

SPARES AND SERVICE CONTACT INFORMATION

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- PLAY IT AMUSEMENTS -

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BG-X005-SONIC

Sonic All-Star Sports Air Hockey Table 4(x) Player

Instruction Manual

Assembly, Operation, and Care Instructions

Serial #: _____
Distributed By: _____
Sales Person: _____
Technical Service #: _____
V.033016

Inspect Immediately after Transporting the Product

After receiving the shipment, inspect the product thoroughly to ensure that it has been shipped with care. Before turning the power on, please check the following:

- Check the cabinet for damage that may have occurred during shipping. Are there any dented portions or defects (cuts, etc.) on the external surfaces of the cabinet?
- Are legs and adjusters/levelers/feet intact?
- Do the power supply voltage and frequency requirements meet with those of the location?
- Are all wiring connectors correctly and securely connected? Unless coupled in the correct manner, connections will not be made accurately. **Do not insert connectors forcibly.**
- Check that the power cables are complete and undamaged. Do not power on the machine when wires show signs of damage.
- Are all accessories provided to you (most will be stored in the table)?
- Can all doors/lids be opened with the accessory keys? Can doors and lids be firmly closed? If applicable, does the coin box key open the coin box(es)?

Product Information

Electrical:

110V @50Hz - 660W (6A)

220V @60Hz - 660W (3A)

Dimensions

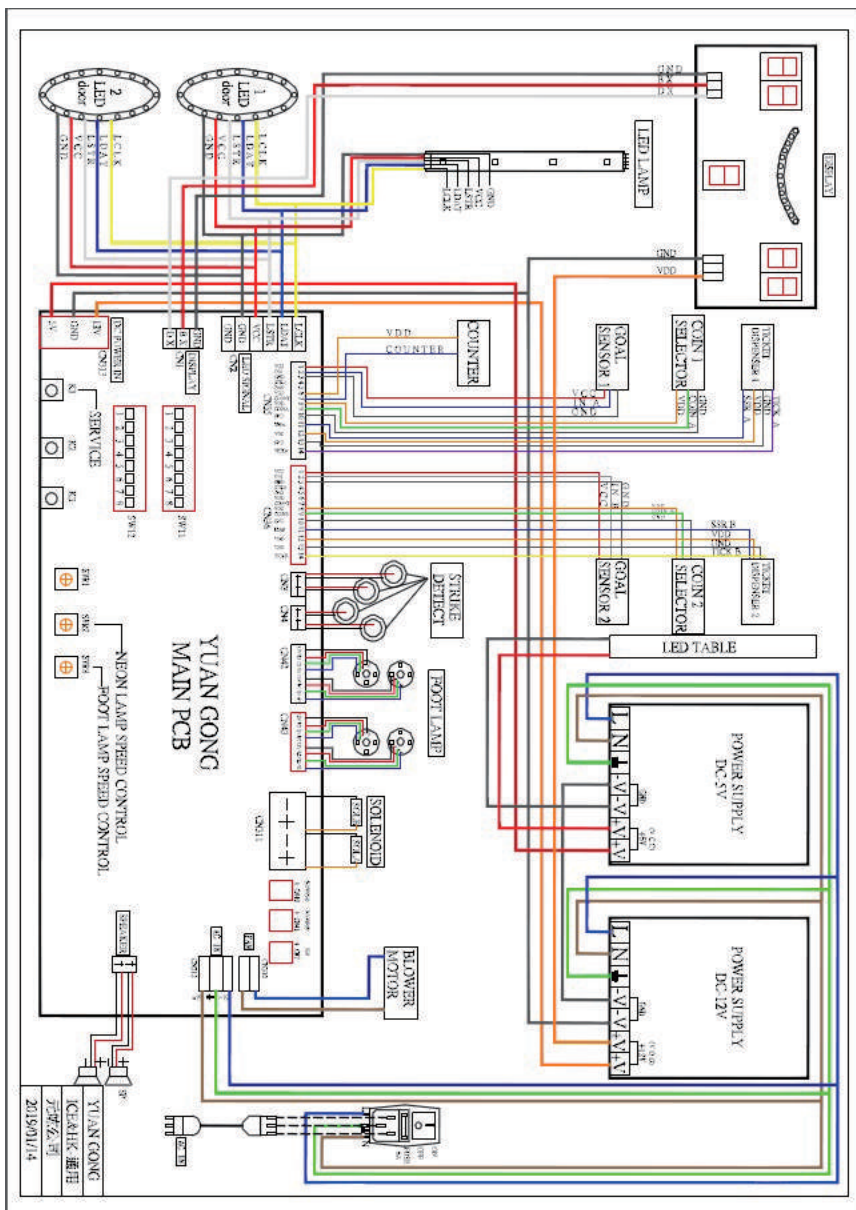
GROSS weight: 227kg

Packed Dimension: 227 x 160 x 45cm

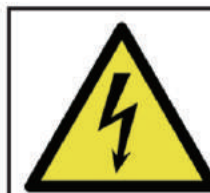
NET weight: 200kgs

Assembled Dimension: 225 x 165 x
214cm

Wiring Schematic



SAFETY INSTRUCTIONS



Danger
Electric
shock risk

- This equipment may contain hazardous voltage which can cause electrical shock. Only **qualified personnel*** should work inside the equipment.
*Note: Continue reading for a defined list of qualified personnel.



IMPORTANT NOTICES

- This product is intended for indoor use only.
- Do not sit, climb, or lean on the table.
- Do not drag the table when moving it; this could cause irreparable damage.
- Do not place any food or drinks on the table.
- Users should not hit the puck with a mallet if the puck is not level and flat.
- Spectators should not stand against the table; this may cause injury.
- Users should hold the mallet by the handle (not the base), or the puck may hit fingers and could cause injury.
- This game features flashing lights which may not be suitable for photosensitive epilepsy.

