



Batman™ and all related characters and elements are trademarks of and copyright of DC Comics.

# OPERATOR'S MANUAL

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## Safety

### OPERATION

Before operating game, read this manual. Failure to properly install and operate this game could result in malfunction or accident. Operate the game in accordance with the manual.

### TRANSPORTING

The cabinet is very heavy. Because the monitor is high, the cabinet is also very top-heavy. Use appropriate care when moving or transporting cabinet. It contains fragile glass and electronic components. Avoid rough handling.

### HANDLING COMPONENTS

Many components are extremely sensitive to handling, environmental and Electrostatic Discharge (ESD) events—especially the computer. Do not handle it roughly. Before servicing, call your distributor and inquire about the PC warranty. Use proper ESD procedures when servicing. Protect components from harmful environmental conditions, such as extreme temperatures, excessive moisture or other damaging effects.

### DISCONNECT POWER

Always turn the power off and unplug the unit before servicing or making adjustments unless otherwise instructed. Installing or repairing components while power is on can damage the components and void the warranty.

### GROUNDING

Avoid electrical shock. Do not plug in AC power until you have inspected and properly grounded the unit. Only plug into a grounded, three-wire outlet. Do not use a “cheater” plug or cut off the ground pin on the line cord.

### ELECTRICAL SHOCKS

There is no isolation transformer in the cabinet. Disconnect AC power before servicing. However, be aware that lethal voltages can remain in the electronic components even when AC power is disconnected. Use extreme caution when servicing. Verify that there is a working ground connection. If the unit sustains water damage, cease using it immediately and unplug AC power.

### MONITOR

The monitor contains no user serviceable parts. Do not attempt to service the monitor.

### POWER SELECTOR

Before installing game, ensure the voltage on the PC is set properly. There is a 115/230 VAC selector switch that must be set for the correct voltage for your site. Verify the fluorescent lamp rating. The rating must match the line voltage at the installation site.

### POWER CORD

If the power cord is damaged or lost, replace it with an identical cord as supplied by the manufacturer or an authorized service agent.

### SURGE SUPPRESSOR

It is recommended that you plug your game's power cord into a surge suppressor to help protect from power surges that may damage sensitive electronic components.

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## Service Manual

### CONNECTORS

When servicing machine, ensure all connectors mate properly. If connectors do not slip in easily, do not force them. Connectors are often keyed and only connect one way. Check for correct orientation.

### COMPUTER

The computer contains sensitive components, including a hard drive. Do not handle it roughly. Call your distributor before servicing its internal components. Ask about warranty information as it relates to the PC.

Do not turn the PC power switch on or off. It should remain permanently in the ON position.

Cycle AC power on or off with the cabinet power switch.

A dongle has been inserted into one of the USB ports. This is required for game play.

Do not remove the dongle except for troubleshooting purposes.

### FLUORESCENT TUBES

A dropped fluorescent tube may break and implode. Shattered glass from the implosion can travel long distances and cause bodily injury. Use proper procedures when handling broken materials, as these items can contain hazardous material such as mercury or lead.

### HAZARD TO EPILEPTICS

A small portion of the population has an epileptic condition that may cause seizures. Affected persons experience seizure while watching some television pictures or playing certain video games. People who have not had seizures may still have an undetected epileptic condition. If anyone in your family has experienced epilepsy symptoms (seizures or loss of awareness), consult your physical before using video games. While children play video games, a parent should observe. Be alert to the following symptoms: dizziness, altered vision, eye or muscle twitching, involuntary movements, loss of awareness, disorientation or convulsions. If you or your child experiences these symptoms, discontinue use immediately and consult your physician.

### MANUAL

Keep this manual available and ready for use. If the game fails to function properly, turn off the machine and unplug the AC line cord. Contact your local distributor. Your warranty, when applicable, lasts 60 days from your purchase date. You may not reproduce this document or any of its contents without written authorization from Raw Thrills, Inc. or Specular Interactive™ Inc.

### SPECIFICATIONS

For reasons such as performance, this product's specifications may change without notice. Federal patent, copyright and other intellectual property laws protect

## Product Specifications

### Electrical Power

United States, international and Japan

Inrush AC Current: 7 Amps

Operating AC Current: 5 Amps

Voltage: 115 VAC

### Temperature

50° F to 104° F

(10° C to 40° C)

### Humidity

Must not exceed 95% relative humidity

### Dimensions Container

Monitor Container: Height: 79" (2.00 meters), Width: 44" (1.12 meters), Depth: 42" (1.07 meters)

Seat Container: Height: 62" (1.57 meters), Width: 25.5" (0.65 meters), Depth: 34.5" (0.88 meters)

### Container Weight

Monitor Container: 465 lbs. (211 kg)

Seat Container: 131 lbs. (59 kg)

### Dimensions Assembled

Height: 94" (2.39 meters)

Width: 43" (1.09 meters)

Depth: 70" (1.78 meters)

## Setup

### Unpack Materials

1. Place the shipping crates on a flat, stable surface.
2. Cut the banding straps and remove the cardboard lids.
3. Lift off the large cardboard containers surrounding the front pedestal and monitor assemblies and remove any shipping cleats.
4. Remove the coin door key from the coin return slot.
5. Open the top coin door.
6. Locate the keys for the back door and the cash box door.
7. Open the cash box door and remove the cash box.
8. Check for shipping damage to the following:
  - Player accessible areas such as the seat, control panel and dash.
  - Marquee, Topper and monitor
  - Cabinet decals
9. Check the AC line cord for visible signs of damage.

*Pay particular attention to the plug and line cord insulation.*

### Check Electrical Settings

1. Verify the voltage in the nearest AC outlet.
2. Verify the AC outlet ground connection is present and working.
3. Open the back door of the monitor assembly.
4. Near the AC power transformer, verify the voltage selector switch is set to correct AC voltage.
5. Route the line cord so that the plug is near the AC outlet.
6. Replace the back door of the monitor assembly.

### Game Power Up

1. Plug in line cord to AC outlet.
2. Turn the power switch to ON.
3. Check that no component is excessively hot or emitting foul odors.  
*If not, turn off AC power and disconnect line cord. Refer to the diagnostic section of this manual.*
4. Once software loads, you will be asked to calibrate the controls.  
*If not, enter the service menu by pressing the TEST button located on the bracket inside the top coin door.*

# BATMAN OPERATOR'S MANUAL

## **Assembly Instructions:**

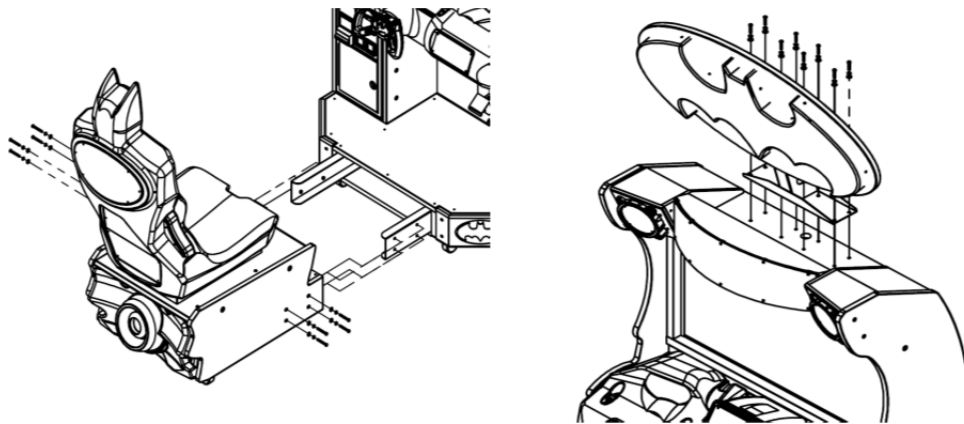
Note: Marquee assembly requires two individuals able to lift 70 pounds or more for safety. Please install in well lighted area with even and stable surface. Use only hardware and fasteners included with the unit. They are located inside the cashbox. This device is not intended for outdoor use.

### **Seat Pedestal Installation:**

1. Remove the (8) hex bolts that secures the seat bracket (2) inside channel of the main cabinet and retract the brackets as seen on the figure below. Re-attach the seat bracket but do not tighten the bolts all the way. The bracket should move slightly so that it can be aligned with the seat pedestal on the next step.
2. Slide the seat bracket into the seat pedestal. Make all the electrical connections before mating the seat completely. Be careful not to get the wires caught between the two assemblies.
3. Secure the seat with the fasteners provided.

### **Marquee Topper Installation:**

1. Carefully remove the topper from its packaging.
2. Inspect the marquee to make sure that it is not damaged from shipping.
3. Lift the topper over the monitor cabinet and let it rest on the top.
4. Run the topper harness into the wire access hole at the center of the cabinet.
5. Lower the topper and align all 4 corner mounting holes.
6. Install the fasteners provided but leave it loose until all the (8) of the fasteners have been installed.
7. Tighten all the fasteners.
8. Open the top back half of the monitor cabinet and locate the topper harness.
9. Make all the electrical connections and replace the back cover.
10. Visually inspect the game and AC connections before applying power to the game.

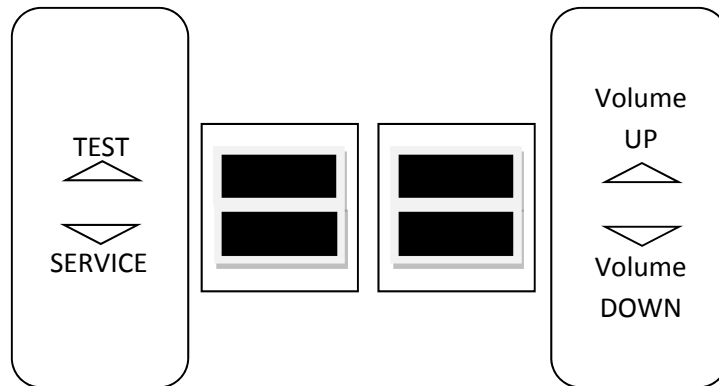


# BATMAN OPERATOR'S MANUAL

## Diagnostics and Adjustments

The Service Button Panel has four buttons, three of which can navigate the menu system.

But it is easiest to navigate with a Start, View button



- Service Panel TEST enters diagnostic system.
- Either Start button or TEST button selects the highlighted option.
- Service Panel VOL DOWN button moves down through menu or setting choices.
- Service Panel VOL UP button or pressing View moves up through menu or setting choices.
- Highlight and select Exit to return to previous screen.

An on-screen message acknowledges changes or when you exit a selection without making a change.

At the bottom of each screen there is a brief description of the menu option's function. A complete description is available here for all menu functions.

Instructions for completing your first calibration start on the next page.

