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SYSTEM REQUIREMENTS

IBM/Tandy 100% compatible 386-33 or faster (486-33 w/8 Megs of RAM highly recommended) with 4 Megabytes of RAM. DOS 5.0 or later. Supports Microsoft Mouse or compatibles. Sound Cards Supported: Sound Blaster (Pro, 16, AWE32), Media Vision Pro-Audio Spectrum (Plus, 16, and Studio), Gravis Ultrasound, Roland MT-32/LAPC-1/SCC-1 (Music Only). 1 or 2 Joysticks supported as well as ThrustMaster WCS, FCS, FLCS, Gravis Game Pad, Phoenix, Logitech Cyberman, CH Flightstick Pro and Wingman Extreme. Supports the Forte VFX-1 and Victormaxx CyberMaxx.

INSTALLING DESCENT

1. For best performance do not run under Microsoft Windows. If you wish to run under Windows, please refer to the Readme.txt file in your Descent directory for instructions on running Descent under Windows.

2. Insert Disk 1 in drive A (or B).

3. At the C> prompt, type the letter of the drive you are installing from followed by a colon, hit ENTER. Then just type DINSTALL.

> i.e.   C:\>A: <ENTER>
>   A:\>dinstall <ENTER>

The install program automatically creates a subdirectory called GAMES\DESCENT and copies the files into the subdirectory. You can change the subdirectory name by entering a new name in place of GAMES\DESCENT.

4. You will be prompted when to insert the remaining disks.

5. When the program is installed, you'll see the Descent Setup Program screen. This screen lets you customize the sound and music setup in Descent. If you're not sure about these options, you may choose "Auto–Detect Sound Hardware". Descent then detects your hardware setup and chooses the options it thinks are best. WARNING: if there is a hardware conflict Auto-Detect may lock up your computer.

If you do want to test or change an option, use the up/down arrow keys on the keyboard to highlight an option and then press ENTER to select it.

6. Store your original disks in a safe, clean place in case you ever need to reinstall the program.

1. Make sure you're in the GAMES\DESCENT subdirectory. If you're not sure what subdirectory you're in, type CD\GAMES\DESCENT and press Enter. You should now be in the correct subdirectory.

2. Type DESCENT and press Enter. For special command line loading options, see the section called "Command Line Options."

3. If this is the first time you've started Descent, you'll be asked to "Enter your pilot name." Enter a name and then press Enter. You're then asked to choose an input device. Use the up and down arrow keys on your keyboard to move the highlight and then press Enter to select the highlighted option.
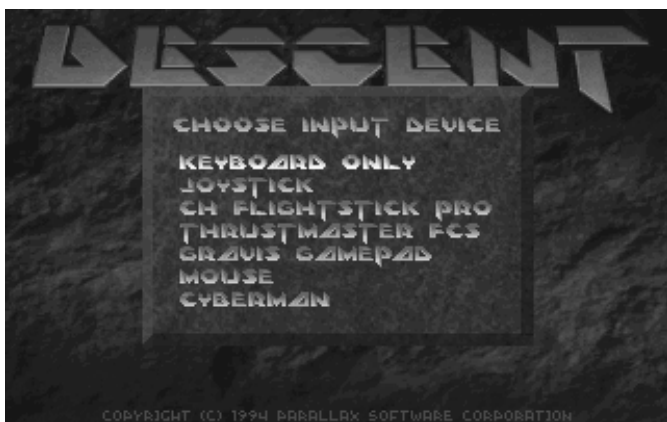
4. The Main menu contains a list of options you can choose from. To start a new game, select New Game, then choose Starting level and Skill level. Each time you start a new game you're given an opportunity to meet with a representative from the Post Terran Mining Corporation and get the background on your mission. If you know your mission and want to bypass this meeting, press Esc to go to your vehicle, or press SPACEBAR to move quickly through the briefing.
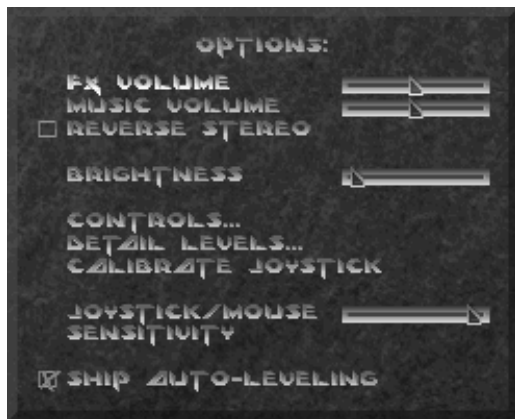
NEW GAME   Allows player to start a new game.