Definition of Site Maintenance Personnel or Other Qualified Individuals



WARNING

Servicing and maintenance work of the contents in this manual should be performed by the **SERVICEMAN** stipulated as per IEC Standard. Those who do not have technical expertise and knowledge other than the **SERVICEMAN** are not allowed to perform the work herein stated. Executing the aforementioned work by such non-technical personnel can cause serious accidents that may endanger life.











Replacing parts, maintenance inspections, and troubleshooting should be carried out by **Site Maintenance Personnel** or other **Qualified Professionals**. This manual includes directions for potentially dangerous procedures which should only be performed by professionals with appropriate and specialized knowledge.

The **Site Maintenance Personnel** or other **Qualified Professionals** mentioned in this manual are defined as follows:

- **Site Maintenance Personnel:** Individuals with experience in maintaining amusement equipment, vending machines, etc., working under the supervision of the owner and/or operator of this product. Maintenance Personnel frequently service machines within amusement facilities or similar premises by carrying out everyday procedures such as: assembly, maintenance inspections, and replacement of units or replaceable parts.
 - **Actions Approved for Site Maintenance Personnel:** Machine assembly, maintenance inspection, and replacement of units or replaceable parts.
- **Other Qualified Professionals:** Personnel employed by the amusement equipment manufacturer. Personnel may also have been involved in design, production, testing, or maintenance of said amusement equipment. This individual should have either graduated from a technical school or hold similar qualifications in electrical, electronics, or mechanical engineering.
 - **Actions Approved for Other Qualified Professionals:** Assembly, maintenance, inspection, and replacement of units or replaceable parts for amusement equipment and/or vending machines, including repair or adjustments of electrical, electronic, or mechanical parts.

Operator Notes - Parts Ordered: Sonic All-Star Sports Air Hockey Table

SKU#: BG-X005-SGA

	Part#: 3213438 Part Name: Center Guard Bracket
	Part#: 3301415 Part Name: Black Overhead Bracket Cover
	Part#: 3303657 Part Name: Side Guard Quarter Panel
	Part#: 3303679 Part Name: SEGA Center Guard with Logo
	Part#: 3605130 Part Name: Power Supply LRS-100-5
	Part#: 3605131 Part Name: Power Supply LRS-200-12
	Part#: 3612439 Part Name: Optical Goal Sensor
	Part#: 3612421 Part Name: LED Scoreboard
	Part#: 3612427 Part Name: Puck Bay LED Ring
	Part#: 3605133 Part Name: Solenoid
	Part#: 3303828 Part Name: Clear V3 SONIC Top Sign

Operator Notes - Parts Ordered:**Sonic All-Star Sports Air Hockey Table**

SKU#: BG-X005-SGA

	Part#: 3207531 Part Name: SEGA Blue Side Skirt (1964mm)
	Part#: 3207532 Part Name: SEGA Blue Door Skirt (420mm)
	Part#: 3207533 Part Name: SEGA Blue Side Skirt (419mm)
	Part#: 3607050 Part Name: Blower-110V CY120A2P1
	Part#: 3607051 Part Name: Blower-220V CY120A2P2
	Part#: 616030001 Part Name: Orange Hockey Mallet
	Part#: 616030002 Part Name: Blue Hockey Mallet
	Part#: 3502049 Part Name: Felt Pad for Mallet
	Part#: 616030068 Part Name: ABS Chrome Puck Bay
	Part#: 3301722 Part Name: Rail Corner
	Part#: 3399145 Part Name: Leg Leveler
	Part#: 3213399 Part Name: Holder for Iron Pipe

Before Using This Product

In order to ensure the safe operation of this product, please be sure to read the following before using this machine. These instructions are intended for users, operators, and any personnel in charge of the operation and maintenance of the machine. After carefully reading and sufficiently understanding the warning displays and cautions, please handle the machine appropriately. Be sure to keep this manual for future reference.

Qualified Personnel: Only personnel who have technical expertise should perform the work stated herein to avoid hazardous situations. The instructions state that site maintenance personnel should be the only personnel performing work. Please perform maintenance work in accordance with the stated instruction; provided instructions for maintenance work are to minimize risk and prevent accidents. Failing to perform work as stated within the Instruction Manual may be potentially dangerous to both maintenance personnel and users.

- **Be sure to turn off the power before working on the machine.** To prevent electric shock, be sure to turn the power off before beginning any work, especially any repairs that require direct contact with the interior of the product. If the work is to be performed in the power-on status, the Instruction Manual will state to do so.
- **Be sure to ground the Earth Terminal.** This is not required in the case where a power cord with an earth/ground (green) wire is used.
- **Ensure the power supply used is equipped with an Earth Leakage Breaker.** This product does not incorporate an Earth Leakage Breaker. Using a power supply which is not equipped with an Earth Leakage Breaker can cause a fire when or if earth leakage occurs.
- **Before installing the product, check for electrical specifications; the product must meet the requirements.** Ensure that the product is compatible with the power supply voltage and frequency requirements of the location. Using any electrical specifications that are different from the designated specifications can cause a fire and/or electric shock.
- **Install and operate the product where appropriate lighting is available, allowing warning and safety labels to be read clearly.** To ensure customer safety, labels and printed instructions describing potentially hazardous situations are applied to places where risk for potential accidents are increased.

If any label is peeled off, please apply it again immediately. Please contact technical support at +44 (0) 208.391.8060 or visit www.segaarcade.com if you require new stickers or parts.



ASSEMBLY NOTES

1. Read this Instruction Manual carefully before assembling or playing.
2. Ensure that there is sufficient lighting and space to place and shift the product prior to assembly.
3. Four strong adults are recommended to assemble the product.
4. Inspect and ensure all parts are securely attached before rotating the table.
5. Please Note: Children and pets should be kept away from assembly and game pieces; this table contains small parts that could be a potential choking hazard.



TOOLS NEEDED



• Instruction Manual with Step-by-Step Assembly



• Screw Driver (Phillips Head)



• Electric Screw Driver / Hand Drill



• Scissors

*Note: Please retain the original packaging, so that it may be used for storage or transport later.