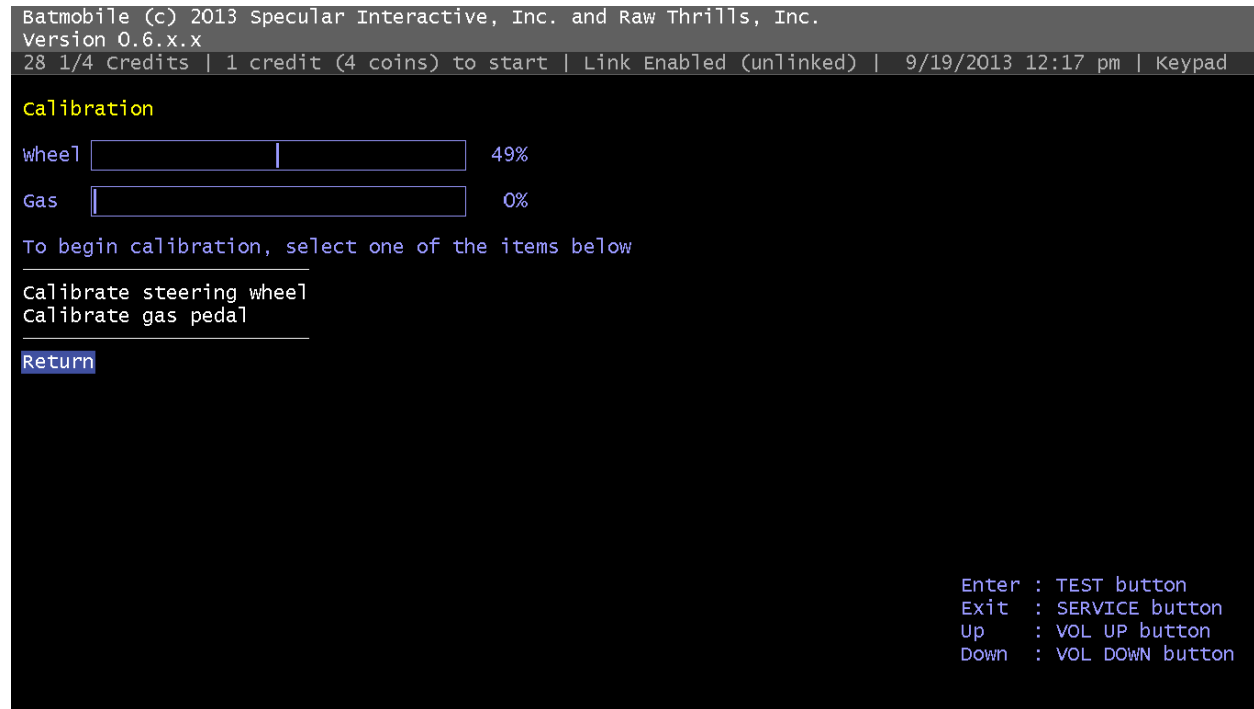


# BATMAN OPERATOR'S MANUAL

## INITIAL GAME SETUP

### GAME CONTROLS CALIBRATION

1. If the calibration screen is not visible, press the TEST button to enter the Diagnostic System.
2. From the Main Menu, use Volume +/- to highlight Calibration.
3. Press a Enter button to enter calibration.



4. Follow on-screen instructions. Re-try if calibration data is not valid.
5. Game will enter Attract Mode. All game settings will be default values if no changes are made at this time.

# BATMAN OPERATOR'S MANUAL

## GAME CONTROLS AND INTERFACE INSPECTION

### Other Tests

See the Diagnostic Section for further information.

1. Enter the Switch Test menu and verify all switches function.
2. Enter the Screen Test menu and verify that video is acceptable.
3. Enter the Sound Test menu and verify the audio works and is not distorted.
4. Enter the Coin Meter Test menu and verify the operation of the coin meter.
5. Enter the Cabinet Lamps Test menu and verify that all cabinet lights work correctly.
6. Enter the Watchdog Test menu, which reboots the game.
7. Upon a successful reboot, you are ready to make adjustments to pricing, volume and other functions found in the Adjustments, Audits and Diagnostics section.

# BATMAN OPERATOR'S MANUAL

## Adjustments, Audits and Diagnostics

### Main Menu

Access the test menu by pressing the "TEST" button. The "Main Menu" will be displayed. Follow the on-screen instruction to navigate the diagnostic and adjustment options.

```
Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.
Version 0.6.x.x
28 1/4 Credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:09 pm

Build Release (Not signed)
Program 9c1d-fb00
Data 0178-9f73

Main menu
Sound
Calibration
Adjustments
-----
Audits
Diagnostics
-----
Utilities
Advanced utilities
-----
Return to GAME

Enter : TEST button
Exit : SERVICE button
Up : VOL UP button
Down : VOL DOWN button
```

Menu Option	Description
Sound	Adjust game sound and attract sound volume.
Calibration	Calibrate steering wheel, gas and brake pedal inputs.
Adjustments	Setting for coinage unit, denomination and game pricing. Settings for in-game features and multiplayer networking activation.
Audits	Comprehensive audit list includes collection information, playtime and various game features such as vehicles and courses which help determine customer preference in order to help set-up game for best earning potential.
Diagnostics	Test game input and outputs. This is a useful tool for troubleshooting and regular game maintenance.
Utilities	Perform "Clear Audit" functions here and restore Factory Settings
Advanced Utilities	Copy Audit information to external USB drive. Reset Calibration data and soft re-boot game.

# BATMAN OPERATOR'S MANUAL

## Main Menu

### Sound

Test sound and speaker functions. Game sounds are crucial to the quality enjoyment of the player and should be periodically checked for proper operation.

```
Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.
Version 0.6.x.x
28 1/4 Credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:16 pm | Keypad

Sound
Master mute          OFF
Master volume       0 
Attract mute        OFF
Attract volume      0 
Reset sound settings
Return

Enter : TEST button
Exit  : SERVICE button
Up    : VOL UP button
Down  : VOL DOWN button
```

## Main Menu

### Calibration

Properly functional game controls are crucial to the quality enjoyment of the player and should be periodically checked for proper operation. Maximize your game's earning potential. Calibrate the game controls periodically to compensate for normal wear and tear.

```
Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.
Version 0.6.x.x
28 1/4 Credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:17 pm | Keypad

Calibration
wheel  |  49%
Gas  0%

To begin calibration, select one of the items below
calibrate steering wheel
calibrate gas pedal
Return

Enter : TEST button
Exit  : SERVICE button
Up    : VOL UP button
Down  : VOL DOWN button
```

# BATMAN OPERATOR'S MANUAL

## Main Menu

### Adjustments

#### Pricing Adjustments

Reset pricing will set pricing adjustments to default settings.

```
Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.
Version 0.6.x.x
28 1/4 Credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:18 pm | Keypad

Pricing adjustments
Current coins      113
Current credits   28 1/4

Free play          OFF
Insert-money message  Insert coins
Coins per credit   4
Credits to start   1
Credits to continue 1
Max credits        30
Coins per bill pulse 1

Reset pricing

Return

Enter : TEST button
Exit  : SERVICE button
Up    : VOL UP button
Down  : VOL DOWN button
```

## Main Menu

### Adjustments

#### Game Adjustments

```
Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.
Version 0.6.x.x
28 1/4 Credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:19 pm | Keypad

Game adjustments
Plays since last score reset: 0

Wheel stiffness          80
Cabinet lights in attract mode  ON
Lamp intensity in attract mode  70
Lamp intensity in game mode     70
Game time adjust         0

Plays for score reset    10000

Reset game adjustments

Return

Enter : TEST button
Exit  : SERVICE button
Up    : VOL UP button
Down  : VOL DOWN button
```

# BATMAN OPERATOR'S MANUAL

## Main Menu

### Adjustments

#### Multiplayer Adjustments

```
Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.
Version 0.6.x.x
28 1/4 credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:20 pm | Keypad

Multiplayer adjustments
Audit filename prefix      1
Multiplayer link           ENABLED
Port                       9000

DHCP:  0
IP:
Subnet:

Reset to factory default

Keep volume synced        ENABLED
Sync All Operator Settings

Return

Enter : TEST button
Exit  : SERVICE button
Up    : VOL UP button
Down  : VOL DOWN button
```

Set Multiplayer link to “ENABLE” when linking 2 or more units. The game comes with a cross over network cable for 2 player linked setup. Additional games may be linked using a network hub. This must be purchased separately.

Volume synched will allow all linked games to have identical levels by simply adjusting any one the linked game’s volume setting.

## Main Menu

### Audits

Coin Audits

Boot Audits

Vehicle Audits

Playtime Audits

Stage Audits

Stage Details Audits

Objective Audits

# BATMAN OPERATOR'S MANUAL

```
Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.
Version 0.6.x.x
28 1/4 Credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:20 pm | Keypad

Coin audits -- page 1 of 13

o Press Up/Down for more audits

Current credits          28 1/4
Total service credits    0
Slot 1 coins             555
Slot 2 coins             0
Total slot coins         580
Bill validator coins     28
Game time per play      0:02:49 (buy-to-die average)

Return

Enter : TEST button
Exit  : SERVICE button
Up    : VOL UP button
Down  : VOL DOWN button
```

```
Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.
Version 0.6.x.x
28 1/4 Credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:20 pm | Keypad

Coin audits -- page 1 of 13

o Press Up/Down for more audits

Current credits          28 1/4
Total service credits    0
Slot 1 coins             555
Slot 2 coins             0
Total slot coins         580
Bill validator coins     28
Game time per play      0:02:49 (buy-to-die average)

Return

Enter : TEST button
Exit  : SERVICE button
Up    : VOL UP button
Down  : VOL DOWN button
```

```
Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.
Version 0.6.x.x
28 1/4 Credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:21 pm | Keypad

Game audits -- page 3 of 13

o Press Up/Down for more audits

Games started           245
Games continued         749
Total games played      994
Unfinished games        47

Time in attract mode    19:34:28
Time in game & continue 2 d, 4:40:45
Total time              3 d, 0:15:13

Game time, interactive  1 d, 11:24:23
Game time, passive      17:16:22

Free play time          0:00:00

Return

Enter : TEST button
Exit  : SERVICE button
Up    : VOL UP button
Down  : VOL DOWN button
```

# BATMAN OPERATOR'S MANUAL

```
Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.
Version 0.6.x.x
26 1/4 Credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/24/2013 3:35 pm | Keypad

Vehicle audits -- page 4 of 13

o Press Up/Down for more audits

# Batmobile      Total
-----
1 Sixtysix      35  5%
2 Sixtysix Chrome 10  1%
3 1989          30  4%
4 BTAS          12  2%
5 1995          27  7%
6 1997           9  1%
7 Tumbler       31  4%
8 Bravebold     11  1%
9 Arkham        24  3%
10 Tumbler Camo 10  1%
-----
Totals          199

Return

Enter : TEST button
Exit  : SERVICE button
Up    : VOL UP button
Down  : VOL DOWN button
```

```
Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.
Version 0.6.x.x
28 1/4 Credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:22 pm | Keypad

Game play time -- page 5 of 13

o Press Up/Down for more audits

Game time      Games  %
-----
0:00 - 1:29    30  3%
1:30 - 1:39    27  3%
1:40 - 1:49    34  4%
1:50 - 1:59    43  5%
2:00 - 2:09    56  6%
2:10 - 2:19    83  9%
2:20 - 2:29    91 10%
2:30 - 2:39   109 12%
2:40 - 2:49    86  9%
2:50 - 2:59    76  8%
3:00 - 3:09    66  7%
3:10 - 3:19    61  7%
3:20 - 3:29    41  4%
3:30 and up    128 14%

Return

Enter : TEST button
Exit  : SERVICE button
Up    : VOL UP button
Down  : VOL DOWN button
```

```
Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.
Version 0.6.x.x
28 1/4 Credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:22 pm | Keypad

Stage audits -- page 6 of 13

o Press Up/Down for more audits

# Name      Started  Finished  Continues
-----
1 Freeze easy  154  70%    13      497 = 651
2 Bane easy   0  0%     0       0 = 0
3 Joker easy  66  30%    0      252 = 318
4 Freeze hard  0  0%     0       0 = 0
5 Bane hard   0  0%     0       0 = 0
6 Joker hard  0  0%     0       0 = 0
-----
Totals       220                + 749 = 969

Return

Enter : TEST button
Exit  : SERVICE button
Up    : VOL UP button
Down  : VOL DOWN button
```



# BATMAN OPERATOR'S MANUAL

Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.  
 Version 0.6.x.x  
 27 1/4 Credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 5:43 pm | Keypad

## Stage audits 2 -- page 7 of 13

o Press Up/Down for more audits

Continues	Freeze easy	Bane easy	Joker easy	Freeze hard	Bane hard	Joker hard	Totals
0	2 3%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%
1	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
2	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
3	0 0%	0 0%	1 2%	0 0%	2 3%	0 0%	3 2%
4	63 97%	0 0%	62 98%	0 0%	59 97%	0 0%	184 97%
5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
6	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
7+	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Start boss	62 95%	0 0%	62 98%	0 0%	60 98%	0 0%	184 97%
Finish	1 2%	0 0%	0 0%	0 0%	12 20%	0 0%	13 7%
							189

