

# PACMAN TICKET MANIA™



## Setup and Operations Manual

**namco®**



# Service Manual

Safety

## 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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### WATER AND OTHER LIQUID SOURCE

Do not install game near sprinkler or other water jet sources. Do not use water jet to clean game. Keep minimum clearance behind game and wall for proper ventilation but also prevent access of liquid from spills and sprays from entering ventilation holes.

### 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 Play Mechanix™ Inc.

### SPECIFICATIONS

For reasons such as performance, this product's specifications may change without notice. Federal patent, copyright and other intellectual property laws protect the content, devices and design of the game and its equipment.

## Product Specifications

### Electrical Power

United States, international and Japan

Inrush AC Current: 7 Amps

Operating AC Current: 5/2.5 Amps

Voltage: 115/230 VAC 50/60Hz

### Dimensions

Height: 98" (2.48 meters)

Width: 30" (.76 meters)

Depth: 32" (.81 meters)

### Temperature

50° F to 104° F

(10° C to 40° C)

### Humidity

Must not exceed 95% relative humidity

# PACMAN TICKET MANIA™

## 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:
  - Marquee 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.

### Startup Game

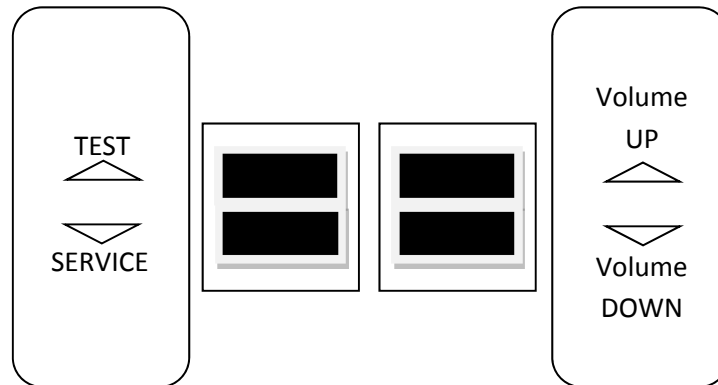
1. Plug in line cord to AC outlet.
2. Turn the power switch to ON.
3. Check that no component is excessively hot or emitting foul odors.

*If not, turn off AC power and disconnect line cord. Refer to the diagnostic section of this manual.*

## 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 button and trigger/grenade.



- Service Panel TEST/BACK button enters diagnostic system.
- Either Start button or SELECT button selects the highlighted option.
- Service Panel VOL DOWN button or moves down through menu or setting choices.
- Service Panel VOL UP button or 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.

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### Basic Functional Test On Initial Power Up

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.

## Adjustments, Audits and Diagnostics

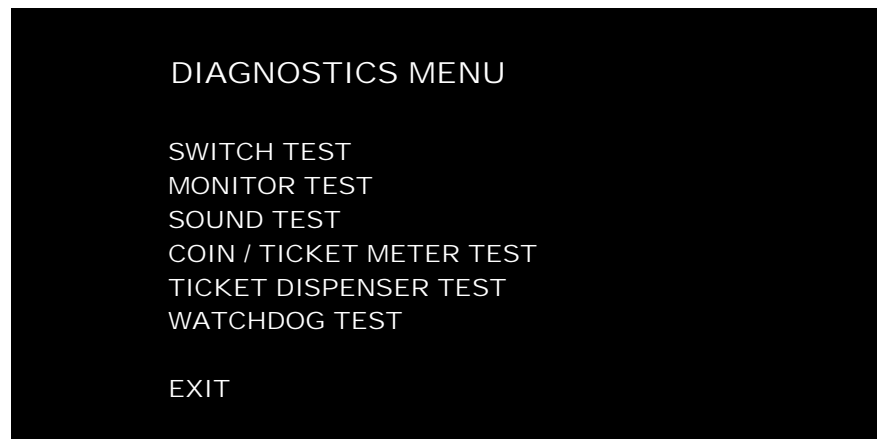
### Main Menu



### Main Menu

#### Diagnostics Menu

This menu allows all game functions to be verified or diagnosed.



You can improve collections by periodically verifying proper game function and operation.



## PACMAN TICKET MANIA™

**Main Menu**

**Coin Adjustments Menu**

This allows customization of coin values, currency denominations, bill pulse and swipe credits.

