Benchmark Games, Inc.
WORLD'S PREMIER GAMES

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REDHOT! X-TREME 7's

PLEASE READ FIRST BEFORE PLUGGING IN MACHINE

097MAN-01-rB

AMERICAN AMUSEMENT MACHINE ASSOCIATION

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Red Hot X-Treme 7s Game Play

The object of Red Hot X-Treme 7s is to time the ball drop button press so that the 7 balls fall into the Red Hot slots on the wheel. Fill all 7 slots wins the jackpot. Filling less than 7 Red Hot slots pays out from 9-100 tickets depending on the number of slots filled. See table below for ticket payout. In addition to the Red Hot slots there are blue Mystery Bonus slots, landing in one of these pays out a Mystery Bonus from 2-100 in addition to how many Red Hot slots that were filled

Number of Red Hots filled	**Tickets Dispensed**
1 Red Hot	8
2 Red Hots	12
3 Red Hots	20
4 Red Hots	40
5 Red Hots	60
6 Red Hots	120
7 Red Hots	Jackpot Value

LED Lighting

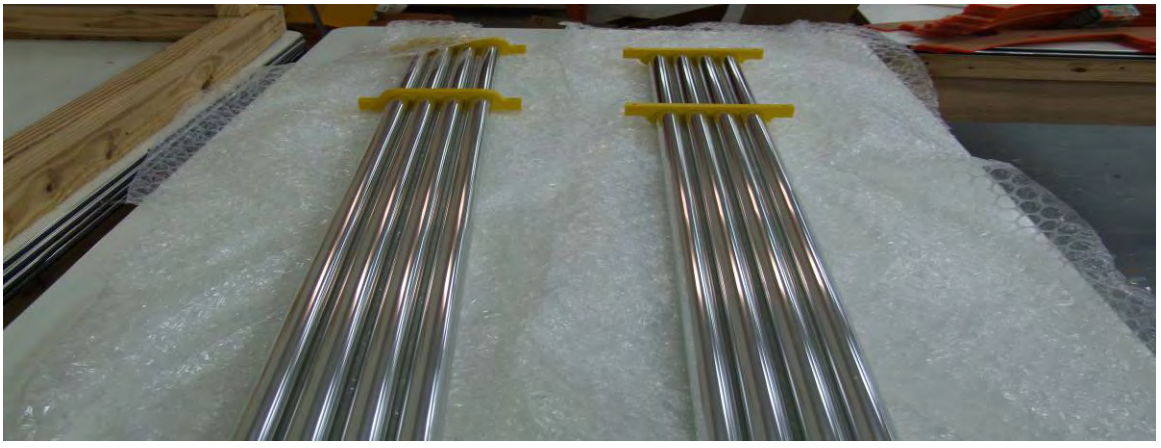
The Red Hot X-Treme 7s utilizes low voltage (12v) LED lighting throughout the game for general illumination and accents. The Red hot X-Treme 7s also has a secondary power supply that runs most of its LED lighting.