**Return**

Enter : TEST button  
 Exit : SERVICE button  
 Up : VOL UP button  
 Down : VOL DOWN button

Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.  
 Version 0.6.x.x  
 28 1/4 Credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:22 pm | Keypad

## Objective audits -- page 8 of 13

o Press Up/Down for more audits

Objectives for stage 1 (Freeze easy)

Code	#	Started	Completed	Died	Continued	NotContinued
1-1	1	95	65	5	1	2
1-2	2	63	63	49	49	0
1-3	3	63	63	58	58	0
1-4	4	63	63	50	50	0
1-5	5	63	62	62	61	1
1-6	6	62	1	95	34	61
Totals		95			253	= 348

**Return**

Enter : TEST button  
 Exit : SERVICE button  
 Up : VOL UP button  
 Down : VOL DOWN button

# BATMAN OPERATOR'S MANUAL

## Main Menu

### Diagnostics

#### Switch Test

Switch test

wheel / Gas Info

Analog Info	Values	Raw	Min	Max
wheel	2047	0	0	0
Gas	0	0	0	0

Button Info

- Break
- Fire
- Start
- Coin 1
- Coin 2
- Bill

TVVS Info

- TEST
- VOL +
- SERVICE
- VOL -

Keypad Info

1	2	3
4	5	6
7	8	9
*	0	#

o Holdl TEST, SERVICE, or START to exit (60)

## Main Menu

### Diagnostics

#### Lamp Test

Batmobile (c) 2013 specular Interactive, Inc. and Raw Thrills, Inc.  
Version 0.6.x.x  
28 1/4 credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:23 pm | Keypad

Light test

All lights OFF

- Big bat logo OFF
- Marquee OFF
- Speakers/Woofer/Booster RED OFF
- Speakers/Woofer/Booster ORANGE OFF
- Speakers/Woofer/Booster YELLOW OFF
- center dash panel OFF
- Right dash panel OFF
- Start button OFF
- Fire buttons OFF
- Keypad/SeatEdge/UnderCab RED OFF
- Keypad/SeatEdge/UnderCab GREEN OFF
- Keypad/SeatEdge/UnderCab BLUE OFF
- KickPlates/SeatBack OFF

Return

Enter : TEST button  
Exit : SERVICE button  
Up : VOL UP button  
Down : VOL DOWN button

# BATMAN OPERATOR'S MANUAL

Main Menu

Diagnostics

Wheel Test

For troubleshooting purposes, this menu allows the wheel force feedback to be activated in left and right direction.

*NOTE: FOR SAFETY, KEEP HANDS OFF THE WHEEL WHILE TEST IS IN PROGRESS. THE WHEEL WILL MOVE AUTOMATICALLY.*

```
wheel test
```

- Hit START or TEST to begin
- Turning wheel Left
- Hit START or TEST to continue
- Turning wheel right
- Hit START or TEST to exit

Main Menu

Diagnostics

Sound Test

```
Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.  
Version 0.6.x.x  
28 1/4 credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:24 pm | Keypad  
sound test
```

```
Test low sound ( 100Hz) [OFF]  
Test high sound (1000Hz) [OFF]  
Test L/R balance [L+R]
```

```
Return
```

```
Enter : TEST button  
Exit  : SERVICE button  
Up    : VOL UP button  
Down  : VOL DOWN button
```

# BATMAN OPERATOR'S MANUAL

Main Menu

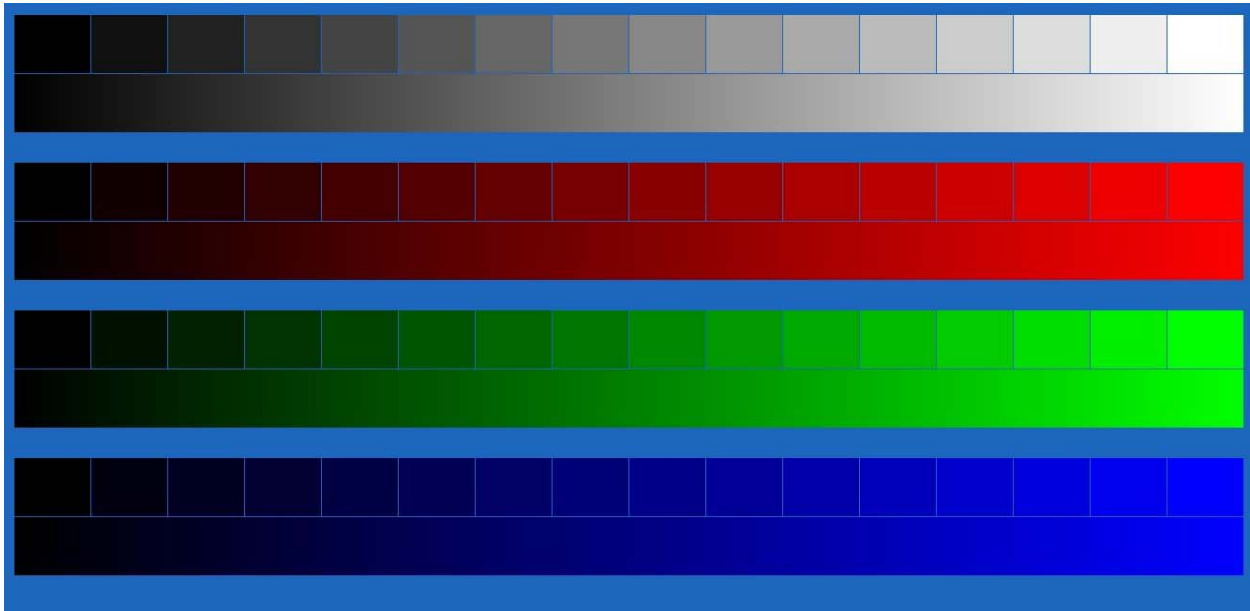
Diagnostics

Monitor Test

```
Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.  
Version 0.6.x.x  
28 1/4 Credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:24 pm | Keypad  
Monitor test PLACEHOLDER
```

```
Color bar test...  
Color purity test...  
Pixel dot inversion test...  
Subpixel dot inversion test...  
Row inversion test...  
Paired row inversion test...
```

Return



# BATMAN OPERATOR'S MANUAL

## Main Menu

### Diagnostics

#### Watchdog Test

This menu allows the activation of the watchdog/reset system. Press Start or Test to start test. The game's watchdog system allows the machine to recover automatically from a crash or a failure to boot. The watchdog system is always active.

```
Batmobile (c) 2013 Specular Interactive, Inc. and Raw Thrills, Inc.
Version 0.6.x.x
28 1/4 Credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:26 pm | Keypad

Diagnostics
Switch test
Lamp test
wheel test
Sound test
Monitor test
Watchdog test
Coin meter test
Return

Watchdog test
Machine will cycle power in 5 seconds!
Are you sure?

YES(Watchdog)
NO(Cancel)

Enter : TEST button
Exit  : SERVICE button
Up    : VOL UP button
Down  : VOL DOWN button
```

## Main Menu

### Diagnostics

#### Coin Meter Test

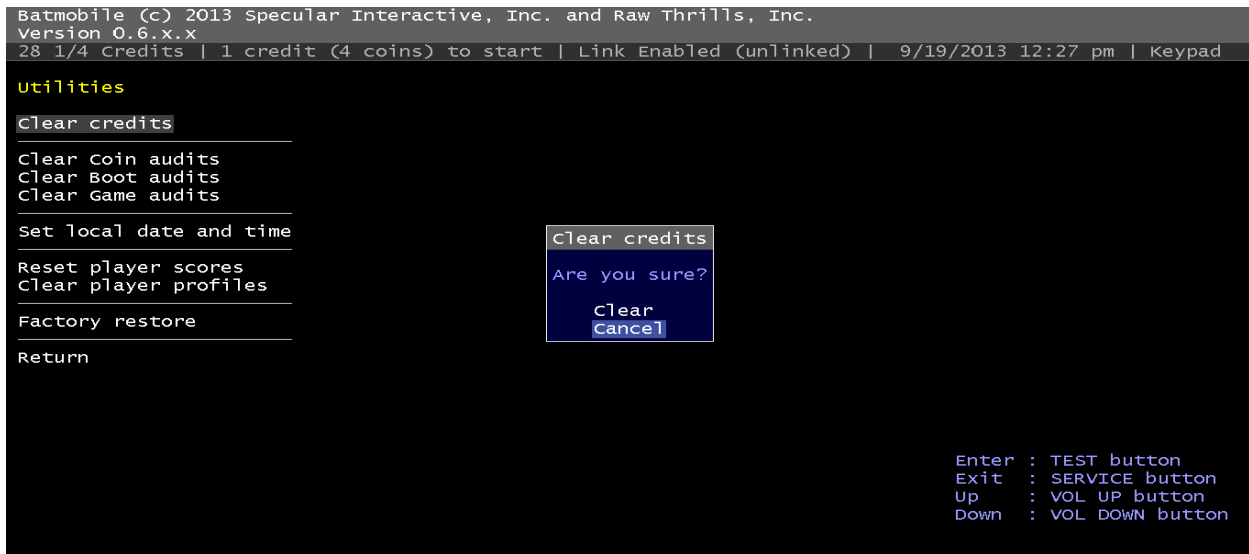
```
coin meter test
Press Volume Up to advance the coin meter
Press Test to exit
Return

Enter : TEST button
Exit  : SERVICE button
Up    : VOL UP button
Down  : VOL DOWN button
```

# BATMAN OPERATOR'S MANUAL

<b>Main Menu</b>
<b>Utilities</b>
Clear Credits
Clear Coins
Clear Boot Audits
Clear Game Audits
Set Local Time and Date
Reset Player Scores
Clear Player Profiles
Factory Restore

Note: Factory Restore will restore all default settings and clear all audit information. The game will need to be calibrated.



# BATMAN OPERATOR'S MANUAL

<b>Main Menu</b>
<b>Advanced Utilities</b>
Copy Audits to Thumb Drive
Reset Calibration
Reboot Machine
Test Maintenance Reboot
End and Restart Program
Crash Program
Raw Switch Test
Burn-In Upon Boot : Use in testing electronics hardware reliability
Maintenance Reboot Hours : Set re-boot frequency.

This section is reserved for use in more in-depth troubleshooting, diagnostics or repair. It may be especially helpful in troubleshooting intermittent issues.

```
Batmobile (c) 2013 specular Interactive, Inc. and Raw Thrills, Inc.
Version 0.6.x.x
28 1/4 Credits | 1 credit (4 coins) to start | Link Enabled (unlinked) | 9/19/2013 12:29 pm | Keypad

Advanced utilities
Copy Audits to thumb drive
Reset calibration
Reboot machine
Test maintenance reboot
End and restart program
Crash program
Raw switch test
Burn-in upon boot          OFF
Maintenance reboot hours  24
Return

Enter : TEST button
Exit  : SERVICE button
Up    : VOL UP button
Down  : VOL DOWN button
```

# BATMAN OPERATOR'S MANUAL

## Maintenance

Hard Drive Recovery NOTE: VISIT [RAWTHRILLS.COM](http://RAWTHRILLS.COM) FOR THE LATEST TECHNICAL INFORMATION REGARDING ALL PRODUCTS.

Symptoms requiring hard drive recovery include

- File Test reports bad or missing files.
- Game fails to finish loading during startup.
- After resetting the AC power, an error is reported.
- You are prompted to insert a boot DVD.
- Erratic Game or Attract Mode.
- Garbled characters
- Bad audit files

To identify corrupt files, press Test, choose System Test Menu and run the CRC Check. The only way to repair corrupt files is to recover the hard drive, as detailed below.

### COMPUTER

The computer contains sensitive components, including a hard drive. Do not handle roughly. Call your distributor before servicing its internal components. Ask about warranty information as it relates to the PC.