### COIN ADJUSTMENT MENU

CURRENCY TYPE	SWIPES/COINS
COIN VALUE	
COIN TO PLAY	
COIN PER SWIP	
COIN PER SWIPE PULSE	

**Main Menu**

**Payout Adjustments Menu**

This menu allows for customization of target payout percentage, ticket value. Changes will result in audits being reset.

### PAYOUT ADJUSTMENT SETTINGS

PAYOUT PERCENTAGE  
TICKET VALUE  
TWO POINT TICKET

## Service Manual

## Adjustments, Audits and Diagnostics

### Main Menu

#### Audits Menu

Audit screens help assess game performance, find intermittent problems, decide whether to adjust game difficulty and free game award and help maximize game earnings.

### AUDITS

SYSTEM AUDITS  
COIN AUDITS  
PAYOUT AUDITS  
GAME AUDITS

EXIT

### Main Menu

#### Resets

### RESETS MENU

CLEAR COINS  
CLEAR TICKETS  
RESET AUDITS  
RESET ADJUSTMENTS  
FACTORY RESTORE  
CRC CHECK

EXIT

## PACMAN TICKET MANIA™

### Maintenance

#### Hard Drive Recovery

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.
- The following screen:



To identify corrupt files, press Test, choose System Test Menu and run the File Test.

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.

## 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.

This BIOS setting lets the PC automatically power up. With the setting enabled, the PC reboots when it detects AC power. This eliminates the need to manually turn the PC back on after power disruption.

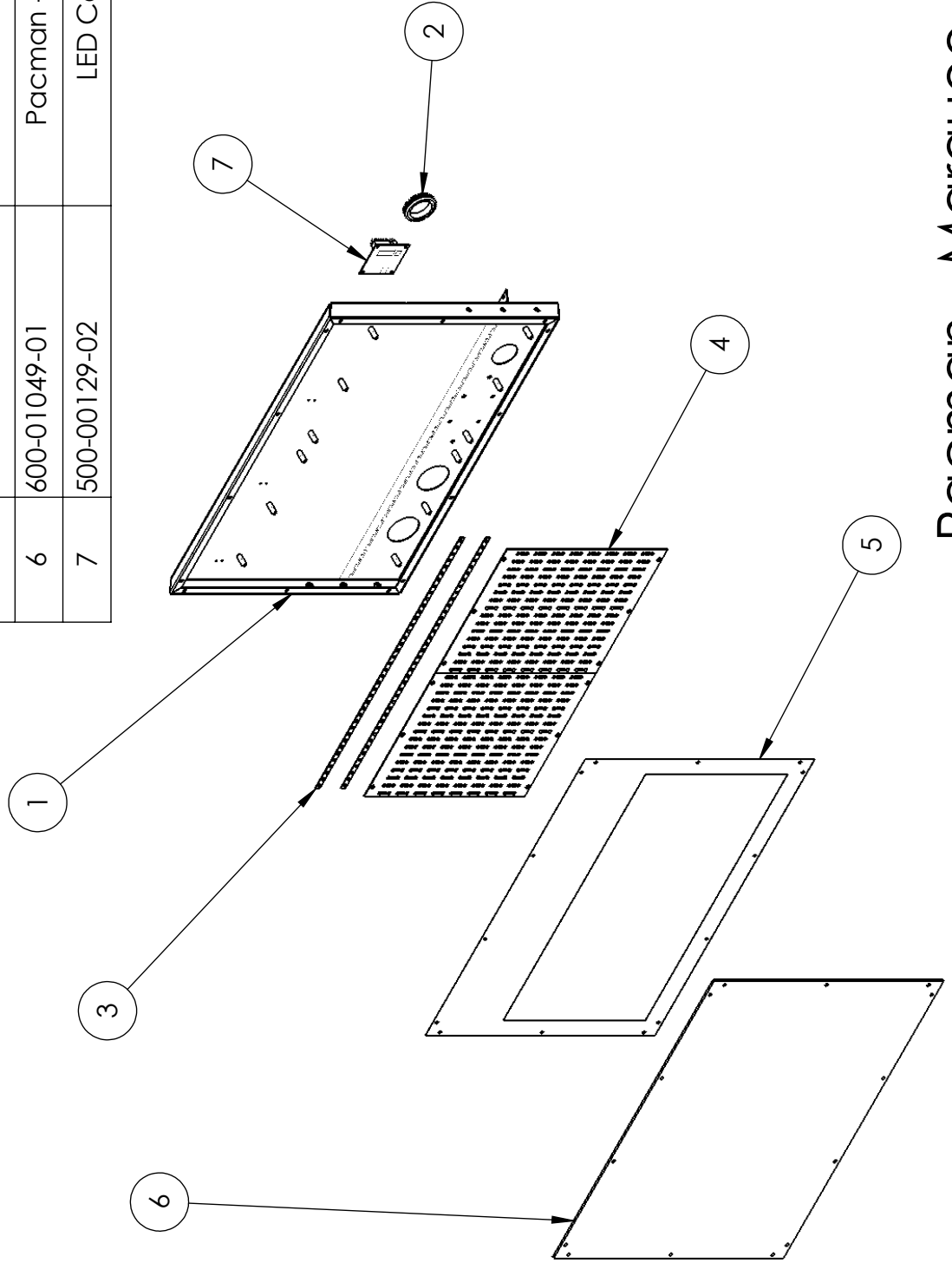
Do **not** use the PC on/off switch. Turn AC power on or off with the cabinet power switch.