12v LED light

Secondary power supply

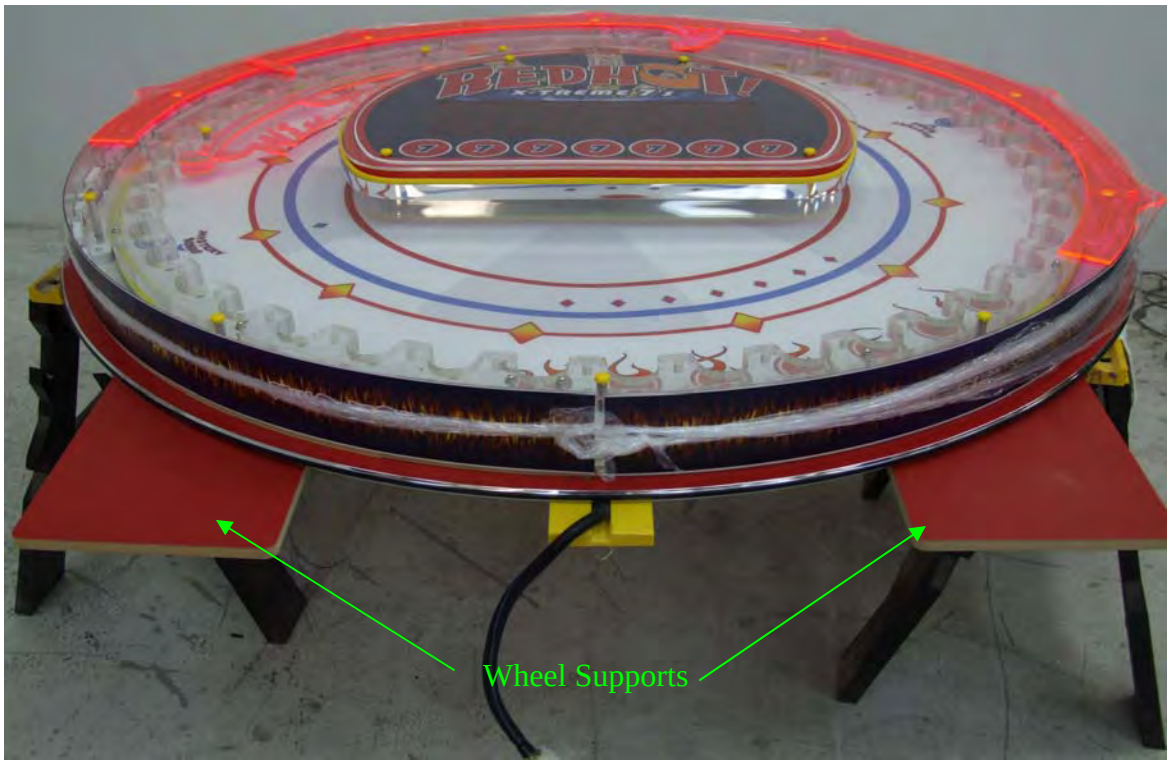
Game Assembly

1. Cut the plastic and remove the support pipes boxes
2. Remove pipes from boxes



3. Remove the Red Hot Wheel from box (Wheel is very heavy)

4. Lay Red Hot Wheel on back off the ground (Wheel is very heavy)

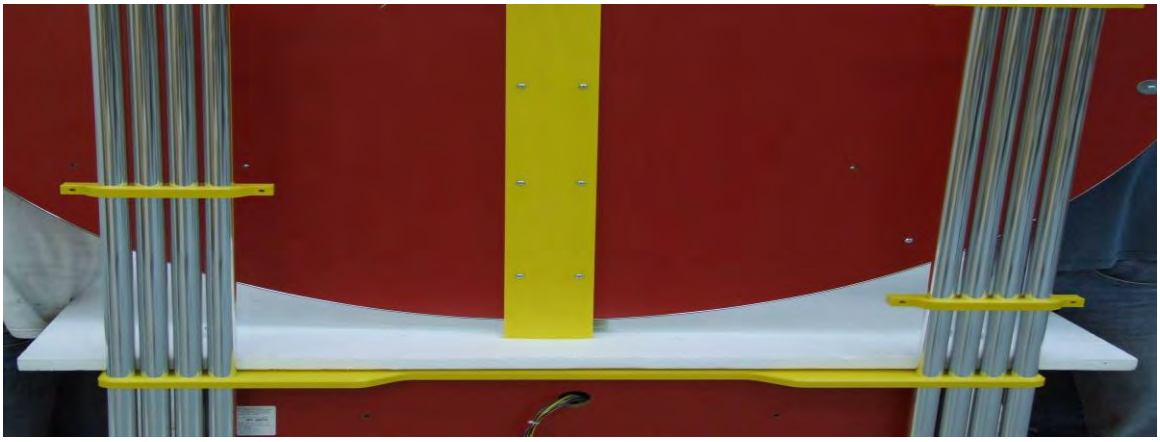


