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Operation Manual



94MAN-01-B



Table of Contents



Game Play	3
Game Set-up	4
Payout	5
Programming	6-9
Error Codes/Default Settings	10
Electronic Components	10-13
Game Specifications	13
Parts	14
Revision History	15

BLUE & BLUE BLAST! BLAZES! *Game Play Blue Blast* 

The object of Blue Blast/Blue Blazes is to time the ball drop so the ball lands in the Jackpot position. Landing the ball in the jackpot position awards the player the jackpot value. When the ball lands in any other position, the player is awarded the corresponding value indicated on the wheel for that position.



LED Lighting

Blue Blast utilizes low voltage (12 v) LED lighting throughout the game for general illumination and accents.





Game Set-up



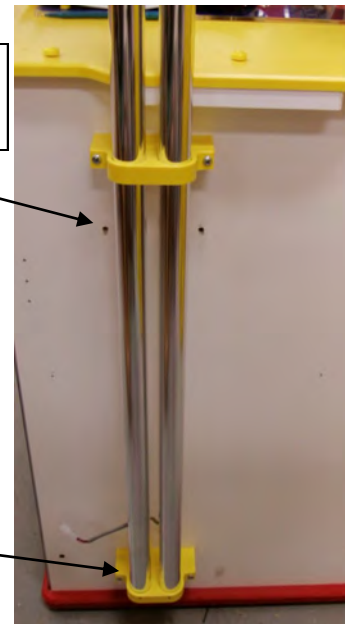
Blue Blast Marquee Assembly

1. Position base near power source (AC connection is located at the left rear)
2. Unscrew the Lower Marquee mounts on each side of the cabinet
3. With one person on each side slowly raise the marquee poles making sure to keep the marquee level.
4. Insert the connector for the marquee thru the hole in the RIGHT side of the cabinet
5. Secure screws to attach the lower marquee mount to the cabinet in the UP position.
6. Open RIGHT ticket dispenser door and connect the marquee power connector.
7. Connect AC line cord to power source
8. Load tickets in ticket dispenser

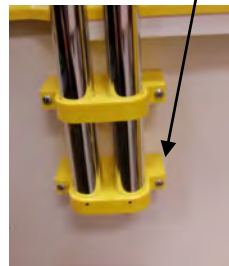
Marquee in the Down Position



Marquee Support Poles



Move Mount to upper position and insert connector into cabinet.



Lower Marquee Mount

Ticket Loading



Marquee Power Connector





Payout



Blue Blast/Blue Blazes Payout and Adjustments

We recommend running the machine at the default factory settings as a starting point. The cost per play should be two coins at about a quarter value per coin.

Run the game for two weeks to properly average a payout percentage before adjusting anything as the machine may show false payout spikes due to jackpot hot or dry runs over short periods.

To increase the payout, increase the 'Jackpot Increment' setting described in the 'Programming' section.

To decrease the payout, decrease the 'Jackpot Increment' setting described in the 'Programming' section.



Programming

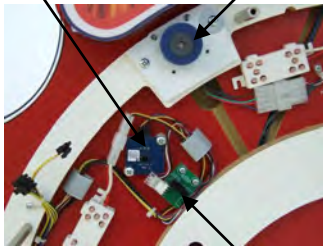


Stepper Controller Board (SCB)



Ball Receiver Opto

Wheel Motor



Ball Transmitter Opto

Home Position Opto



Wheel Position

Wheel position in Blue Blast is determined by an optical sensor that communicates with the CPU board. The CPU receives a HOME signal from an optical sensor located behind the wheel. There is a pin inserted into the wheel and when the pin passes thru the optical sensor it blocks the beam and the sensor sends a signal to the CPU telling it that it has detected the HOME pin. This HOME signal lets the CPU know the exact position of the wheel.