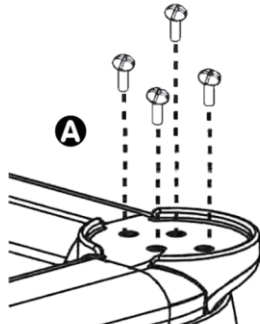
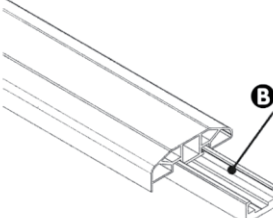
Operator Notes - Parts Ordered: Sonic All-Star Sports Air Hockey Table

SKU#: BG-X005-SGA

	Part#: 3612435 Part Name: PCB (X/L/M)
	Part#: 3399186 Part Name: SEGA Pink Puck
	Part#: 626030054 Part Name: Sonic X005 Playfield 2185*1489*10mm
	Part#: 616030029 Part Name: Air Hockey Leg for Model X
	Part#: 3207736 Part Name: SEGA Blue Long Side Rail (1964mm)
	Part#: 3207737 Part Name: SEGA Blue Long Side Rail (1268mm)
	Part#: 616030046 Part Name: SEGA Blue NRI faceplate
	Part#: 616030044 Part Name: SEGA Blue Ticket Mechanism Faceplate
	Part#: 3503944 Part Name: SEGA Side Decal (1990 x 243mm)
	Part#: 3503423 Part Name: SEGA End Decal (1290 x 243mm)
	Part#: 3207442 Part Name: Coin / Ticket Mechanism Panel (419mm)
	Part#: 3207441 Part Name: Puck Access Door (420mm)

Troubleshooting

Maintenance – Removing the Rails

A	Remove the mallet holder corners on each end of the rail you want to remove. Remove the corner piece by removing the 4 screws holding each corner down.	
B	Once the corners are off, slide the rail off the aluminum rail channel. Make sure you have enough space around the game to slide the rail off.	

Troubleshooting the PC Board

Begin Troubleshooting

Consult the Control Panel and find the PC Board error lights. Match the error lights found on the machine to the error lights found in the manual (in the section titled "Error Lights and Dip Switch Adjustments"). This will immediately help to diagnose the problem function.

Common Problems

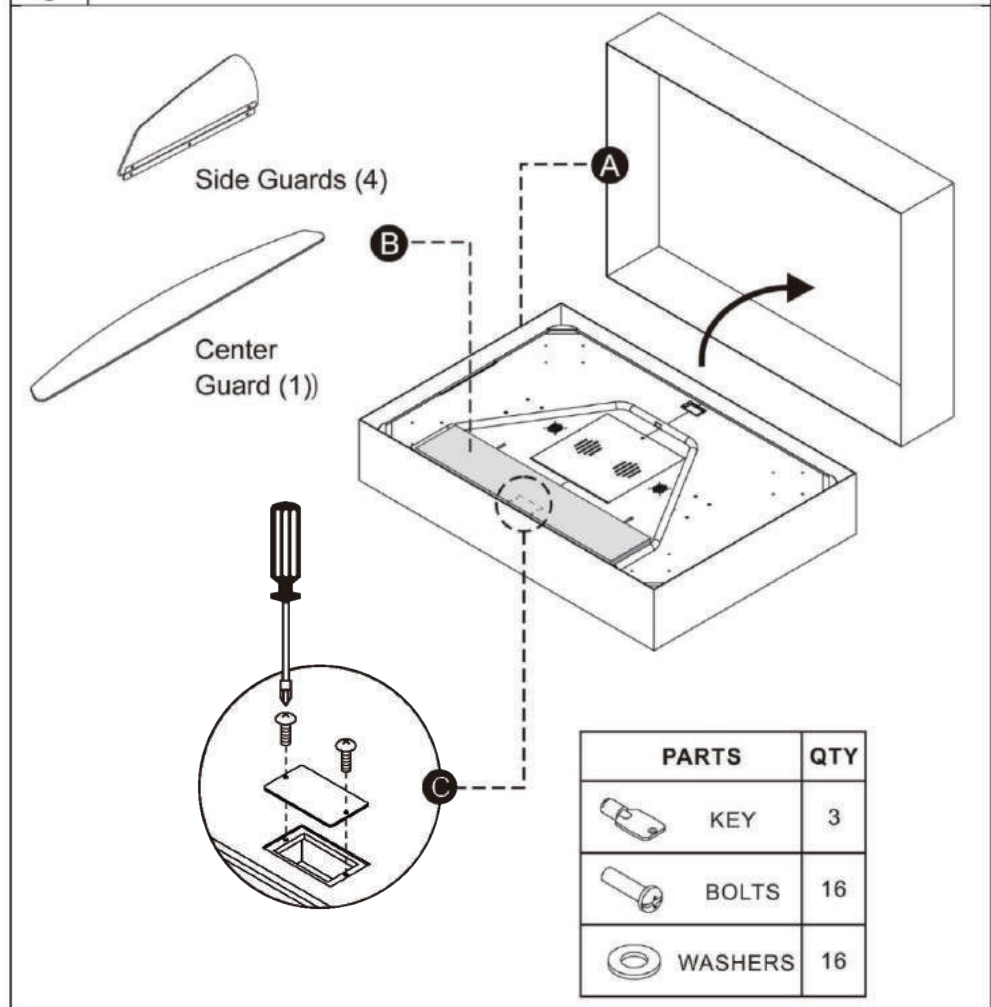
Solenoids: Misfiring solenoids can be caused by low voltage. Voltage issues may be from a card swipe system attached to the table which is causing the power supply to be unstable. **Card swipe systems must be attached to their own power supply.**

Power Supply: The 12V power supply which is in the table can have its output adjusted by using the knob (called a "trimpot") on the front of the power supply. Check the voltage coming out of the power supply. If you are not using a card swipe system, adjust the trimpot by rotating it clockwise or counter-clockwise as necessary to increase or decrease the output

Optical Goal Sensor: Check the PC Board error lights to make sure the optical goal sensor light is not on. The optical goal sensor tells the solenoid when to open and can be the cause of an issue. The solenoid may need to be replaced if it continues to misfire.