LOAD GAME   Player Resumes from Saved Game. Game
                      can be saved during play at any time.

MULTIPLAYER   Takes player to a menu where he can
                      choose to start or join a multiplayer
                      network, modem, or serial game.

OPTIONS   Takes player to the options screen.

CHANGE PILOTS   Player can change login name.

VIEW DEMO   Allows player to view their Recorded Demos.

HIGH SCORES   Takes player to high score screen. Player
                      can review high scores, time taken, and
                      other vital statistics.

CREDITS   Shows player the list of credits for the game.

QUIT   Exit the game.

OPTIONS:
FX VOLUME
MUSIC VOLUME
☐ REVERSE STEREO

BRIGHTNESS

CONTROLS...
DETAIL LEVELS...
CALIBRATE JOYSTICK

JOYSTICK/MOUSE
SENSITIVITY

☒ SHIP AUTO-LEVELING

FX VOLUME   Adjust sound effects volume using the arrow keys.

MUSIC VOLUME   Adjust music volume using the arrow keys.

REVERSE STEREO   Reverses left and right channel of the stereo sound effects in Descent.

BRIGHTNESS   Adjusts the Brightness level of the game.

CONTROLS   Takes player to controls configuration screen.

DETAIL LEVELS   Allows player to adjust detail level. Lowering your detail level is highly recommended if you are using a slower computer.

CALIBRATE JOYSTICK Calibrates the joystick (and throttle if used) controller for the game.

JOYSTICK/MOUSE SENSITIVITY Adjusts the turning rate of your ship.

SHIP AUTO-LEVELING Turns the Auto-Leveling feature ON/OFF.

Here the player can adjust the fundamentals of their input device. All changes are saved in your pilot file for future usage. The controls can also be adjusted during game play.
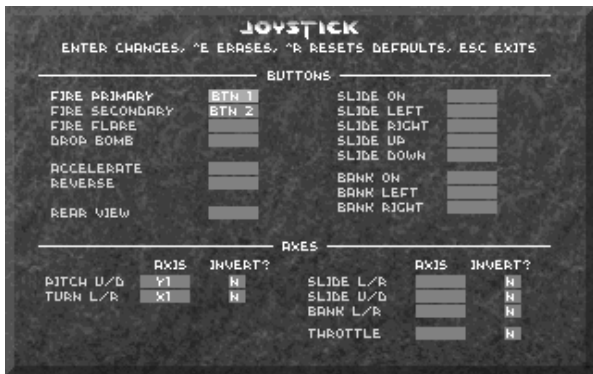
To change any of the keys, simply move the highlight with the arrow keys to the function you wish to change, press ENTER, then hit the new key you wish this function to be. For axis entries, press ENTER, then move the new joystick axis.

GAME OPTION KEYS

Esc	Abort game	F3	Cockpit on/off
F1	Help screen	F4	Calibrate joystick
F2	Options	F5	Record own demo

Alt - F2   **Save**

Alt - F3   **Load**   **You may Save or Load at any time during the game.**

F7   **Toggle between multiplayer HUD displays**

F8   **Send typed message (multiplayer only)**

F9 - F12   **Taunt macros (multiplayer only)**

Shift - F9   **Define F9-F12 taunt macros (multiplayer only)**

Pause   **Pause game (not in multiplayer)**

+ = / −   **Change window size**

Print Screen   **Save screen shot. All screen shots are saved in PCX format.**

CYBERMAX VR KEYS

Alt - V   **Toggle between NTSC and VGA signals**

Shift - F6   **Reverse Left/Right image**

AUTOMAP

Tab   **Automap**
(hold & release or tap on/off)

• **To rotate the Map, use the ship turning keys**

• **To move the Map, use the ship sliding keys**

• **To move in and out of the Map, use the forward/reverse keys**

• **To show more or less of the Map, use + or - keys**

DEFAULT CONTROLS

The following assignments can all be modified in the Options/Controls menus.