5. Remove Red Hot Wheel shipping supports, saving bolts, as they will be used later to attach the wheel to the base.

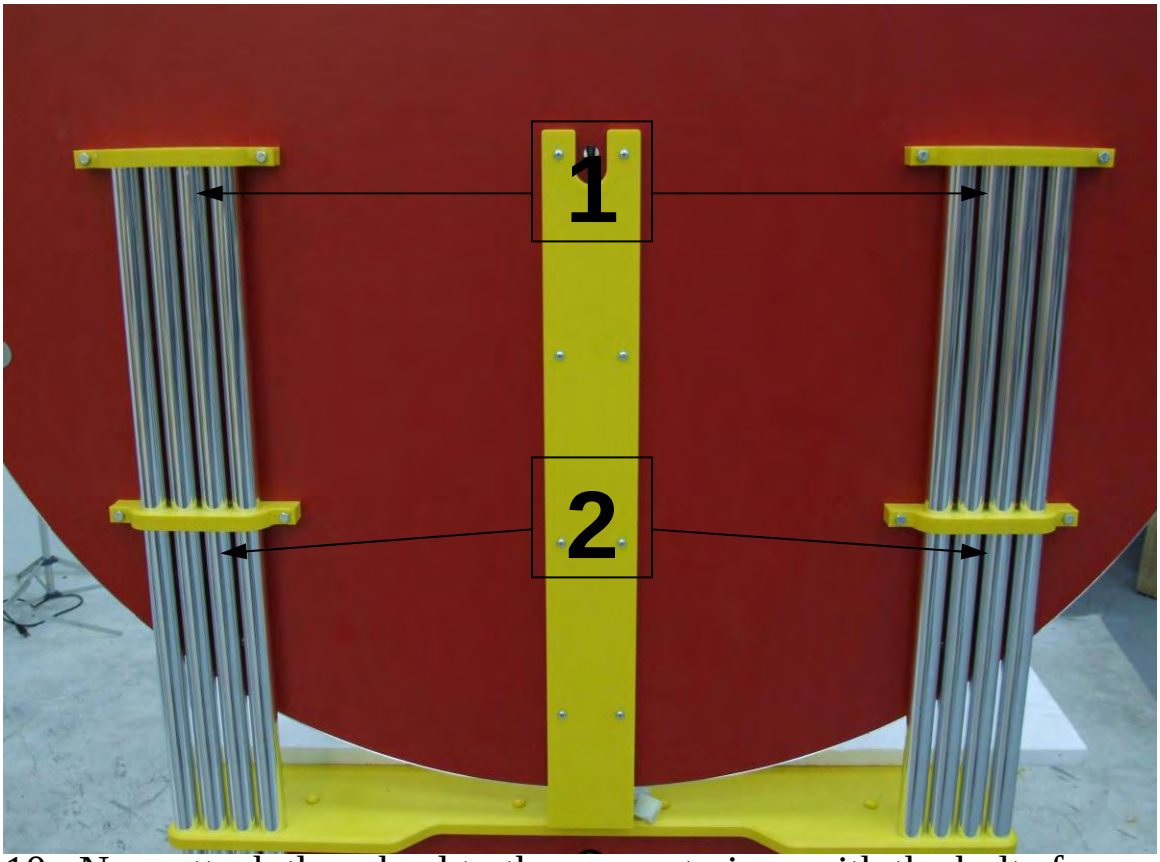
6. Remove Red Hot base from box

7. Slide wheel support pipes into Red Hot base

8. Place a piece of foam from the shipping box onto the Red Hot Base.



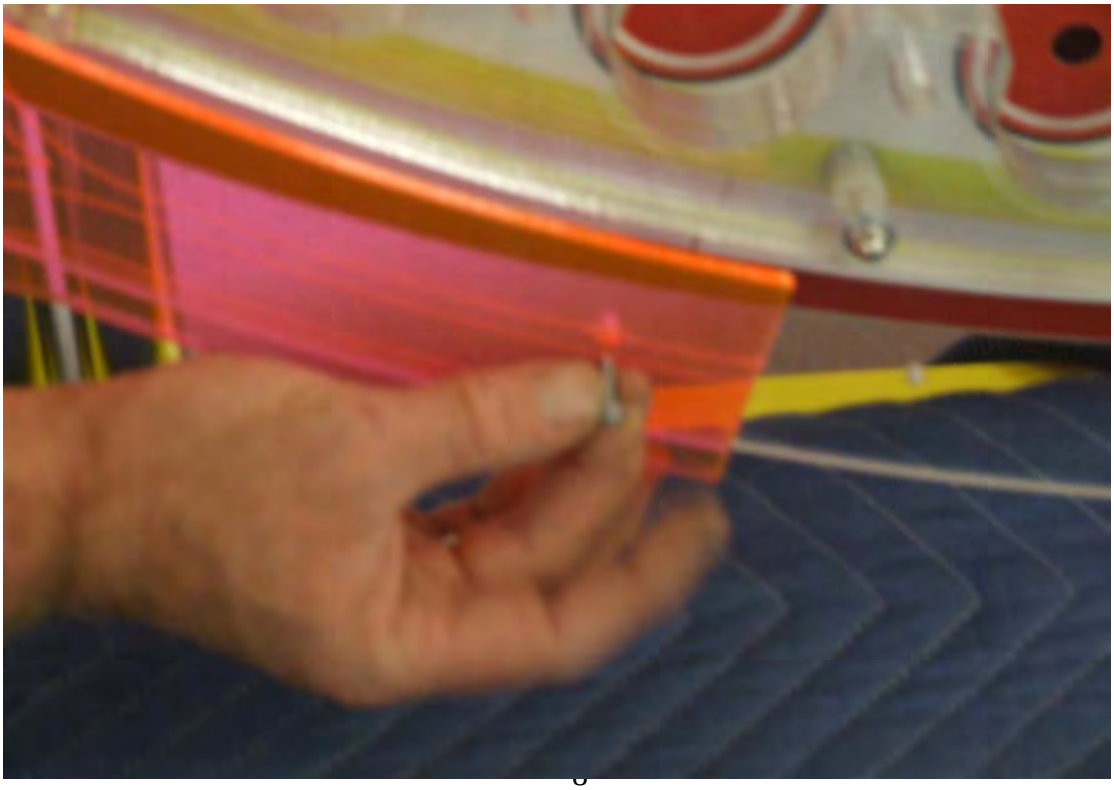
9. With two people, lift the Red Hot Wheel and place on foam against the support pipes. Hold it there.