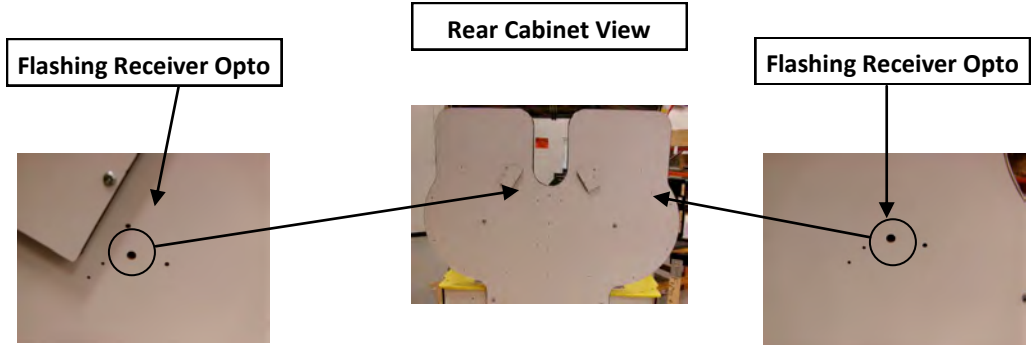
A stepper controller board (SCB) controls a stepper motor that rotates the wheel. The wheel rotation is broken up into many "steps" and the CPU counts these "steps." Because the CPU knows where the HOME position is and it's counting every "step" it knows exactly where the wheel is at any time.

Scoring – Ball Sensor

There is an optical transmitter located on the left side of each wheel that transmits a beam thru the holes in the wheel and a receiver behind the wheel that detects the beam. When a ball falls into a slot it blocks the optical beam and the position of that slot is communicated to the CPU. Since we know the position of the wheel at all times, we can identify each hole and know what value to award the player.

Ball Optical Sensor Observation Point

You may verify the operation of the Ball Transmitter and Receiver optos from the rear of the cabinet. There are two observation points; one on the left and one on the right (see pictures below). Under normal operation you should see a FLASHING LED as the beam is broken. If the LED is off or always on there is a problem with one of the optos, a voltage or wiring problem to the optos.

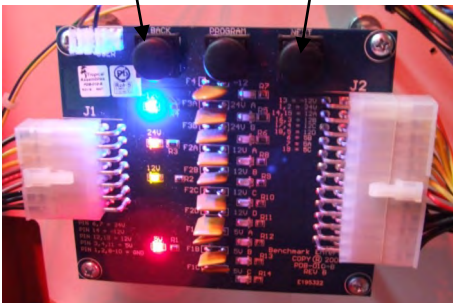




Power Distribution Board

BUTTON 2

BUTTON 1



NOTE: Reference to “GAME 1” refers to Blue Blazes, on the left, and “GAME 2” refers to Blue Blast, on the right. Not applicable to single player Blue Blazes or Blue Blast.

1. Entering Programming Mode

To enter program mode, press and hold the right button located on the Power Distribution Board. After two seconds, “TOTALS” will appear on the LCD Display. At this time, release the button. “GAME 1 COINS IN” with the number of coins received will be displayed. The game is now in Program Mode.

PLEASE NOTE that from this point forward, the left (Button 1) and right (Button 2) buttons on the Power Distribution Board are the buttons used. Each programming option is displayed on the LCD Display (located in the lower cabinet at the rear of the cashbox enclosure), with the functions shown for Buttons 1 and 2.

2. COINS IN

The total coins received through the coin mechanisms are displayed for each game. The total will rollover to zero when it reaches 1,000,000,000. Depressing button 2 after COINS IN for both games will display “GAME 1 TICKETS OUT”.

3. TICKETS OUT

The total tickets dispensed are displayed. The total will rollover to zero when it reaches 1,000,000,000. Depressing button 2 will display “CLEAR G1 TICKETS OWED?”, and/or “CLEAR G2 TICKETS OWED?” or “ENTER PROGRAMMING MODE?”.

4. “CLEAR TICKETS OWED?”

This option is displayed only if there are tickets that are owed that have not been dispensed, and will show the number of tickets. Depressing Button 1 will clear these tickets from the system, and “TICKETS CLEARED” will be displayed. This option will be shown for each game separately. Depressing Button 2 will display “ENTER PROGRAM MODE?”

5. “ENTER PROGRAM MODE?”

Depressing Button 1 at this time will enter the area of Program Mode where parameters may be changed. Depressing Button 2 will return the game to Run Mode.



Programming



6. "ENTER PASSCODE?"

To be able to change programming parameters or reset the counters, a 4-digit passcode must be entered. The default passcode is 0000. To enter the passcode, Depress **BUTTON 1** to change the digit from 0 to 9, then press **BUTTON 2** to move to the next digit. After all digits have been entered correctly, depressing **BUTTON 2** will Display the first programming option, "CHANGE PASSCODE?".

