

Version: HW v1.0



Hot Wheels Ultimate Speedway

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INTRODUCTION

Hot Wheels Ultimate Speedway is an amusement redemption game where the player slides a puck under target screens to score points. The game has a large LED wall and 4 small LED matrix targets. Tickets are awarded based on the number of points scored. In a 2 to 4 player 'competitive' game (2 to 4 game cabinets required), the player that scores the most points is the 'winner' and may be awarded additional tickets.

SAFETY NOTICE

This Manual describes how to set up and use this product. It is intended to instruct the owner/operator and qualified maintenance personnel to safely and correctly operate the game. Be sure to follow all the safety and warning instructions described to prevent personal injury and/or damage to the game.

- Before connecting the machine to the main power source, verify that the voltage is correct to avoid fires or electric shock.
- DO NOT touch the plug with damp hands.
- To avoid electric shock and short circuit, DO NOT expose the power cord or ground wire across walkways.
- DO NOT place any flammable objects close to the power cord.
- When plugging/unplugging the power cord, make sure to hold the plug. DO NOT pull on the power cord.
- In the event of a frayed or broken power cord, please contact your dealer for replacement.
- DO NOT use fuses or parts that are not recommended by the manufacturer.
- DO NOT disassemble, change or modify the machine without authorization. Inappropriate handling of the machine may cause damage to the game and injury to players and spectators.
- Please check and maintain the game regularly.
- Standing or climbing on the game is prohibited to avoid injury

POWER SOURCE

IMPORTANT!

- GAME MUST BE CONNECTED TO A GROUNDED POWER SOURCE.
- GAME MUST HAVE GROUND CONNECTION FOR PROPER OPERATION AND USER SAFETY PROTECTION.
- DO NOT OPERATE GAME WITH GROUND LEAD CUT OFF POWER CORD.

INSTALLATION

POWER UP:

Upon power being turned on (and computer booting) the LED wall will show the software assets being loaded. Upon successful power up, the game will then go into attract mode. The boot up sequence may take up to 60 seconds to complete. **DO NOT TURN OFF POWER DURING THIS SEQUENCE.**

TECHNICAL INFORMATION:

1. The “brains” of the game is a Raspberry Pi v-4 minicomputer nested in a custom I/O board, which controls all lights, LEDs, motors and audio. The O/S and game software reside in a microSD card plugged into the Raspberry Pi.
2. **Audio/Video;** Video comes from the HDMI port on the Raspberry Pi. The cable from Pi to the sender card is a male HDMI to male DVI. Audio comes from the 3.5mm (1/8 inch) stereo jack on the Pi-I/O board, NOT the Raspberry Pi despite that it has its own jack as well. Volume is adjustable from the menu as well as the volume knob on the amplifier. Typically, the amplifier is set to some fixed point, and volume is adjusted from the menu. The amplifier is located inside the front of the cabinet. Three satellite boards control function of the stepper motors, playfield sensors, and target function.
3. **Power:** There are three power supplies in the game. A **24 volt @ 13.4 ampere** supply, a **12 volt @ 41.7 ampere**, and a **5 volt @ 30 ampere** supply. Both supplies are UL rated and run on 110v or 220v 50/60 Hz mains. All power supplies are auto-switching.

INTERNET OPTIONS INSTRUCTIONS

Your game software contains an option to connect through the internet to Coastal Amusements. This will allow the game to report its accounting information and settings to us and suggest changes to improve income generation. It will also allow the game to receive any software updates without the need to have the software shipped to you. The next pages will explain how to enable this setup.

To enter the configuration screen, connect a keyboard to the Raspberry Pi. Then enter the menu and select the option titled 'INTERNET OPTIONS'. Alternatively, you can just press the Escape key on the keyboard. You will be presented with a screen like this one:

Internet Settings / Wireless Network

Use the Tab key on the keyboard to move between fields. Click the Scan button to find your wireless network. You can also type the name of your SSID if it is not broadcasted. To switch between DHCP and Static, use the Up/Down arrows. To click a button, tab to it so it is highlighted then press the Space bar.

Location Name	My Arcade	
Network SSID	WiFiNetwork	Scan
Password		
<input checked="" type="radio"/> DHCP	Use Up/Down arrow keys to select DHCP or Static IP.	
<input type="radio"/> Static IP		
IP Address		
Subnet Mask		
Gateway		
DNS Server 1		
DNS Server 2		
Save		
Cancel		

In the 'Location Name' field, enter your store name and location for reference (i.e. Joe's Arcade-Baltimore MD).

The Network SSID will show the first wireless network found. If this is not your preferred network, enter the name manually or press 'TAB' until the 'Scan' button is highlighted in yellow and then press space. (If you ever need to 'TAB' back to a previous item, hold down 'SHIFT' when you press 'TAB'). You will then see a screen like the following:

Available Wireless Networks

Choose your wireless network from the ones found below. Use the Up/Down arrows on the keyboard or click an item with the mouse. Use the Tab key to move between fields. To click a button, tab to it so it is highlighted then press the Space bar.

If your SSID is not broadcasted it will not be in the list, you will need to click the Cancel button and type it in the Network SSID field.

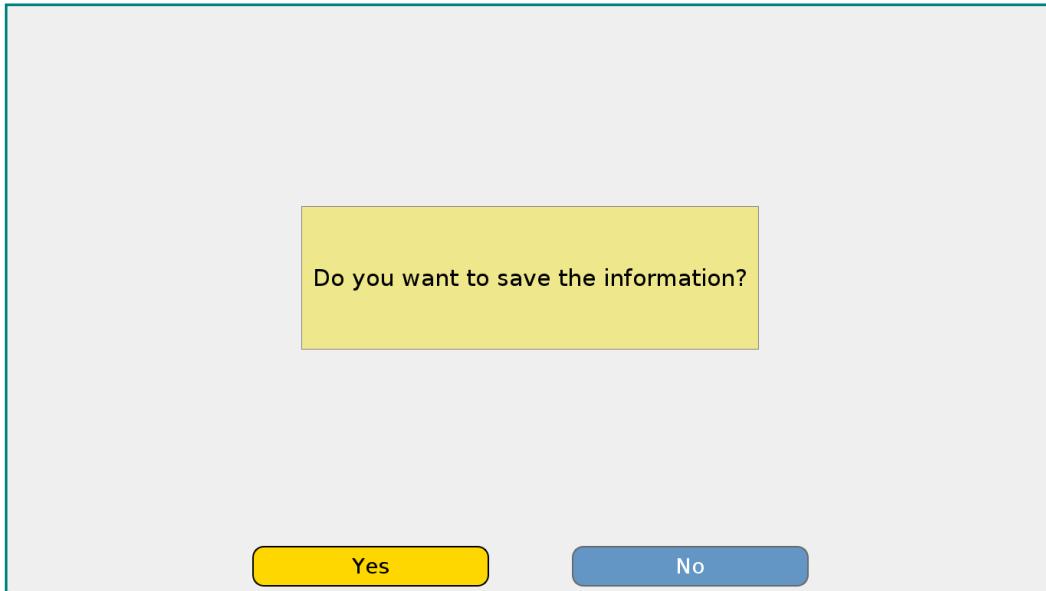


Use the up/down arrows to select the network you wish to use, then press 'TAB' to highlight the 'Select' button and press the space bar.

