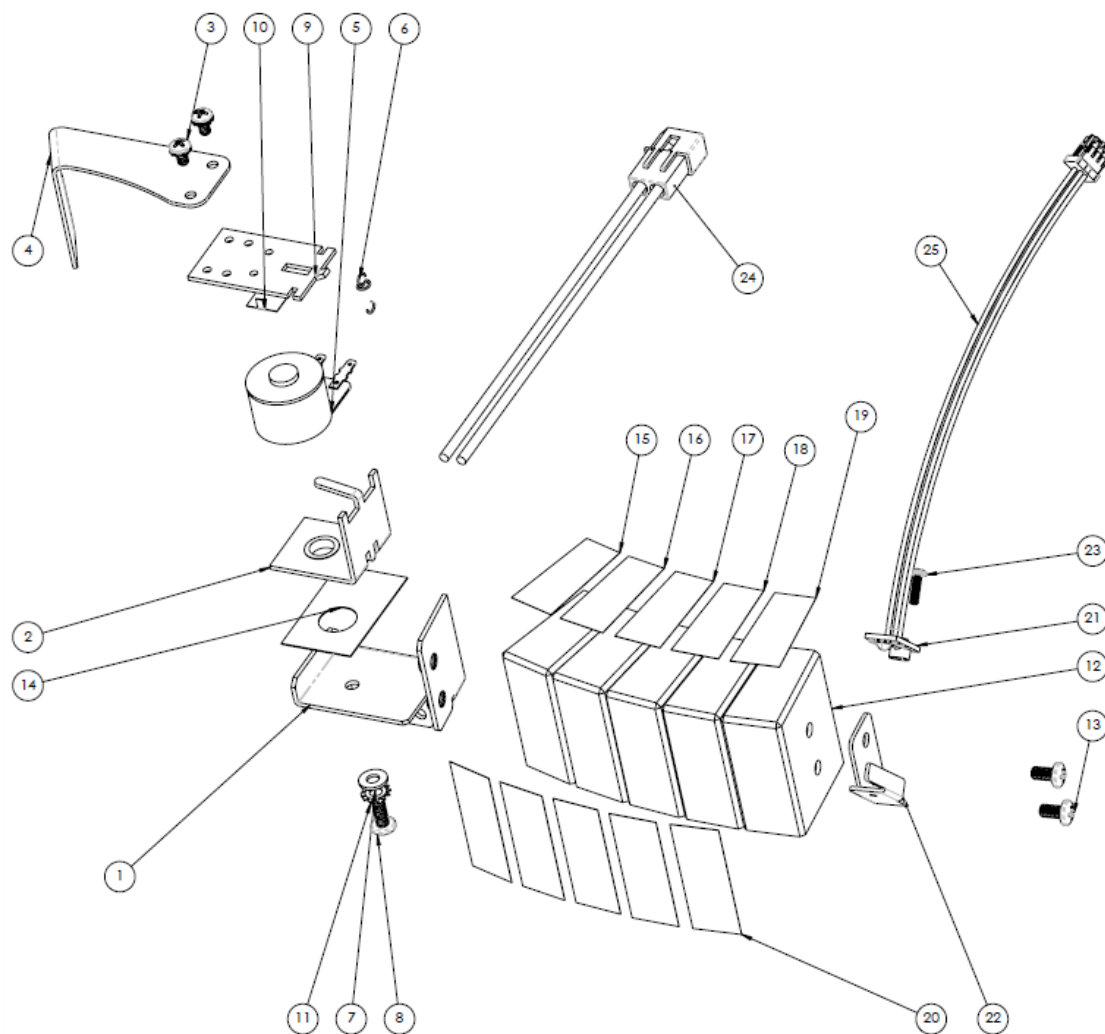
Item	Part Number	Description	Qty
1	10-100093-00	Lower Drumstick Brkt	2
2	10-100095-00	Front Upper Brkt	1
3	10-100094-00	Rear Upper Brkt	1
4	80-000004-03	#4-40 x 3/16" MS	2
5	80-000006-04	6-32 x 1/4" MS	3
6	82-000004-08	#4 x 1/2" MS	4
7	See Table	Drumstick W/ Mylar Decal	2
8	15-100024-02	Single Reflector OPTO BD	1
9	19-100101-00	Extension Cable	1

ITEM # 7	
SE & LE	51-100070-00
CE	51-100070-01

CATWALK RAMP ASSY
51-100142-00



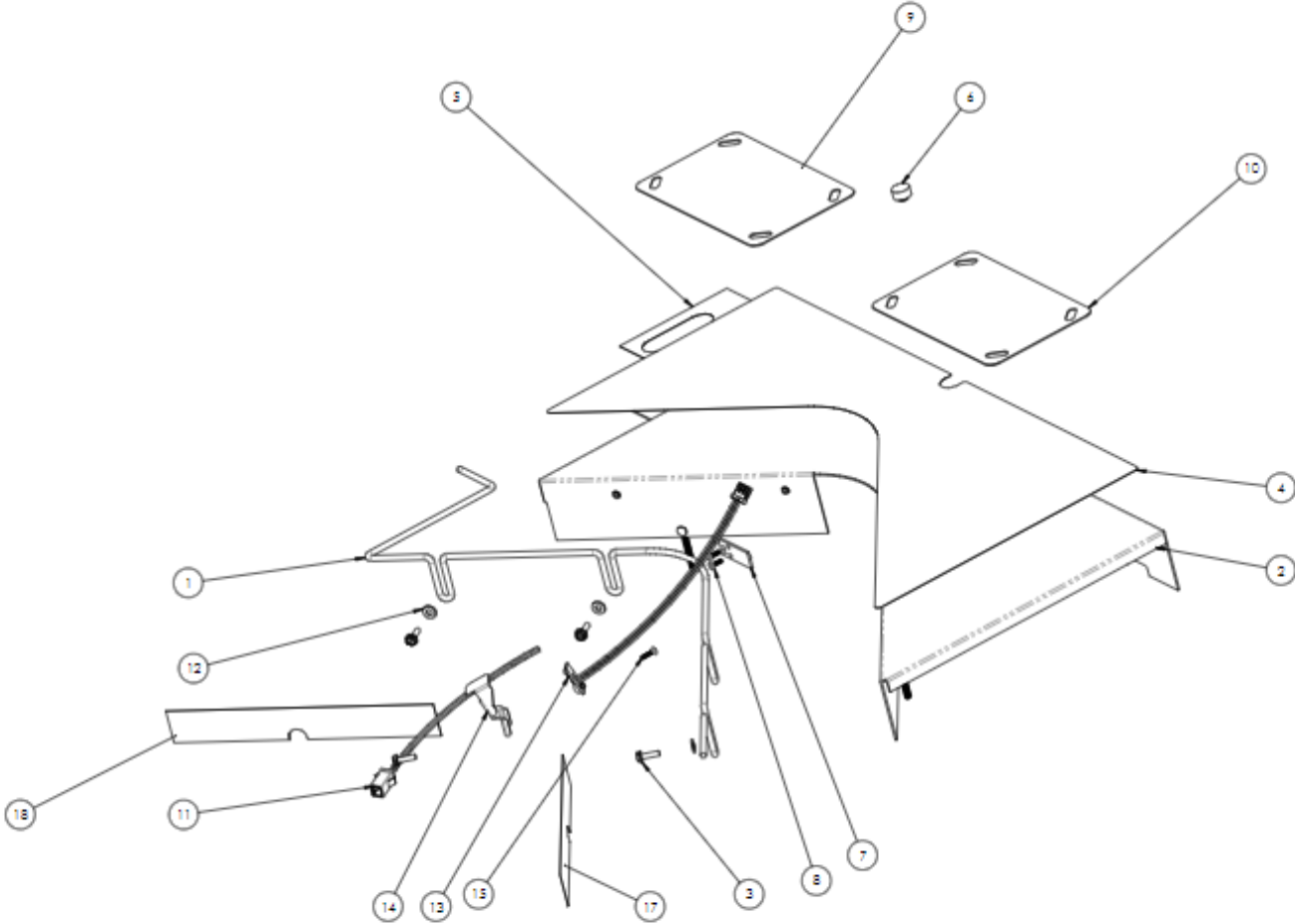
Item	Part Number	Description	Qty
1	10-100091-00	Cat Walk Ramp	1
2	51-100062-00	Cat Walk Diverter	1
3	91-000006-00	#6-32 Nylon Stop Nut	4



CATWALK DIVERTER

51-100062-00

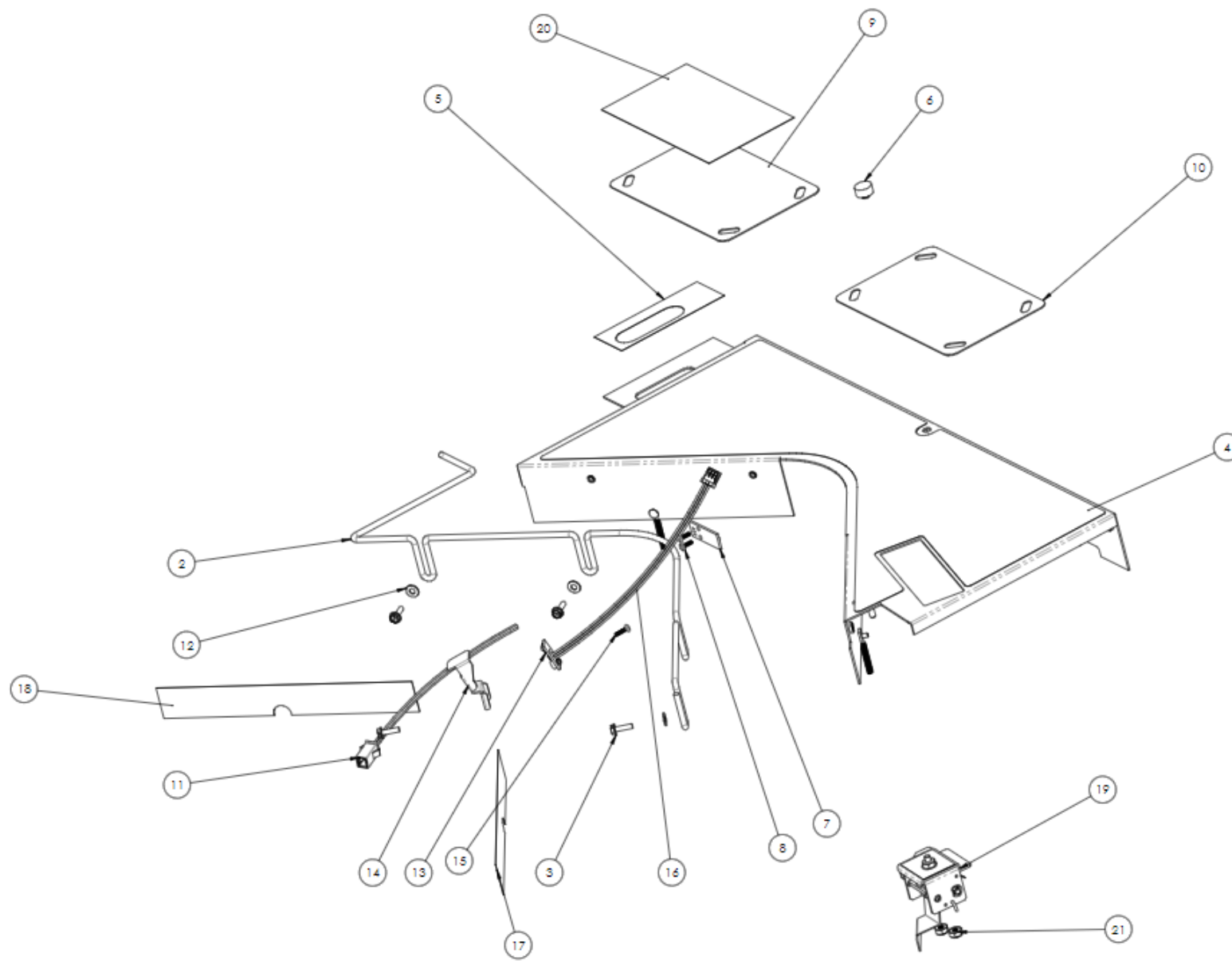
Item	Part Number	Description	Qty
1	10-100134-00	Mounting Bracket	1
2	10-000231-09	Trip Coil Frame	1
3	80-001006-04	#6-32 x 1/4" MS	2
4	10-100133-00	Diverter Guide	1
5	23-003008-01	26-600 Mini Coil Assy	1
6	13-007029-18	Spring 18 OZ	1
7	92-000308-00	#8 Flat Washer	1
8	80-000308-06	#8-32 x 3/8" MS	1
9	10-000213-06	Coil Armature Plate	1
10	10-000213-07	Residual Arnature Plate	1
11	92-003108-00	#8 Lock Washer	1
12	32-100006-00	Speaker Stack	1
13	80-000108-05	8-32 x 5/16" MS, Black	2
14	70-009001-01	Fish Paper	1
15	62-100018-28	Decal - NOT	1
16	62-100018-29	Decal - IN	1
17	62-100018-30	Decal - THIS	1
18	62-100018-31	Decal - LIFE	1
19	62-100018-32	Decal - TIME	1
20	62-100018-33	Decale - VERT	5
21	15-100023-01	RGB W/ PCB	1
22	10-100183-00	Bracket	1
23	80-000004-06	4-40 x 3/8" MS	1
24	19-100057-00	Coil Cable (Not Shown)	1
25	19-100100-24	RGB Cable	1



APRON SE & LE
52-100013-01 SE 52-100013-03 LE

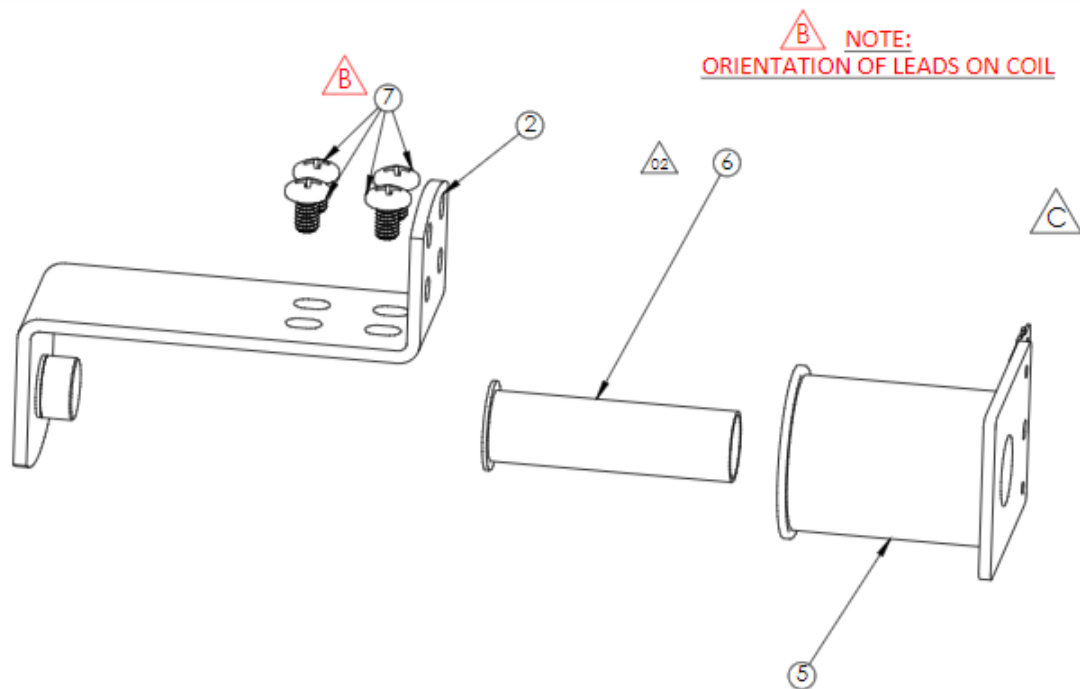
Item	Part Number	Description	Qty
1	13-100004-00	Arch Rail	1
2	10-100104-XX	Bottom Arch	1
3	80-002008-08	8-32 x 1/2" MS	4
4	SEE CHART	Decal Apron	1
5	62-100018-16	Decal Skill Shot	1
6	25-009014-00	Bottom Arch Rubber Plug	1
7	15-004328-00	Single RGB W/ PCB	1
8	80-000004-05	#4-50 x 5/16" MS	2
9	11-100032-00	Price Card	1
10	11-100032-01	Instruction Card	1
11	19-009038-06	Action Button LED Cable	1
12	92-000008-00	#8 Flat Washer	3
13	15-100023-01	RGB W/ PCB	1
14	10-100182-00	BRKT LED BD Tray	1
15	80-000004-06	4-40 x 3/8" MS	1
16	19-100100-24	RGB Floodlight Cable 24"	1
17	62-100019-09	Mylar Protector, Left	1
18	62-100019-03	Mylar Protector, Right	1

ASSEMBLY NUMBER	DESCRIPTION	COLOR	10-100104-XX	ITEM 4
52-100013-01	SE	BLACK	10-100104-01	62-100022-01
52-100013-03	LE	WILD COPPER	10-100104-02	62-100024-01

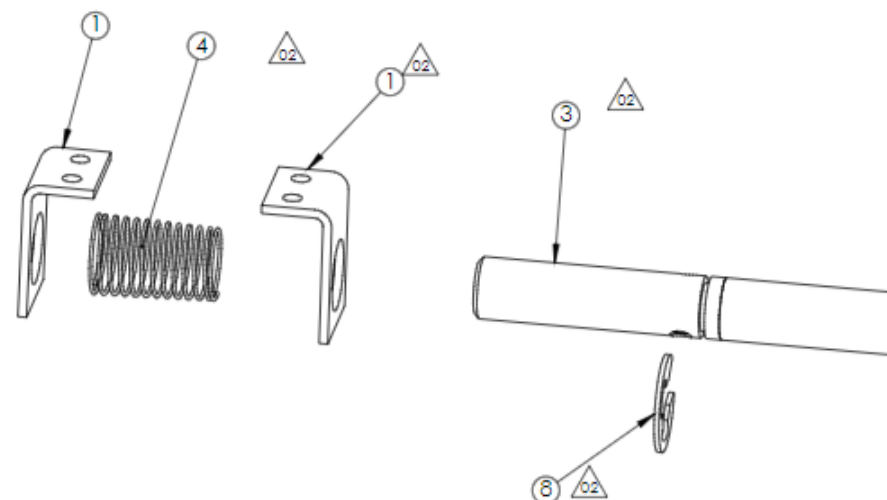


APRON CE 52-100016-00

Item	Part Number	Description	Qty
1	10-100188-01	Bottom Arch	1
2	13-100004-01	Wire Rail	1
3	80-002008-08	8-32 x 1/2" MS	4
4	62-100023-01	Decal Apron	1
5	62-100018-16	Decale Skill Shot	1
6	25-009014-00	Bottom Arch Rubber Plug	1
7	15-004328-00	Single RGB W/ PCB	1
8	80-000004-05	#4-50 x 5/16" MS	2
9	11-100032-00	Price Card	1
10	11-100032-01	Instruction Card	1
11	19-009038-06	Action Button LED Cable	1
12	92-000008-00	#8 Flat Washer	3
13	15-100023-01	RGB W/ PCB	1
14	10-100182-00	BRKT LED BD Tray	1
15	80-000004-06	4-40 x 3/8" MS	1
16	19-100100-24	RGB Floodlight Cable 24"	1
17	62-100019-09	Mylar Protector, Left	1
18	62-100019-08	Mylar Protector, Right	1
19	51-100075-03	Solenoid Gate Assy.	1
20	71-100007-00	CE Signature Card	1
21	91-000008-00	8-32 Nylon Stop Nut	2

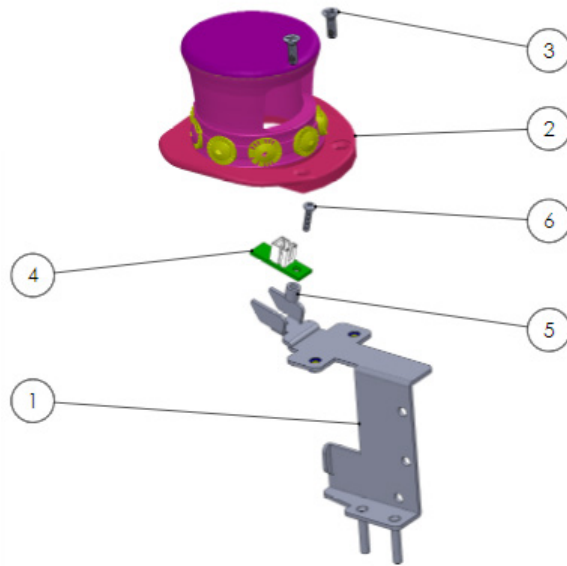


COMA BALL LOCK DOWN POST CE 51-100020-00



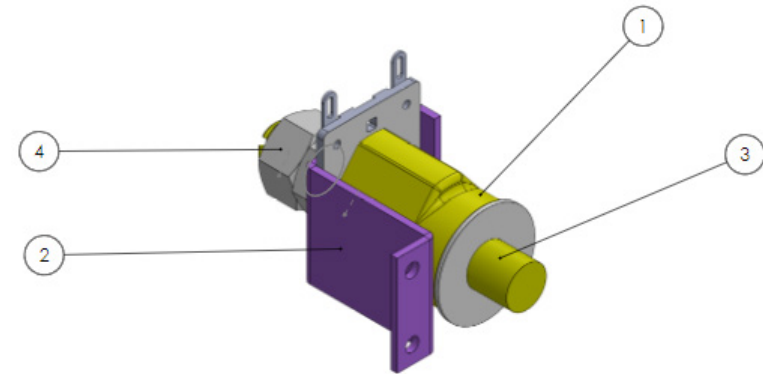
Item	Part Number	Description	Qty
1	10-007000-00	Coil Retaining Bracket	2
2	10-100060-00	Main Bracket	1
3	11-100015-00	Plunger	1
4	13-007004-00	Spring	1
5	23-000003-00	23-800 Coil	1
6	30-000014-28	1 3/4" Coil Sleeve	1
7	80-000008-04	8-32 x 1/4" MS	4
8	94-004011-14	E-Ring	1

HAT ASSY **51-100080-00**

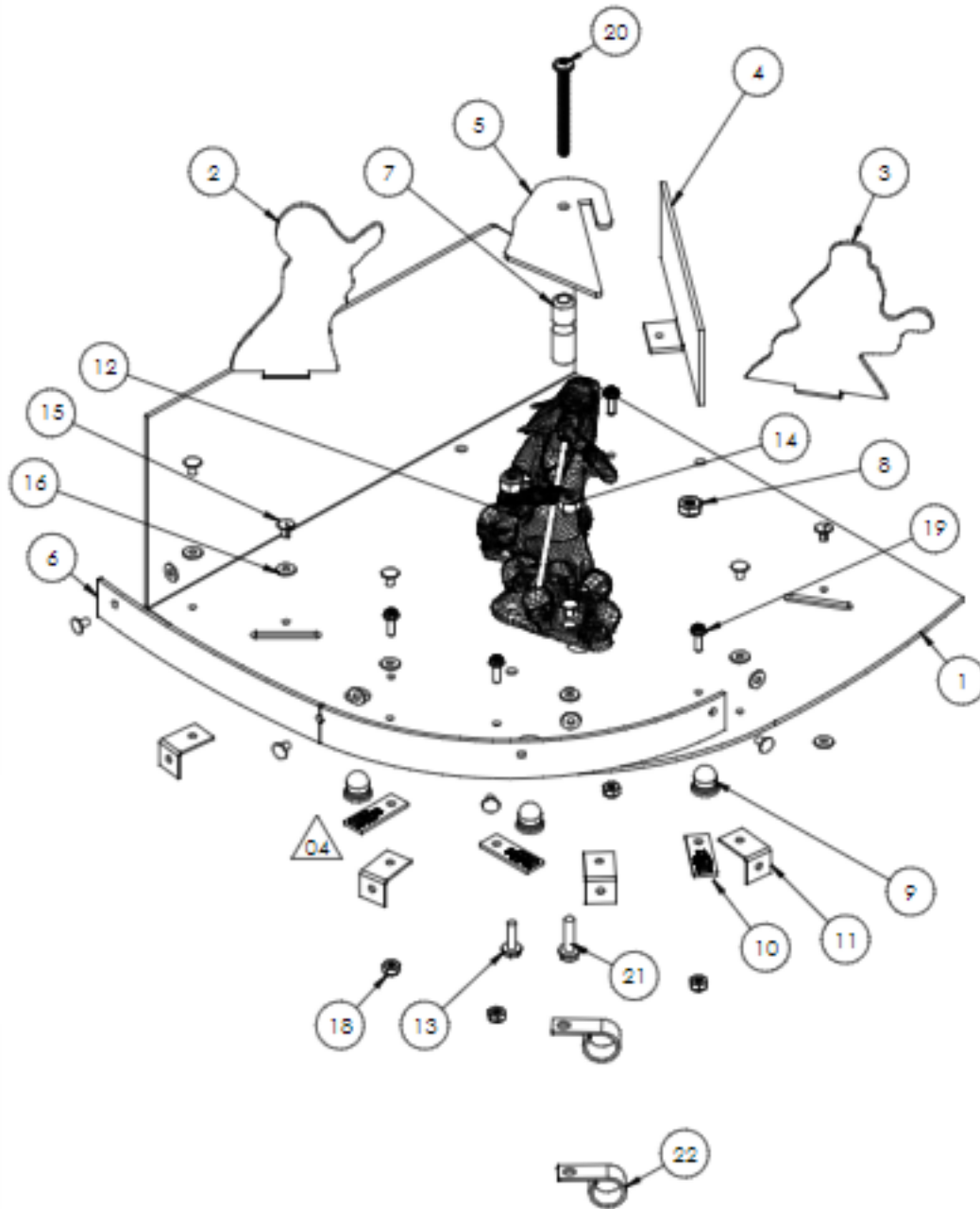


Item	Part Number	Description	Qty
1	10-100141-00	Bracket	1
2	32-100007-00	Hat	1
3	80-006308-08	8-32 x 1/2" MS	2
4	15-100008-00	RGB GI	1
5	30-100010-00	Spacer	1
6	82-000004-08	4-40 x 1/2" MS	1
7	19-100098-00	RGB GI Extension Cable	1
8	30-000051-04	4" Wire Tie	3

SINGLE COIL MAGNET **51-100012-00**

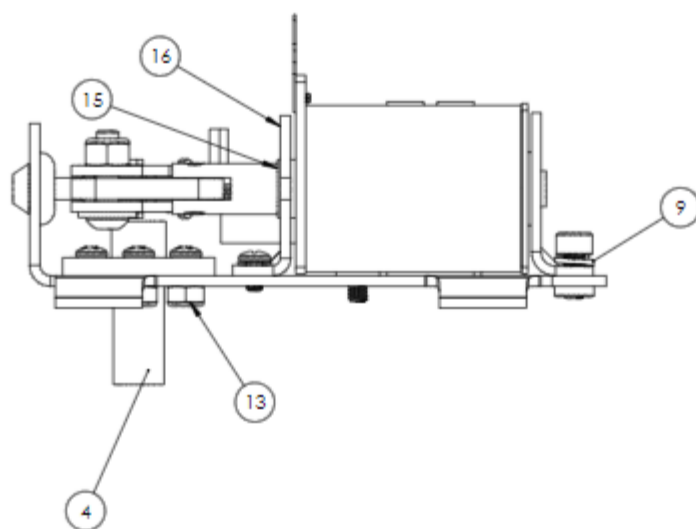
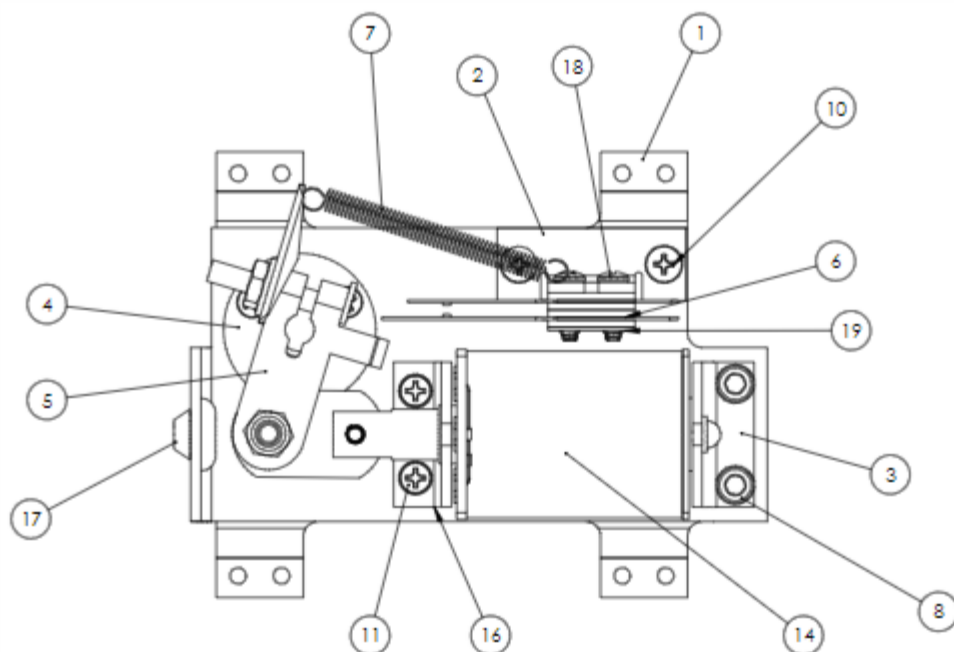


Item	Part Number	Description	Qty
1	23-100000-00	Coil	1
2	10-100035-00	Bracket	1
3	11-100008-00	Core	1
4	91-100000-00	Hex Nut	1



ROCK STAGE SE 51-100123-00

Item	Part Number	Description	Qty
1	30-100060-10	Stage Floor	1
2	30-100060-22	Duff Stand Up	1
3	30-100060-20	Slash Stand Up	1
4	30-100060-18	Ball Trap Verticle	1
5	30-100006-19	Ball Trap Horizontal	1
6	30-100060-17	Stage Front	1
7	30-009000-12	Clear Post	1
8	91-000008-00	8-32 Stop Nut	1
9	30-000034-03	Ramp Light Rod	4
10	15-100008-01	RGB GI	4
11	10-000227-01	Mounting Bracket	4
12	32-100008-00	AXL Sulpture	1
13	80-002008-08	8-32 x 1/2" MS	1
14	91-000108-00	8-32 Nylon Stop Nut	2
15	93-000000-00	1/8" x 7/32" Rivet	11
16	92-000004-00	#4 Flat Wasaher	11
17	19-100097-00	RGB GI Cable	1
18	91-000104-00	4-40 Nylon Stop Nut	4
19	80-002104-06	4-40 x 3/8" MS	1
20	80-000008-28	#8-32 x 1-3/4" MS	1
21	80-002008-10	#8-32 x 5/8" MS	1
22	30-000049-08	Cable Clamp, Open 1/2"	2

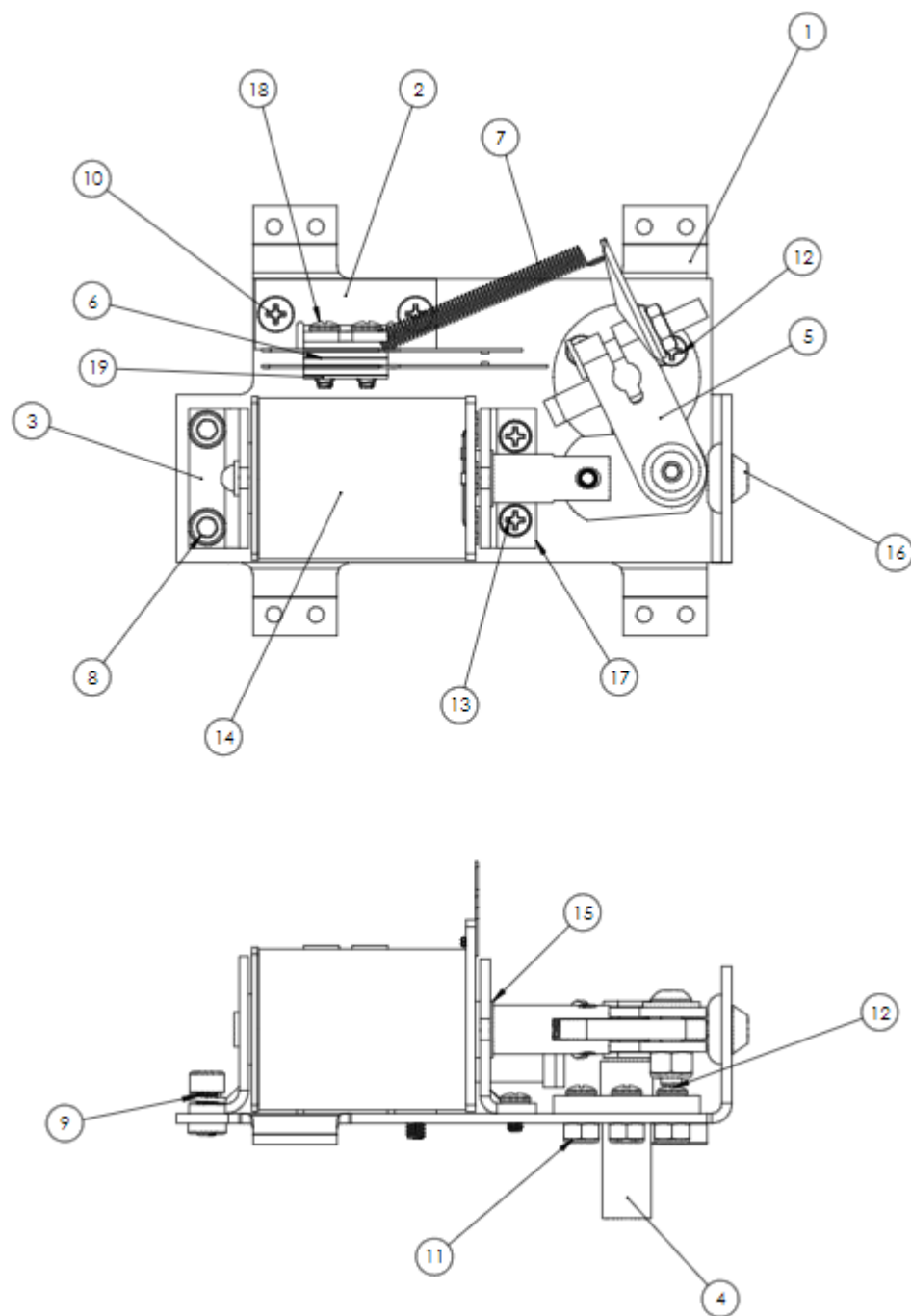


FLIPPER ASSEMBLY, RIGHT

52-000121-00 BOTTOM

52-000131-00 TOP

Item	Part Number	Description	Qty
1	10-005001-00	Base Plate, Right	1
2	10-000018-00	EOS Bracket	1
3	10-007001-00	Coil Stop	1
4	30-009002-00	Bushing	1
5	51-005018-00	Plunger, Pawl and Link, Right	1
6	18-000001-00	EOS Switch	1
7	13-007001-00	Return Spring	1
8	90-004010-06	10-32 x 3/8" Screw	2
9	92-001010-00	#10 Split Washer	2
10	80-000008-05	8-32 x 5/16" MS	2
11	80-001006-04	6-32 Nylon Stop Nut	2
12	80-000006-06	6-32 x 3/8" MS	3
13	91-000006-00	6-32 x 1/4" MS	3
14	23-002002-00	FL-11629 Top Flipper Coil	1
14	23-002003-00	FL-15411 Bottom Flipper Coil	1
15	30-000014-35	2-3/16" Coil Sleeve	1
16	10-007002-01	Centering Bracket	1
17	25-009001-00	Bumper Plug, Black	1
18	82-000006-08	#6 x 1/2" SMS	2
19	91-006000-00	Tinnerman Nut	1

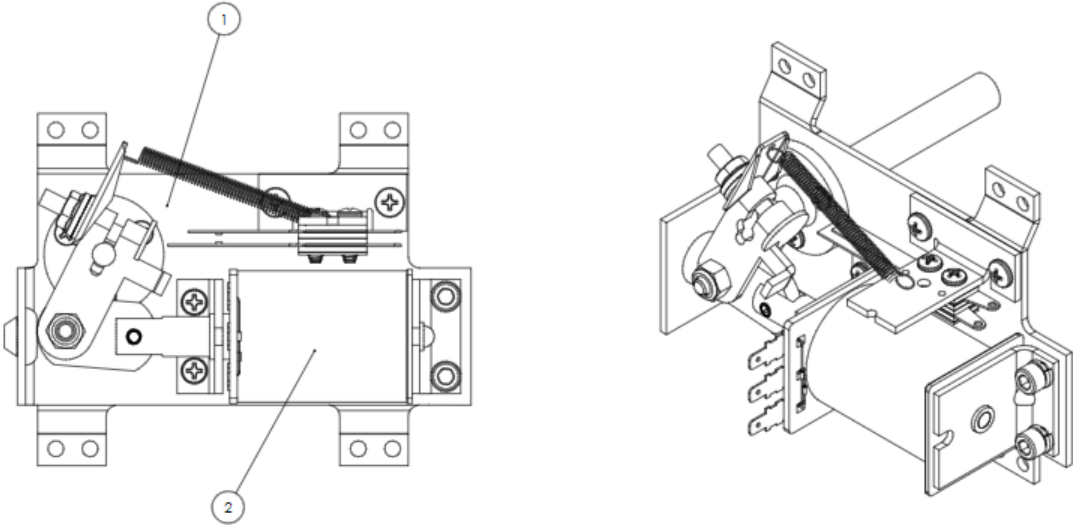


FLIPPER ASSEMBLY, LEFT 52-000132-00

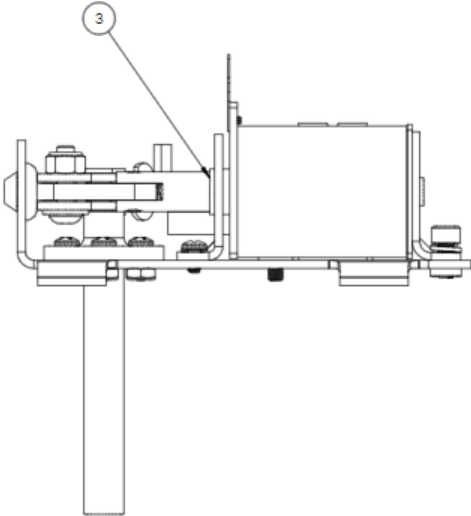
Item	Part Number	Description	Qty
1	10-005002-00	Base Plate, Left	1
2	10-000018-00	EOS Bracket	1
3	10-007001-00	Coil Stop	1
4	30-009002-00	Bushing	1
5	51-005018-01	Plunger, Pawl and Link, Left	1
6	18-000001-00	EOS Switch	1
7	13-007001-00	Return Spring	1
8	90-004010-06	10-32 x 3/8" Screw	2
9	92-001010-00	#10 Split Washer	2
10	80-000008-05	8-32 x 5/16" MS	2
11	91-000006-00	6-32 x 1/4" MS	2
12	80-000006-06	6-32 x 3/8" MS	3
13	80-001006-04	6-32 x 1/4" MS	2
14	23-002003-00	FL-15411 Top Flipper Coil	1
15	30-000014-35	2-3/16" Coil Sleeve	1
16	25-009001-00	Bumper Plug, Black	1
17	10-007002-01	Centering Bracket	1
18	82-000006-08	#6 x 1/2" SMS	2
19	91-006000-00	Tinnerman Nut	1

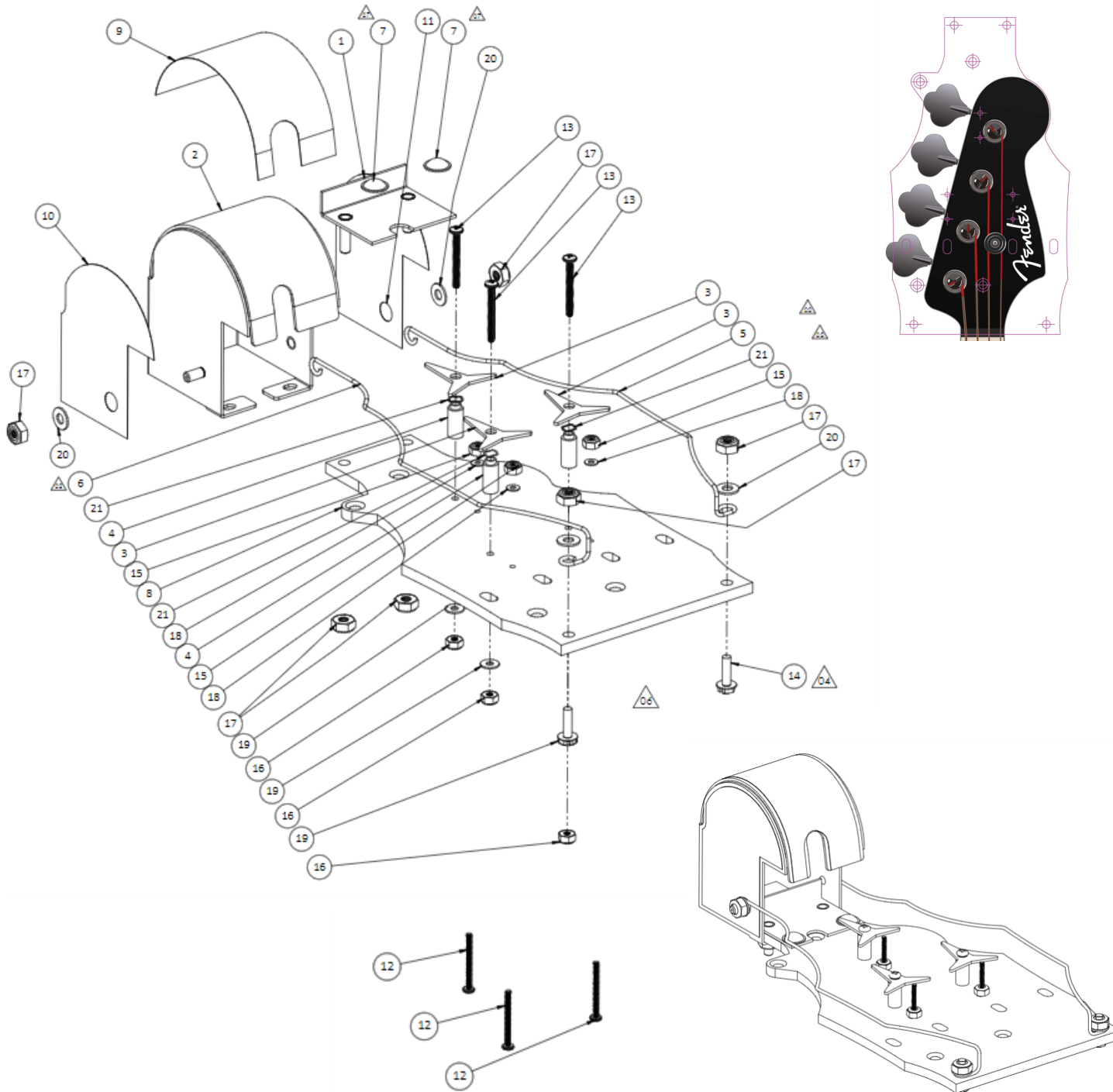
**UPPER PLAYFIELD FLIPPER ASSEMBLY RIGHT
LE & CE
52-000151-00**

Item	Part Number	Description	Qty
1	51-000001-4X	Extended Bushing	1
2	23-002000-00	FL-11722 Coil	1
3	30-000014-35	2 3/16: Coil Sleeve	1



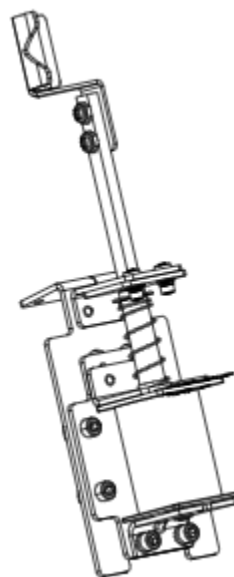
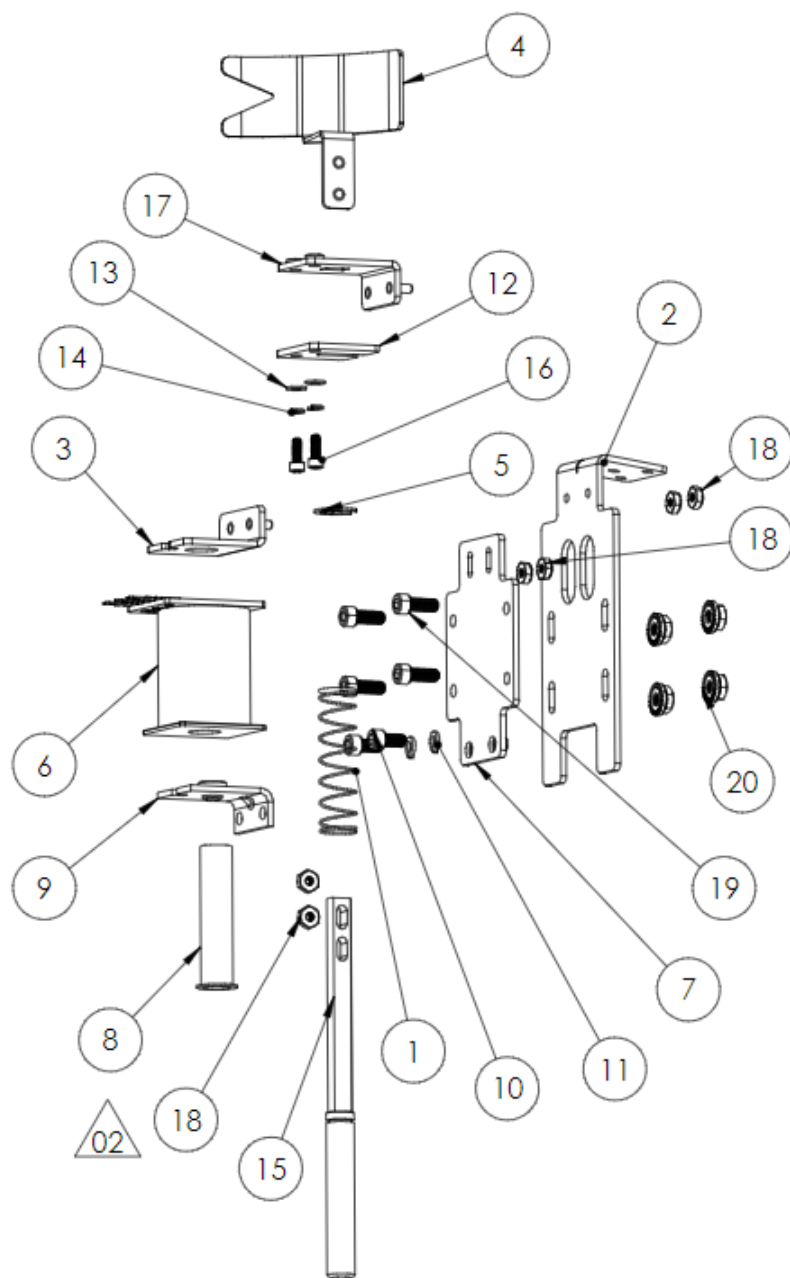
52-000151-00 - FLIPPER ASSEMBLY, RIGHT, EXTENDED BUSHING - (SHOWN)