1. Turn cabinet power switch off.
2. Open rear of cabinet.
3. Connect a USB keyboard to the PC.
4. While holding the Delete key on the keyboard down, turn cabinet power switch on.
5. When the BIOS menu screen appears, make the following adjustments.

Feature .....	Set to
Standard CMOS Feaures > Drive A.....	[none]
Standard CMOS Features > HALT ON.....	[No Errors]
Advanced BIOS Features > Boot Sequence.....	1 <sup>st</sup> CD-ROM 2 <sup>nd</sup> Hard Disk
Advanced BIOS Features > APIC Mode .....	Disabled
Advanced Chipset Features > Frame Buffer .....	[16M]
Advanced Chipset Features > PMU > CPU Frequency .....	[200.0]
Power Management Setup > PWRON After PWR-Fail.....	[On]

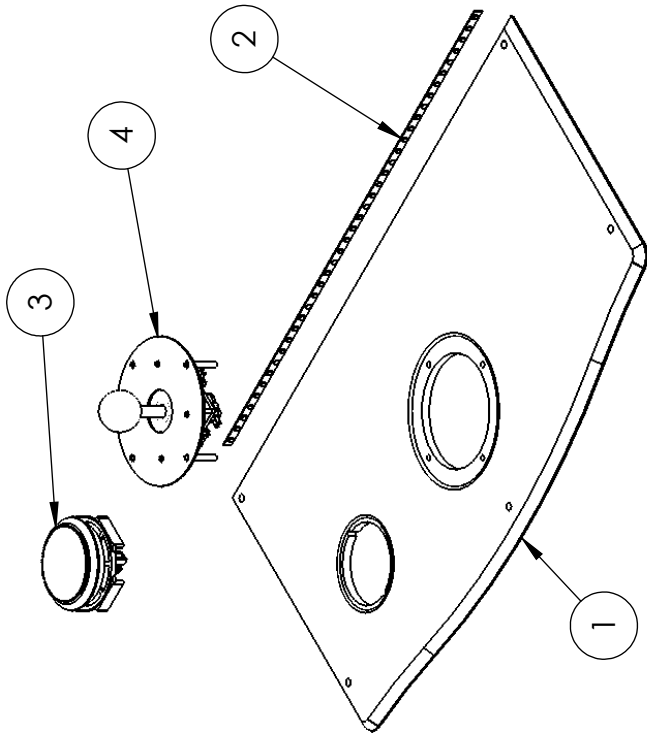
6. Follow instructions on screen to save and exit.
7. PC will reset and load the game.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	608-00164-01	Pacman - Hinged Marquee Box	1
2	603-00580-01	2" Diameter PVC Grommet	1
3	500-00093-01 (65CM)	White Flexible LED Tape (65CM - 39 LEDs)	2
4	500-00132-01	LED Display Matrix PCB	2
5	606-00815-01	Pacman - Marquee Translite	1
6	600-01049-01	Pacman - Marquee PETG	1
7	500-00129-02	LED Controller PCB	1

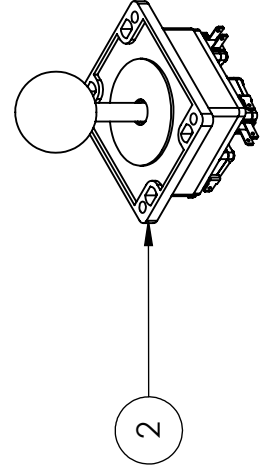
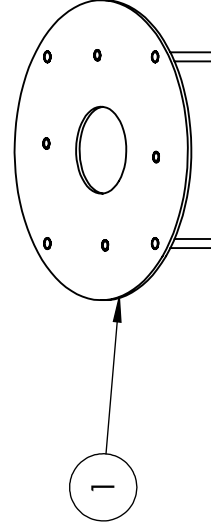