JOYSTICK

DIVE

BUTTON 1: FIRE PRIMARY

TURN LEFT

TURN RIGHT

BUTTON 2: FIRE SECONDARY

CLIMB
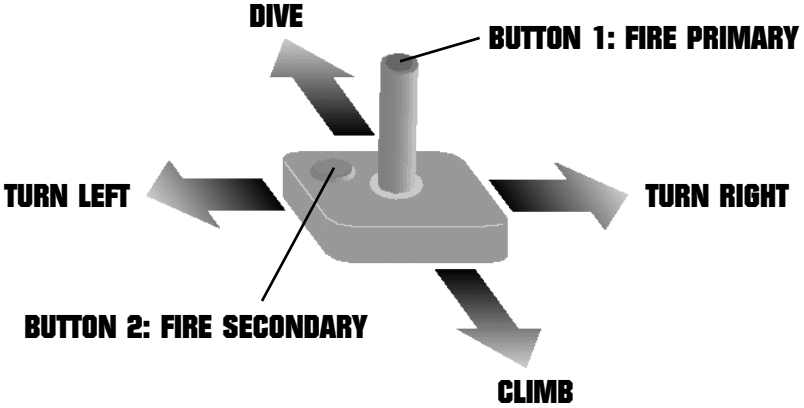
JOYSTICK
ENTER CHANGES, ^E ERASES, ^R RESETS DEFAULTS, ESC EXITS

— BUTTONS —

FIRE PRIMARY	BTN 1	SLIDE ON	
FIRE SECONDARY	BTN 2	SLIDE LEFT	
FIRE FLARE		SLIDE RIGHT	
DROP BOMB		SLIDE UP	
		SLIDE DOWN	
ACCELERATE			
REVERSE		BANK ON	
		BANK LEFT	
REAR VIEW		BANK RIGHT	

— AXES —

	AXIS	INVERT?		AXIS	INVERT?
PITCH U/D	Y1	N	SLIDE L/R		N
TURN L/R	X1	N	SLIDE U/D		N
			BANK L/R		N
			THROTTLE		N

KEYBOARD
ENTER CHANGES, ^D DELETES, ^R RESETS DEFAULTS, ESC EXITS

		⌐OR¬			⌐OR¬
PITCH FORWARD	↑	PAD8	FIRE PRIMARY	LCTRL	RCTRL
PITCH BACKWARD	↓	PAD2	FIRE SECONDARY	SPC	
TURN LEFT	←	PAD4	FIRE FLARE	F	
TURN RIGHT	→	PAD6	DROP BOMB	B	
SLIDE ON	LALT		REAR VIEW	R	
SLIDE LEFT		PAD1	AUTOMAP	TAB	
SLIDE RIGHT		PAD3			
SLIDE UP		PAD-	ACCELERATE	A	
SLIDE DOWN		PAD+	REVERSE	Z	
BANK ON			CRUISE FASTER		
BANK LEFT	Q	PAD7	CRUISE SLOWER		
BANK RIGHT	E	PAD9	CRUISE OFF		

These settings are defaults, and can be changed.

FLIGHT:

⬚⬚⬚⬚ or keypad	Ship rotation
A	Forward
Z	Reverse
Q or 7 Home	Bank left
E or 9 Pg Up	Bank right

1 End	Slide left
3 Pg Dn	Slide right
–	Slide up
+ =	Slide down

R	Rear view
	(hold & release or tap on/off)

WEAPONS:
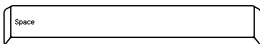
Ctrl	Fire primary
Space	Fire secondary
B	Drop proximity bomb
F	Flare

Select primary

1 End	Lasers
@ 2	Vulcan cannon
# 3	Spreadfire cannon
$ 4	Plasma cannon
% 5	Fusion cannon

Select secondary

^ 6	Concussion missile
& 7	Homing missile
* 8	Proximity bomb
(9	Smart missile
) 0	Mega missile

OTHER CONTROL DEVICES

Descent fully supports the following:

Mouse

Joystick (one or two)

Thrustmaster FCS

* Thrustmaster WCS & FLCS

Logitech Wingman Extreme

CH Flightstick Pro

Gravis GamePad

Logitech Cyberman

* Gravis Phoenix

devices may be selected and customized under the Options/Controls menu

* DESCENT2.ADV, DESCENT.PHX, DESCENT.B50 and DESCENT.M50 config files can be found in your DESCENT directory.