Do **not** use the PC on/off switch. Turn AC power on or off with the cabinet power switch.

1. With game and PC on, verify that the RIO board has power. If not, see Troubleshooting.
2. Open the Coin door.
3. Open the PC DVD-ROM tray by reaching back to the PC and pressing the Open/Close button on the drive bay.
4. Insert the first of two restore DVDs (labeled *Disc 1*) into the tray.
5. Close the tray by pressing the Open/Close button again.
6. Turn cabinet power switch to OFF. Wait 30 seconds.
7. Turn cabinet power switch to ON.
8. Recovery begins automatically when PC boots up.
9. If recovery does not begin, check to ensure disc is inserted correctly and is not damaged.
10. Initial software loading may take several minutes. Check progress periodically.  
*Do not interrupt power or reset the game during recovery.*
11. At some point, the game will eject *Disc 1* and prompt you to insert *Disc 2*.  
Swap discs and close the tray.
12. When software has been loaded, a message indicates that restore is complete. When instructed to remove *Disc 2*, open DVD-ROM drive tray and remove *Disc 2*.
13. Turn cabinet power switch off.
14. After 30 seconds, turn cabinet power switch on.
15. Game will reboot and enter calibration mode.
16. Re-calibrate guns.



# BATMAN OPERATOR'S MANUAL

## BIOS Settings/Power Management

### NOTICE

The PC ships with correct BIOS settings. Making changes to the BIOS different from the description below may adversely affect game functions.

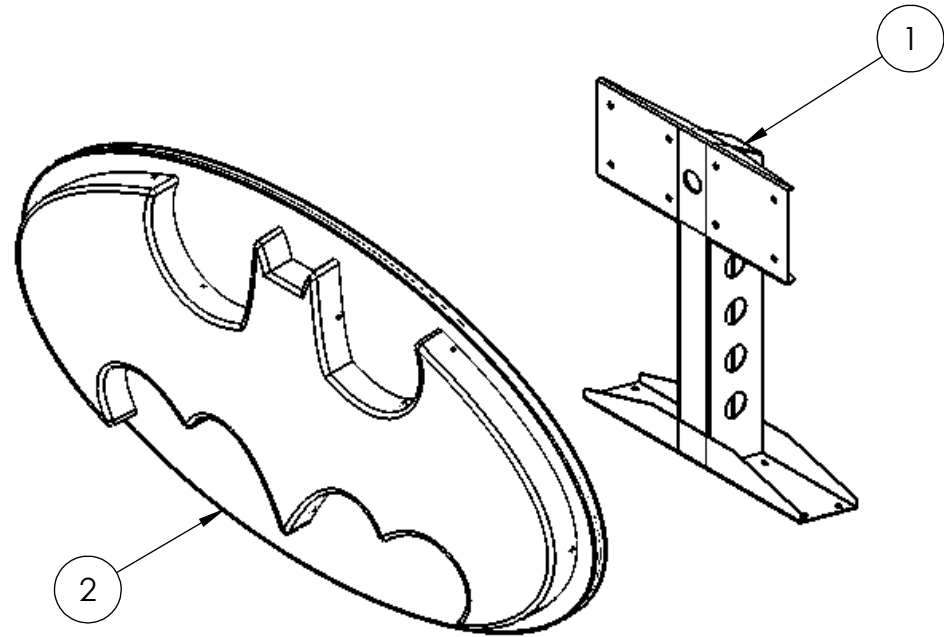
Do **not** use the PC on/off switch. Turn AC power on or off with the cabinet power switch.

1. Turn cabinet power switch off.
2. Open rear of cabinet.
3. Connect a USB keyboard to the PC.
4. While holding the F10 key on the keyboard down, turn cabinet power switch on.
5. When the BIOS menu screen appears, make the following adjustments shown below. Note: Most settings use the default.
6. Follow instructions on screen to save and exit.
7. PC will reset and load the game.

```
8. -General
9.     +System Information => n/a
10.    +Date/Time => n/a
11.    +Boot Sequence :
12.        -[1]CD/DVD/CD-RW Drive
13.            -[2]Onboard SATA
14.            -[disabled] USB Storage Device
15.            -[disabled] Diskette Drive
16.            -[disabled] Onboard NIC
17. -System Configuration
18.     +Integrated NIC : Enabled
19.     +Serial Port: DISABLED
20.     +SATA Operation: ATA
21.     +Drives: all enabled (all checked)
22.     +SMART Reporting: disabled (not checked)
23.     +USB Configuration: all enabled (all checked)
24.     +Miscellaneous Devices : n/a
25. -Video
26.     +Multi Display : Disabled
27. -Security: no changes
28. -Performance
29.     +Multi Core Support : All
30.     +Intel Speedstep   : Disabled
31.     +C States           : Enabled
32. -Power Management
33.     +AC Recovery        : Power ON
34.     +Auto ON Time       : Disabled
35.     +Deep Sleep Control : Disabled
36.     +Fan Control Override : Disabled
37.     +Wake on LAN        : Disabled
38. -Post Behavior
39.     +Numlock LED        : Enabled
40.     +Keyboard Errors    : Disabled
41.     +Post Hot Keys      : Enabled
42.     +Fastboot           : Thorough
43. -Virtualization Support
44.     +Virtualization      : Enabled
45.     +VT for Direction I/O : Disabled
46. -Maintenance => n/a
47. -ImageServer => n/a
48. -System logs => n/a
```

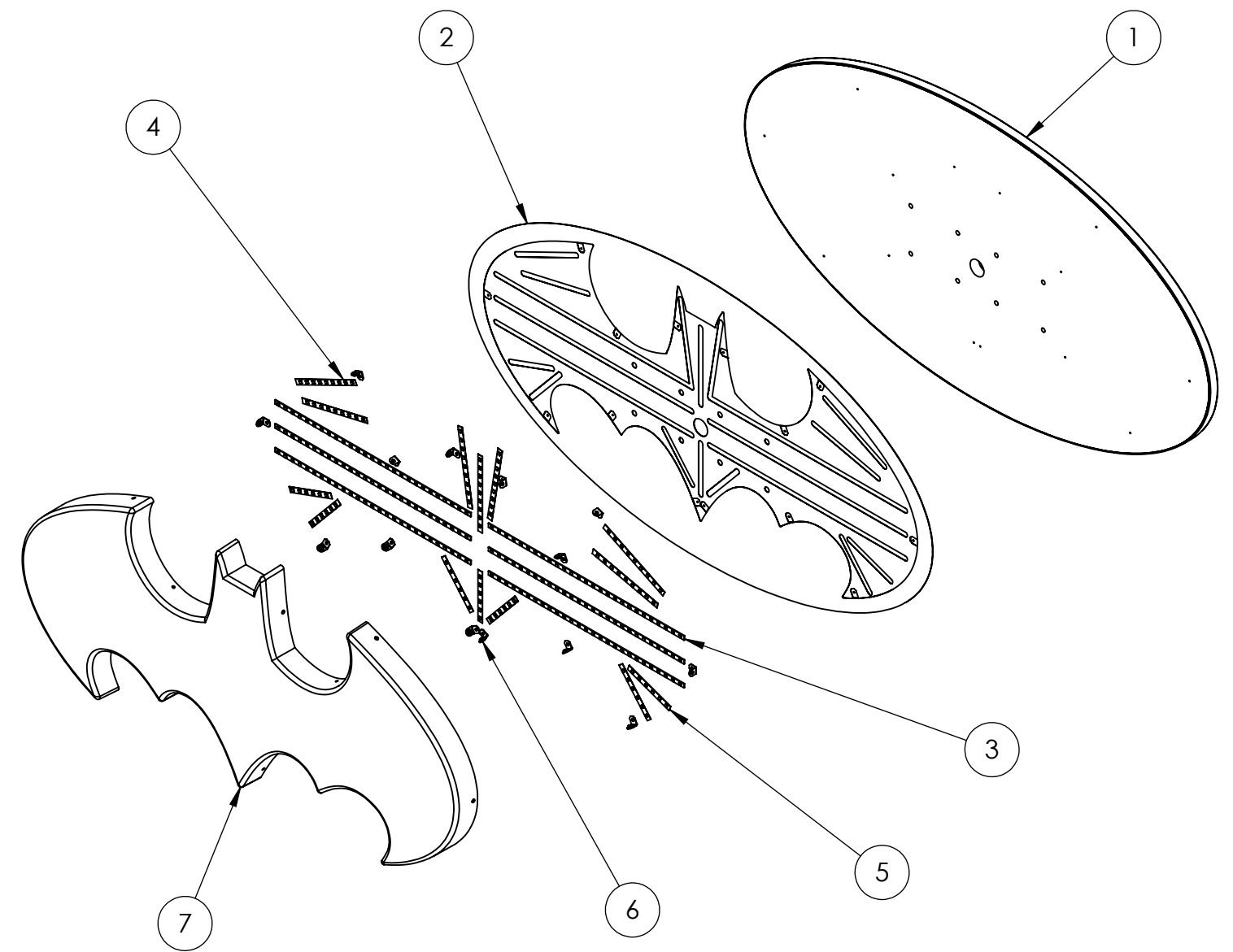
MECHANICAL ILLUSTRATIONS  
AND  
ELECTRICAL SYSTEM DIAGRAM

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	608-00163-01	Batman - Marquee Center Post	1
2	Batman_Marquee_Assy	Batman - Marquee Assembly	1



Batman - Marquee Topper Assembly

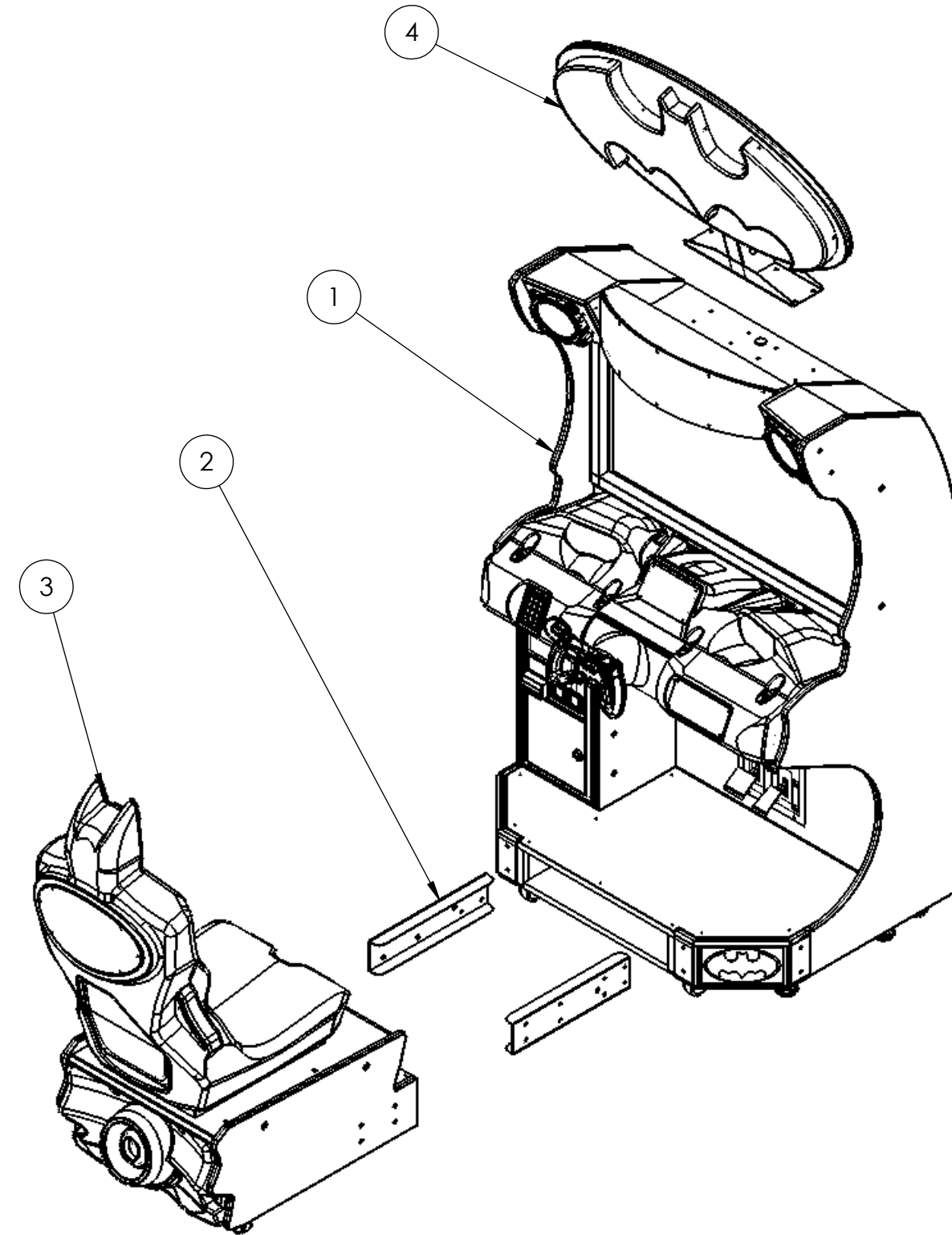
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	601-00611-01	Batman - Marquee Oval Panel	1
2	606-00857-01	Batman - Marquee Logo Template	1
3	500-00093-01 (45 CM)	White LED Strip - 45 CM	6
4	500-00093-01 (15 CM)	White LED Strip - 15 CM	7
5	500-00093-01 (10 CM)	White LED Strip - 10 CM	7
6	600-01052-01	Batman - Marquee/Bat Sign Mount Bracket	14
7	603-00615-01	Batman - Marquee Logo Plastic	1



