



The Best Redemption Air Hockey Tables in the Business



## Challenger Neon Air Hockey Table Owners Manual

Assembly operation and care instructions.

## Care and Maintenance

Turn the adjustable leg bolts to create a leveled playing field.

Place puck in the middle of the table, if it moves to a certian side; raise accordingly.

Avoid direct sunlight if table is placed outdoors.

Avoid exposure to wetness when placed in basement or wet area.

Do not shake or drop when transporting.

Replace puck when moving slowly during game play. Light sanding of puck can also smooth puck.

Check air holes periodically to ensure smooth air hockey play.

Do not use sharp objects on playfield.

Keep table surface always clean and dust free.

When cleaning table surface use a soft dry cloth and polishing spray. DO NOT APPLY WATER.

DO NOT APPLY AMONIA BASED PRODUCTS such as window/glass cleaner.

Polish Spray/Wax is provided inside the mallet kit. Contact Barron Games for more if needed.

Plish Spray/Wax table monthly to ensure best playfield.

Wax the table surface periodically ti ensure smooth air hockey play.



Weight		Dimensions	
<i>Overhead Bar</i>	<i>9lbs</i>	<i>Lenght</i>	<i>89"</i>
<i>Table</i>	<i>300lbs</i>	<i>Width</i>	<i>52"</i>
<i>Legs</i>	<i>48lbs</i>	<i>Height</i>	<i>57"</i>
<i>Total Weight</i>	<i>357lbs</i>		