GRAVIS PHOENIX

Spreadfire Cannon - 3

Fire Primary - JB1

6 - Concussion missiles

7 - Homing missiles

8 - Proximity bombs

9 - Smart missile

0 - Mega missile

Bank flare - F

Bank left - HOME

Bank right - PGUP

JB2 - Fire Secondary

4 - Plasma Cannon

5 - Fusion Cannon

R - Rear View

2 - Vulcan Cannon

1 - Laser

NUM - Slide up

PGDN - Slide right

+NUM - Slide down

END - Slide left

Slide left/right - Rudder

THRUSTMASTER FCS & WCS

HAT - Slide Controls

Fire Secondary

Fire Primary

Fire Flare

Drop Bomb

Reverse

Forward

Roll right   Roll left

Taunt Macro 3

Taunt Macro 2

Rear View

Taunt Macro 1

THRUSTMASTER FLCS

Fire Primary

Slide Control

Forward/Reverse
Roll left/right

Fire Secondary

Taunt Macros
Multiplayer only

Fire Primary

Forward/Reverse
Slide left/right

Fire Flare

Drop Bomb

HAT
Slide Controls

COCKPIT VIEW

To toggle the view of your cockpit on or off, press F3. When the cockpit view is off, it's replaced by a status panel across the bottom of the screen. To get full screen view simply hit the + key at this point; the – key can reduce the window size to increase game speed.

REAR VIEW

To look out the rear of your ship, press R. If you hold down the R key you will temporarily look out the rear; when you release R you will return to the front view. If you want to switch indefinitely to the rear view, quickly tap R.

RECHARGING

At specific sites within every mine there are energy centers that will boost your ship's energy level. Although these centers will only boost your ship's energy level up to 100, it is possible to achieve a maximum level of 200 by collecting 'energy packets' that are scattered throughout the mines. These energy centers have distinct gold walls with a sparkling energy field between them. See "Mine Centers" section.

EXHAUSTING A WEAPON

If you exhaust a weapon, it automatically selects the next best weapon.

YOUR SHIP AS A WEAPON

The objects in Descent are "physical" objects; you can ram into something with your ship and possibly cause a response. For example, most doors can be rammed open or shot at to open, while hostage doors must actually be fired upon until destroyed. You can conceivably ram something repeatedly to destroy it - if this happens to be a fighting method you've been reduced to, best of luck!

The Automap keeps track of places you've been. As you move through new territory, your progress is drawn in by the Automap. To access the Automap, press the Tab key. To close the Automap, press Esc or Tab.

- The center object is your ship. Other green objects are hostages.
- The purple object is the mine's entrance.
- The red, yellow and blue walls are the locked doors. These doors require the use of corresponding color-coded access keys for passage.
- Yellow areas are refueling stations.
- The Red area is the Reactor.
- In Team Anarchy and Cooperative Modes, your teammates appear as colored objects with directional arrows.

ROBOTS

There are many robots in the mines of the PTMC. Unfortunately the invading force has also created variations of these that are deadly.
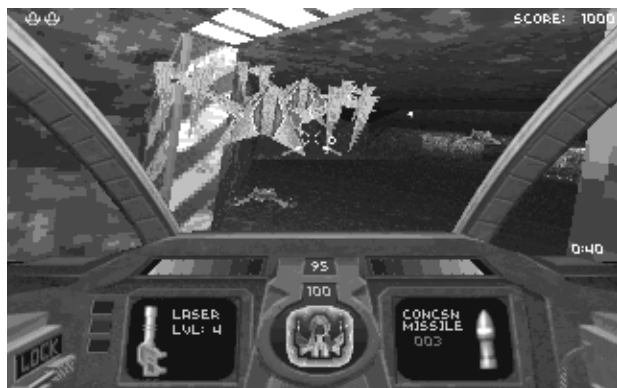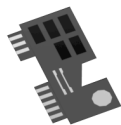
Access Keys - These access keys give you access to the different security levels of the mines. They are color coded to the doors they open.
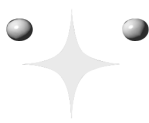
Energy Boost - This will give your energy banks a boost, up to 200 units max. (Energy Centers can deliver recharge up to 100 units.)

Shield Boost - This will give your ship's shields a kick. By getting shield powerups, you can get your shields up to a maximum of 200 units.
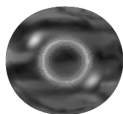
Cloaking Device - Gives your ship cloaking ability for a limited time.

Invulnerability - Makes your ship invulnerable for a short time.

Extra Life - Gives you a bonus life.

Laser - Laser cannons have four power levels. The laser powerup will give you the next available level.

Quad Laser - This powerup will modify your existing laser system to fire four bolts instead of the standard two.
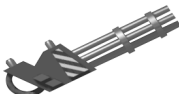
Vulcan Cannon - This weapon rapidly fires explosive-tipped shells.
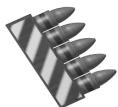
Vulcan Ammo - This gives you more ammunition for the Vulcan Cannon.
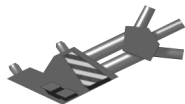
Spreadfire Cannon - This fires a spread of energy at your target.
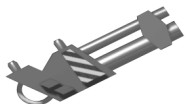
Plasma Cannon - Fires bursts of supercharged plasma.