Batman - Marquee Assembly

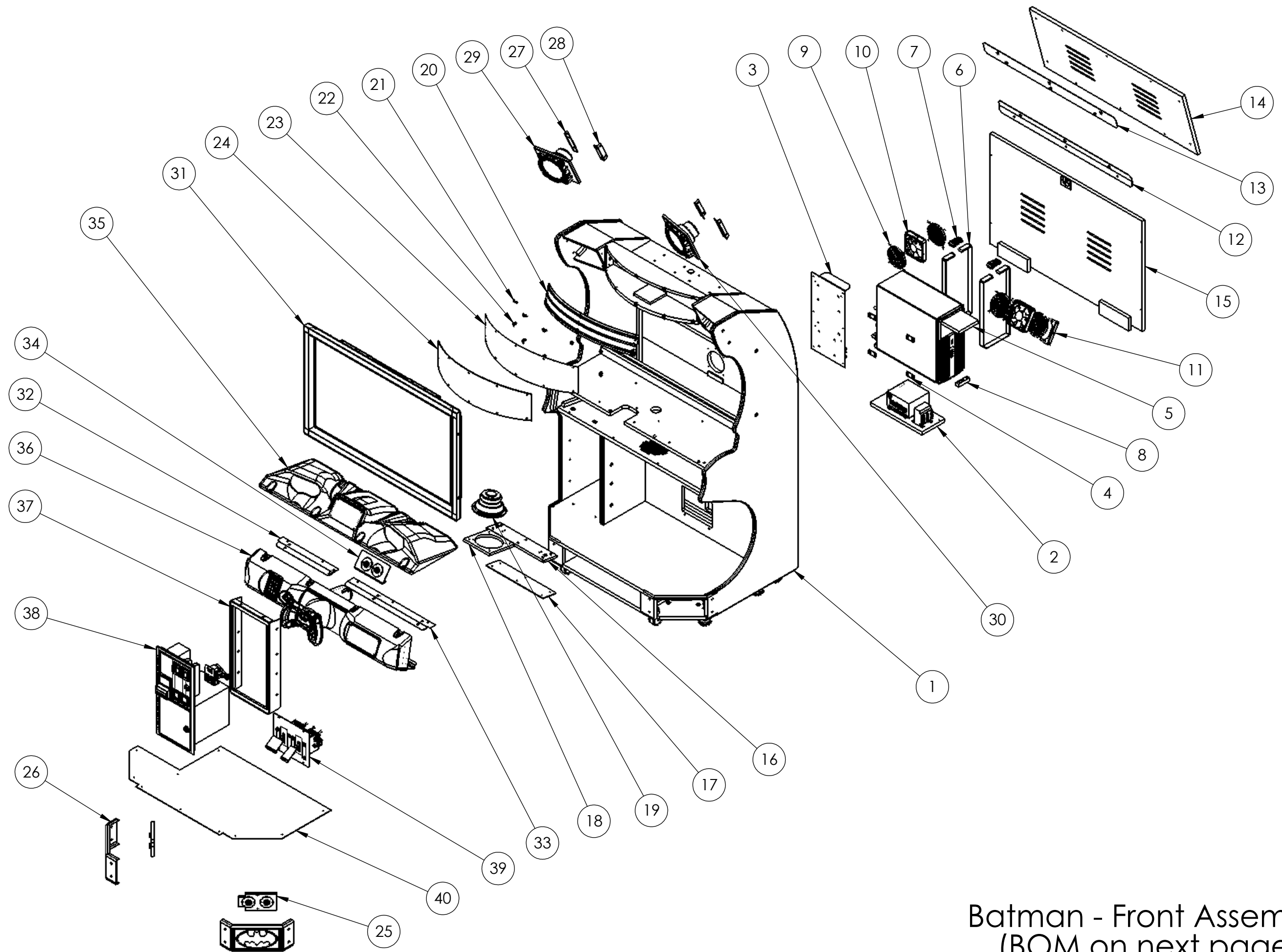


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	Batman_Front_Assy	Batman - Front Assembly	1
2	600-00030-01	Pedestal Mounting Channel	2
3	Batman_Pedestal_Assy	Batman - Pedestal Assembly	1
4	Batman_Marquee_Topper_Assy	Batman - Marquee Topper Assembly	1



Batman - 42" Final Assembly





Batman - Front Assembly  
(BOM on next page)

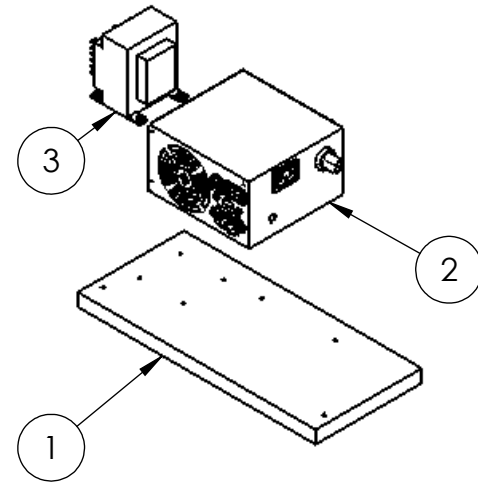


# BOM: Batman Front Assembly

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	601-00607-01	Batman - Main Cabinet	1
2	Batman_Power_Panel_Assy	Batman - Power Panel Assembly	1
3	RIO_Batman_Assy	Batman - RIO Assembly	1
4	600-00891-01	Securing Nylon Strap Plate	4
5	HP6005	(or approved equivalent PC)	1
6	87425K76 (52 Length)	McMaster-Carr: Nylon Strap 0.075" Thick, 1" Width, Black (52" Length)	2
7	29705T86	McMaster-Carr: Plastic Buckle for Webbing NO Sew Squeeze-Release for 1" Wide Webbing	2
8	601-00580-01	PC Wood Cleat	2
9	800-00001-00	120mm Wire Fan Guard	4
10	820-00012-00	Cooling Fan (standard size): 12VDC, 3W, 80CFM	2
11	600-01040-01	Rear LCD Fan Mounting Bracket	1
12	600-01042-01	Batman - Cabinet LCD Panel Bracket	1
13	600-01126-01	Batman - Cabinet Upper LCD Panel Bracket	1
14	601-00629-01	Batman - Cabinet LCD Access Door	1
15	601-00610-01	Batman - Cabinet Back Door	1
16	Batman_Pedal_Light_Assy	Batman - Pedal Light Assembly	1
17	600-00021-01	Pedal Light Lens	1
18	601-00527-01	Woofers Mounting Board	1
19	807-00003-00	Woofers Speaker: 6.5", 8 Ohms	1
20	Batman_Marquee_Light_Assy	Batman - Marquee Light Assembly	1
21	600-01111-01	Batman - Angle Top Marquee Mount Bracket	5
22	600-01052-01	Batman - Marquee/Bat Sign Mount Bracket	5
23	606-00805-01	Batman - Cabinet Marquee Translite	1
24	600-01190-01	Batman - Marquee PETG	1
25	Batman_Kick_Plate_Light_Assy	Batman - Kick Plate Light Assembly	2
26	Batman_Kick_Plate_Assy	Batman - Kick Plate Assembly	2
27	600-01090-01	Batman - Speaker Plate Mounting Bracket 1	2
28	600-01091-01	Batman - Speaker Plate Mounting Bracket 2	2
29	Batman_Speaker_Assy_L	Batman - Left Speaker Assembly	1
30	Batman_Speaker_Assy_R	Batman - Right Speaker Assembly	1
31	Batman_42_Monitor_Assy	Batman - 42" Monitor Assembly	1
32	600-01118-01	Batman - Control Panel Left Mounting Bracket	1
33	600-01009-01	Batman - Control Panel Right Mounting Bracket	1
34	Batman_Hood_Light_Assy	Batman - Hood Light Mount Bracket	1
35	Batman_Hood_Assy	Batman - Hood Assembly	1
36	Batman_Dash_Assy	Batman - Dash Assembly	1
37	608-00158-01	Batman - Coin Door Housing Bracket	1
38	800-00005-01	Happ: Mid-Width Coin Door Assembly	1
39	604-00012-01	Happ: Hall Effect Dual Foot Pedal Mech (Brake Switch)	1
40	600-01038-01	Batman - Cabinet Diamond Plate	1

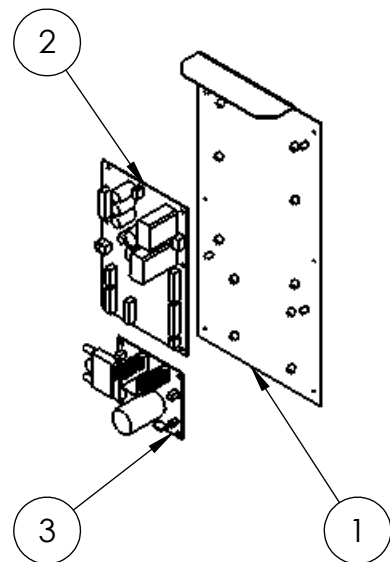


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	601-00624-01	Batman - Power Supply Panel	1
2	2-1-02-00-00-017	APS Power Supply (Bracket #90-AP188)	1
3	2-1-02-00-00-016	Transformer: 36V, 5 Amps	1



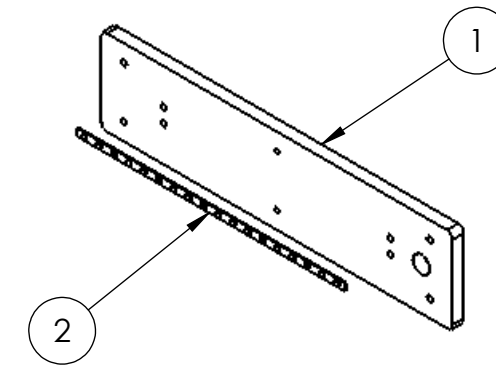
Batman - Power Panel Assembly

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	600-00511-01	RIO - Mounting Plate Chassis	1
2	500-00040-01	RIO PCB	1
3	500-00037-01	RIO Wheel Driver PCB	1