4 STRONG ADULTS ARE REQUIRED TO TURN THE TABLE OVER.

1. Turn table on its side without the score control panel.

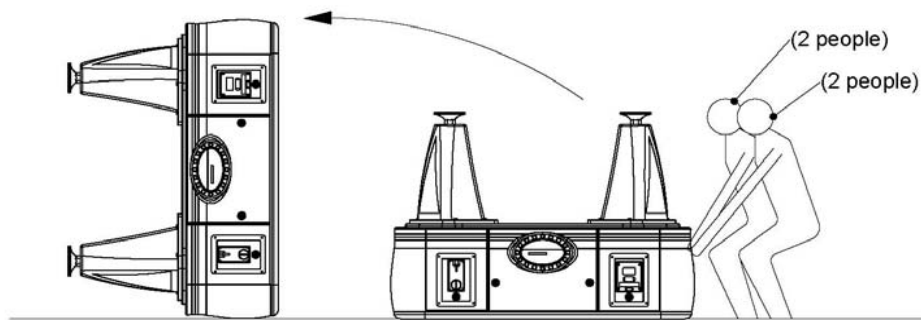


FIGURE 2

2. Set table down on all four legs at the same time.

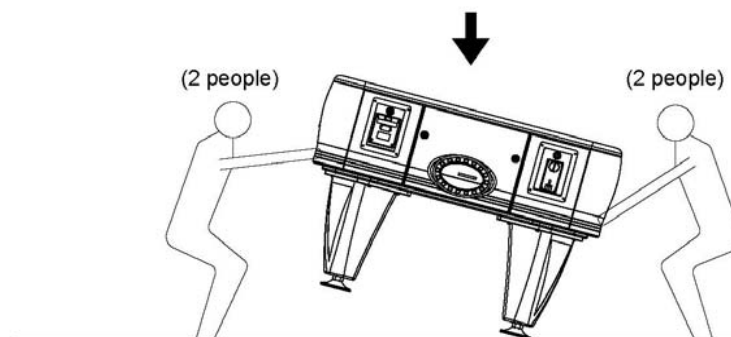
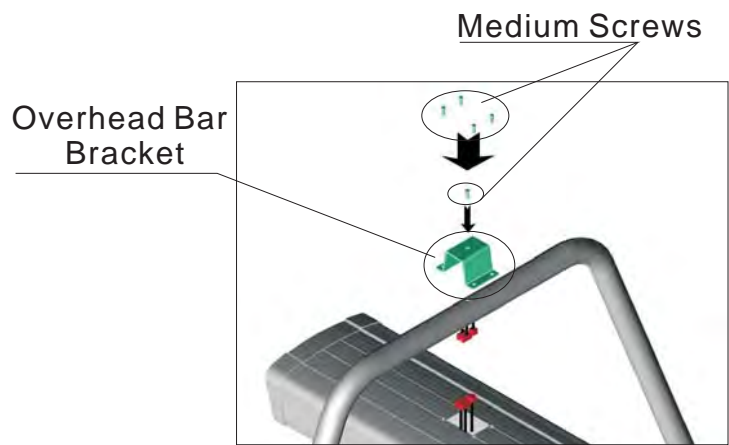
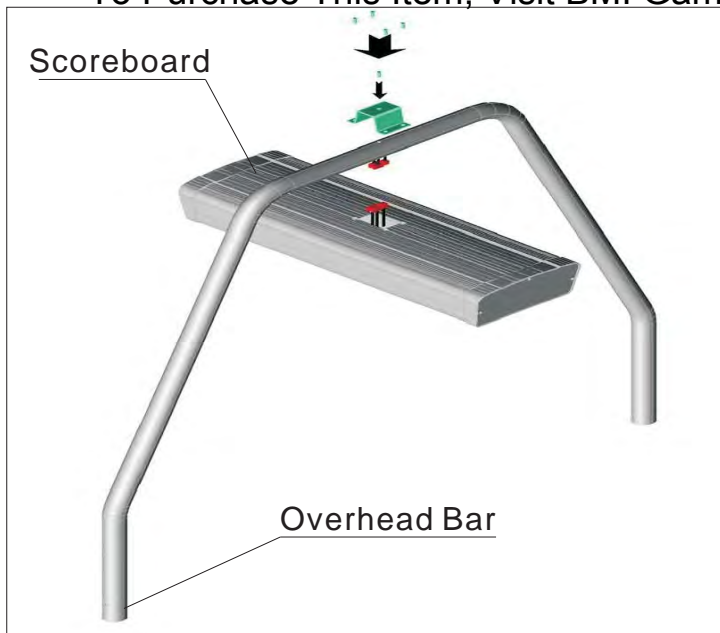
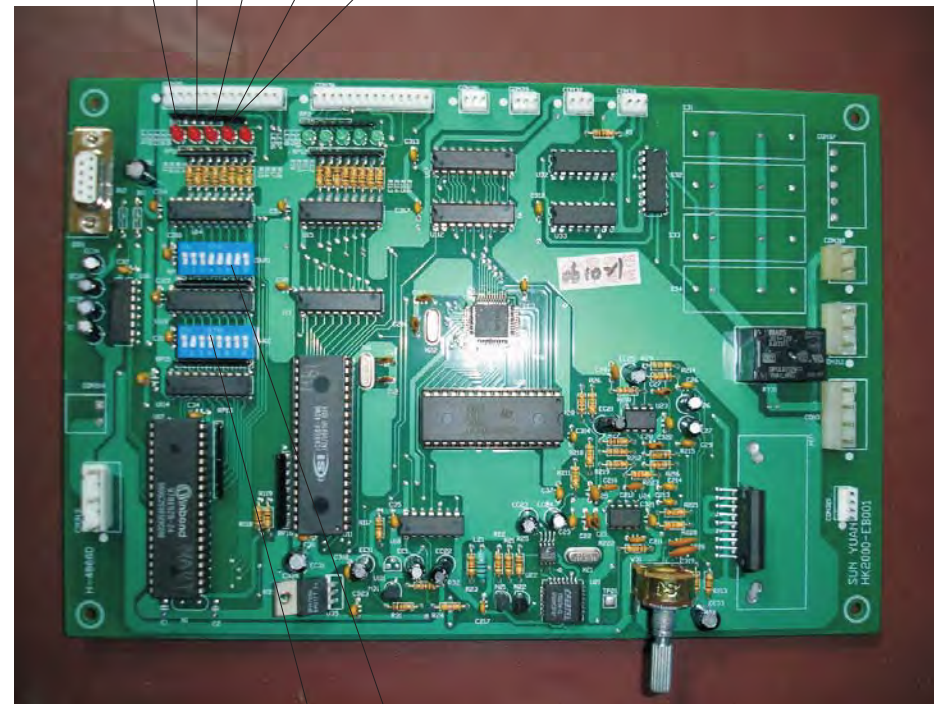


