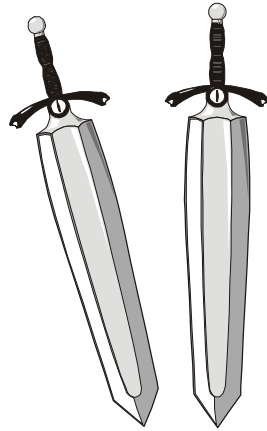


# GAUNTLET DARK LEGACY

## CHAPTER



## Service



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

Only qualified service personnel should perform maintenance and repairs. Product guidelines apply to all game operators and service personnel. Specific notes, cautions, and warnings abound throughout this manual where applicable. Read the safety pages before beginning service.

This video game machine uses complex electronic components that are very sensitive to static electricity. Observe and follow these precautions prior to handling the game electronics:

- Ensure AC power is turned off prior to servicing electronics.
- Discharge any static electricity build up in your body by first touching the metal power supply chassis. Do this *before* touching or handling the electronic assemblies.
- Store electronic assemblies in an anti-static area. Use anti-static bags to store or transport hard disk drive, CPU Board Assembly, and all other electronics.
- *Do not* remove or connect electronics with AC power on, as this will damage them and void the warranty.
- Always replace ground wires, shields, covers, etc., when maintenance or service is completed.

## Marquee

Remove tamper-resistant screws and washers at either side of cabinet. Lower marquee lightbox assembly backwards to a horizontal position. From rear of machine, remove three hex-head sheet metal screws holding marquee retaining strip to cabinet while holding strip in place. Restrain glass when removing strip to avoid breakage. Remove strip and set aside. Lift marquee glass, plastic channel, and artwork out of groove and set in safe place. Do not cross-thread screws during re-installation.



**WARNING.** Marquee glass can fall from the cabinet and break when retaining strip is removed. Hold glass in place until it can be safely removed.

## Fluorescent Lamp and Starter

Lower marquee as described above. Remove retaining strip, glass, and artwork. Turn tube a quarter turn and pull from sockets. Starter also requires quarter turn for removal or installation. Carefully place new tube into socket and rotate quarter turn to reinstall. Clean tube to remove fingerprints and dust.



**WARNING.** A dropped fluorescent tube will implode when broken and can shatter glass dangerously. Use care in handling.