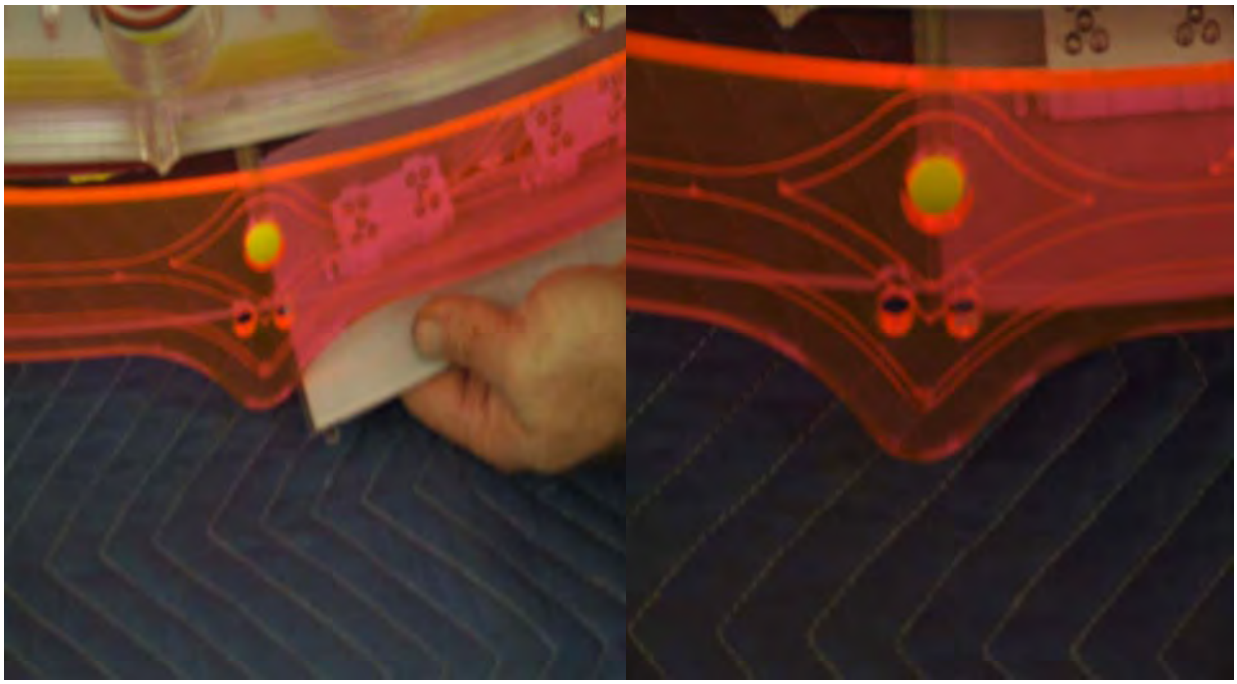
10. Now attach the wheel to the support pipes with the bolts from the shipping supports, starting with the top.

11. Cut the plastic wrap holding the light strips so that they hang.

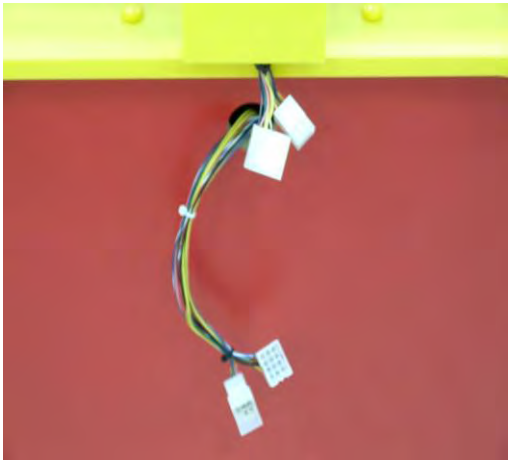
12. Attach the trim pieces using the hardware provided. There are 3 screws for each pieces of trim.