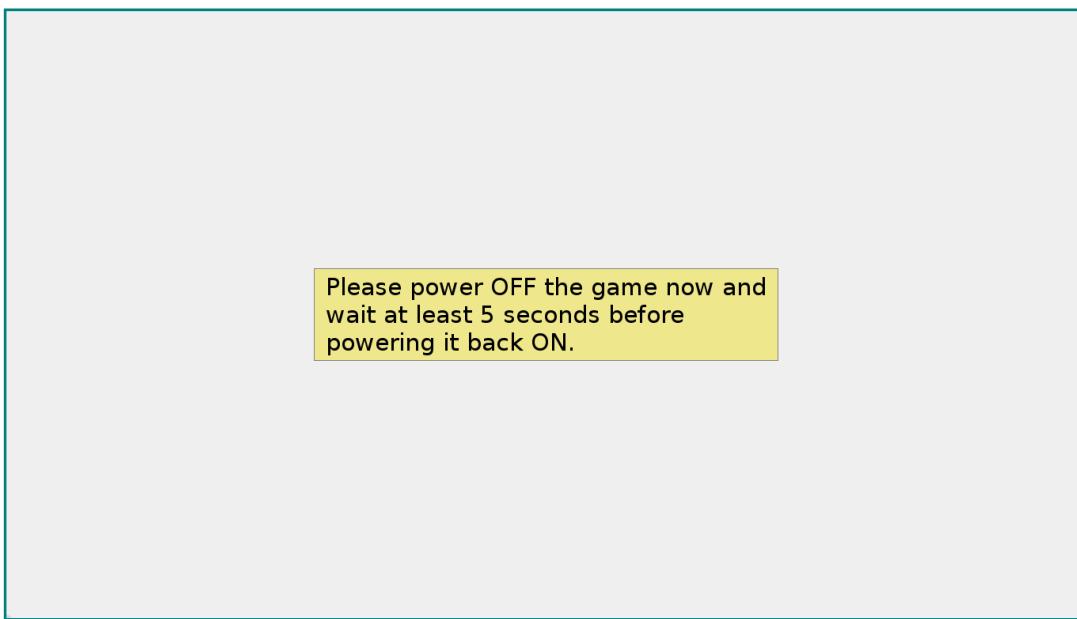
If your network uses DHCP (usually the case), leave the DHCP button selected. If you use static IP addresses, select the Static IP button.

If you select Static IP, you will need to enter the correct information into the next fields. Consult your ISP for the correct addresses for your location. If you do not have a second DNS server, you can enter 8.8.8.8 or 8.8.4.4 to use Google's DNS servers or find another public DNS server on the web.

When all fields are correctly filled out, tab down to the 'Save' button and press the spacebar. You will then see the following screen:



Press the spacebar to select 'Yes' and you will see this screen:



You can now remove the keyboard and reboot the game. Upon reboot, the game will then attempt to make an initial contact with our server.

If you have any questions, call Coastal Amusements at +1 (732) 905-6662. Support is available from 08:00 to 16:30 EST, Monday through Friday.

HOT WHEELS MENU OPTIONS

Press the **Menu** button to enter the system set up and then use the following buttons to navigate through the menus:

ATTENDANT: Use to move **up** in the menu and to **increment** values

RESET: Use to move **down** in the menu and to **decrement** values

MENU: Use to **select** a menu item, and to **set** menu item values

MAIN MENU

PRICING ADJUSTMENTS	See page 9 for details.
PAYOUT ADJUSTMENTS	See page 10 for details.
GAME ADJUSTMENTS	See page 10 for details.
BONUS ADJUSTMENTS	See page 11 for details.
LINK ADJUSTMENTS	See page 12 for details.
AUDITS	See page 12 for details.
DIAGNOSTICS	See page 13 for details.
RESTORE FACTORY SETTINGS	Selecting this option will restore all settings to factory default values.
CLEAR CREDITS	Selecting this will clear all credits on the game that are less than the amount needed for one play. If you need to clear all credits while a game is in play, press the RESET button during the game and the credits will be cleared.
CLEAR TICKETS	Selecting this will clear all tickets owed on the game.
RESET BONUS	Selecting this option will reset the bonus to its default value. If the default value has not been modified, it will set bonus to 1000.
INTERNET OPTIONS	Selecting this option will allow you to connect your machine to the internet via Wi-Fi to receive remote software updates and support. Follow the onscreen instructions to use.
EXIT WITHOUT SAVING	Exit the menu without saving any changes.
EXIT AND SAVE	Save any changes made and exit the menu.

PRICING ADJUSTMENTS

Setting	Options	Default	Description
FREE PLAY	ON/OFF	OFF	When set to 'ON' the mechanical meters will be disabled, no tickets will be paid. An external switch must be attached to one of the coin mech inputs to simulate a coin drop.
CARD PLAY	ON/OFF	ON	Select 'ON' if you are using a card device instead of cash.
CREDITS TO START	1-10	1	Set this option to the number of credits needed to start one game. <i>This option is disabled when "Card Play" is set to 'On'.</i>
COIN CHUTE 1 CREDIT	1-10	1	This option controls how many credits are given for each coin inserted into coin mech 1. <i>This option is disabled when "Card Play" is set to 'On'.</i>
COIN CHUTE 2 CREDITS	1-10	1	This option controls how many credits are given for each coin inserted into coin mech 2. <i>This option is disabled when "Card Play" is set to 'On'.</i>
TICKET VALUE	\$0.001 to \$0.10 \$0.001 increments)	\$0.01	This option should be set to the cash value of one ticket. Note: This setting must be accurate to correctly calculate the overall percentage payout of the game.
CREDIT VALUE	\$0.10 TO \$5.00	\$1.00	Set this option to the monetary value of one credit for accurate bookkeeping stats. Note: This setting must be accurate to correctly calculate the overall percentage payout of the game.

PAYOUT ADJUSTMENTS

Setting	Options	Default	Description
ENABLE TICKETS	OFF/ DURING GAME PLAY/ AT END OF GAME	DURING GAME PLAY	Setting this off will prevent the ticket dispenser from dispensing tickets (or the card system from receiving wins). DURING GAME PLAY pays tickets while the game is in play. AT END OF GAME pays tickets at the end of the game.
PAYOUTABLE SELECTION	1-18	7	This value determines the pay table. See page 14, Pay Table Guide for further details.
MERCY TICKET THRESHOLD	OFF, 1-40	OFF	When set, this is the minimum number of tickets awarded to the player, regardless of score.
FIXED TICKET	OFF; 1-40	OFF	Awards fixed number of tickets regardless of score.
COMPETITION WINNER TICKETS	0-100	15	Awards extra tickets to the winner in a multiplayer game. 1 st place receives the full competition winner tickets amount, 2 nd place receives half, 3 rd place receives one-third, and 4 th place receives zero comp tickets.

GAME ADJUSTMENTS

Setting	Options	Default	Description
VOLUME	0-100	50	This option sets the main volume during game play.
ATTRACT SOUND	ON/LOW VOLUME/OFF	ON	Select whether you want attract sound on, off, or at a lower volume in the attract mode than in game play.
GAME TIME	30-60	30	Play time in seconds
HOT TARGET	1, 2, 3, 4, 5	2	Represents the maximum number of Hot Targets that could appear during gameplay.
HOT TARGET POINTS	20 – 500, Increments by 20	100	Number of points awarded per Hot Target.