# Pacman - Marquee Assembly

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	603-00633-01	Pacman - CP Edge Glow	1
2	RGB Strip (65CM)	RGB Flexible LED Tape (65CM - 39 LEDs)	1
3	702-00052-00	Happ: Jumbo Round With Locking Lampholder (6VDC Red LED), .187 Gold MS	1
4	Mounted_Joystick_Assy	Pacman - Joystick Assembly	1



## Pacman - Control Panel Assembly



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	600-01061-01	Pacman - Joystick Mounting Plate	1
2	800-00042-01	Happ: Super Joystick 4 Way W/ 43MM Yellow Bubbly Ball	1

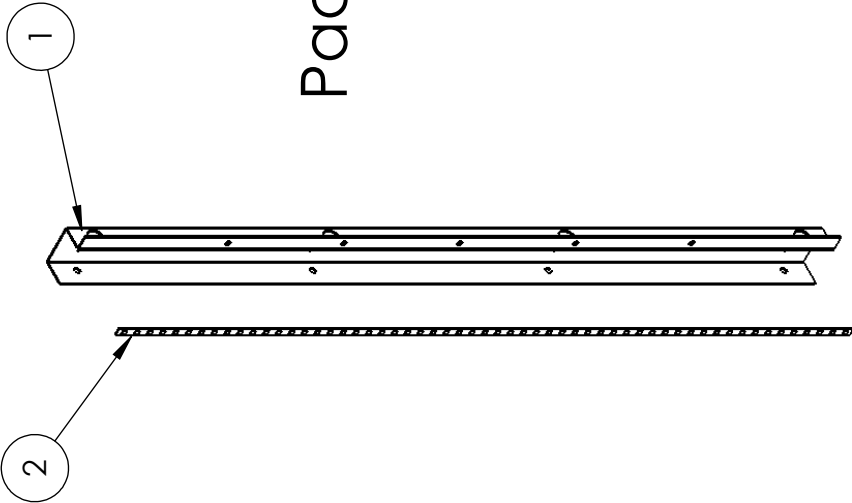


## Pacman - Joystick Assembly

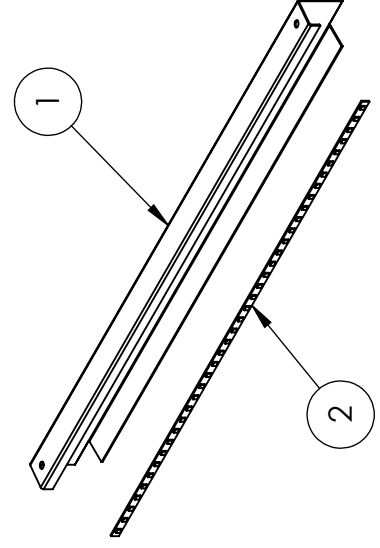
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	600-01055-01	Pacman - Monitor Mounting Bracket	1
2	RGB Strip (95CM)	RGB Flexible LED Tape (95CM - 57 LEDs)	1