7. "CHANGE PASSCODE?"

Depressing **BUTTON 1** will allow for changing the passcode. Depressing **BUTTON 2** will move to "DISPLAY CONTRAST".

IMPORTANT!!! ONCE THE PASSCODE IS CHANGED, THE DEFAULT OF 0000 WILL NO LONGER WORK! BE SURE TO SAVE THE PASSCODE IN A SAFE PLACE!

Entering the new passcode is accomplished in the same way that entering the passcode is done, as explained in (6.).

8. DISPLAY CONTRAST

This option sets the contrast for the LCD Display. Depress and hold Button 1 until the desired contrast is reached, then release Button 1. Depressing Button 2 will move to the next option, "PLAY MODE VOLUME".

9. PLAY MODE VOLUME

This option sets the speaker volume during game play. When this option is entered, the game's background music will play continuously. Depressing Button 1 will increase/decrease the volume. As long as Button 1 is depressed, the volume will increase until the maximum is reached, then decrease until the volume is off. Depress and hold Button 1 until the desired volume is reached. Releasing Button 1 at any time and then depressing it again will change the direction of the volume adjustment. Depressing Button 2 will display the next option, "ATTRACTION MODE VOLUME".

10. ATTRACTION MODE VOLUME

This option sets the speaker volume during Attraction Mode. When this option is entered, the game's background music will play continuously. Depressing Button 1 will increase/decrease the volume. As long as Button 1 is depressed, the volume will increase until the maximum is reached, then decrease until the volume is off. Depress and hold Button 1 until the desired volume is reached. Releasing Button 1 at any time and then depressing it again will change the direction of the volume adjustment. Depressing Button 2 will display the next option, "JACKPOT MODE VOLUME".

11. JACKPOT MODE VOLUME

This option sets the speaker volume during a Jackpot Event. When this option is entered, the game's background music will play continuously. Depressing Button 1 will increase/decrease the volume. As long as Button 1 is depressed, the volume will increase until the maximum is reached, then decrease until the volume is off. Depress and hold Button 1 until the desired volume is reached. Releasing Button 1 at any time and then depressing it again will change the direction of the volume adjustment. Depressing Button 2 will display the next option, "ATTRACTION FREQUENCY".



Programming



12. ATTRACTION FREQUENCY

This option sets the frequency at which the attraction mode occurs. The settings are from OFF to every 30 minutes. Depressing Button 1 will change the settings in 1-minute increments from OFF to 30 minutes, then back to OFF. Depressing Button 2 displays the next option, "GAME 1 COINS/CREDIT".

13. COINS PER CREDIT

This option sets the number of coins required for a credit for each game. The settings are from 1 to 8 coins per credit. Depressing Button 1 will change the setting from 1 to 8, then back to 1. Depressing Button 2 displays the next option, "JACKPOT INCREMENT"

14. JACKPOT INCREMENT

Every time a credit is logged onto the game, the jackpot value is incremented by this amount. The setting is from 1 to 20 in increments of 1. Depressing Button 1 will change this setting from 1 to 20, and then revert back to 1. There is a separate increment setting for each game. After both games have been set, Depressing Button 2 will display the next option, "MERCY TICKET".

15. MERCY TICKET

This option sets the Mercy Ticket Option to Off, 1, 2, or 3 tickets. If a play does not result in a payout, then this setting determines the default payout. Depressing button 1 will change the setting. Depressing Button 2 displays the next option, "WHEEL SPEED"

16. WHEEL SPEED

This option changes the speed of the wheels. Depressing button 1 will change the setting from 1 (slowest) to 5 (fastest). Depressing Button 2 displays the next option, "DISPLAY TICKETS OWED".

17. DISPLAY TICKETS OWED

If this option is turned on, tickets that are won are displayed and counted down on the Jackpot Display. If there are no tickets to be paid out, then the Jackpot Value is displayed. If this option is turned off, then only the Jackpot Value is displayed. Depressing Button 1 will change this option. Depressing Button 2 will enter the Resetting Totals Section.

18. RESETTING TOTALS

The totals displayed at the beginning of Program Mode (COINS IN, TICKETS OUT) may be reset to zero here. The total number for each will be displayed. Depressing Button 1 will clear the total, and zero will be displayed, confirming that the count has been cleared. Depressing Button 2 will display the next total. Depressing Button 2 after all of the totals have been displayed will display the next option, "ENTER PROGRAM MODE?"