BONUS ADJUSTMENTS

Setting	Options	Default	Description
BONUS	ON/OFF	ON	This option sets the bonus mode on or off.
BONUS POINTS THRESHOLD	950-3000 (by 10s)	2100	This sets how many points are needed to win the progressive bonus. Disabled when dynamic threshold is on.
DYNAMIC THRESHOLD	ON/OFF	OFF	Setting this option to ON will enable the options on the everything with THRESHOLD in the title to dynamically control the points needed to win the bonus.
RESET BONUS ON START UP	ON/OFF	OFF	When set to on, the bonus will be reset to the set reset value when power to the game is cycled.
BONUS RESET VALUE	10-9999 (by 10s)	1000	This setting will determine the beginning value of the Bonus, after a win.
BONUS MAXIMUM	100-9999 (by 10s)	9999	The setting determines the highest Bonus value. The progressive value will stop, once the set maximum is reached. Setting the Reset (minimum) value and the Maximum value to the same level will cause the Bonus to be stable (nonprogressive).
PLAYS TO INCREMENT BONUS	1-10 (by 1s)	1	This option controls how many plays are needed to increase the progressive bonus, in conjunction with the option below.
BONUS INCREMENT VALUE	1-10 (by 1s)	1	This option controls how much the progressive bonus will increase with the number of games played (set in the previous option).
THRESHOLD START – POINTS	950-3000 (by 10s)	1000	Sets the starting point of the threshold value. The threshold will not go above the number set.
MINIMUM THRESHOLD – POINTS	950-3000 (by 10s)	950	Sets the minimum point value of the threshold. The threshold will not go below the number set.
MAXIMUM THRESHOLD – POINTS	950-3000 (by 10s)	3000	Sets the maximum point value of the threshold. The threshold will not increase past the number set.
THRESHOLD INCREMENT	10-200 (by 10s)	100	When a bonus is won, the threshold will increase by the amount set but will not go over the START / MAX BONUS THRESHOLD.
PLAYS UNTIL THRESHOLD INCREMENT	1-100 (by 1s)	1	Determines how many games need to be played before incrementing the threshold.
THRESHOLD DECREMENT	10-100 (by 10s)	20	When the bonus is not won within the number of games in the next option (see below), the threshold will decrease by this amount, but never goes below MINIMUM BONUS THRESHOLD.
PLAYS UNTIL THRESHOLD DECREMENT	1-200 (by 1s)	20	Determines how many games need to be played before decrementing the threshold.

LINK ADJUSTMENTS

Setting	Options	Default	Description
GAME NUMBER	OFF, MASTER, 2, 3, 4	OFF	Setting one of the games to MASTER. Then set each following game to a unique sequential number.
TIME TO JOIN	5-30	8	Adjusts the amount of time the other players have to join the competition game.

AUDITS

TYPE	CURRENT	LIFETIME
COIN CHUTE 1 CREDITS PAGE 1	0	0
COIN CHUTE 2 CREDITS PAGE 1	0	0
TOTAL CREDITS PAGE 1	0	0
FREE PLAYS PAGE 1	0	0
PAID PLAYS PAGE 1	0	0
TOTAL GAMES PLAYED PAGE 1	0	0
GAME TICKETS PAGE 2	0	0
COMPETITION TICKETS PAGE 2	0	0
BONUS TICKETS PAGE 2	0	0
BONUS TICKETS % PAGE 2	0.00%	0.00%
TOTAL TICKETS PAGE 2	0	0
AVERAGE TICKETS PAGE 2	0.00	0.00
OPERATING % PAGE 2	0.00%	0.00%
TOTAL POINTS PAGE 3	0	0
AVERAGE POINTS PER GAME PAGE 3	0.00	0.00
HOT TARGET POINTS PAGE 3	0	0
HOT TARGET POINTS % PAGE 3	0.00%	0.00%
HOT TARGET HITS PAGE 3	0	0
HOT TARGET HIT % PAGE 3	0.00%	0.00%
1 PLAYER GAMES PAGE 3	0	0
MULTIPLAYER GAMES PAGE 3	0	0
BONUS HITS PAGE 3	0	0
BONUS HITS % PAGE 3	0.00%	0.00%
TOTAL HITS PAGE 4	0	0
HIT % OF PUCKS DISPENSED PAGE 4	0.00%	0.00%
TOTAL MISSES PAGE 4	0	0
MISS % OF PUCKS DISPENSED PAGE 4	0.00%	0.00%
TOTAL PUCKS DISPENSED PAGE 4	0	0

This screen will show all bookkeeping information. Pressing RESET on this screen will clear the current audits. A screen will appear asking to confirm that you want to do this.

Press **ATTENDANT** for previous screen

Press **MENU** for next screen

There are 4 pages of audits.

DIAGNOSTICS

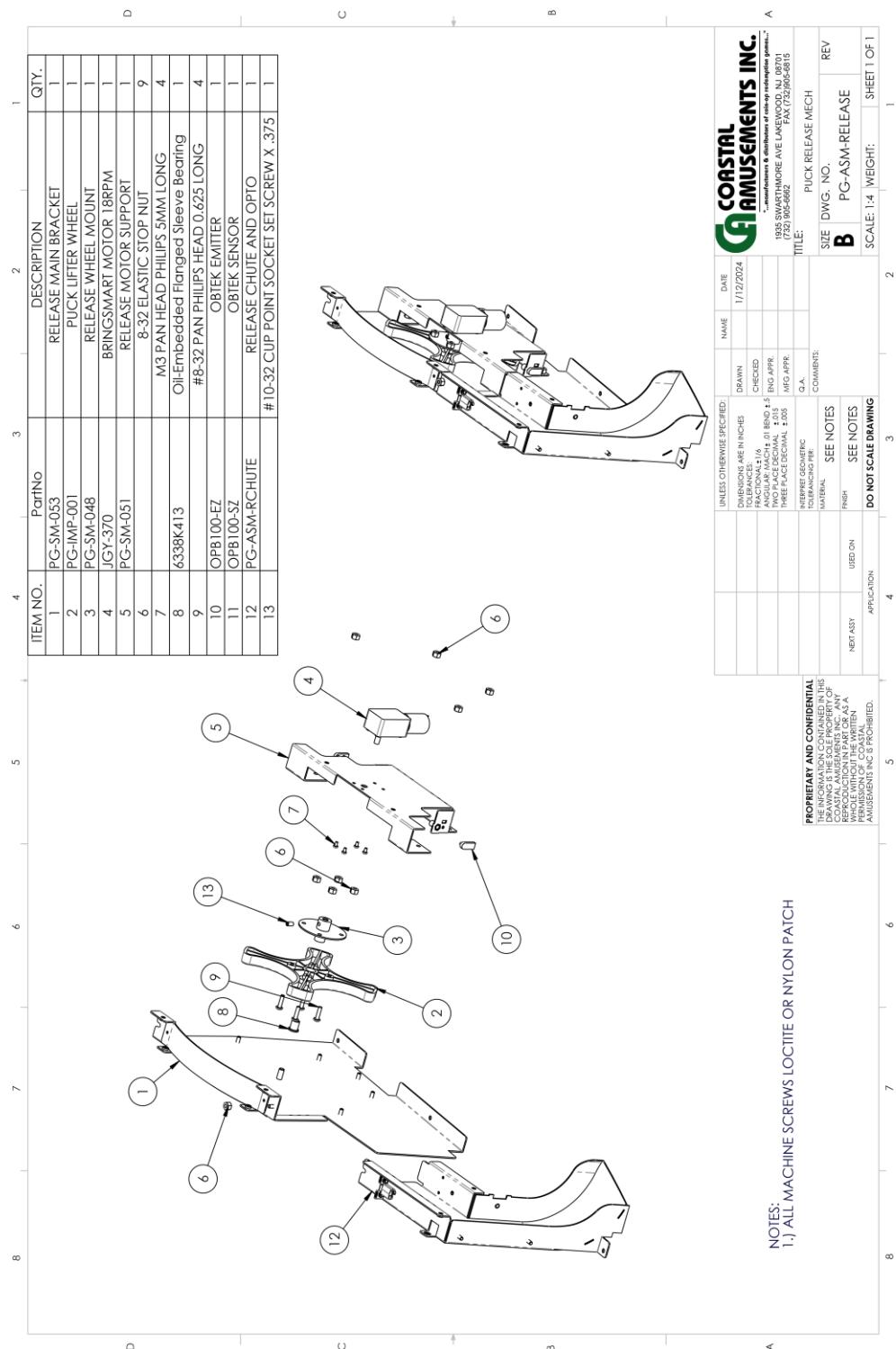
AUDIO TEST:	These options test the speaker output.
I/O TEST:	This test allows the operator to test the blower motor, puck dispenser and switches, playfield LEDs and the ticket dispensers (if installed).
LED TEST	This test allows the operator to cycle through the colors on the Car LEDs, Target LEDs, and Back Panel LEDs.
CAR-TARGETS STEPPER TEST	This test will allow the operator to test the functionality of the Car movement and Target movement.