## Pacman - Monitor Mounting Bracket Assembly

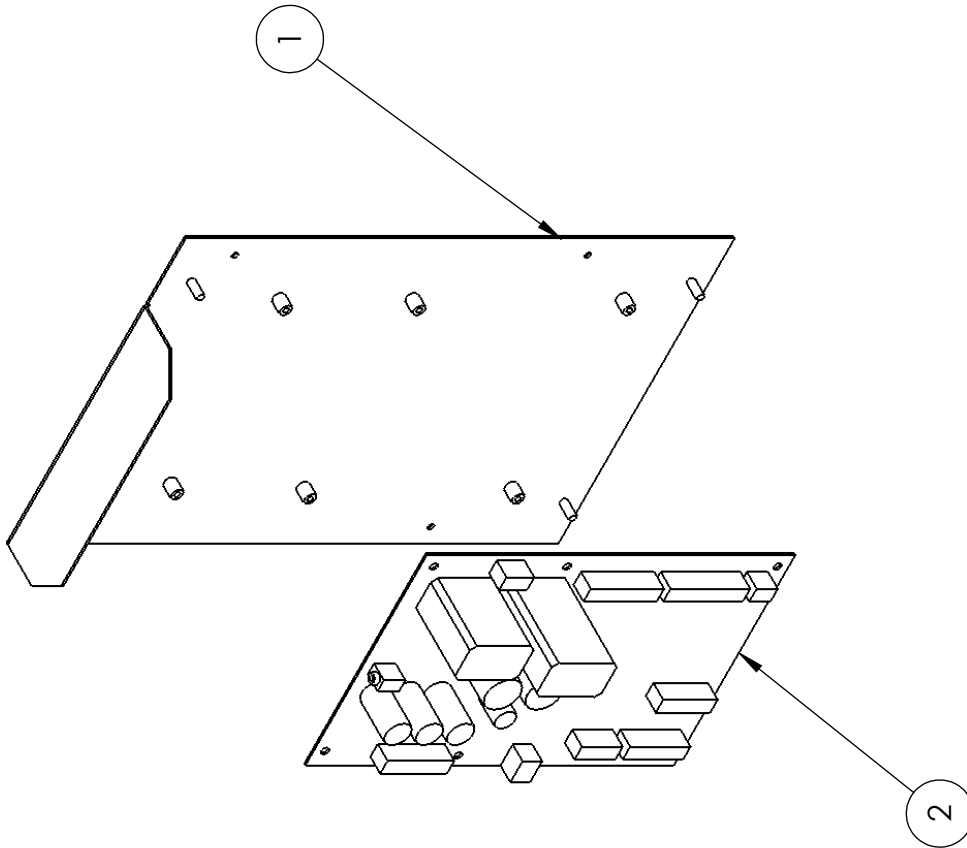


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	600-01056-01	Pacman - Above Monitor Light Bracket	1