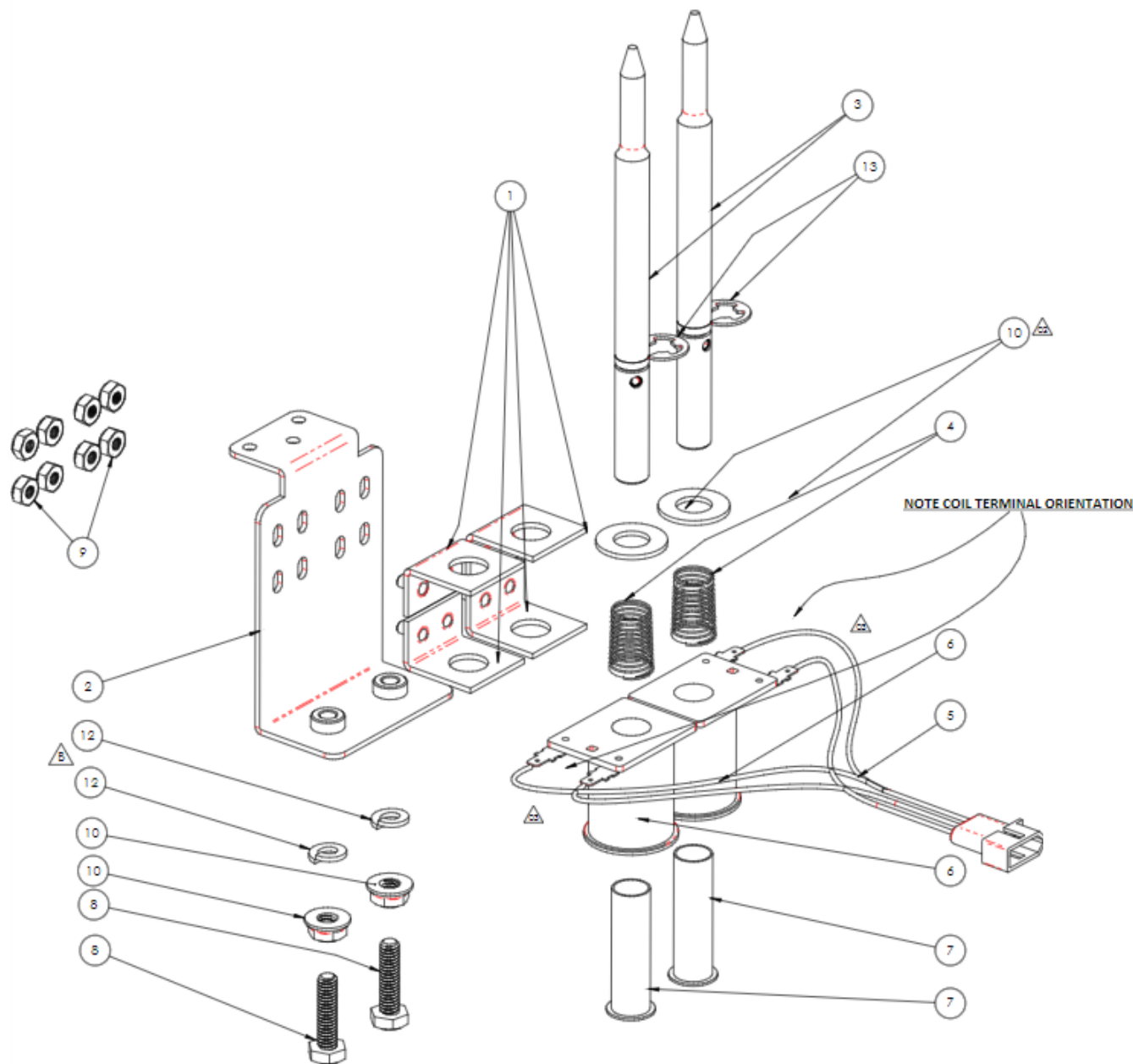
BASS HEAD ASSY LE & CE 52-100082-00

Item	Part Number	Description	Qty
1	10-100128-00	Mounting Plate	1
2	10-100129-00	Scoop	1
3	10-100138-00	Kinetic Diverter	3
4	11-100027-00	Post	3
5	13-100014-00	Right wireform	1
6	13-100015-00	Left Wireform	1
7	25-009009-00	Mylar Dots	2
8	30-100034-00	Bass Head	1
9	62-100018-05	Decal	1
10	62-100018-06	Decal	1
11	62-100018-07	Decal	1
12	80-000002-14	2-56 x 7/8" MS	3
13	80-000004-16	4-40 x 1" MS	3
14	80-002008-08	8-32 x 1/2" MS	2
15	91-000002-00	2-56 Nylon Stop Nut	3
16	91-000004-00	#4-40 Nylon Stop Nut	3
17	91-000008-00	8-32 Nylon Stop Nut	6
18	92-000002-00	#2 FLat Washer	3
19	92-000008-00	#4 Flat Washer	3
20	92-000008-00	#8 Flat Washer	4
21	92-001012-00	Wave Disc Spring	3



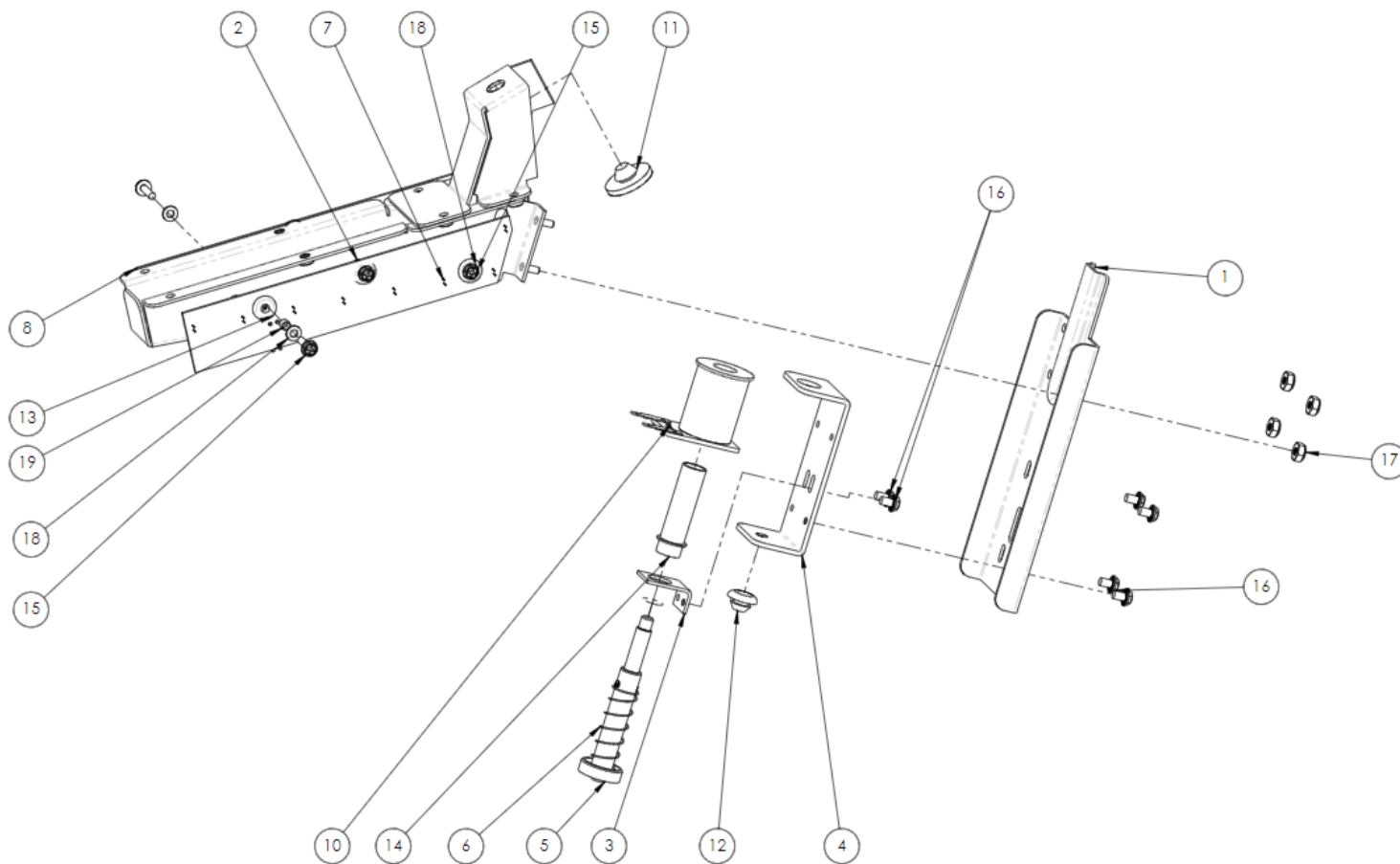
POPUP DIVERTER ASSY **LE & CE** **51-100063-00**

Item	Part Number	Description	Qty
1	10-1100018-00	Spring	1
2	10-100140-05	Main Bracket	1
3	10-100140-04	Soleniod Bracket	1
4	10-100140-01	Diverter	1
5	94-004011-14	E Ring	1
6	23-002000-00	FL-11722 Coil	1
7	10-100140-00	Adjustment Plate	1
8	30-000014-35	2 3/16" Coil Sleeve	1
9	10-007008-00	Coil Stop	1
10	90-004010-06	10-32 x 3/8" Screw	2
11	92-001010-00	#10 Split Lock Washer	2
12	10-100140-02	Jam Plate	1
13	92-000006-00	#6 Flat Washer	2
14	92-001006-00	#6 Split Washer	2
15	11-100028-00	Shaft	1
16	90-004006-06	6-32 x 3/8" Screw	2
17	10-100140-03	Guide Bracket	1
18	91-000006-00	6-32 Nylon Stop Nut	6
19	90-004010-08	10-32 x 1/2" Screw	4
20	91-002010-00	10-32 Flange Nut	4
21	19-100058-00	Cable (Not Shown)	1



DUAL UP DOWN POSTS **LE & CE** **52-100067-00**

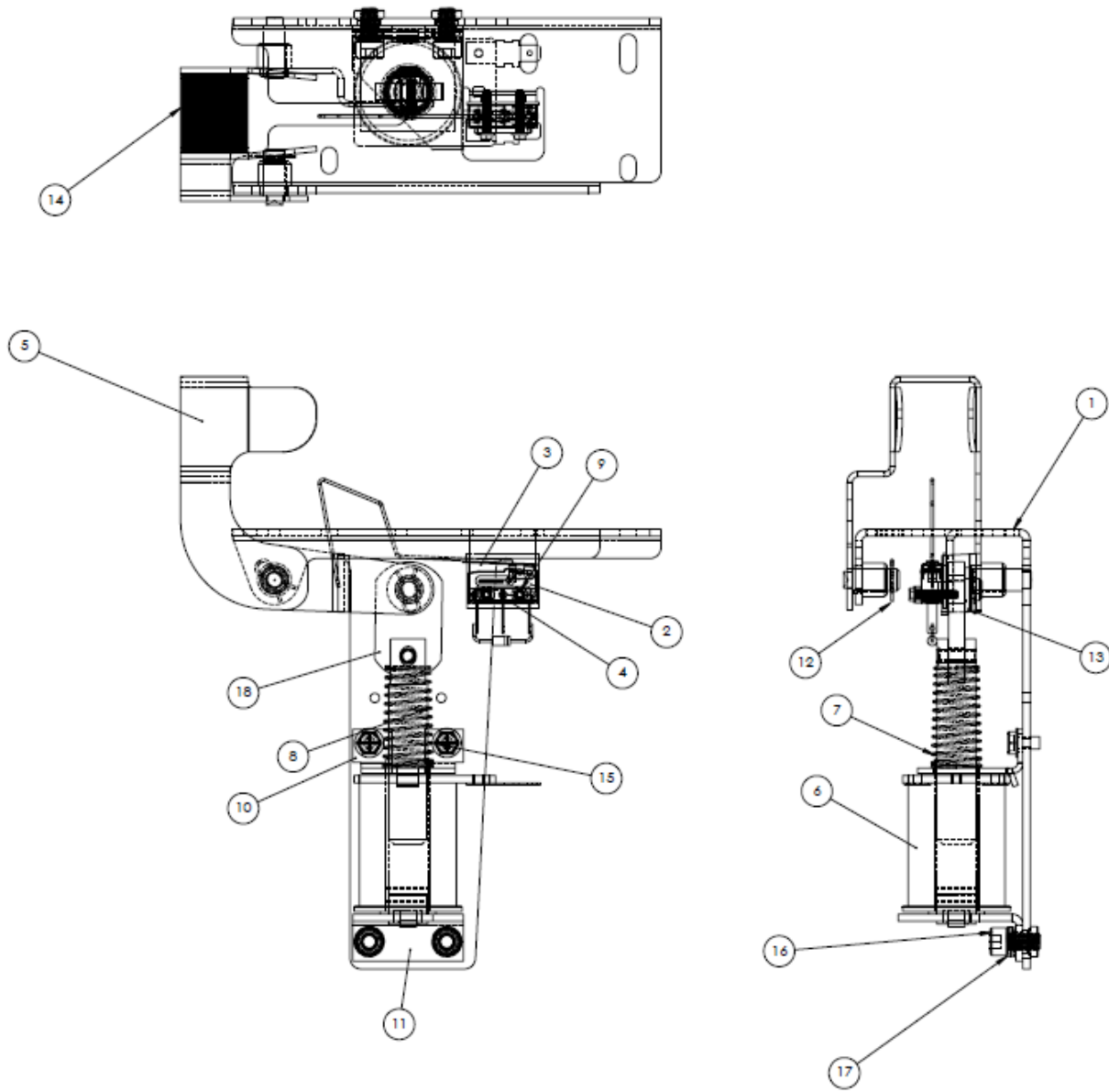
Item	Part Number	Description	Qty
1	10-007004-00	Centering Bracket	4
2	10-100115-00	Bracket	1
3	11-100023-00	Plunger	2
4	13-007004-00	Spring	2
5	19-100061-00	Coil Cable	1
6	23-000003-00	23-800 Coil	2
7	30-000014-28	1 3/4" Coil Sleeve	2
8	80-003025-16	1/4"-20 Hex Head Bolt	2
9	91-000008-00	8-32 Nylon Stop Nut	8
10	91-002025-00	#1/4"-20 Flange Nut	2
11	92-000044-02	7/16" Flat Washer	2
12	92-001025-00	1/4-20 Split Washer	2
13	94-004011-14	E Ring	2



6 - BALL TROUGH ASSY 51-100022-00

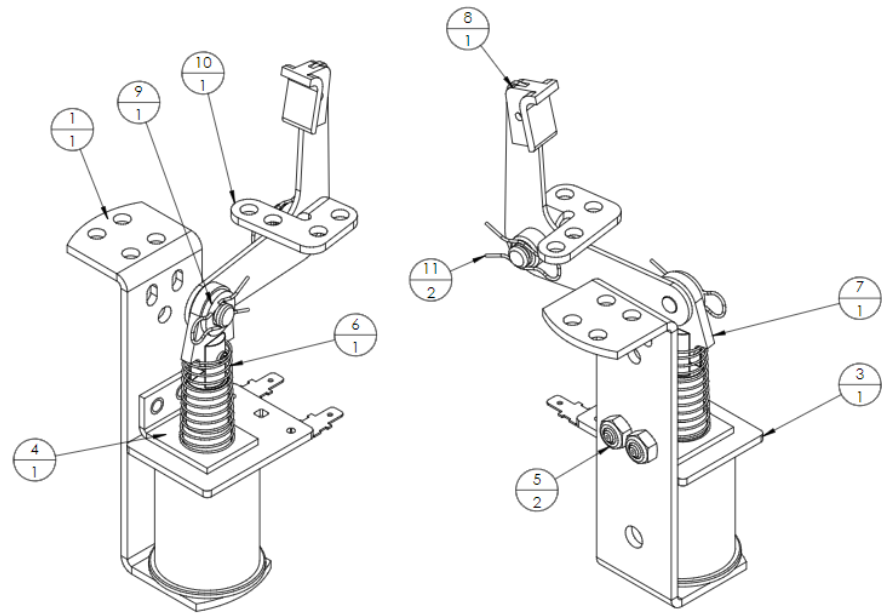
Item	Part Number	Description	Qty
1	10-005010-01	Coil Bracket	1
2	10-005010-00	Main Bracket	1
3	10-007000-00	Coil Retaining Bracket	1
4	10-007006-00	Coil Mounting Brkt	1
5	11-005012-00	Plunger Assy.	1
6	13-007005-00	Spring	1
7	15-100002-00	Transmitter Board	1
8	15-100004-00	Reciever Board	1
9	19-009019-00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

AUTO-LAUNCH ASSY
51-000026-00



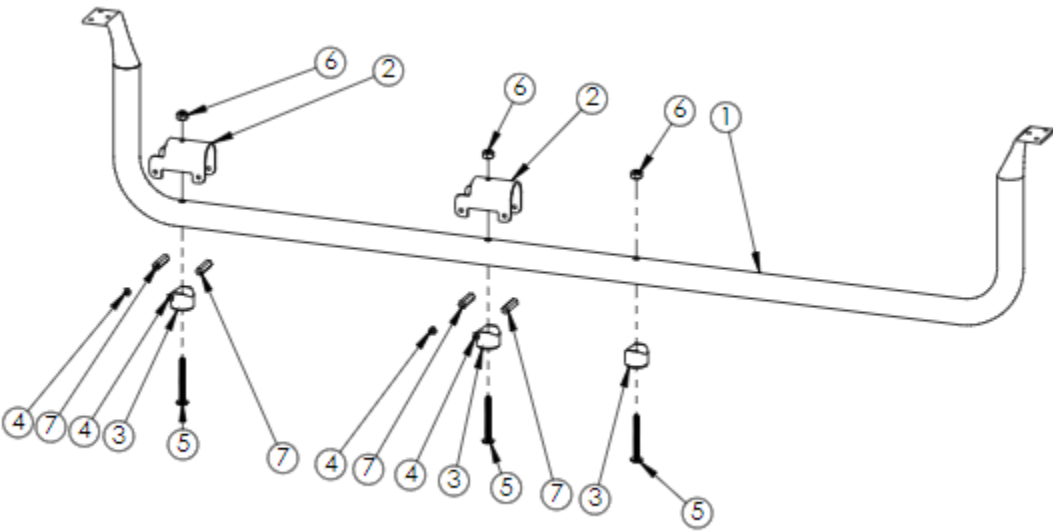
Item	Part Number	Description	Qty
1	10-005009-00	Coil Bracket	1
2	18-003001-00	Microswitch	1
3	70-009002-00	Fish Paper	1
4	10-000024-01	Protector Plate	1
5	10-000028-00	Crank Bracket	1
6	23-000003-00	23-800 Coil	1
7	30-000014-28	1 3/4" Coil Sleeve	1
8	13-007004-00	Spring	1
9	80-002102-08	2-56 x 1/2" MS	2
10	10-007009-00	Centering Bracket	1
11	10-007005-00	Coil Stop	1
12	13-009002-00	Hairpin Clip	2
13	95-002651-20-67	Flat Washer	1
14	62-000002-00	Decal	1
15	80-002006-04	6-32 x 1/4" MS	2
16	90-004010-06	10-32 x 3/8" CS	2
17	92-001010-00	#10 Split Lock Washer	2
18	11-005000-00	Plunger, Link Assy.	1

SLINGSHOT ASSY
51-000003-00



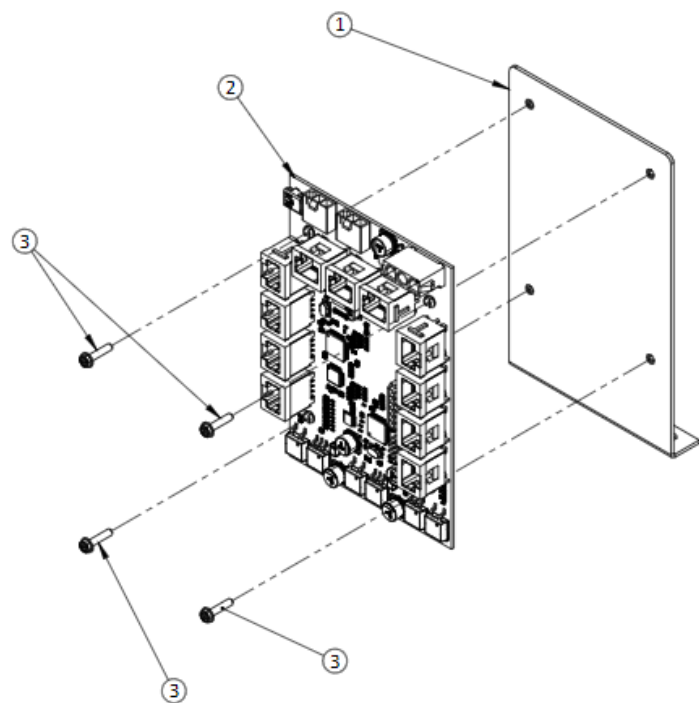
Item	Part Number	Description	Qty
1	10-005004-00	Coil Bracket	1
2	30-000014-28	2 1/16" Coil Sleeve	1
3	23-000003-00	23-800 Coil	1
4	10-007000-01	Centering Bracket	1
5	91-000006-00	6-32 Nylon Stop Nut	2
6	13-007004-00	Spring	1
7	11-005003-00	Plunger, Link Assy.	1
8	10-000042-00	Crank Assy.	1
9	95-002651-20-67	Flat Washer	1
10	10-000043-00	Crank Mounting Brkt	1
11	13-009002-00	Hairpin Clip	2

PLAYFIELD SUPPORT ASSY.
51-100001-00



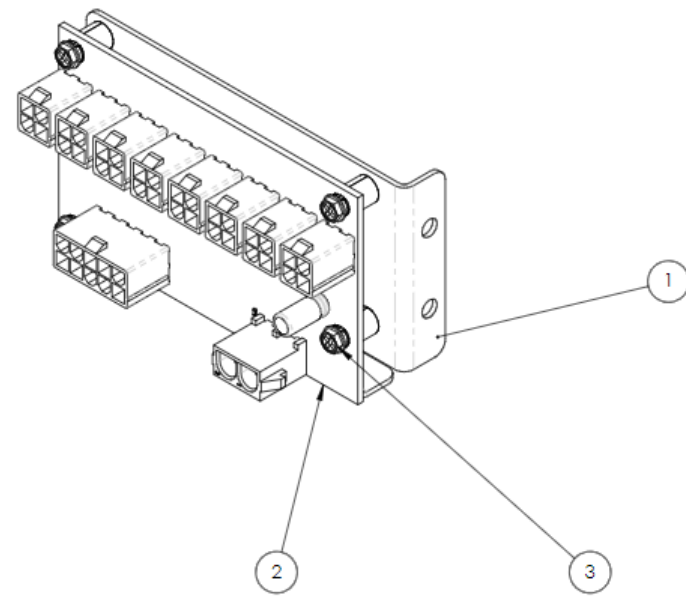
Item	Part Number	Description	Qty
1	10-000093-00	Support Tube	1
2	10-000280-00	Foot Bracket	2
3	25-009008-00	Rubber Spacers	1
4	80-000006-04	6-32 x 5/16" MS	8
5	80-007010-28	10-24 x 1 3/4" MS	3
6	91-000011-00	#10-24 Nylon Stop Nut	3
7	94-001406-16	#6-32 Female Hex Spacer	4

PLAYFIELD CONTROLLER BOARD ASSY
51-000103-05

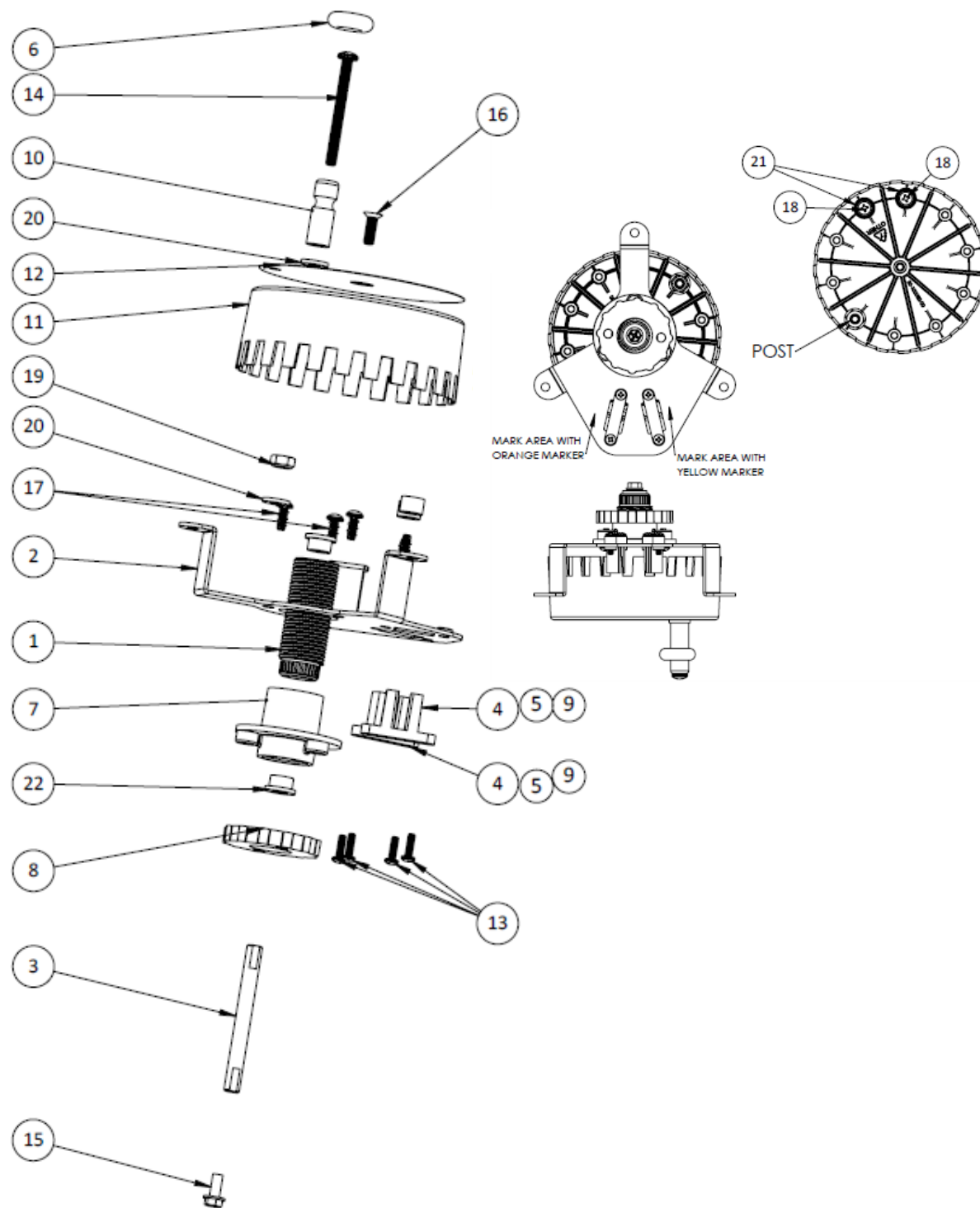


Item	Part Number	Description	Qty
1	10-005035-00	Mounting Bracket	1
2	15-100019-00	Playfield Controller Board	1
3	80-002104-08	4-40 x 3/8" MS	4

OPTO BOARD ASSY
52-100008-00

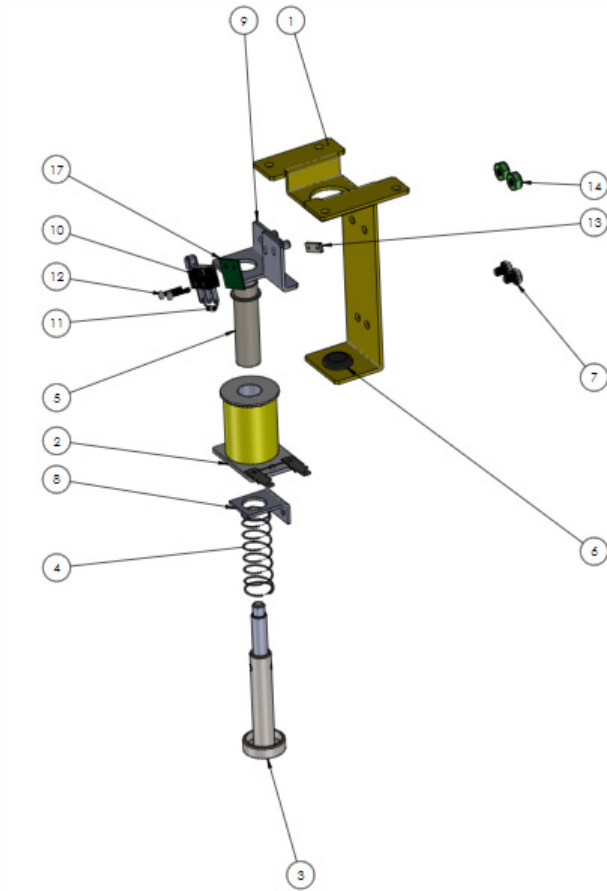


Item	Part Number	Description	Qty
1	10-005020-00	Mounting Bracket	1
2	15-100005-00	OPTO Board	1
3	80-002104-08	4-40 x 1/2" MS	4



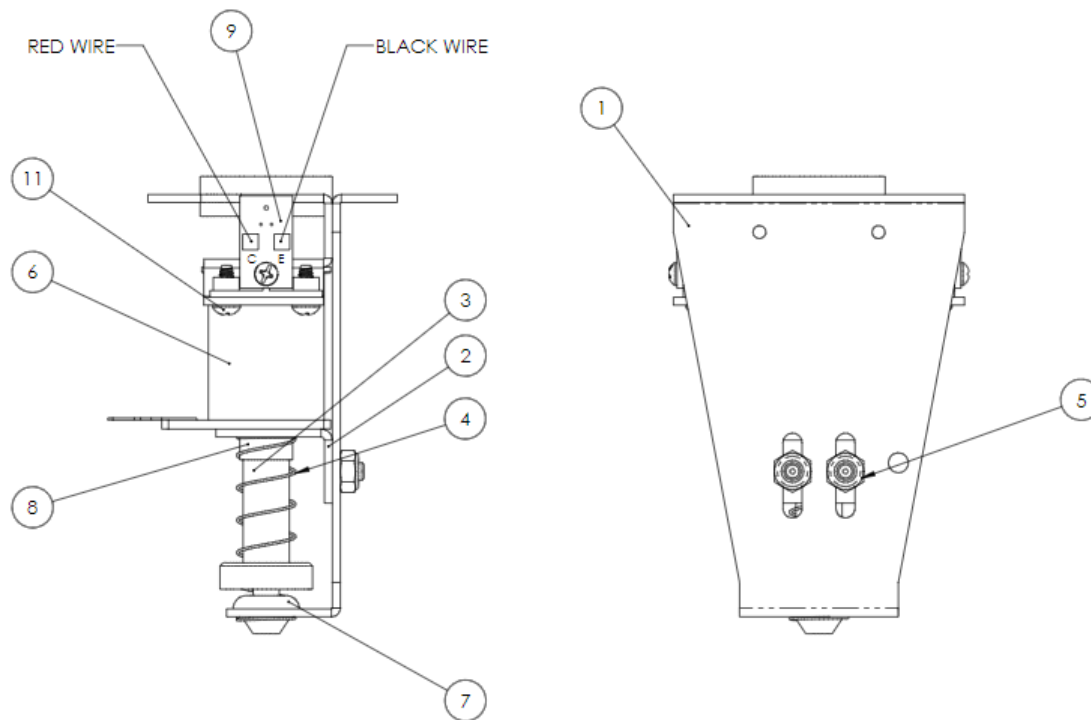
RECORD ASSEMBLY 51-100058-00

Item	Part Number	Description	Qty
1	10-000254-11	Height Adjustment Screw	1
2	10-100097-00	Bracket	1
3	11-100033-00	Shaft	1
4	18-005000-00	U-Shaped OPTO	2
5	19-000013-22R	Crimp Pin	8
6	25-002004-03-13	3/16" Mini Post Ring	1
7	30-000121-11	Bushing	1
8	30-000121-12	Jam Nut	1
9	30-002011-04	Cable Connector	2
10	30-009004-13	1 1/16" Clear Post	1
11	30-100032-00	Disk	1
12	62-100017-XX	Decal	1
13	80-000004-06	4-40 x 3/8" MS	4
14	80-000008-28	8-32 x 1 3/4" MS	1
15	80-002008-06	8-32 x 3/8" MS	1
16	80-006208-08	#8-32 x 1/2" MS	1
17	83-001008-06	#8 x 3/8" Screw TF	3
18	83-001008-08	#8 x 1/2" Screw TF	2
19	91-000008-00	8-32 Nylon Stop Nut	1
20	92-000008-00	#8 Flat Washer	2
21	94-003017-01	#8 Round Spacer	2
22	96-000003-04	Sleeve Bearing	2



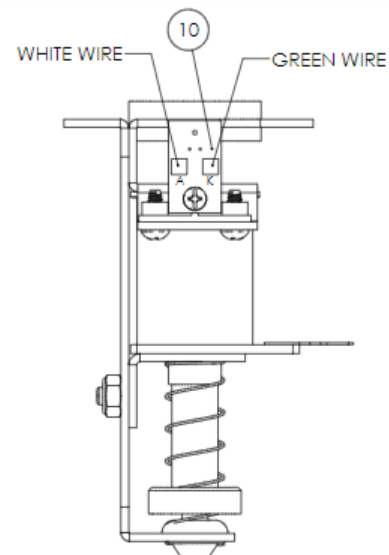
SAUCER VUK
51-100104-00

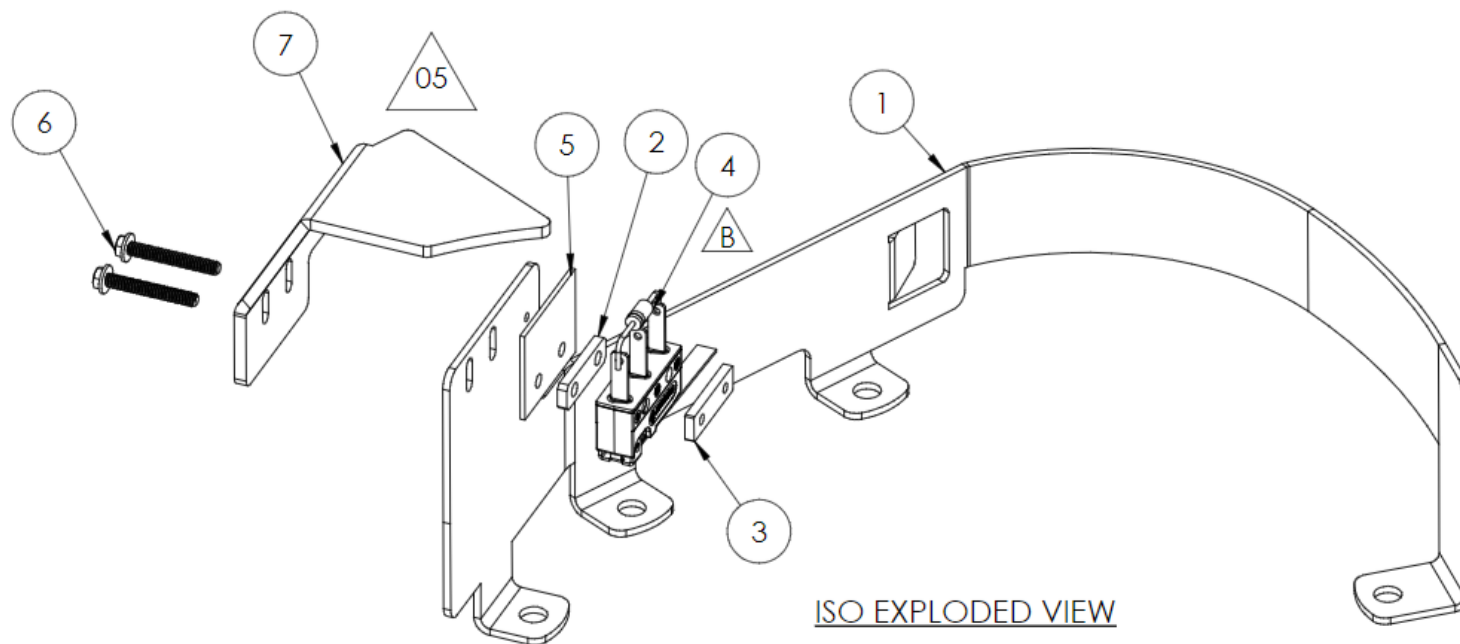
Item	Part Number	Description	Qty
1	10-100167-00	Bracket	1
2	23-000003-00	23-800 Coil	1
3	11-005012-00	Plunger	1
4	13-007002-00	Spring	1
5	30-000014-30-1	1 7/8" Coil Sleeve	1
6	25-009001-00	Bumper Plug, Black	1
7	80-001008-04	8-32 x 1/4" MS	2
8	10-007000-00	Centering Bracket	1
9	10-100167-01	Coil and Switch Bracket	1
10	18-003005-00	Rollover Switch	1
11	110-000002-OT	Diode 1N4401	1
12	80-000002-07	5-56 x 7/16" MS	2
13	10-000024-00	2-56 Nut Plate	1
14	91-000008-00	8-32 Nylon Stop Nut	2
15	19-100087-00	Coil Cable (Not Shown)	1
16	19-100090-00	Switch Cable (Not Shown)	1
17	70-009002-00	Fish Paper	1



VUK ASSY. LE & CE **51-000009-00**

Item	Part Number	Description	Qty
1	10-005005-00	Bracket	1
2	10-007004-00	Centering Bracket	1
3	11-005001-00	Plunger	1
4	13-007005-00	Spring	1
5	91-000008-00	8-32 Nylon Stop Nut	2
6	23-000003-00	23-800 Coil	1
7	25-009001-00	Bumper Plug, Black	1
8	30-000014-30-1	1 7/8" Coil Sleeve	1
9	Order Item 10	Part of #10	0
10	99-050013-00	OPTO Pair With Connector, 24"	1
11	83-000006-06	#6-32 x 3/8" MS	4





UPPER PLAYFIELD BALL GUIDE ASSY.

51-100183-00 LE

51-100083-01 CE

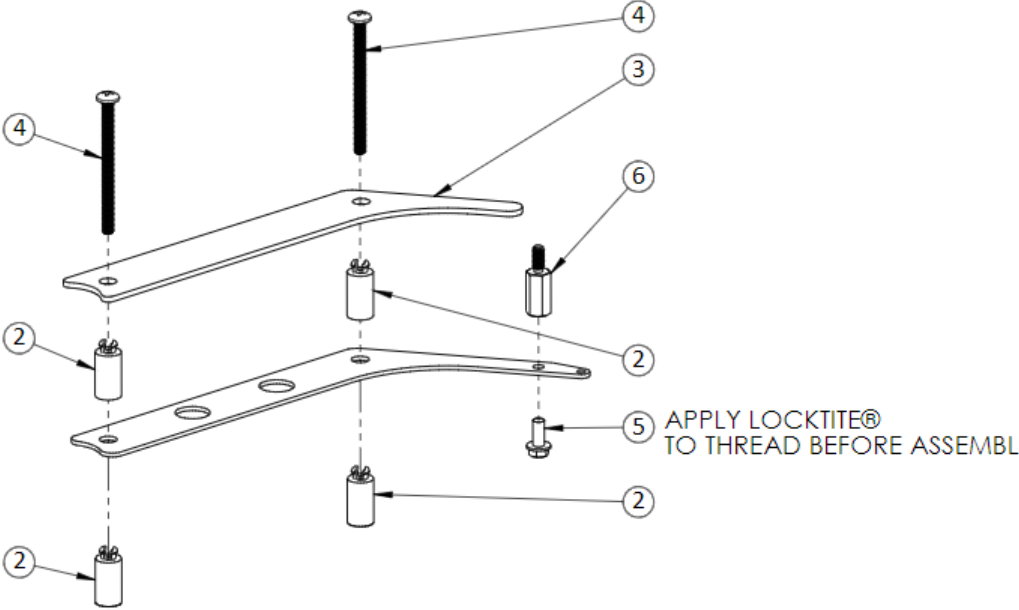
Item	Part Number	Description	Qty
1	12-100026-03	Ball Guide	1
2	10-000024-01	Protector Plate	1
3	10-000024-00	Nut Plate	1
4	18-003003-00	Microswitch	1
5	70-009002-00	Fish Paper	1
6	80-002002-10	2-56 x 5/8" MS	2
7	See Table	Ball Trap Plastic	1

ITEM # 7	
LE	30-100048-18
CE	30-100057-18

LEFT RETURN LANE ASSY.

51-100106-00 SE & LE

51-100147-00 CE



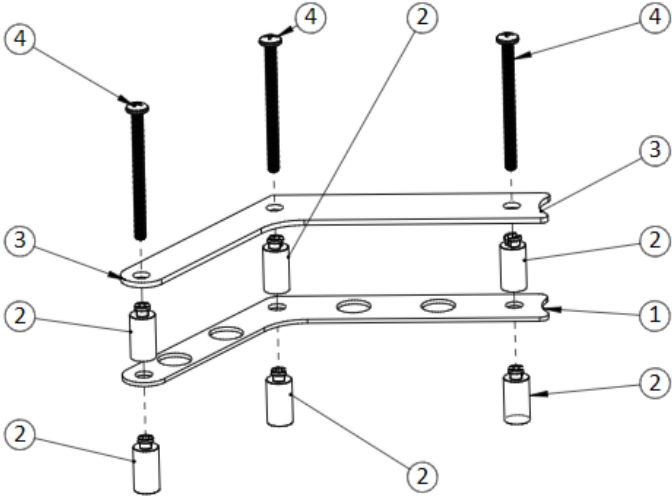
Item	Part Number	Description	Qty
1	12-100025-06	Flatrail Left Lane	1
2	30-000083-04	Spacer	4
3	See Table	Left Flipper Guide	1
4	80-000008-32	#8-32 x 2" MS	2
5	80-002008-06	8-32 x 3/8" MS	1
6	95-001518-10	5/16" Female Hex Spacer	1

ITEM # 3	
SE and LE	30-100048-02
CE	30-100057-02

RIGHT RETURN LANE ASSY.

51-100106-01 SE & LE

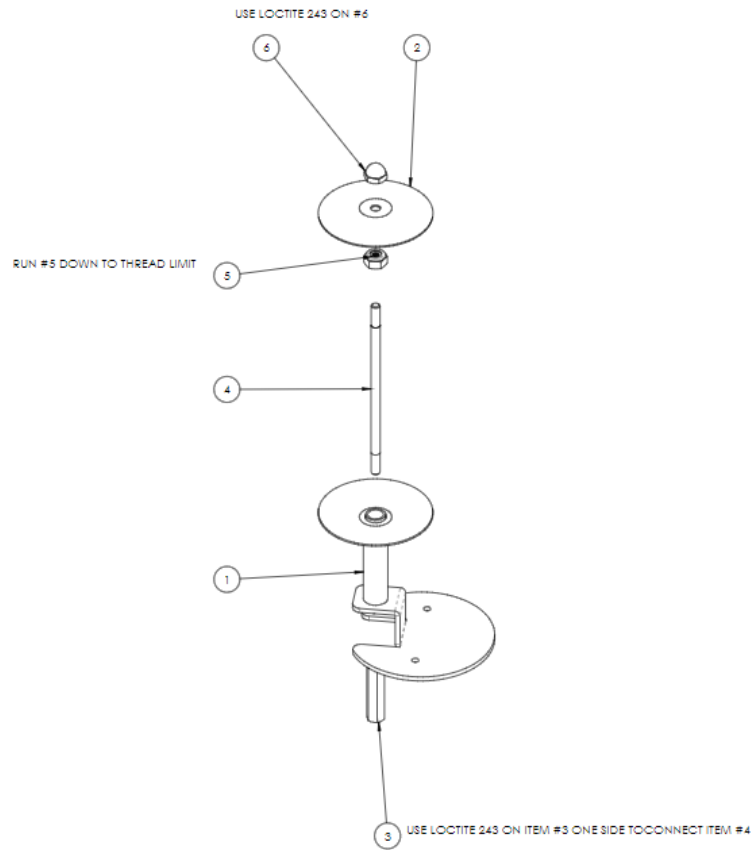
51-100127-01 CE



Item	Part Number	Description	Qty
1	12-100025-07	Flatrail Right Lane	1
2	30-000083-04	Spacer	6
3	30-100048-03	Right Flipper Guide	1
4	80-000008-32	#8-32 x 2" MS	2

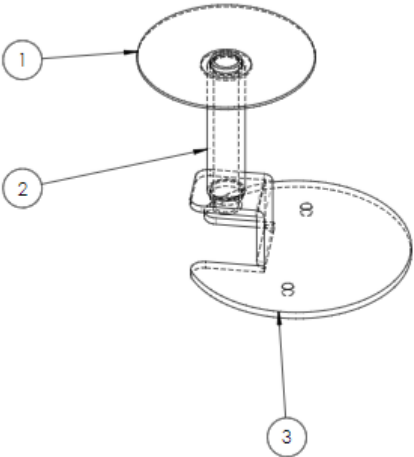
ITEM # 3	
SE and LE	30-100048-03
CE	30-100057-03

HIGH HAT ASSY. LE & CE
51-100092-00



Item	Part Number	Description	Qty
1	51-100086-00	Mounting Bracket	1
2	10-100146-00	Cymbal	1
3	94-000406-16	1/4" x 1" Hex Spacer 6-32	1
4	11-100029-00	Shaft	1
5	91-000006-00	6-32 Nylon Stop Nut	1
6	91-000206-00	6-32 Acorn Nut	1

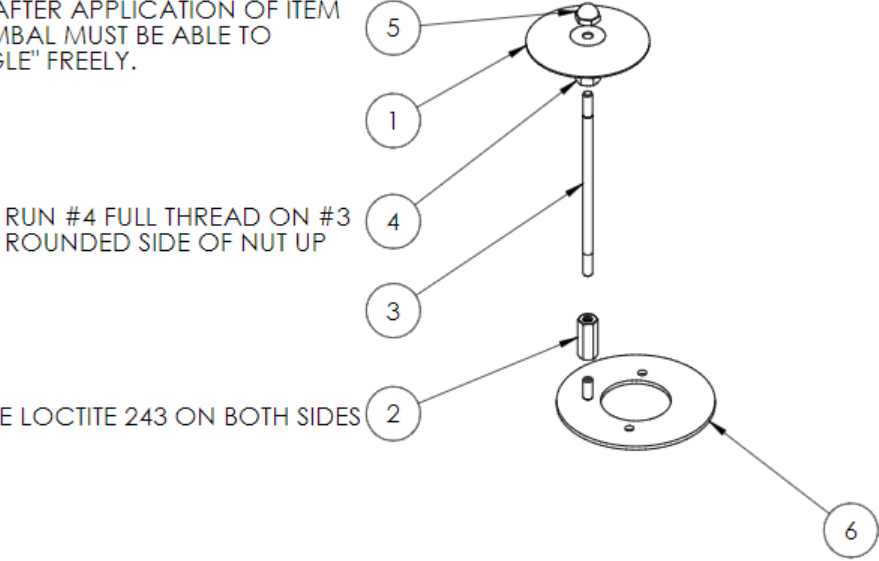
HIGH HAT MOUNTING BRACKET ASSY. LE & CE
51-100086-00



Item	Part Number	Description	Qty
1	10-100147-00	Bottom High Hat	1
2	11-100030-00	Spacer	1
3	10-100148-00	Mounting Bracket	1

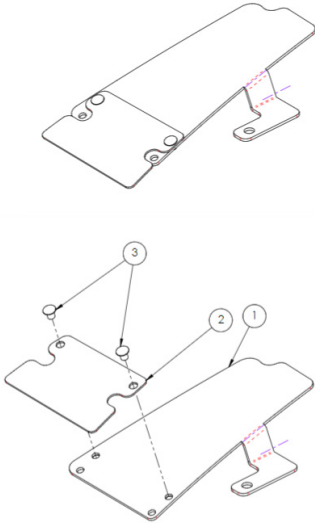
CYMBAL ASSY. LE & CE
51-100092-00

BLUE LOCTITE ON ITEM 5
NOTE THAT THERE SHOULD BE SOME
PLAY AFTER APPLICATION OF ITEM
5. CYMBAL MUST BE ABLE TO
"WIGGLE" FREELY.