FIGURE 3

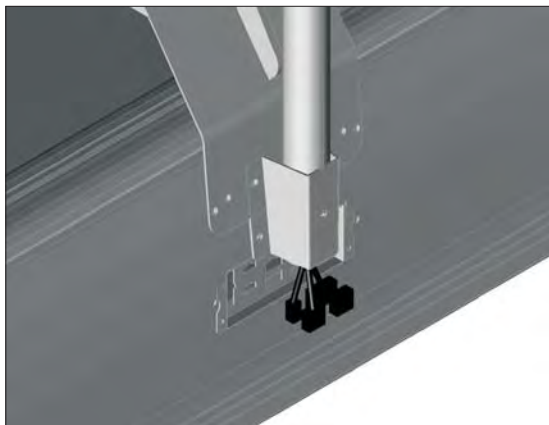


- 1. Sensor
- 2. Start Button
- 3. Coin Mechanism
- 4. Ticket Unit
- 5. Hitting Sound for rails

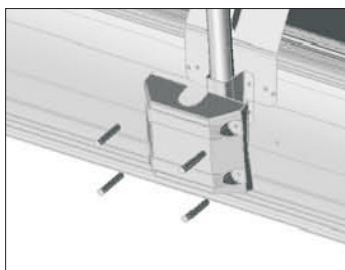


Connect the corresponding pins from the cable running up the bar to the scoreboard , connecting to the matching color and shape of the pin .

Attach the overhead scoreboard to the bar with two medium screws to the bar .

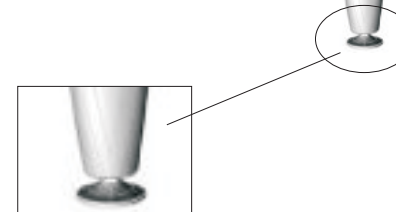


Attach side score board cable from the bar to the side of the table , connecting to the matching color and shape of the pin .



Attach the overhead bar holder to the table with medium screws . DO NOT TIGHTEN .

Push bar into holder on both sides of the table . When the bar is completely into the holder , tighten the bracket with the bar in it securely to the air hockey table . Attach white cover plate over bar bracket using the large screws .



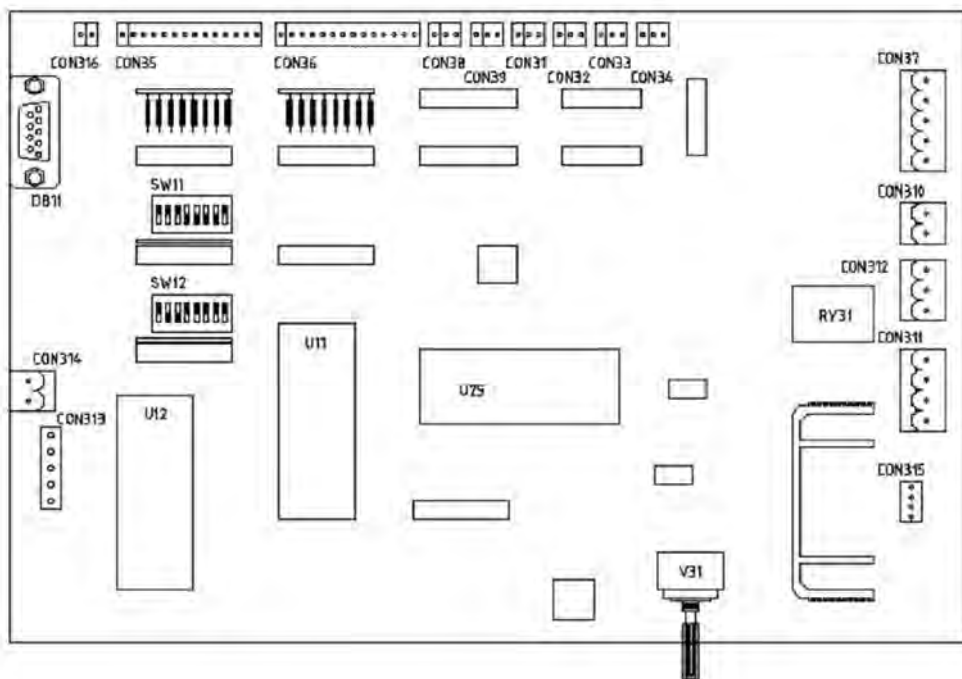
Adjuster .