13. Slide the light strips along the wheel and snap the tabs into the holes in the trim



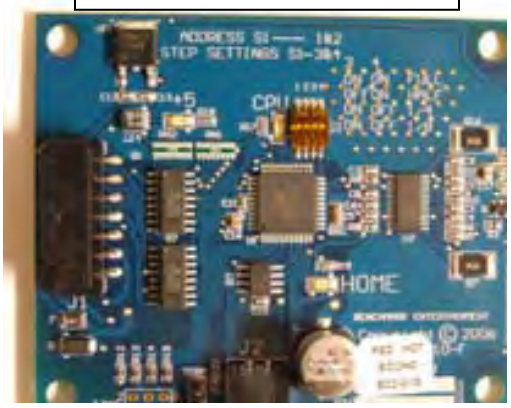
14. Connect the Red Hot Wheel wires to the connecters on the Red Hot Base.



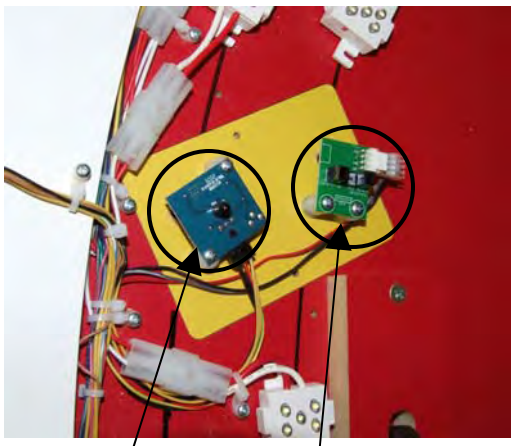
15. Connect to power source
16. Load ticket dispensers

Technical Operation

Stepper Controller Board



Optical Sensors



Optical Receiver

Home Optical

Wheel Position

Wheel position in Red Hot X-Treme 7s 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 then the sensor sends a signal to the CPU telling it that it has detected 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 the wheel that transmits a beam through 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 its position is sent to the CPU. Since we know the position of the wheel at all times we can identify each hole and know it is a RED HOT or a MYSTERY BONUS hole. The CPU counts how many RED HOT or MYSTERY BONUS balls a player has and awards the corresponding number of tickets

The Red Hot X-Treme 7s has a secondary power supply which powers most of the LED lights throughout the game.

Programming the Red Hot X-Treme 7's Game

1.) Entering Programming Mode
To enter program mode, press and hold the right button located on the Power Distribution Board. After 2 seconds, "TOTALS" will appear on the LCD Display. At this time, release the button. "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 right (Button 1) and left (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. The total will rollover to zero when it reaches 1,000,000,000. Depressing button 2 will display "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.

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".

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, “COINS PER CREDIT”.

13.) COINS PER CREDIT

This option sets the number of coins required for a credit. 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. Depressing Button 2 will display the next option, “JACKPOT TYPE”.

15.) MERCY TICKET

This option sets the Mercy Ticket Option to On or Off. 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 wheel. Depressing button 1 will change the setting from 1(slowest) to 5(fastest). Depressing Button 2 displays the next option, "DISPLAY TICKETS OWED".

20.) 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.

21.) RESETTING TOTALS

The totals displayed at the beginning of Program Mode (COINS IN, TICKETS OUT) and NUMBER OF JACKPOTS 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?”

22.) “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.

ERROR CODES

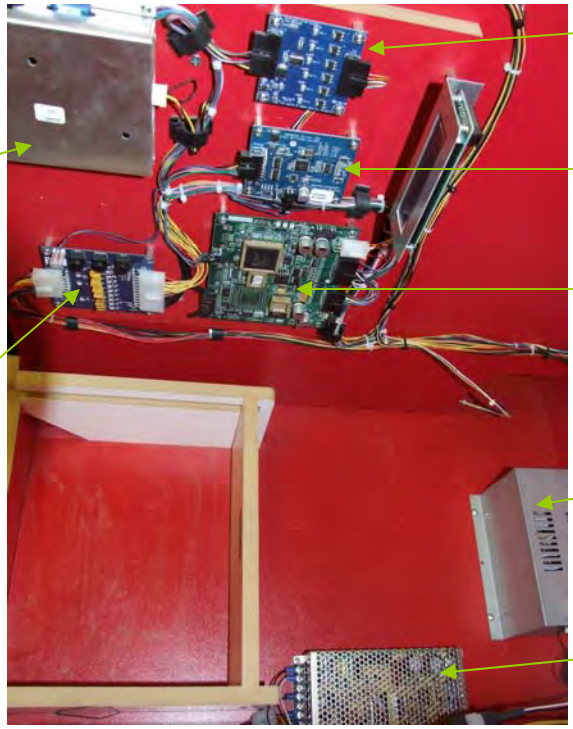
E-1	**BALL SENSOR ERROR**
E-2	**HOME SENSOR ERROR**
E-3	**TICKET ERROR**

DEFAULT SETTINGS (ALL PAYOUT TABLES)

