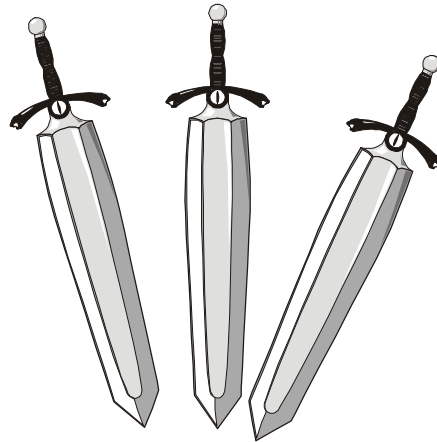# GAUNTLET DARK Legacy

CHAPTER

System

	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.

STARTING UP

Each time the game is first turned on or power is restored, it begins executing code out of the boot ROM. These self-diagnostic tests automatically verify and report condition of the hardware and the disk drive. The screen is blank during these tests. If any of the individual tests fails, then an error message will be displayed for each test. The message will be displayed for 30 seconds or until any button is pressed.

- If no buttons are pressed, the system will quickly complete all tests then load and run the game.
- Press and hold the TEST button inside the coin door to skip the boot ROM tests and activate the Menu System.

Once all Power-up tests have been passed, the game goes into Attract Mode. Scenes and sounds from a typical game are alternated with previous high scores in an endless pattern until game play starts.

Insert currency to start game. Play begins after a mission is chosen. The game progresses until time runs out. If no more play is required, the game automatically returns to the "attract mode".

GAME RULES

Play instructions are on information panel between speakers. Up to four players at a time can explore a world, facing hordes of monsters, searching for treasure, avoiding traps, finding and using magic, and adventuring their way to the exits.

Players choose from eight characters (and, later, eight alternate characters) to face the hordes of monsters that have overrun the land of Gauntlet. With more than 100 unique monsters and 10 intimidating boss characters, players have their hands full, defeating each of the eight world bosses and collecting keys before meeting the demon Skorne. Following Skorne's defeat, players must defeat him yet again in an underworld level, after which they face the evil overlord Garm. Numerous power-up enhancements are scattered throughout the land to help players get to the finish.

Players can save their character with player IDs. One password saves all eight different characters. During game variable selection, players simply enter their initials and their own 3-letter player ID that they choose. The characters, with their experience levels and current ratings for strength, speed, toughness, and magic are automatically saved along with any Rune Stones players find.

To access the alternate characters, players first build characters to level 10. Depending upon which character they have played, they then can choose to play as the Minotaur (Warrior), Falconess (Valkyrie), Jackal (Wizard), Tigress (Archer), Hyena (Jester), Ogre (Dwarf), Medussa (Sorceress), and Unicorn (Knight).

To defeat Garm, players must find all 13 Rune Stones and defeat Skorne twice. Three Stones are hidden in each world. Upon finding a Stone, a character is saved permanently with a password.

There are over 35 unique special weapons found throughout the game that will help players in their quest. These power-ups are found in chests and barrels, in nooks and crannies, and even in plain view and can be bought with gold in the Shop.

INDIVIDUAL AND MULTIPLE PLAY

   Insert currency to start game. Select a joystick/button combination and press START. Select a password, character, and journey. In multi-player games the first to select a journey determines everyone's path. On-screen life counters decrease as characters are wounded until they reach zero, at which point the player must deposit more coins to continue. You can continue playing after others drop out. When coins are inserted, the character joins in the middle of the action.
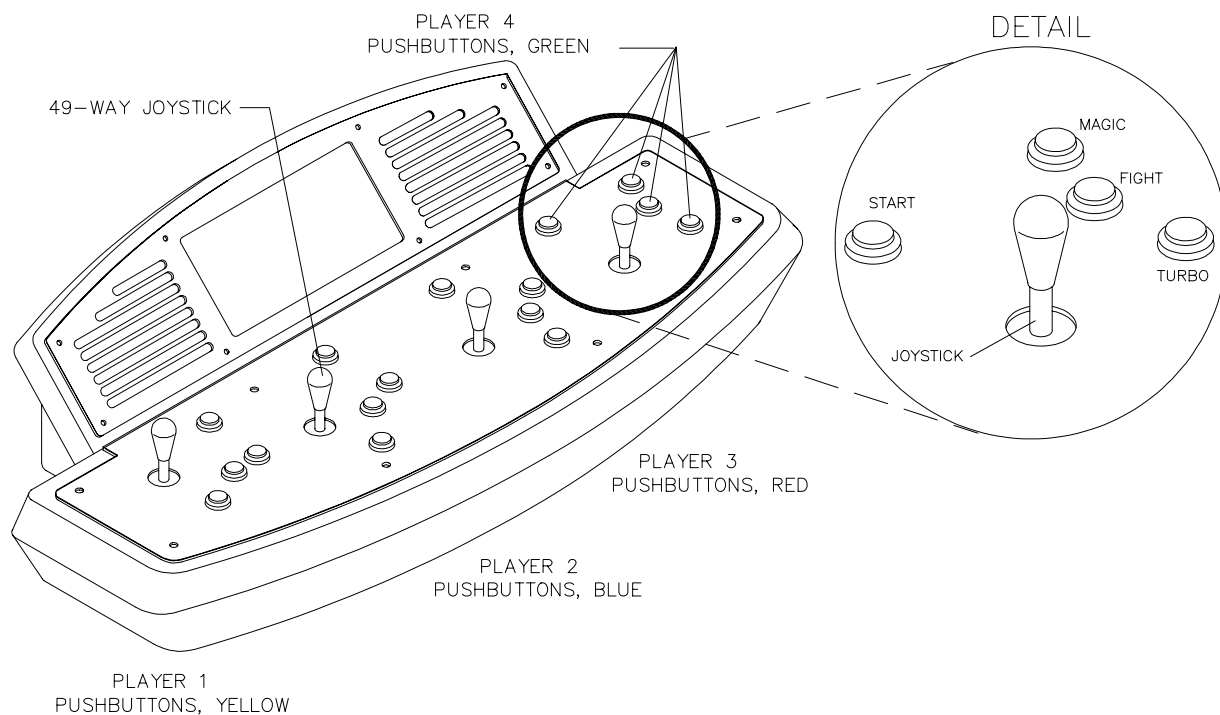
PLAYER CONTROLS

   START buttons let players begin or continue play and also select items from the service menu.