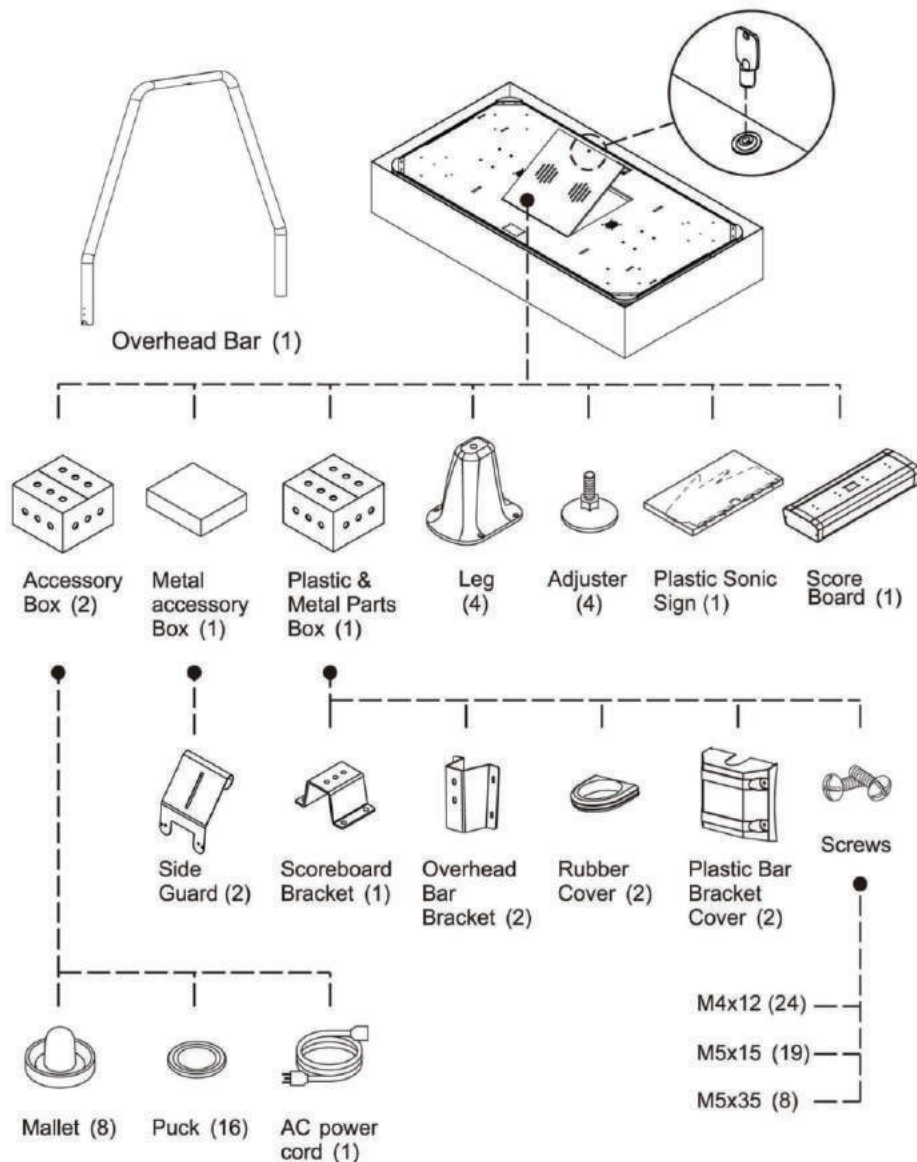
Assembly - Step 1 Unbox & Remove Parts from Panel

A	Open the cardboard box, ensure the wooden side is facing upwards and the playfield is facing down toward the floor.
B	Remove the side guards (4) and the center guard (1).
C	Use a screw driver to remove the screws on the panel labeled "Parts." Once the panel is open, remove the parts indicated below.



Assembly - Step 2 Remove Parts from Base Door

Open the base door with the key and remove all the parts for assembly.

**Care and Maintenance**

1. Use a soft, dry cloth, and product-specific polishing spray to clean the table surface. **NEVER USE WATER OR AN AMMONIA-BASED CLEANING PRODUCT ON THE PLAYFIELD.**
2. Waxing or polishing the playfield weekly will ensure a fast and smooth puck glide and better game play. It might be necessary to polish the playfield more often during times of increased use. Never use any waxing product on the playfield unless it is specified for use on hockey tables or you could cause irreparable damage to the playfield.
3. Dust, grime, and other debris can collect inside the body of your table over time. Vacuum out the inside cavity and the blower intake. The easiest way to access the inside of the table is through the puck drop chute doors and the blower compartment door located under the table.
4. It may be necessary to clean the air holes on the playfield with a pin if they become clogged with debris. Please do this delicately to avoid injury.
5. Open the puck release door periodically and clean any debris lodged in the goals or in the path of the puck.
6. Clean any dirt or debris from the main PC Board with a soft brush or dry cloth. **NEVER USE WATER OR OTHER LIQUIDS** on electronics or circuitry.
7. Remove the goals and clean dust and debris. Most items enter through the goal area and they should be cleaned frequently and thoroughly to ensure that they function properly.
8. Dust the scoreboard when needed (depending on the model).
9. Clean the cabinet and rails with a household cleaner and a soft cloth.
10. All ticket dispensers should be checked for jams, cleaned, and stocked.
11. Periodically check the functionality of the coin mechanisms and empty the coin boxes.

