



CHAPTER



Troubleshooting



NOTICE: Information in this manual may change without notice. Midway Amusement Games, LLC reserves the right to make improvements in equipment function, design, or components as progress in engineering or manufacturing methods may warrant.

Game Will Not Start

Symptom	Problem	Suggested Solution
<ul style="list-style-type: none"> Machine appears non-functional No audio No Illumination No video display 	Lack of electricity	<ol style="list-style-type: none"> 1. Check that Power Switch has been turned on 2. Verify that line cord is plugged fully into receptacle and into power supply. 3. Try another power outlet.
	Wrong voltage	<ol style="list-style-type: none"> 1. Ensure power supply line voltage switch matches local line voltage. 2. Using voltage meter, correctly adjust +5V output on power supply using adjustment knob.
	Open fuse	<ol style="list-style-type: none"> 1. Turn off AC power. Examine AC fuse on power chassis. 2. Examine DC fuses on cabinet wall or electronic equipment shelf. 3. Replace faulty fuses with identically rated parts. 4. Turn on AC power. If fuse opens again, check DC wiring harness and connectors.
	Faulty line cord	<ol style="list-style-type: none"> 1. Test line cord, power plug, and IEC connector for breaks or damage. Replace if necessary. 2. Verify continuity of each wire in cord.
	Poor connection	<ol style="list-style-type: none"> 1. Ensure cabinet wiring harness connectors are fully seated in corresponding power supply and board connectors. 2. Inspect wiring for breaks or damage.
<ul style="list-style-type: none"> Machine appears non-functional. Currency acceptor price indicator is illuminated 	CPU Board Assembly not operational	<ol style="list-style-type: none"> 1. Inspect board assemblies under low light level conditions. A glow will be seen from the Light Emitting Diodes if there is voltage in the processor circuits. This does not mean that voltages or signals are as they should be, but it indicates that boards are receiving some DC power from power supply. The power supply fan should also be operating. 2. Turn AC power off. Inspect board assemblies. Ensure JAMMA wire harness connector is attached and fully seated onto mating board connector. Check other wiring harness connectors in same way. 3. Verify game switches and jumpers are set correctly. Refer to Board Configuration Chart for variables and default settings.
	Power supply out of voltage tolerance.	<ol style="list-style-type: none"> 1. Turn AC power on. Using 20V DC setting on digital voltmeter, measure voltages at power connector pins. Adjust +5V source if necessary. Refer to Cabinet Wiring Diagram for specific wiring information and voltage limits. 2. Using 2V AC setting on digital voltmeter, measure same DC voltages as above. A reading indicates that supply voltages are unstable and may contain ripple or noise.

Game Cannot Be Played

Symptom	Problem	Suggested Solution
<ul style="list-style-type: none"> • Game does not accept currency or tokens. • Game does not start. • Audio present • Video present 	Blocked coin path.	<ol style="list-style-type: none"> 1. Unlock and open cash door. Empty cash box and inspect revenue for counterfeit currency. 2. Remove items that block path from coin mechanism. 3. Ensure proper mounting of each mechanism. Clear currency path. Reinstall and latch mechanism.
	Poor leveling	Verify mechanisms are level when doors are closed. Repair or replace bent or damaged coin door. Adjust cabinet leg levelers to keep mechanisms vertical.
	Incorrect software setting	<ol style="list-style-type: none"> 1. Enter Menu System by pressing TEST MODE button. From GAME AJUSTMENTS menu, choose COIN OPTIONS. Confirm pricing and setup of each mechanism. 2. Choose DIAGNOSTIC TESTS and SWITCH TESTS to check operation of each coin or bill mechanism.
<ul style="list-style-type: none"> • Game accepts currency or tokens. • Game does not start. • Audio present • Video present. 		<ol style="list-style-type: none"> 1. Ensure proper mounting of each mechanism. Verify each release latch is closed and locked. Test acceptance and rejection functions with known good and bad coins. 2. Ensure no loose parts or wires are caught in hinges, latches, or switch contacts. 3. Inspect illumination of external coin door indicators (i.e., pricing, flashing arrows). Check wiring continuity of connectors and cables from CPU Board to coin mechs. 4. Enter Menu System by pressing TEST MODE button. From GAME AJUSTMENTS menu, choose COIN OPTIONS. Confirm pricing and setup of each mechanism. 5. Check for continuity in each suspect switch connection (Common to Normally Open or Common to Normally Closed) Replace faulty switches (bent levers, broken actuators, etc.) 6. Place coin mechs in known good unit to verify operation.
<ul style="list-style-type: none"> • Bill validator fails after field installation. • Coin mechanisms operate properly. 		<ol style="list-style-type: none"> 1. Enter Menu System by pressing TEST MODE button. From GAME AJUSTMENTS menu, choose COIN OPTIONS. Confirm pricing and setup of each mechanism. Check validator switch settings against manufacturer's instructions. 2. Check illumination of external coin door indicators (i.e., pricing, flashing arrows). Free parts or wires caught in hinges, latches, or switch contacts. Verify seating of harness connectors. Check validator cable continuity. 3. Place bill validator in known good unit to verify operation.
<ul style="list-style-type: none"> • Coin indicators do not light. • Game operates normally. 	Bad fuse.	Check coin light fuse and wiring harness. Replace bad fuse.