## Fluorescent Light Assembly

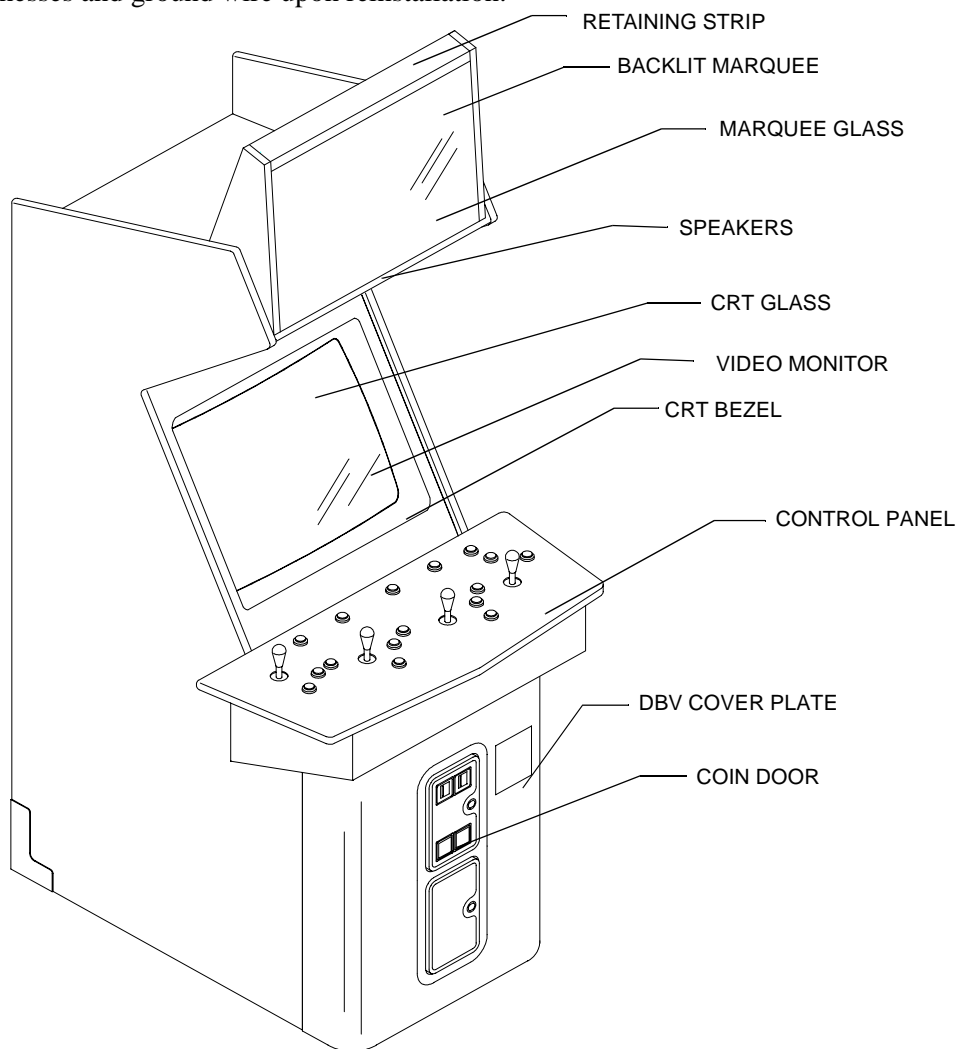
Lower marquee as described above. Remove retaining strip, glass, and artwork. Disconnect power cable from fluorescent light assembly. Loosen but do not remove fasteners holding assembly to cabinet. Remove ground wire. Slide assembly slightly forward to disengage screws from keyholes. Lift out assembly.

## Control Panel Switches

Unlock and open coin door. Reach through door and remove wing nuts. Release toggle latches. Open control panel. Label and disconnect wires. Separate switch from its button housing. Bend large prong away from switch just enough to slide switch off housing. Unscrew switch mounting nut and pull entire button assembly out toward front of control panel.

## Coin Counter



Unlock and open coin and cash doors. Meter is in a lower corner of door opening. Record meter count before testing or replacing. Disconnect wiring harnesses and ground wires to coin mechanisms. Reach through coin door and locate meter wires. Disconnect wiring at connector. Remove coin door mounting screws. Remove coin door assembly from cabinet and set it on a work surface. Remove meter mounting screws from front. Ensure replacement unit has a diode across the terminals. Remember to reconnect wiring harnesses and ground wire upon reinstallation.



**FRONT VIEW OF CABINET**

## Monitor Bezel


Unlock and open coin door. Reach through door and remove attachment bolt wing nuts. Release toggle latches. Open control panel. Push viewing glass up just enough to swing it out of the cabinet and then pull it out and down to remove it. Grasp monitor bezel at bottom and lift it out of groove.

	<p><b>WARNING.</b> the video monitor is heavy, with most of its weight toward the front of the assembly. Firmly support it when removing from cabinet.</p>
	<p><b>CAUTION.</b> The monitor does not require isolation from AC line voltage during normal operation. However, when operating outside cabinet or servicing on a test bench, isolate monitor from line voltage with an isolation transformer.</p>

## Monitor

Unlock and remove rear door. Disconnect monitor from wiring harness and ground wires. Unlock and open coin door. Reach through door and remove attachment bolt wing nuts. Release toggle latches. Open control panel. Remove viewing glass and monitor bezel. Remove four ¼-20 flange nuts securing monitor mounting flanges to mounting panel. Pull monitor carefully from cabinet and set aside.


To install a different monitor, remove three 3/8-16 hex bolts from bracket at bottom of monitor. Install bracket and bolts onto bottom of new monitor. Slide bottom of monitor into cabinet and tilt it up from the top. Replace flange nuts at top of monitor, and screws on outside of cabinet.