   FIGHT/MAGIC/TURBO Buttons attach enemies. Players access special turbo movies by pressing TURBO and FIGHT at the same time when their "fight bar" has been charged up.

   Magic is used by pressing TURBO + MAGIC and FIGHT + MAGIC during game play.

   Between levels, players redeem accumulated gold for valuable power-ups and things that will enhance their characters like strength, toughness, speed, and magic.

   JOYSTICKS advance a character along a journey and select items from service menu.

PLAYER CONTROL LOCATIONS

OPERATOR CONTROLS

Operators have lock-and-key access to the menu system for statistics, adjustments, and testing to prevent tampering. On-screen messages guide the operator through menu options.

Cabinet Switches

The Power Switch (located on the power supply at the rear of the cabinet) turns off the game during service. It does not reset the game variables.

Monitor Remote Adjustments

The Monitor Remote Adjustment Board (located just behind the coin door) sets the video display for optimum viewing.

Control Switches

Volume Down and Volume Up Buttons (mounted on a bracket behind the coin door) increase or decrease game sound levels.

NOTE Attract Mode volume is set as a percentage of Game Mode volume. When volume up/down buttons are pressed during Attract mode the volume is temporary set to game volume.

For greater profits, adjust volume levels to a loud setting to draw attention to this game.

Test Mode Button The Test Mode push-button switch enters the menu system. Press the Test Mode button briefly to run automatic tests. To make changes, press and hold Test until the system menu is displayed.

Service Credit Button: this button allots credits without changing the game's bookkeeping total.

These buttons may also be used instead of the control panel buttons and joystick when operating the menu system.
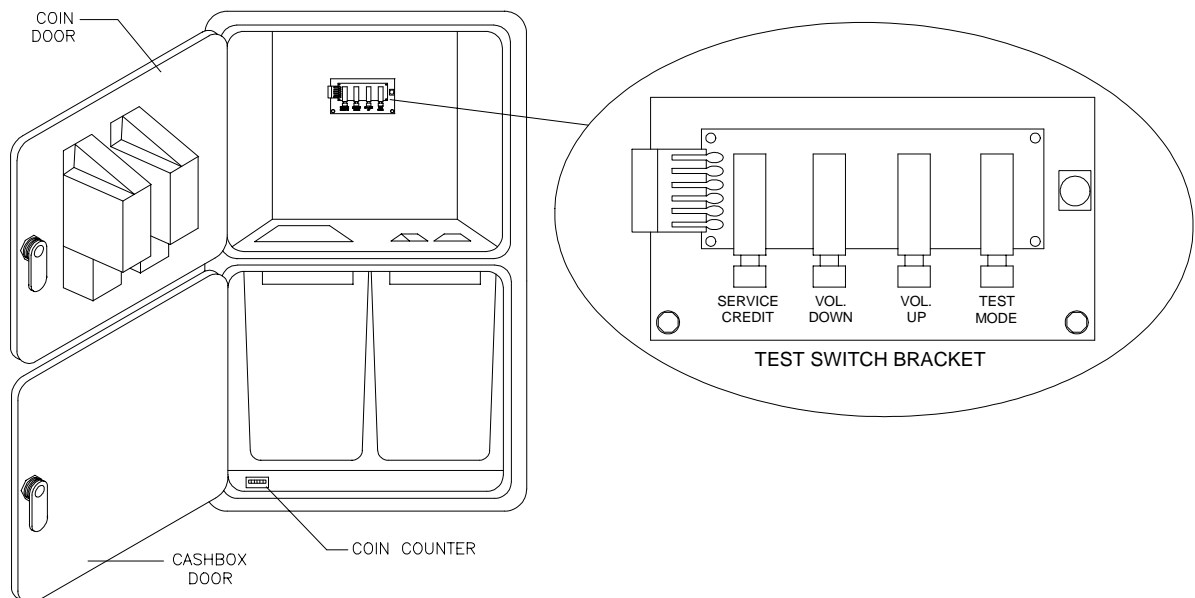
OPERATOR CONTROLS

MENU SYSTEM

SYSTEM OVERVIEW

Game variables and diagnostics are presented in a series of on-screen menus. The Main Menu allows you to view information, change or verify equipment operation. Submenus display further choices, after which more data appears or tests run. Use both operator and player controls to navigate menus and start or stop routines.
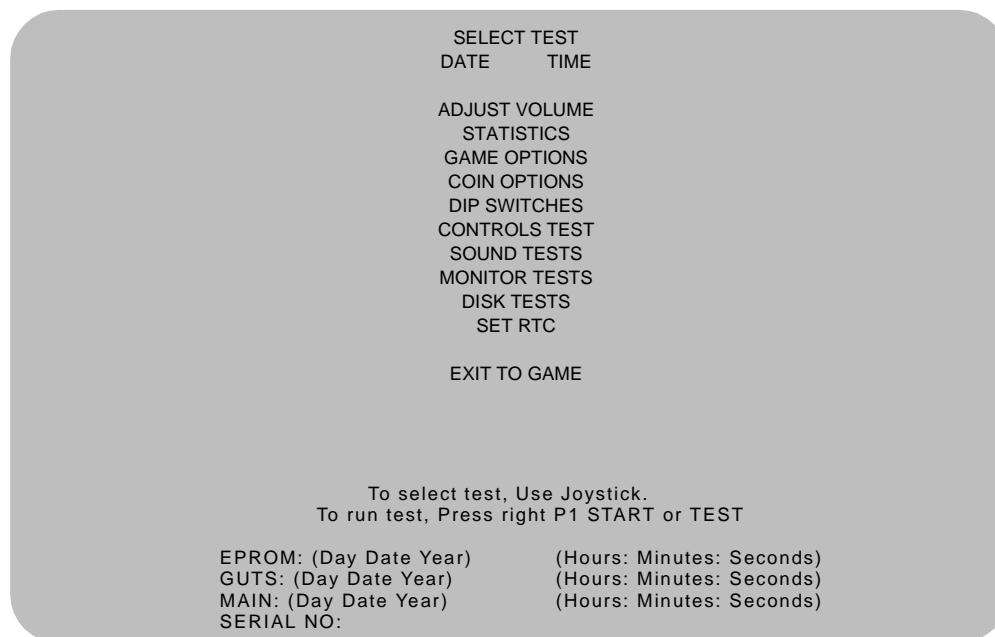
SCREEN LAYOUT

The color bar at the top center of each screen displays the current menu title. The center of the screen holds data (menu items, video signals, statistics, reports, etc.) The bottom of the screen contains messages (control functions, revision levels, etc.).