Batman - RIO Assembly

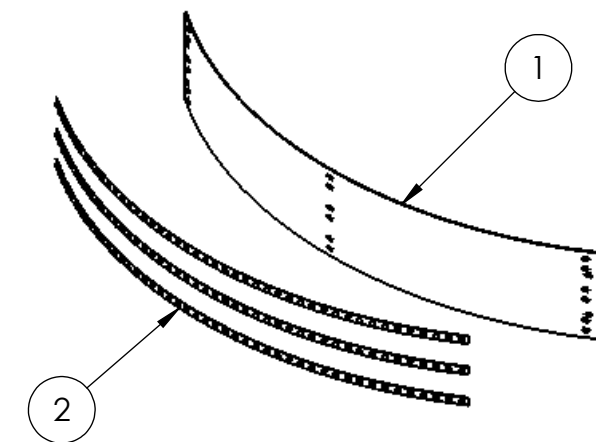
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	601-00628-01	Batman - Pedal Light Backboard	1
2	500-00131-01 (30 CM)	RGB LED Strip - 30 CM	1



Batman - Pedal Light Assembly



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	603-00673-01	Batman - Marquee Light Panel	1
2	500-00093-01 (60 CM)	White LED Strip - 60 CM	3

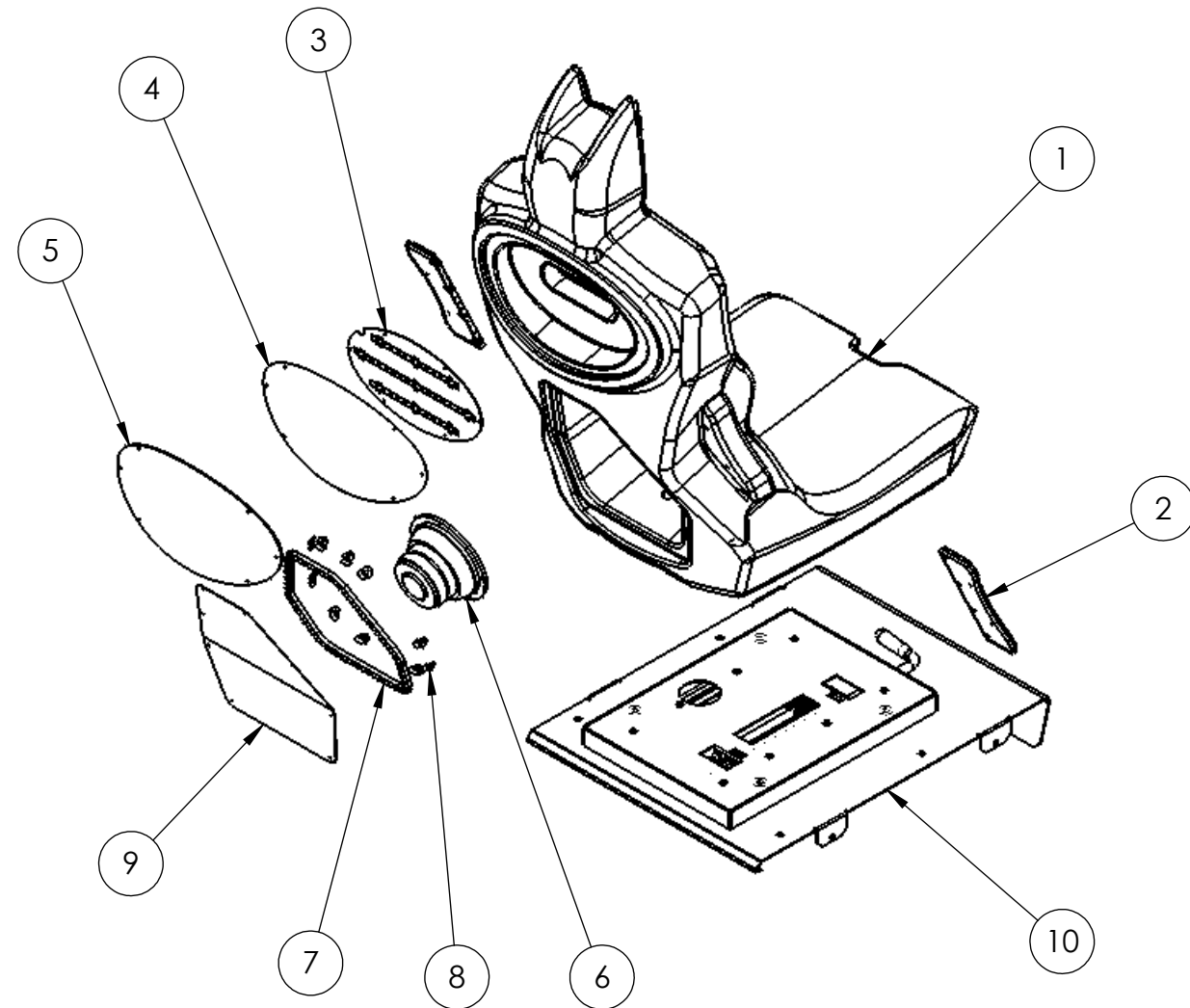
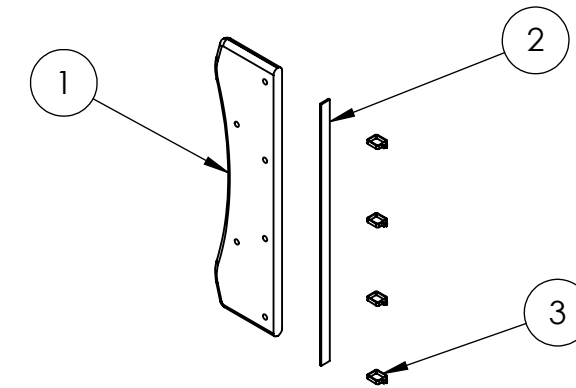


Batman - Marquee Light Assembly



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	603-00610-01	Batman - Seat	1
2	Batman_Seat_Edgeglow_Assy	Batman - Seat Edgeglow Assembly	2
3	Batman_Seat_Back_LED_Assy	Batman - Seat Back LED Assembly	1
4	606-00804-01	Batman - Seat Back Translite	1
5	600-01191-01	Batman - Seat Back PETG	1
6	807-00003-00	Woofer Speaker: 6.5", 8 Ohms	1
7	500-00127-01	96 CM RYO LED "Great Wall" Rope	1
8	600-00647-01	LED Side Clip	10
9	600-01033-01	Batman - Seat Back Grill	1
10	604-00032-01	Batman - Seat Slide Assembly	1

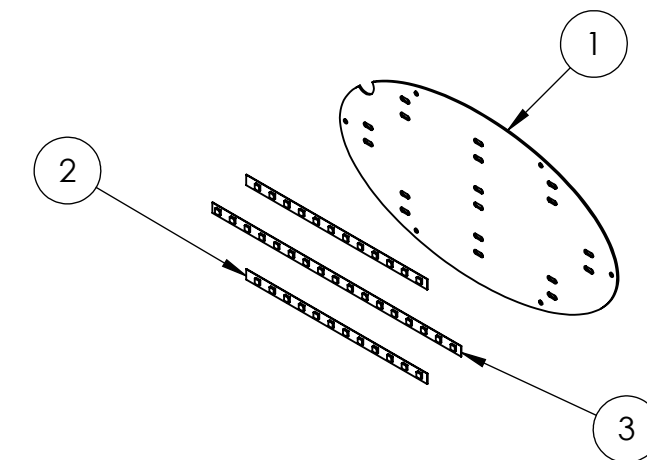
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	603-00617-01	Batman - Seat Edge Glow	1
2	500-00131-01 (25 CM)	RGB LED Strip - 25 CM	1
3	Tie Wrap	1/8" Wide	4



## Batman - Seat Edgeglow Assembly



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	603-00677-01	Batman - Seat Marquee Light Panel	1
2	500-00093-01 (20 CM)	White LED Strip - 20 CM	2
3	500-00093-01 (25 CM)	White LED Strip - 25 CM	1



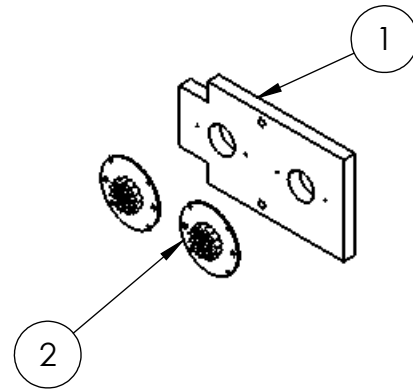
## Batman - Seat Assembly

## Batman - Seat Back LED Assembly



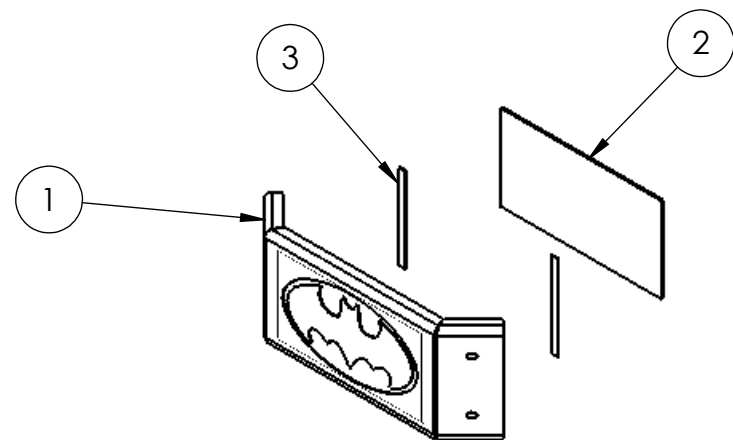


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	601-00650-01	Batman - Kick Plate Light Panel	1
2	500-00035-01	White LED Spotlight PCB	2



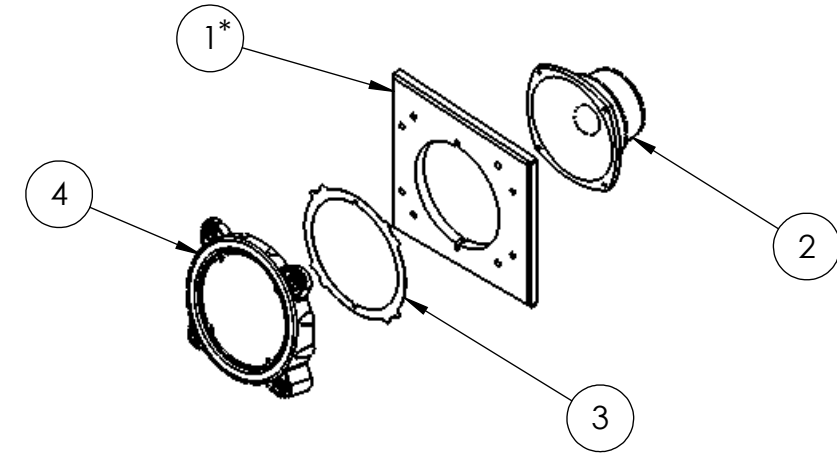
Batman - Kick Plate Light Assembly

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	600-01016-01	Batman - Kick Plate Bracket	1
2	603-00672-01	Batman - Kick Plate Yellow Light Diffuse Panel	1
3	Double Sided Foam Tape	Black: 3/8"W x 1/16"T x 5"L	2



Batman - Kick Plate Assembly

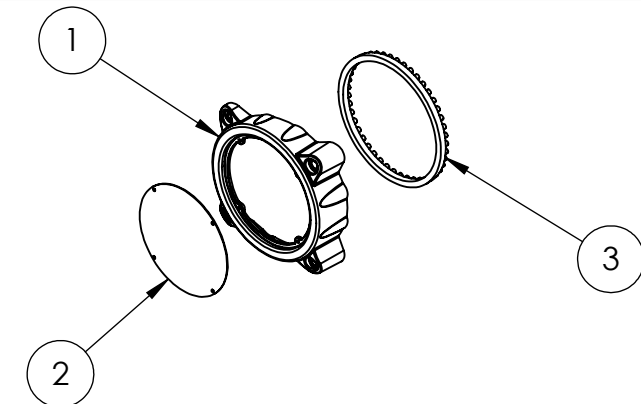
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1*	600-01201-01	Batman - Left Speaker Panel (Black Acrylic)	1
2	2-1-10-00-00-000	5.25" Full Range Speaker	1
3	606-00650-01	DD42 Speaker Bezel Mirror (Left & Right)	1
4	Speaker Bezel Sub-Assy	Speaker Bezel Sub-Assy	1