Make sure all screws are tight and secure . Adjust the table to the desired height .

Use a level to ensure fair play and a balanced table .

Plug in the table to a 110Volt system .

## PCB LAYOUT & SPECIFICATION



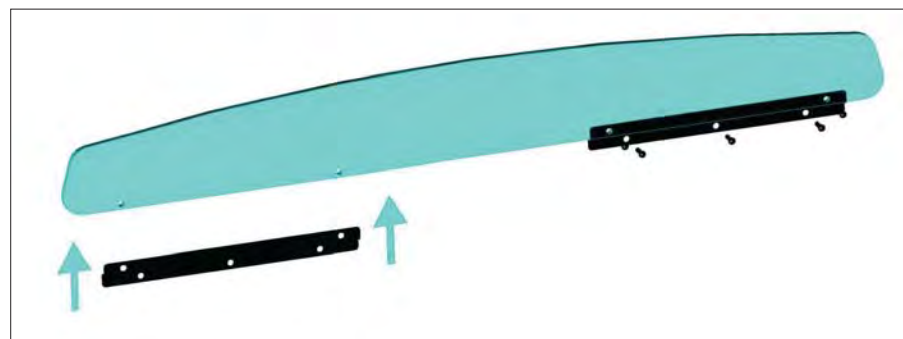
- CON 35 : A1 , Signal In/Out Controller
- CON 36 : B1 , Signal In/Out Controller
- CON 38 : A2 , Puck Strike Detector
- CON 39 : B2 , Puck Strike Detector
- CON 31 : Neon Lamp Speed Control
- CON 310 : Turbine Engine
- CON 311 : Solenoid Control
- CON 312 : AC Power
- CON 313 : DC Power [GND +5V +12V]
- CON 315 : Left/Right Speaker
- V31 : Volme Cpntrl

Remove sticky surface from the chrome side of the holders of the side guards .

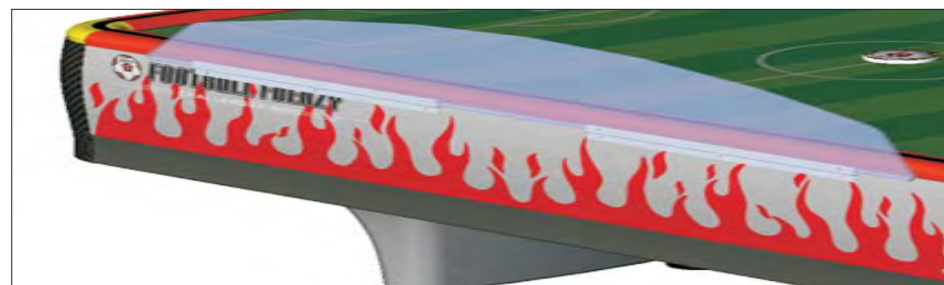
Remove protective covering off the side safe guards .