PASSCODE	**0000**
PLAY MODE VOLUME	**21**
ATTRACTION MODE VOLUME	**42**
JACKPOT MODE VOLUME	**MAX**
ATTRACTION FREQUENCY	**5 Minutes**
COINS PER CREDIT	**1**
JACKPOT INCREMENT	**5**
MERCY TICKET	**0FF**
WHEEL SPEED	**1**
DISPLAY TICKETS OWED	**ON**

Electronic Components

Electronics Assembly



Hi Current Driver

Stepper Controller

CPU Board

Power Supply

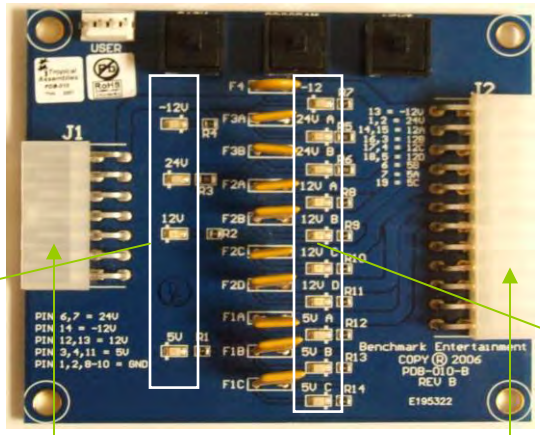
Power Supply (lights)