ORGANIZATION

Main Menu screen items are either options or tests. Submenu screen items offer choices within a category. A Menu may have zero, one, or several Submenus. You can always return to the previous menu, and often advance to the next menu. Detail Menu screen items contain specific information. You interact with the system to get results or to make changes.

Use the indicated control to highlight an item. You can only select one highlighted at a time. To return to game play, select EXIT TO GAME, then press the indicated button.

```
                        SELECT TEST
                 DATE          TIME

                      ADJUST VOLUME
                        STATISTICS
                      GAME OPTIONS
                      COIN OPTIONS
                       DIP SWITCHES
                     CONTROLS TEST
                       SOUND TESTS
                     MONITOR TESTS
                        DISK TESTS
                         SET RTC


                      EXIT TO GAME




              To select test, Use Joystick.
          To run test, Press right P1 START or TEST

      EPROM: (Day Date Year)        (Hours: Minutes: Seconds)
      GUTS: (Day Date Year)         (Hours: Minutes: Seconds)
      MAIN: (Day Date Year)         (Hours: Minutes: Seconds)
      SERIAL NO:
```

TYPICAL SELECT TEST MENU SCREEN

ADJUST VOLUME

You can adjust Attract Mode volume independently of Game volume. Use the joystick to raise or lower volume level. Music plays continuously while setting volume.

```
                            ADJUST VOLUME




            GAME
            *********************************************************************
            *********************************************************************
            *****************************************************************


            Attract (XX% of Game)
            *********************************************************************
            *********************************************************************
            *****************************************************************




                        To ADJUST volume, Use Joystick
                     to Select which volume, Press P1 START or TEST
                 to RESTORE old setting, Press and hold P1 START or TEST
                    to SAVE setting and exit, Press P2 START or CREDIT
```
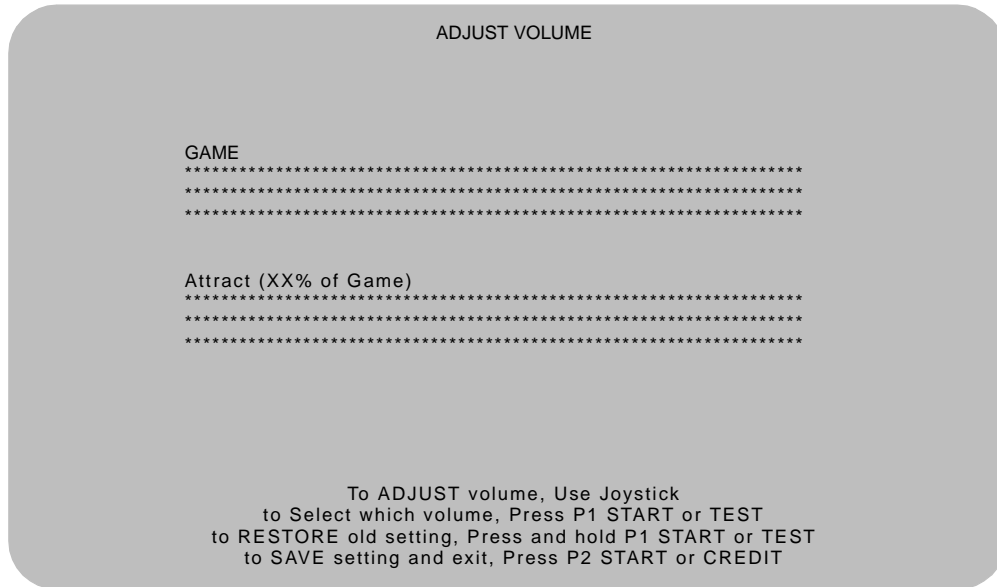
VOLUME ADJUSTMENT MENU SCREEN

Use the Player 1 START button to choose Game or Attract volume adjustment. When the selected variable flashes, use the joystick to change the level.

Game volume adjusts from zero to maximum. The game seems more realistic if players experience loud sounds during play. These weapons do not have silencers.

Attract volume is continuously adjustable from Mute (zero) to maximum. For greater profits, make Attract Mode loud to draw attention to Gauntlet: Dark Legacy.

You adjust Attract and Game volume levels independently, but Attract cannot be louder than Game volume. If you try this, Attract level automatically lowers proportionately. Lowering Attract level does not affect Game setting.

Volume level is represented a bar made of dots. The longer the bar, the higher the volume.

Press the Player 2 START button after making volume adjustments. The Player 1 START button cancels your recent changes and returns both levels to what they were before you touched them.

NOTE: These adjustments affect both the volume of the tests and game play. If the volume levels are set to minimum (zero), there will be no sounds from the speakers during any of the audio tests. Set the volume levels to a moderately high value when checking the game audio components and speakers. Return the levels to their previous settings after completing the tests.

STATISTICS

The Statistics report allows the operator to assess how well the game is being played. In addition to the earnings, various game aspects are tracked to determine the player skill levels.

Statistics may be reset to zero or allowed to increase after each viewing.

STATISTICS

Left Coins	:0
Right Coins	:0
Service Credits	:0
1 Credit Games	:0
2+ Credit Games	:0
Idle Mins	:0
1 Player Mins	:0
2 Player Mins	:0
3 Player Mins	:0
4 Player Mins	:0
Number of Sessions	:0
Number of Join-Ins	:0
Total Game Starts	:0
Total Coins	:0
Average Time/Coin	:0
Percentage Play	:0

To clear these counters,
Hold P1 START or TEST and press P2 START
For more stats, Press P2 START or CREDIT

STATISTICS REPORT MENU SCREEN

The illustration shows how the report screen looks after the game is reset or is first turned on. Most statistics increase in value as the game is played. It is normal for some values to remain at zero: for example, the Aux Coins count will not change unless an additional Currency Acceptor has been installed in the game, and the Error Count will not change if no errors have occurred.