Fusion Cannon - Fires destructive blasts of energy directly from the ship's fusion reactor. Holding down the Fire key will continue to charge the Fusion cannon until you release it. Doing this can double the damage, but can also damage your ship if you hold it too long.

Concussion Missiles - All-purpose dumbfire rockets. Come singly or in packs of four.

Homing Missiles - Same size warhead as Concussion Missiles, these are equipped with a tracking device that can follow a target around most turns. Come singly or in packs of four.
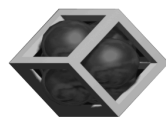
Proximity Bombs - These bombs are dropped behind your ship, waiting to explode when something gets near. Can be armed as a secondary weapon, or dropped directly by hitting the default key "B".
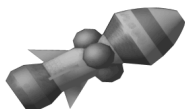
Smart Missile - When this missile detonates, it sends tracking bomblets of heated plasma after the surrounding targets.

Mega Missile - Stand back when you fire this earthshaker.

DOORS

There are a variety of doors that can be found in the PTMC mines. Most can be opened by either bumping into them or shooting them. There are some though, that can only be opened if you have the appropriate access key. Others can only be opened if certain actions are performed or the Reactor is set to self destruct (i.e. the emergency exit). Hostage doors take several hits to destroy, and there are also doors that are hidden.

RESUPPLYING WEAPONS

Throughout the mines are caches of missiles and vulcan ammo that you can pick up to restock your supply.

Energy Center - Designed for "on the fly" replenishing of robot's power cells, it will also recharge your own. (up to 100 units).

Robot Generator - Automated centers that determine a mine's needs and assemble robots from surrounding minerals and metals. Very dangerous.

Main Reactor - The power generator of the whole mine. Usually in a secluded place away from day-to-day mine mishaps.

DESCENT

HEADS UP DISPLAY

1) **Aiming Reticle**
 1A **Primary weapons arming status**
 1B **Secondary weapons arming status**

2) **Primary weapons display**

3) **Secondary weapons display**

4) **Weapons energy status bar**

5) **Shield energy status indicator**

6) **Ship status indicator**

7) **Enemy missile lock alarm**

8) **Access key indicator**

9) **Current score**

10) **Ships remaining**

RECORDING A DEMO

Descent has a fully integrated demo recording and playback system that lets you keep a permanent record of blasting your friends to pieces. This recording will work in single or multiplayer games.

Press F5 anywhere in the game to start recording; press F5 again to stop the recording. When you stop a recording, you'll be prompted to enter a file name.

If you press Esc at this dialog box, the demo will not be saved.

VIEWING A DEMO

To view a recorded demo, choose View Demo from the Descent Main menu. Highlight a demo from the Select Demo list and then press Enter or click a controller button to open that file. To delete a file, highlight the file and then press Ctrl + D.

During playback, the following keys are available:

Key	Action		Key	Action
↑	Play		Shift + ←	Fast reverse
↓	Stop		Shift + →	Fast forward
←	Single frame reverse		Ctrl + ←	Go to start of demo
→	Single frame forward		Ctrl + →	Go to end of demo

The demos will record advancement from one level to the next; however, the escape sequences will be skipped in playback.

Demo files are saved in the Descent subdirectory and have the file name extension of .DEM. Demo (.DEM) files may be freely distributed.

CAPTURING SCREENS

You can capture (take a "snapshot") of any screen in Descent by pressing the Print Screen key while at that screen. Each screen you capture is saved to a .PCX file in the GAMES\DESCENT subdirectory. When you press the Print Screen key, your computer's hard drive light will flicker momentarily to indicate that it's working to capture the screen; you will see an onscreen message.

To view a captured screen, exit Descent. Then load a paint or draw program and open the .PCX file you want to view. A screen is saved under the file name SCREENxx.PCX (where xx = 00 or higher; e.g., SCREEN00.PCX, SCREEN01.PCX, SCREEN02.PCX, etc.).

To view the screenshots, you need to exit Descent and then launch a paint or draw program that's capable of reading .PCX files or converting .PCX files into another file type that can be used by the program. In some cases, the paint or draw program will automatically convert .PCX files into a different file type it can read. In other cases, you'll need to convert the .PCX file to a different file type before your paint or draw program can read it. Paint or draw packages often come with a separate conversion program that lets you convert a file from one type to another. If you need more details on viewing the .PCX files captured in Descent, see your paint or draw program's user documentation. Look for details on reading or converting .PCX files.