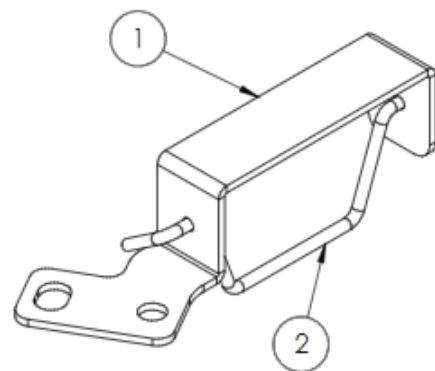
Item	Part Number	Description	Qty
1	10-100146-00	Cymbal	1
2	94-001406-10	1/4" x 5/8" Hex Spacer 6-32	1
3	11-100029-00	Shaft	1
4	91-000006-00	6-32 Nylon Stop Nut	1
5	91-000206-00	6-32 Acorn Nut	1
6	10-100149-00	Mounting Bracket	1

UPPER CENTER LOOP RAMP ASSY.
51-100076-00



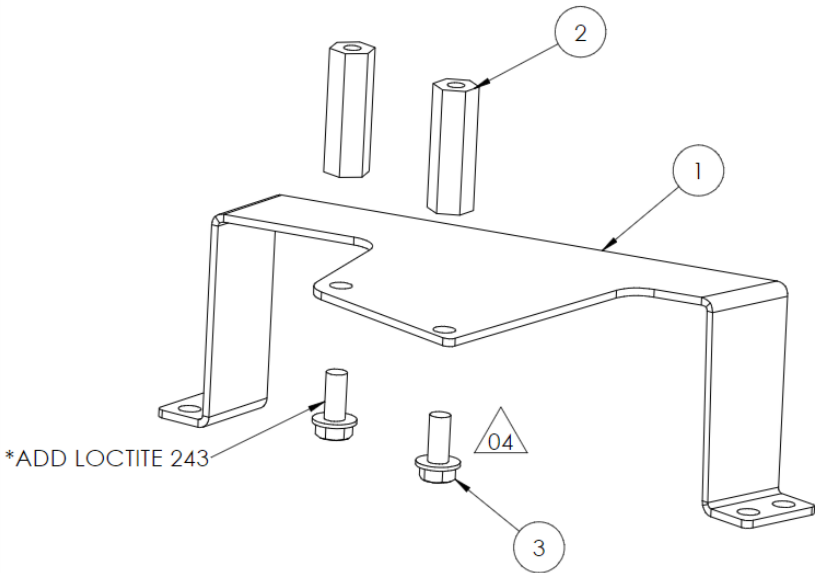
Item	Part Number	Description	Qty
1	10-100099-00	Upper Loop Ramp	1
2	11-100025-00	Transition Flap	1
3	93-000002-00	1/8" x 3-16" Rivet	2

RIGHT RAMP GATE ASSY.
51-100122-00



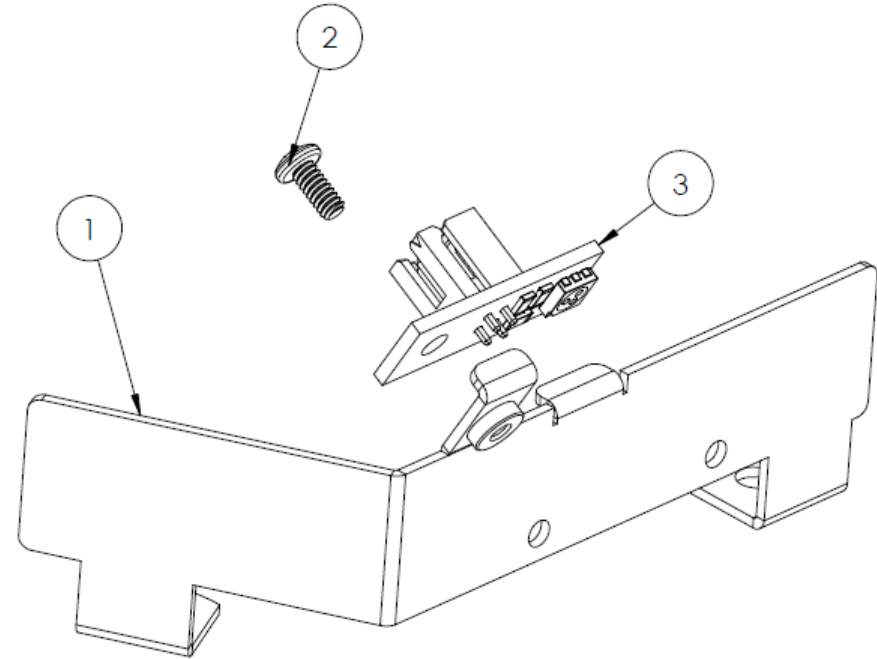
Item	Part Number	Description	Qty
1	10-100184-00	Right Ramp Gate Brkt	1
2	13-100021-00	Wire	1

LEFT RAMP PEAR MOUNT
51-100087-00



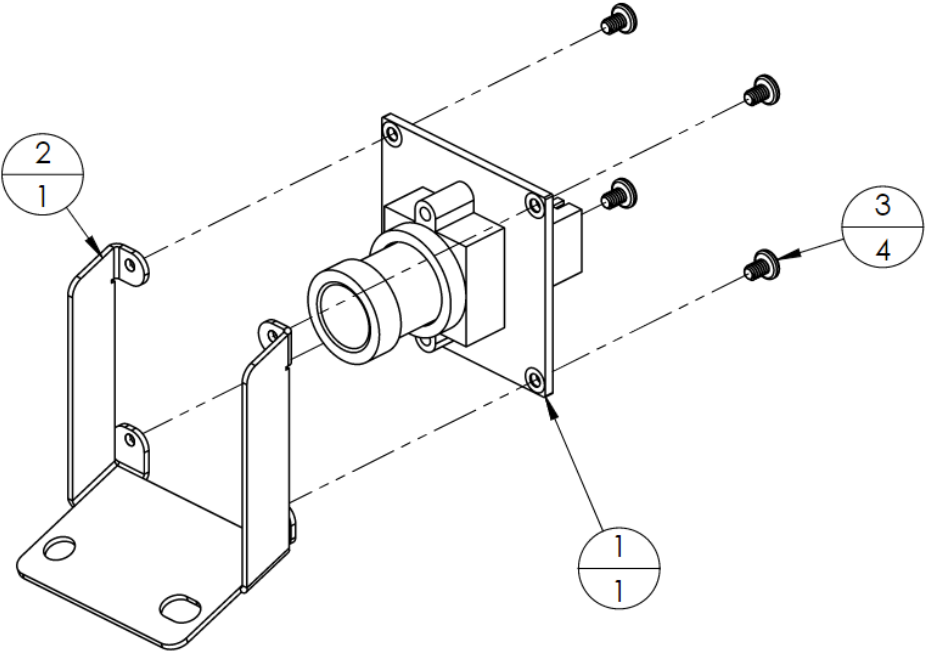
Item	Part Number	Description	Qty
1	10-100153-00	Mounting Bracket	1
2	95-001508-16	5/16" x 1" Hex Spacer 8-32	2
3	80-002008-06	8-32 x 3/8" MS	2

INNER BALL TROUGH ASSY. CE
51-100100-00



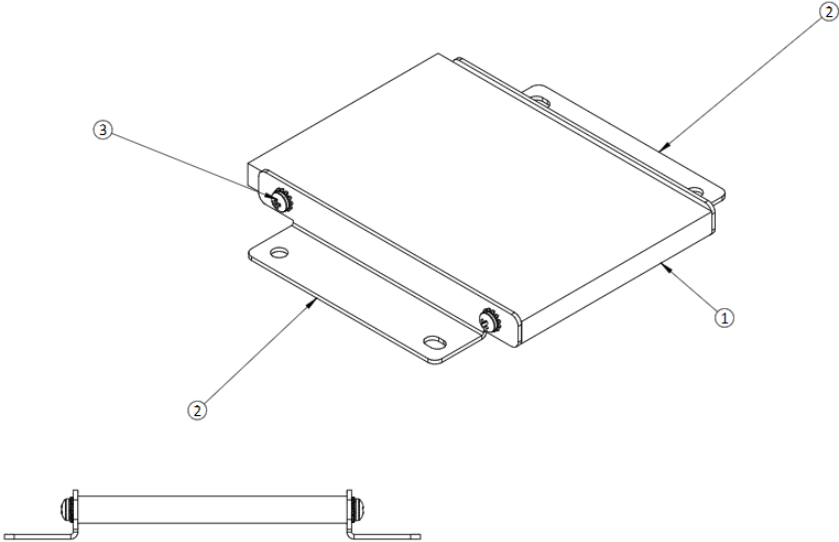
Item	Part Number	Description	Qty
1	12-100025-04	Flatrail	1
2	80-000004-04	4-40 x 1/4" MS	1
3	15-100008-00	RGB GI	1

USB CAMERA ASSY.
51-005041-00



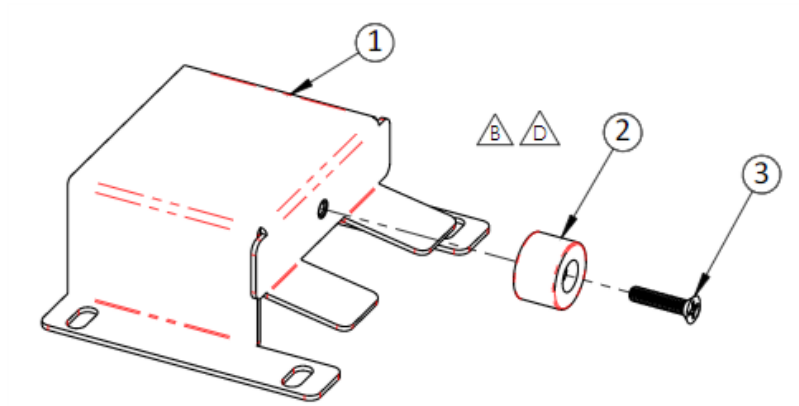
Item	Part Number	Description	Qty
1	15-115034-00	USB Camera, 1 MP, 720P	1
2	10-000226-00	Bracket	1
3	80-000002-04	2-56 x 1/4" MS	4

SSD BACKBOX MOUNT
51-005044-03

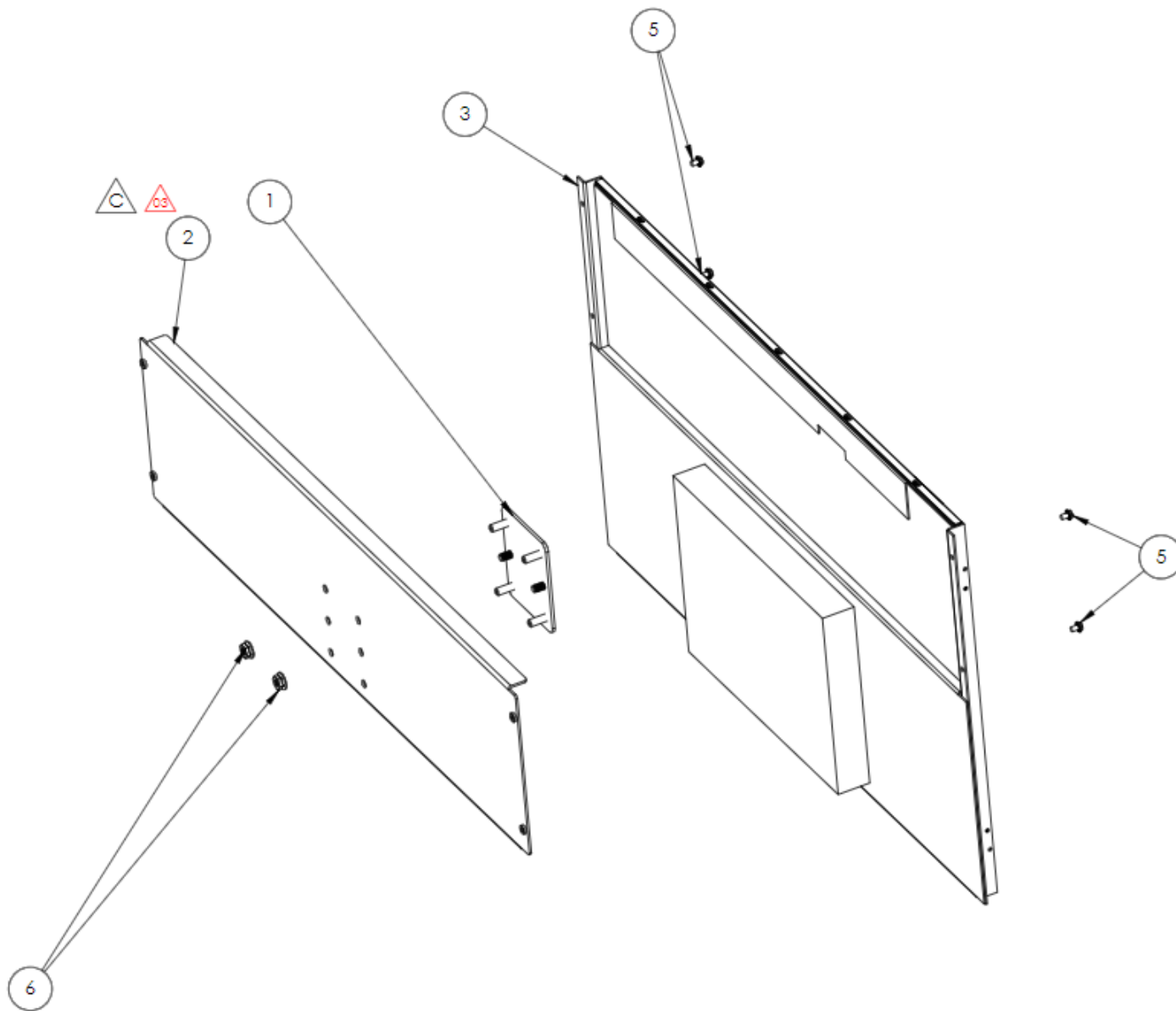


Item	Part Number	Description	Qty
1	15-000003-03	Solid State Drive	1
2	10-000209-00	SSD Mounting Bracket	2
3	80-001003-03	M3 x 5MM	4

MONITOR MAGNETIC LATCH
51-100050-00

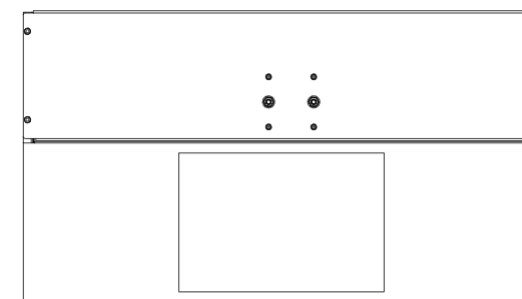


Item	Part Number	Description	Qty
1	10-100065-00	Bracket Screen Lock	1
2	23-100003-00	Magnet	1
3	80-006008-12	#8-32 x 3/4" MS	1

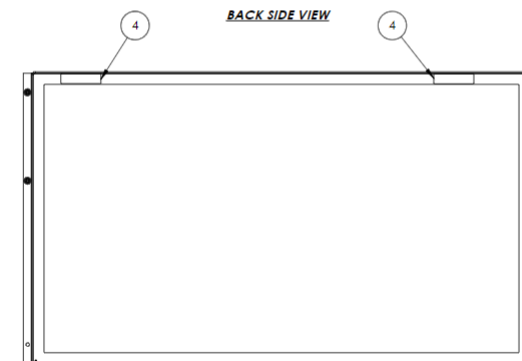


27" LCD MONITOR ASSY 51-100021-00

Item	Part Number	Description	Qty
1	10-000206-07	27" LCD MTG Plate	1
2	10-100069-00	27" LCD MTG Bracket	1
3	17-000000-02	27" LCD Panel	1
4	62-100012-00	PULL HERE Decal	2
5	80-002006-04	#8-32 x 1/4" MS	4
6	91-002025-00	#1/4" - 20 Flange Nut	2

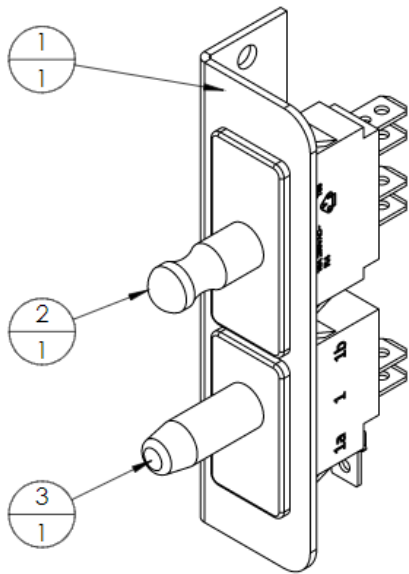


BACK SIDE VIEW



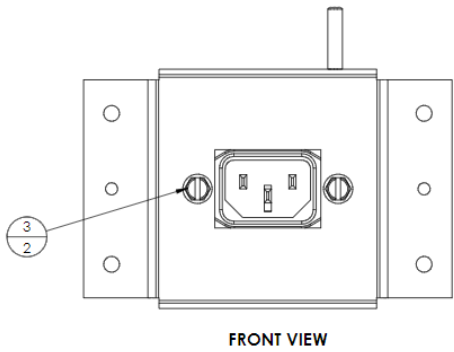
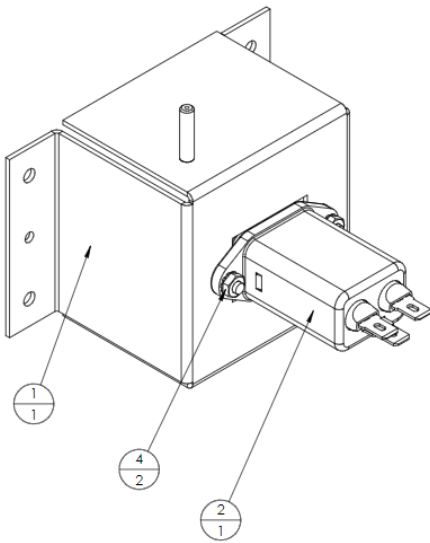
FRONT SIDE VIEW

DOOR & INTERLOCK SWITCH ASSY.
51-000035-00



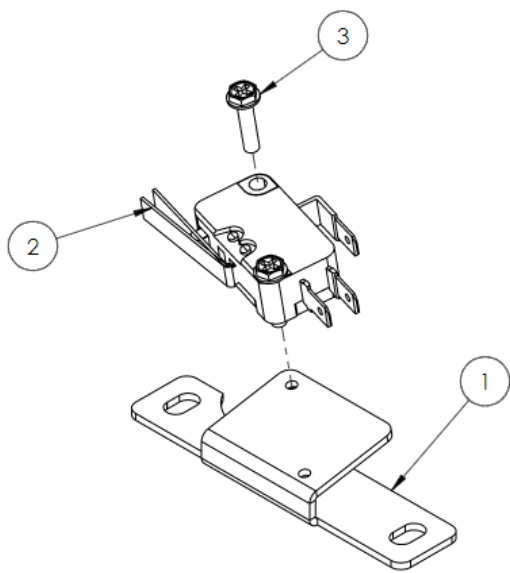
Item	Part Number	Description	Qty
1	10-000089-01	Mounting Bracket	1
2	18-003007-01	Coil Interlock Switch	1
3	18-003008-00	Coin Door Switch	1

LINE FILTER BOX ASSY.
51-005023-00



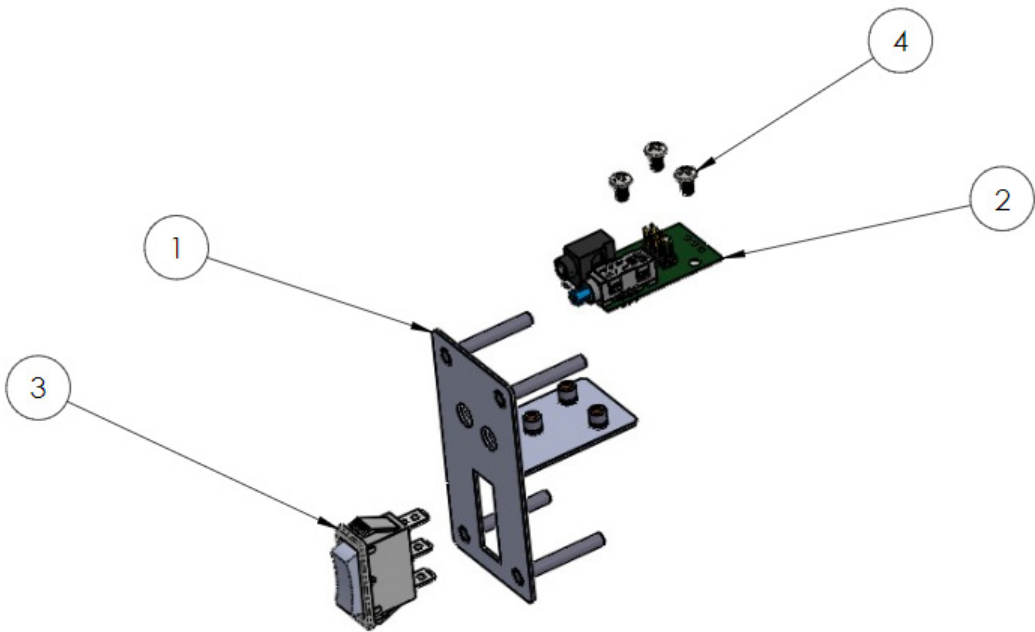
Item	Part Number	Description	Qty
1	10-000009-00	Mounting Bracket	1
2	22-000000-01	Line Filter with Resistor	1
3	80-002006-06	#6-32 x 3/8" MS	2
4	91-001006-00	#6-32 Keps Nut	2

ACTION BUTTON, LOCKDOWN ASSY.
51-000066-10



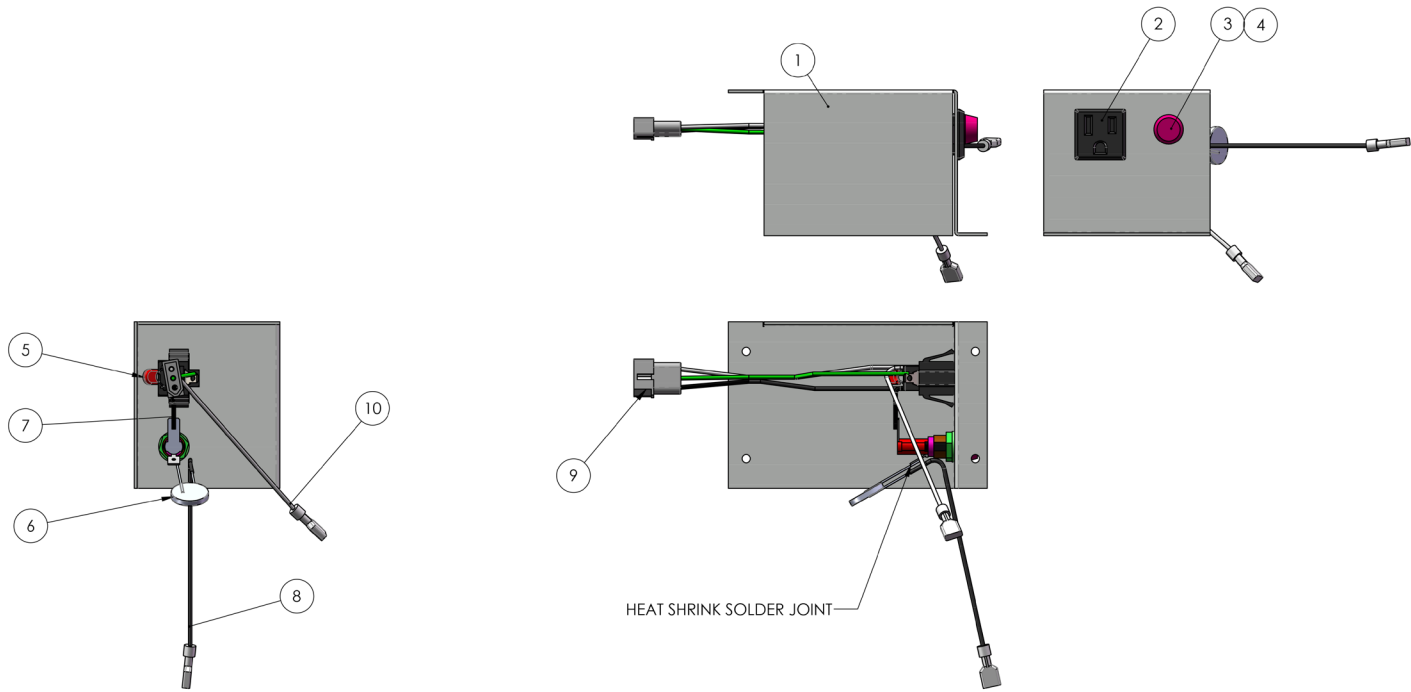
Item	Part Number	Description	Qty
1	10-000167-10	Mounting Bracket	1
2	18-003015-00	Switch	1
3	80-002104-08	4-40 X 3/8" MS	2
4	19-003107-10	Cable (Not Shown)	1

HEADPHONE & BLUETOOTH ASSY.
51-000035-00



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

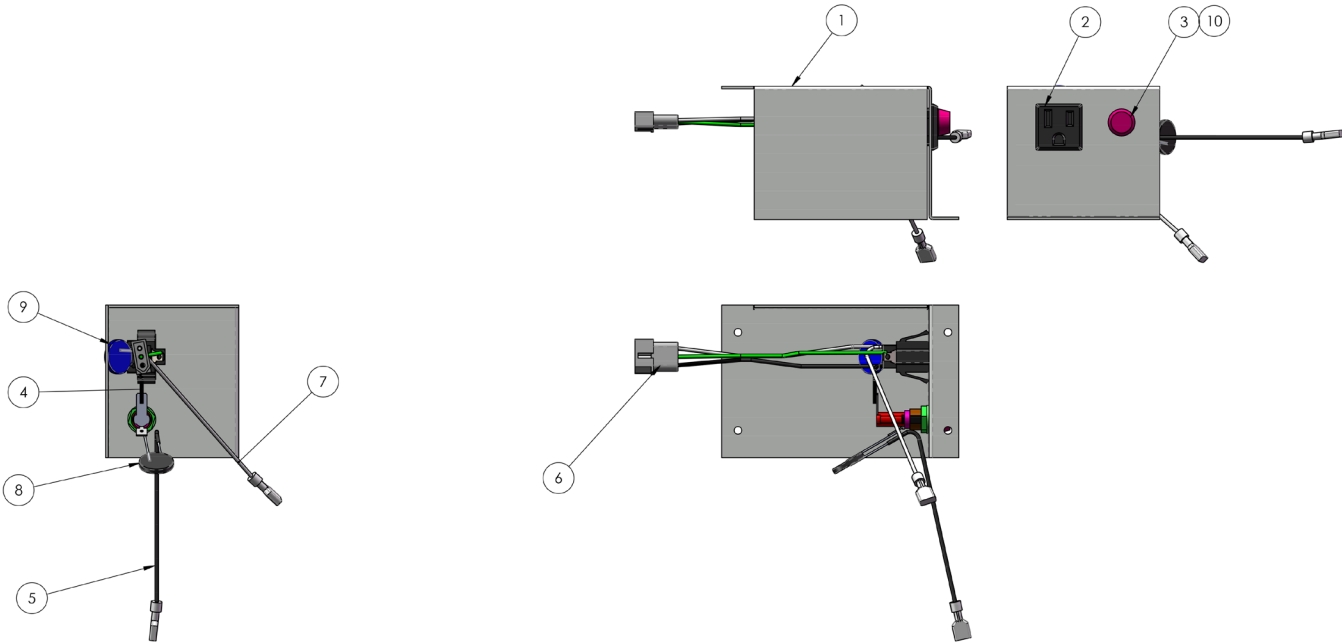
CABINET POWER BOX ASSY U.S.
51-006001-02

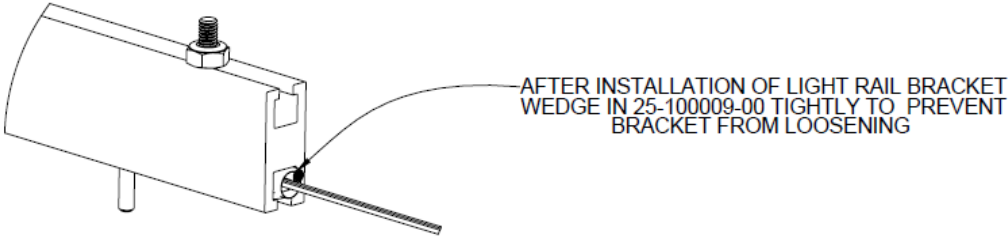
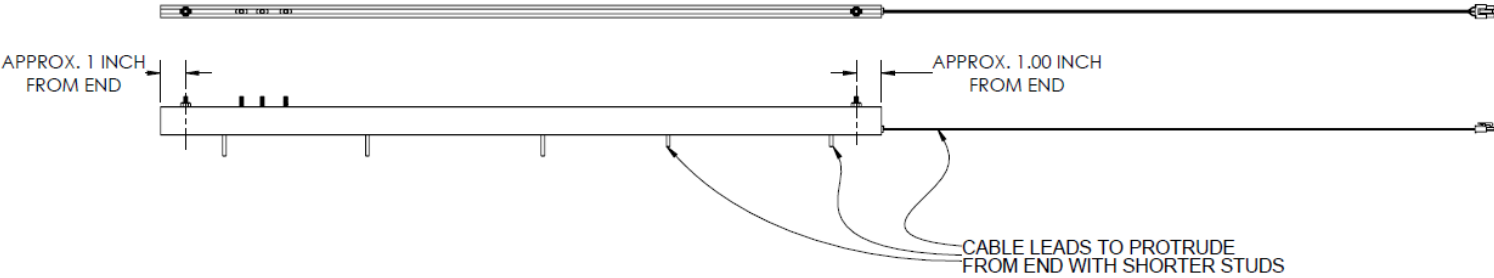
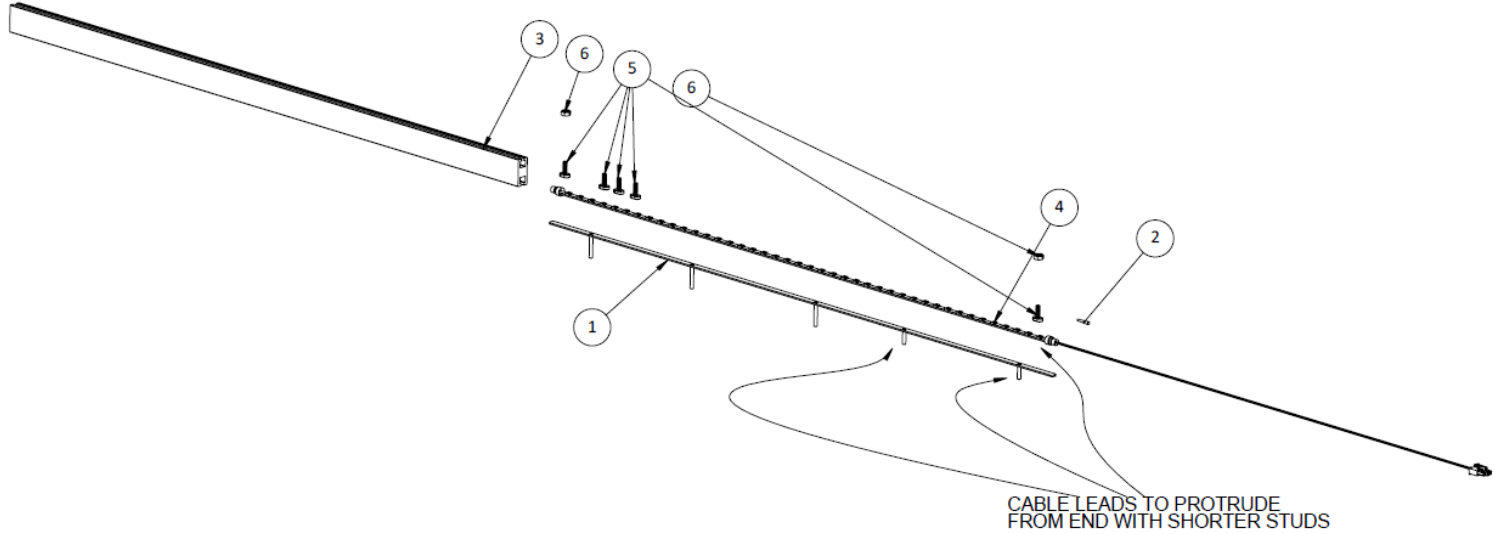


Item	Part Number	Description	Qty
1	10-000008-01	Power Box	1
2	22-000001-00	Service Outlet	1
3	22-008000-00	Line Fuse Holder	1
4	170-000110-SR	Fuse Slow Blow 10A 125V	1
5	180-000001-00	Thermistor	1
6	180-000000-00	Varistor	1
7	19-001000-18	Wire, 18 AWG, Black	1
8	19-003052-00	Jump Wire 18AWG, Black	1
9	19-100115-00	Cabinet Power Cable	1
10	19-003053-00	Jump Wire 18AWG, White	1

CABINET POWER BOX ASSY INT
51-006001-11

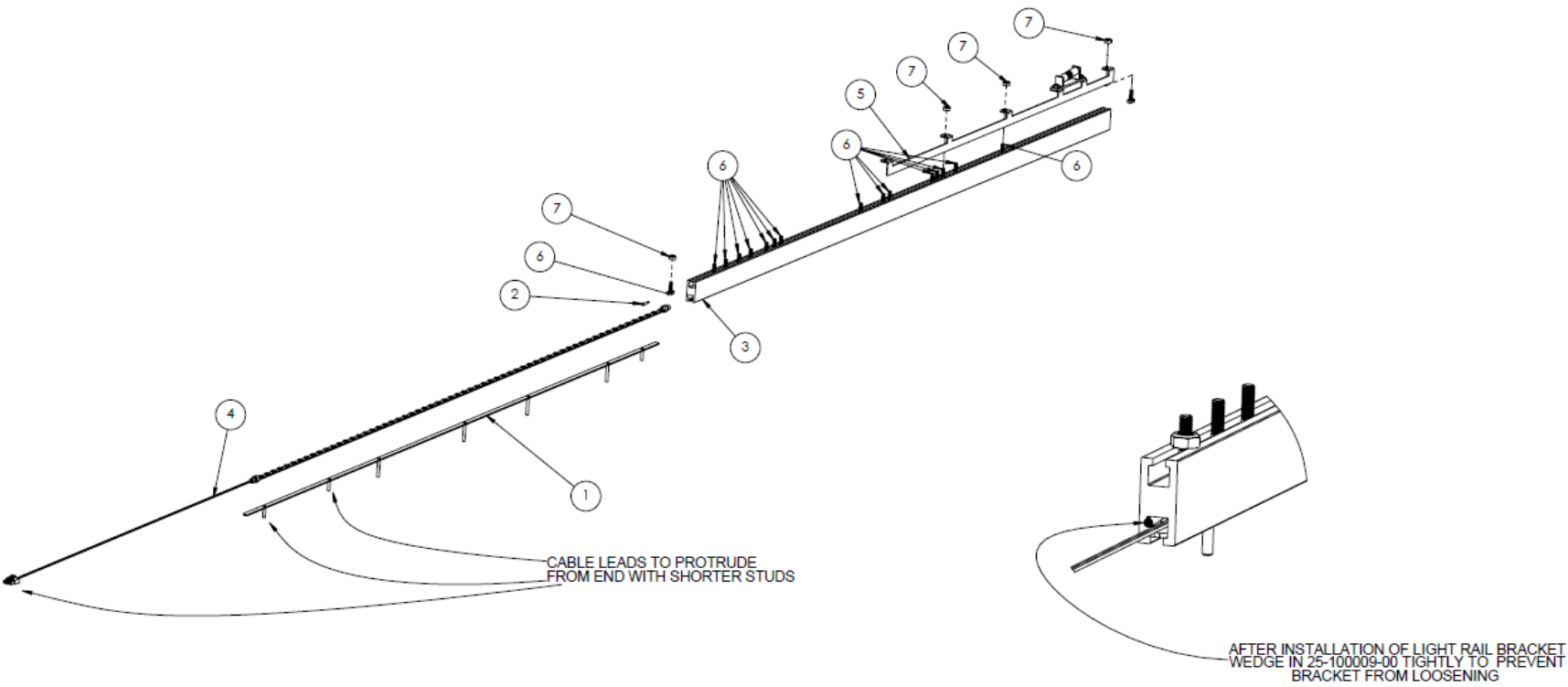
Item	Part Number	Description	Qty
1	10-000008-01	Power Box	1
2	22-000001-00	Service Outlet	1
3	22-008000-00	Line Fuse Holder	1
4	19-001000-18	Wire 18AWG, Black	1
5	19-003052-00	Jump Wire 18AWG, Black	1
6	19-100115-00	Cabinet Power Cable	1
7	19-003053-00	Jump Wire, 18 AWG, White	1
8	180-000002-00	European Varistor	1
9	180-000003-01	Varistor European	1
10	170-000205-SR	Fuse Slow Blow 5A 250V	1





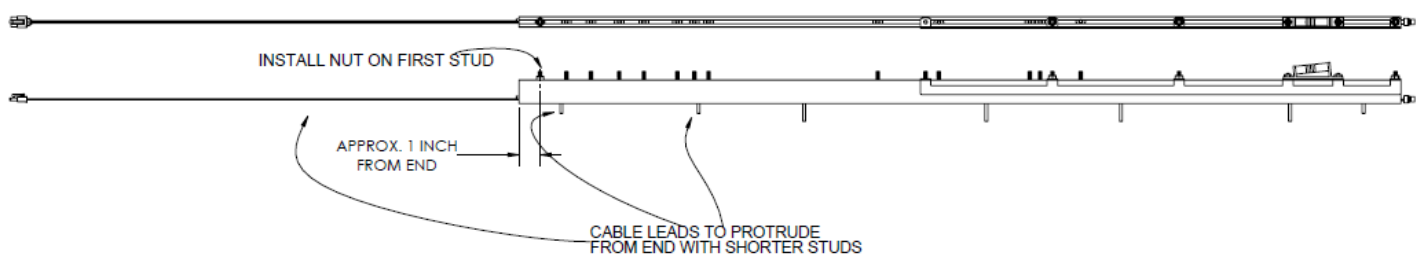
HOT RAIL, SHORT - LEFT SIDE
51-100171-00 - SE
51-100164-00 - LE & CE

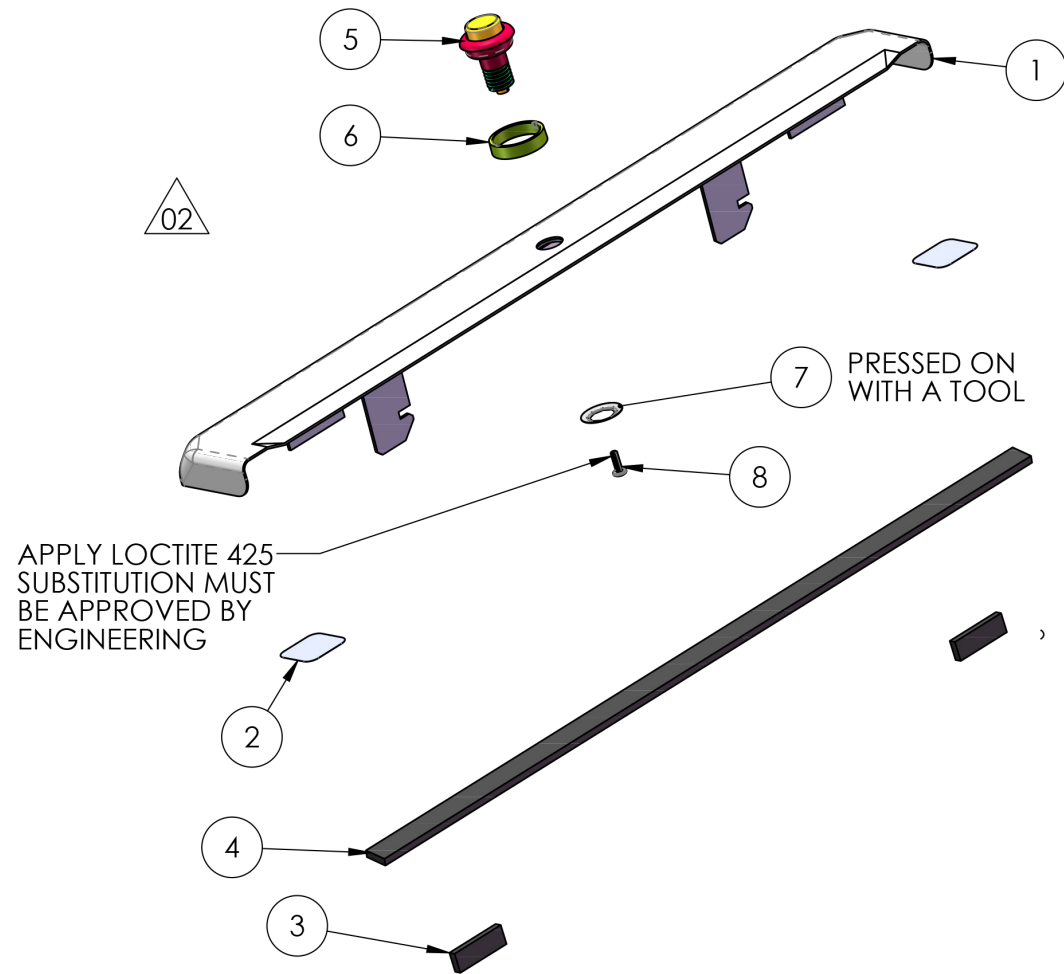
Item	Part Number	Description	Qty
1	10-100166-00	Bracket Short	1
2	25-100009-00	Plug Rubber	1
3	30-100029-00	Hot Rail, Short	1
4	51-100102-00	LE & CE RGB LED Assy.	1
4	51-100136-00	SE White LED Assy	1
5	85-009008-08	8-32 x 1/2" Screw	5
6	91-000008-00	8-32 Nylon Stop Nut	2



HOT RAIL, LONG - RIGHT SIDE
51-100170-00 - SE
51-100165-00 - LE & CE

Item	Part Number	Description	Qty
1	10-100166-01	Bracket Long	1
2	25-100009-00	Plug Rubber	1
3	30-100030-00	Hot Rail, Long	1
4	51-100102-01	LE & CE RGB LED Assy.	1
4	51-100136-01	SE White LED Assy	1
5	51-100103-00	Shooter lane Rail Assy.	1
6	85-009008-08	8-32 x 1/2" Screw	17
7	91-000008-00	8-32 Nylon Stop Nut	4



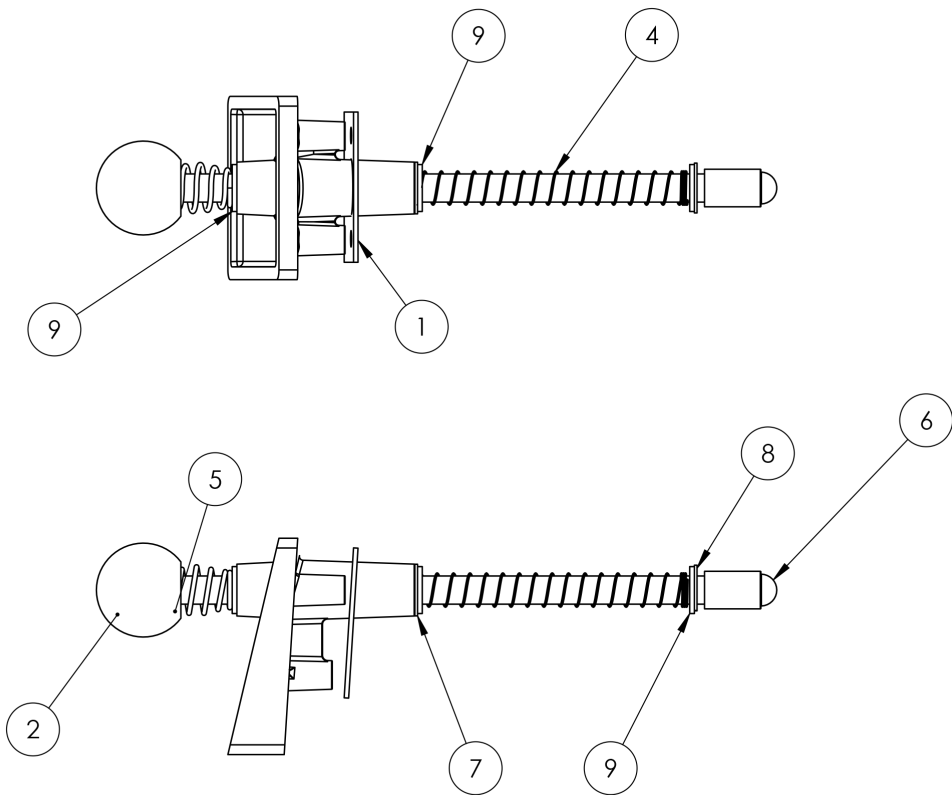


LOCKDOWN BAR ASSY. WITH BUTTON

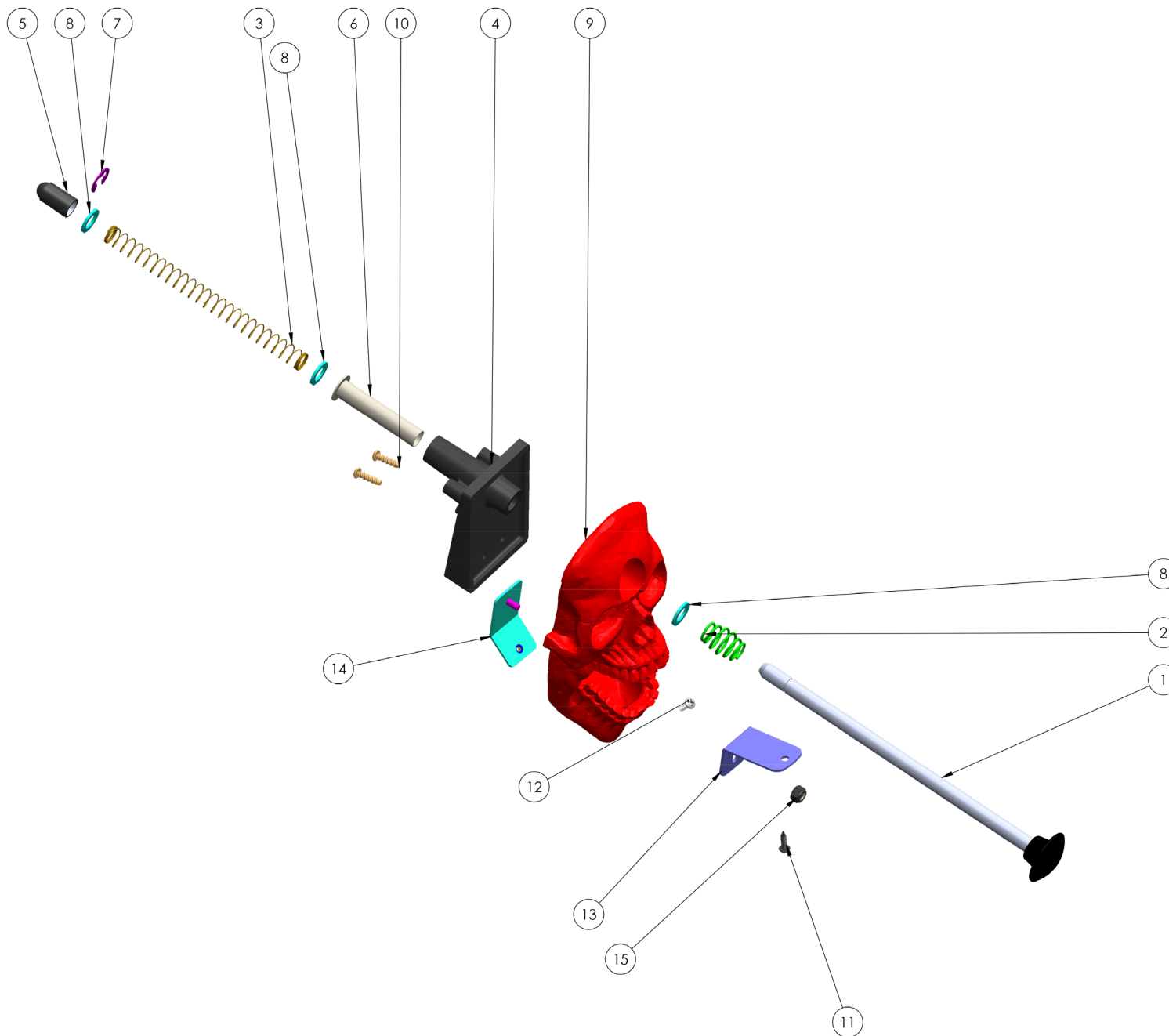
51-100101-01- SE 51-100101-00 - LE
51-100134-00 CE

Item	Part Number	Description	Qty
1	10-000282-02	SE Lockdown Bar	1
1	10-000282-01	LE Lockdown Bar	1
1	10-000282-04	CE Lockdown Bar	1
2	62-100019-10	Mylar	2
3	61-009003-01	Foam Tape 1.5 Inches	2
4	61-009003-00	Foam Tape 21.0 Inches	1
5	30-000124-13	Flipper Button	1
6	30-000126-00	Spacer	1
7	94-100000-00	Push Nut	1
8	80-000008-08	8-32 x 1/2" MS	1
9	32-100010-00	CE Sculpture (Not Shown)	1
10	61-009014-00	CE Sculpture Tape (Not Shown)	5

BALL SHOOTER ASSEMBLY
51-000092-09 SE 51-100092-08 LE



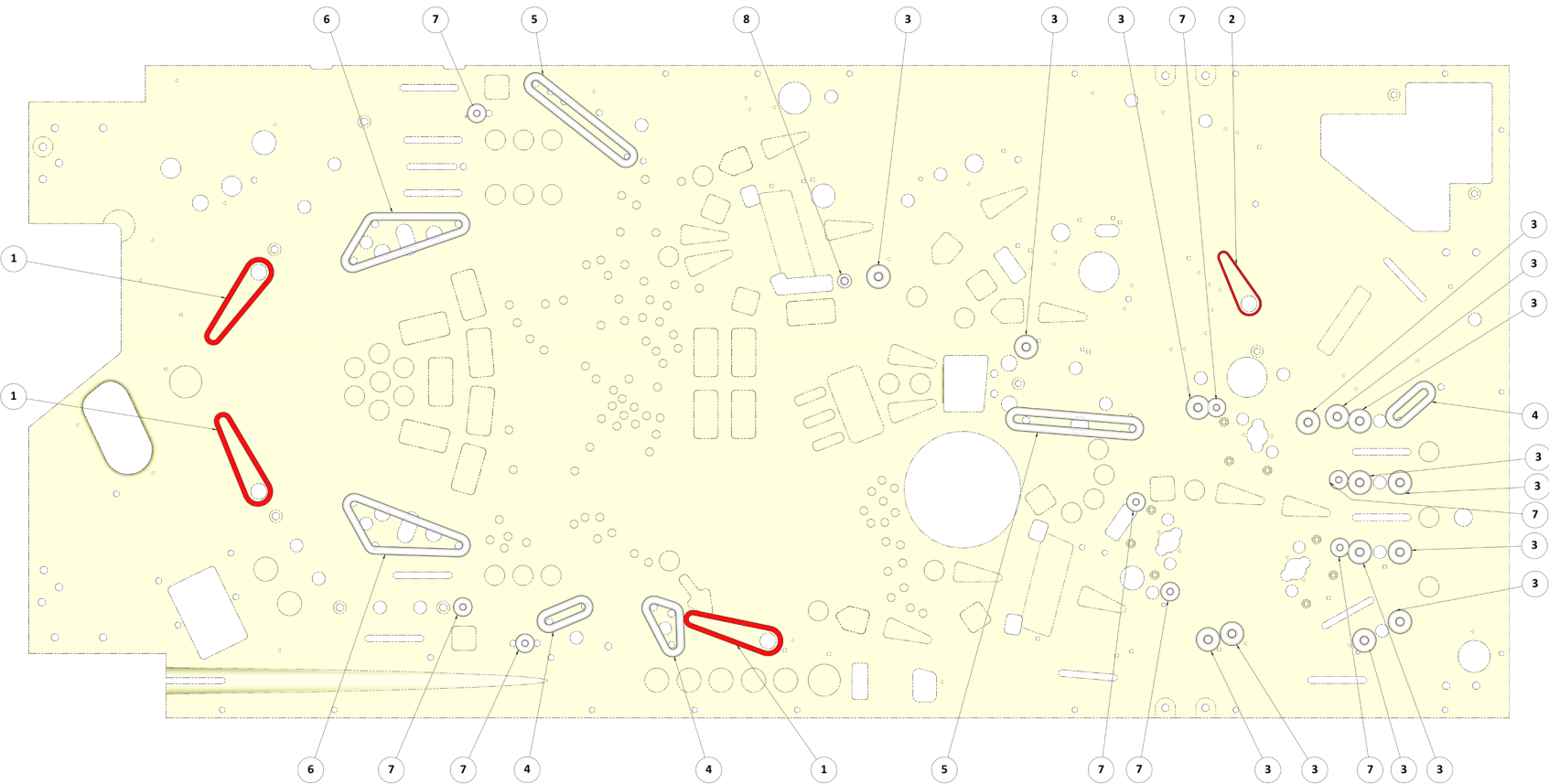
Item	Part Number	Description	Qty
1	10-000025-00	Cabinet Mounting Plate	1
2	11-000007-00	Shooter Rod	1
3	14-000001-11	SE Ball Shooter Housing	1
3	14-000001-22	LE Ball Shooter Housing	1
4	13-007007-02	Power Spring	1
5	13-007006-00	Outer Spring	1
6	25-009003-00	Shooter Rubber Tip	1
7	30-000021-00	Sleeve	1
8	94-004011-12	E-Clip	1
9	95-002564-58-16	Washer	3