Low counts in both coin and player statistics may suggest the game is too difficult for the skill levels of the players at this location; high continue counts may indicate the game is too easy. Difficulty level and other play characteristics may be adjusted from the Game Options menu.

Record statistics before performing service or making repairs on the game.

Press Player 2 START or service credit button to view system errors, which tell you the status of the hardware. Press Player 2 START again, and you will see user messages. Press Player 2 START again and you will see histograms. Press Player 2 START again to see level histograms.

Press both START buttons to cancel settings on screen and return all counts to factory default values.
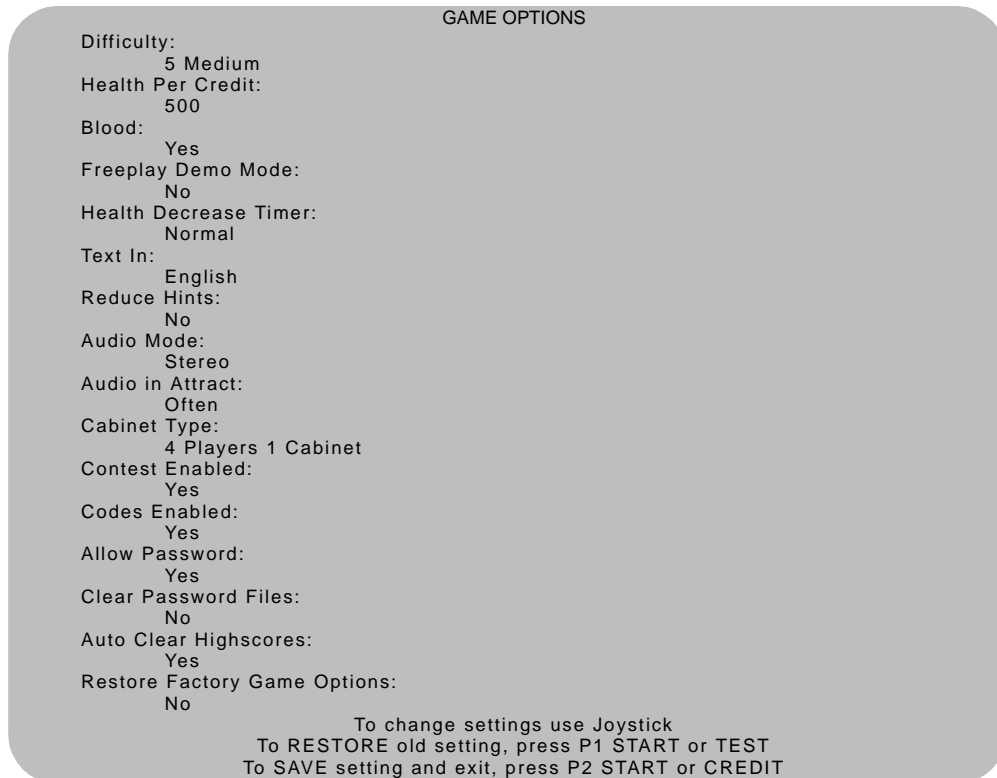
The HISTOGRAMS screens will have no bar graphs until the system has enough data to plot.

The USER MSGS screen will contain no messages until the system detects an error.

GAME OPTIONS

These adjustments allow you to customize the game. Each variable changes an aspect of game appearance or play. Optimum settings cause high player interest and increase earnings.

Use the joystick to select a menu item and to view the range of choices or change their value. Options may be reset to factory defaults or changed after each viewing.

```
                        GAME OPTIONS
Difficulty:
        5 Medium
Health Per Credit:
        500
Blood:
        Yes
Freeplay Demo Mode:
        No
Health Decrease Timer:
        Normal
Text In:
        English
Reduce Hints:
        No
Audio Mode:
        Stereo
Audio in Attract:
        Often
Cabinet Type:
        4 Players 1 Cabinet
Contest Enabled:
        Yes
Codes Enabled:
        Yes
Allow Password:
        Yes
Clear Password Files:
        No
Auto Clear Highscores:
        Yes
Restore Factory Game Options:
        No
              To change settings use Joystick
      To RESTORE old setting, press P1 START or TEST
     To SAVE setting and exit, press P2 START or CREDIT
```

GAME OPTIONS MENU SCREEN

Factory defaults are displayed in green text.

The illustration shows how this report screen looks after game is reset or first turned on. Use joystick to advance variables through range of choices. Some items have more options than others. View all options before selecting one.

The effects of these options can be judged by comparing statistics reports before and after changes were made. As players become more familiar with the game, new features or increased difficulty will make the game challenging and continue to generate interest.

Difficulty adjusts the level of play difficulty. It ranges from easiest to hardest in several steps. Default is Medium.

Health Per Credit determines amount of health credits added to the timer each time a player uses a credit by pressing the START button. It ranges from 300 to 1000. Factory default is 500.

Blood controls whether blood and gore appear on screen when a character is killed. Factory default is Yes.

Freeplay Demo Mode increases the maximum number of health credits allowed on the health timer per game credit beyond normal game limits. Factory default is Off.

Health Decrease Timer sets the speed of the Health timer. It ranges from Off to Fast in several steps. Factory default is Normal.

Texts In selects the language of the on-screen announcements and hints. Selection of a different language changes the player information presented only on the screen. It does not change any of the voice announcements, menu screens or tests. Factory default is English.

Reduce Hints sets the frequency of visual and verbal assistance to a player during the game. Yes decreases the frequency of hints. Factory default is No.

Audio Mode sets the audio output of the game. Use Stereo for cabinets with more than one speaker. Use Mono for cabinets with a single speaker. Factory default is Stereo.

Audio in Attract sets the frequency of game play instructions while the game is idle and in Attract Mode. It ranges from Never to Always. Factory default is Often.