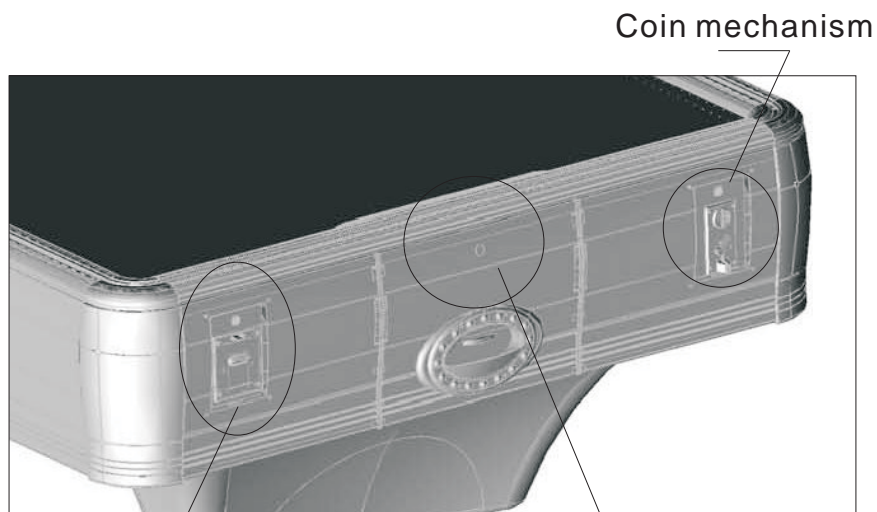
Using the small screws , attach the Plexiglas side safe guards with the chrome side out .

Using small screws , attach the Plexiglas and holder to the table . DO NOT scerw too tight , Plexoglas may crack .



Attach top half of the side safe guard chrome holder to the plexiglass . Attach the bottom half to the table .





Coin mechanism

Open door

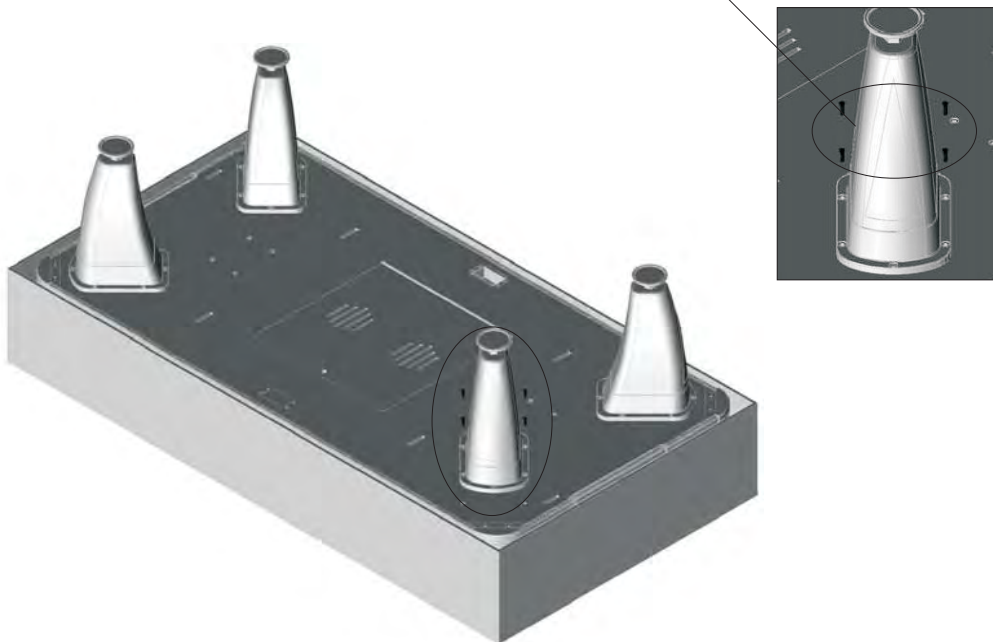
Ticket unit

Open the door and remove the kit with the pucks and mallets , and polish spray for play .