19. "ENTER PROGRAM MODE?"

This option gives the opportunity to re-enter program mode if it is necessary to change any options again. Depressing Button 2 leaves Program Mode and the game returns to normal, Run Mode.



Programming-Electronic Components



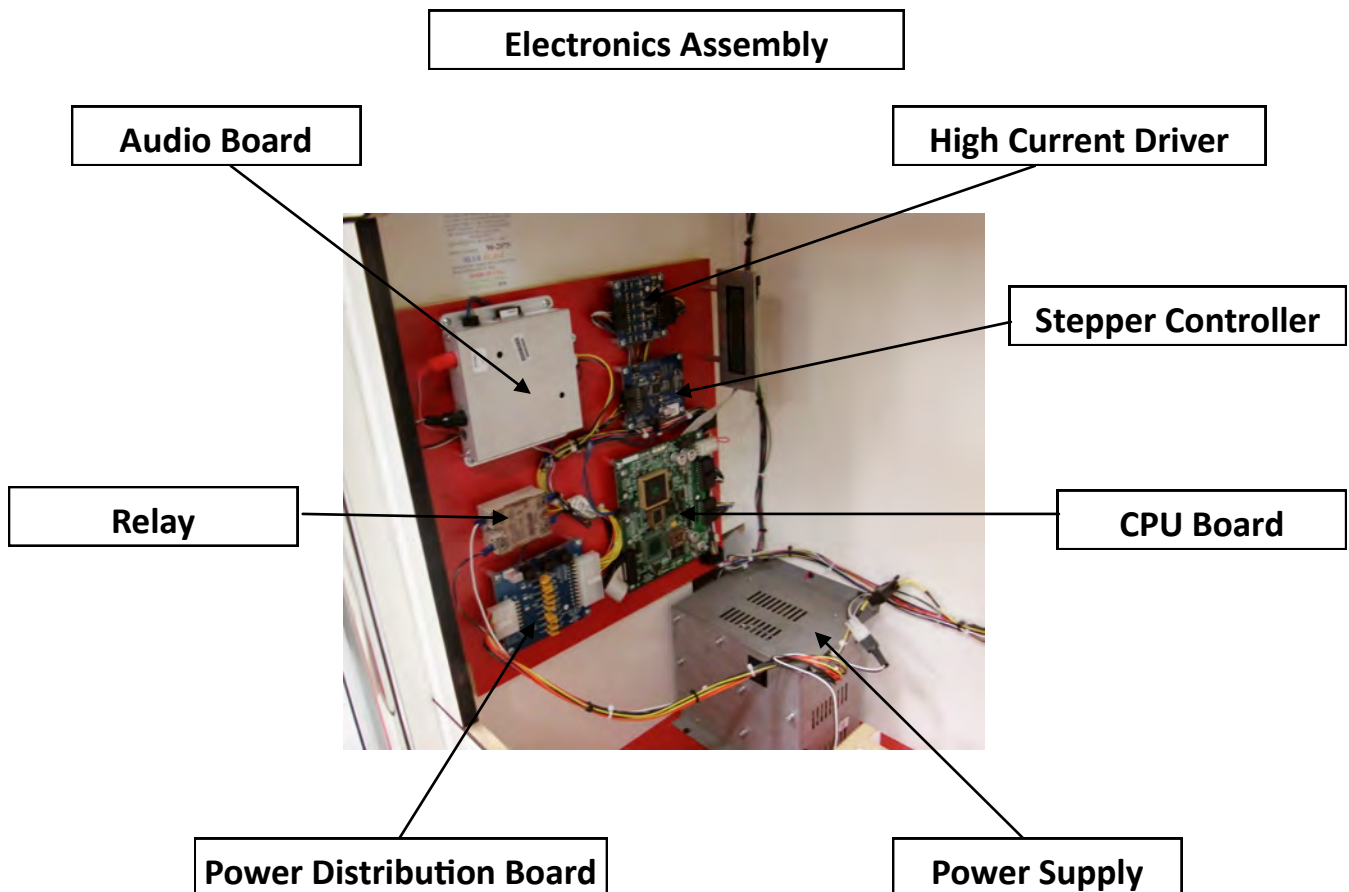
ERROR CODES

- E-1 BALL SENSOR ERROR
- E-2 HOME SENSOR ERROR
- E-3 TICKET ERROR

DEFAULT SETTINGS

PASSCODE	0000
PLAY MODE VOLUME	21
ATTRACTION MODE VOLUME	42
JACKPOT MODE VOLUME	MAX
ATTRACTION FREQUENCY	5 Minutes
COINS/CREDIT (BOTH GAMES)	2
JACKPOT INCREMENT (BOTH GAMES)	4
MERCY TICKET	OFF
WHEEL SPEED	1
DISPLAY TICKETS OWED	ON