Cabinet Type configures the number and type of inputs for the cabinet. Factory default is 4 Players 1 Cabinet. Factory default is 4 players 1 cabinet.

Allow Password controls whether the game will save a player's character experience with a three-digit password for later games. Factory default is Yes. Take special caution before changing this setting, as many registered players invest much time and money into building up their characters, which can only be accessed with passwords.

Contest Enabled allows Midway sponsored T-shirt promotion. Players who defeat Garm by collecting all 13 rune stones and winning the final battle are eligible for an "I Beat Garm" T-shirt. Factory default is Yes.

Codes Enabled allows use of secret codes. Factory default is Yes

Clear Password files controls password file deletion. Set this feature to Yes to delete all saved character experience and passwords. Factory default is No.

Auto Clear Highscores sets whether the game will automatically reset the high score table from time to time. Factory default is No.
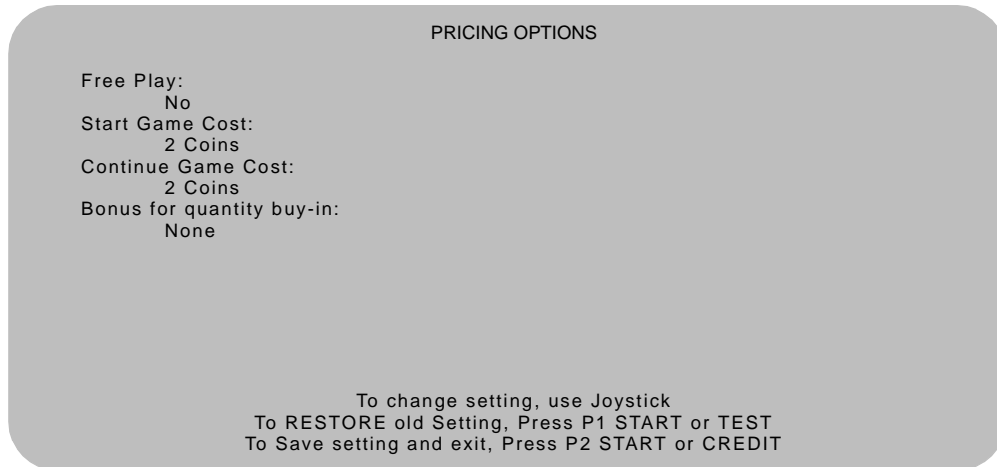
Restore Factory Game Options resets the Game Options. Set this option to Yes to reset the game to factory default options. Factory default is No.

Record the High Scores before making any option changes to the game.

NOTE: Changes to Game Difficulty or Number of lives automatically reset the Player High Scores, since these variables directly affect the ability to collect points .

COIN OPTIONS
PRICING OPTIONS

Use the Player 1 joystick to select menu items, view the range of choices, and change values. Options may be reset to factory defaults or changed after each viewing.

PRICING OPTIONS

Free Play:
    No
Start Game Cost:
    2 Coins
Continue Game Cost:
    2 Coins
Bonus for quantity buy-in:
    None

To change setting, use Joystick
To RESTORE old Setting, Press P1 START or TEST
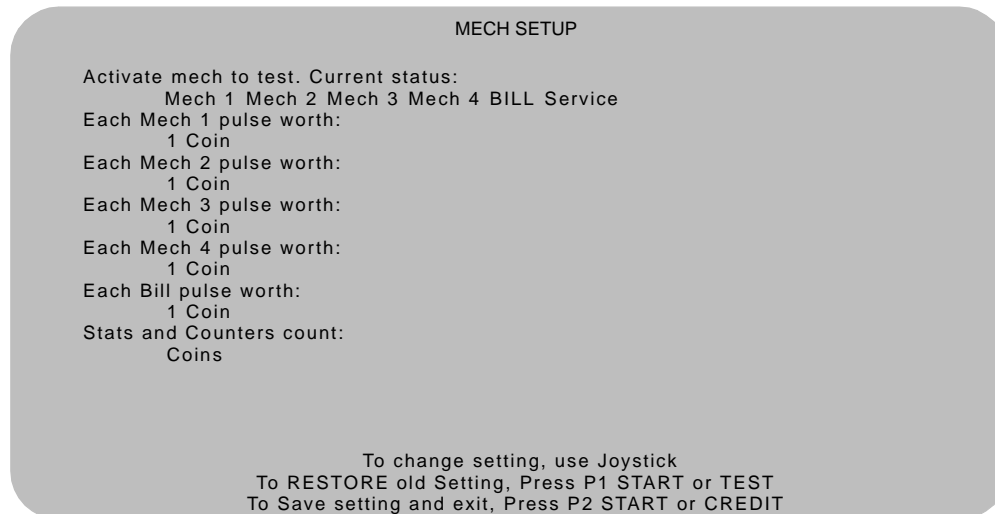To Save setting and exit, Press P2 START or CREDIT

PRICING OPTIONS MENU SCREEN

Custom pricing sets credits required to start and continue a game, rewards for buy-in and winning, etc. Factory default are shown above. View all choices before selecting, as some items have more options than others. Free offers no options. Free game incentives may reduce earnings.
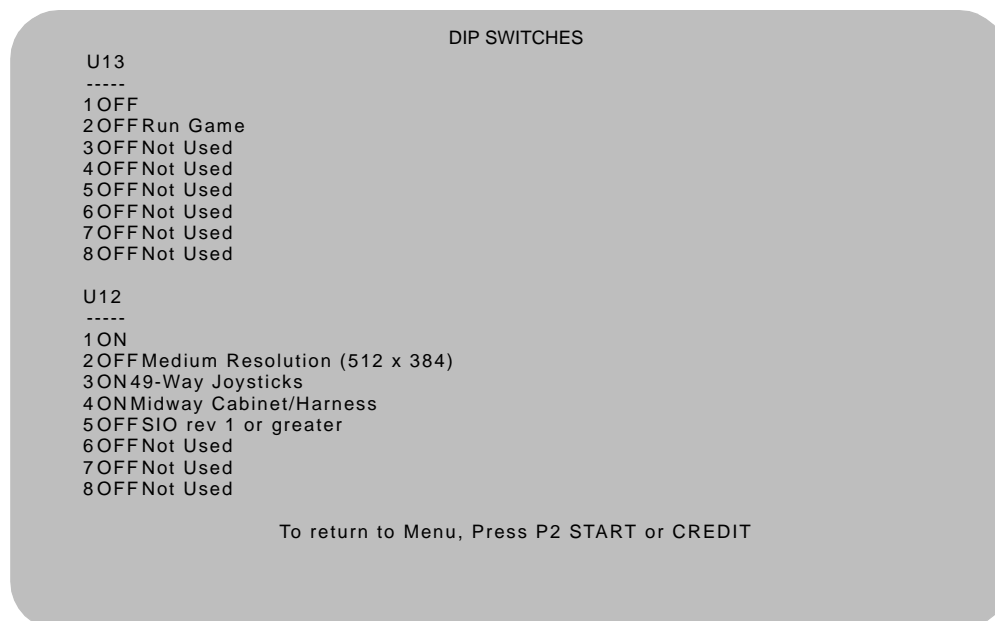
COIN OPTIONS