Audio Problems

Symptom	Problem	Suggested Solution
<ul style="list-style-type: none"> • Audio non-functional. • Video present. • Game operates normally. 	Volume set too low	<ol style="list-style-type: none"> 1. Press TEST switch to enter Menu System. From Main Menu choose VOLUME ADJUSTMENTS. Then choose ADJUST VOLUME. Verify that attract and game volume levels are not set to zero. Change to appropriate levels. 2. Return to Main Menu and choose DIAGNOSTIC TESTS. Then choose SOUND TEST. Verify operation of each speaker.
	Faulty hardware	Turn off AC power. Remove grills and inspect speakers. Ensure no loose parts or wires are caught in speaker cones, terminals, mounting screws, or stuck to magnets.
	Poor voltage	<ol style="list-style-type: none"> 1. Turn AC power on. Using 20 V DC setting on digital voltmeter, measure voltages at power connector pins. Verify +5V, -5V, and +12V sources. Refer to Cabinet Wiring Diagram for specific wiring information and voltage limits. 2. Using 2 volt AC setting on digital voltmeter, measure voltages at speaker terminals. Any reading here indicates supply voltages are unstable and may contain ripple or noise. 3. Place speaker in good machine to verify operation.
<ul style="list-style-type: none"> • Audio muffled, distorted, or missing frequencies. • Constant, low hum. 	Faulty speaker	<ol style="list-style-type: none"> 1. Press TEST MODE switch to enter Menu System. From Main Menu select DIAGNOSTIC TESTS and choose SYSTEM TEST. This verifies some audio functions. 2. Using 2 volt AC setting on digital voltmeter, measure voltages at speaker terminals. Any reading here indicates supply voltages are unstable and may contain ripple or noise. 3. Place speaker in good machine to verify operation.
	Wrong speaker	Turn AC power off. Remove grills and inspect speakers. Ensure each coaxial speaker is full range (100 to 10,000 Hz response) and rated for at least 10 watts.
	Faulty wiring	<ol style="list-style-type: none"> 1. Check cabinet wiring is correct for game. 2. Verify all cabinet wiring provides separate wires (not a common return) for each speaker. 3. Ensure all ground wires are connected. Refer to Cabinet Wiring Diagram for specific wiring information.
<ul style="list-style-type: none"> • Weak, low frequencies. • Thin or hollow sound quality 	Incorrectly phased speakers	Inspect speaker wiring and reverse back to correct position. See Cabinet Wiring Diagram.
<ul style="list-style-type: none"> • Monaural audio 	Faulty wiring	Verify cabinet wiring is correct. Check for shorted wires. Refer to Cabinet Wiring Diagram.

Video Problems



WARNING: Do not operate monitor without Remote Adjustment Board.