Electronic Components





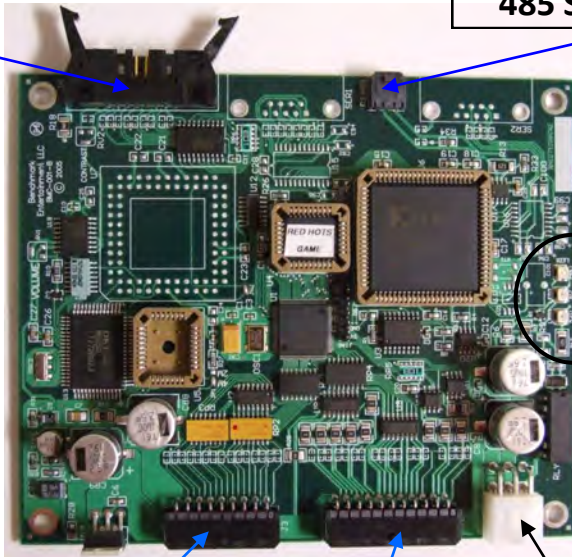
Electronic Components



CPU

J4

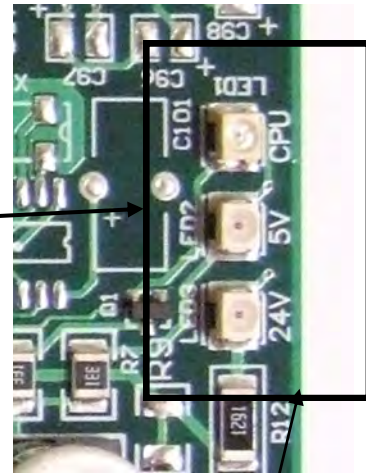
485 Serial Connector



J3

J2

J1

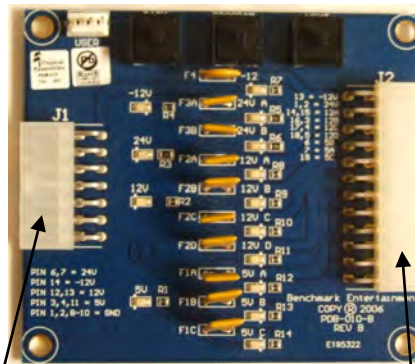


CPU LED Chart

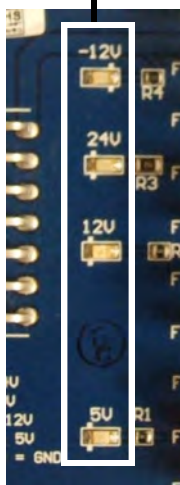
CPU LED	Flashes = OK
5 V LED	ON = 5v
24V LED	ON = 24v

Power Distribution Board LED Indicators

LEDs should be ON when game is powered up. They identify which voltages are present.

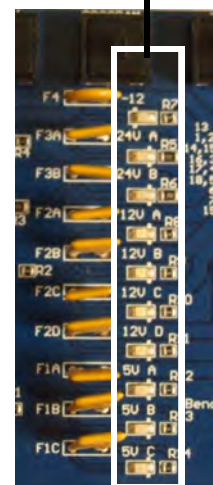


LEDs should normally be OFF. If ON they indicate an overload on the indicated voltage.



