Challenger Neon

Air Hockey Table Owners Manual
Assembly operation and care instructions.

Version 1.1.08
Index

Weights and Dimensions 1
Table Assembly 2
Side Score Board Assembly 3
PCB Layout and Specification 10
Operator Program Adjustment 14
Care and Maintenence 16
Troubleshooting 17
Weight

Overhead Bar  9lbs
Table        300lbs
Legs         48lbs
Total Weight 357lbs

Dimensions

Length  89”
Width   52”
Height  57”
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.
Use 4 people to flow the table to the standing position.
Open the door and remove the kit with the pucks and mallets, and polish spray for play.
Lockable Cash Box
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.
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 screw too tight, Plexiglas may crack.

Attach top half of the side safe guard chrome holder to the plexiglass. Attach the bottom half to the table.
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.
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.
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
CON31: 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: Volume Control
1. Sensor
2. Start Button
3. Coin Mechanism
4. Ticket Unit
5. Hitting Sound for rails
6. Programmable Settings SW11
7. Programmable Settings SW12
CON 38
Orange/Brown 1. +5V
White 2. Strike Detect
Black/Blue 3. Ground

CON 39
Orange/Black/Brown 1. +12V
White 2. Strike Detect
Black/White/Blue 3. Ground

CON 31
1.
2.
3.

CON 310
Brown 1. AC110V or AC220V
Blue 2. AC110V or AC220V

CON 311
Orange 1. +12V
Purple 2. Signal Control
Orange 3. +12V
Grey 4. Signal Control

CON 312
Brown 1. AC110V or AC220V
Green/Yellow 2. AC110V or AC220V
Blue 1. AC110V or AC220V

CON 313
Orange 1. +12V
2.
Black 3. Ground
4.
Red 5. +5V

CON 315
1. SP+
2. SP-
3. SP+
4. SP-
CON 35

- S2: 1. +5V
- White: 2. Puck In Detect
- Black: 3. Ground
- Brown: 4. Start
- Black/White: 5. Ground
- Orange/Black: 6. 12V
- Blue: 7. Counter
- Orange: 8. +12V
- Green: 9. Coin Selector
- Black: 10. Ground
- Blue: 11. SR
- Orange: 12. +12V
- Black: 13. Ground
- Purple: 14. Ticket

CON 36

- Red: 1. +5V
- White/Red: 2. Puck In Detect
- Black: 3. Ground
- Yellow: 4. Start
- Black/White: 5. Ground
- Orange/Orange: 6. 12V
- Brown/Orange/Yellow/Black: 7. Start Lamp
- Orange: 8. +12V
- Black: 9. Coin Selector
- Blue/Orange: 10. Ground
- Orange: 11. SSR
- Black: 12. +12V
- Purple: 14. Ticket

A1. Goal Sensor
A1. Start
A1. Coin Selector
A1. Ticket Dispenser
Start Lamp
B1. Goal Sensor
B1. Start
B1. Coin Selector
B1. Ticket Dispenser
### SW11 - Upper Dipswitch Unit