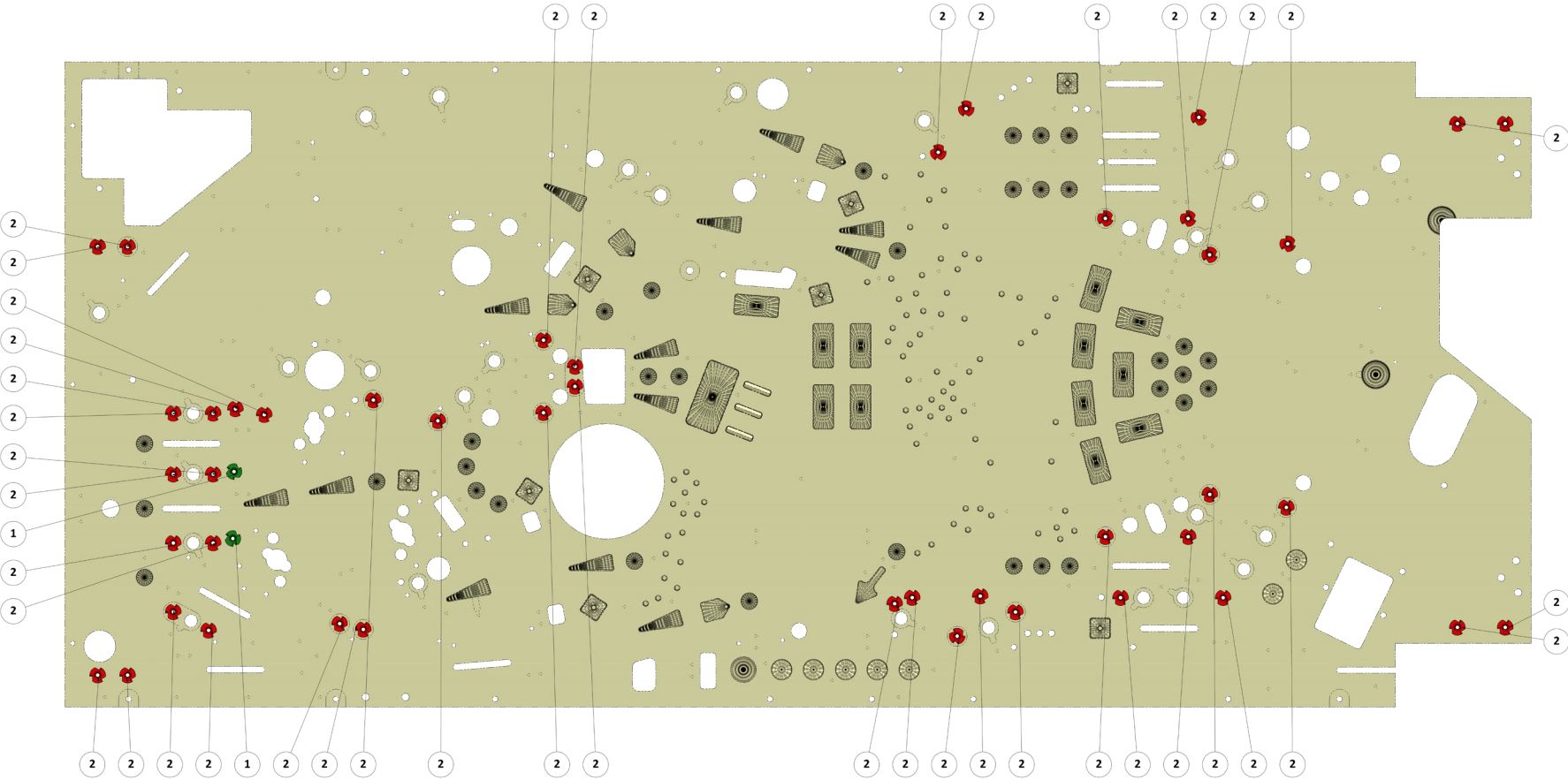
BALL SHOOTER ASSEMBLY
51-100131-01 CE

Item	Part Number	Description	Qty
1	11-100034-00	Shooter Rod	1
2	13-007006-00	Outer Spring	1
3	13-007007-02	Power Spring	1
4	14-000002-01	Shooter Housing	1
5	25-009003-00	Shooter Rubber Tip	1
6	30-000021-00	Sleeve	1
7	94-004011-12	E-Clip	1
8	95-002564-58-16	Washer	1
9	32-100009-00	Skull Cover	1
10	83-001008-10	#8 x 5/8" Screw	2
11	82-000106-08	#6 x 1/2" SMS	1
12	80-000106-06	6-32 x 3/8" Screw	1
13	10-100190-00	Bracket	1
14	10-100190-01	Bracket	1
15	91-000108-00	8-32 Stop Nut	1

RUBBER SILICONE RINGS

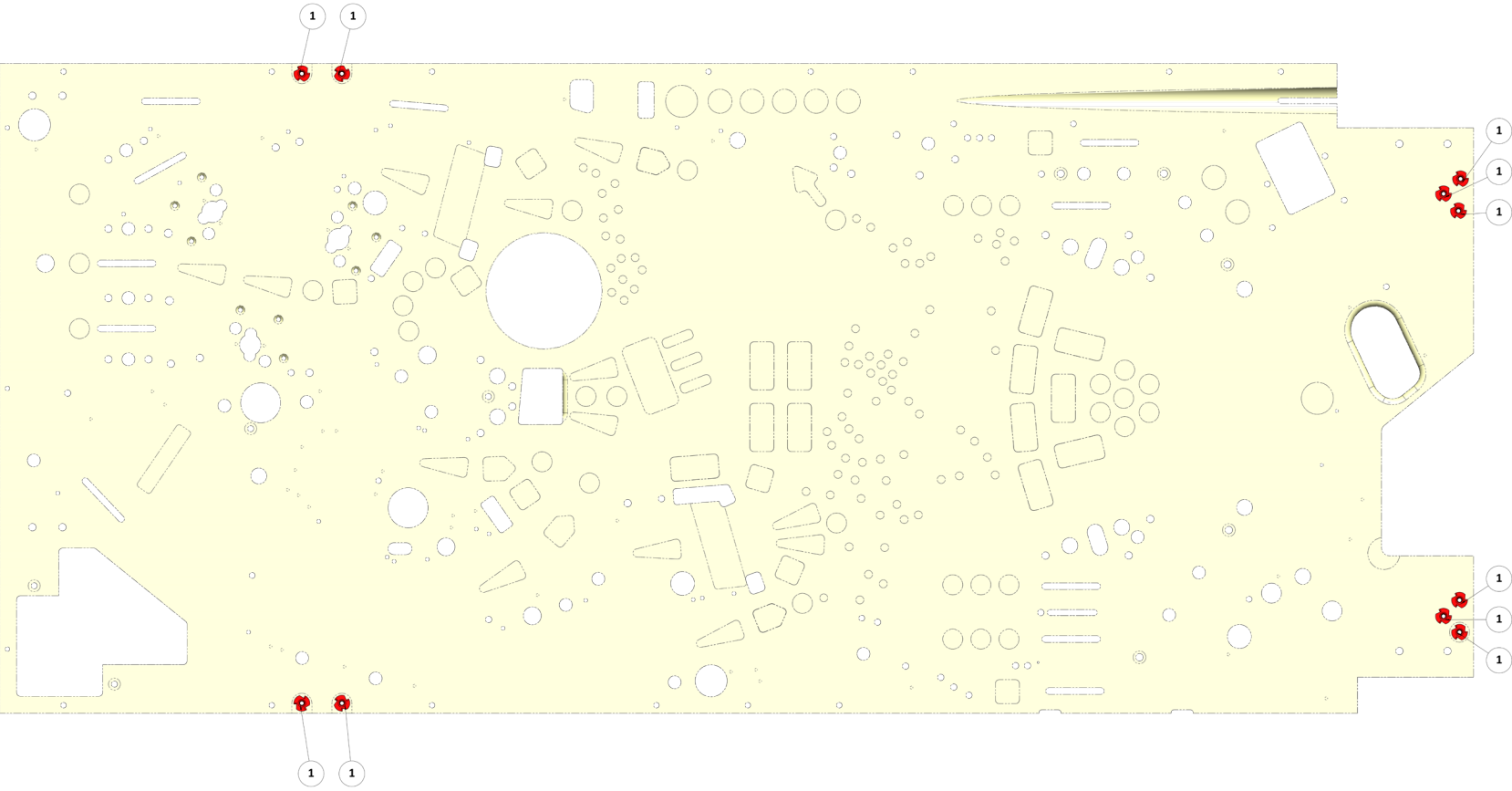


Item	Part Number	Description	Qty
1	25-002001-02	Flipper 1-1/2", Red	3
2	25-002002-02	Mini Flipper 1", Red	1
3	25-002004-03-13	3/16" Mini Post, Clear	14
4	25-002004-12-13	Silicone Ring, 3/4", Clear	3
5	25-002004-24-13	Silicone Ring, 1 1/2", Clear	2
6	25-002004-32-13	Silicone Ring, 2", Clear	2
7	25-006005-06-13	3/9" Mini Post, Clear	8
8	25-006012-13	Post Sleeve, 1 1/16", Clear	1



T-NUTS BOTTOM

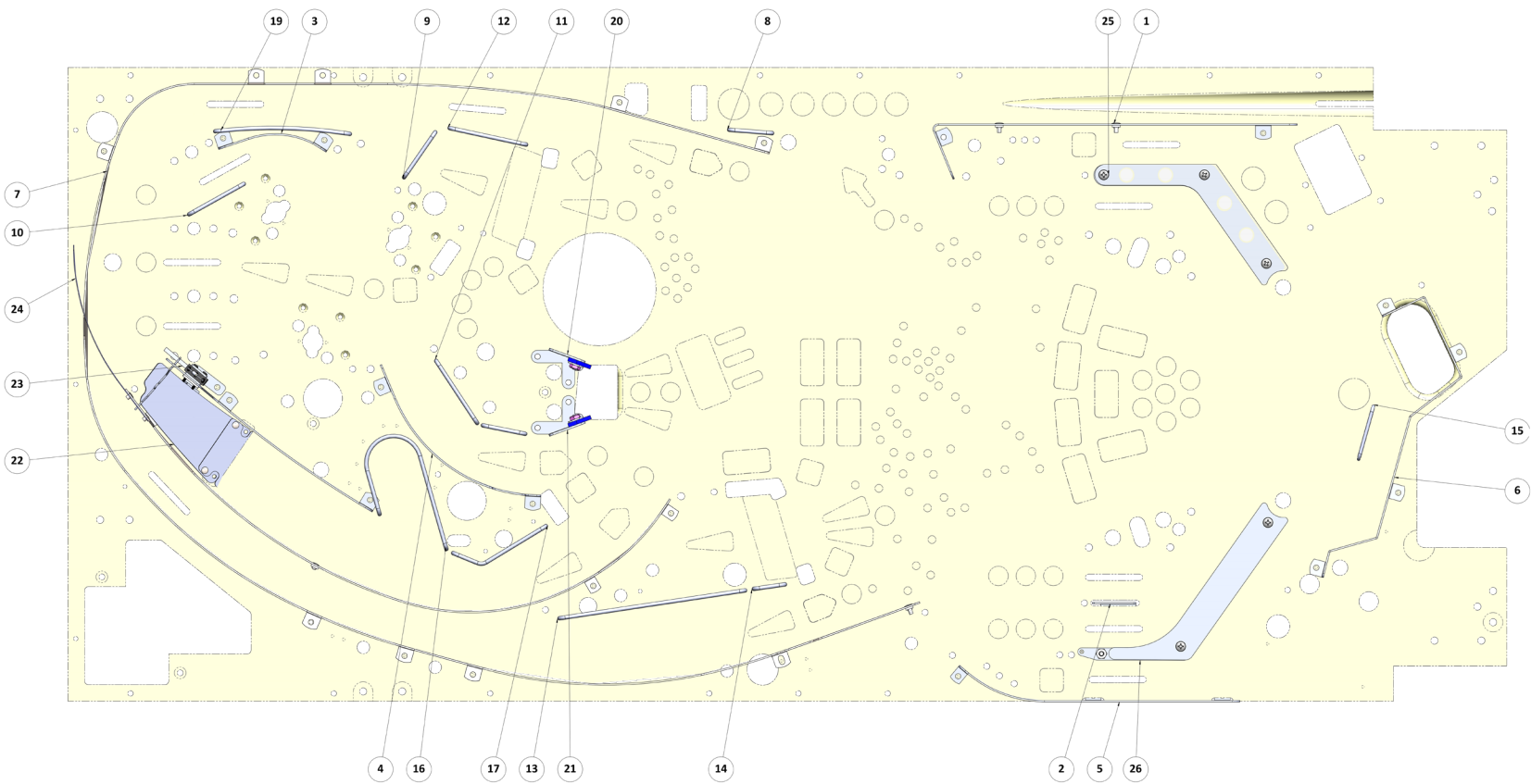
Item	Part Number	Description	Qty
1	91-004010-00	#10-32 T-Nut Flanged	2
2	91-004008-00	#8-32 X 1/4" T-Nut Flanged	45



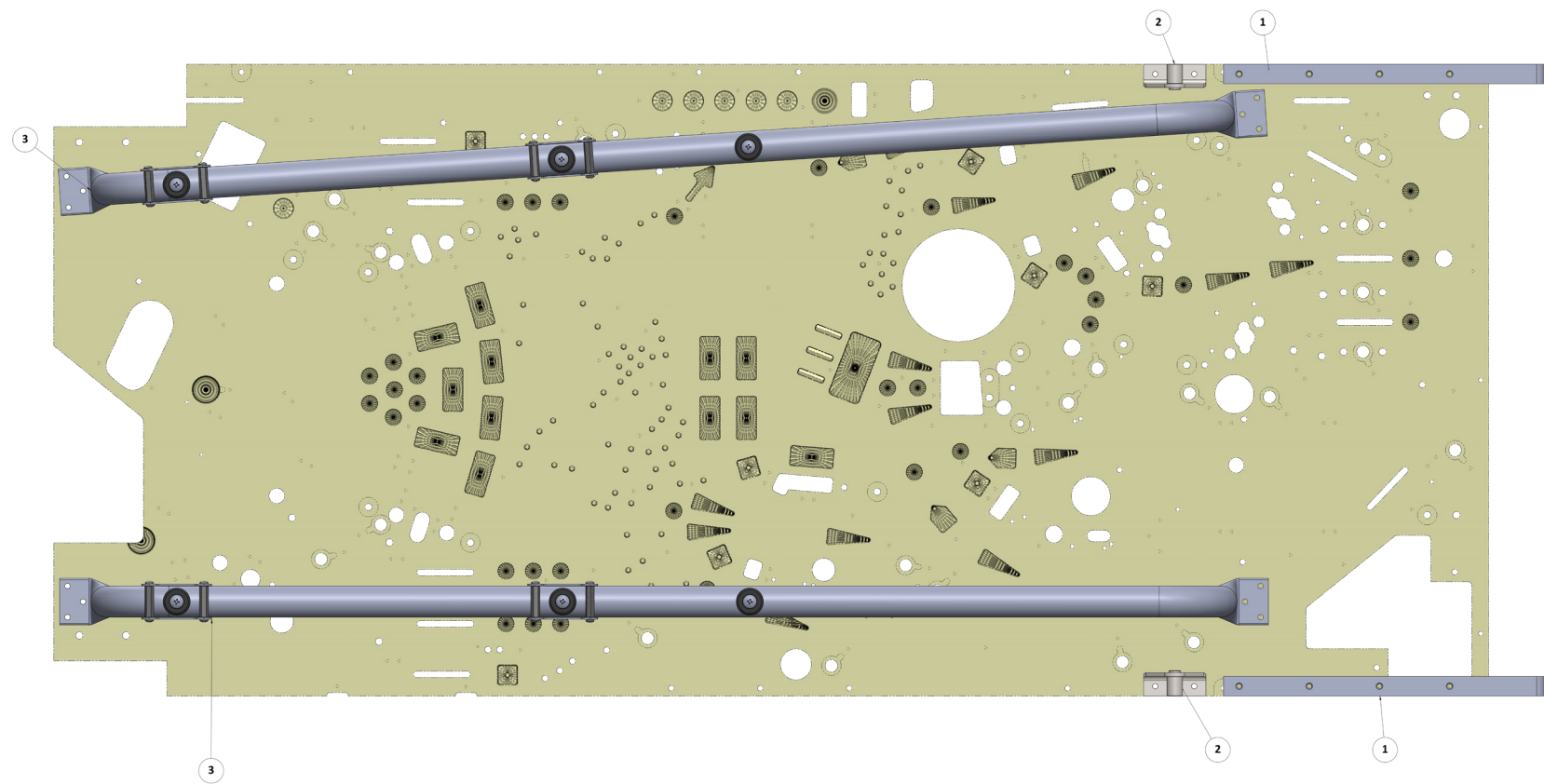
T-NUTS TOP

Item	Part Number	Description	Qty
1	91-004008-00	#8-32 T-Nut Flanged	10

FLAT RAILS, DEFLECTORS
AND WIRE FORMS



Item	Part Number	Description	Qty
1	12-100025-01	Inner Shooter Lane	1
2	12-100025-05	Laner Diverter, Left	1
3	12-100025-08	Upper Right	1
4	12-100025-09	Center Left	1
5	12-100025-12	Left Outer	1
6	12-100025-13	Outhole	1
7	12-100025-00	Main Orbit	1
8	13-003000-03	1.38" Straight Ball Guide	1
9	13-003000-06	1.75" Straight Ball Guide	1
10	13-003000-08	2.00" Straight Ball Guide	1
11	13-003000-11	2.38" Straight Ball Guide	1
12	13-003000-12	2.50" Straight Ball Guide	1
13	13-003000-40	6.00" Straight Ball Guide	1
14	13-003000-00	1.00" Straight Ball Guide	1
15	13-100003-28	1.25" Straight Ball Guide	1
16	13-100006-00	Wire Rail	1
17	13-100007-00	Wire Rail	1
18	13-100013-00	Left Ramp Return Switch	1
19	13-100017-00	Top Right Ball Guide	1
20	51-100065-01	Snubber Bracket, Right	1
21	51-100065-00	Snubber Bracket, Left	1
22	51-100076-00	Upper Loop Ramp, Center	1
23	51-100077-00	Upper Ramp Loop, Inner	1
24	51-100078-00	Upper Ramp Loop, Center	1
25	51-100106-01	Return Lane, Right	1
26	51-100106-00	Return Lane, Left	1



**BOTTOM SUPPORT RAILS
AND BRACKETS**

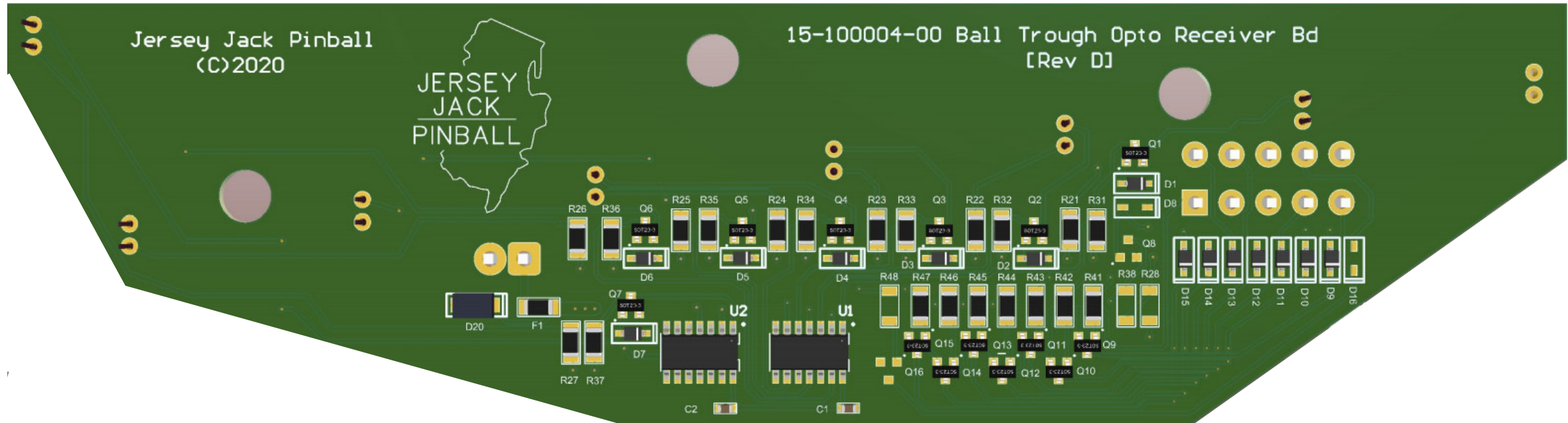
Item	Part Number	Description	Qty
1	10-000013-01	Support Bracket	2
2	11-007001-10	Hinge Bracket	2
3	51-100001-00	Support Tube	2

REFERENCE DIAGRAMMS & SCHEMATICS



6-Ball Trough Opto Receiver Board

15-100004-00



J1 Switch Inputs

Pin

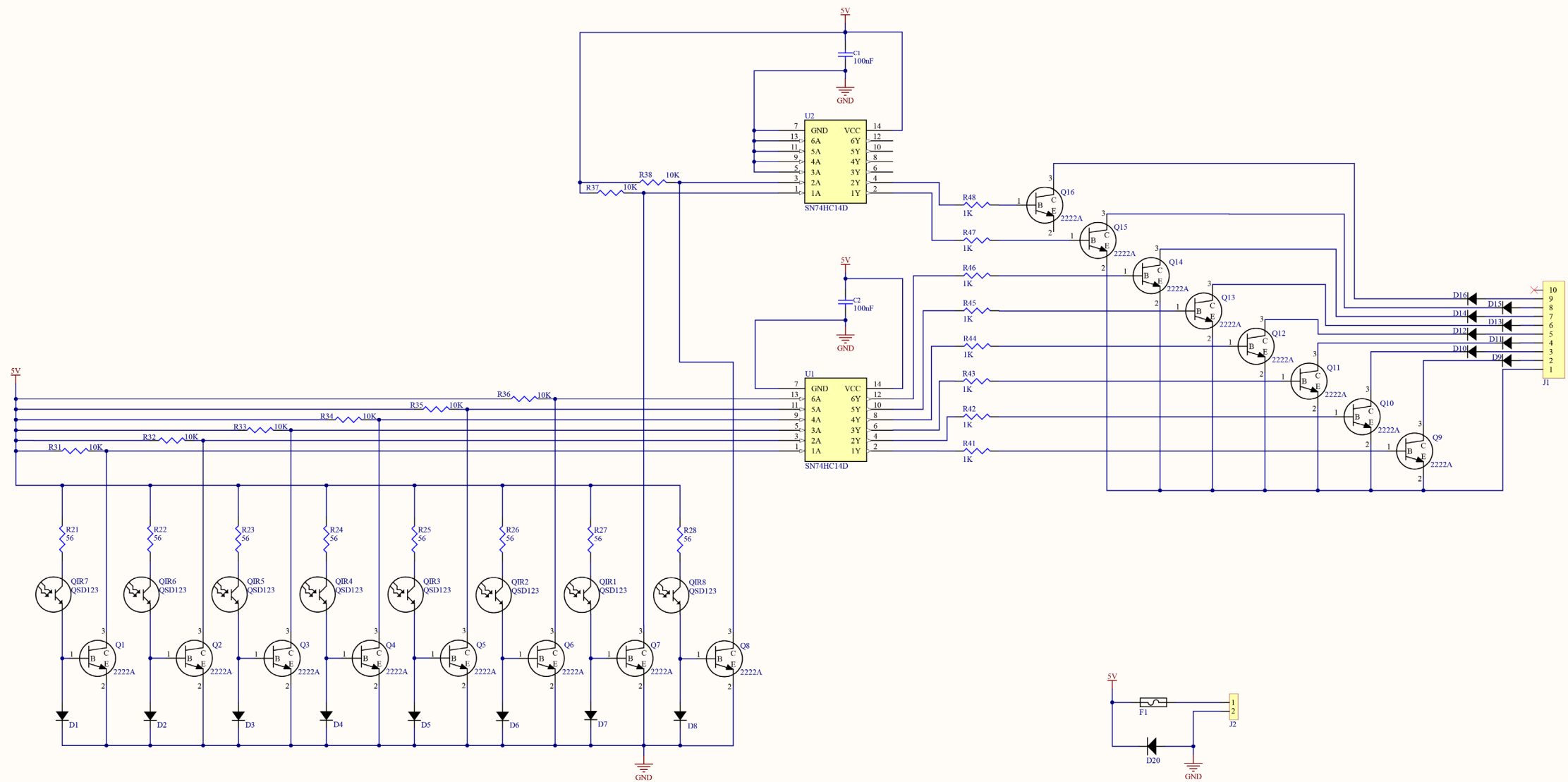
1	Black / Green	Column 1 From I/O Board J201-1
2	White / Blue	Row 7 from I/O Board J200-7
3	White / Black	Row 1 from I/O Board J200-1
4	White / Brown	Row 2 from I/O Board J200-2
5	White / Red	Row 3 from I/O Board J200-3
6	White / Orange	Row 4 from I/O Board J200-4
7	White / Yellow	Row 5 from I/O Board J200-5
8	White / Green	Row 6 from I/O Board J200-6
9	White / Violet	Row 8 from I/O Board J200-8
10	Key	

J2 Power Input

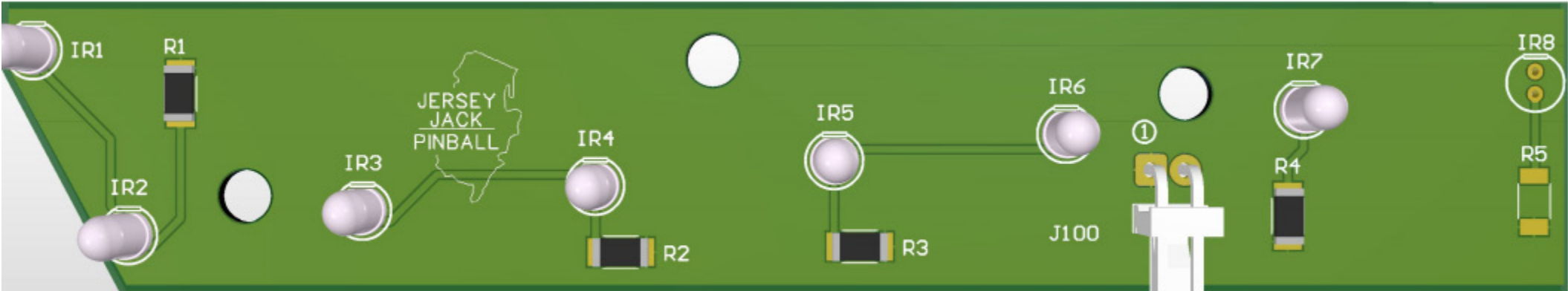
Pin

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

6-Ball Trough Opto Receiver Board 15-100004-00

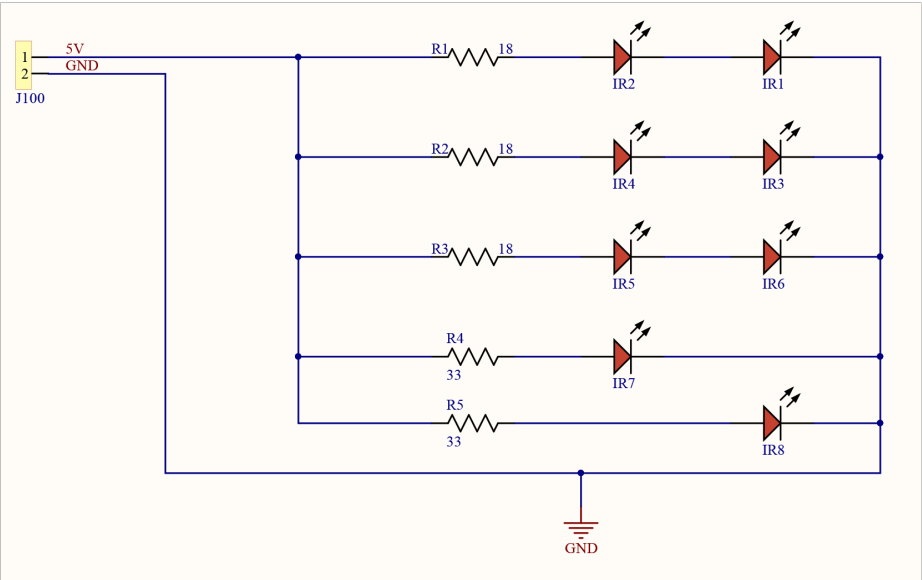


6-Ball Trough Opto Transmitter Board
15-100002-00

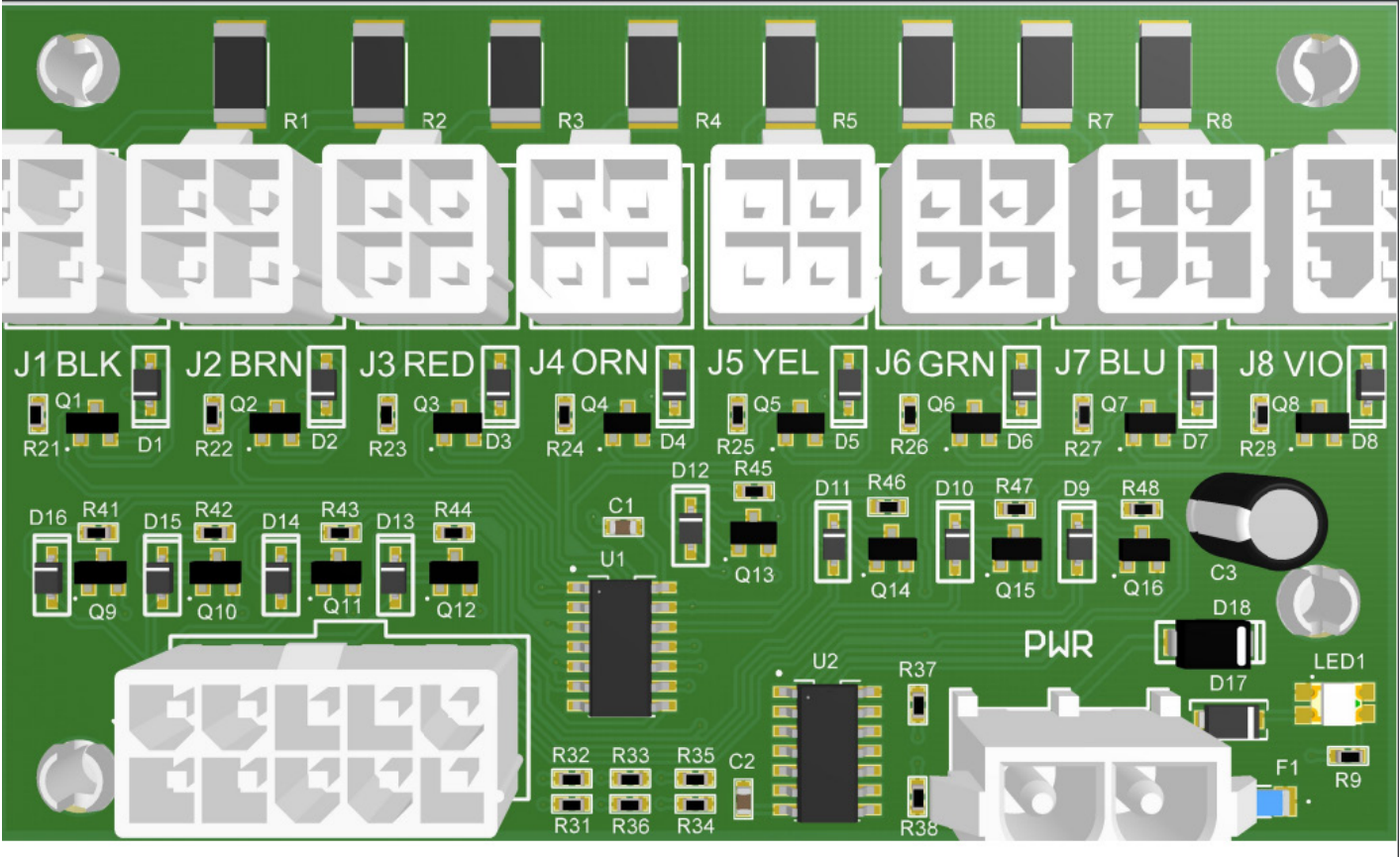


J100 Power Input

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



Opto IO Board
15-100005-00



J9 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 J200-7

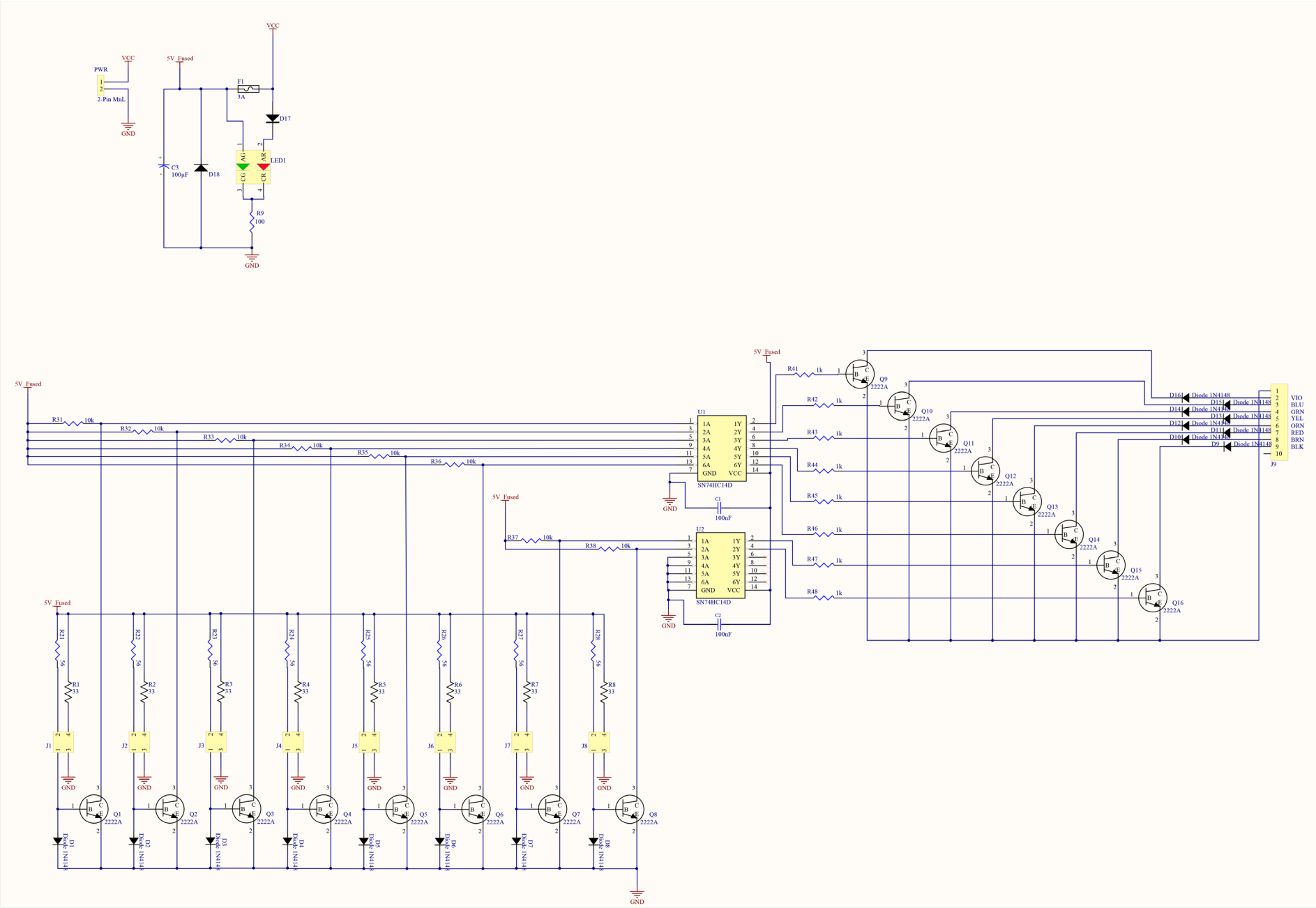
J1 - J8 OPTO Inputs

Pin	
1	5 VDC
2	5 VDC
3	Ground
4	Input

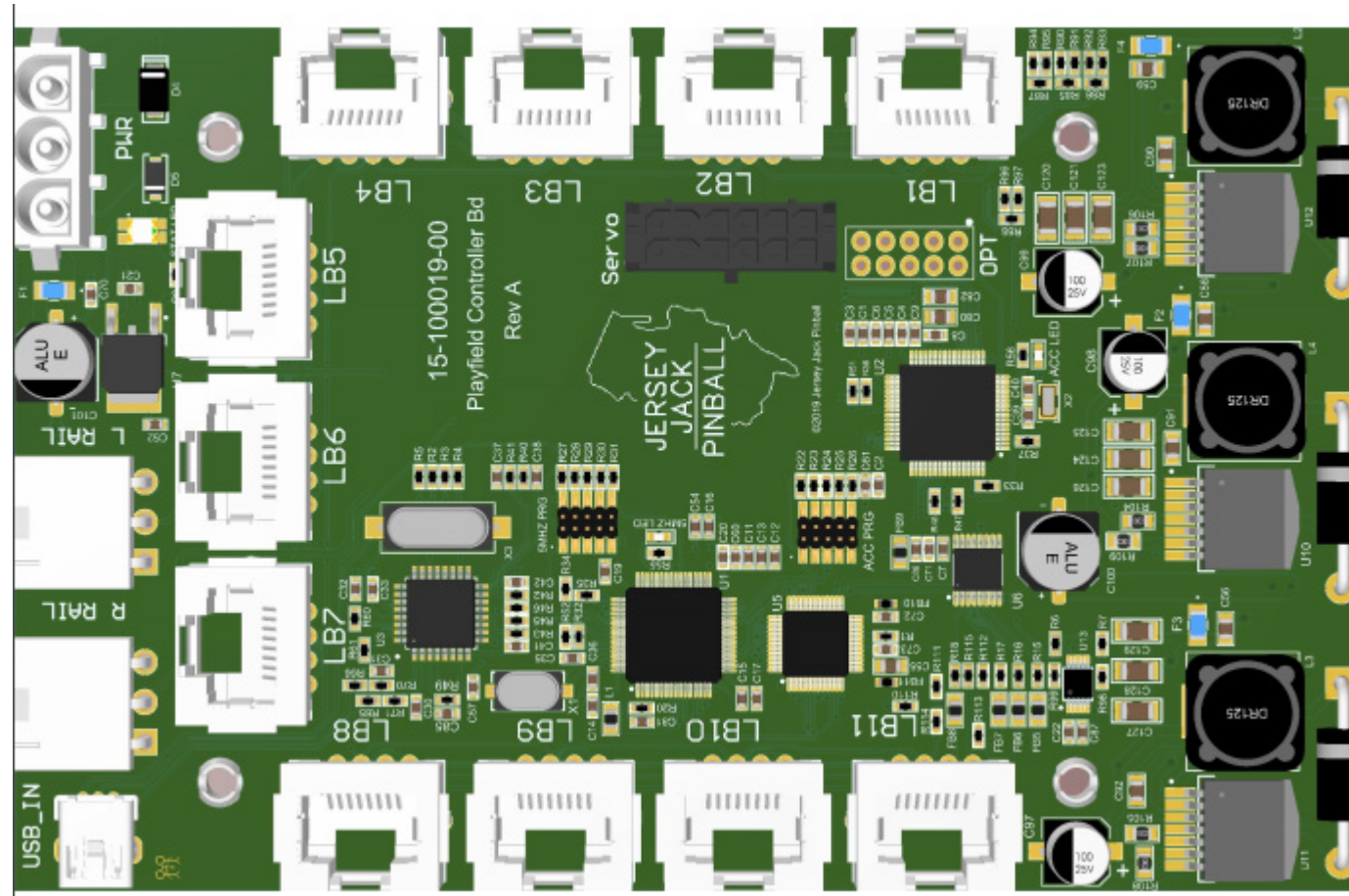
Power Input

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

Opto IO Board
15-100005-00



Playfield Controller Board 15-100019-00



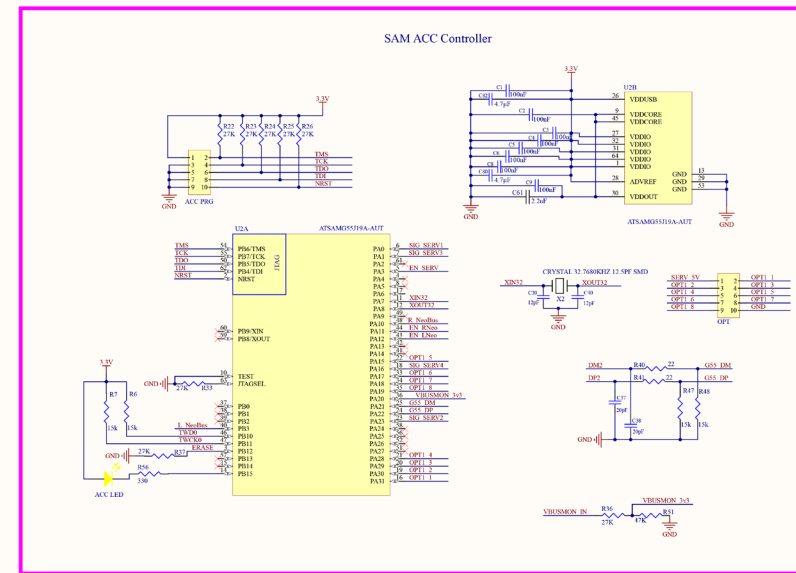
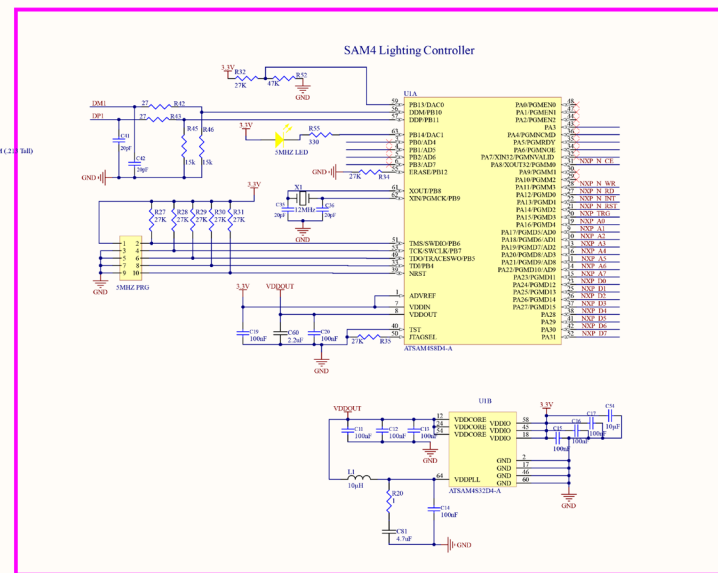
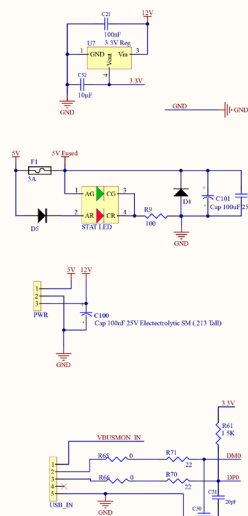
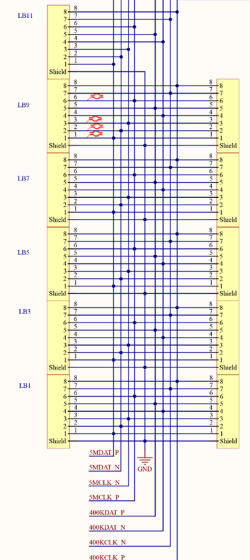
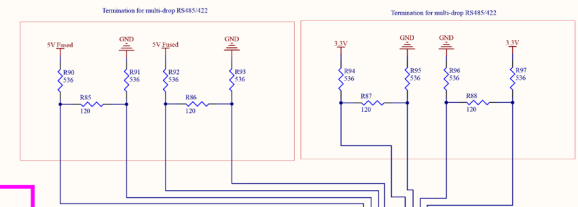
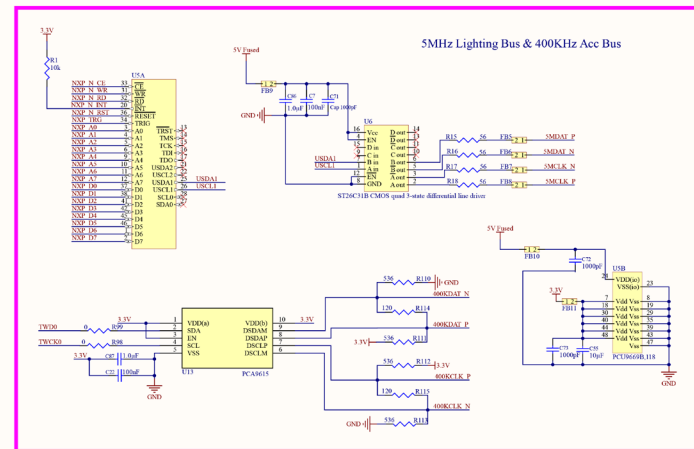
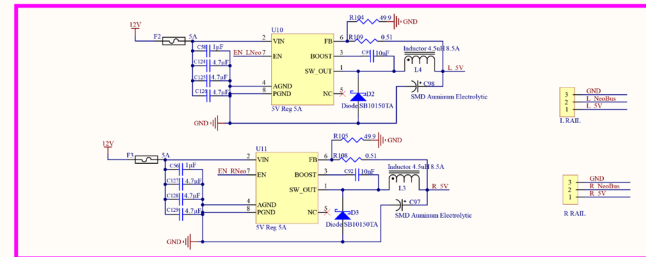
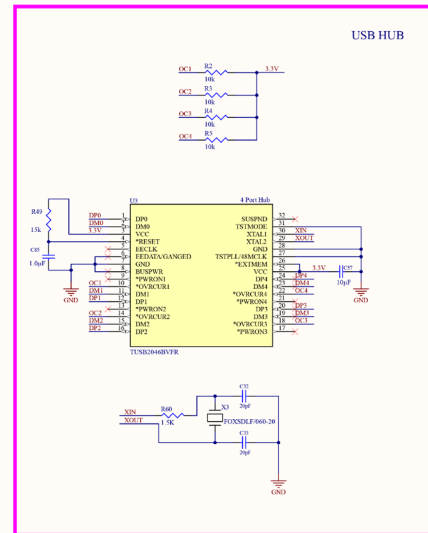
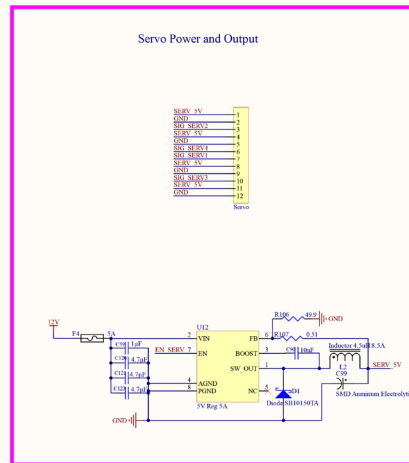
Power Input