After Installing the Game: Please Read before Operating

1. Check the voltage regularly to avoid a short circuit or potential fire.
Do not overload the circuit.
2. Keep the power cord out of areas with busy foot traffic to ensure the safety of users and the machine.
3. Keep children away from all power sources and power supply units. Children should ***always*** be under adult supervision while using the machine.
4. Regular maintenance should be performed on the playfield to ensure that it is clean, smooth, and debris-free (see section "Care and Maintenance").
5. Do not use any sharp instruments on the playfield as it may cause irreparable damage.
6. Remove and replace any puck or mallet that becomes damaged.
7. Turn off the game and have it inspected by an electrician or service technician if it is operating abnormally.
8. Contact an electrician or service technician if your product experiences any of the following issues:
 - Blower Motor Malfunction
 - Power Failure
 - Liquid or Objects Found Near/Inside Electronic Components
 - Abnormal Sounds Coming from the Blower
9. Use the leg adjusters/levelers to level the table, if necessary
10. Use caution if transporting.
11. Do not use outdoors or in damp areas.

Assembly - Step ③ Attach the Legs

A	Rotate the adjuster clockwise to lock the leg in place.	
B	Install the legs with bolts M8x25(16) and washers M8(16) as shown in the picture.	

Assembly - Step ④ Position the Table

Four strong adults are required to turn the table over.

Once the legs are tightly secured to the table base, rotate the table by 90° then rotate it again (in the same manner) to the upright position.

A

B

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

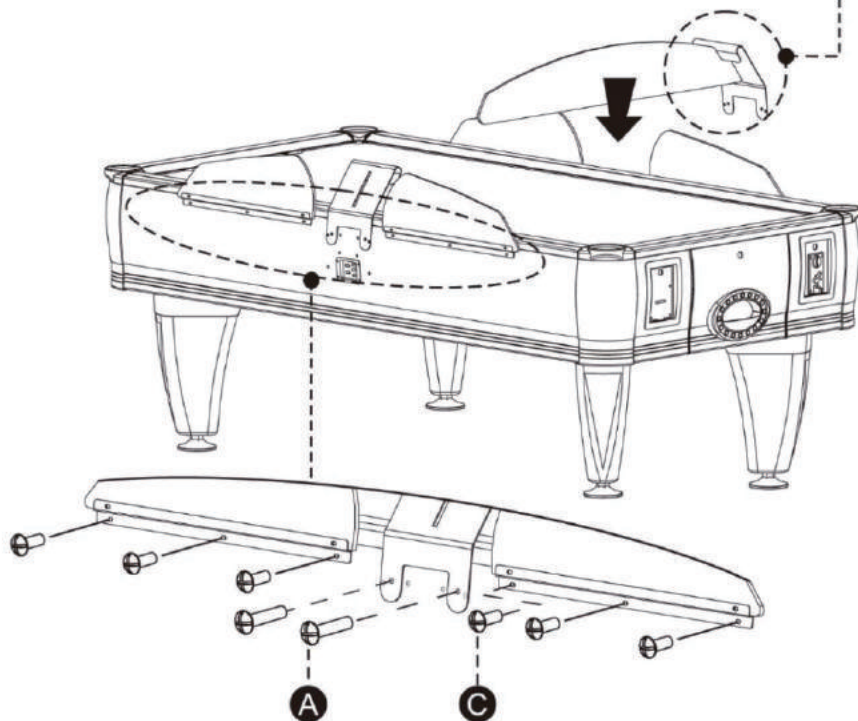
D Use the adjuster to level the height of the table after assembly.

Please ensure the **ground wire** attached to the floor.

Assembly - Step 6 Install Guards

- A** Attach the center guard on one side with a flathead screw (M5x15)
- B** Insert the center guard into one side and fasten it tightly before inserting the other side of the guard.
- C** Fasten the guards tightly on both sides.

Insert the center guard into one side first, then screw the side guard.



Screw the side guard on one side with flathead screw M5x15mm(4)

Attach the 4 side guards on both sides with flathead screw M4x12mm(12)

FUNCTIONS OF X/L/M PCB CONNECTORS

CN35		
1.	+5V	1P GOAL SENSOR
2.	PUCK-IN DETECT	
3.	GND	
4.	START	1P START
5.	GND	
6.	+12V	COUNTER
7.	COUNTER	
8.	+12V	1P COIN SELECTOR
9.	COIN SELECTOR	
10.	GND	1P TICKET DISPENSER
11.	SSR	
12.	+12V	
13.	GND	
14.	TICKET	

CN36		
1.	+5V	2P GOAL SENSOR
2.	PUCK-IN DETECT	
3.	GND	
4.	START	2P START
5.	GND	
6.	+12V	START LAMP
7.	START LAMP	
8.	+12V	2P COIN SELECTOR
9.	COIN SELECTOR	
10.	GND	2P TICKET DISPENSER
11.	SSR	
12.	+12V	
13.	GND	
14.	TICKET	