	<p><b>WARNING.</b> There is an AC power distribution block behind the power supply. Do not touch AC terminals when power supply is switched on. Disconnect AC power before working near power supply.</p>
---	---

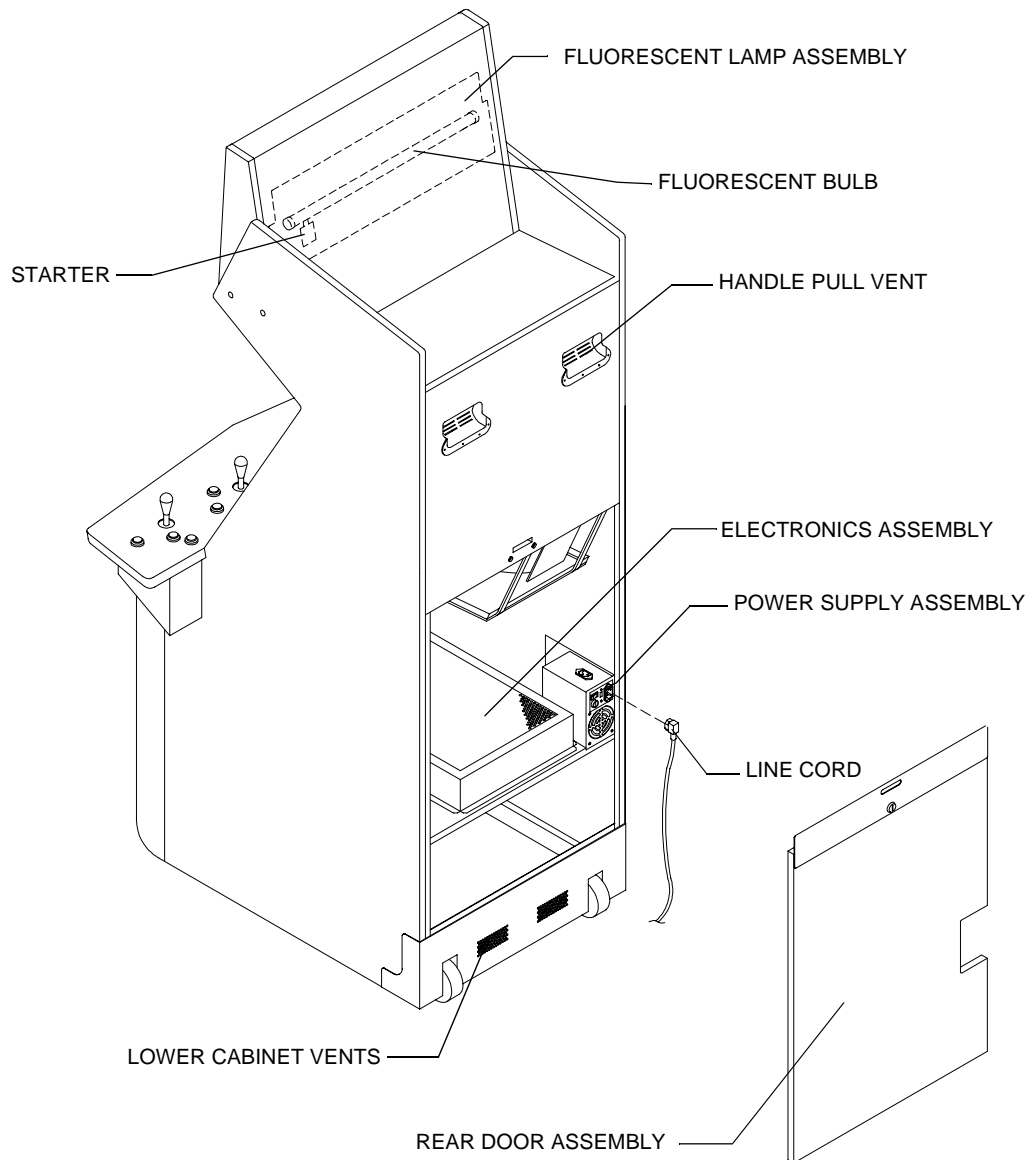
## Power Supply

Switch off AC power. Remove screws, then unlock and remove rear door. Unplug the IEC AC connector from rear and DC connector from top of supply. Remove two top and two bottom screws holding supply to power chassis, then lift off chassis. Note voltage setting.