J1 Power IN

J2 Power OUT

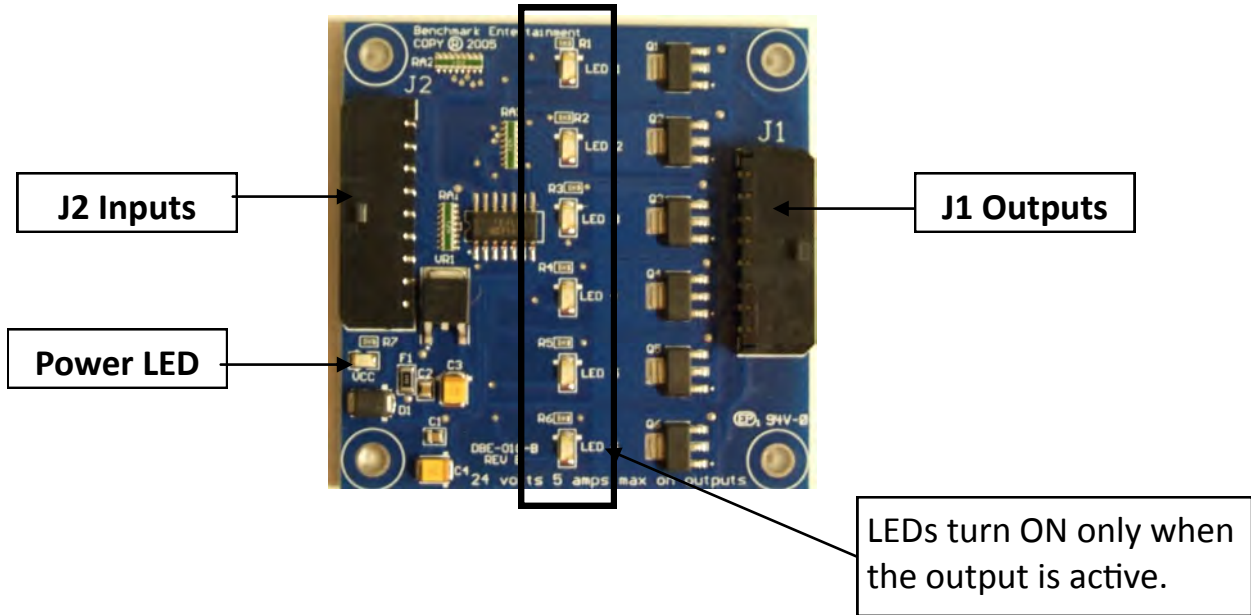




Electronic Components



High Current Driver PCB



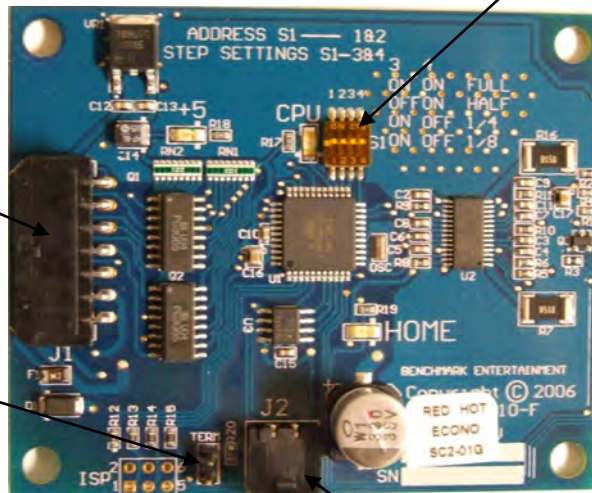
Stepper Controller Board

<u>Stepper LED Chart</u>	
CPU LED	Flashes = OK
5 V LED	ON = 5v
HOME	ON but dim

Switch Settings
All Switches OFF

J1

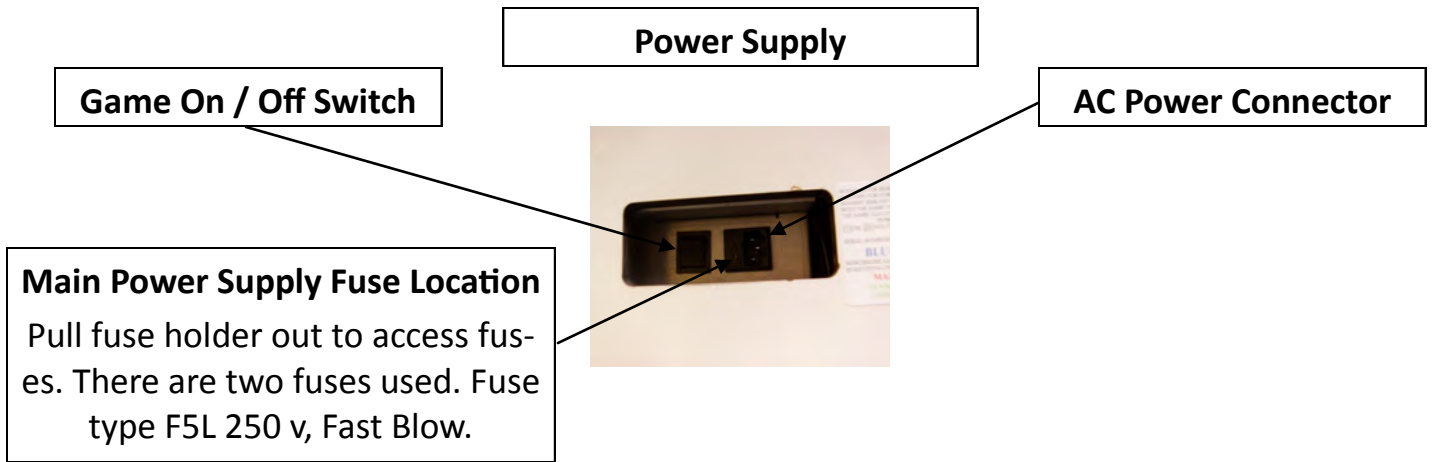
RS 485 Termination Jumper
No Jumper Required



J2



Electronic Components & Game Specs



Game Specifications

	Blue Blast/Blazes 2 Player	Blue Blast/Blazes 1 Player	Notes
Key Numbers	Key #322	Key #322	All Doors
Weight (Set up)	360 lbs (164 Kg) crated	218 lbs. (99Kg) crated	
Dimensions (Set up)	W=56.5" (1435mm) x D=24" (610 mm) x H=92.5" (2350 mm)	31.6"W (803mm) x 24"D (610mm) x 92.5"H (2350mm)	
Power Consumption	220 Watts max.	110 Watts max.	