CON 35.		
S2	1. +5V	} A1 GOAL SENSOR
WHITE	2.PUCK-IN DETECT	
BLACK	3.GND	} A1 START
BROWN	4.START	
BLACK/WHITE	5.GND	} COUNTER
ORANGE/BLACK	6. +12V	
BLUE	7.COUNTER	} A1 COIN SELECTOR
ORANGE	8. +12V	
GREEN	9.COIN SELECTOR	} A1 TICKET DISPENSER
BLACK	10.GND	
BLUE	11.SSR	}
ORANGE	12. +12V	
BLACK	13.GND	}
PURPLE	14.TICKET	

CON36.		
RED	1.+5V	} B1 GOAL SENSOR
WHITE/RED	2.PUCK-IN DETECT	
BLACK	3.GND	} B1 START
YELLOW	4.START	
BLACK/WHITE	5.GND	} START LAMP
ORANGE/ORANGE	6.+12V	
BROWN/ORANGE/YELLOW/BLACK	7.START LAMP	} B1 COIN SELECTOR
ORANGE	8.+12V	
GREEN	9.COIN SELECTOR	} B1 TICKET DISPENSER
BLACK	10.GND	
BLUE/ORANGE	11.SSR	}
ORANGE	12.+12V	
BLACK	13.GND	}
PURPLE/YELLOW	14.TICKET	

The blow is 8"\*35  
The washer is 8"\*20



Attach the legs to the table with the medium screws provided with washers.

The blower has already been attached.

Remove the keys taped to the bottom of the table.



DIP SW 11

DIP SW 12

Adjust the switch of machine

O = OFF : Switch is Down

I = ON : Switch is UP

### DIP SW 11

O=OFF I=ON

DIP	SW 11	1	2	3	4	5	6	7	8
COIN 1	CRBDIT 1	I	I	I					
1	2	O	I	I					
1	3	O	O	I					
1	4	O	O	I					
2	1	I	I	O					
3	1	O	I	O					
4	1	I	O	O					
FREE	PLAY	O	O	O					
LOSE	WIN								
NONE	TICKET				O	O	O		
L1	W3				I	O	O		
L2	W6				O	I	O		
L3	W9				I	I	O		
L4	W18				O	O	I		
L5	W22				I	O	I		
L6	W26				O	I	I		
L7	W36								
STRIKE SOUND	A							I	I
	B							O	I
	C							I	O
	NO SOUND							O	O

### DIP SW 12

O=OFF I=ON

DIP	SW 12	1	2	3	4	5	6	7	8
GOAL	NO LIMIT	O	O	O					
	9	I	O	O					
	8	O	I	O					
	7	I	I	O					
	6	O	O	I					
	5	I	O	I					
	4	O	I	I					
	3	I	I	I					
TIME	NO LIMIT				O	O	O		
	10				I	O	O		
	8				O	I	O		
	6				I	I	O		
	4				O	O	I		
	3				I	O	I		
	2				O	I	I		
1				I	I	I			
TICKET	WINNER								I
	BOTH								O
DEMO SOUND	ENABLED								I
	DISABLED								O



# Troubleshooting

## Index

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Weights and Dimensions	1
Table Assembly	2
Side Score Board Assembly	3
PCB Layout and Specification	10
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Care and Maintenance	16
Troubleshooting	17

### I. PC Board Lights

If lights on Pc Board are on for coin mechanism and/or ticket dispenser , there is an error for the corresponding light(s).

### II. Ticket Dispenser

Flashing light on ticket dispenser means out of tickets.  
Restart table if light does not appear with new tickets inserted.

### III. Coin Mechanism/Acceptor

Make sure to replace the sample plastic coin with the desired number of coins. Coin Acceptor must be on N.O.(normally open)setting.

### IV. Puck Release

If puck is grtting stuck inside of the release door , the following need to be check for possible errors :

- 1) Check for debris , shavings , paper and other emains lodged inside the return unit.
- 2) Puck has chips not allowing it to fall through the return unit.  
Replace or sand puck.
- 3) Wire connector to release solenoid has become unplugged/  
damaged/stuck/broken.
- 4) Release solenoid needs to be replaced. ContactBarron Games for spare parts.