**Operator Programmable Settings**

Air Hockey Dip Switch Adjustment

**O = OFF: Switch is Down ↓**

**I = ON: Switch is Up ↑**

<table>
<thead>
<tr>
<th>Function</th>
<th>Switch Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upper Unit SW11</strong></td>
<td>1 2 3 4 5 6 7 8</td>
</tr>
<tr>
<td><strong>Coin Acceptor</strong></td>
<td></td>
</tr>
<tr>
<td>1 Coin= 1 Credits</td>
<td>I I I</td>
</tr>
<tr>
<td>1 Coin= 2 Credits</td>
<td>O I I</td>
</tr>
<tr>
<td>1 Coin= 3 Credits</td>
<td>I O I</td>
</tr>
<tr>
<td>1 Coin= 4 Credits</td>
<td>O O I</td>
</tr>
<tr>
<td>2 Coins= 1 Credits</td>
<td>I I O</td>
</tr>
<tr>
<td>3 Coins= 1 Credits</td>
<td>O I O</td>
</tr>
<tr>
<td>4 Coins= 1 Credits</td>
<td>I O O</td>
</tr>
<tr>
<td><strong>FREE PLAY</strong>*</td>
<td>0 0 0</td>
</tr>
<tr>
<td><strong>Tickets Dispensed</strong></td>
<td></td>
</tr>
<tr>
<td>NONE</td>
<td>0 0 0</td>
</tr>
<tr>
<td>Winner 3</td>
<td>I O 0</td>
</tr>
<tr>
<td>Winner 6</td>
<td>0 I 0</td>
</tr>
<tr>
<td>Winner 9</td>
<td>0 I I</td>
</tr>
<tr>
<td>Winner 18</td>
<td>0 0 I</td>
</tr>
<tr>
<td>Winner 22</td>
<td>0 0 0</td>
</tr>
<tr>
<td>Winner 26</td>
<td>0 I I</td>
</tr>
<tr>
<td>Winner 36</td>
<td>0 0 0</td>
</tr>
<tr>
<td><strong>Side Strike Sound</strong></td>
<td></td>
</tr>
<tr>
<td>Sound A</td>
<td>I I</td>
</tr>
<tr>
<td>Sound B</td>
<td>0 I</td>
</tr>
<tr>
<td>Sounds C</td>
<td>I 0</td>
</tr>
<tr>
<td>No Sound</td>
<td>0 0</td>
</tr>
</tbody>
</table>

*Free play only works with an upgrade package of free play start button through Baron Games International.*
### SW12 - Lower Dipswitch Unit

**Operator Programmable Settings**

Air Hockey Dip Switch Adjustment

**0 = OFF: Switch is Down **↓

**I = ON: Switch is Up ↑**

<table>
<thead>
<tr>
<th>Function</th>
<th>Switch Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lower Unit SW12</strong></td>
<td>1 2 3 4 5 6 7 8</td>
</tr>
<tr>
<td><strong>Goal To Win</strong></td>
<td></td>
</tr>
<tr>
<td>No Limit</td>
<td>0 0 0</td>
</tr>
<tr>
<td>9</td>
<td>0 0 I</td>
</tr>
<tr>
<td>8</td>
<td>0 I O</td>
</tr>
<tr>
<td>7</td>
<td>I I O</td>
</tr>
<tr>
<td>6</td>
<td>0 0 I</td>
</tr>
<tr>
<td>5</td>
<td>I O I</td>
</tr>
<tr>
<td>4</td>
<td>0 I I</td>
</tr>
<tr>
<td>3</td>
<td>I I I</td>
</tr>
<tr>
<td><strong>Time of Credit</strong></td>
<td></td>
</tr>
<tr>
<td>No Limits</td>
<td>0 0 0</td>
</tr>
<tr>
<td>10 Minutes</td>
<td>I O O</td>
</tr>
<tr>
<td>8</td>
<td>0 I O</td>
</tr>
<tr>
<td>6</td>
<td>I I O</td>
</tr>
<tr>
<td>4</td>
<td>0 0 I</td>
</tr>
<tr>
<td>3</td>
<td>I O I</td>
</tr>
<tr>
<td>2</td>
<td>0 I I</td>
</tr>
<tr>
<td>1</td>
<td>I I I</td>
</tr>
</tbody>
</table>

**Ticket**

**Winner Only** I

**Recipient**

Both 0

**Demo**

Enabled I

**Sound**

Disabled 0
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 certain 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.

• Polish Spray/Wax table monthly to ensure best playfield.

• Wax the table surface periodically to ensure smooth air hockey play.
Troubleshooting

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 getting 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. Contact Barron 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 wires.
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 USA or email info@barrongames.com.
More information/updates can be found at www.barrongames.com.

Manufactured by YUAN GONG - Taiwan