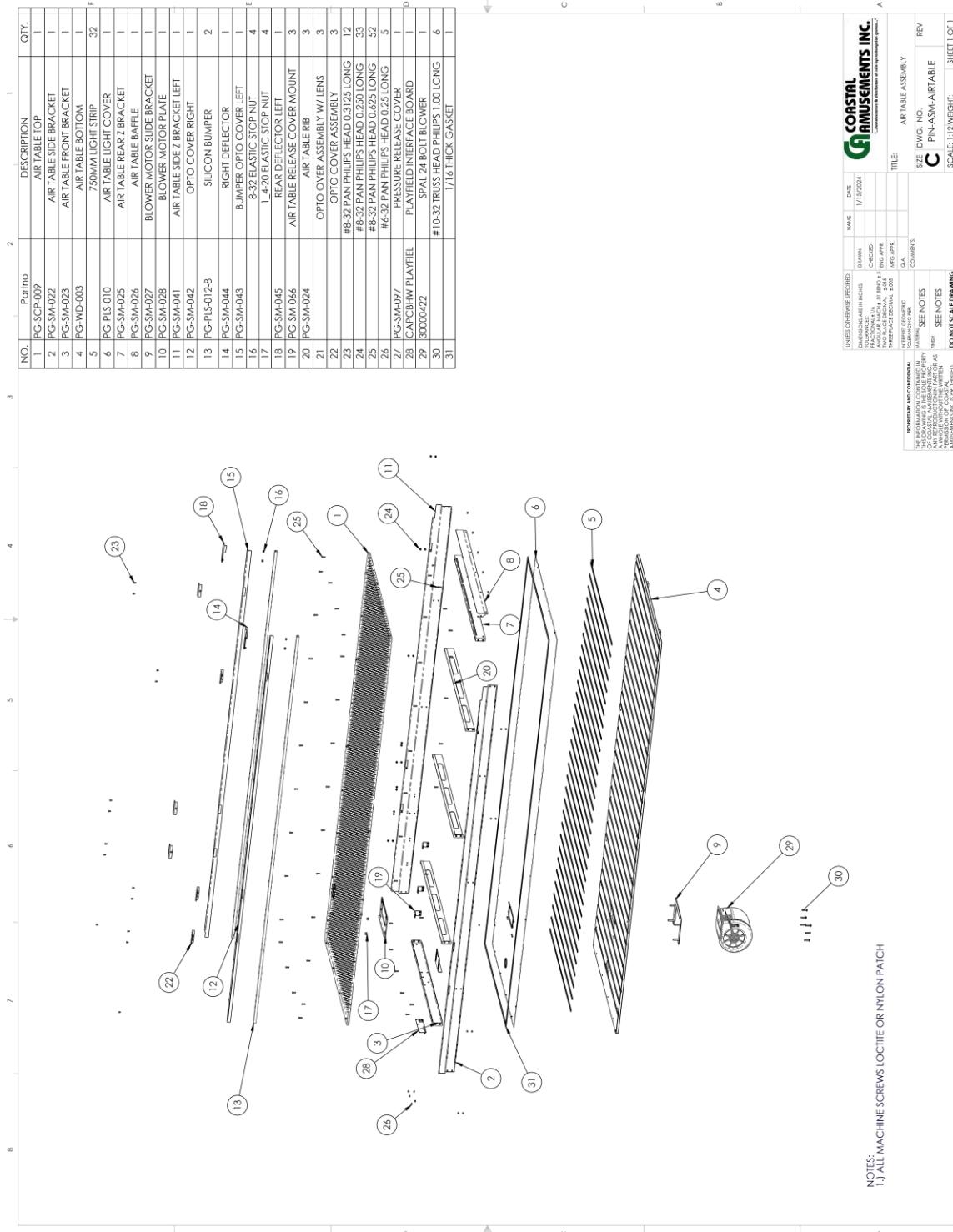
PAY TABLE GUIDE

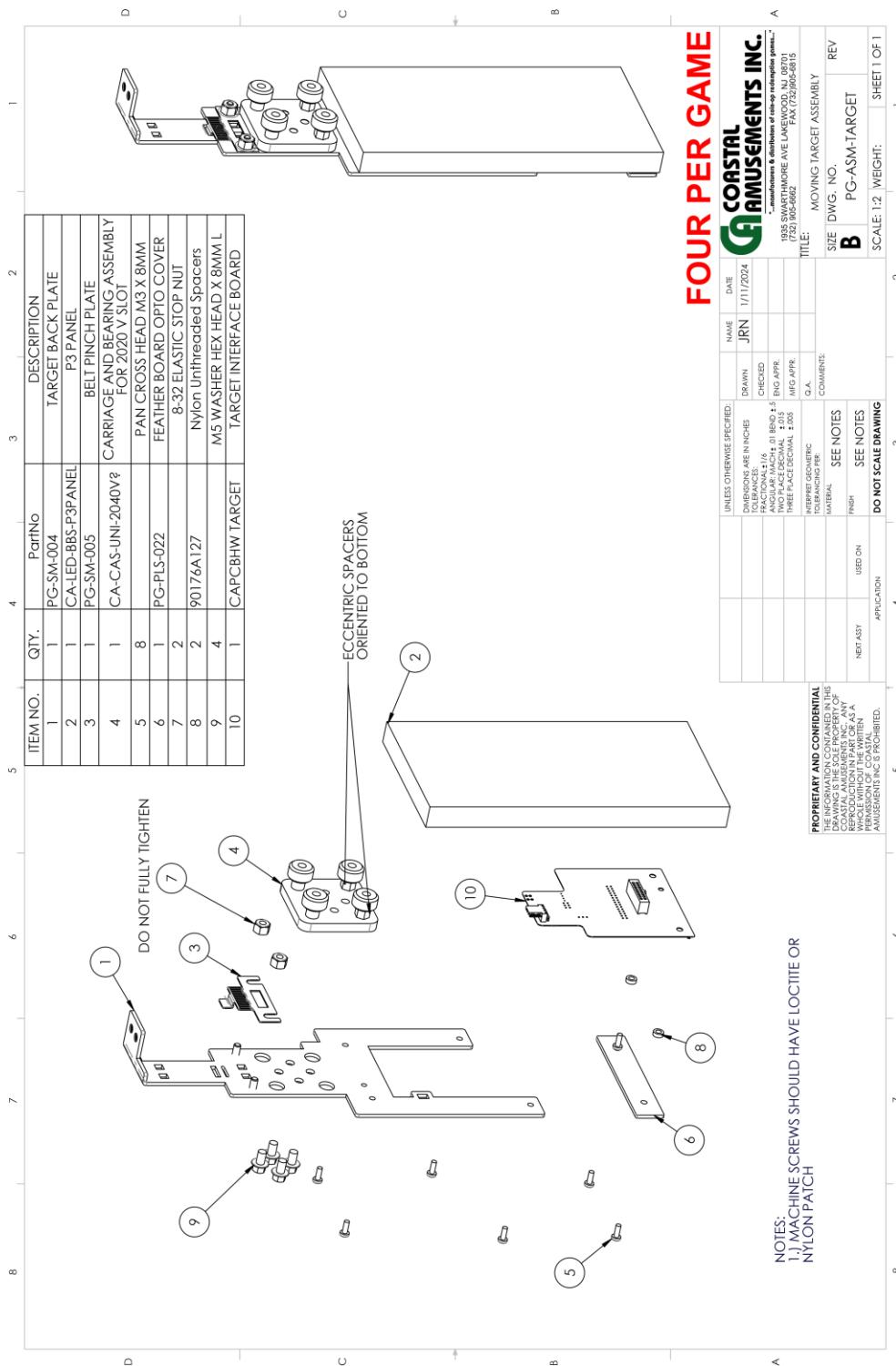
Tickets Awarded

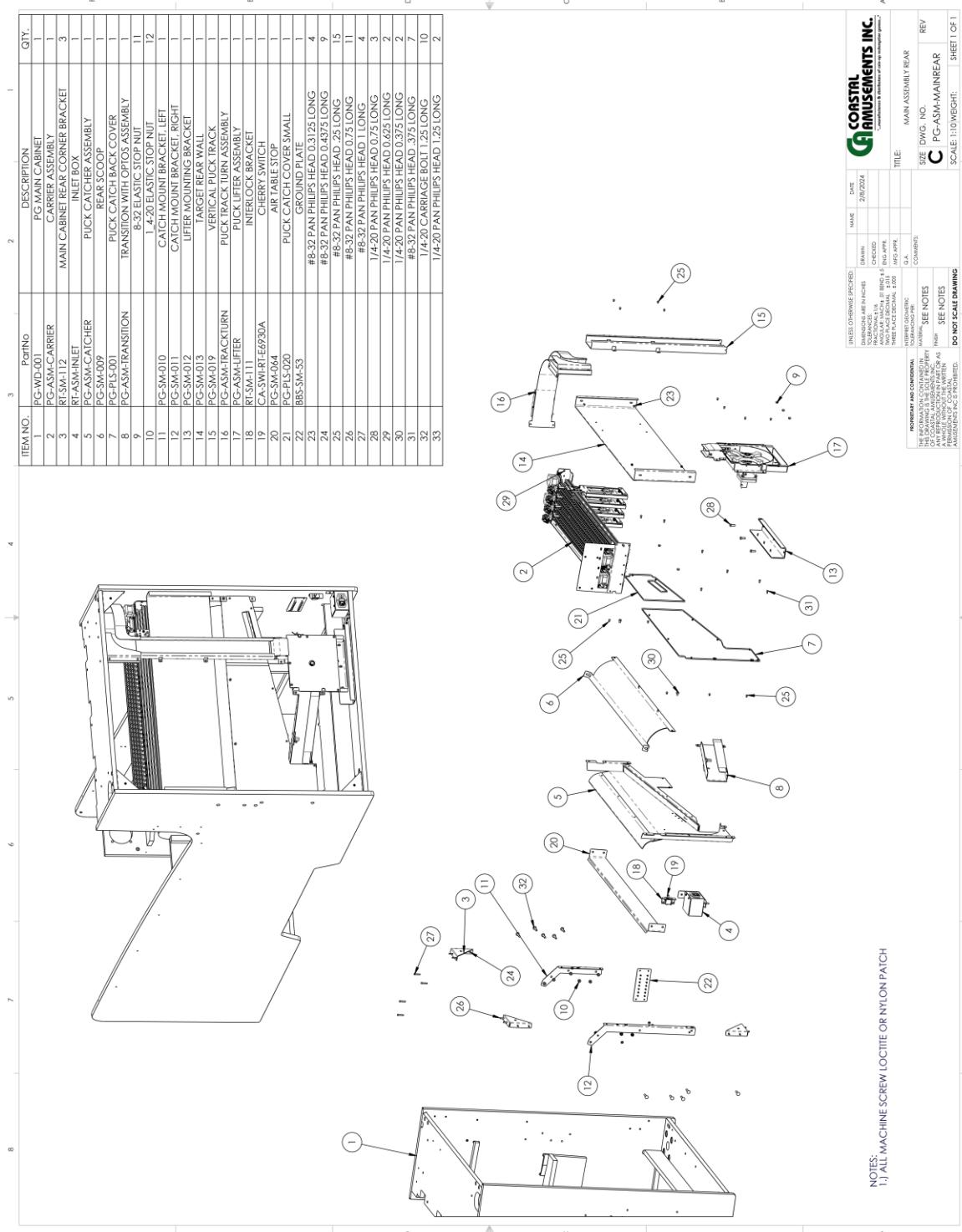
Pay Table Selection	Point Range 100+	Point Range 200+	Point Range 300+	Point Range 400+	Point Range 500+	Point Range 600+	Point Range 700+	Point Range 800+	Point Range 900+
1	2	5	10	15	20	25	30	35	45
2	10	15	20	25	30	35	40	45	50
3	15	20	25	30	35	40	45	50	55
4	5	10	15	20	25	30	35	40	45
5	20	25	30	35	40	45	50	55	60
6	25	30	35	40	45	50	55	60	65
7	10	20	30	40	50	60	70	80	90
8	30	35	40	45	50	55	60	65	70
9	40	45	50	55	60	65	70	75	80
10	50	55	60	65	70	75	80	85	90
11	45	55	65	75	85	95	105	115	125
12	20	30	40	50	60	70	80	90	100
13	35	45	55	65	75	85	95	105	115
14	60	70	80	90	100	110	120	130	140
15	40	50	60	70	80	90	100	110	120
16	55	65	75	85	95	105	115	125	135
17	65	75	85	95	105	115	125	135	145
18	85	95	105	115	125	135	145	155	165