2	RGB Strip (65CM)	RGB Flexible LED Tape (65CM - 39 LEDs)	1



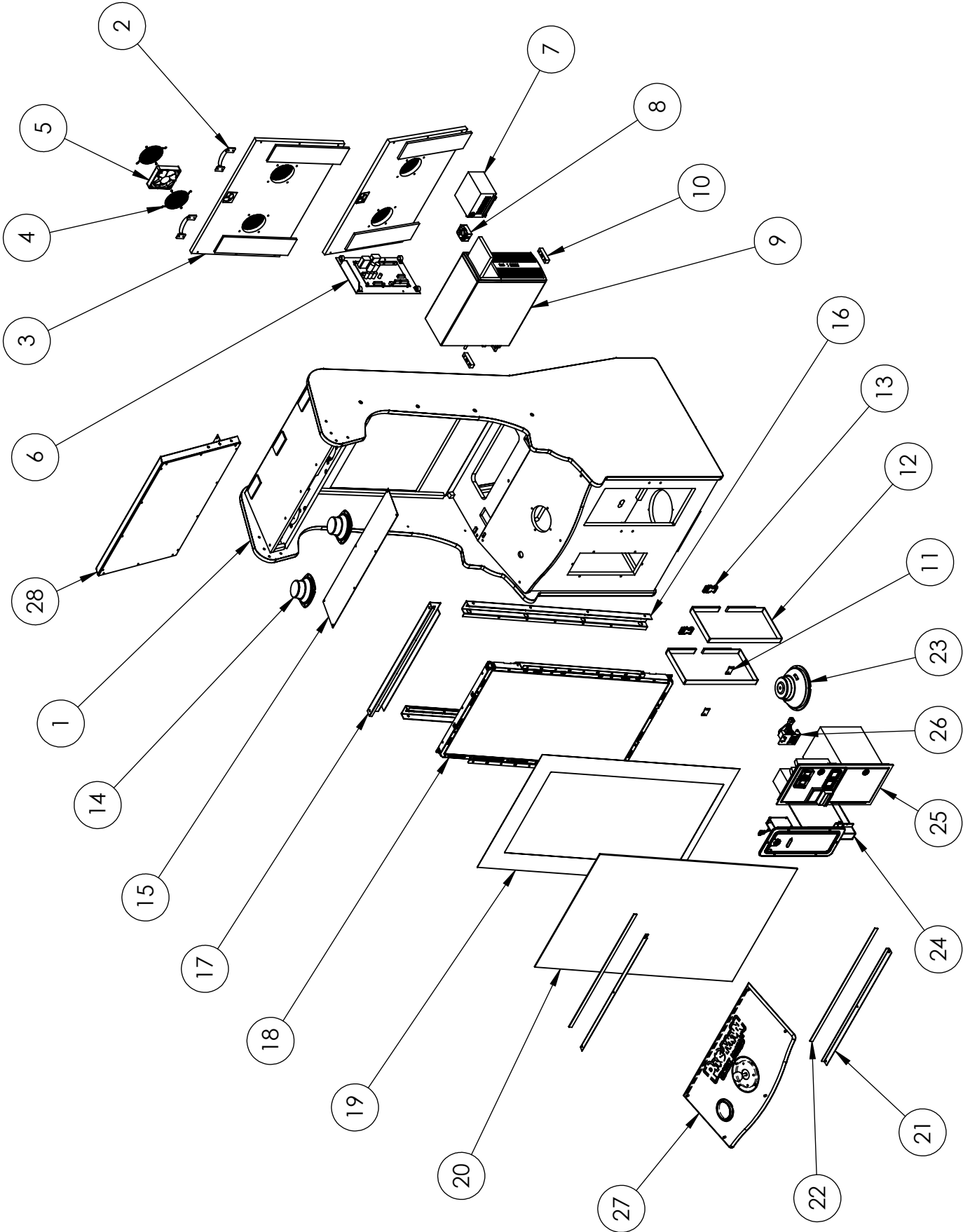
## Pacman - Above Monitor Light Assembly