PRICING OPTIONS

Mech setup permits operators to add or remove coin or bill mechanisms. Values are shown for all devices, but changes to unused inputs have no effect if the mechanism is not in the game.

```
                          MECH SETUP

Activate mech to test. Current status:
        Mech 1 Mech 2 Mech 3 Mech 4 BILL Service
Each Mech 1 pulse worth:
        1 Coin
Each Mech 2 pulse worth:
        1 Coin
Each Mech 3 pulse worth:
        1 Coin
Each Mech 4 pulse worth:
        1 Coin
Each Bill pulse worth:
        1 Coin
Stats and Counters count:
        Coins




                To change setting, use Joystick
        To RESTORE old Setting, Press P1 START or TEST
        To Save setting and exit, Press P2 START or CREDIT
```

MECH SETUP MENU SCREEN

DIP SWITCHES

The two DIP switches located at U13 and U12 on the SIO Board configure the Electronics Assembly for various input and output devices. The on screen display shows the switch status for easy reference. See Wiring Chapter for specific information on the function of switch positions.

```
                          DIP SWITCHES
    U13
    -----
    1 OFF
    2 OFF Run Game
    3 OFF Not Used
    4 OFF Not Used
    5 OFF Not Used
    6 OFF Not Used
    7 OFF Not Used
    8 OFF Not Used

    U12
    -----
    1 ON
    2 OFF Medium Resolution (512 x 384)
    3 ON 49-Way Joysticks
    4 ON Midway Cabinet/Harness
    5 OFF SIO rev 1 or greater
    6 OFF Not Used
    7 OFF Not Used
    8 OFF Not Used

            To return to Menu, Press P2 START or CREDIT
```

DIP SWITCH MENU SCREEN

CONTROLS TEST

These tests allow the operator to manually check each switch in the game.

👉	**NOTE.** Some switches may not be used in Gauntlet: Dark Legacy. Check wiring diagram before testing.

Use the joystick to select the Controls Test. Press Player 1 START button to begin test. Activate each switch and the indication on the screen changes state. Release the switch and the indicator returns to its previous normally open or closed condition. Test switches in any combination.

```
                          CONTROLS TEST
                           COIN MECHS
                          ------------------
                            1  2  3  4
                            SVC BILL

Plyr 1          Plyr 2          Plyr 3          Plyr 4          MISC
--------        --------        --------        --------        --------
• • •           • • •           • • •           • • •
• • • 0 0       • • • 0 0       • • • 0 0       • • • 0 0
• • •           • • •           • • •           • • •
                                                                TILT
START           START           START           START           VOL+
MAGIC           MAGIC           MAGIC           MAGIC           VOL-
FIGHT           FIGHT           FIGHT           FIGHT           TEST
RUN             RUN             RUN             RUN             ITRLK




            GRN=Switch ok, RED=Switch ON, YEL=Switch not tested.

                Press TILT switch to activate coin counter
            Press and hold P2 START or CREDIT to return to menu
```

CONTROLS TEST MENU SCREEN

Each switch change should be exactly duplicated by a single indication on the menu screen. The alphanumeric indicators next to each joystick should display three distinct settings as the stick is moved in each direction toward its outermost limit.

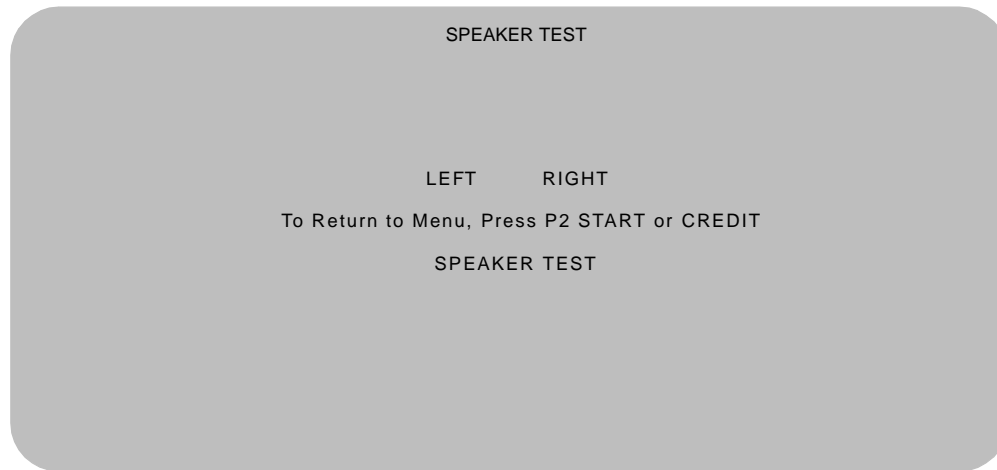Player Controls Tests verify crossed wires, intermittent conditions, and stuck switches.

OPERATOR CONTROLS are shown on screen under the MISC heading. Each switch change should be exactly duplicated by a single indication on the menu screen.

Operator Controls Tests verify crossed wires, intermittent conditions, and stuck switches.