To reinstall supply, remove voltage switch cover if necessary and set voltage to correct value. Set supply on chassis and align mounting holes. Install four screws and two power connectors.

	<p><b>CAUTION.</b> Discharge any static electricity buildup in your body by touching the power supply chassis before touching or handling electronics assemblies.</p>
---	---

## REAR VIEW OF CABINET (30046)



## CPU Board Assembly

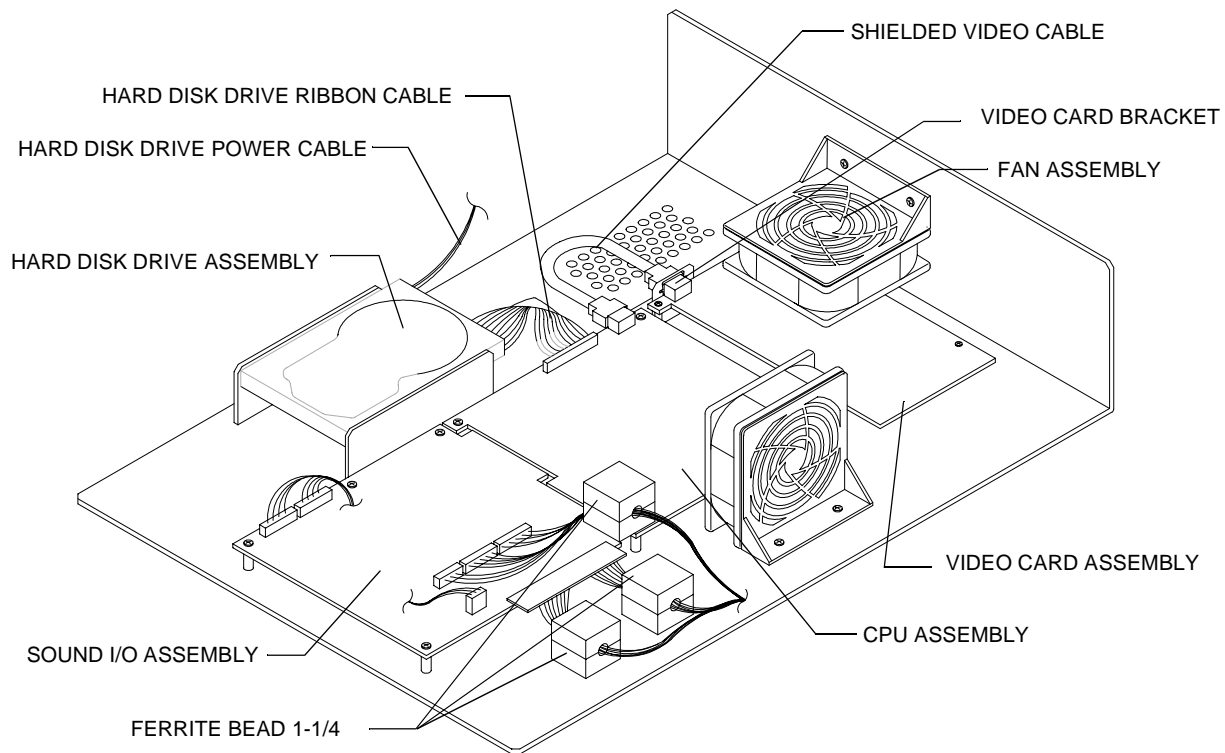
Switch off AC power. Open rear door. Remove metal electronics cover. Carefully note orientation of JAMMA connector and other cables. Extract harnesses and hard disk drive ribbon cable from board connectors. Remove groundplane mounting screws and security lock. Slide entire electronics assembly toward rear of cabinet and lift to remove it. Set electronics assembly in a static-free place. Disconnect VGA connector. Remove security mounting bolts and screws connecting circuit boards to groundplane. Carefully remove Sound I/O Board, pulling gently to disconnect PCI edge connector from CPU Board. Set Sound I/O board in a static-free place. Carefully remove CPU Board, pulling gently to disconnect it from Video Card. Use anti-static bags and protective containers from new parts to store board if it is not reinstalled.