Pin

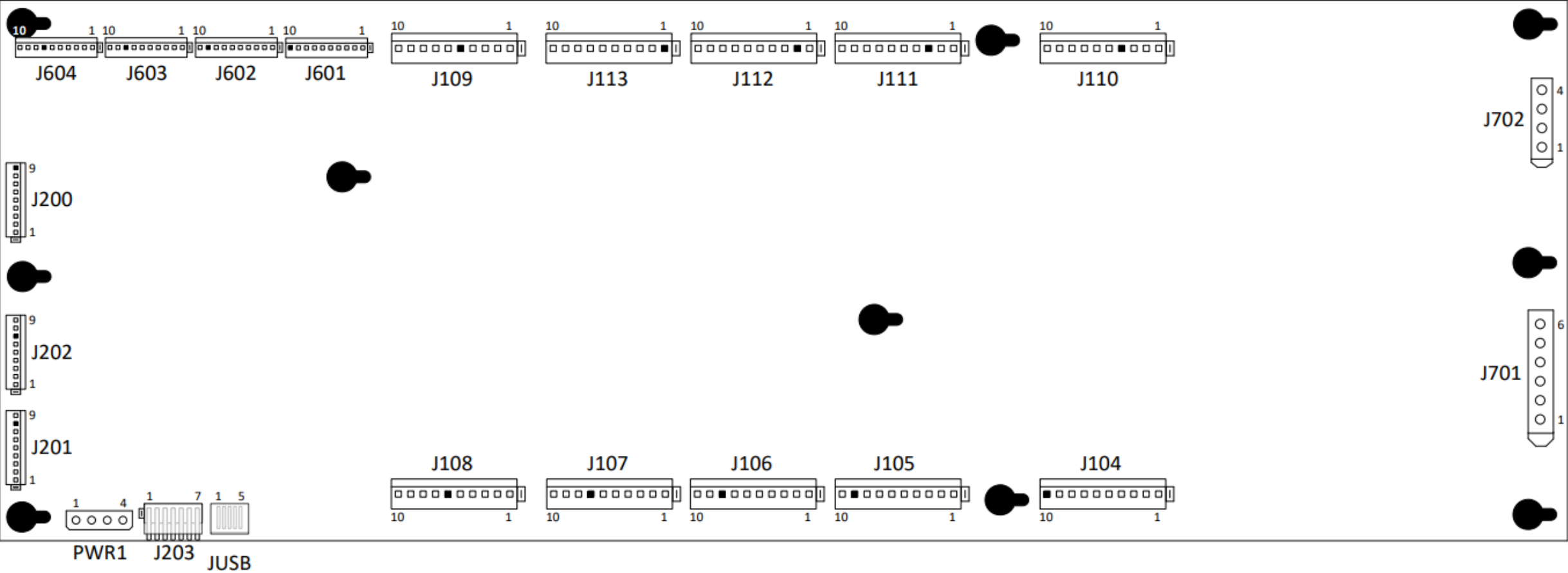
- 1 Red +5VDC from ATX Power Supply
- 2 Yellow +12 VDC from ATX Power Supply
- 3 Black Ground from ATX Power Supply

Playfield Controller Board

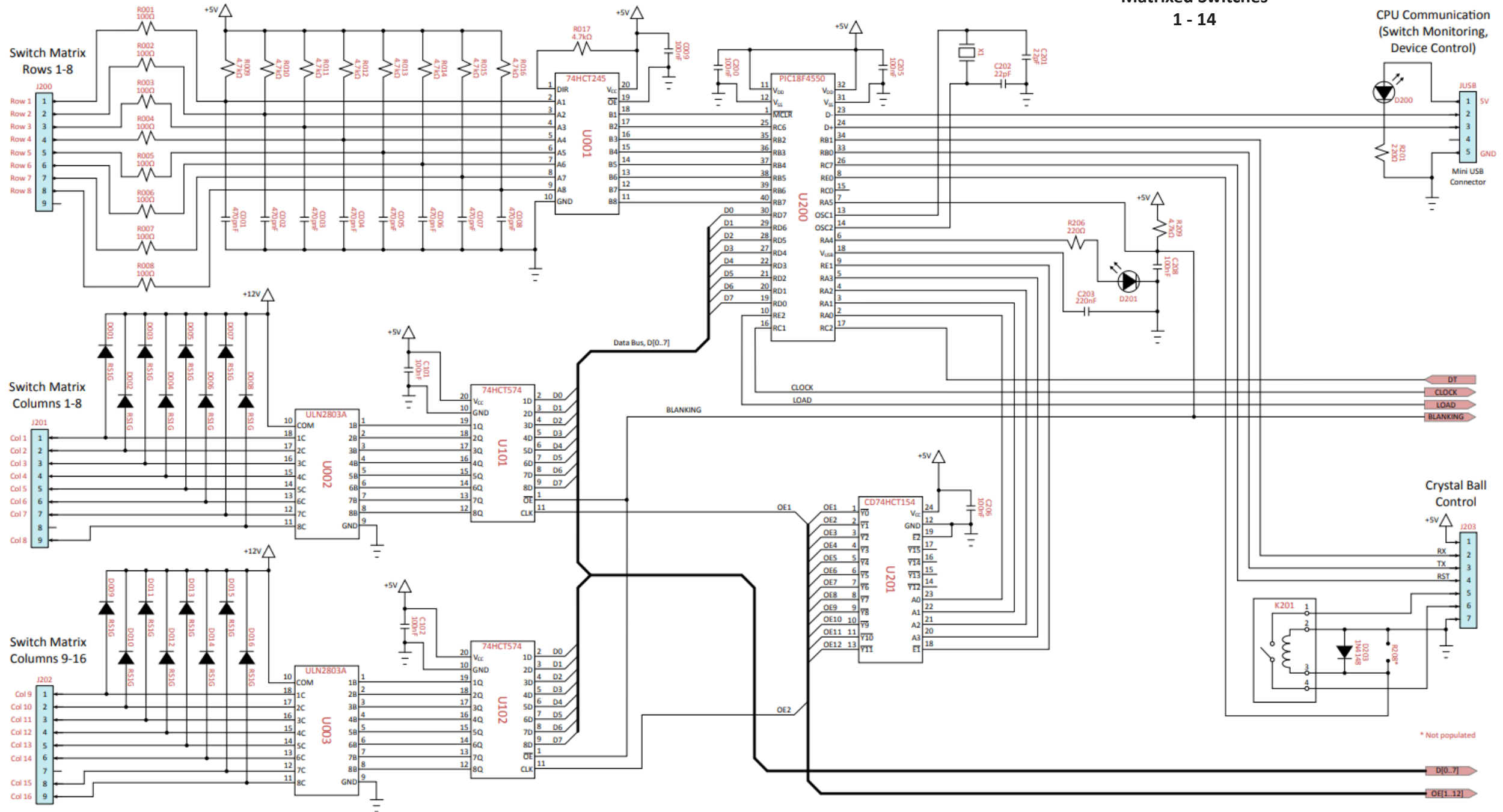
15-100019-00



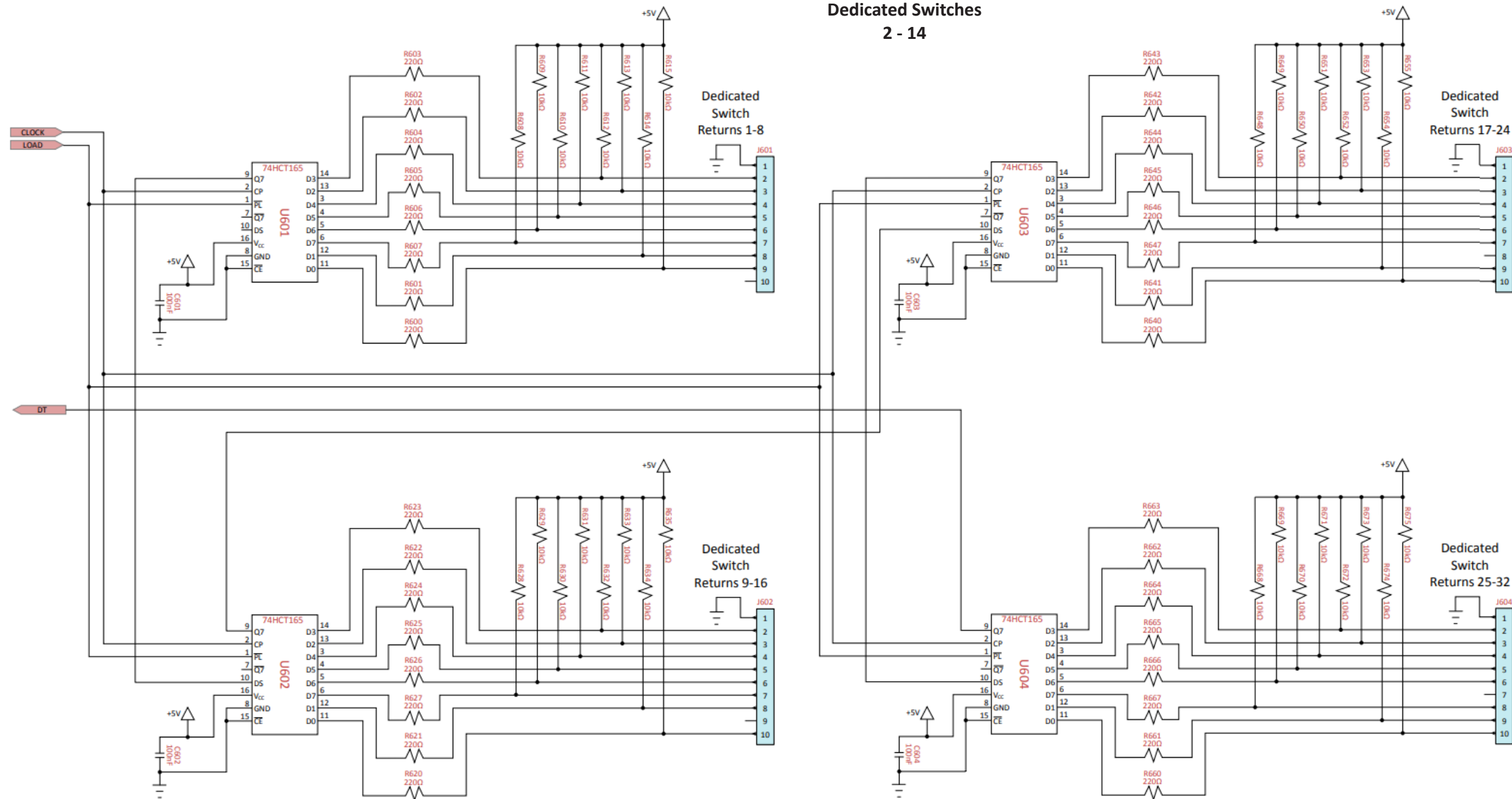
I/O PCB ASSY.
15-004001-01

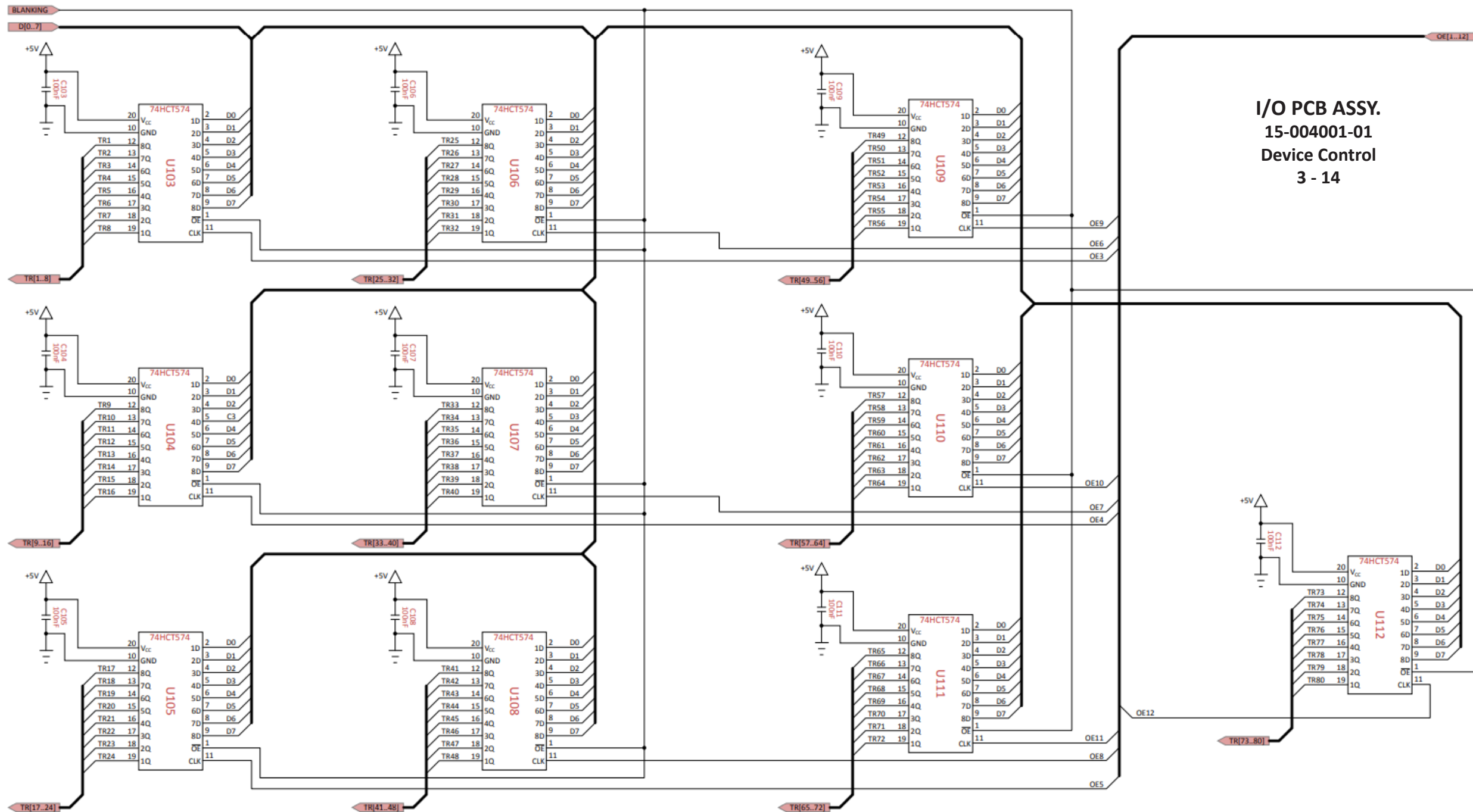


I/O PCB ASSY.
15-004001-01
Matrixed Switches
1 - 14



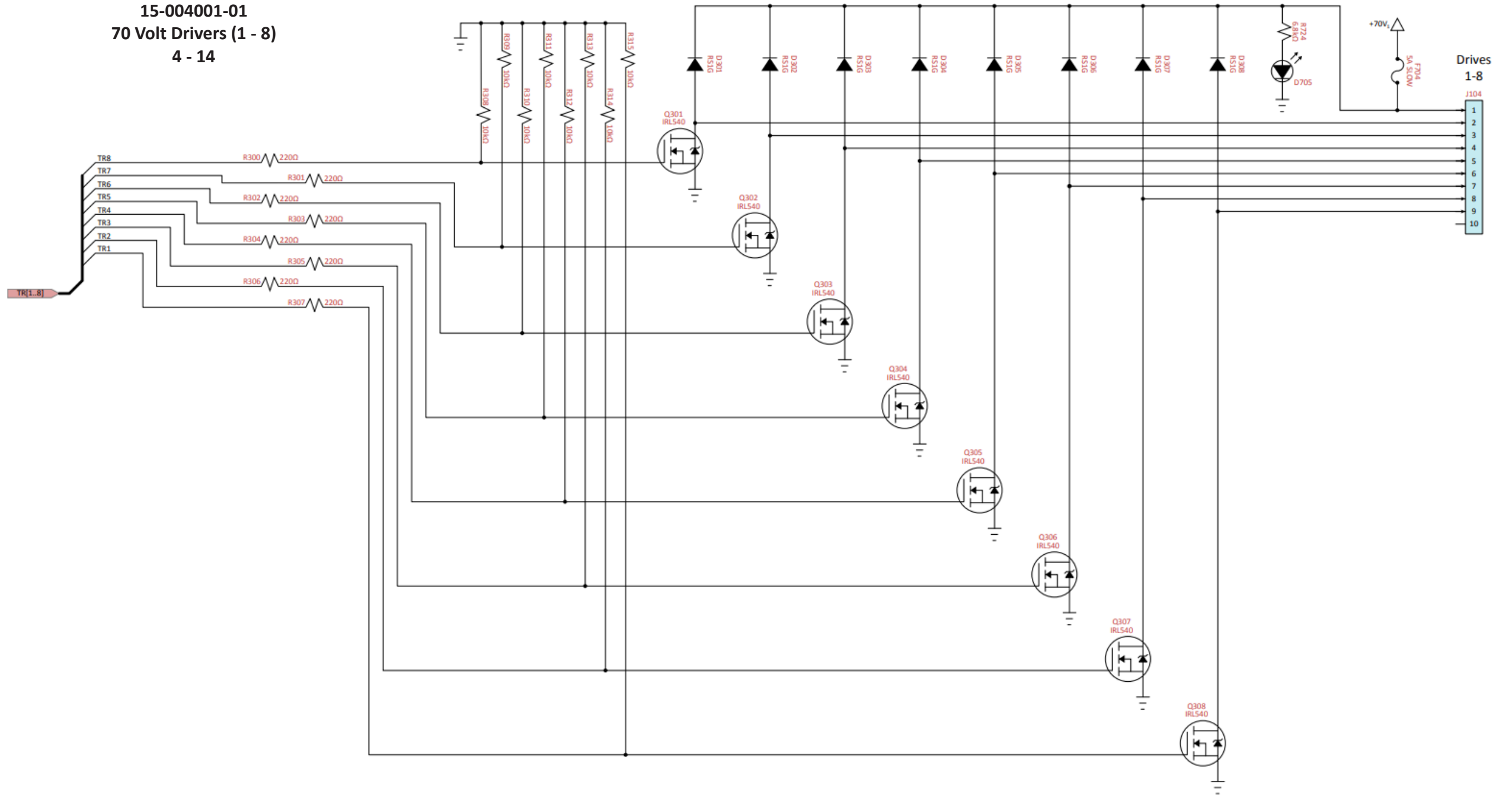
I/O PCB ASSY.
15-004001-01
Dedicated Switches
2 - 14



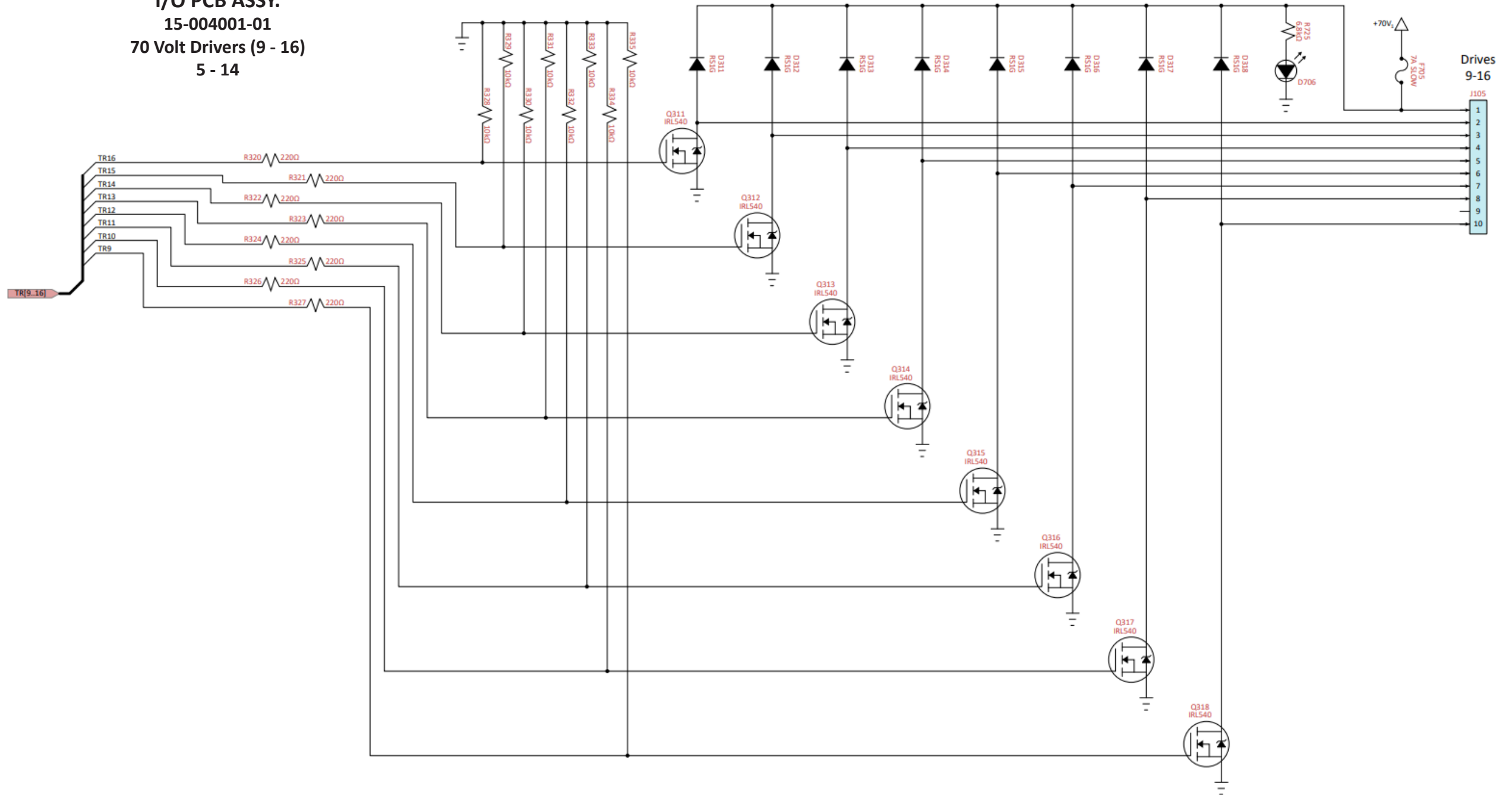


I/O PCB ASSY.
15-004001-01
Device Control
3 - 14

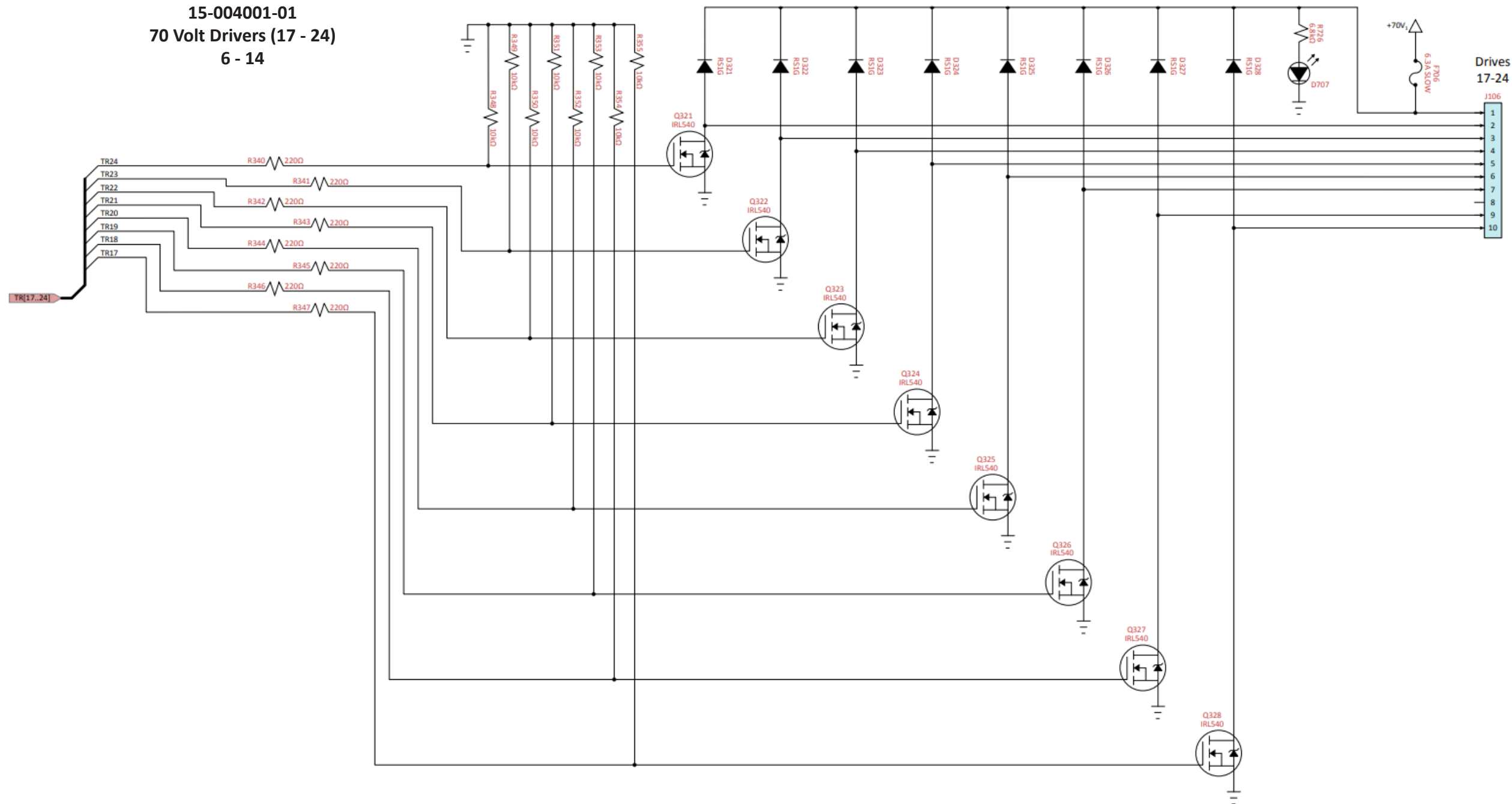
I/O PCB ASSY.
15-004001-01
70 Volt Drivers (1 - 8)
4 - 14



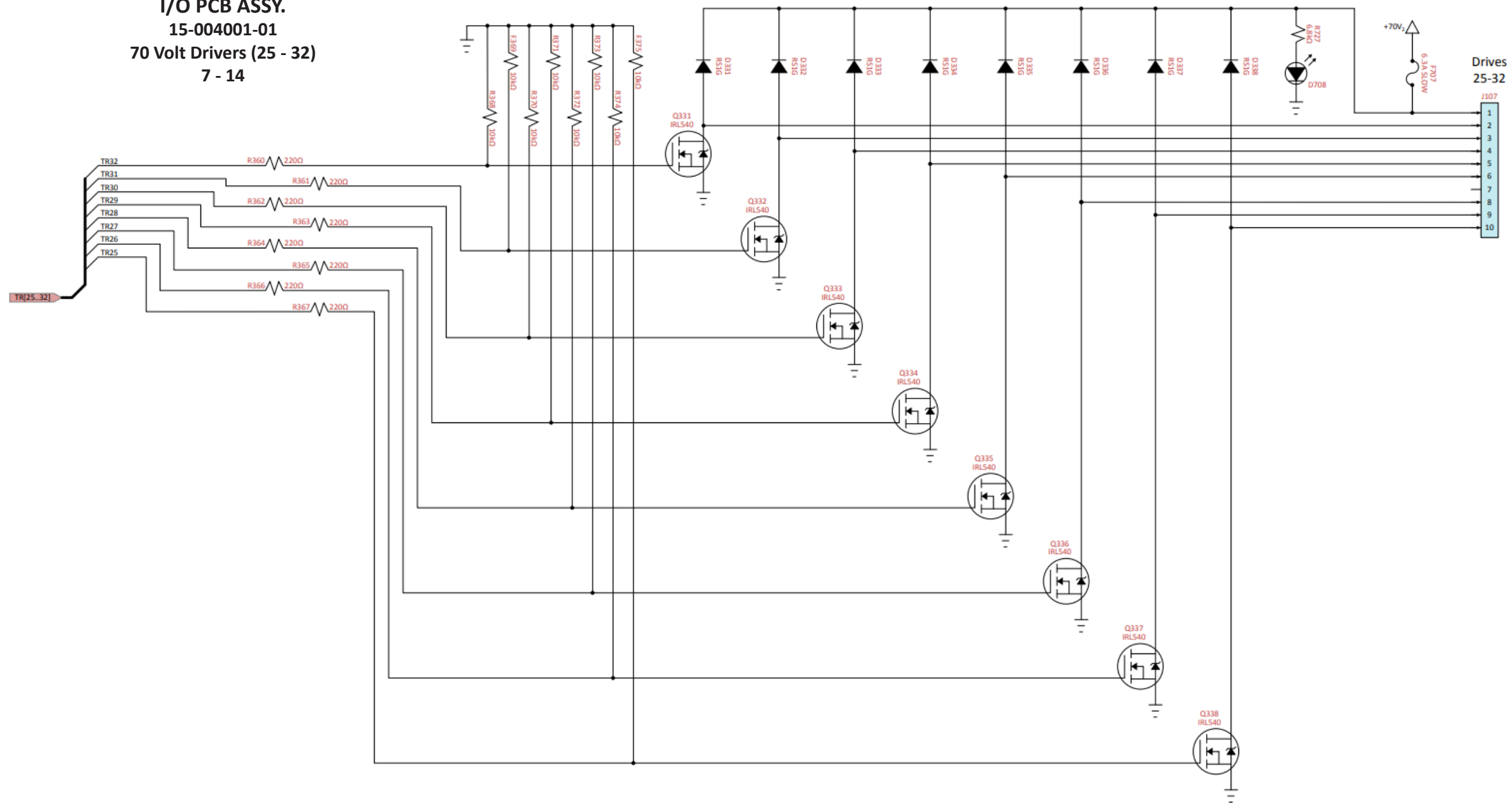
I/O PCB ASSY.
15-004001-01
70 Volt Drivers (9 - 16)
5 - 14



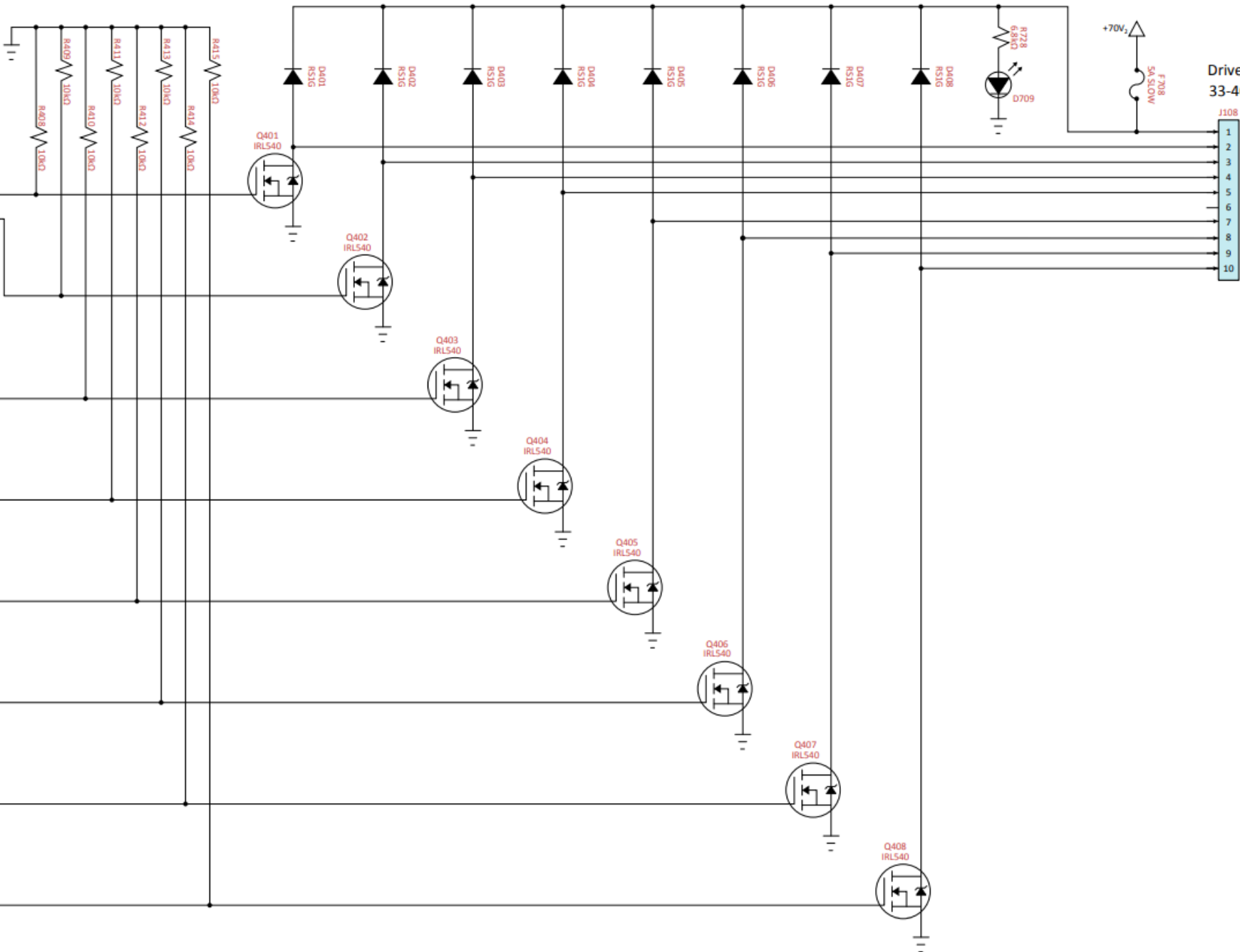
I/O PCB ASSY.
15-004001-01
70 Volt Drivers (17 - 24)
6 - 14



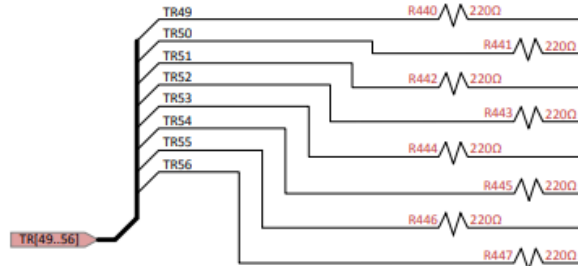
I/O PCB ASSY.
15-004001-01
70 Volt Drivers (25 - 32)
7 - 14



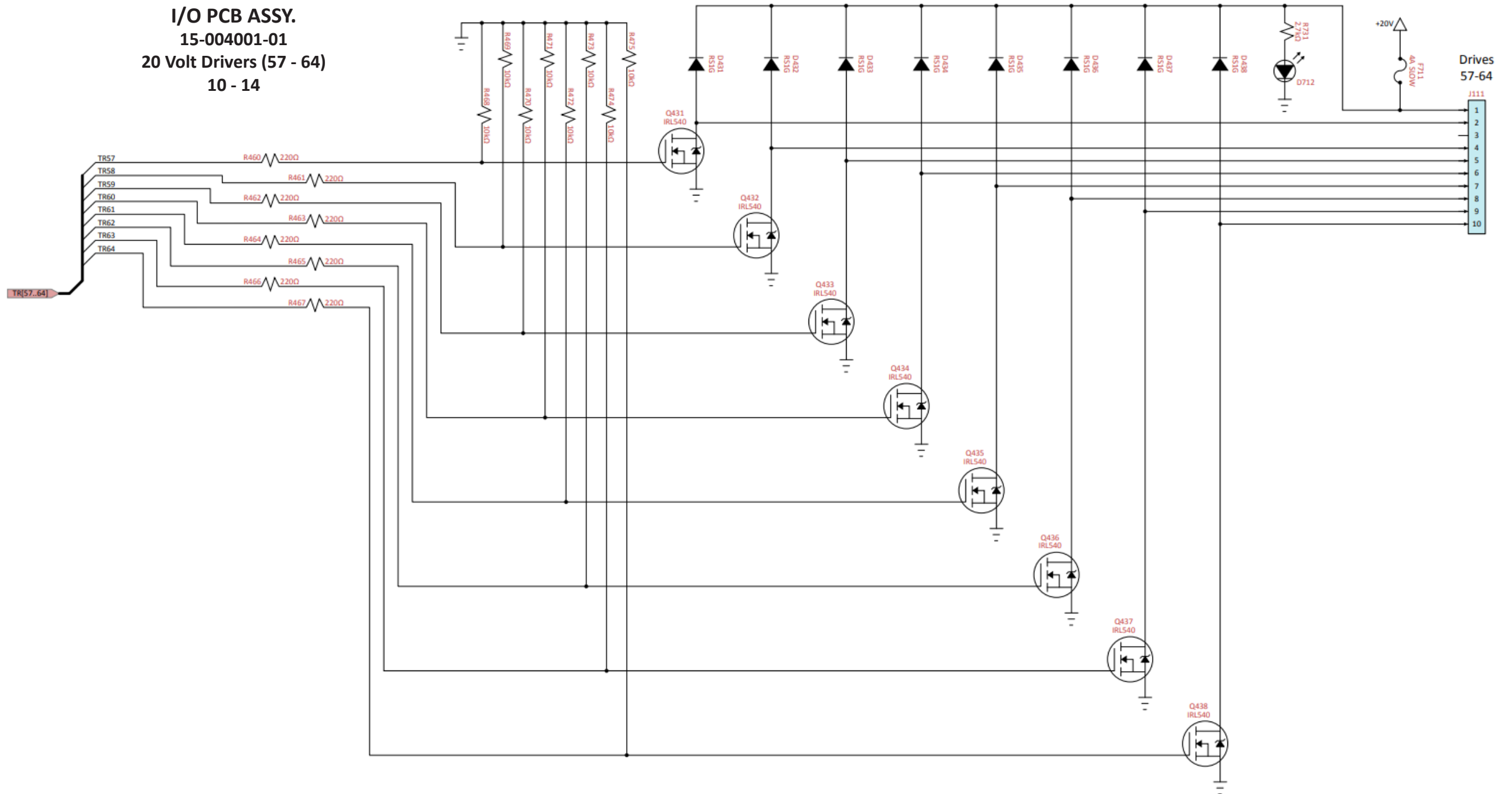
8 - 14



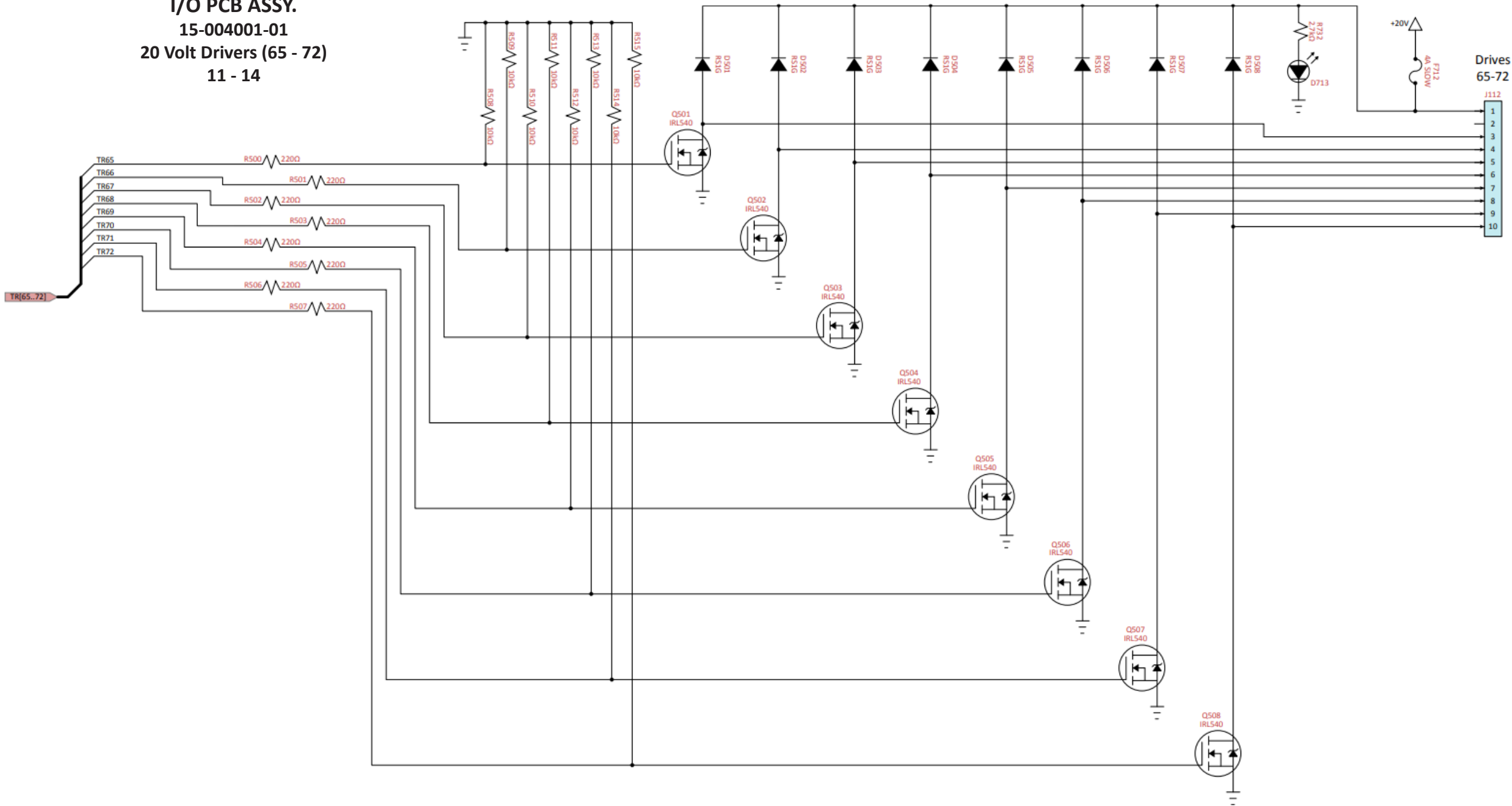
9 - 14



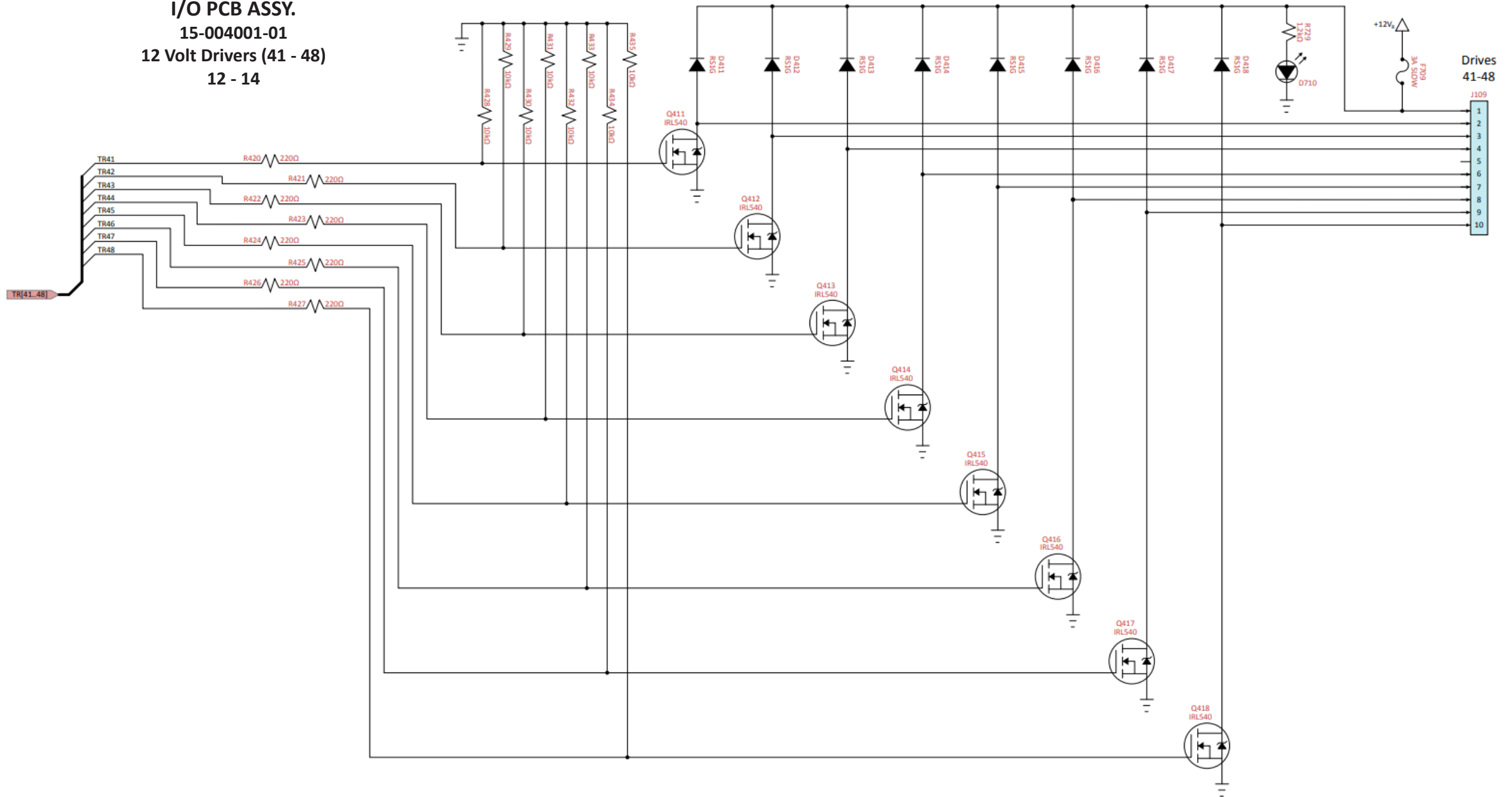
I/O PCB ASSY.
15-004001-01
20 Volt Drivers (57 - 64)
10 - 14



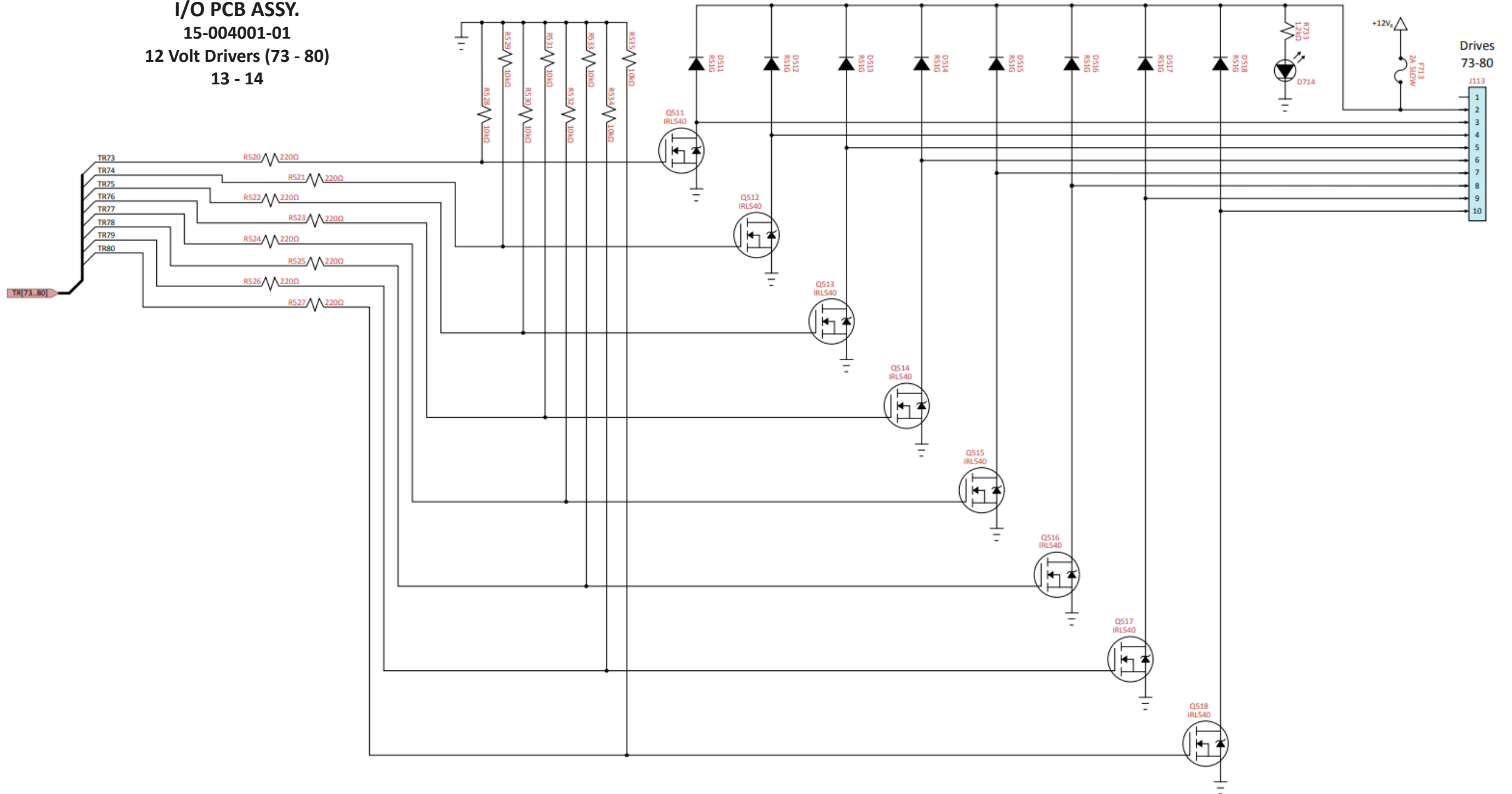
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15-004001-01
20 Volt Drivers (65 - 72)
11 - 14