CUSTOM DETAIL LEVELS

Detail levels may be individually adjusted by selecting Options (from either the Main Menu screen or hitting F2 while playing a game), and then selecting Detail Levels. Custom settings can be made by choosing "Custom".

Object Complexity: This affects the number of polygons used by objects like robots, player ships, and other 3D objects. Lower values will increase speed, but simplify the shape of many objects.

Object Detail: This determines at what distance an object changes from flatshaded to texture-mapped details. Setting this slider to a lower value will cause robots to be flat-shaded much closer.

Wall Detail: This option determines at what distance walls appear flat-shaded vs. texture-mapped. It also affects the accuracy vs. speed of the texture mapper. If you notice textures "sliding" or "jumping" a little in the distance, this slider is set too low.

Wall Render Depth: This will change the maximum distance you can see. Lower values will increase the speed of Descent, but will cause flat-colored "walls" to appear in long hallways. These boundaries do not affect weapons or other objects, only your visuals.

Amount of Debris: Changing this slider will determine how much debris is made when robots explode. Setting this to a low value will make fewer pieces in heavy combat.

Sound Channels: In addition to visuals, sound can have a minor effect on the speed of your game as well. This slider will change the maximum number of sounds that can be played at once.

INTERPLAY

NETWORK PLAY

NETWORK REQUIREMENTS

Descent is designed to run on a Novell network using the IPX protocol. To use IPX protocol on your LAN-connected PC, you must be loading the IPX.COM driver provided by Novell, in addition to lower-level drivers required by your particular brand of network card.

To get optimum performance from network games, you should be connected on the same local network so its packets can be routed directly without intermediate processing by routers. If players are all on the same sub-network, the router and servers will experience almost no load due to the network game in progress.

SETTING UP A GAME

Descent supports up to 4 simultaneous network games on a single socket. If you need to run more than four games on a single LAN, players can use the -socket option to change to a different socket number (i.e. C:>Descent -socket#). Descent uses a default socket number of 5100(Hex). The -socket option adds a value to this base, so "-socket 1" would tell Descent to use socket 5101(Hex). You can use this option to avoid socket conflicts with other network services if they arise.

To prepare for network play, select Multiplayer from the Main menu.

MULTIPLAYER
START A NETWORK GAME...
JOIN A NETWORK GAME...

MODEM/SERIAL GAME...

One of the players must select Start A Netgame Game from the Multiplayer menu in order to select the parameters for the game.

Mission   **This lets you choose which mission file to use.**

Description   **The description is the name that other people will see in their Join *A Network Game* menu.**

Level   **This can be any valid level for the mission you have loaded. Play will begin on the level selected and can continue to the other levels as play progresses.**

Mode   Mode determines what type of game will be played:
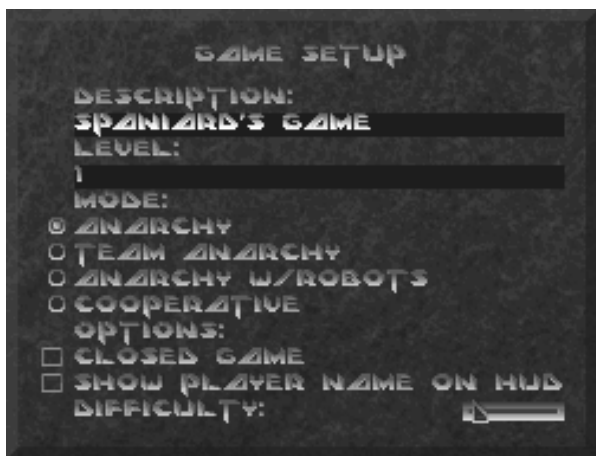
- **Anarchy is a player-only battle to the death, where the goal is to accumulate the most kills by killing up to 8 other players.**

- **Team Anarchy is the same as Anarchy, but in teams. The next screen you see is the Team Selection screen. Team names can be modified in the text boxes. To move a player to the other team, highlight his or her name and then press Enter. Team 1 ships are blue while Team 2 ships are red. Press Esc to accept the teams and start the game. This can be played with a maximum of 8 players.**

- **Anarchy With Robots is the same as Anarchy, only there will be robots in the game trying to kill any player they find. The goal is still to score kills by killing your fellow players.This can be played with a maximum of 4 players.**

- **Cooperative Mode lets you team up with the other players to destroy all the robots in the mine and complete the level. The goal is to get the highest score by killing robots, rescuing the hostages and escaping the mine after destroying the level Reactor.This can be played with a maximum of 4 players.**

Closed Game   This determines whether or not other players will be allowed into your game after it begins. If the Option box is checked, only players that were chosen for play at the start of the game are allowed in. Note: In a closed game, the starting players are still allowed to leave Descent and rejoin at any time.