## Hard Disk Drive



**CAUTION.** Hard disk drives are fragile. Never move a game with AC power on. Never stack or drop hard disk drives.

Switch off AC power. Unlock and remove cabinet door. Remove electronics cover. Disconnect DC power cable from hard disk drive. Unplug ribbon cable from hard drive and leave it attached to CPU board. Carefully remove screws and lift drive assembly out of cabinet. Store drives in anti-static bags or approved shipping containers.



### ELECTRONICS ASSEMBLY

## Sound I/O Assembly

Switch off AC power. Open rear door. Remove electronics cover. Carefully note orientation of JAMMA connector and other cables. Extract harnesses and hard disk drive ribbon cable from board connectors. Remove groundplane mounting screws and security lock. Slide entire electronics assembly toward rear of cabinet and lift to remove it. Set assembly in static-free place. Remove security mounting bolts and screws connecting circuit board to groundplane. Carefully remove Sound I/O Board, pulling gently to disconnect PCI edge connector from CPU Board. Use anti-static bags and protective containers from new parts to store board if it is not reinstalled.

## Video Card

Switch off AC power. Remove rear door. Remove Electronics Assembly cover. Disconnect VGA connector. Remove screws holding the Video Card to groundplane. Carefully slide Video Card away from CPU Board, disconnecting PCI edge connector. Use anti-static bags and protective containers from new parts to store the board if it is not reinstalled.

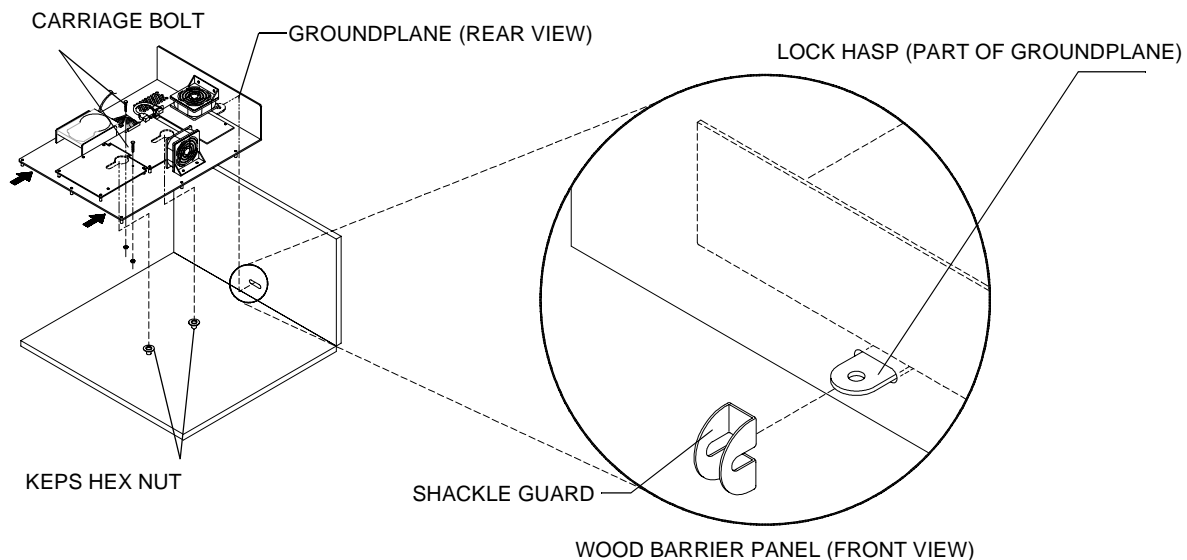
## Battery

Switch off AC power. Remove rear door. Remove Electronics Assembly cover. Hold battery edges and pull up firmly to remove. When installing new battery, note position of keyhole in socket. Replace only with same or equivalent type recommended by manufacturer. Dispose of used batteries according to instructions on battery package.