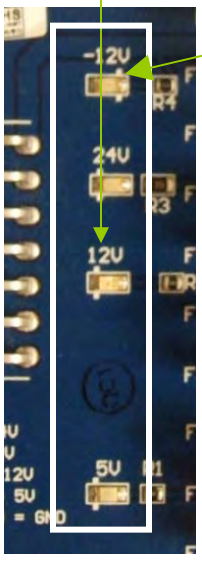
Audio Board

Power Distribution board

Power Distribution Board LED Indicators

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

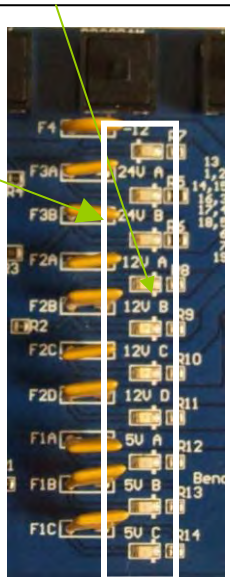




J1 Power IN

J2 Power OUT

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

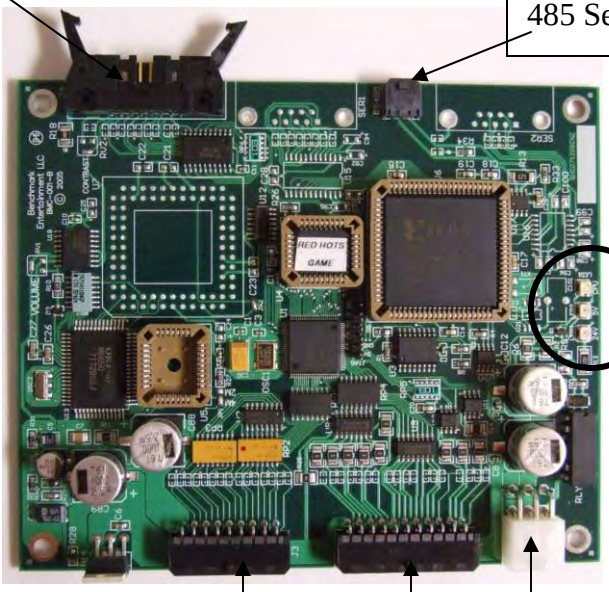


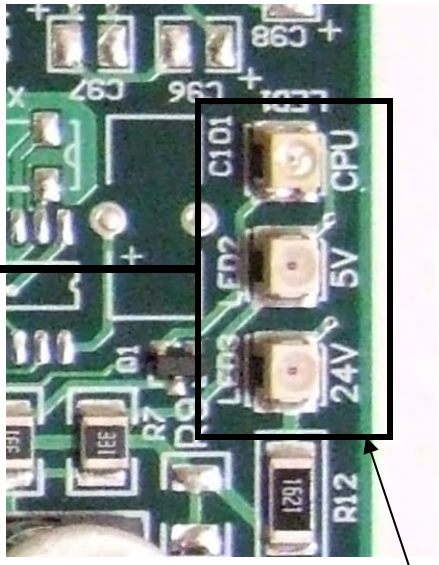
Electronic Components

CPU

J4

485 Serial Connector





J3 J2 J1

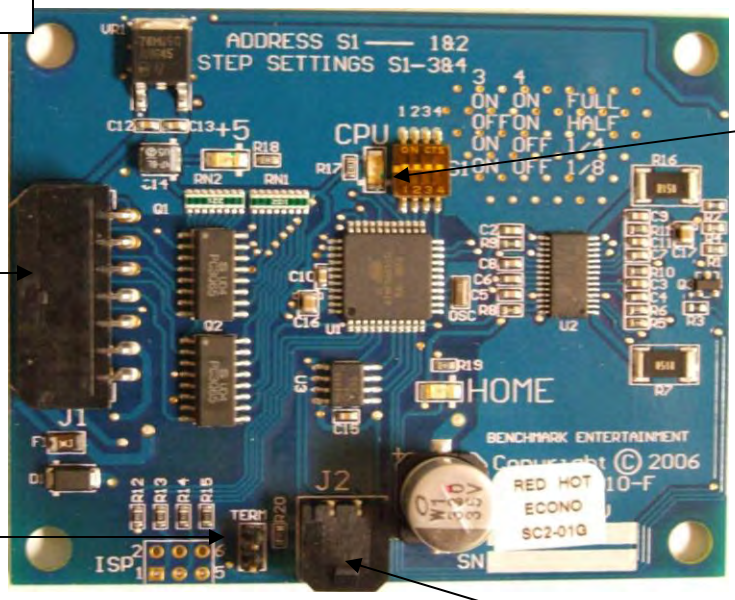
CPU LED Chart

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

Stepper LED Chart

CPU LED	Flashes = OK
5V	ON = 5v
HOME	ON but dim

Stepper Controller Board



Switch Settings
All Switches OFF

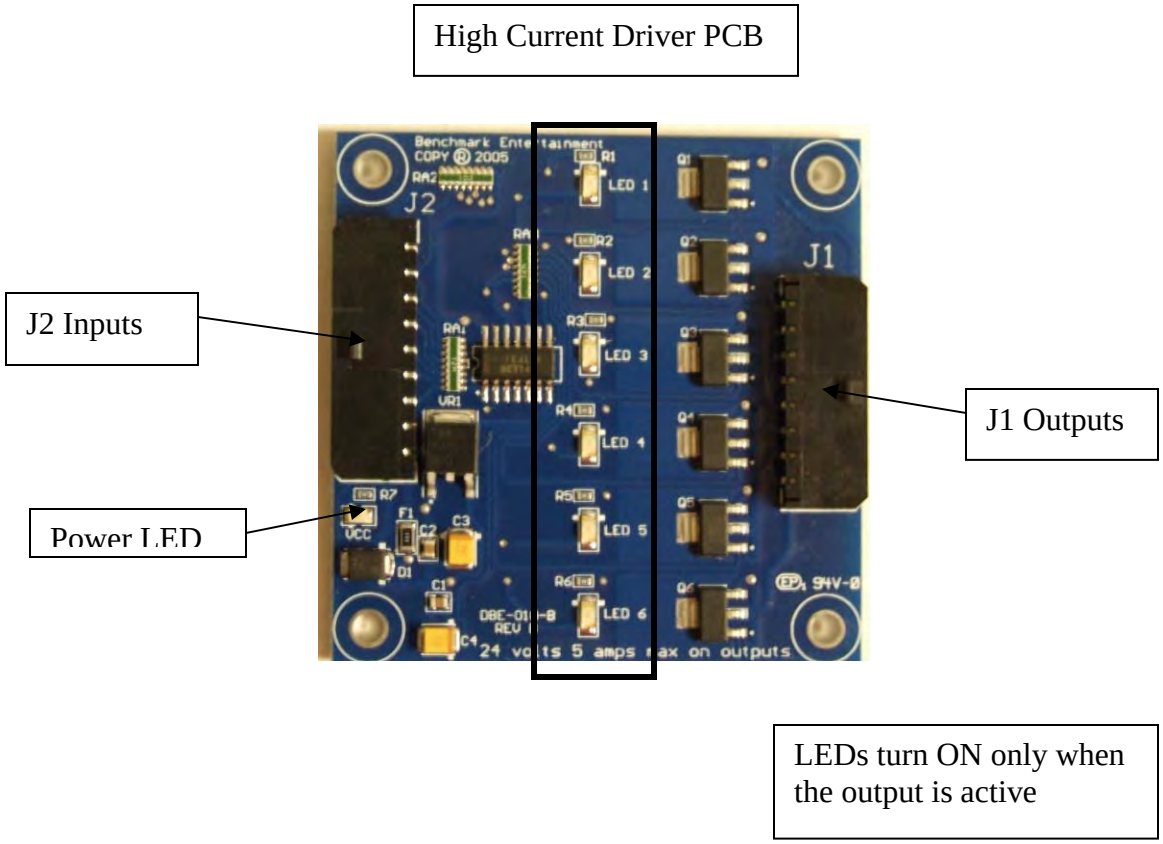
J1

RS 485 Termination Jumper

No Jumper Required

J2

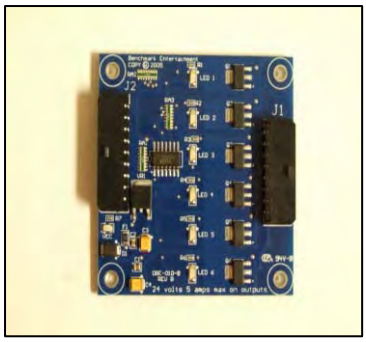