Difficulty   This determines several factors, from robot awareness and deadliness to time for mine destruction countdowns. The farther the slider is to the right, the tougher the game will be.

Once the parameters are chosen, the person starting the net game presses Enter. This brings up a screen where the person who started the game can select the players. As each network player selects your game from the Join *A Network Game* screen, their names appear in the list. By default all play-ers who want to join are selected; you can deselect a player by using the Spacebar to clear the check-box next to his or her name. Once you've selected the players you want for the game, press Enter to start the action.

JOINING A NETGAME

To join a netgame, select Multiplayer from the Descent Main menu and then select Join *A Network Game*. This brings up a menu of currently active network games on that socket. Below each game is listed the current level number of the game, the number of people playing, and game status. Game status can be one of the following:

• **Forming** - The person starting the game is still at the player selection screen. There is still time to join in before the game starts.

• **Open** - The game is in progress but you can still join in because either the game is not closed, or you were previously connected to the game and can rejoin.

• **Closed** - The game was either started as a closed game so you can't join, or else there is already the maximum number of players in the game.

• **Between Levels** - The players in this game are rushing for the escape tunnel. You cannot join a game that is between levels. If the game is between levels, you can wait at the Join *A Network Game* menu until the game mode changes to open.

If you leave a netgame for whatever reason, you can usually join in later and resume your game. Although you lose accumulated items, you will retain your ship color and kill count unless you have been gone long enough for someone new to have taken your spot. Make sure you rejoin from the same computer and use the same pilot name so the game can identify you as an existing player.

The person who started the game is also free to leave and rejoin the game at will; there are no special restrictions for this person other than setting the initial parameters for the game.

NETWORK TROUBLESHOOTING

If you try to select Start *A Network Game* or Join *A Network Game* but get an error message saying your IPX drivers are not loaded properly, make sure your computer has a reasonable amount of low memory available. Although Descent uses a DOS extender to avoid low-memory hassles, low memory is still required for network buffers. Also make sure your IPX.COM and other network drivers are being loaded properly. A good test is to make sure you can log onto a network server, if one is available.

Another thing to try is using a different socket number. It's possible that some other application on your computer is using socket 5100h, which will prevent Descent from opening its own network connection. Try large values for the -socket option and see if this solves the problem.

Sometimes while playing a game you may receive a message box that says your network card is missing packets from other players. This can be the result of a slow network card, heavily congested network, or software con-flicts in your system. If the message appears, you can rejoin the game and try again, but the problem should not be ignored completely since it's likely to return. Here are some possible causes for dropped packets in your net-work games:

 • Too many players for a high-traffic LAN. Eight players is the maximum number sustained by a high-quality LAN and fast computers. It is possible that your LAN or computer configuration can only reliably support a maxi-mum of four to six players.

• **Bad LAN card.** Some cards drop IPX packets even without heavy loads or outside interference. If you suspect the LAN card of causing problems, try switching that computer's card with another card.

• **Software conflicts.** Other drivers that are running may cause problems with the network interrupts. These conflicts may not be apparent when performing other LAN tasks that do not use IPX or that have a built-in layer of error-checking and repeating. Try disabling other unneeded drivers in your CONFIG.SYS and AUTOEXEC.BAT to see if the problem goes away.

• **Router problems.** Playing the game between players on opposite sides of a router can be a cause of lost packets and other delays. It is recommended that the game not be played in this fashion since it creates a system load on the router that can disturb other users of the LAN. If you continue playing the game with an unreliable network connection due to one of these problems, you are likely to see erratic behavior in the game even before an error message is displayed.

NETWORK FEATURES

There are several features available to the network player that aren't used in a regular one-player game.

F6 Teammate ID Display - If enabled, this will show a teammate's name if he or she is in your sights. Press F6 to toggle this feature on and off.

F7 Kill List - You can turn on and off the kill list shown near the bottom of your screen by pressing the F7 key. In Network Team games, this alternates the display between Player Kills, Team Kills, and no kill display. In cooperative games, the kill tally is replaced by score.