Batman - Left Speaker Assembly  
 \*\*\*(Item # 1 is 600-01202-01 for Right Speaker Assembly)\*\*\*



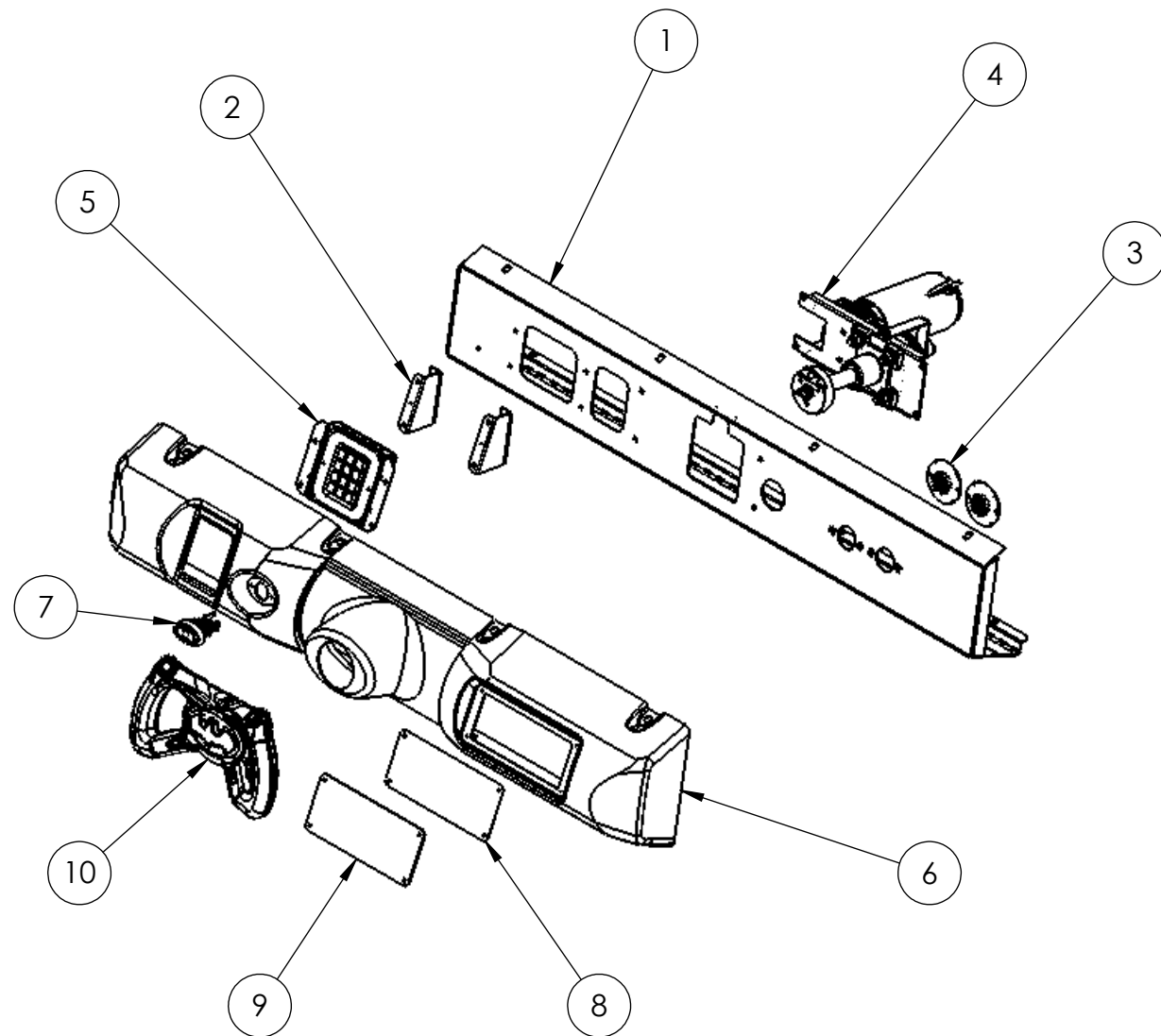
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	603-00538-01	LED Speaker Bezel - Midrange (45 CM)	1
2	600-00673-01	Speaker Grill - 5.25"	1
3	500-00125-01	45 CM RYO LED "Great Wall" Rope	1



Speaker Bezel Sub-Assy

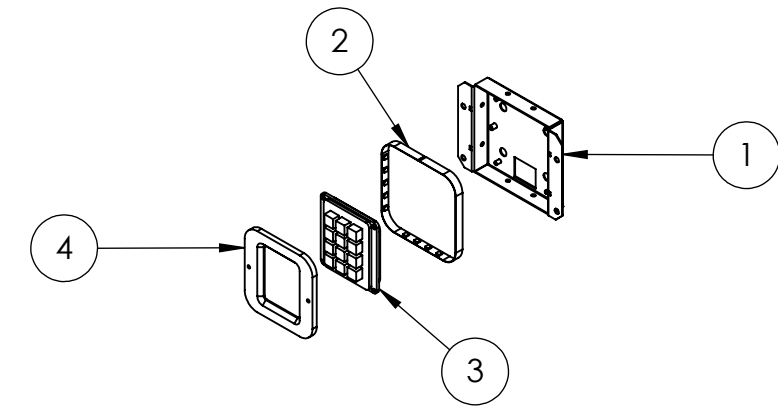


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	600-01008-01	Batman - Hinged Control Panel Bracket	1
2	600-01010-01	Batman - Dash Accessory Bracket	2
3	500-00035-01	White LED Spotlight PCB	2
4	604-00033-01	Happ: Steering Mech (18VDC, 180 DEGREE)	1
5	Batman_Keypad_Assy	Batman - Dash Keypad Assembly	1
6	603-00611-01	Batman - Dash Plastic	1
7	702-00045-01	Batman - Emblem Small Oval Button	1
8	606-00813-01	Batman - Dash Translite	1
9	600-01192-01	Batman - Dash PETG	1
10	604-00034-01	Batman - Steering Wheel Assembly	1



Batman - Dash Assembly

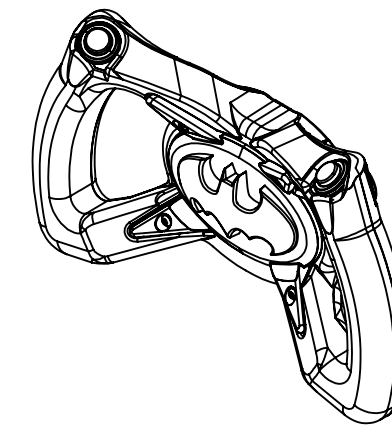
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	600-00948-01	Batman - Keypad Mounting Bracket	1
2	500-00074-01	RGB LED Weatherproof Strip Tape - 45 CM	1
3	2-1-14-00-00-000	Keypad (pay phone style)	1
4	603-00557-01	Keypad Glow	1



Batman - Dash Keypad Assembly



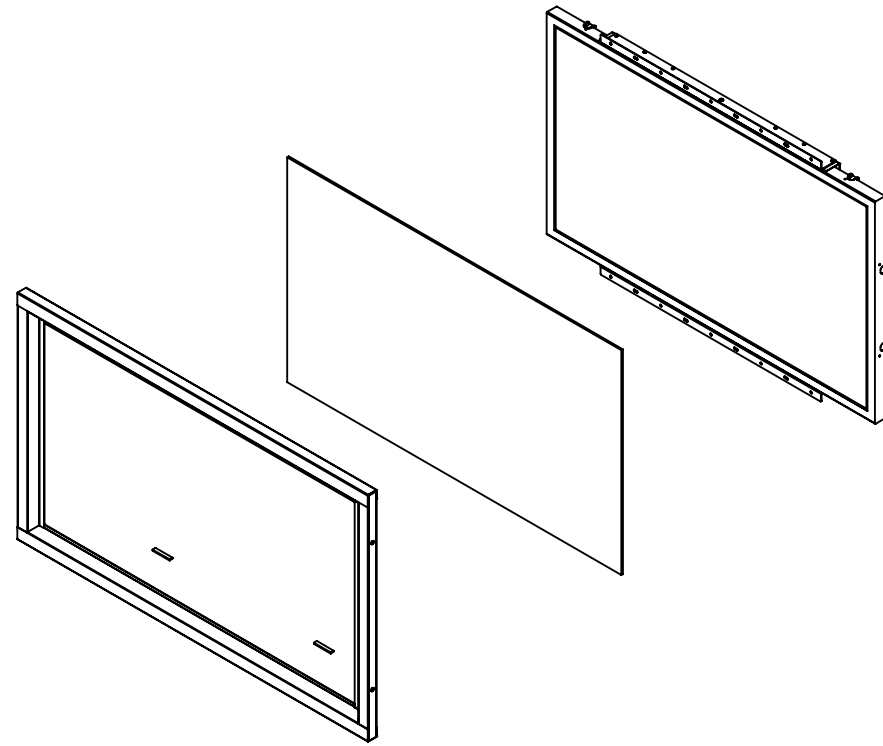
**\*SEE DRAWING SUPPLIED  
BY SUZO-HAPP  
ON NEXT PAGE\***



Batman - Steering Wheel Assembly

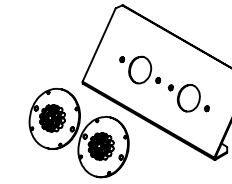


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	600-00073-01	42" LCD Display Glass (Tempered)	1
2	809-00004-01	42" HD Monitor	1
3	Foam Tape	Black: 1/4"W x 1/8" T x 2"L	2
4	608-00156-01	Batman - 42" Monitor Frame Weldment	1



Batman - 42" Monitor Assembly

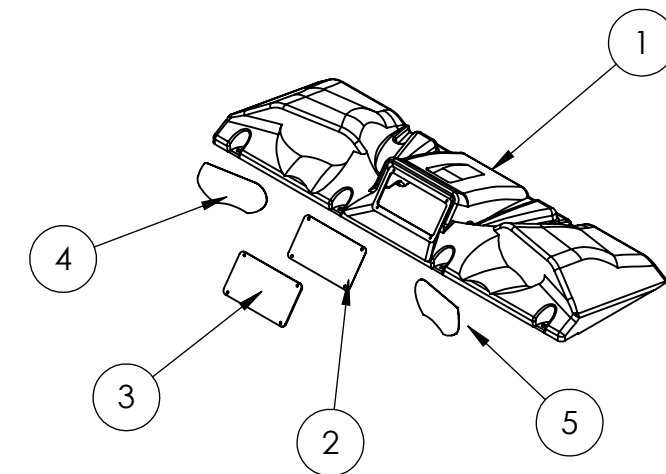
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	600-01018-01	Batman - Hood Light Mount Bracket	1
2	500-00035-01	White LED Spotlight PCB	2