EXPLODED DIAGRAMS

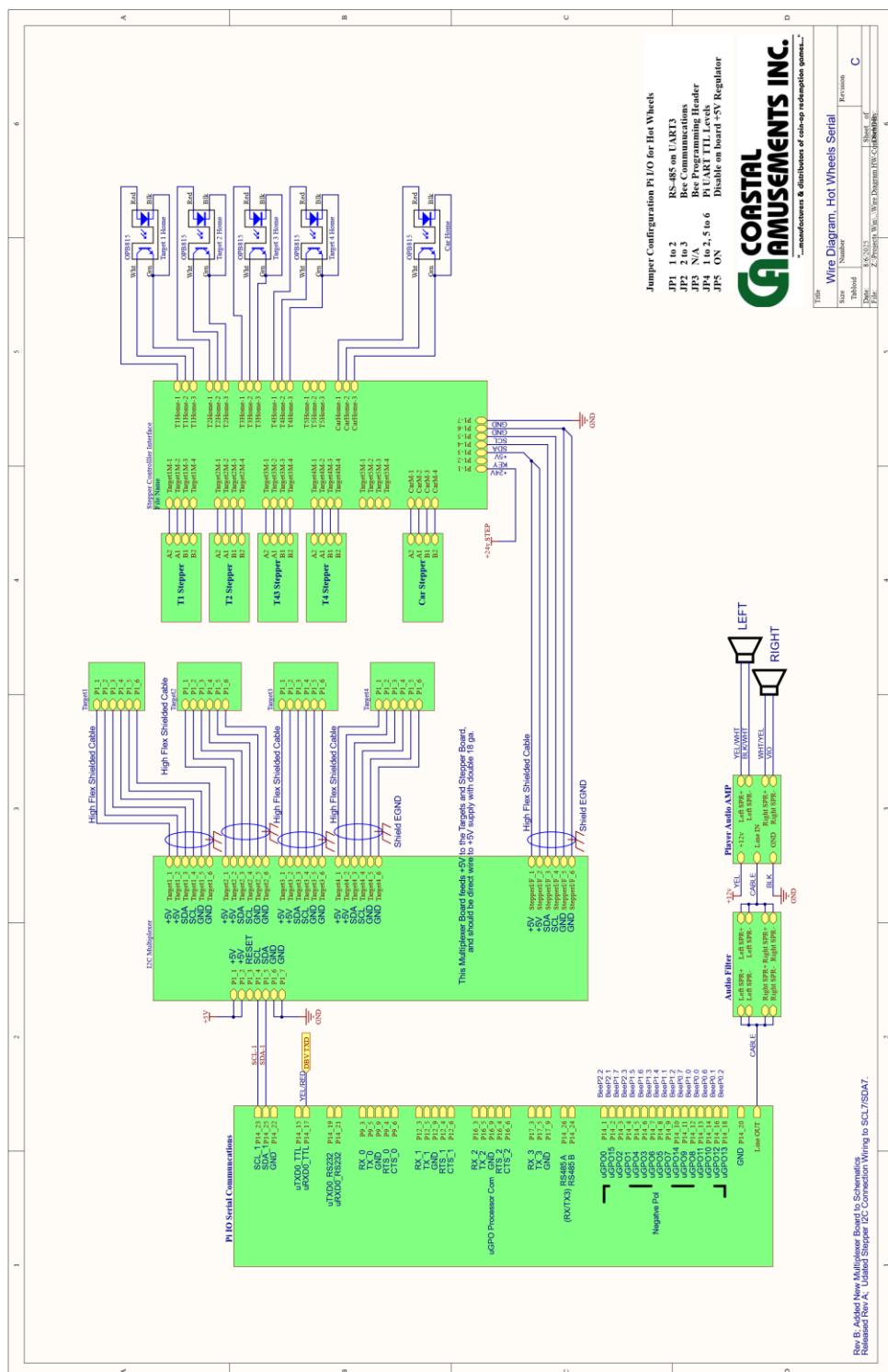


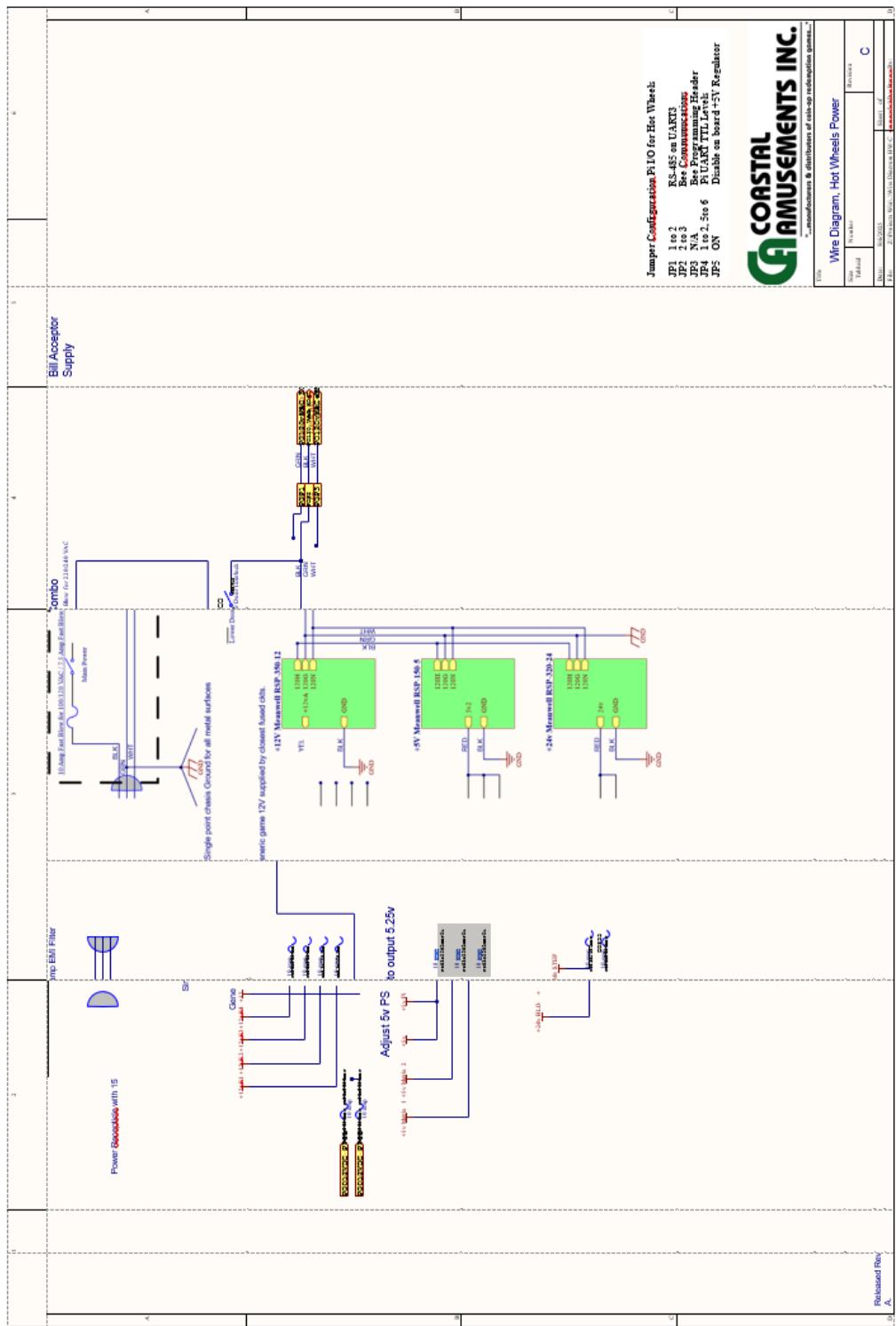


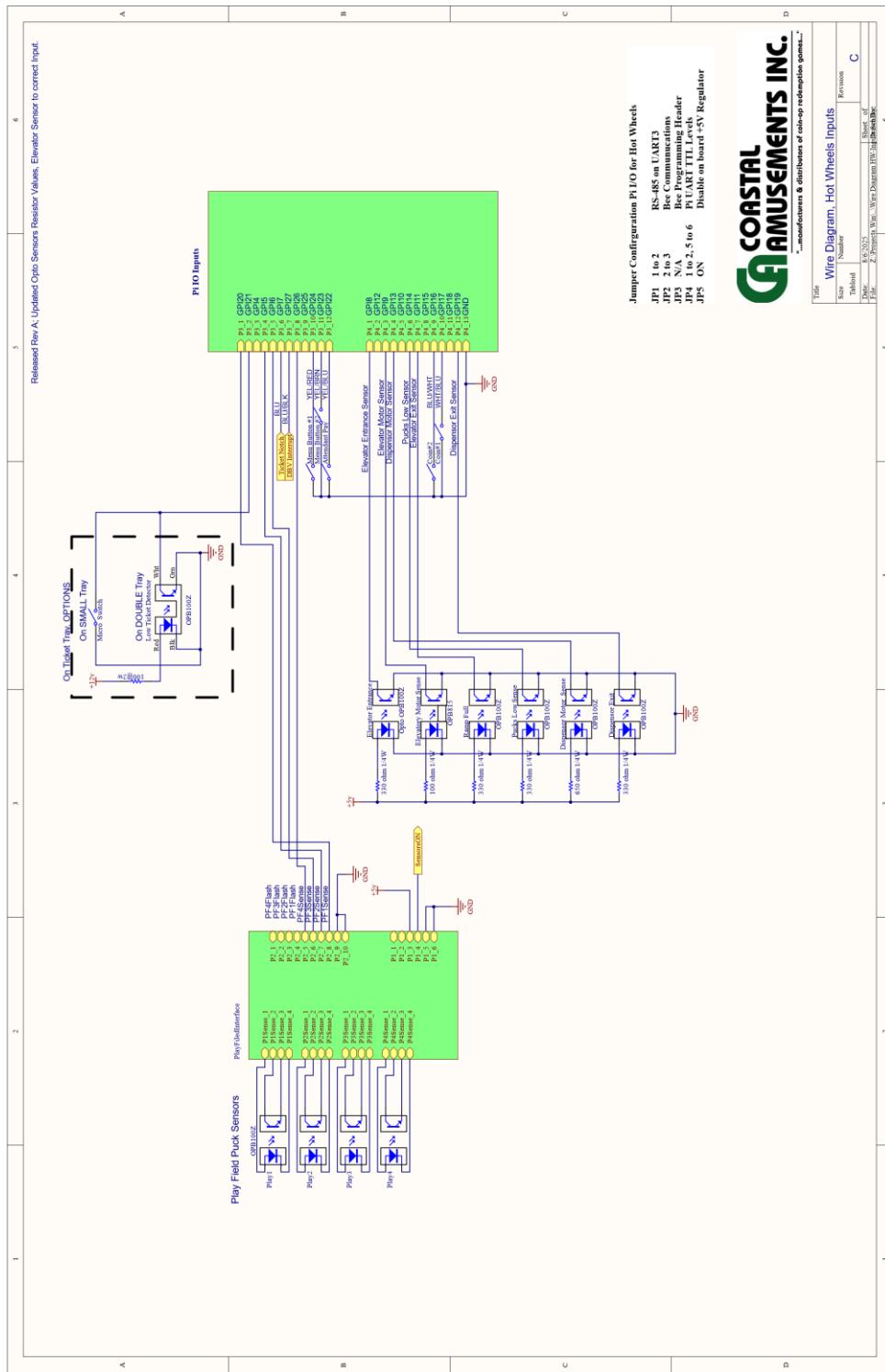


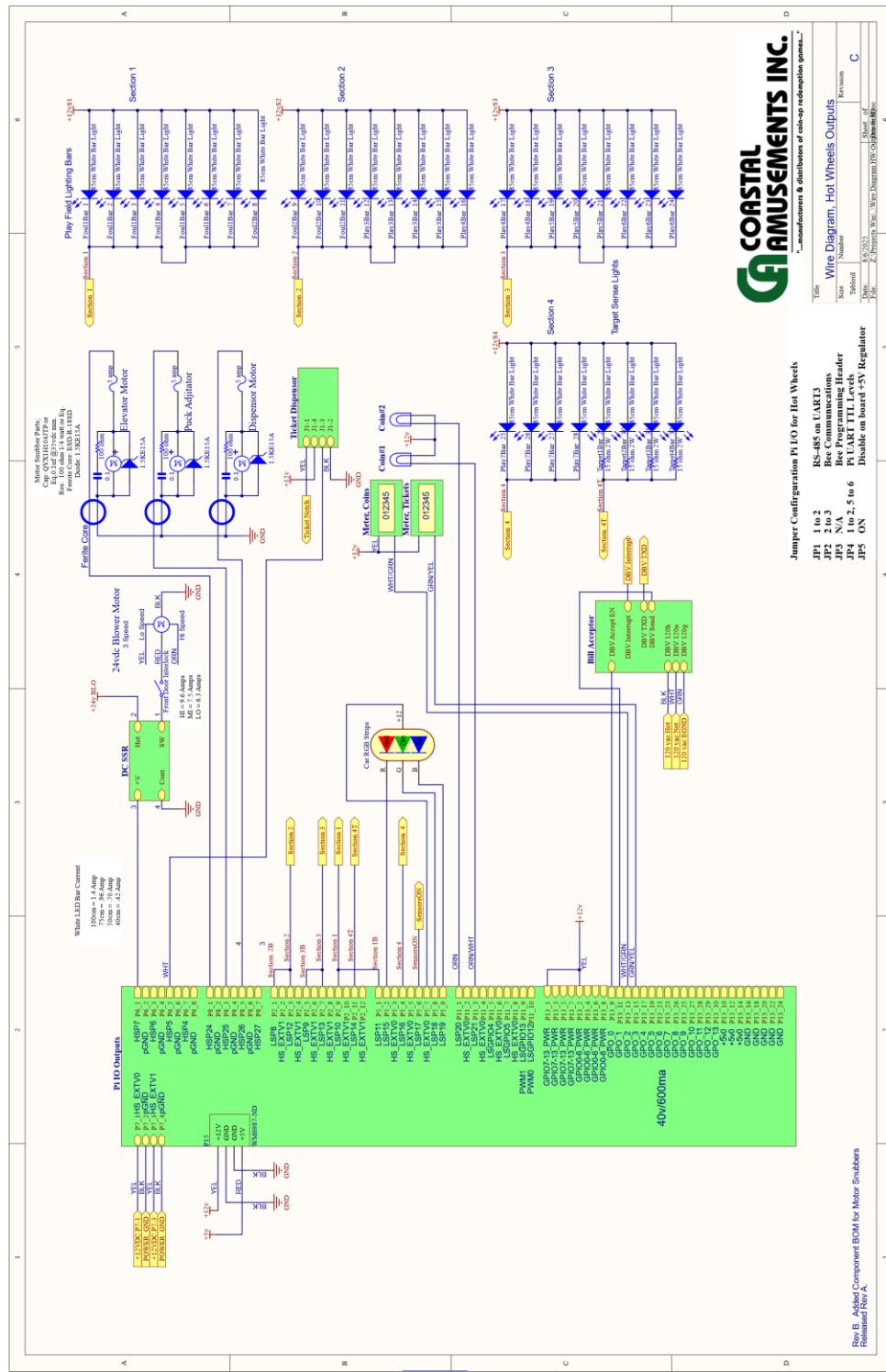


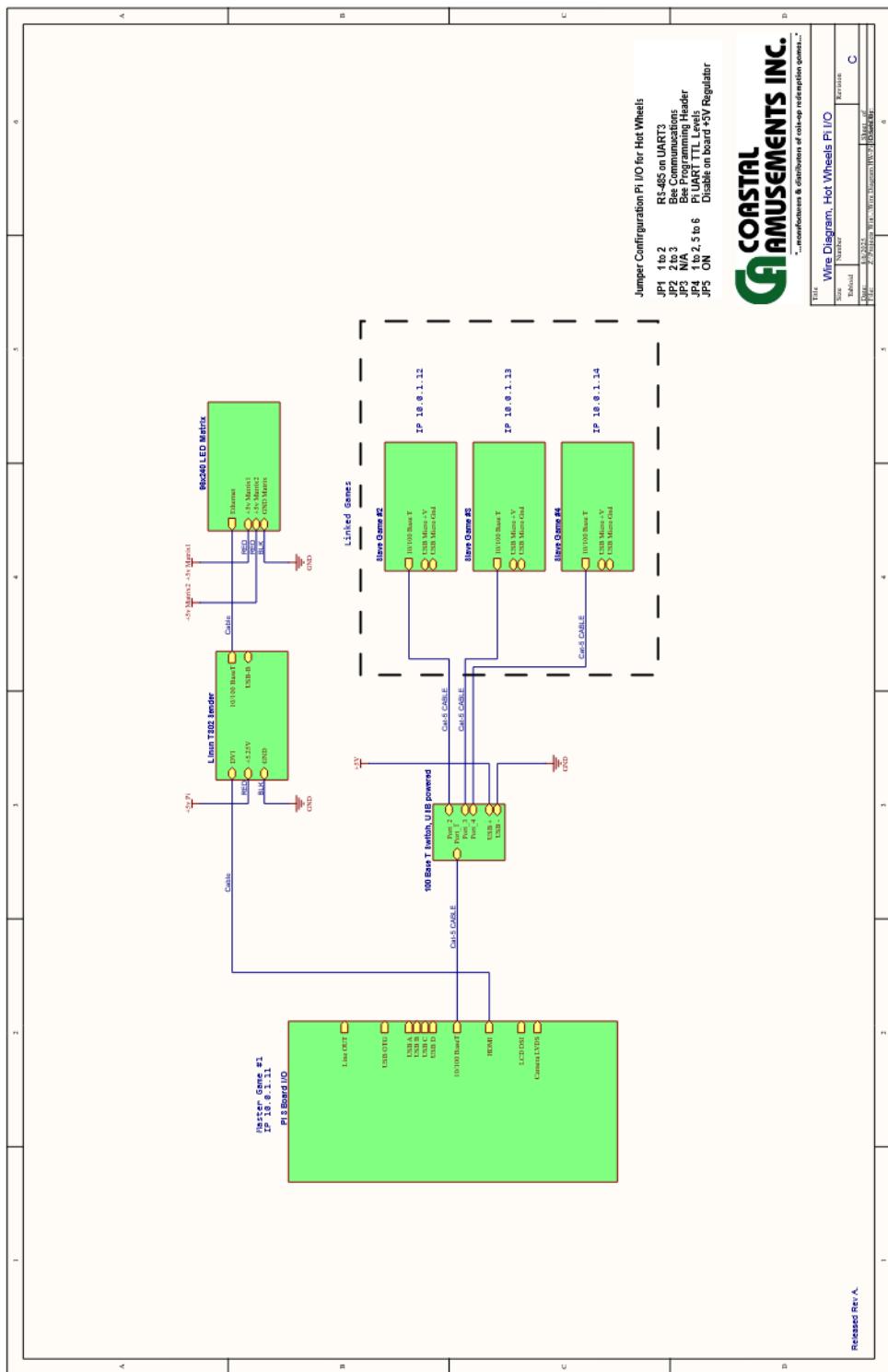
SCHEMATICS











FACTORY WARRANTY

Warranty Period: Coastal Amusements, Inc. warranties all parts and components in new games. All parts and components are warranted against material defects and workmanship as follows:

Redemption Games:

- Monitors 1 Year
- Proprietary Electronic Hardware, Motors and Computers 180 days
- Other (non-proprietary) Electronic Hardware 90 days
- Mechanical Components 90 days
- Parts Orders 90 days
- The warranty period starts on the 'shipment date' from Coastal Amusements for all domestic purchases, and 30 days after the 'shipment date' from Coastal Amusements for all international purchases.

Cranes:

- Proprietary Electronic Hardware & Motors 1 year