Coin and Cabinet Switches are shown on the screen without regard for their actual game location. Each switch change should be exactly duplicated by a single indication on the menu screen.
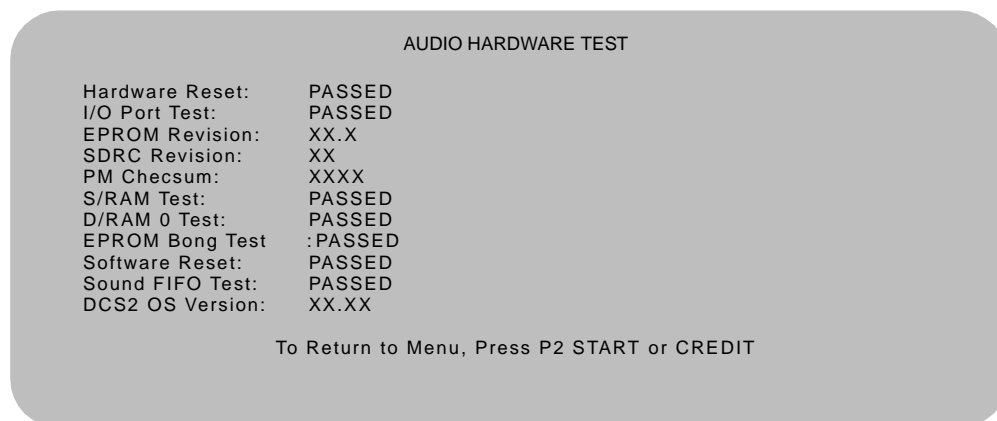
SOUND TESTS

These tests verify the proper connection and operation of the audio components. There are no custom settings or variables in these tests, which are performed automatically.

```
                              SPEAKER TEST




                        LEFT      RIGHT

              To Return to Menu, Press P2 START or CREDIT

                        SPEAKER  TEST
```

MENU SCREEN

SPEAKER TEST sends alternating voice sounds to the left and right speakers. Voices should be clear and distinct from each other. Each voice must come from the location identified. Refer to ADJUST VOLUME screen if necessary to increase loudness for this test.

The Speaker Test screen verifies crossed connections, incorrect phase, and distortion. Press the Player 2 START button to end the Audio Speaker Test and return to the SOUND TESTS menu.
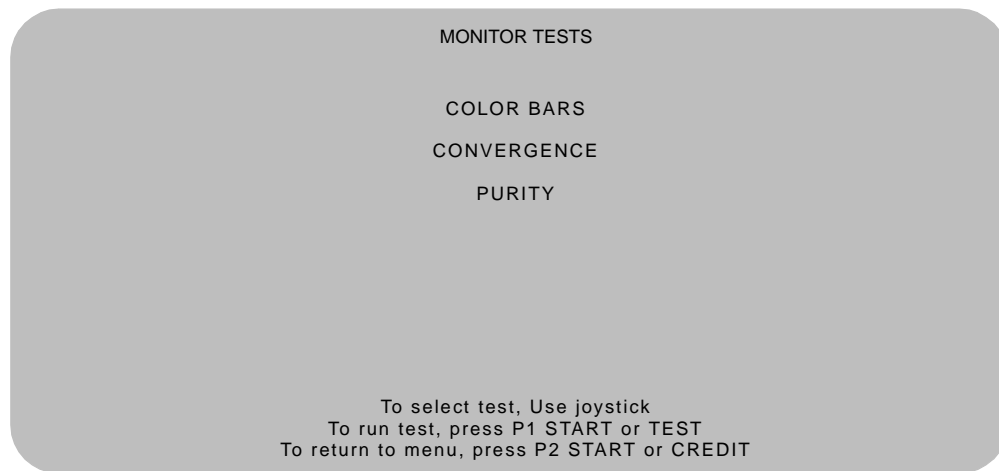
```
                          AUDIO HARDWARE TEST

           Hardware Reset:       PASSED
           I/O Port Test:        PASSED
           EPROM Revision:       XX.X
           SDRC Revision:        XX
           PM Checsum:           XXXX
           S/RAM Test:           PASSED
           D/RAM 0 Test:         PASSED
           EPROM Bong Test      : PASSED
           Software Reset:       PASSED
           Sound FIFO Test:      PASSED
           DCS2 OS Version:      XX.XX

                  To Return to Menu, Press P2 START or CREDIT
```

AUDIO HARDWARE TEST REPORT SCREEN

AUDIO HARDWARE TEST automatically tests the electronic components of the audio amplifier for problems and reports the results as "passed" or "failed." Each "failed" result should be noted and referred to qualified service personnel. This test also shows the revision numbers for the audio EPROMs and other components. Press SERVICE CREDIT to return to the SOUND refer to the Troubleshooting Chapter.

MONITOR TESTS

Monitor Tests provide patterns to verify monitor performance or make adjustments. Gauntlet: Dark Legacy uses a medium-resolution monitor. Other monitors may cause poor performance.

Use the joystick to select a menu item. Press the Player 1 START button to begin the test. Once the menu is open, use the joystick to select an option, and the Player 1 START button to begin it. Use the Player 1 START button to select various elements of each test. Press the Player 2 START button to return to the Monitor Tests menu screen.

MONITOR TESTS

COLOR BARS

CONVERGENCE

PURITY

To select test, Use joystick
To run test, press P1 START or TEST
To return to menu, press P2 START or CREDIT

MONITOR TESTS MENU SCREEN

COLOR BARS fills the screen with shades of colors to verify red, green, blue and white level dynamic adjustments. Each bar should appear sharp, clear, and distinct from bars on either side.

Borders must be visible on top, bottom, and sides of screen. Bars should not change screen position or color as the background or border are removed or restored from the video display.

Color Bars screen is useful in adjusting the monitor brightness and contrast.

CONVERGENCE tests fill the screen with a grid and a series of dots. Grid and the dots should be all one color, with no fringes or parallel images. Lines should be straight and dots round.

Borders must be visible on top, bottom, and sides of screen. Lines and dots should not change position or color as background or border are removed or restored from video display.