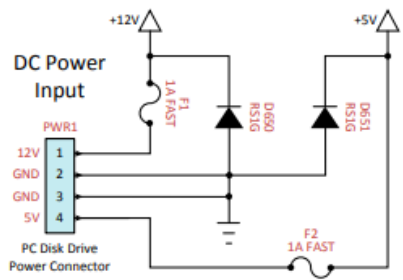


I/O PCB ASSY.
15-004001-01
12 Volt Drivers (41 - 48)
12 - 14

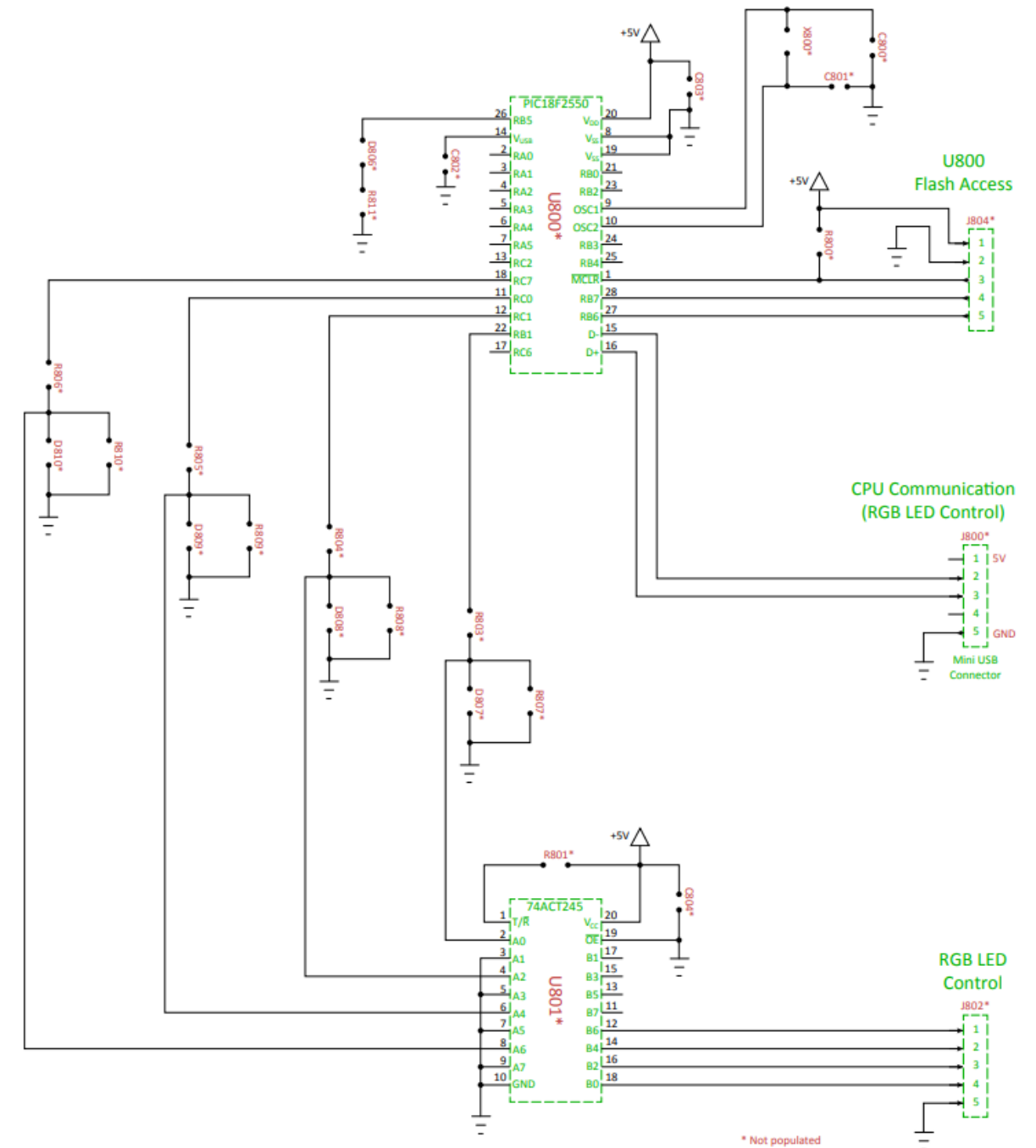
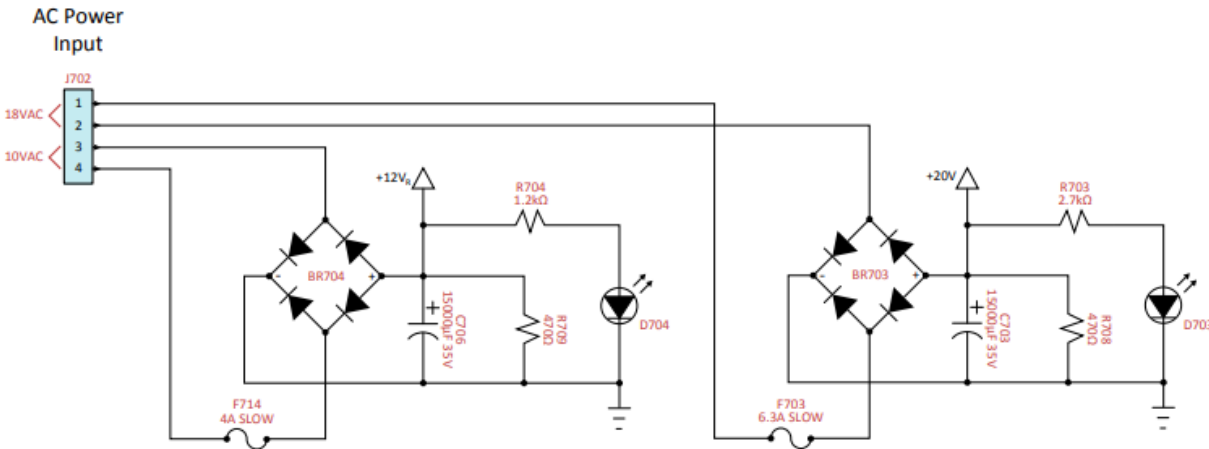
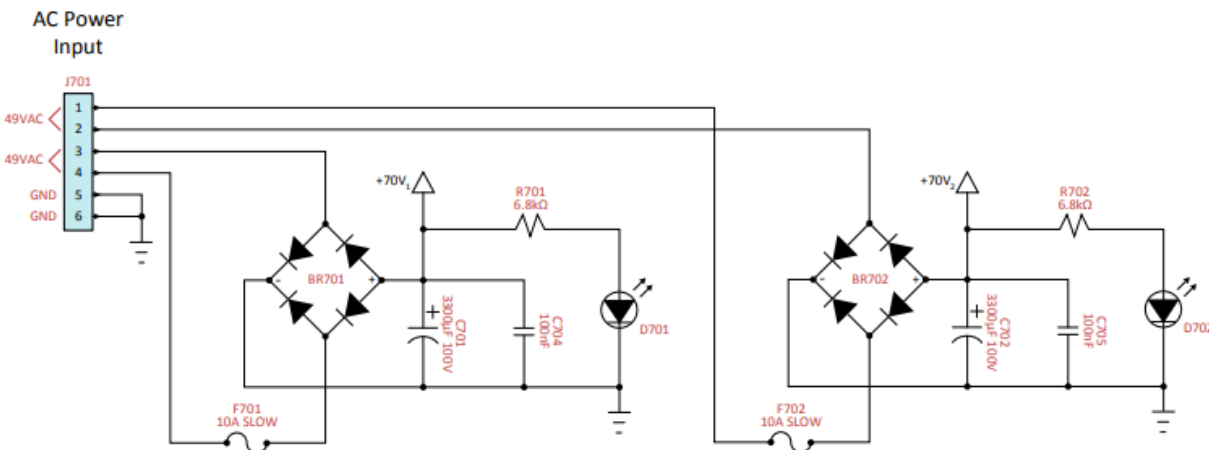


I/O PCB ASSY.
15-004001-01
12 Volt Drivers (73 - 80)
13 - 14

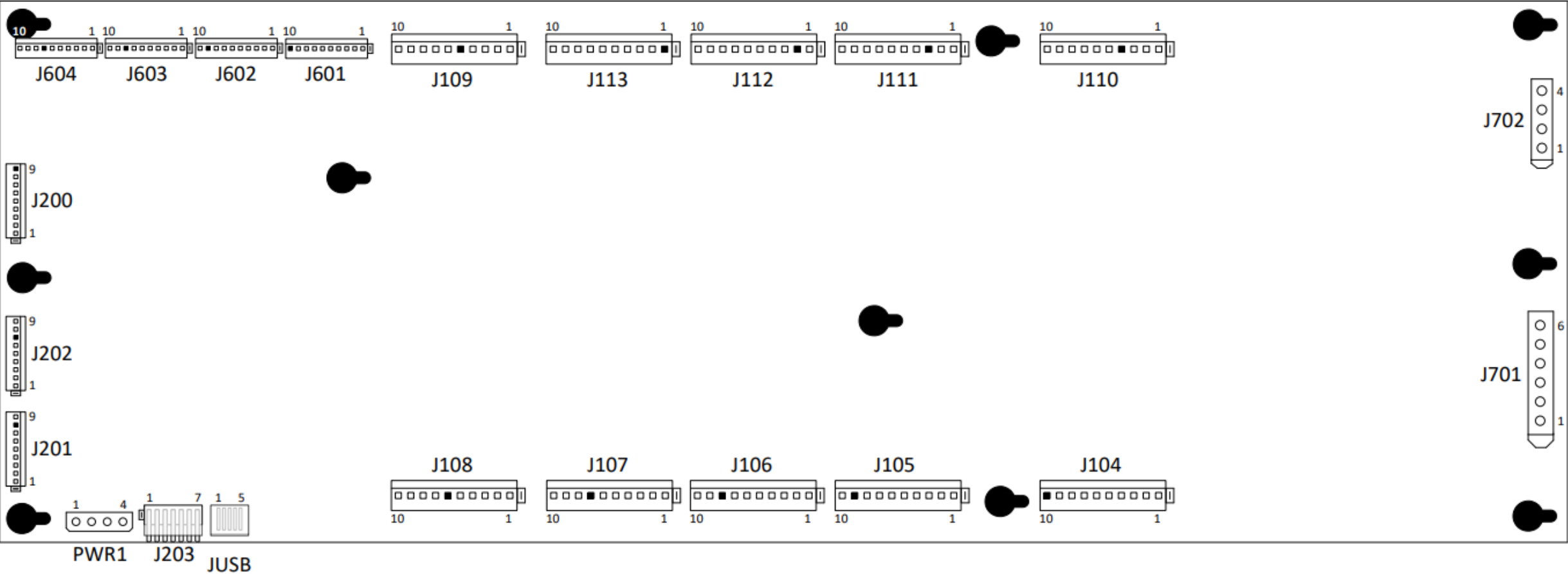




I/O PCB ASSY.
15-004001-01
Power
14 - 14



I/O PCB ASSY.
15-004001-01



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	Center Scoop VUK
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	Not Used
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	Right Ramp Diverter
3	ORN-BLU	Not Used
4	ORN-GRN	Not Used
5	ORN-YEL	Not Used
6	ORN-GRY	Not Used
7	ORN-RED	Upper Right Flipper Hold
8	KEY	
9	ORN-BRN	Upper Right Flipper Power
10	ORN-BLK	Loop Magnet

J107 70 Volt Coil Drives (25 - 32)

PIN		
1	TAN	+ 70 VDC Supply to Coils Below
2	TAN-VIO	Not Used
3	TAN-BLU	Left Pop Bumper
4	TAN-GRN	Not Used
5	TAN-YEL	Not Used
6	TAN-ORN	Upper Playfield Flipper Hold
7	KEY	
8	TAN-RED	Upper Playfield Flipper Power
9	TAN-BRN	Left Ramp Diverter Hold
10	TAN-BLK	Left Ramp Diverter Power

J108 70 Volt Coil Drives (33 - 40)

PIN		
1	PINK	+ 70 VDC Supply to Coils Below
2	PNK-VIO	Upper Playfield VUK
3	PNK-BLU	Not Used
4	PNK-GRN	Not Used
5	PNK-YEL	Not Used
6	KEY	
7	PNK-ORN	Bottom Pop Bumper
8	PNK-RED	Right Pop Bumper
9	PNK-BRN	Lock Up Release Right
10	PNK-BLK	Lock Up Release Left

J109 12 Volt Coil Drives (41 - 48)

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

J110 20 Volt Coil Drives (49 - 56)

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

J111 20 Volt Coil Drives (57 - 64)

PIN		
1	BLUE	+ 20 VDC Supply to Coils Below
2	BLU-BLK	Right Slingshot
3	KEY	
4	BLU-BRN	Left Slingshot
5	BLU-RED	Not Used
6	BLU-ORN	Not Used
7	BLU-YEL	Not Used
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	KEY	
1		
2	LIGHT BLUE	+ 20 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

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	49 VAC From Transformer
2	RED	49 VAC From Transformer
3	BLUE	49 VAC From Transformer
4	BLUE	49 VAC From Transformer
5	GREEN	Chassis Ground
6	GREEN	Chassis Ground

J702 AC Power Input Low

PIN		
1	YELLOW	18 VAC From Transformer
2	YELLOW	18 VAC From Transformer
3	GRAY	10 VAC From Transformer
4	GRAY	10 VAC From Transformer

J800 CPU Communication

Not Used / Unpopulated

J802 RGB LED Control

Not Used / Unpopulated

J804 Flash Programing Access

Not Used / Unpopulated

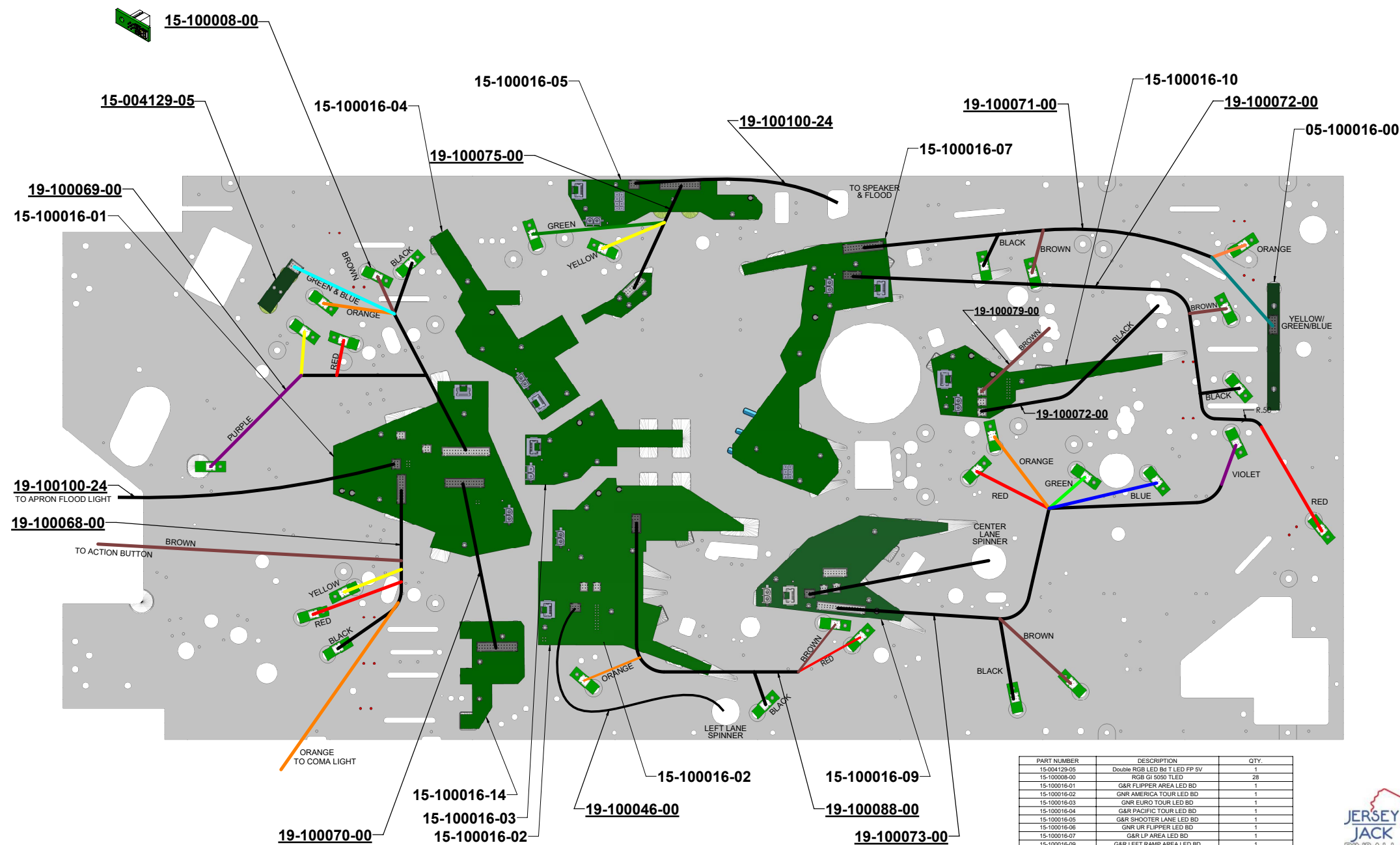
JUSB CPU Communications

Mini USB Cable to CPU USB Connector

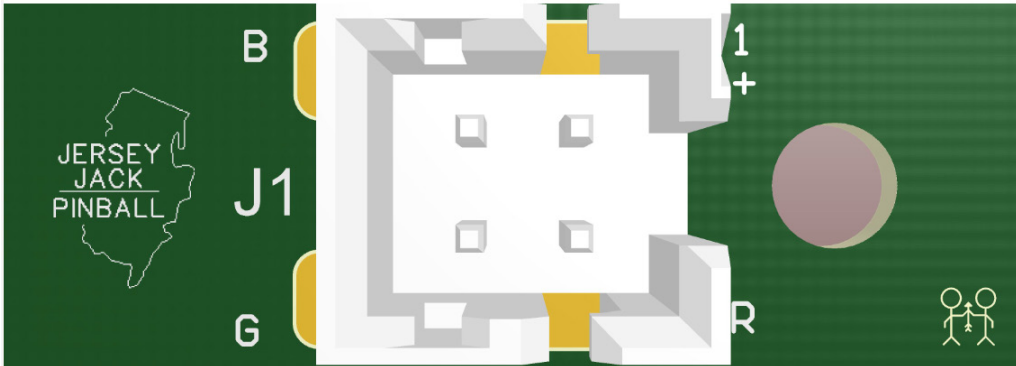
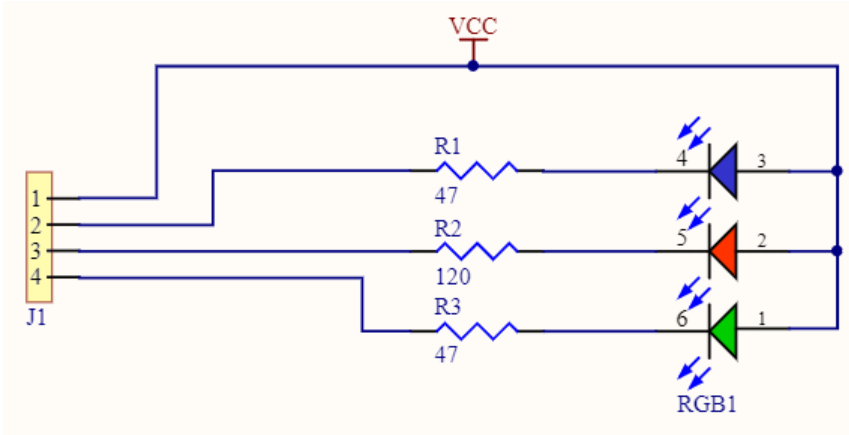
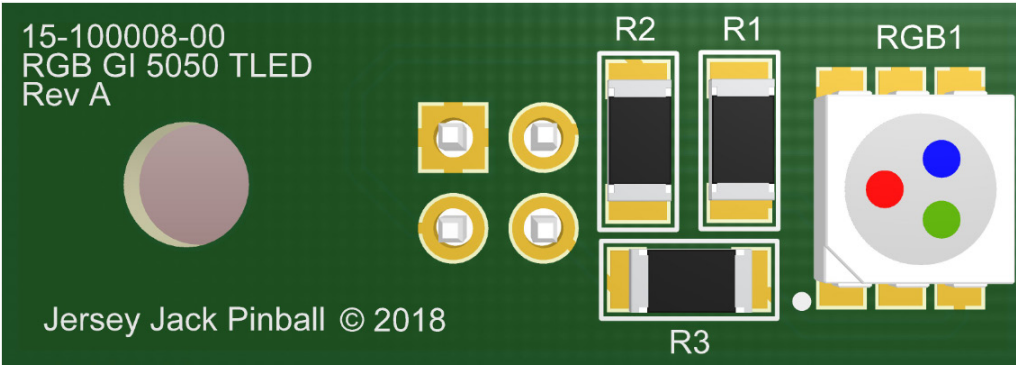
PWR1 DC Power Input

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

LED Boards and Cables

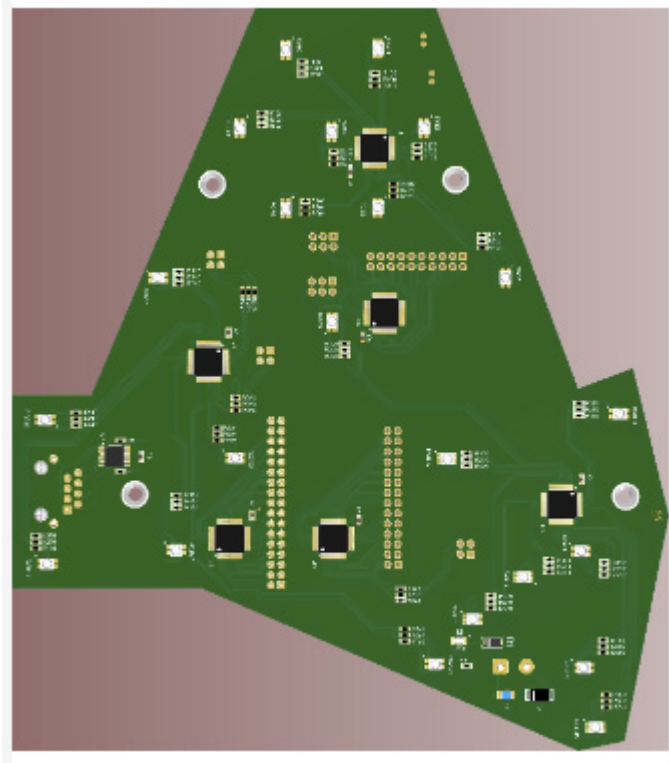


Single RGB Board
 15-100008-00
 15-100008-01 (No Connector)



- J1**
- Pin
- 1 +5VDC from a Main RGB LED Board
 - 2 Blue Return to a Main RGB Board
 - 3 Red Return to a Main RGB Board
 - 4 Green Return to a Main RGB Board

Flipper Area RGB LED Board 15-100016-01

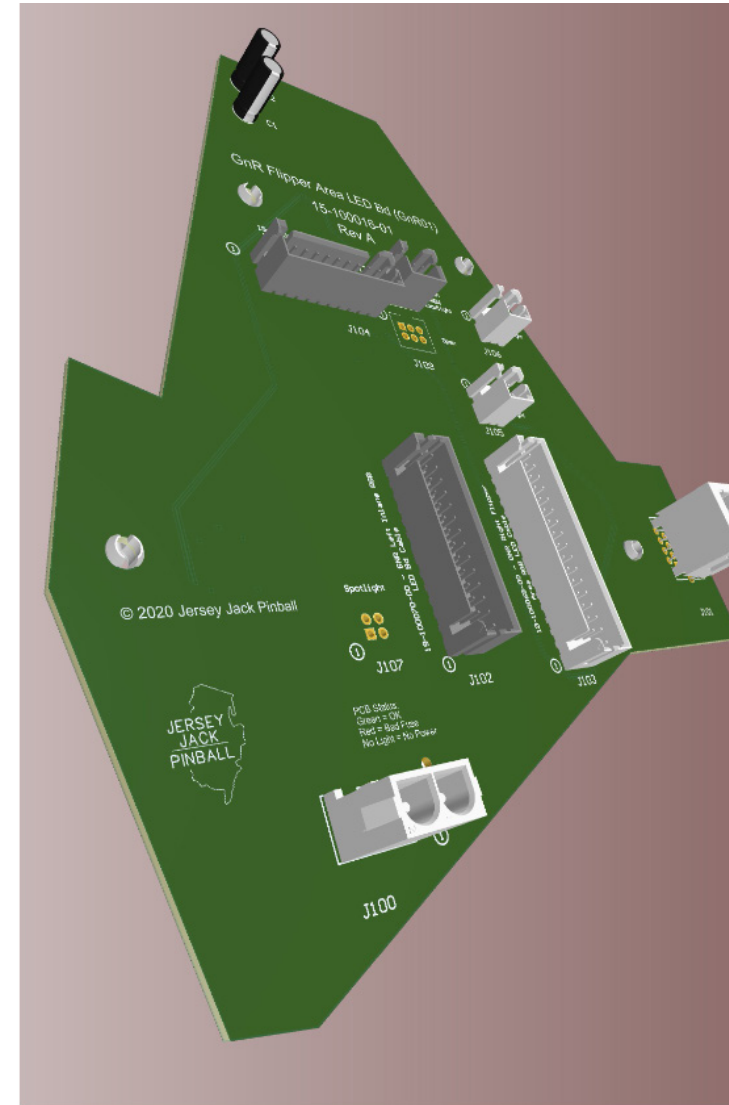


J100 Power Input

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

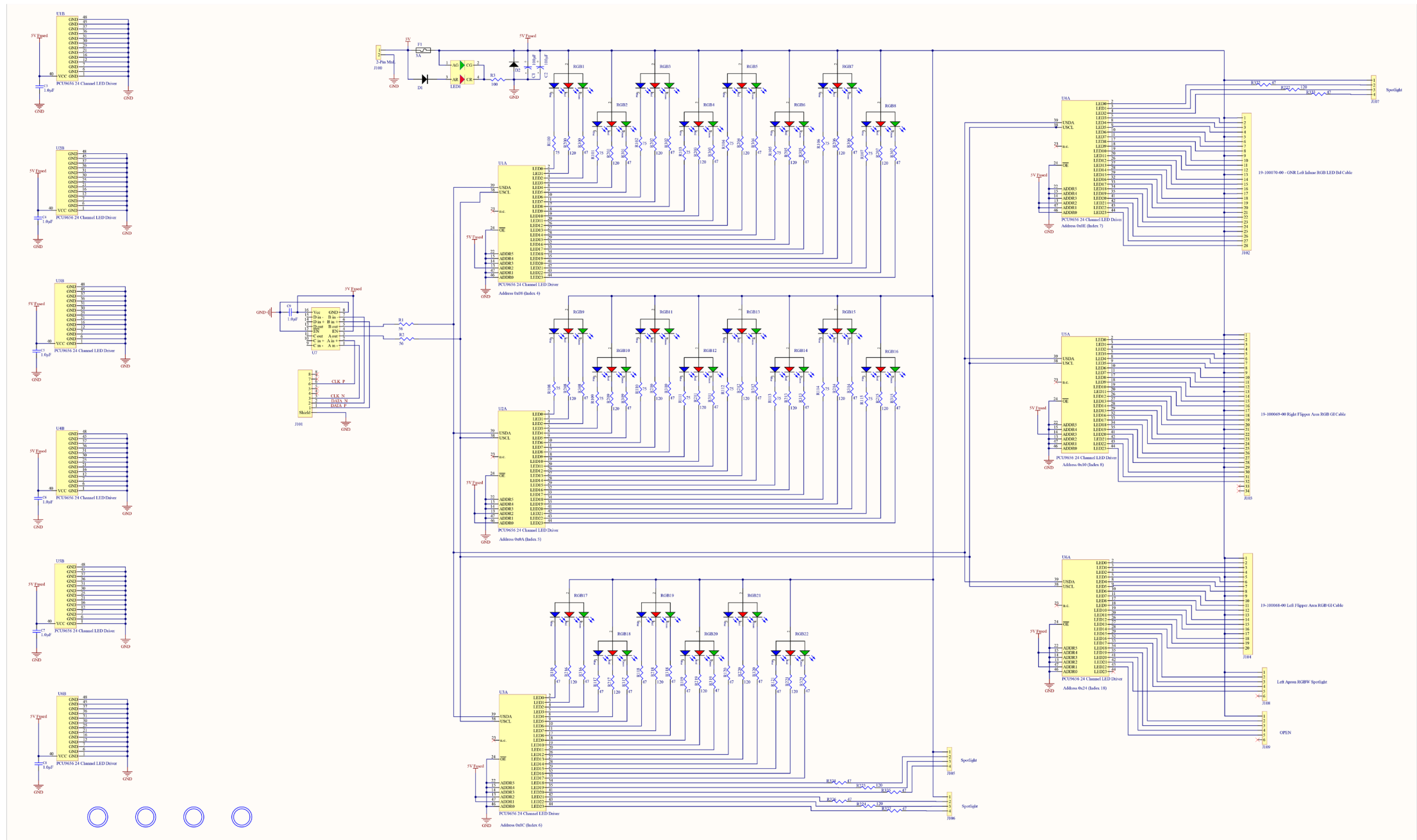
J101 I2C Communications Input

Cat5 or Higher Ethernet Cable

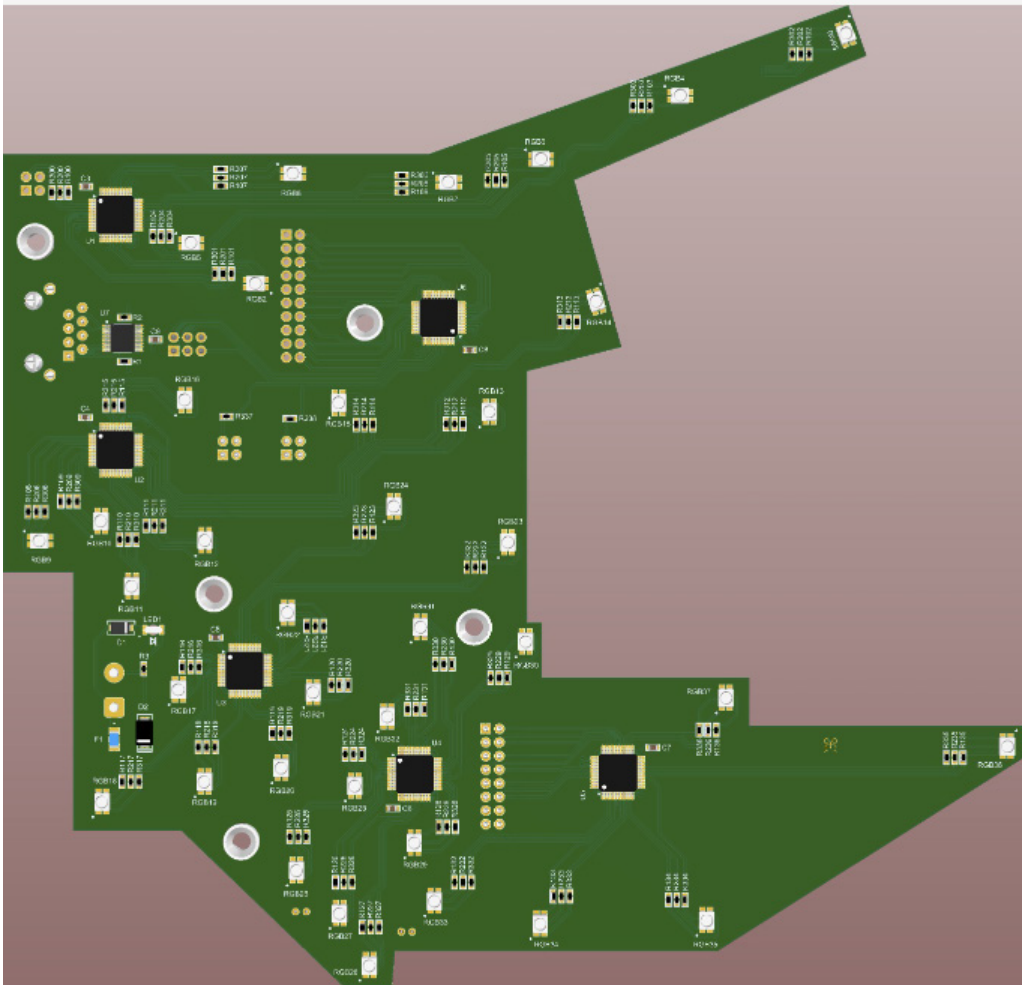


Flipper Area RGB LED Board

15-100016-01

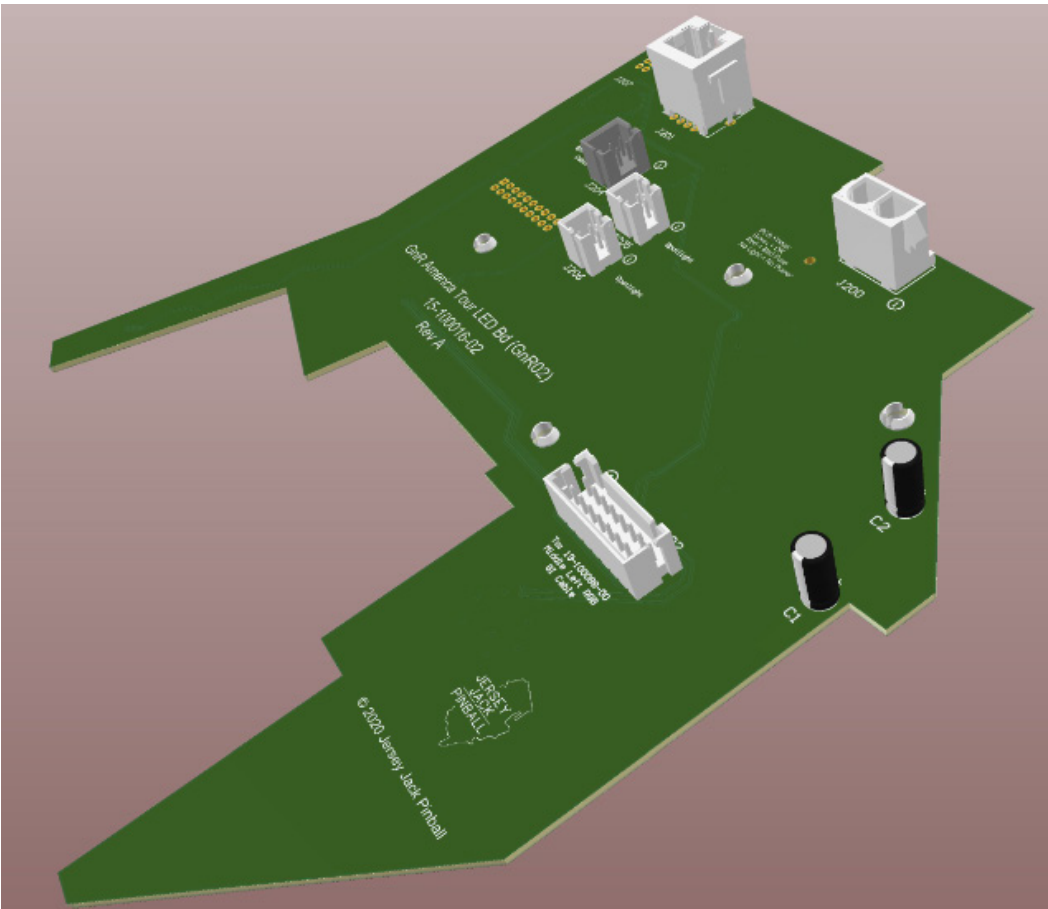


American Tour RGB LED Board
15-100016-02



J200 Power Input

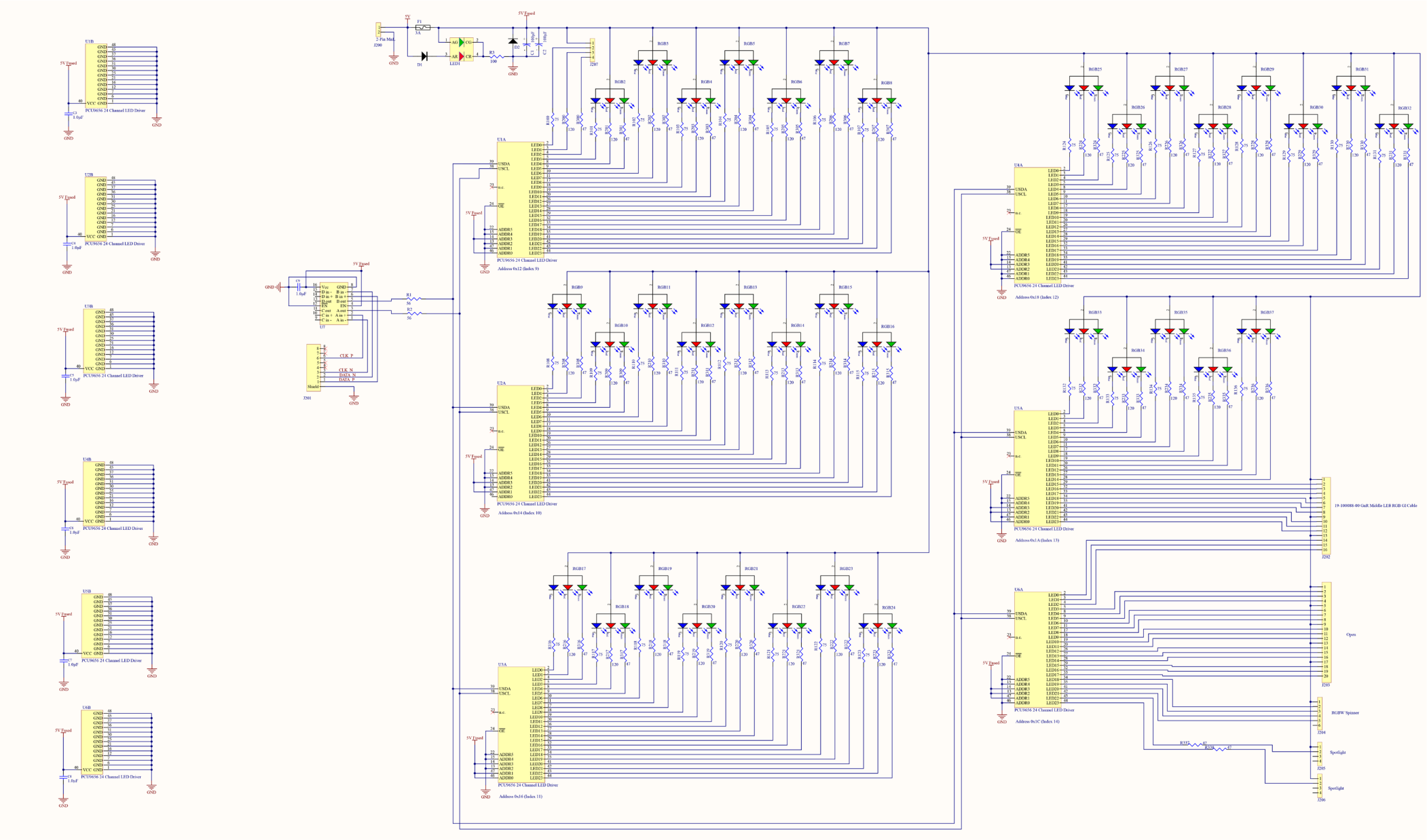
- Pin
- | | | |
|---|-------|------------------------------|
| 1 | Red | +5VDC from ATX Power Supply |
| 2 | Black | Ground from ATX Power Supply |



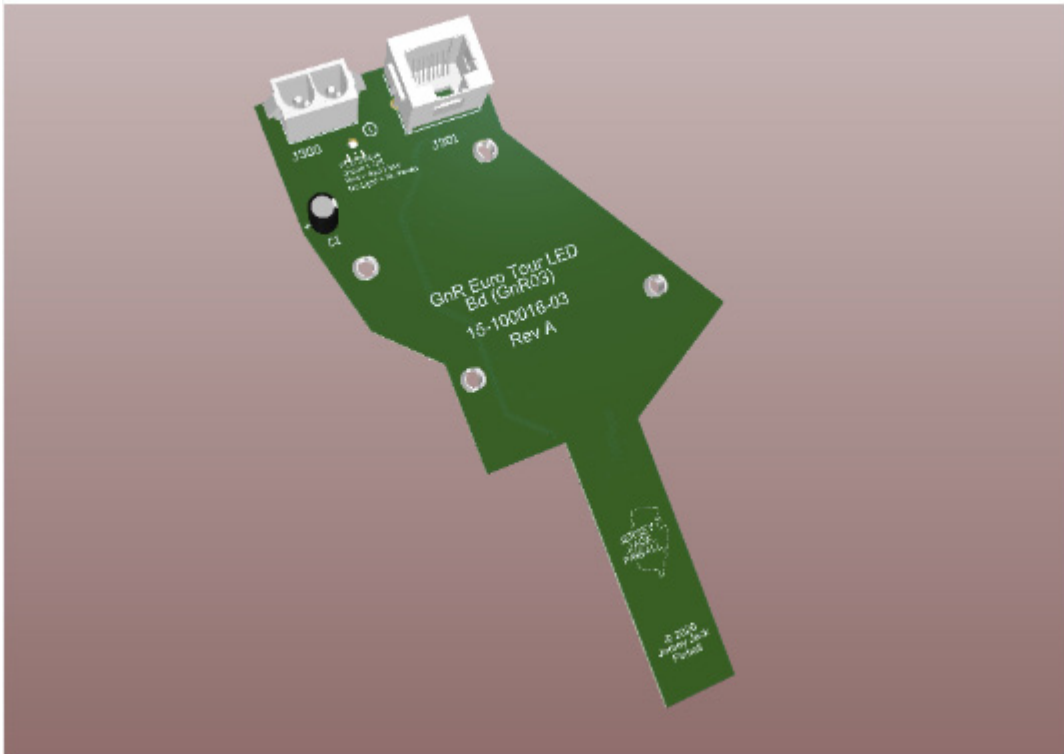
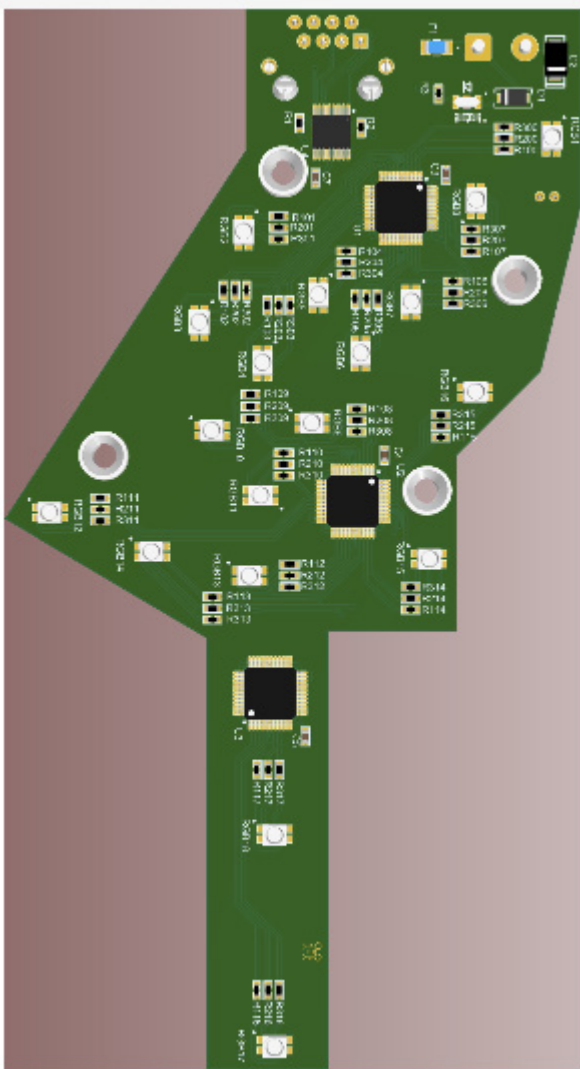
J201 I2C Communications Input

Cat5 or Higher Ethernet Cable

15-100016-02



Euro Tour RGB LED Board **15-100016-03**



J300 Power Input

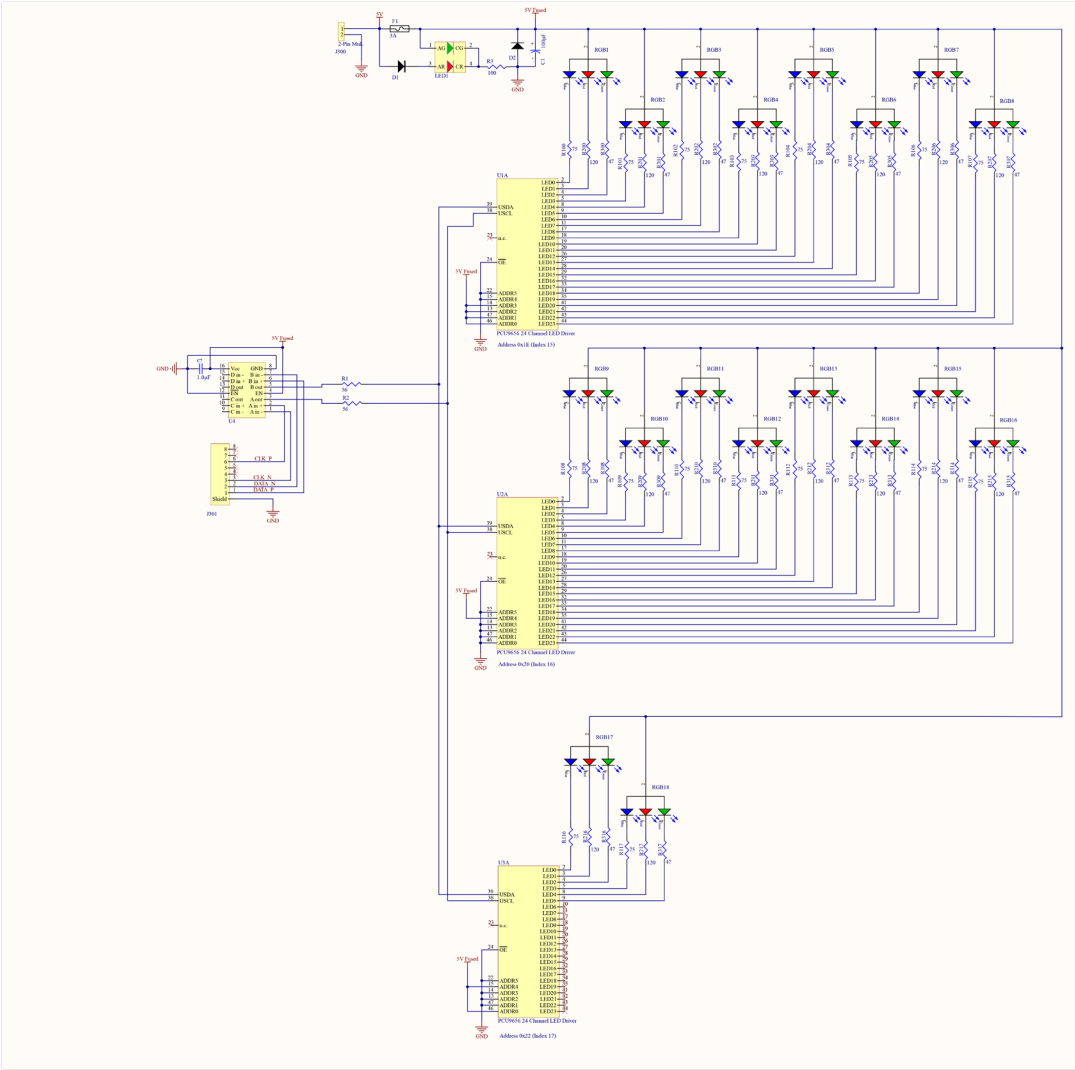
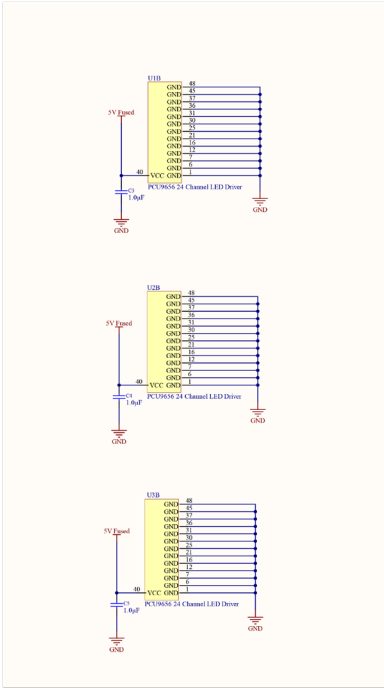
- Pin
- 1 Red +5VDC from ATX Power Supply
 - 2 Black Ground from ATX Power Supply