Electronic Components



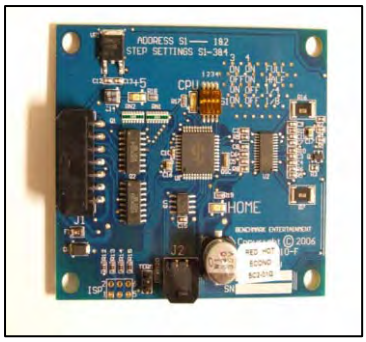
Game Specifications

Key numbers		
Weight		
Dimensions-set-up	H- 94.5” W- 59.5” D- 37.5”	
Power consumption		
Fuses	2-5 amp in power supply	F5L 250 volt FB
Ticket dispensers	2 Benchmark Intelli triple	
Ball- Number/Size	7	

Parts

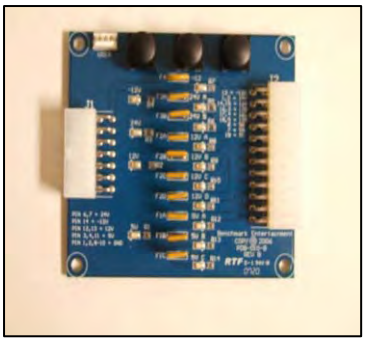


High Current PCB

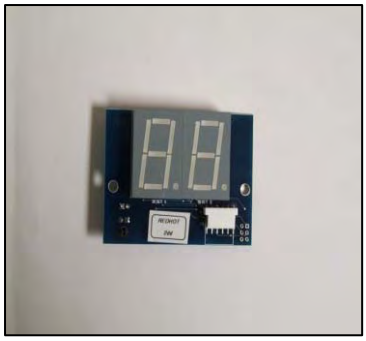


Stepper controller board

Main CPU

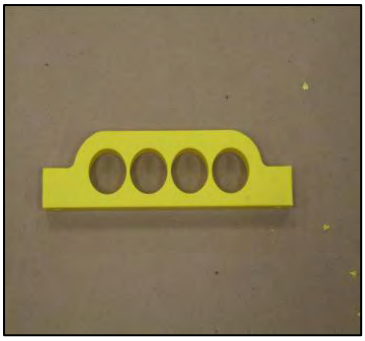


Power Distribution PCB

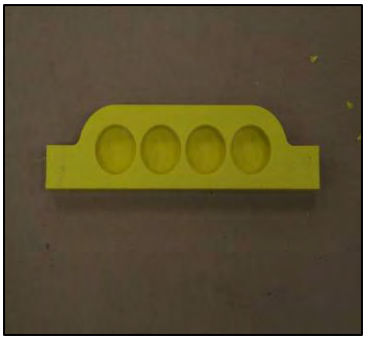


2 Digit Credit Display

Jackpot 5 Digit Display



Bottom bracket

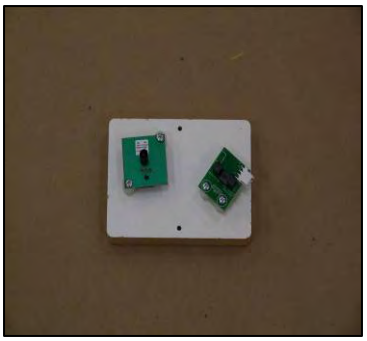


Top bracket

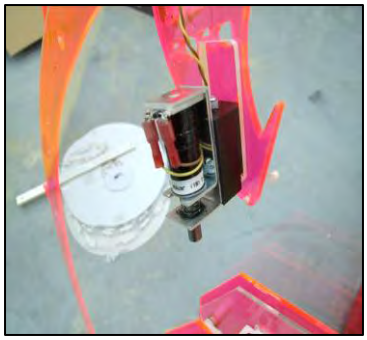
Coin Chute and Mechs

Control Panel

Ball Assembly



Optical Receivers



Solenoid Assembly

Wheel Support Pipes