CN310		
1.	AC 110V/AC 220V	BLOWER POWER OUT
2.	AC 110V/AC 220V	

CN311		
1.	+12V	1P SOLENOID
2.	SIGNAL CONTROL	
3.	+12V	2P SOLENOID
4.	SIGNAL CONTROL	

CN312		
1.	AC 110V/AC 220V	AC POWER IN
2.		
3.	AC 110V/AC 220V	

CN313		
1.	+12V	DC POWER IN
2.	GND	
3.	+5V	

CN3		
1.	STRIKE DETECT	STRIKE SOUND (SIDE A)
2.	GND	
3.	STRIKE DETECT	
4.	GND	

CN4		
1.	STRIKE DETECT	STRIKE SOUND (SIDE B)
2.	GND	
3.	STRIKE DETECT	
4.	GND	

CN40 *NO FUNCTION*		
1.	+12V	SCORE LED
2.	LED-SCORE	

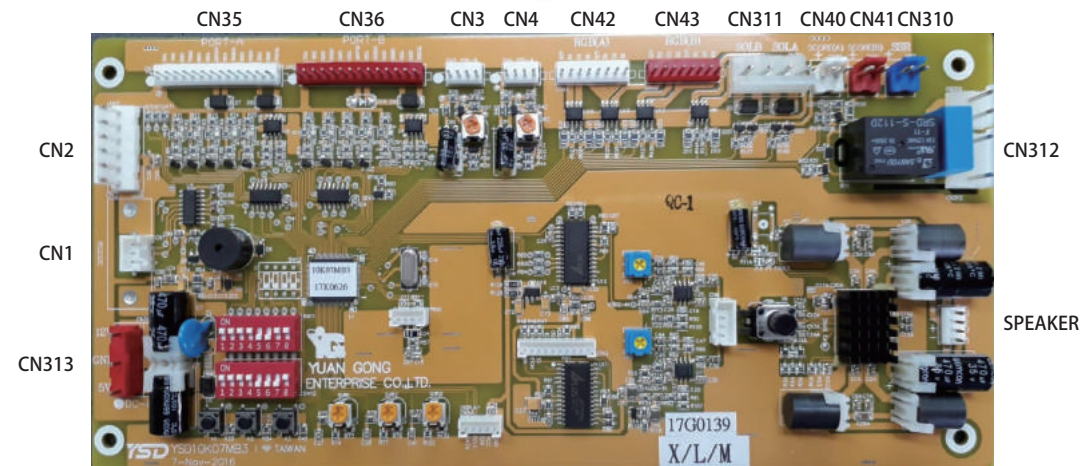
CN41 *NO FUNCTION*		
1.	+12V	SCORE LED
2.	LED-SCORE	

CN42		
1.	LED-LEG	LEGS' LED (SIDE A)
2.	+12V	
3.	LED-LEG	
4.	+12V	

CN43		
1.	LED-LEG	LEGS' LED (SIDE B)
2.	+12V	
3.	LED-LEG	
4.	+12V	

CN1		
1.	GND	SCOREBOARD
2.	XT	
3.	RT	

CN2		
1.	LCLK	PUCK BAY LED CORNER LED PLAYFIELD LED
2.	LDAT	
3.	LSTR	
4.	VCC	
5.	GND	
6.	GND	



DIP Switch #11

Key: W = Winner L = Loser

DIP	SW #11	1	2	3	4	5	6	7	8
Coin 1	Credit 1	ON	ON	ON					
1	2	OFF	ON	ON					
1	3	OFF	OFF	ON					
1	4	OFF	OFF	ON					
2	1	ON	ON	OFF					
3	1	OFF	ON	OFF					
4	1	ON	OFF	OFF					
LOSE	WIN								
NO TICKETS					OFF	OFF	OFF		
L1	W3				ON	OFF	OFF		
L2	W6				OFF	ON	OFF		
L3	W9				ON	ON	OFF		
L4	W18				OFF	OFF	ON		
L5	W22				ON	OFF	ON		
L6	W26				OFF	ON	ON		
L7	W36								
Strike Sound	A							ON	ON
	B							OFF	ON
	C							ON	OFF
	No Sound							OFF	OFF

- DIP Switch 1, 2, & 3 adjust the number of coins necessary per credit.
- DIP Switch 4, 5, & 6 adjust the ticket output for the winner and loser.
- DIP Switch 7 & 8 adjust the rail strike sound effects, as well as turn sound off.