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	600-00513-01	RIO-Mounting plate Chassis	1
2	500-00040-01	RIO-board	1



# RIO Assembly (with Mounting Plate)



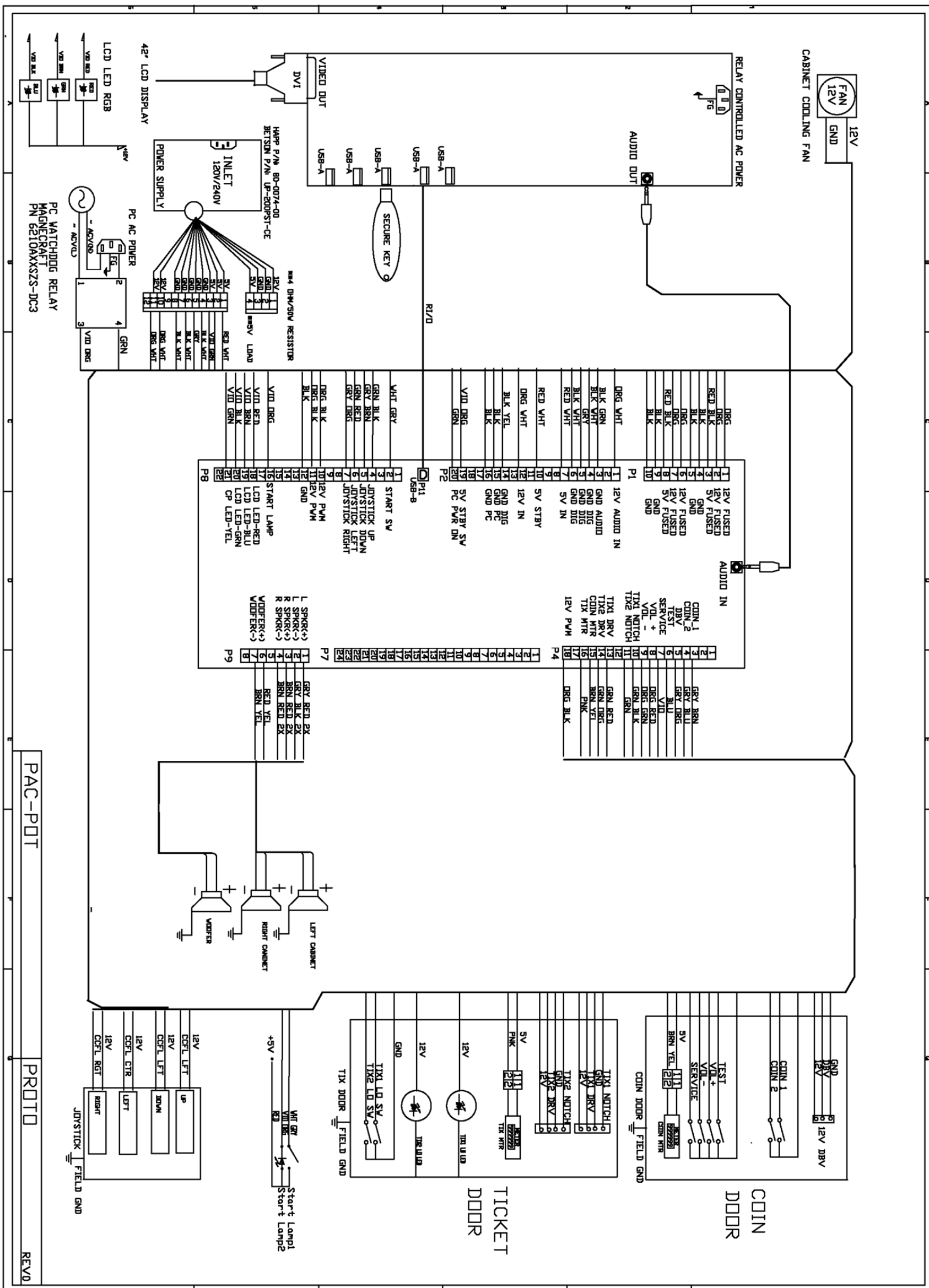


# Pacman Ticket Mania - 42" LCD (BOM on next page)

# Pacman Ticket Mania - 42" LCD: BOM

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	601-00630-01	Pacman 42" LCD Cabinet	1
2	600-01110-01	McMaster-Carr: Black Handle (1646A16)	2
3	601-00634-01	Pacman - Lower Back Door (Assembled)	2
4	800-00001-00	120mm Wire Fan Guard	2
5	820-00012-00	Cooling Fan(standard size): 12VDC, 3W, 80CFM	1
6	RIO-Hardware Assy	RIO Assembly (with Mounting Plate)	1
7	2-1-02-00-00-017	APS Power Supply (Bracket #90-AP188)	1
8	800-00040-01	Magnecraft - Solid State Relay - 6210AXXSZS-DC3 (6210DSX-1)	1
9	HP6005	(or approved equivalent PC)	1
10	601-00580-01	PC Wood Cleat	2
11	600-00891-01	Securing Nylon Strap Plate	2
12	87425K76 (56 length)	McMaster-Carr: Nylon Strap 0.075" Thick, 1" Width, Black (56" Length)	2
13	29705T86	McMaster-Carr: Plastic Buckle for Webbing NO Sew Squeeze-Release for 1" Wide Webbing	2
14	2-1-10-00-00-000	Goldwood: 5.25", 8 Ohm Full Range Speaker	2
15	600-01103-01	Pacman - Perforated Speaker Grill Cover	1
16	Monitor_Mounting_Bracket_& Light_Assy	Pacman - Monitor Mounting Bracket Assembly	2
17	Above_Monitor_Light_Bracket_Assy	Pacman - Above Monitor Light Assembly	1
18	809-00004-01	42" LCD Assembly	1
19	606-00814-01	Pacman - Monitor Frame Translite	1
20	600-01048-01	Pacman - Monitor Glass	1
21	600-01053-01	Pacman - Monitor Glass Retainer (2)	2
22	Foam_Tape_.125Tx.625wx28.4375L	Single Sided Foam Tape (1/8" Thick, 5/8" Wide, 28 7/16" Long)	2
23	2-1-18-00-00-000	Goldwood: 8" Woofer, 4 Ohm, Poly-Mica Cone	1
24	800-00043-01	Happ: Ticket Dispenser Door Assembly	1
25	800-00005-01	Happ: Mid-Width Coin Door Assembly	1
26	810-00053-01	Test Service Button Assy	1
27	PacPot_CP_Assy	Pacman - Control Panel Assembly	1
28	Pacman_Marquee_Assy	Pacman - Marquee Assembly	1