Convergence tests are useful in verifying the monitor convergence, linearity, and dynamic focus.
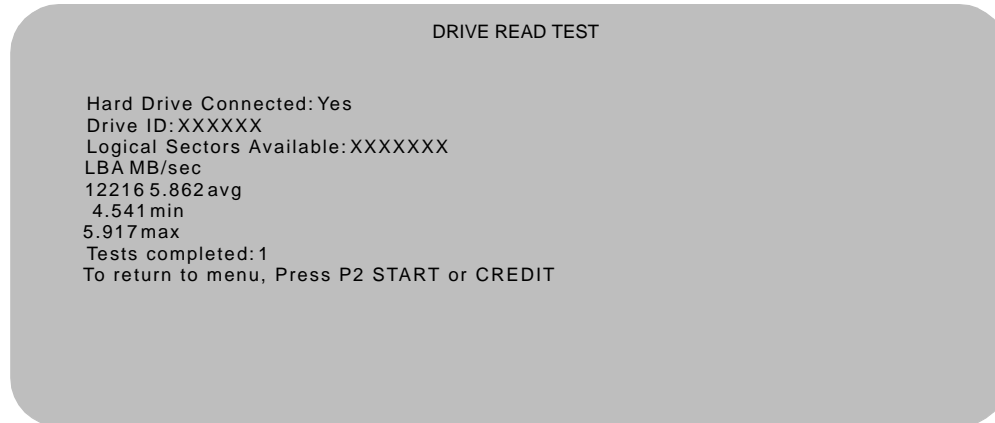
PURITY tests fill the screen with 100% of the chosen color at normal intensity. Each screen should be uniform from top to bottom and side to side. No retrace lines or noise should be visible.

Borders must be visible on top, bottom, and sides of screen. Image color should not change position or color as the background or border are removed or restored from the video display.

Purity tests help verify monitor intensity, black level, blanking and automatic degaussing.

DISK TESTS

These verify Hard Disk Drive functions. Some files can be repaired. These tests are automatic and the results appear on the menu screen as they occur. There are no custom settings or adjustable variables in these tests. The Player 2 START button aborts the tests.
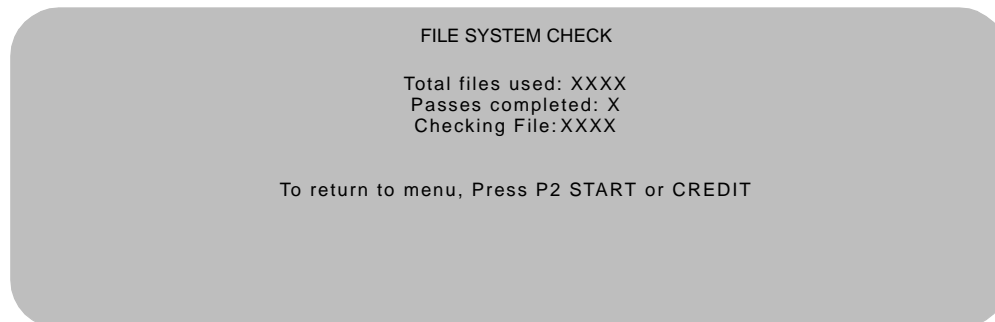
```
                          DRIVE READ TEST


    Hard Drive Connected: Yes
    Drive ID: XXXXXX
    Logical Sectors Available: XXXXXXX
    LBA MB/sec
    12216 5.862 avg
     4.541 min
    5.917 max
    Tests completed: 1
    To return to menu, Press P2 START or CREDIT
```

DRIVE READ TEST MENU SCREEN

Hard Drive Connected test verifies interface between CPU Board Assembly and Hard Disk Drive. The processor requests disk information. Data cannot be retrieved if there is a problem.

Drive ID is an industry standard identification for Hard Disk type and capacity. This is a manufacturer hardware number only; it does not identify software or program stored on drive assembly.

Logical Sector Test performs a sector by sector read/verify test on the drive. As the status of each block of sectors is checked, the speed of data transfer is compared to its acceptance limits.

Tests Completed These tests run over and over. The number increases each time the test cycle repeats (approx. every 5 minutes). After at least one cycle ("pass") is complete, note any errors and press the Player 2 START button to end the test.

```
                          FILE SYSTEM CHECK

                      Total files used: XXXX
                      Passes completed: X
                      Checking File: XXXX


              To return to menu, Press P2 START or CREDIT
```

FILE SYSTEM TEST SCREEN

Checking File performs a file by file check of data stored on the hard disk drive and reports its findings. If there are errors, the system tries to fix them (approx. 5 minutes per cycle). The system reports on the severity of the errors and advises if they will affect game performance.

SET RTC

Use this menu to set the correct time and date for your location.

SET RTC

Date: day mo date year
Time hr min

SET RTC MENU SCREEN

SWITCHES AND JUMPERS

The CPU and Sound I/O Boards have several hardware variables that can be changed to adapt this assembly to other uses. Jumpers activate circuit paths, and DIP switches select instructions.

Switches

There is one pushbutton switch on the CPU Board Assembly. It resets the CPU Board and restarts the game without turning off the power supply. There are two DIP switches on the Sound I/O Assembly at U12 and U13. See Wiring Chapter for further explanation.

Jumpers

Jumpers control signals to other components in this game. These signals match production audio amplifiers, speaker system, and video monitors.

Active circuit paths are factory optimized during the board test procedure. Leave jumpers in original positions to avoid program error messages.

Errors

The system detects errors at startup or during diagnostic tests and reports them on screen. The system automatically repairs errors such as minor disk data faults. Fix other errors, such as player control calibration, by manually resetting values in game memory. Gauntlet: Dark Legacy generally continues to operate (but with reduced performance) after discovering minor errors.

Record error messages before attempting to correct a problem. The USER MESSAGES report may store additional temporary messages (refer to STATISTICS earlier in this chapter).

After recording messages, turn off AC power, wait a few minutes, then turn AC power on. Pay attention to the startup screens and note any error messages during Power On Self Tests. If possible, enter the SELF TEST MENU SYSTEM and run all tests related to where errors occurred. Record and compare any new messages to the previous ones to determine whether errors are random or chronic.

	NOTICE. Do not ignore error messages even if you can start and operate the game. Poor performance caused by playing games with errors may reduce earnings.