Symptom	Problem	Suggested Solution
<ul style="list-style-type: none"> • Monitor appears non-functional. • Audio present • Controls operate normally. 	Poor signal	<ol style="list-style-type: none"> 1. Verify AC power is connected to video monitor. 2. Inspect neck of CRT under low light level conditions. If there is voltage in filament circuits, you will see a glow near the CRT base. This indicates monitor circuits are receiving power, not that voltages or signals are proper. 3. Turn AC power off. Verify video signal and remote adjustment board connectors are fully seated on video monitor board assembly. Check other monitor connections in the same way. 4. Examine AC line fuse on video monitor. If faulty, replace with fuse of proper voltage and current rating. 5. Ensure no loose parts or wires are caught on chassis or mounting brackets.
	Bad settings	Ensure brightness and contrast are not at minimum levels.
<ul style="list-style-type: none"> • Power-up self test runs. • Game does not appear. • No audio. 	Error message	Record error messages. Enter Menu System. From DIAGNOSTIC TESTS, select SYSTEM TEST. These tests verify CPU Board functions
	Poor voltage	<ol style="list-style-type: none"> 1. Turn AC power on. Use 20V DC setting on digital voltmeter to measure voltages at power connector pins. Verify +5V source. 2. Using 2V AC setting on digital voltmeter, measure same DC voltages as above. A reading indicates that supply voltages are unstable and may contain ripple or noise. 3. Compare LED states with indicator charts.
<ul style="list-style-type: none"> • Monitor fails to lock onto signal and provide stable picture. • Colors missing, etc. 	Poor sync	<ol style="list-style-type: none"> 1. Check connectors and cables for wiring continuity from CPU Board Assembly to monitor. 2. Verify jumpers are set correctly for monitor. 3. Ensure monitor is correct for game. Incorrect resolution results in horizontal tearing or complete loss of sync. 4. Place monitor in working machine to verify operation.
<ul style="list-style-type: none"> • Game operates normally. • Picture wavers or rolls, has dark bars, uneven colors, etc. 	Faulty wiring	<ol style="list-style-type: none"> 1. Check connectors and cables for wiring continuity from CPU Board Assembly to monitor. 2. Ensure all cabinet ground wires are connected, especially at monitor chassis. 3. Place monitor in good machine to verify operation.
	Interference from other equipment	Move cabinet away from machines, appliances, other games, etc. Very strong electrical or magnetic fields are emitted from some equipment when operating normally.

Miscellaneous

Symptom	Problem	Suggested Solution
<ul style="list-style-type: none"> Game is not recognized in network 		<ol style="list-style-type: none"> Open rear doors. Ensure network cables are plugged in tightly.
<ul style="list-style-type: none"> Indicator lamps intermittent or non-functional. Game starts and plays normally. 		<ol style="list-style-type: none"> Remove Light Box from header. Remove fluorescent tube from holders. Install new lamp if cracks or darkened ends are found. Clean tube. Verify that lamp and starter pins make good connection with socket contacts. Measure Fluorescent Lamp Assembly AC voltages. Check wiring and connector continuity from Power Supply connector to lamp assembly. Ensure Fluorescent Lamp Ballast is rated for local AC line voltage and frequency. Check for continuity of both fluorescent lamp filaments, starter, and ballast. One at a time, verify that lamp, starter, and ballast operate by placing each in a known good unit. Examine DC fuse on Electronics Assembly shelf. If any fuse is faulty, replace with identical fuse from spare parts bag. Replace spare fuse when repairs are complete.
<ul style="list-style-type: none"> Game operates normally. Fan noisy. 		<ol style="list-style-type: none"> Check bottom and rear of cabinet for blocked air flow. Move game away from heat sources. Turn AC power off. Remove dust from vent holes with high power vacuum cleaner. Unlock and remove rear door. Ensure fan is connected to wiring harness.
<ul style="list-style-type: none"> Game resets randomly. 		<ol style="list-style-type: none"> Check fan assemblies on CPU Board Assembly. Ensure fans are connected to power sources. Check cabinet and Electronics Assembly ventilation holes for obstructions. Clear obstructions and allow ventilation holes access to fresh air.
<ul style="list-style-type: none"> Error messages appear. Game does not start. No audio. 		<ol style="list-style-type: none"> Check any assembly identified in error message. Call your authorized distributor for help with unresolved screen messages.