J301 I2C Communications Input

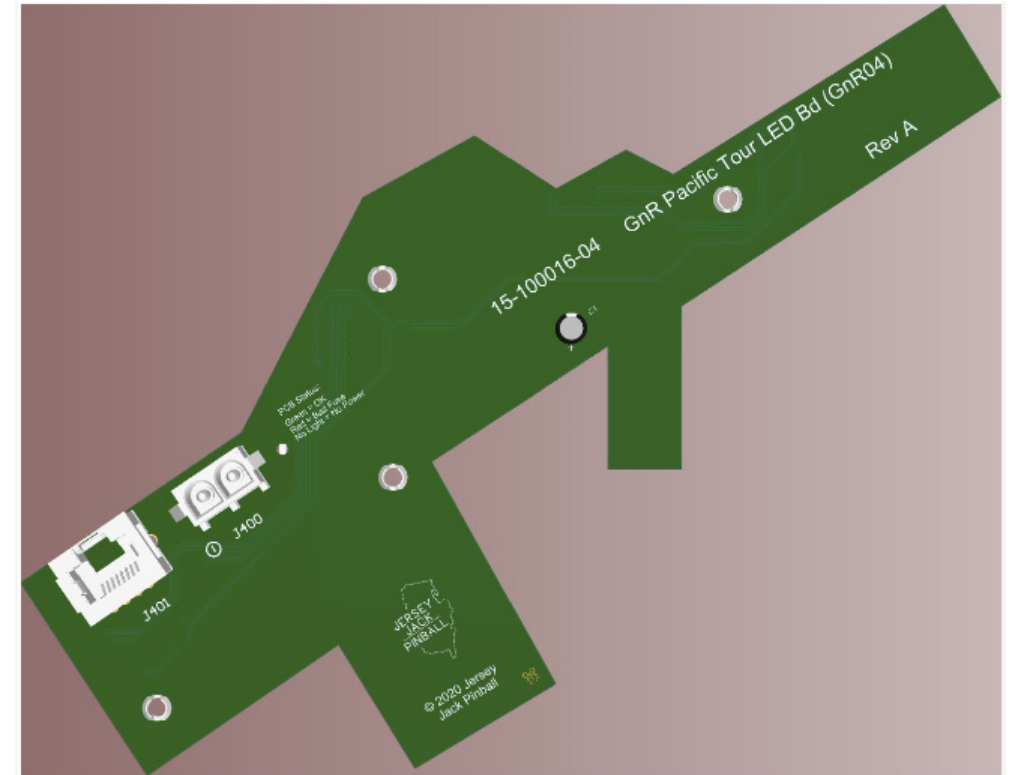
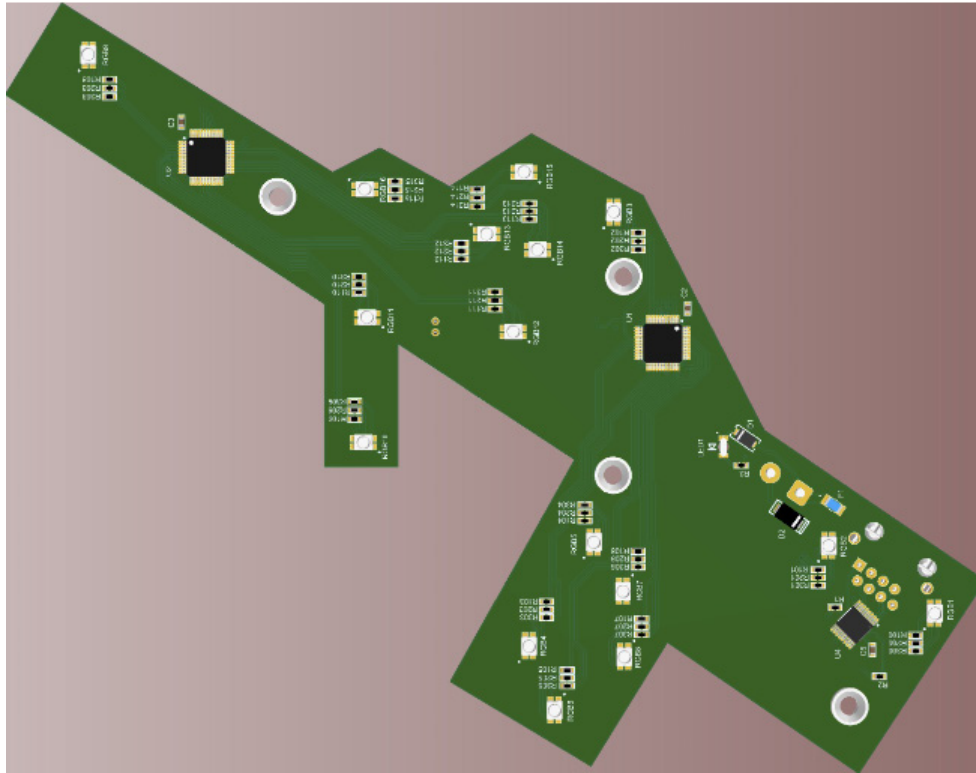
Cat5 or Higher Ethernet Cable

Euro Tour RGB LED Board

15-100016-03



Pacific Tour RGB LED Board 15-100016-04



J400 Power Input

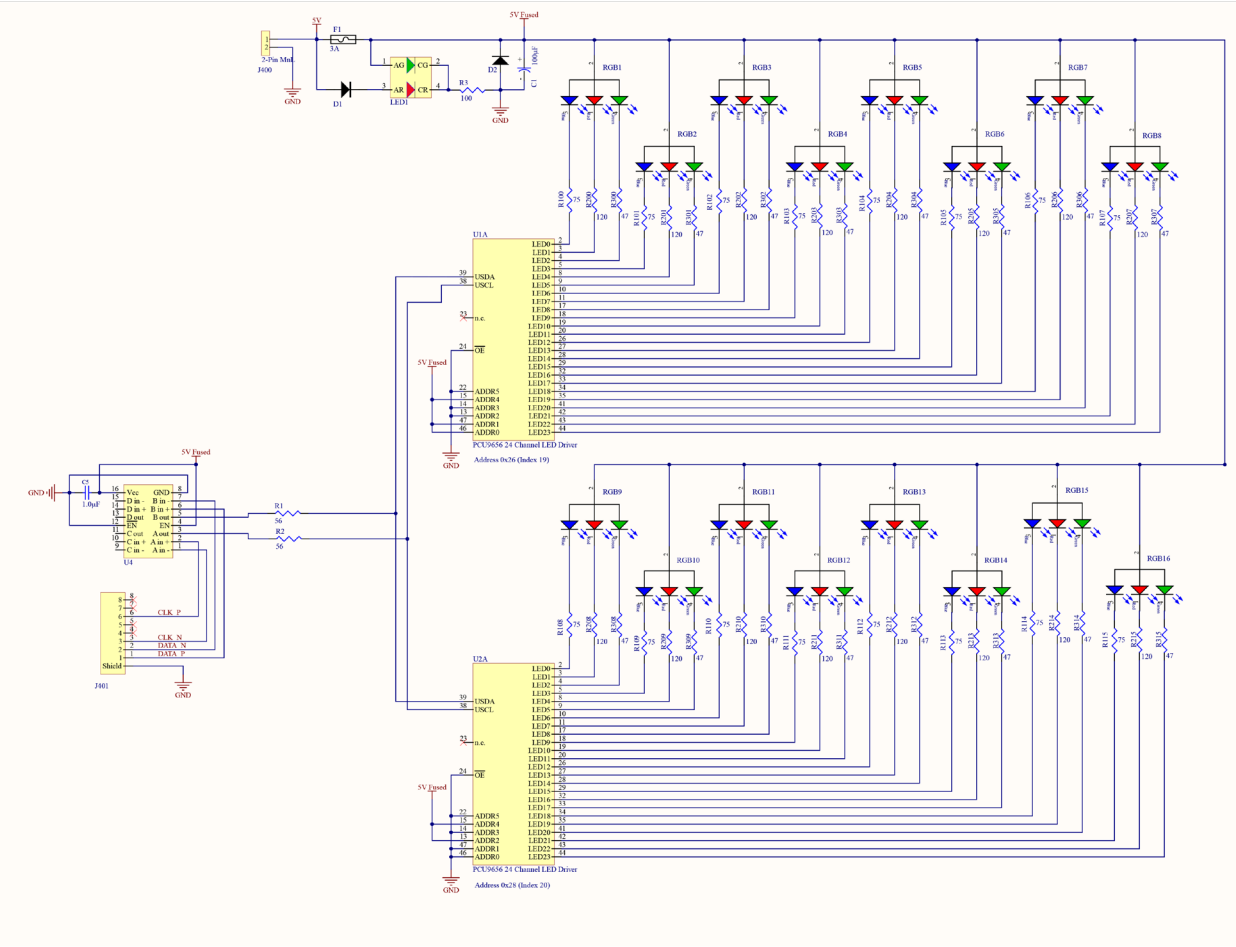
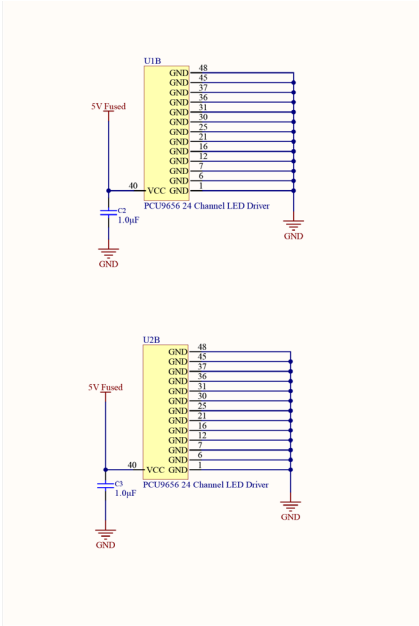
Pin

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

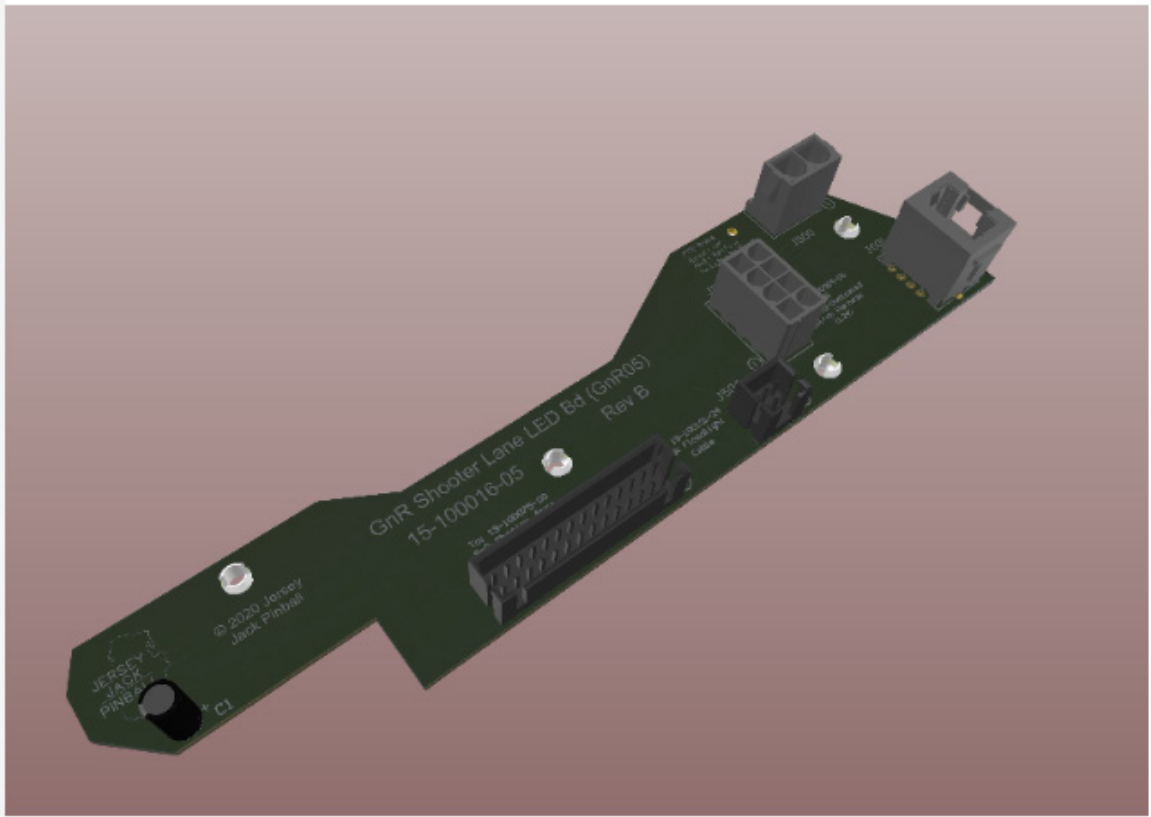
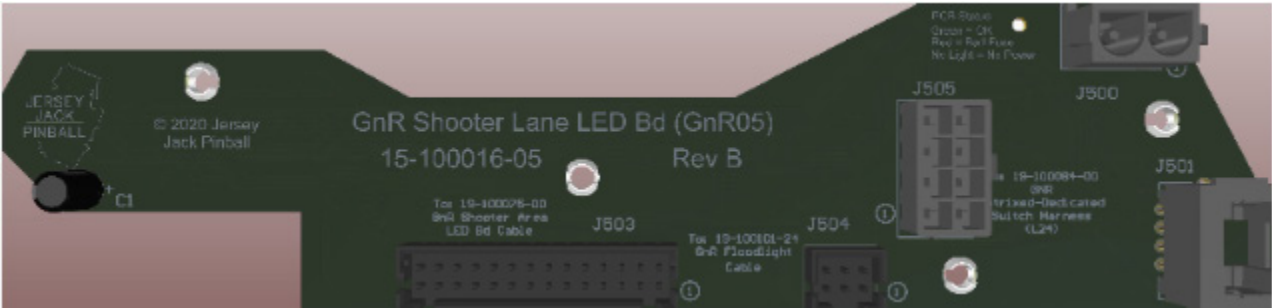
J401 I2C Communications Input

Cat5 or Higher Ethernet Cable

Pacific Tour RGB LED Board
15-100016-04



Shooter Lane RGB LED Board 15-100016-05



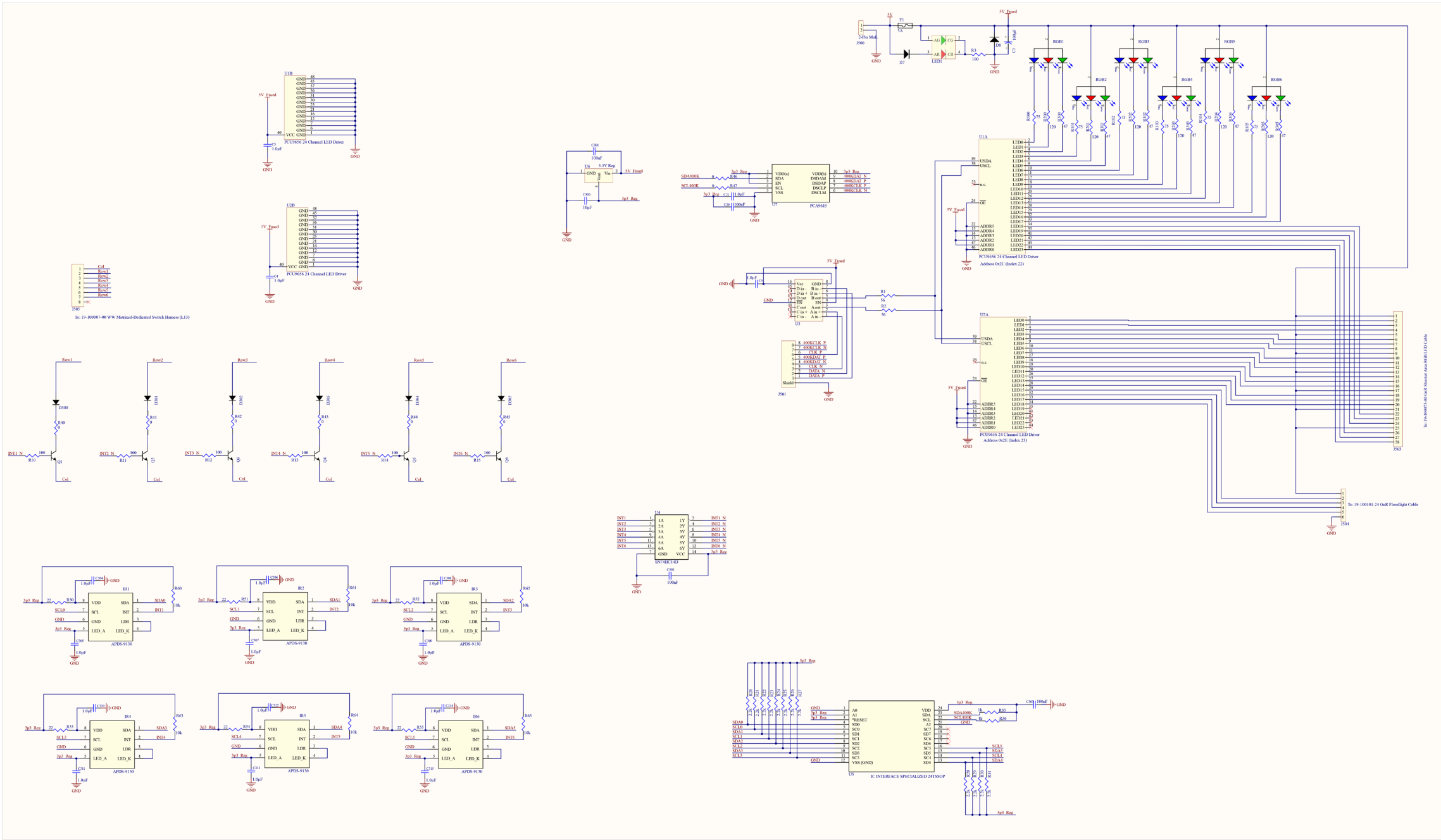
J500 Power Input

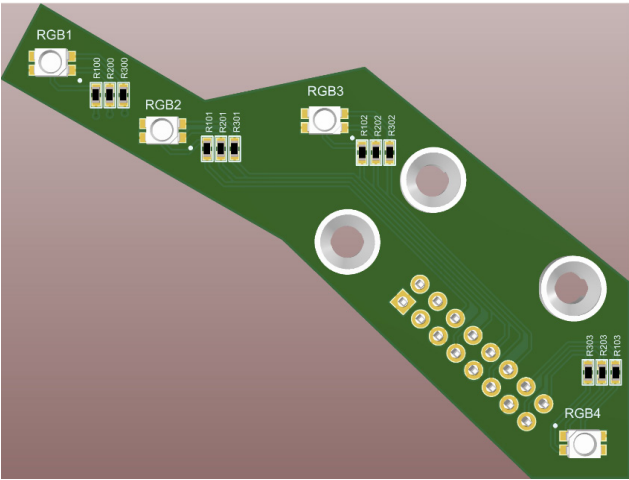
Pin		
1	Red	+5VDC from ATX Power Supply
2	Black	Ground from ATX Power Supply

J501 I2C Communications Input

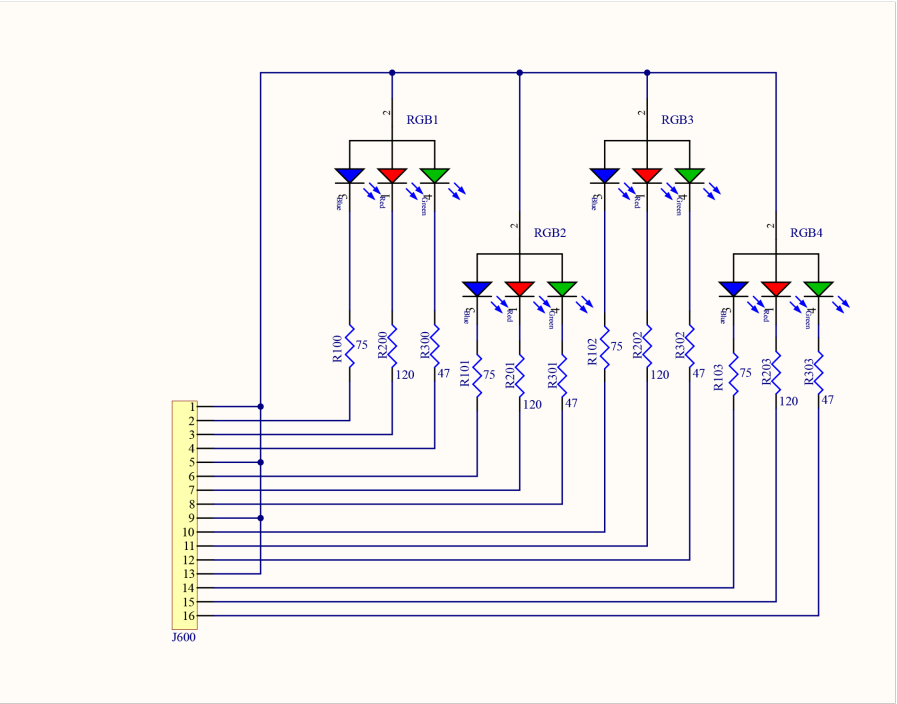
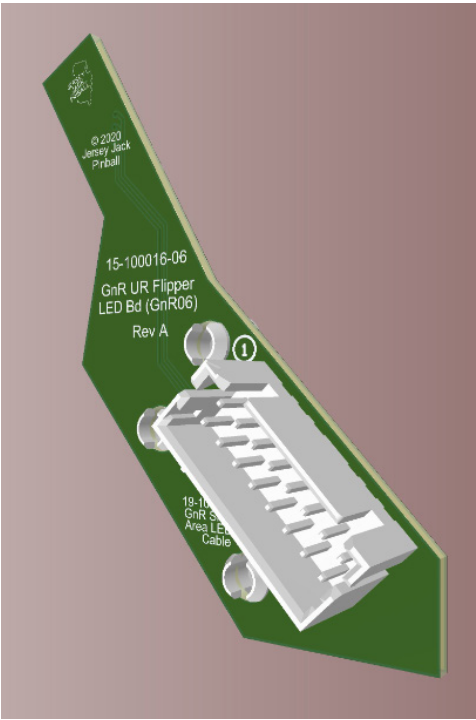
Cat5 or Higher Ethernet Cable

Shooter Lane RGB LED Board
15-100016-05

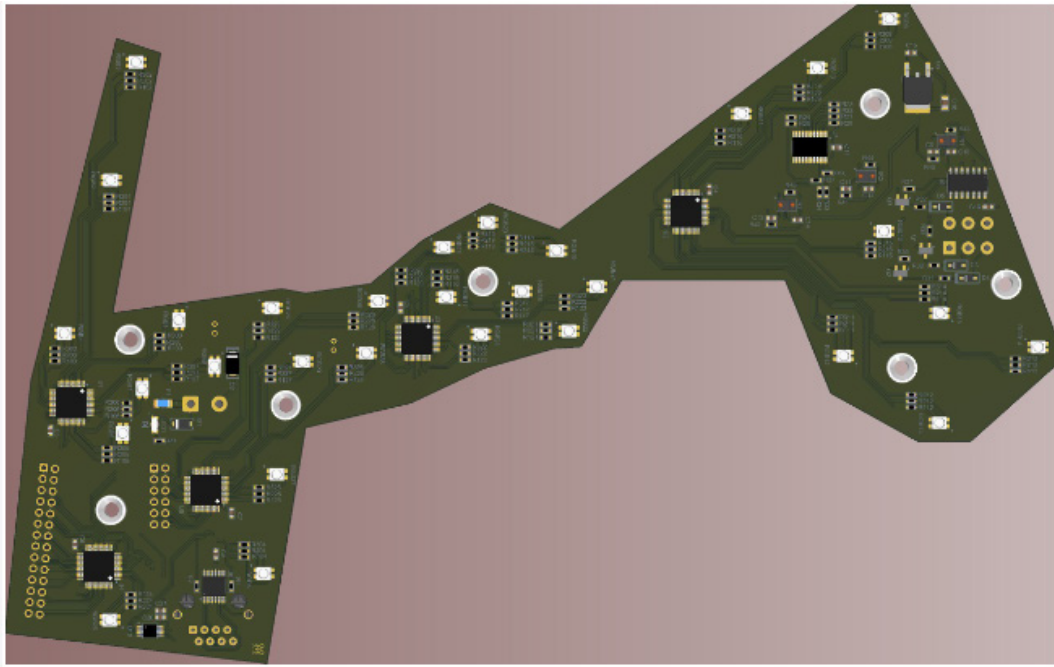




UR Flipper RGB LED Board
15-100016-06

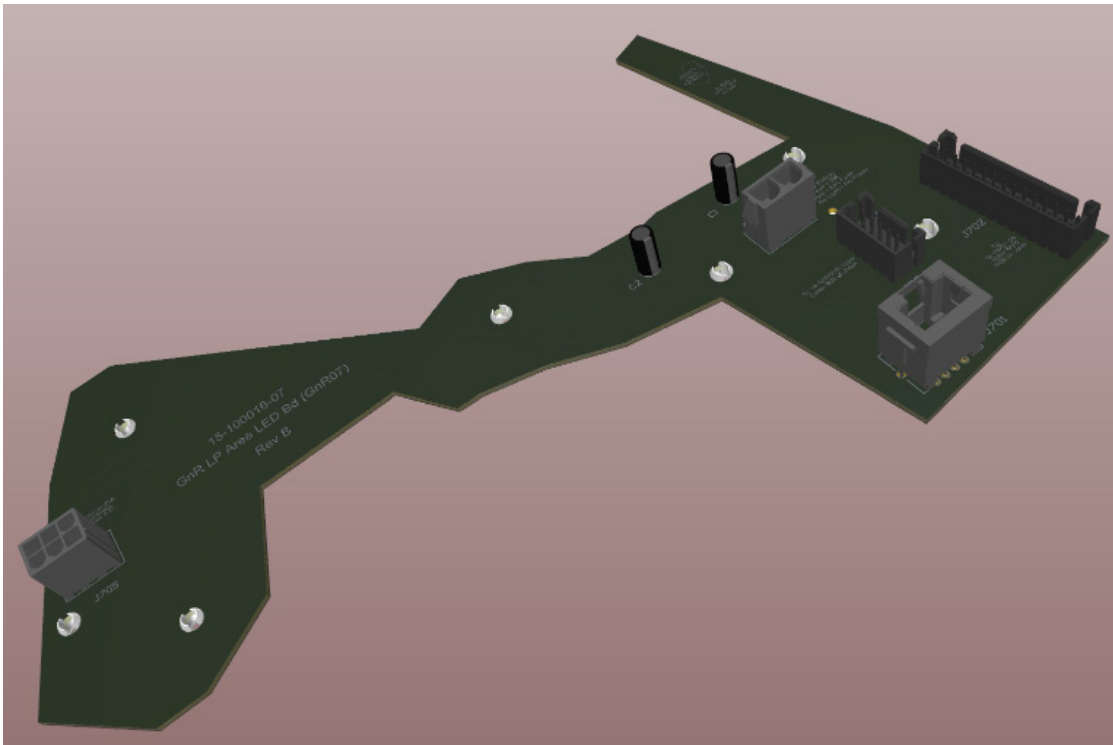


LP Area RGB LED Board
15-100016-07



J700 Power Input

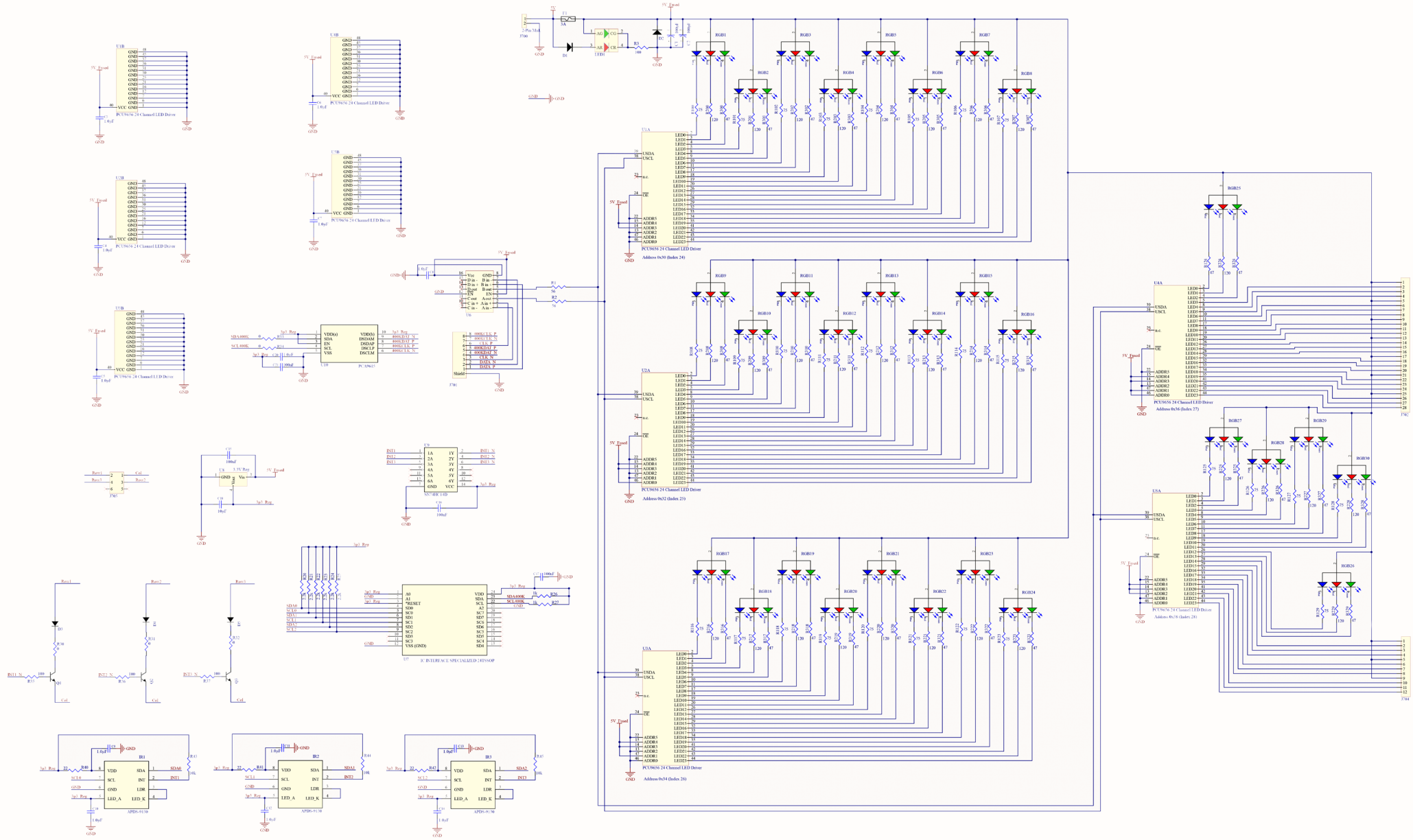
Pin		
1	Red	+5VDC from ATX Power Supply
2	Black	Ground from ATX Power Supply



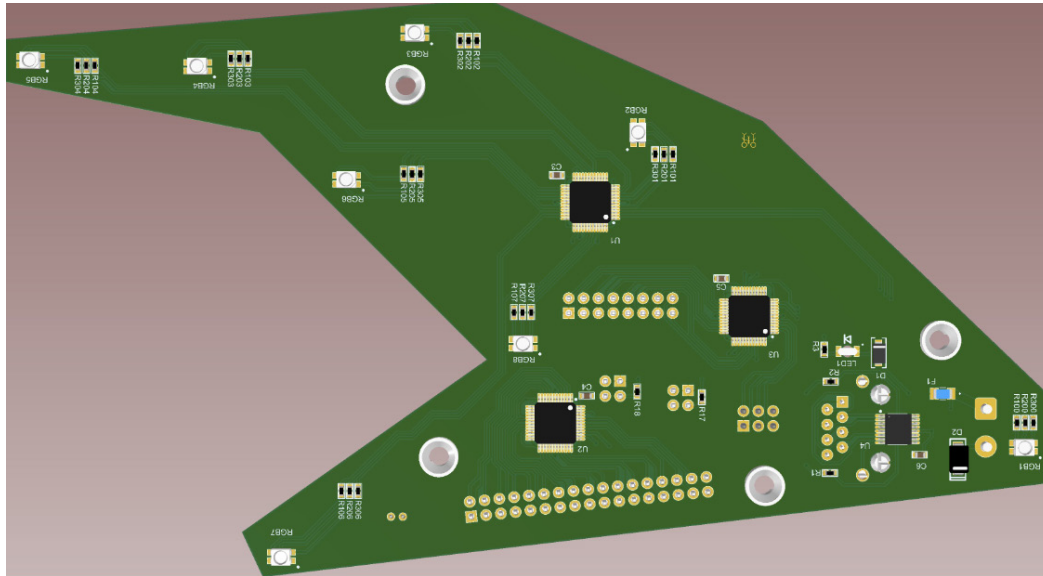
J701 I2C Communications Input

Cat5 or Higher Ethernet Cable

LP Area RGB LED Board
15-100016-07



Left Ramp Area RGB LED Board 15-100016-09

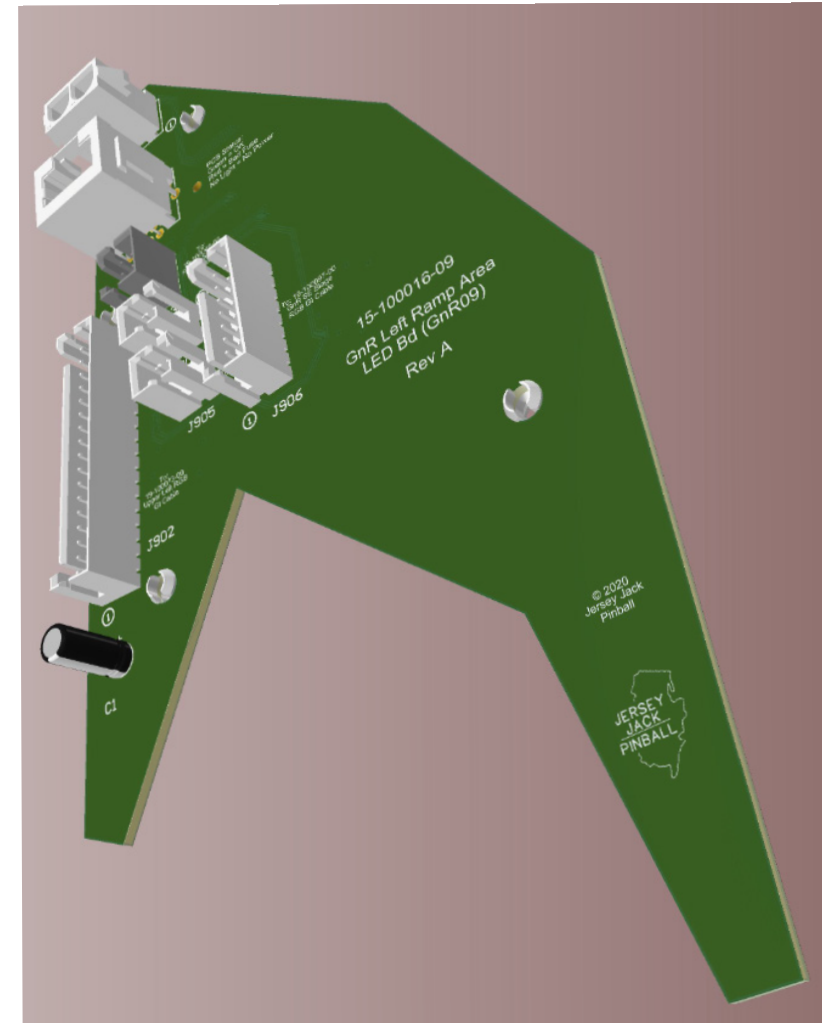


J7900 Power Input

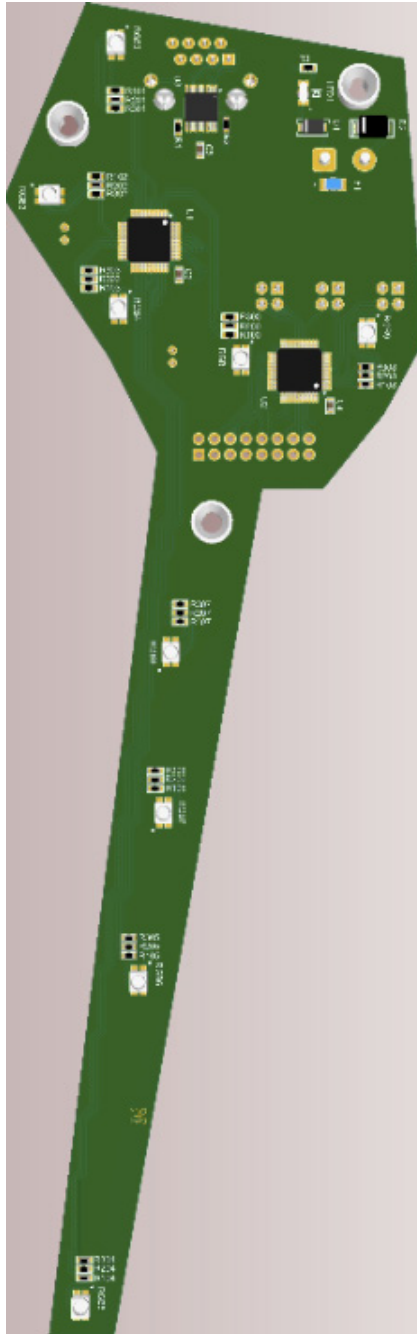
Pin	
1	Red +5VDC from ATX Power Supply
2	Black Ground from ATX Power Supply

J901 I2C Communications Input

Cat5 or Higher Ethernet Cable



Drums Area RGB LED Board 15-100016-10



J1000 Power Input

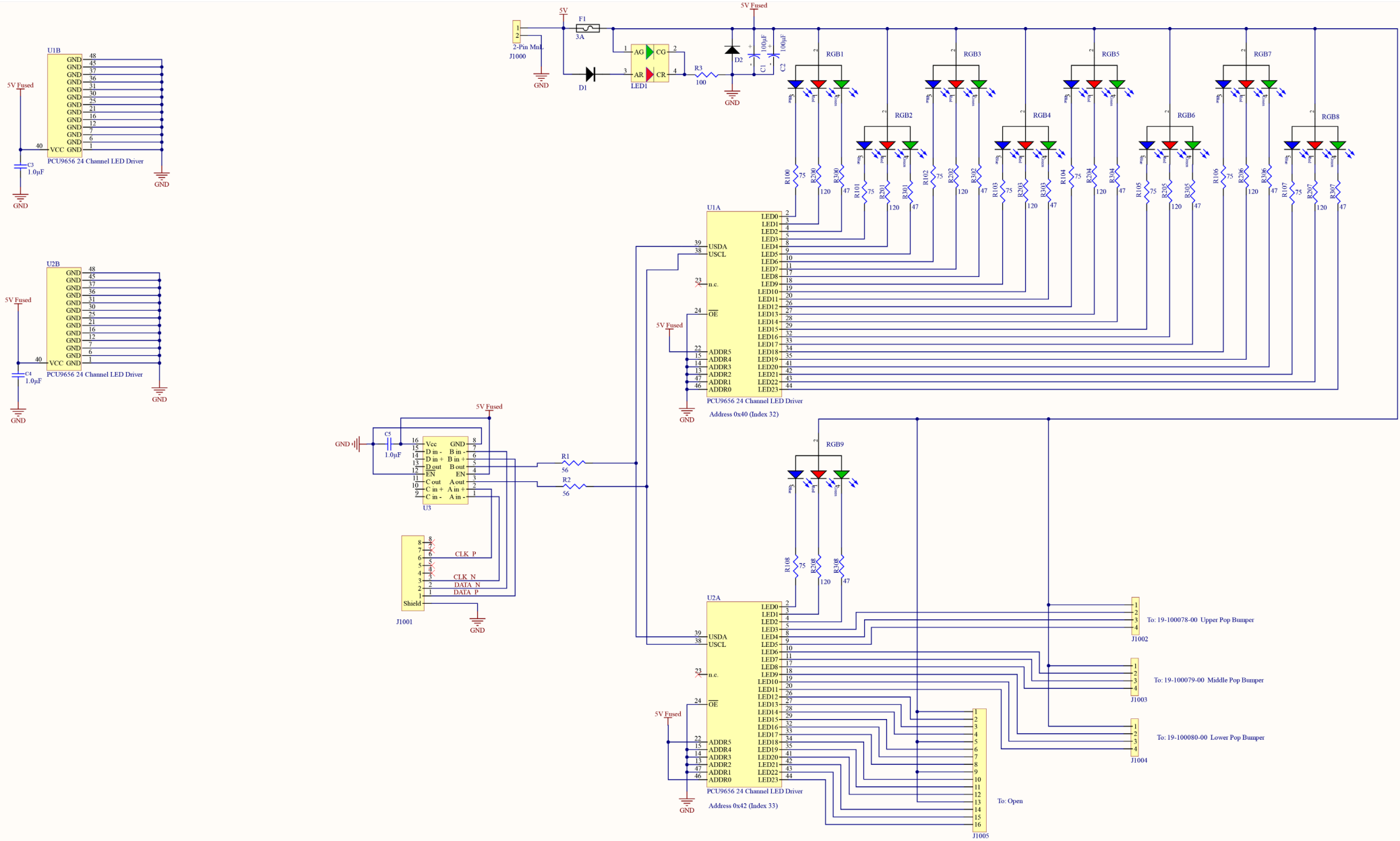
Pin

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

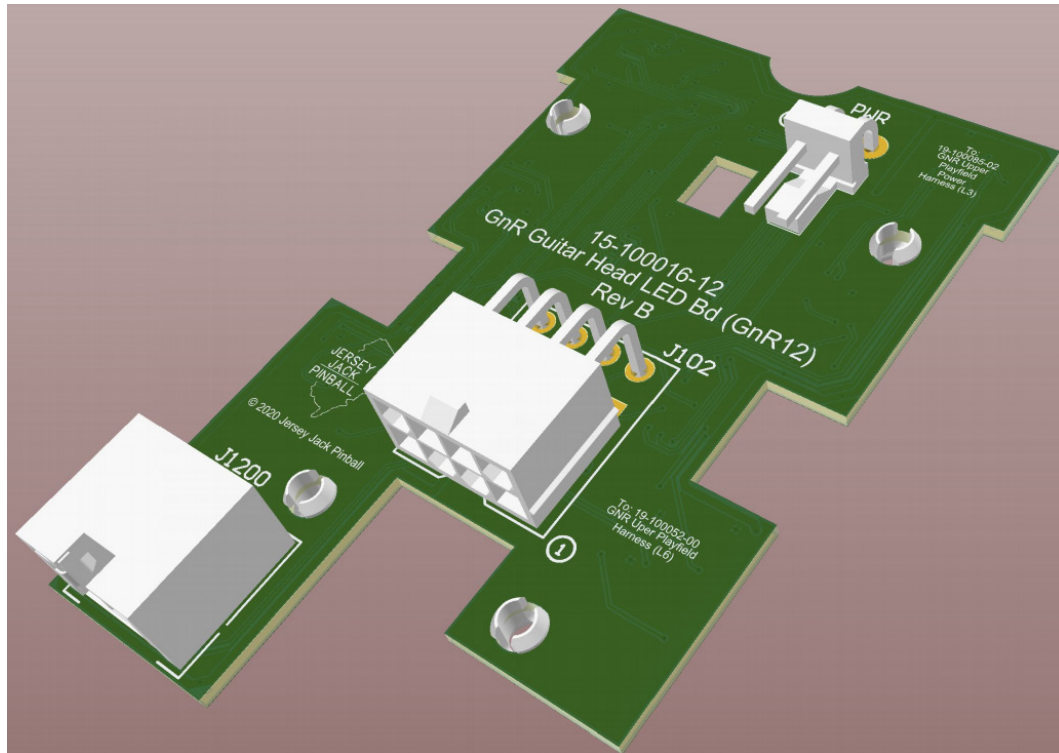
J1001 I2C Communications Input

Cat5 or Higher Ethernet Cable

15-100016-10



Guitar Head RGB LED Board 15-100016-12



J1000 Power Input

Pin

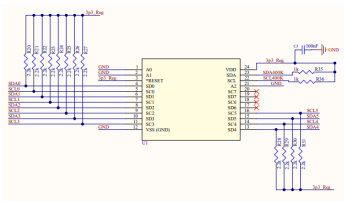
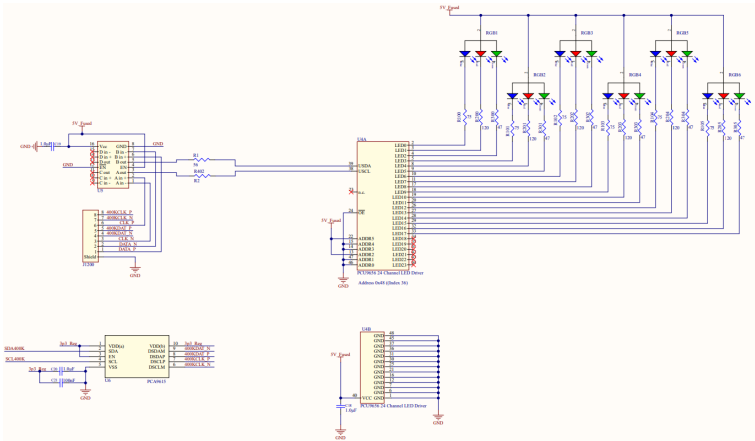
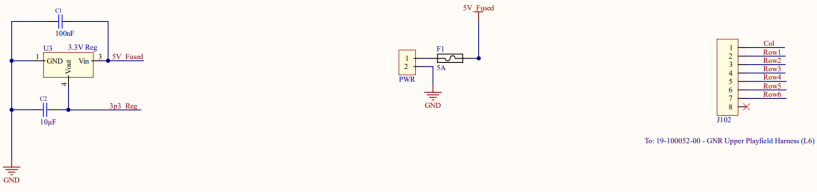
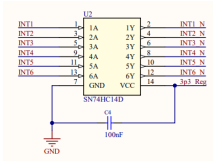
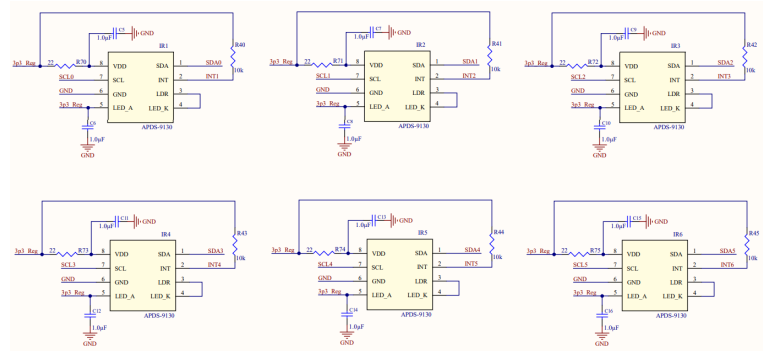
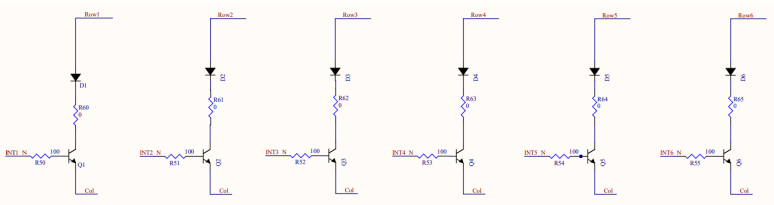
- | | | |
|---|-------|------------------------------|
| 1 | Red | +5VDC from ATX Power Supply |
| 2 | Black | Ground from ATX Power Supply |