## Memory

The ROM (Read Only Memory) circuits contain game operating instructions. Switch off AC power. Carefully note position, then remove using a chip extraction tool.

To reinstall, orient chip over its socket and press firmly to seat pins. Do not force.



## Game Electronics Security

The shackle guard shipped with cabinet is intended for use on rear door. An additional guard may be used to safeguard game electronics.

## Memory Replacement

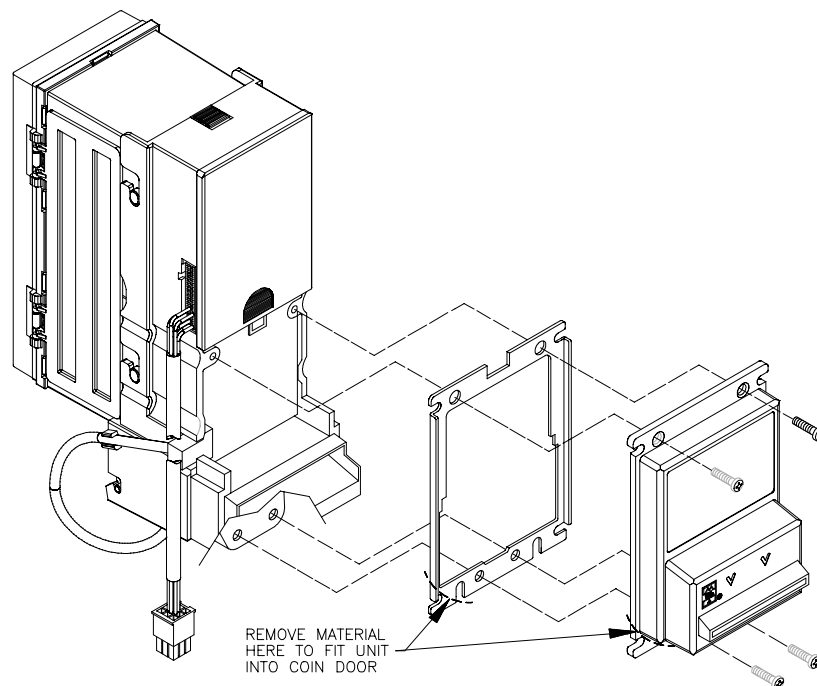
The ROM (Read Only Memory) circuits contain game operating instructions. Memory devices are especially sensitive to static charges. Use grounding precautions when handling these parts.

Switch off AC power. Unlock and remove rear door. Remove electronics cover. Carefully note each IC position, then remove them using a chip extraction tool. To reinstall memory circuits, orient chip over socket and press firmly to seat pins. Do not force.

## Dollar Bill Validator

(Use MARS AE2411-U3 U.L. Recognized currency changer) Install dollar bill validators or other currency acceptors with the additional wiring connector. Switch off AC power and unplug line cord. Unlock and open coin door. Read door label for additional information. Disassemble validator and remove material to fit it inside coin door as illustrated, then reassemble unit.

Remove nuts, spacers, and cover plate from door. Change switch settings or make adjustments before mounting the unit. If the manufacturer has supplied an adapter plate, place it over the door cutout at this time. Install spacers on threaded studs, then align the validator mounting holes with the studs and seat the unit in the door opening. Install the nuts and tighten firmly. Attach the ground wire (green with yellow stripe) lug to the door ground stud next to the hinge. Mate the wiring harnesses and press to fully seat connectors. Route wires away from door edges and hinge. Inspect for proper bill chute alignment. Plug in the line cord and turn on the game. Change the mechanism setup and pricing, then test known good and bad bills to verify proper operation. Close and lock the coin door when correct. Reverse these steps to remove a validator for service or replacement.



**DOLLAR BILL VALIDATOR**