### V. Push Start Sound

If you hear "PUSH START" , the following need to be checked and corrected. It is an error message. Restart the table after every time changes/new settings are made. ON/OFF switch is underneath the table , next to the power display.

- 1) Machine is out of tickets.
- 2) Both coin acceptors and ticket dispensers are properly plugged in and connected.
- 3) Any damage to connection pins/other wirse.
- 4) Make sure both ticket dispensers are on the following settings  
N.O (Normally Open) and not on continuous dispense.
- 5) Both coin acceptors are on the N.O (Normal Open) settings.
- 6) The correct numbers of coins have inserted to play the game.

### VI. NOTE

There is no start button located on commercial air hockey machines.  
You may purchase a start button and faceplate through Barron Games for residential use.

Barron Games International LLC. Tech Support and Parts Service phone number 1(716)866-0054 or email [info@barrongames.com](mailto:info@barrongames.com).  
More information/updates can be found at [www.barrongames.com](http://www.barrongames.com).

Manufactured by **YUAN GONG** - Taiwan

CON38.  
 ORANGE/BROWN 1.+12V  
 WHITE 2.STRIKE DETECT } A2 PUCK STRIKE DETECTOR(SEND,RECEIVE  
 BLACK/BLUE 3.GND

CON39.  
 ORANGE/BLACK/BROWN 1.+12V  
 WHITE 2.STRIKE DETECT } B2 PUCK STRIKE DETECTOR(SEND,RECEIVE  
 BLACK/WHITE/BLUE 3.GND

CON31.

- 1.
- 2.
- 3.

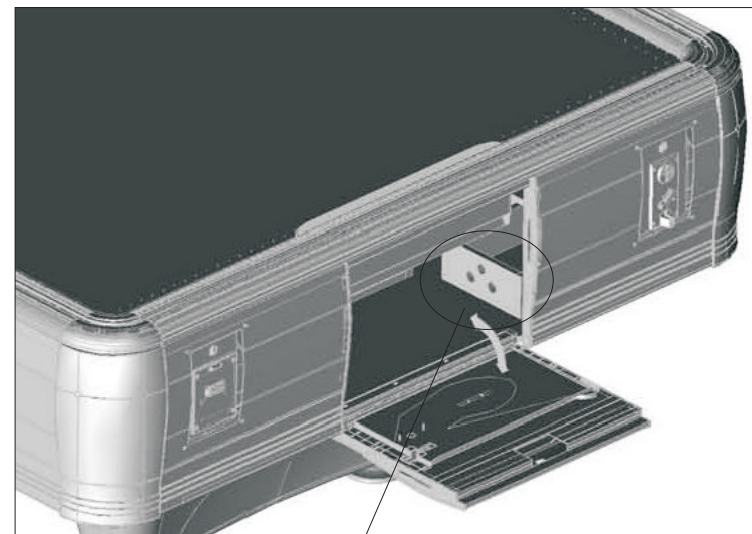
CON310.  
 BROWN 1.AC110V OR AC220V  
 BLUE 2.AC110V OR AC220V } TURBINE ENGINE POWER OUT

CON311.  
 ORANGE 1.+12V  
 PURPLE 2.SIGNAL CONTROL } A1 SOLENOID SW  
 ORANGE 3.+12V  
 GREY 4.SIGNAL CONTROL } B1 SOLENOID SW

CON312.  
 BROWN 1.AC110V OR AC220V  
 GREEN/YELLOW 2.AC110V OR AC220V } AC POWER IN  
 BLUE 3.AC110V OR AC220V

CON313.  
 ORANGE 1.+12V  
 2.  
 BLACK 3.DNG } DC POWER IN  
 4.  
 RED 5.+5V

CON315.  
 1.SP+ } LEFT SPEAKER  
 2.SP-  
 3.SP+ } RIGHT SPEAKER  
 4.SP-



Lockable Cash Box