Batman - Hood Light Mount Bracket



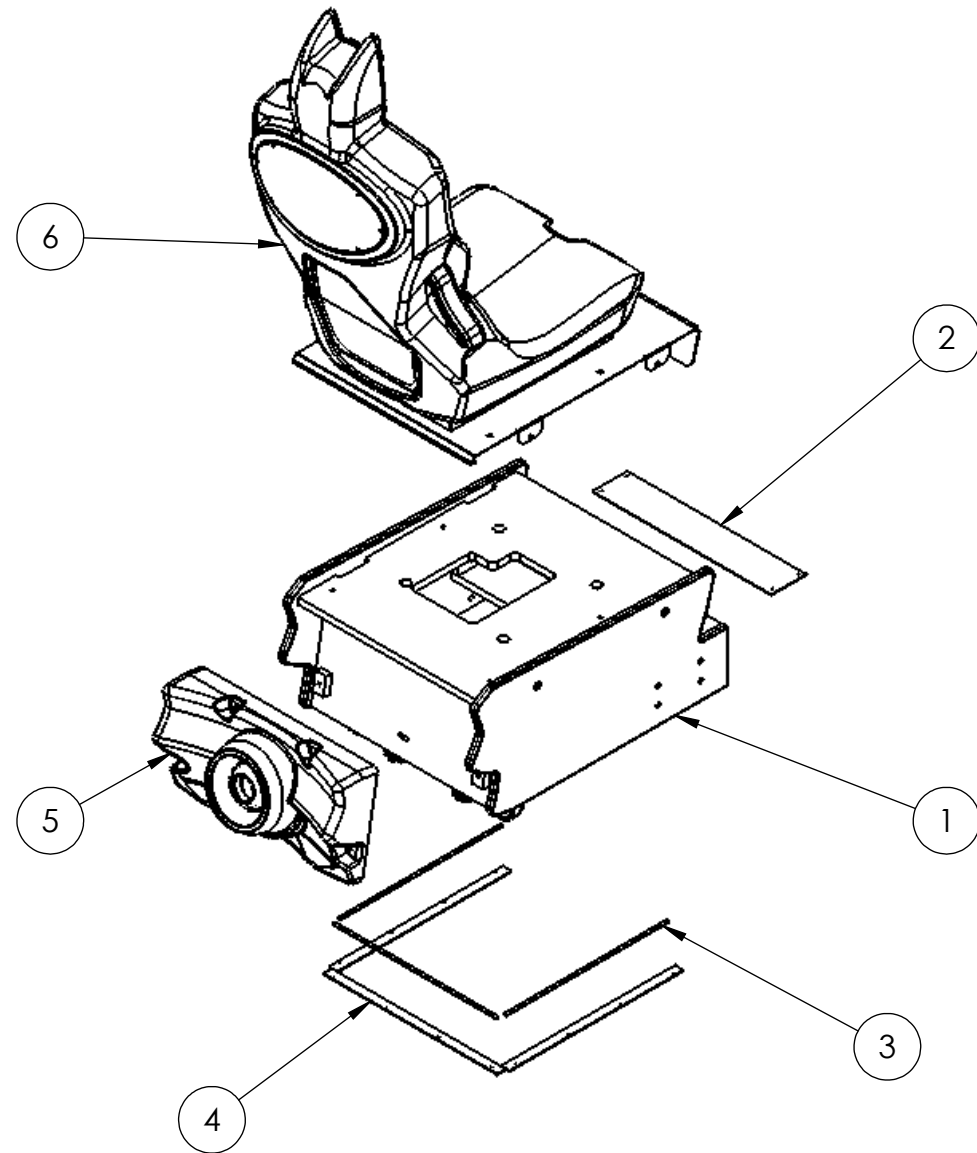
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	603-00612-01	Batman - Hood Plastic	1
2	606-00807-01	Batman - Hood Translite	1
3	600-01193-01	Batman - Hood PETG	1
4	606-00839-01	Batman - Dash Vent Decal Left	1
5	606-00840-01	Batman - Dash Vent Decal Right	1



Batman - Hood Assembly

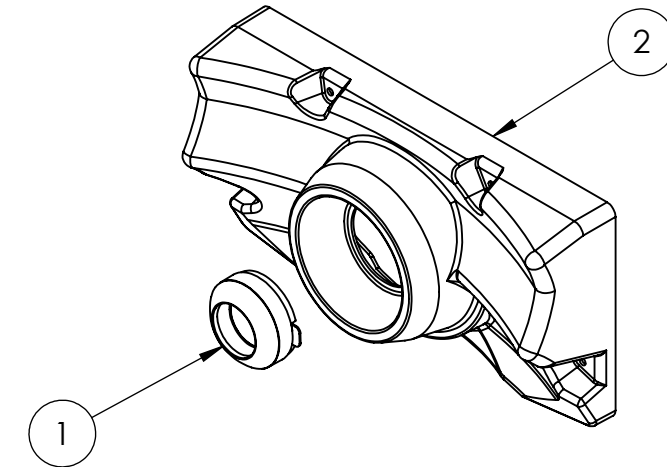


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	601-00609-01	Batman - Pedestal Cabinet	1
2	600-01039-01	Batmobile Ped Diamond Plate	1
3	500-00131-01 (50 CM)	RGB LED Strip - 50 CM	3
4	603-00671-01	Under Pedestal LED Strip Cover	3
5	Batman_Rear_Ped_Sub_Assy	Batman - Rear Pedestal Sub-Assembly	1
6	Batman_Seat_Assy	Batman - Seat Assembly	1



Batman - Pedestal Assembly

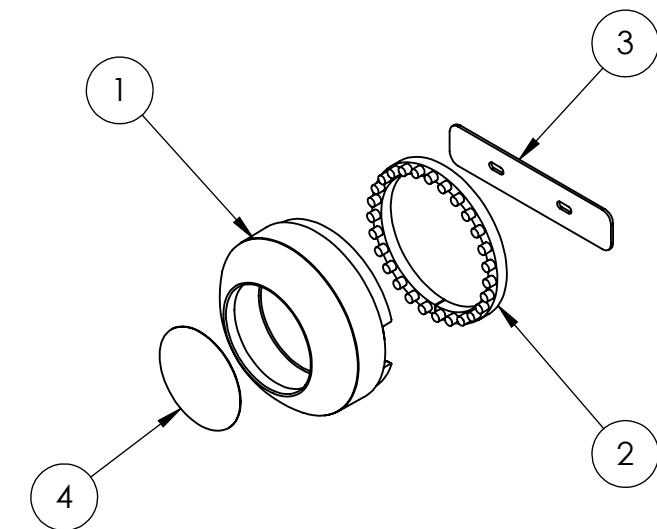
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	Batman_Exhaust_Assy	Batman - Exhaust Assembly	1
2	603-00613-01	Batman - Rear Pedestal Plastic	1



Batman - Rear Pedestal Sub-Assembly



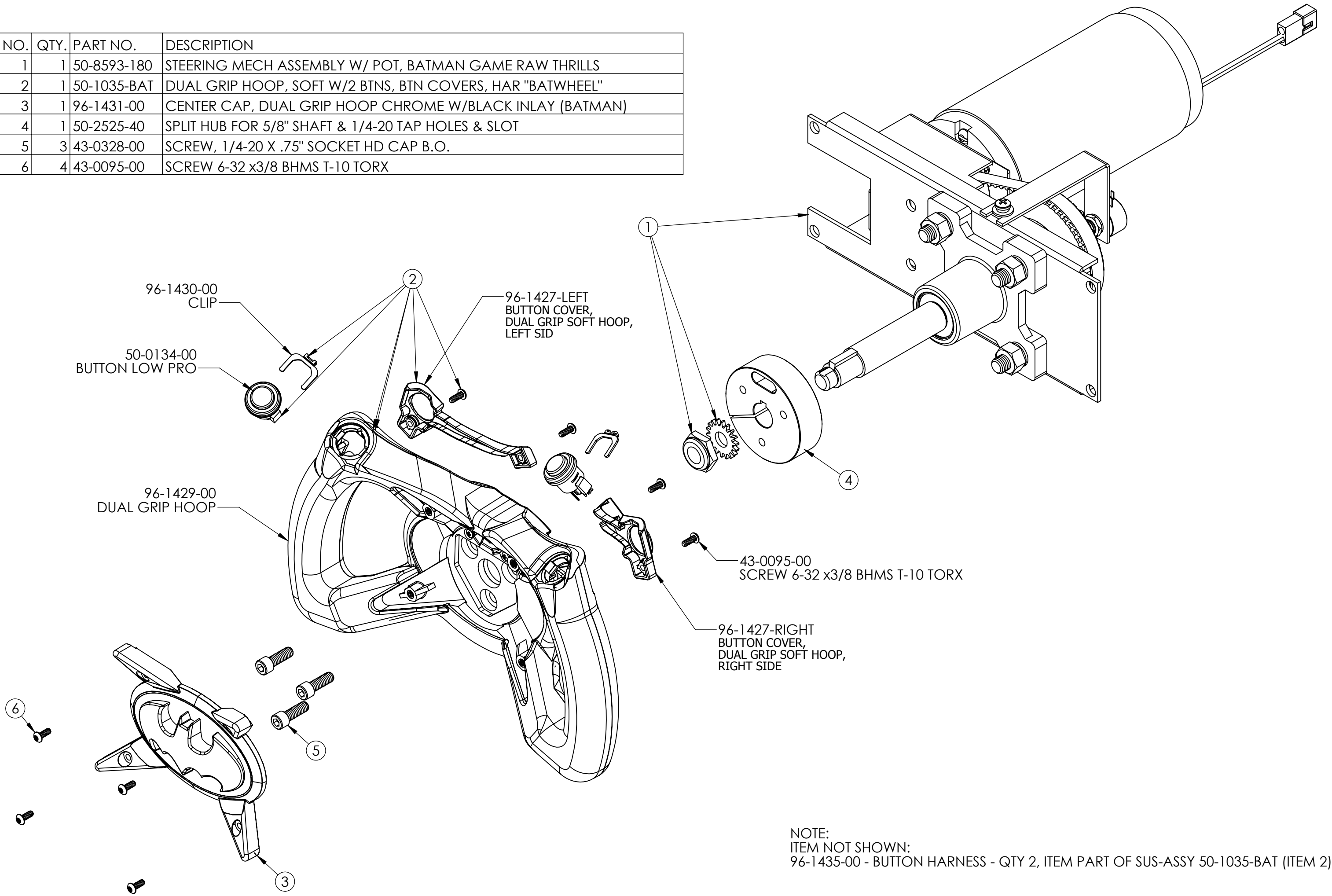
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	603-00554-01	SX - Tail Cap	1
2	500-00126-01	27 CM RYO LED "Great Wall" Rope	1
3	600-00700-01	SX - Tail Cap Retainer Bracket	1
4	606-00743-01	SX - Tail Cap Decal	1



Batman - Exhaust Assembly



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	50-8593-180	STEERING MECH ASSEMBLY W/ POT, BATMAN GAME RAW THRILLS
2	1	50-1035-BAT	DUAL GRIP HOOP, SOFT W/2 BTNS, BTN COVERS, HAR "BATWHEEL"
3	1	96-1431-00	CENTER CAP, DUAL GRIP HOOP CHROME W/BLACK INLAY (BATMAN)
4	1	50-2525-40	SPLIT HUB FOR 5/8" SHAFT & 1/4-20 TAP HOLES & SLOT
5	3	43-0328-00	SCREW, 1/4-20 X .75" SOCKET HD CAP B.O.
6	4	43-0095-00	SCREW 6-32 x3/8 BHMS T-10 TORX





A

B

C

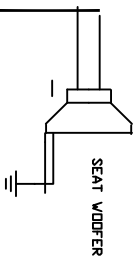
D

E

F

G

PEDESTAL  
INTERFACE



YEL BLK  
YEL GRN  
YEL BLU  
DRG YEL

LED RED  
LED DRG  
LED YEL  
+12V PWM

WOOFER LIGHT

YEL BLK  
YEL GRN  
YEL BLU  
DRG YEL

LED RED  
LED DRG  
LED YEL  
+12V PWM

INFINITY LIGHT

YEL VID  
YEL GRY  
YEL WHT  
DRG YEL

LED RED  
LED GRN  
LED BLU  
+12V PWM

SEAT EDGE GLOW

YEL VID  
YEL GRY  
YEL WHT  
DRG YEL

LED RED  
LED GRN  
LED BLU  
+12V PWM

UNDER SEAT

PNK BLK  
PNK BRN  
DRG YEL

MARQUEE 'X' LOGO  
MARQUEE 'D' LOGO  
+12V PWM

MARQUEE



5

5

NOTES:





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