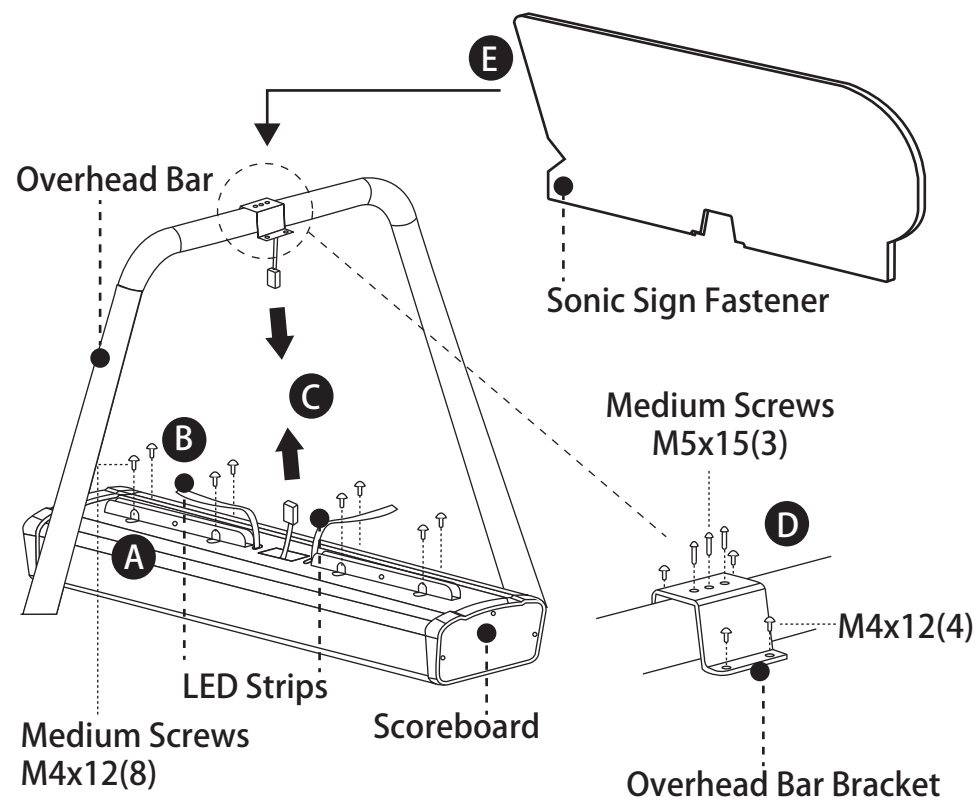
DIP Switch #12

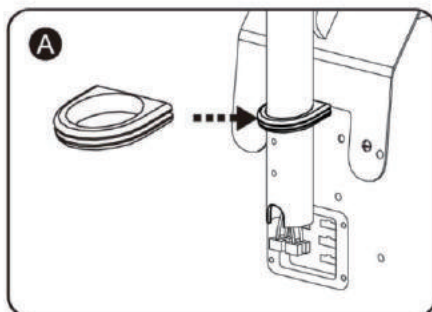
DIP	SW #12	1	2	3	4	5	6	7	8
GOAL	NO LIMIT	OFF	OFF	OFF					
	9	ON	OFF	OFF					
	8	OFF	ON	OFF					
	7	ON	ON	OFF					
	6	OFF	OFF	ON					
	5	ON	OFF	ON					
	4	OFF	ON	ON					
	3	ON	ON	ON					
TIME	10				ON	OFF	OFF		
	8				OFF	ON	OFF		
	6				ON	ON	OFF		
	4				OFF	OFF	ON		
	3				ON	OFF	ON		
	2				OFF	ON	ON	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

- DIP Switch 1, 2, & 3 adjust the number of goals allowed during one round of game play.
- DIP Switch 4, 5, & 6 adjust the game time limit.
- DIP Switch 7 is the ticket dispenser setting. Tickets may be dispensed to the winner only or to both players.
- DIP Switch 8 controls the demo mode sounds. Demo mode can be turned off while the machine is in standby.

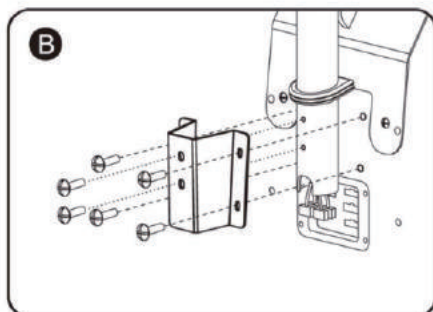
Assembly - Step 6 Assemble Topper

- Attach the Sonic sign fastener to the scoreboard with screws. (M4x12)
- Take out the LED strips through the holes, remove the paper from the LED strips and use the flat tool to stick the LED strips.
- Connect the corresponding pins from the wire harness in the overhead bar to the scoreboard. Connect the matching colors and shapes of the pins.
- Attach the scoreboard to the overhead bar with four medium screws.
- Attach the Sonic sign to the fastener.

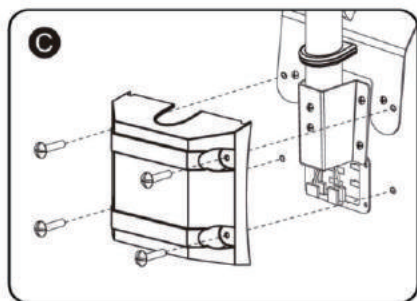


Assembly - Step 7 Install Topper

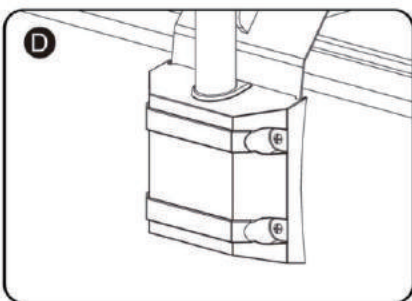
- Push Rubber Cover onto the Overhead Bar.
- Ensure that the colors and pin count of the wire harness match the corresponding connectors.



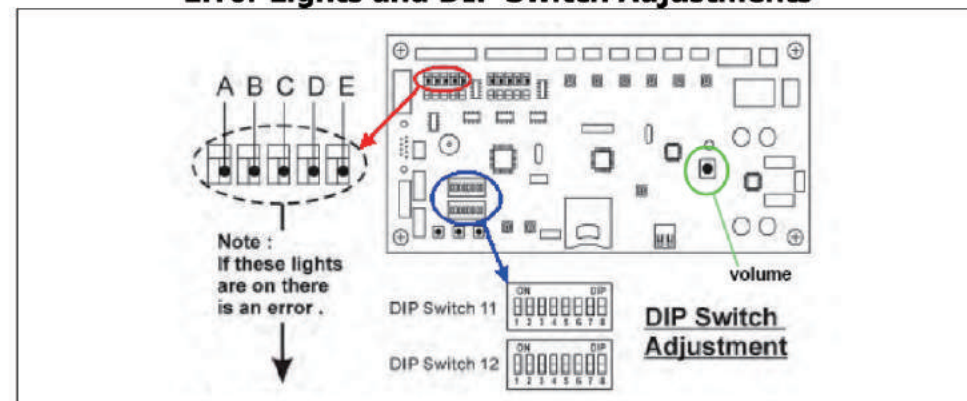
- Use the M5X15 screws to attach both overhead bar bracket to the table. Fully tighten each side once both bar brackets are attached.



- Insert the Plastic Bar Bracket Cover into the notch of the Rubber Cover and attach it with the M5X35 screws.



- Tighten the Plastic Bar Bracket covers completely once both are attached.

Error Lights and DIP Switch Adjustments**Light A: Optical Goal Sensor Error Light**

This light will flash if a goal is scored. However, if this light is steadily on and there are no pucks in the table, this part may need to be replaced or there may be debris blocking the sensor. The release solenoid might not be retracting which could cause a puck to remain in the view of the sensor.

Light B: No Function for this Model**Light C: Coin Mechanism Error Light**

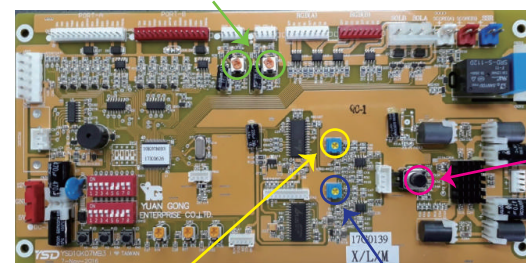
This light will flash when a coin is passed through the coin acceptor. However, if this light is steadily on, check to make sure that the N.C./N.O. ("Normally Closed" or "Normally Open") setting is **set to N.O.** The Coin Mechanism may need to be replaced if the problem persists.