J1200 I2C Communications Input

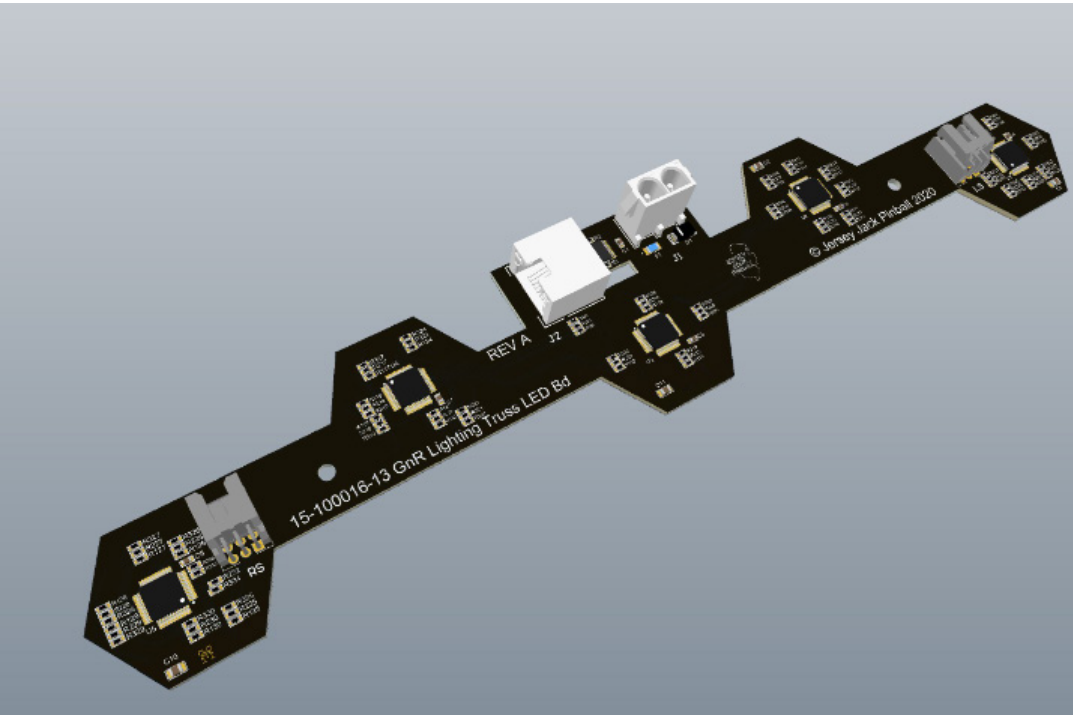
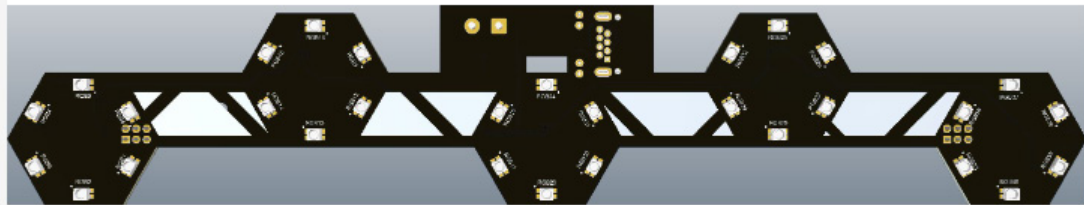
Cat5 or Higher Ethernet Cable

J102 Upper Playfield Harness Output 19-100052-00

Guitar Head RGB LED Board
15-100016-12



Lighting Truss LED Board
15-100016-13



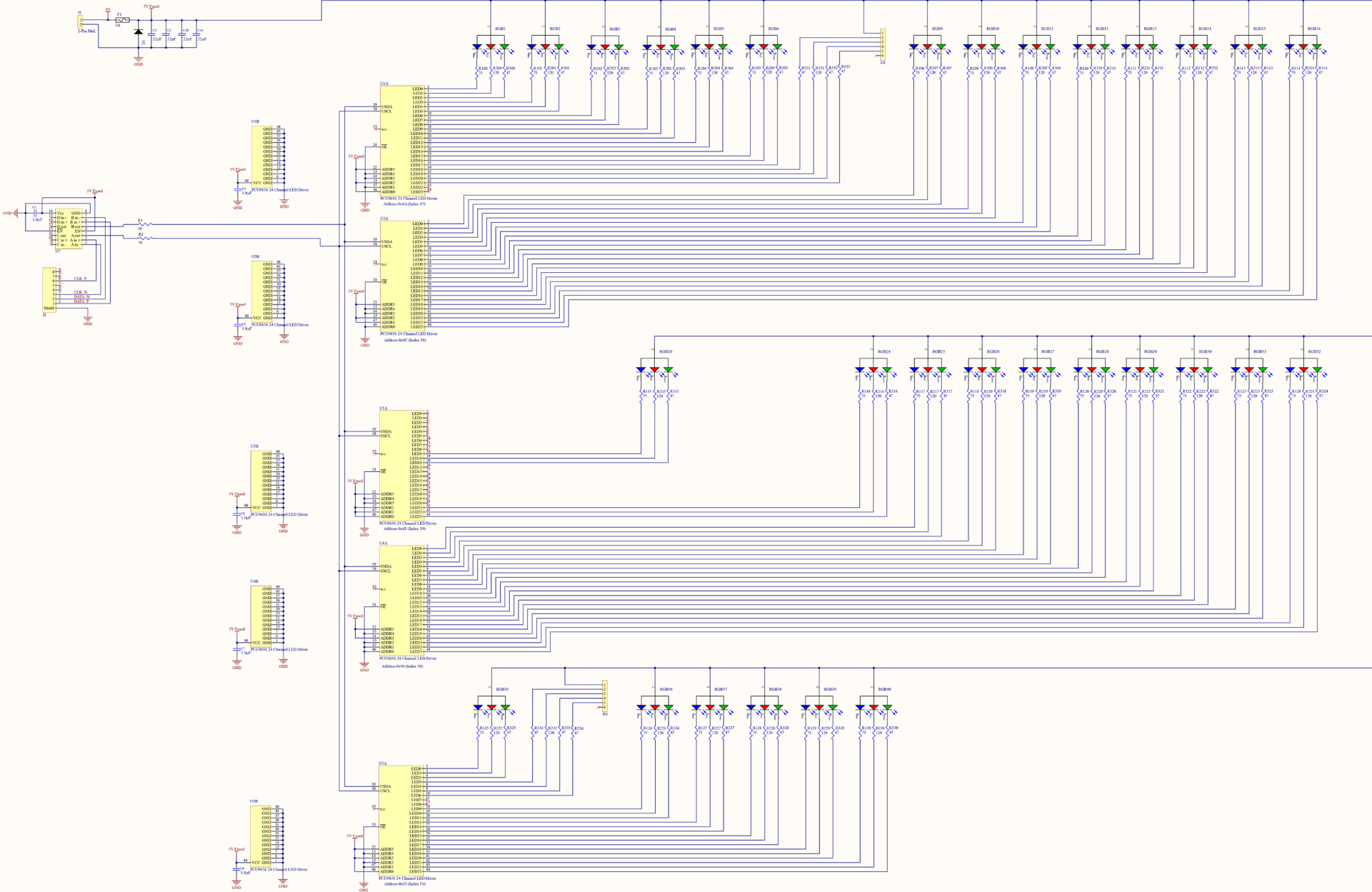
J1 Power Input

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

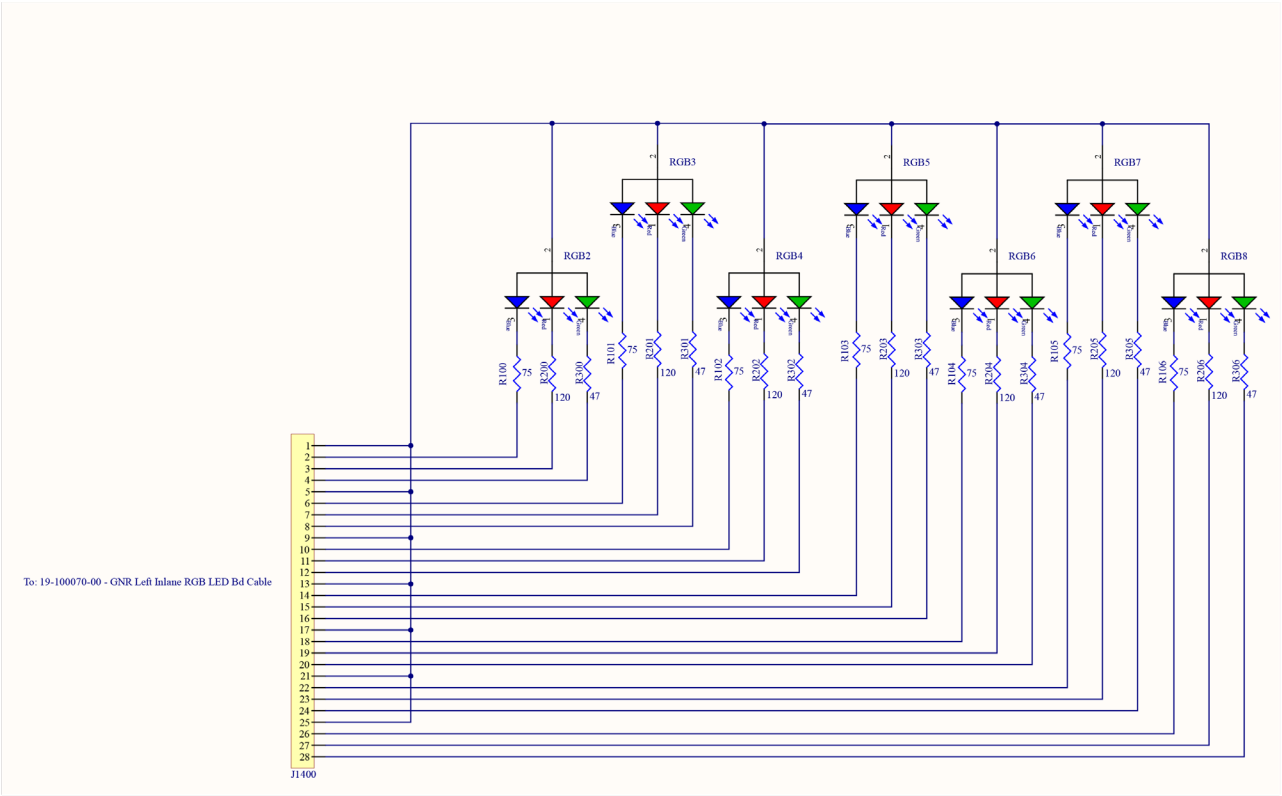
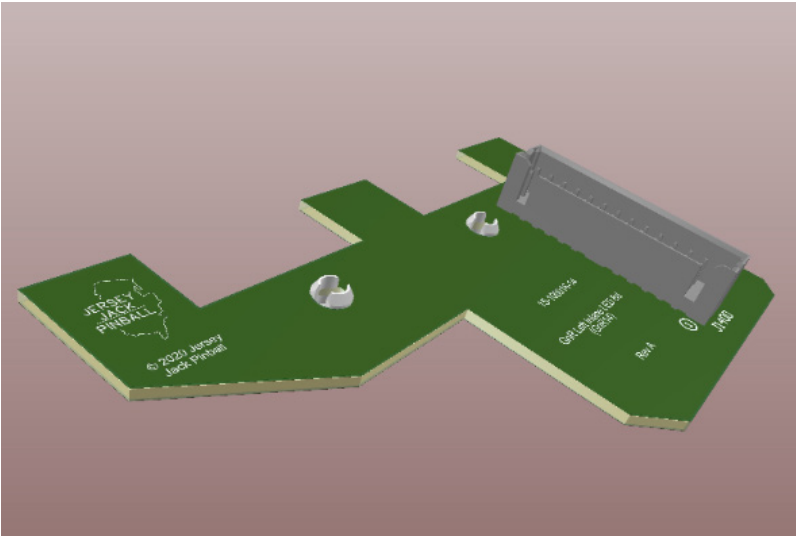
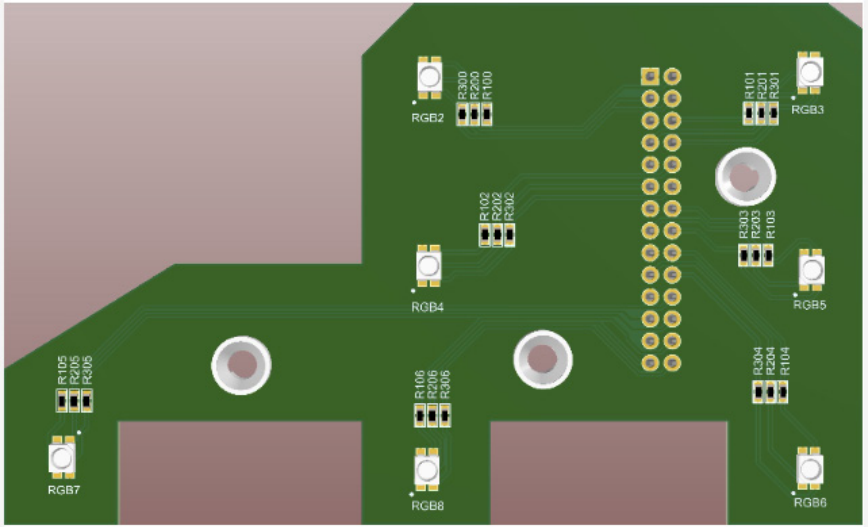
J2 I2C Communications Input

Cat5 or Higher Ethernet Cable

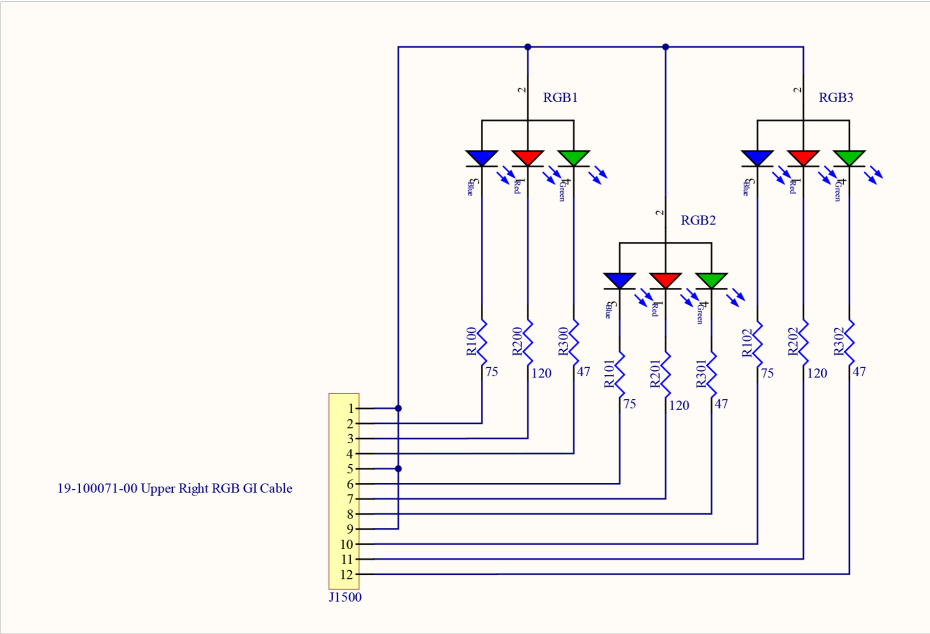
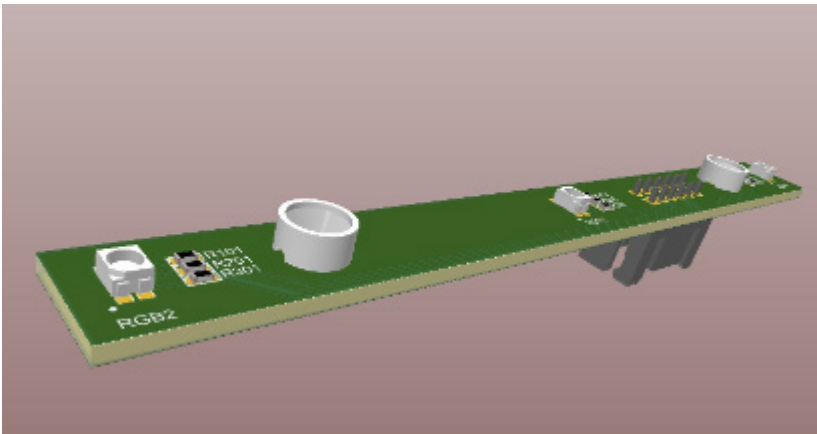
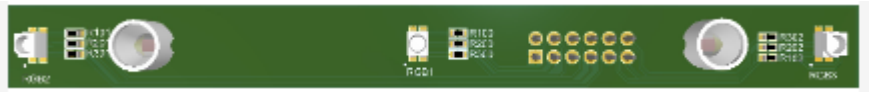
15-100016-13



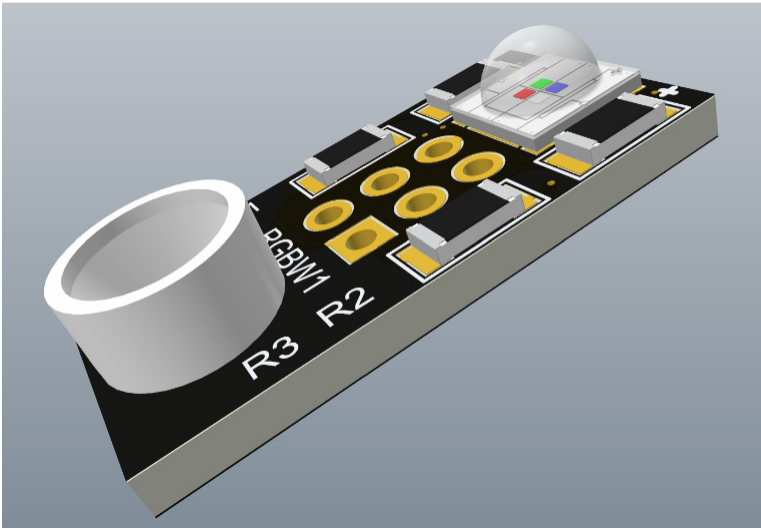
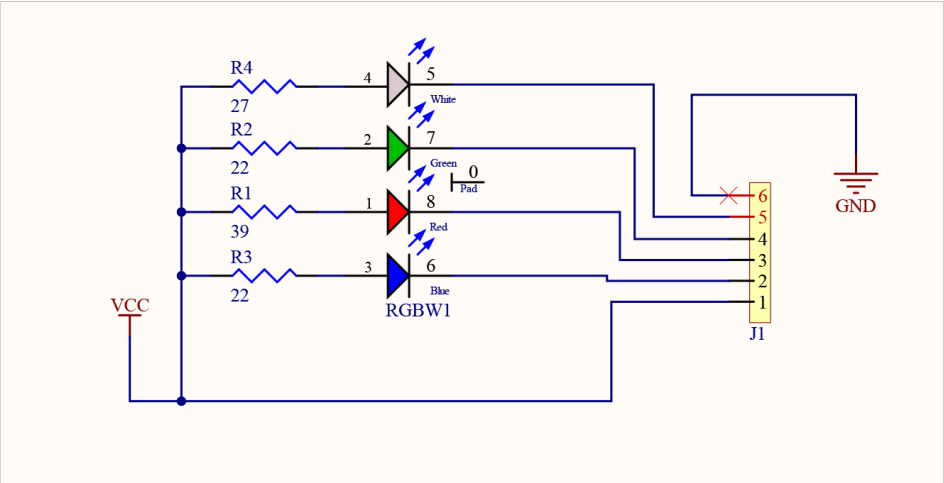
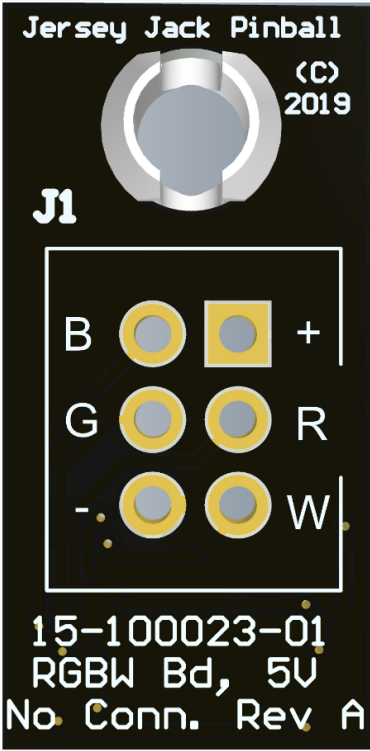
Left Inlane RGB LED Board
15-100016-14



AXL Lane Area RGB LED Board
15-100016-15

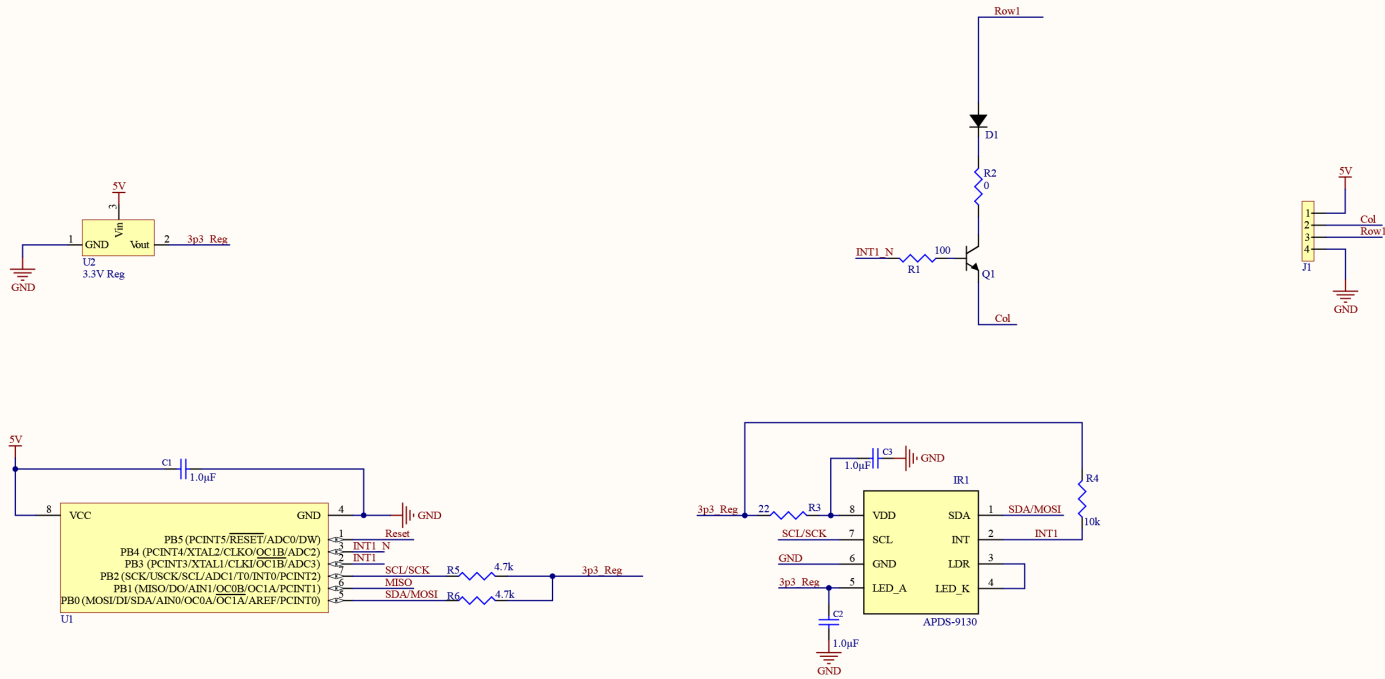
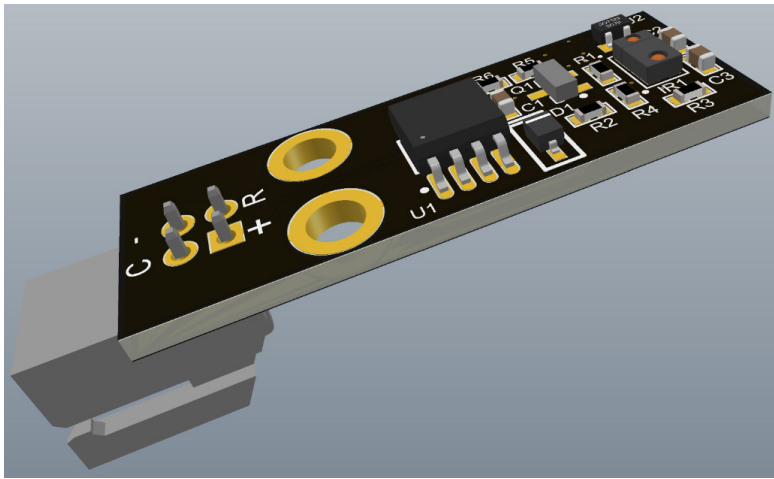
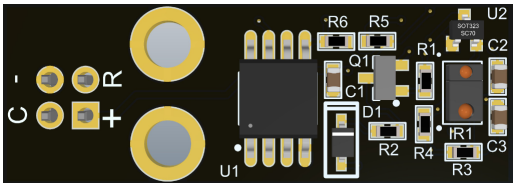


RGBW PCB No Connector Assembly
 15-100023-01



- + +5VDC from a Main RGB LED Board
- B Blue Return to a Main RGB Board
- R Red Return to a Main RGB Board
- G Green Return to a Main RGB Board
- W White Return to a Main RGB Board

Single Reflective Opto Board
15-100024-02

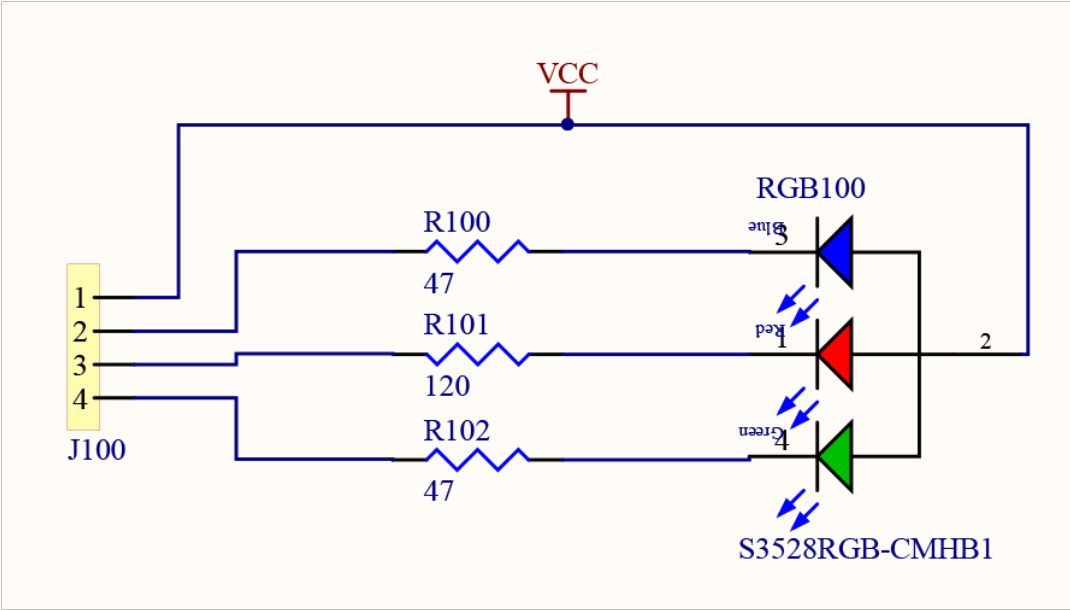
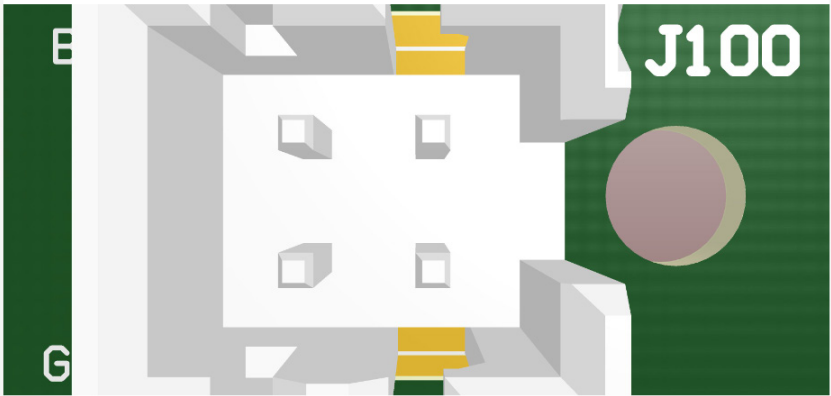


PB2 = SCL, PB0 = SDA

J1

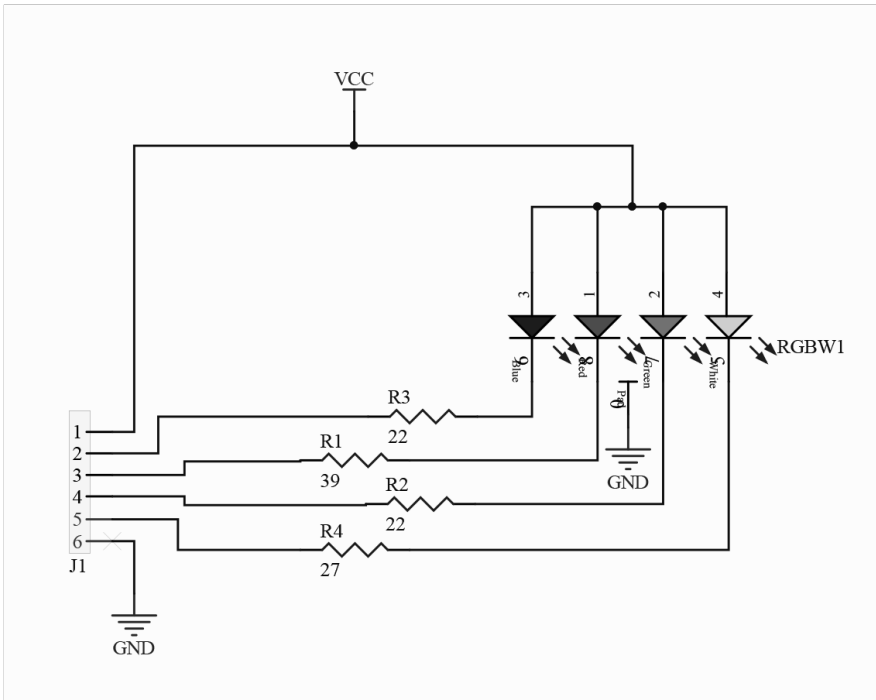
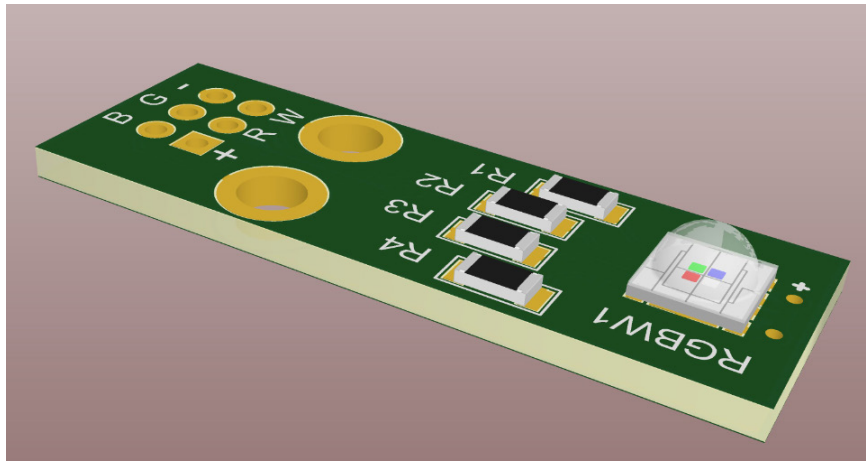
- Pin
- 1 +5VDC from ATX Power Supply
 - 2 Column 8 from Switch Matrix
 - 3 Row 1 from Switch Matrix
 - 4 Ground from ATX Power Supply

RGB GI PCB Assembly
15-004251-05



- J100
- Pin
- 1 +5VDC from a Main RGB LED Board
 - 2 Blue Return to a Main RGB Board
 - 3 Red Return to a Main RGB Board
 - 4 Green Return to a Main RGB Board

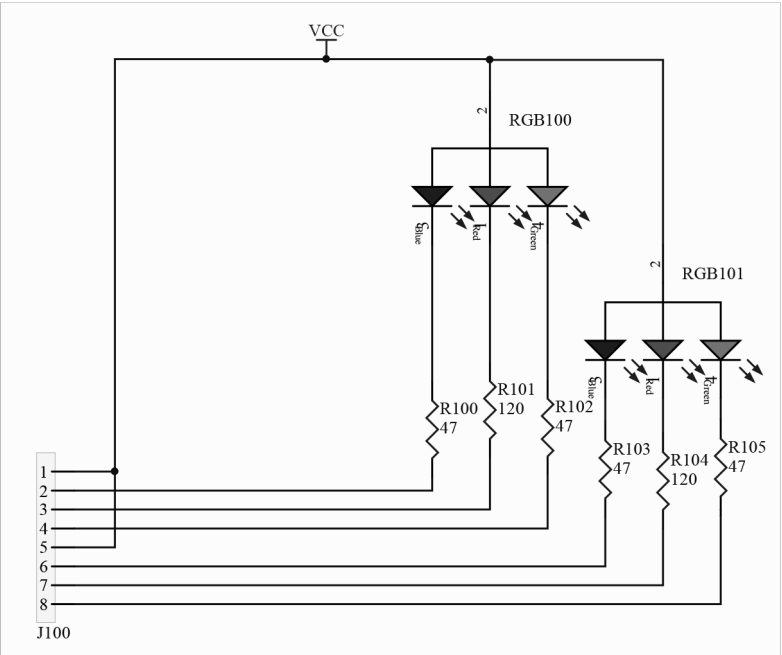
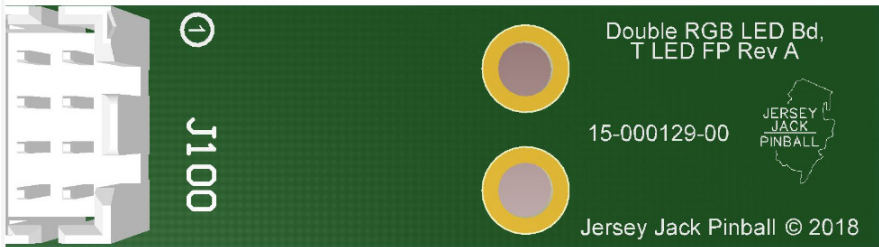
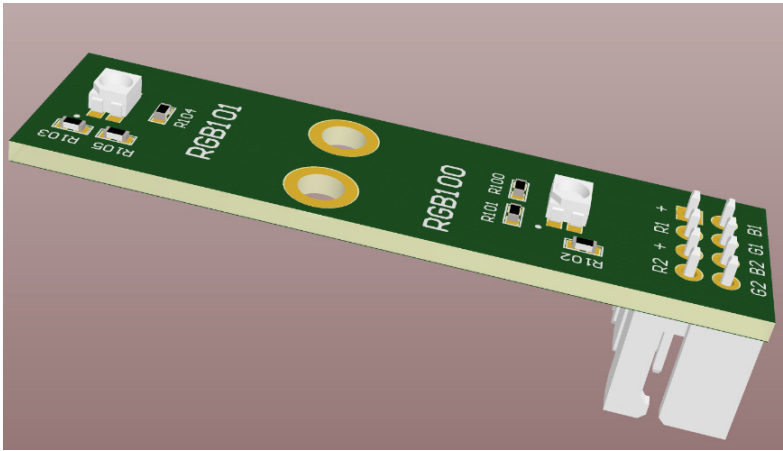
Single RGBW LED Board No Connector 15-004328-00



J1

- Pin
- 1 +5VDC from a Main RGB LED Board
 - 2 Blue Return to a Main RGB Board
 - 3 Red Return to a Main RGB Board
 - 4 Green Return to a Main RGB Board
 - 5 White Return to a Main RGB Board

Double RGB LED Board 15-004129-05



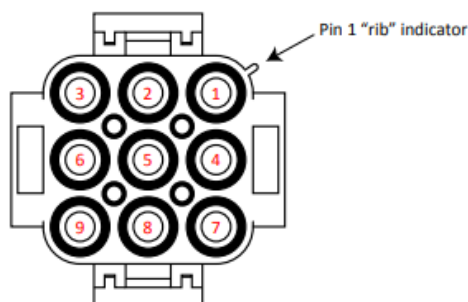
J100

Pin

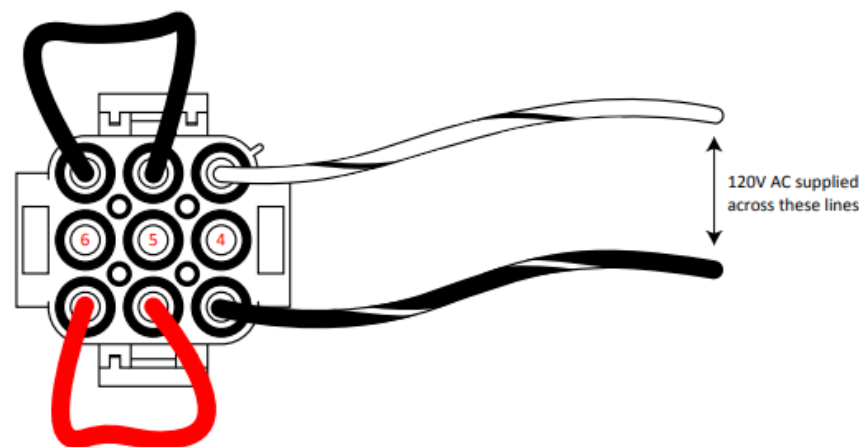
- 1 +5VDC from a Main RGB LED Board
- 2 Blue Return to a Main RGB Board
- 3 Red Return to a Main RGB Board
- 4 Green Return to a Main RGB Board
- 5 +5VDC From a Main RGB LED Board
- 6 Blue Return to a Main LED Board
- 7 Red Return to a Main LED Board
- 8 Green Return to a Main LED Board

Supply Voltage Conversion

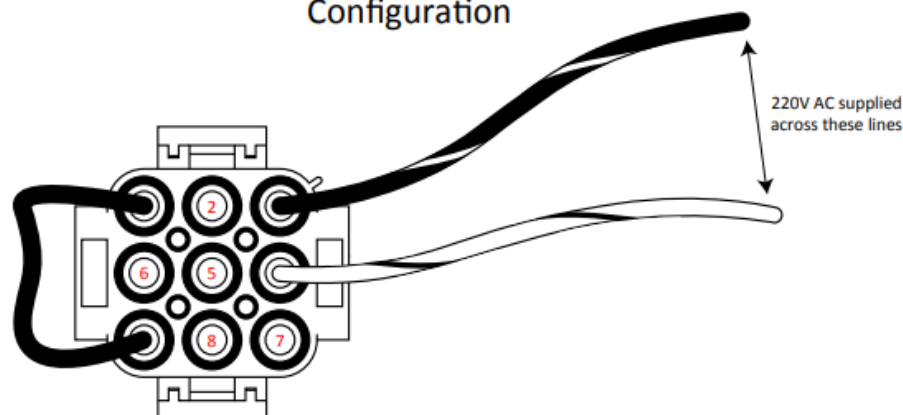
Voltage Conversion Connector Pin-out



120V AC Input Configuration



220V AC Input Configuration



If you need to convert your game to a different supply voltage than it was wired for at the factory, locate the 9-pin connector at the input of the transformer, in the bottom of the lower cabinet, see illustration to the left.

Power the game down and disconnect the 9-pin connector (it has locking tabs on each side). Looking at the back of the jumpered connector (the end with the wires protruding), locate the pin 1 "rib" indicator and orient the connector so that it is in the upper right hand corner, as shown opposite. The red numbers show pin numbers for the entire connector.

Look at the illustration for the desired configuration and compare it to the current configuration. Using a 0.084" pin extractor, remove all pins that require repositioning by pushing them out of the back of the connector, from the front. You can reuse existing wires as long as they were not damaged during the removal process. Fashion new, short jumper wires, as needed.

Using the appropriate illustration for reference, insert the jumper pins all the way into the connector, in the proper positions, from the back side, until they lock in place.

For a 120V supply voltage, connect the AC inputs across pins 1 & 7. Next, jumper pins 2 & 3 together with a short piece of black wire. Lastly, jumper pins 8 & 9 together with a short piece of orange wire.

For a 220V supply voltage, connect the AC inputs across pins 1 & 4. Then jumper pins 3 & 9 together with a short piece of black wire.

Note: Your game has an ATX power supply. This power supply may have a voltage selection slide switches on its back panels that must be in the proper position (120V or 220V) before applying power to the game.

MATRIX SWITCH WIRING TABLE

	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		Right Orbit Hi		Bumper Target		Left Ramp Left Target		Upper Playfield Rubber		Left Ramp Enter		Right Ramp Left Target		Right Ramp Made Sensor		Not Used		Center Spinner		Not Used		Not Used		Shooter Lane 1 (Bottom)		Left Guitar Lock (Bottom)		Not Used		Not Used		
WHT	BLK	1		9		17		25		33		41		49		57		65		73		81		89		97		105		113		121	
Row 2 J200-2	6 - Ball Trough #4		Right Top Lanes		Bumper Rubber		Left Ramp Right Target		Upper Playfield Standup		Left Top Lane		Right Ramp Right Target		Center Scoop VUK		Not Used		Inner Loop Enter		Not Used		Not Used		Shooter Lane 2		Left Guitar Lock (Middle)		Not Used		Not Used		
WHT	BRN	2		10		18		26		34		42		50		58		66		74		82		90		98		106		114		122	
Row 3 J200-3	6 - Ball Trough #3		Right Ramp Enter		Keyboard Insert Left		Left Outlane		Lock Up Enter		Left Bumper		Right Inlane		Shooter Lane Target		Not Used		Upper Playfield Hole		Not Used		Not Used		Shooter Lane 3		Left Guitar Lock (Top)		Not Used		Not Used		
WHT	RED	3		11		19		27		35		43		51		59		67		75		83		91		99		107		115		123	
Row 4 J200-4	6 - Ball Trough #2		Right Bumper		Keyboard Insert Middle		Left Inlane Left		Not Used		Left Orbit Hi		Right Sling Hi		Not Used		Not Used		Wheel CW 2		Not Used		Not Used		Shooter Lane 4		Not Used		Not Used		Not Used		
WHT	ORN	4		12		20		28		36		44		52		60		68		76		84		92		100		108		116		124	
Row 5 J200-5	6 - Ball Trough #1 (Right)		Bottom Bumper		Keyboard Insert Right		Left Inlane Right		Not Used		Jam Target		Right Sling Lo		Not Used		Not Used		Wheel CW 1		Not Used		Not Used		Shooter Lane 5		Not Used		Not Used		Not Used		
WHT	YEL	5		13		21		29		37		45		53		61		69		77		85		93		101		109		117		125	
Row 6 J200-6	6 - Ball Trough Jam		Center Top Lanes		Not Used		Left Sling Hi		Not Used		Light Coma Standup		Right Outlane		Not Used		Not Used		Upper Playfield VUK		Not Used		Not Used		Shooter Lane 6 (Top)		Right Guitar Lock (Top)		Not Used		Not Used		
WHT	GRN	6		14		22		30		38		46		54		62		70		78		86		94		102		110		118		126	
Row 7 J200-7	6 - Ball Trough #6 (Left)		Right Orbit Lo		Not used		Left Sling Lo		Not Used		Left Ramp Made		Shooter Lane		Not Used		Not Used		Coma Lockup (CE Only)		Not Used		Not Used		Not Used		Right Guitar Lock (Middle)		Not Used		Not Used		
WHT	BLU	7		15		23		31		39		47		55		63		71		79		87		95		103		111		119		127	
Row 8 J200-8	Not Used		Right Ramp Made Target		Not used		Not Used		Not Used		Inner Loop Made		Not Used		Not Used		Not Used		Left Orbit Spinner		Not Used		Not Used		Not Used		Right Guitar Lock (Bottom)		Not Used		Not Used		
WHT	VIO	8		16		24		32		40		48		56		64		72		80		88		96		104		112		120		128	

 Opto Switch

 Reflective Opto

DEDICATED SWITCH WIRING TABLE

Common	Return 1		Return 2		Return 3		Return 4		Return 5		Return 6		Return 7		Return 8	
	J601-7		J601-6		J601-5		J601-4		J601-2		J601-3		J601-8		J601-9	
	BLK	GRY	BLK	BRN	BLK	RED	BLK	ORN	BLK	YEL	BLK	GRN	BLK	BLU	BLK	VIO
J601-1	Left Flipper EOS		Right Flipper EOS		Upper Right Flipper EOS		Upper Playfield Flipper EOS		Not Used		Not Used		Not Used		Not Used	
BLK	1		2		3		4		5		6		7		8	

Common	Return 9		Return 10		Return 11		Return 12		Return 13		Return 14		Return 15		Return 16	
	J602-7		J602-6		J602-5		J602-4		J602-2		J602-3		J602-8		J602-10	
	YEL	BLK	YEL	BRN	YEL	RED	YEL	ORN	YEL	GRY	YEL	GRN	YEL	BLU	YEL	VIO
J602-1	Left Flipper Switch Lower		Not Used		Right Flipper Switch Lower		Right Flipper Switch Upper		Enter / Menu Button		Up / Volume Button		Down / Volume Button		Escape / Service Credit Button	
BLK	9		10		11		12		13		14		15		16	

Common	Return 17		Return 18		Return 19		Return 20		Return 21		Return 22		Return 23		Return 24	
	J603-7		J603-6		J603-5		J603-4		J603-2		J603-3		J603-9		J603-10	
	BLU	BLK	BLU	BRN	BLU	RED	BLU	ORN	BLU	YEL	BLU	GRN	BLU	GRY	BLU	VIO
J603-1	Left Coin Switch		Right Coin Switch		Center Dollar Bill Acceptor		4th Coin Slot Switch		5th Coin Slot Switch		Ticket Mech Notch Switch		Not Used		Not Used	
BLK	17		18		19		20		21		22		23		24	

Common	Return 25		Return 26		Return 27		Return 28		Return 29		Return 30		Return 31		Return 32	
	J604-8		J604-6		J604-5		J604-4		J604-2		J604-3		J604-8		J604-10	
	VIO	BLK	VIO	BRN	VIO	RED	VIO	ORN	VIO	YEL	VIO	GRN	VIO	BLU	VIO	GRY
J604-1	Start Button		Coin Door Open		Plumb Bob Tilt		Bluetooth		Action Button		Headphone Panel Volume Down		Headphone Panel Volume Up		Headphone Panel Jack Sense	
BLK	25		26		27		28		29		30		31		32	

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	Not Used 1		Center Scoop VUK 2		Not Used 3		Not Used 4		Not Used 5		Not Used 6		Knocker 7		Not Used 8	
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 9		Left Flipper Hold 10		Right Flipper Power 11		Right Flipper Hold 12		Trough VUK 13		Auto Launch 14		Not Used 15		Not Used 16	
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
J603-1 ORN	Loop Magnet 17		Upper Right Flipper Power 18		Upper Right Flipper Hold 19		Not Used 20		Not Used 21		Not Used 22		Not Used 23		Right Ramp Diverter 24	
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	Left Ramp Diverter Power 25		Left Ramp Diverter Hold 26		Upper Playfield Flipper Power 27		Upper Playfield Flipper Hold 28		Not Used 29		Not Used 30		Left Pop Bumper 31		Not Used 32	
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	Lock Up Release Left 33		Lock Up Release Right 34		Right Pop Bumper 35		Bottom Pop Bumper 36		Not used 37		Not Used 38		Not Used 39		Upper Playfielf VUK 40	

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	
	PLM	BLK	PLM	BRN	PLM	RED	PLM	ORN	PLM	YEL	PLM	GRN	PLM	BLU	PLM	GRY
J110-1	Not Used		Not Used		Not Used		Not Used		Not Used		Not Used		Not Used		Not Used	
PLM	49		50		51		52		53		54		55		56	

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	RED	BLU	ORN	BLU	YEL	BLU	GRN	BLU	GRY	BLU	VIO
J111-1	Right Slingshot		Left Slingshot		Not Used		Not Used		Not Used		Not Used		Not Used		Not Used	
BLU	57		58		59		60		61		62		63		64	

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	Not Used		Not Used		Not Used		Not Used		Not Used		Not Used		Not Used		Not Used	
VIO	65		66		67		68		69		70		71		72	

12 VOLT MOTOR, RELAY & LIGHT 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	Not Used		Not Used		Not Used		Not Used		Not Used		Not Used		Not Used		Not Used	
YEL	41		42		43		44		45		46		47		48	

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	Shaker Motor		Not Used		Ticket Mech Motor Drive		Not Used		Not Used		Not Used		Start Button Light		Flash Bulb Topper	
LT BLU	73		74		75		76		77		78		79		80	

FUSE INFORMATION

Power Box - Line Fuse

US 10 AMP Slow Blow, 125 Volt, .25" X 1.25", 3AG
EURO 5 AMP Slow Blow, 250 Volt, .25" X 1.25", 3AG

Amplifier

FS1 5 AMP Fast Blow, 250 Volt, 5X20mm

I/O Board

702 10 AMP Slow Blow, 250 Volt, 5 X 20 mm
701 10 AMP Slow Blow, 250 Volt, 5 X 20 mm
703 6.3 AMP Slow Blow, 250 Volt, 5 X 20 mm
714 4 Amp Slow Blow, 250 Volt, 5 X 20 mm
708 5 AMP Slow Blow, 250 Volt, 5 X 20 mm
707 6.3 AMP Slow Blow, 250 Volt, 5 X 20 mm
706 6.3 AMP Slow Blow, 250 Volt, 5 X 20 mm
704 5 AMP Slow Blow, 250 Volt, 5 X 20 mm
705 7 AMP Slow Blow, 250 Volt, 5 X 20 mm
711 4 AMP Slow Blow, 250 Volt, 5 X 20 mm
710 4 AMP Slow Blow, 250 Volt, 5 X 20 mm
712 4 AMP Slow Blow, 250 Volt, 5 X 20 mm
712 3.15 AMP SLow Blow, 250 Volt, 5 X 20 mm
709 3.15 AMP Slow Blow, 250 Volt, 5 X 20 mm
F1 2 AMP Mini Blade, 32 Volt
F2 2 AMP Mini Blade, 32 Volt



GNR FUSED POWER STREAM