- Other (non-proprietary) Electronic Hardware 180 days
- Mechanical Components 180 days
- Coils and Gears 30 days
- Parts Orders 90 days
- The warranty period starts on the 'shipment date' from Coastal Amusements for all domestic purchases, and 30 days after the 'shipment date' from Coastal Amusements for all international purchases.

Warranty Exclusions: Coastal Amusements Inc. will not be responsible for furnishing parts, components, or service under warranty if:

- Game components or parts have failed through normal wear and tear.
- Game components or parts have failed due to abuse, misuse, mishandling, installation errors or abnormal operation.
- Game components or parts have failed due to damage caused by accident, vandalism, improper service, or service performed by unqualified or unauthorized personnel.
- Game components or parts have failed due to arbitrary or unauthorized modification.
- Game components or parts have failed due to acts of nature, such as fire, flood, wind, earthquake, etc.

Warranty Procedure: Certain procedures must be followed to ensure the game parts and components are covered under warranty and that proper credit is issued for returned parts and components as follows:

- Customers must provide a valid serial number for the game to be serviced.
- An RMA number must be obtained from our Customer Service staff for all warranty parts.
- The RMA number must appear on the return shipping carton to ensure proper credit.
- Defective parts will be replaced with new or factory reconditioned parts.
- Defective parts covered under warranty must be returned within 30 days.
- Defective parts returned after 30 days and before 60 days will incur a 25% restocking charge.

Defective parts returned after 60 days will receive no credit



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