Cabinet Wiring



## PACMAN TICKET MANIA™

## Service Manual

## Troubleshooting

## Troubleshooting

**Warning:** Review safety chapter before making any adjustments to game.

Problem	Possible Cause	Solution
Game will not power up.	Game not plugged in	Plug game into AC outlet.
	Game not turned on	Turn on main power switch.
	Game fuse is blown.	Check and replace fuse.
	No power to receptacle	Test AC outlet and plug game into powered outlet.
	PC not turned on.	Turn PC power switch on. Ensure IEC cable tightly plugged in. Trace cable back to source to ensure continuity.
	PC BIOS set incorrectly.	See BIOS Settings chapter.
Scrambled or scrolling display	Sync polarity incorrect.	Change DIP switch settings for HSYNC and VSYNC.
Buttons do not work	Faulty micro switch	Replace the micro switch on the button and re-test. Verify that the wires are connected to the correct spades on the micro switch
	Faulty wiring	Disconnect the cabinet from AC power. Verify that all wires are firmly connected to each button and the PCB. Verify that no wires are frayed or improperly shorting to ground. Verify that wires are connected to the correct spades on the micro switches.
	Faulty PCB	Ensure all connections to PCB are secure. Replace PCB if faulty.
Neither buttons nor audio work	PCB connected to faulty USB port (boot message may indicate not detected)	To test a USB port, turn off the game, disconnect the device from the port, and then connect the game dongle to the port. Reboot the game. A No Dongle message indicates the port is bad. If the game starts, the port is working. After the test, reconnect all devices to the correct USB ports and reboot.
No sound or bad sound	Bad connection	Check connection to speakers.
	Volume set too low	Use VOL UP button on Test panel to raise volume

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Faulty wiring	Verify all wires are firmly connected to the speakers, PCB, and green computer audio port. Verify that each wire is connected to the correct port and no wires are frayed or improperly shorting to ground.
Blown speakers	Remove the grill and inspect each speaker for visible damage. Run the Sound Test from System Tests in the Operator Menu to verify each speaker is working.
Reversed wires	A weak or low muffled sound is a sign of reversed speaker wires. Check for reversed wires on each speaker.
Faulty PCB	To verify audio is working at the computer, connect stereo headphones to the green computer audio port.

Constant low audio hum	Faulty power supply	Check external DC supply and the PC supply.
	Open ground	Check all ground wires in cabinet. Ensure AC wall outlet is properly grounded

LCD display flicker or fail to light.	Bad connection	Check for snug connection at inverter or under topper bracket.
	Loose end caps	Tighten end caps.

Game does not load.	Hard drive failure	Recover hard drive.  See Hard Drive Recovery procedure in Maintenance section.
Hard drive test reports "bad" or "missing" files.		
Game fails to finish loading.		
After resetting, game still reports an error.		
Game suggests inserting a boot DVD.		
Erratic game mode or attract mode.		
<p style="text-align: center;">WARNING! Data Files Corrupted. (Game Operation May Become Unstable.) Use "Test" Switch to Enter Test Mode and Run "File Test." Press Start To Continue.</p>		
<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
Game resets.	Bad file.	Run File Test. Restore hard drive.

## Service Manual

## Troubleshooting

Coin meter does not click during Test.	No pulse to meter	Check wiring from meter to RIO board
	Faulty meter	Replace coin meter
Improper number of credits given when coins or bills are inserted	Incorrect setting in Adjustments	Adjust settings
	Faulty wiring	Disconnect cabinet from AC power. Verify wires are firmly connected to coin mech and bill validator and ground wires are properly connected. Verify no wires are frayed or shorting to ground.
	Faulty coin mech	Verify coin mech is not jammed. Ensure coin mech is properly aligned and latched to coin door.
Coin meter does not work	Blown fuse(s) on PCB	Replace 5A fuse(s) on PCB
Exits Test Mode every 3 seconds	Test button stuck in ON position	Slide or toggle button off after Test Menu appears
<i>NO VIDEO</i> message	Video cables not plugged in properly	Reattach and tighten power and video cable to monitor.
<i>No Signal</i>	Video or power cable not secure	Check and secure cable.
	PC not turned on	Turn PC power switch on. Ensure IEC cable tightly plugged in. Trace cable back to source to ensure continuity.
<i>Dongle Not Present</i>	Dongle missing or disconnected	Find dongle cable and reseal in USB port
	Faulty USB port	Insert dongle cable in different USB port
<i>Connect RIO Board or RIO Board Missing</i>	USB cable disconnected	Check USB connection from PC to RIO board
	No power to RIO board	Check for proper voltage (+5V, +12V) at JAMMA connector
<i>Watchdog Disabled or Watchdog Failed</i>	Watchdog defeated by JAMMA I/O DIP switch	Set DIP switch 8 to OFF
	No power to Reset PCB	Connect power to Reset PCB
	Reset input to motherboard disconnected	Connect 2-pin reset connector from Reset PCB to motherboard reset pin input
	Violet or black wire from Reset PCB disconnected or faulty	Check reset wire connection to JAMMA connector.

# PACMAN TICKET MANIA™