Fuses	2-5 Amp line fuses at power input	2-5 Amp line fuses at power input	F5L 250V FB
Ticket Dispenser	2-Benchmark Intellitriple	1-Benchmark Intellitriple	
Balls-Number/Size	6/1 inch each side	6/1 inch	



Parts



**Wheel Assembly Blue
Blazes**



**Wheel Assembly Blue
Blast**



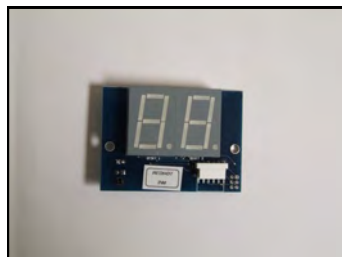
Ball Opto Transmitter



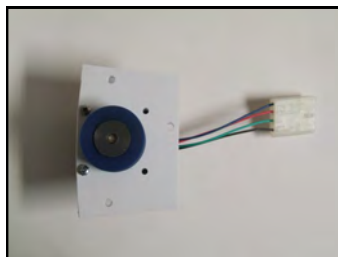
Control Panel



Jackpot 5 Digit Display



Credit Display



Wheel Motor Assy



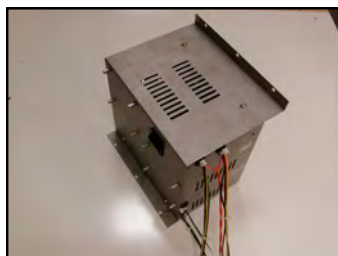
Stepper Controller



CPU



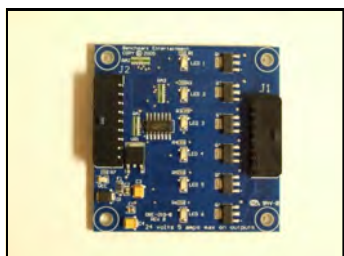
Power Distribution PCB



Power Supply



Opto Trans & Solenoid



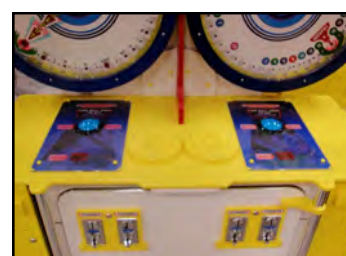
High Current PCB



Coin Chute & Mechs



Jackpot Display Cover



Control Panel



Revision History

A-12/07/2010

Release

B-03/02/2011

Fix grammatical errors, add revision history page