Light D: Ticket Error Light

This light will flash as the tickets are being dispensed. However, if this light is steadily on, check to make sure the N.C./N.O. and 0V/5V settings are set to **0 and N.O.** The ticket mechanism may need to be replaced if the problem persists.

Light E: Strike Error Light

This light will flash when a puck hits a rail to signal the PC Board to make a strike noise. If the light is steadily lit, adjust the VR (Variable Resistor) until it turns off.

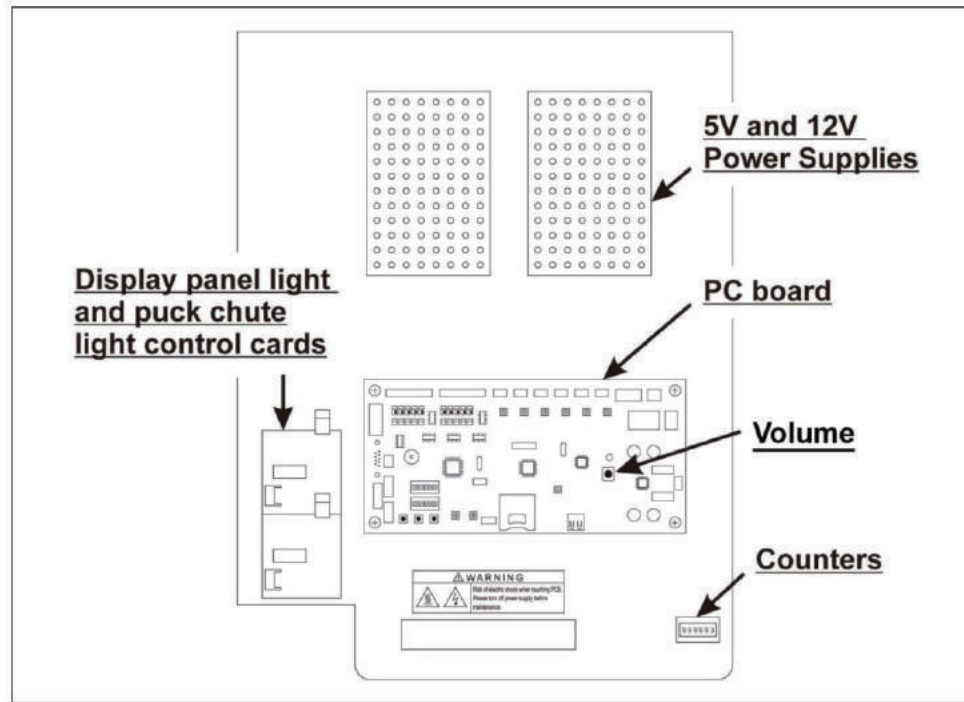
Controls for Hit Sensitivity

Controls Volume for
Insert Coin / Hit / Credit

Controls Volume for
Victory / Attraction / Game Over

Controls
Overall
Game
Volume

The Control Panel



5V and 12V Power Supplies:

The 5V and 12V power supplies regulated and disperse the power to the PC boards, LEDs, and other electronics. The 5V and 12V are separate to ensure that there will not be any power instability between components. (*Note: Left is 5V; Right is 12V)

PC Board:

The PC Board controls the game operation. All adjustments to time, goals, or lives (depending on model) are made using this PC Board. Errors can be diagnosed using the error lights found near the top of the board.

Display Panel Light and Puck Chute Light Control Cards:

These cards control the display panel and puck chute lights.

Counters:

The counter records the number of games played, coins inserted, or tickets dispensed (depending on model and equipment).

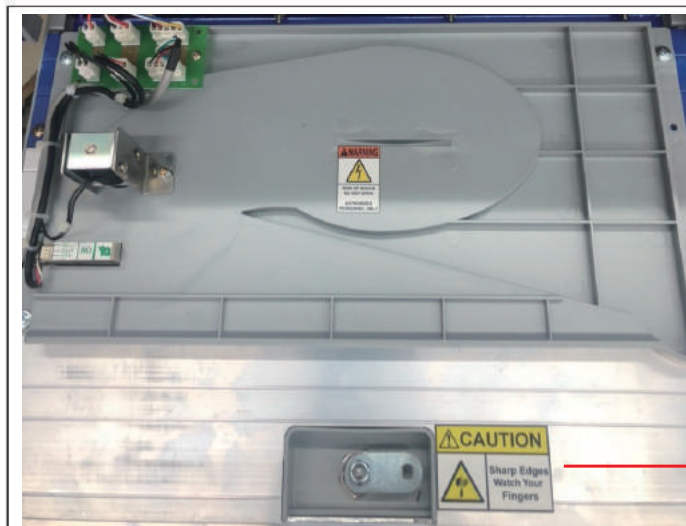
Locate the Safety Stickers

Requirement	Sticker
Caution: This area may contain sharp edges that could injure if handled improperly.	
Fuse Ratings & Indoor Use Only: This is a silver sticker that is located on the side skirt of the machine. It indicates fuse specifications, as well as a reminder that this machine is for indoor use only.	
PAT UK: This sticker indicates that the machine has passed UK PAT electrical testing.	
Warning: This area may contain hazardous voltage which can cause electrical shock. In addition, only qualified personnel should work inside the equipment.	
Rail Safety Stickers: These 2 <u>strips of stickers</u> are should be affixed to both ends of the table (behind the goals) to help mitigate injury potential to users and spectators.	

Safety Sticker Application and Placement



Warning labels are attached by the goal of each side.



*color of interior may vary depending on model

Programming the PC Board

- | | |
|----------|---|
| A | If you haven't already, use the leveling adjusters on the feet to level the height of the table. |
| B | The air power can be adjusted by using the plate located on the side of the blower. The blower is located inside the storage door under the unit. |
| C | There are various settings which can be adjusted by using the PC board which is located inside the table beside the coin mechanism. |