F8 Send Network Message - To send a message to other player(s) in the game, press F8 and type in your message [press Enter to send it]. If you begin the message with one or more characters followed by a colon (:), the message will be addressed only to pilots whose names match the characters. For instance, if you want to send a private message to Scourge, you would enter "Scourge: Your time is near!" If you entered "S: You're dead!" the message would be sent to any players whose name begins with the letter "S" (e.g., Scourge, Stan, Sue, etc.) If no match is found, the message will not be sent. In Team Anarchy mode, addressing messages to "1:" or "2:" will send them only to Team 1 (BLUE) or Team 2 (RED), respectively.

Shift + F9 to Shift + F12 Record Taunt Macros - You can create pre-defined taunts for your opponents using the message macro keys. To define or redefine a macro, press Shift + F9 through Shift + F12, type in a message, and then press Enter to save it.

F9 to F12 Send Taunt Macros - To send a taunt macro, press one of the F9 through F12 keys. The macros are stored on a per-player basis so you only have to set them in your first game. Addressing messages to specific players using the colon (:) is available in macros as well.

NETWORK PLAY RULES

Some special rules apply to Multiplayer Descent games:

 • **When you fire a secondary weapon in a multiplayer game, a new powerup of that type is created at random somewhere in the mine** (this keeps the total number of secondary weapons in the game constant). If you see a weapon suddenly appear in front of your ship, consider yourself lucky! Replacement powerups are also created when the effects of an Invulnerability or Cloak powerup wear off. Concussion missiles are the only secondary weapon not replaced. This replenishment does not occur in cooperative games.

 • **When you bring up menus in multiplayer games, the action does not stop** as it does in one-player games. While you're viewing a menu, your ship remains vulnerable to attack by other players. It's a good idea to find a quiet spot to hide in if you need to examine the Automap or reconfigure your controls. If you are attacked while in a menu or if the reactor is about to explode, the menu will automatically abort so you can deal with the problem.

 • **After you finish a level there may be a waiting period** while other players are trying to escape from the mine. No player is allowed to enter the next mine until all have completed the current mine; this keeps players from gaining an unfair advantage of finding powerups in the new level. If you escape early in the countdown sequence, there may be up to a 60-second wait for other players to finish, plus time for them to fly through the escape tunnel and view the kill list. If you don't want to wait around for the other players to finish, you can leave the netgame by pressing Esc at this screen.

 • **Weapon powerups are single-use only in network games.** This means if there is only one Fusion cannon in the mine and someone else has taken it, the only way to get it is to kill the person currently carrying it. When you kill another player, the weapons they are carrying are ejected as powerups for you to take.

MODEM/SERIAL GAME SETUP

DESCENT MODEM/SERIAL SUPPORT

Descent supports serial and modem play. All of the information relating to network play also applies to modem and null-modem games, although the procedure for starting new games is somewhat different since only two players are involved. This section describes the ways in which the serial version of the head-to-head game differs from the network game.

STARTING A GAME

All of the serial/modem options are available by selecting Multiplayer from Descent's Main menu, and then selecting Modem/Serial Game.

Before performing any functions in the Serial Game menu, both users should check their COM settings to confirm that they are correct for each machine. Once the COM settings are chosen, they are saved for all future games.

Note: If you're playing a game via a null-modem cable, both machines must have the same baud rate in the COM settings menu. Modem games do not require the same baud rate.
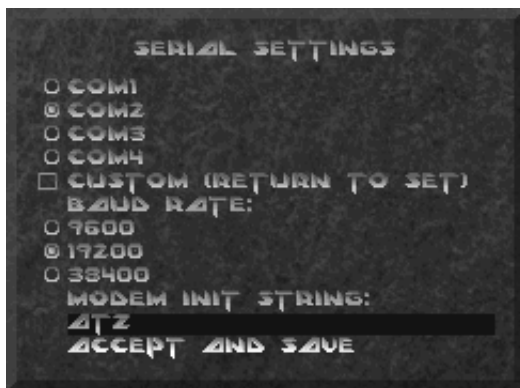
The COM settings should be self explanatory for those familiar with other serial programs. If your machine has a 16450 UART, you should select a baud rate of 9600 or 19.2K. The higher the baud rate, the better the game will perform in serial mode. If you have a 16550 UART, you can select the

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38400 baud rate settings for optimum performance. This selection only sets the rate of communication between the computer and the modem if a modem is being used. Even though many modems do not support actual baud rates

CUSTOM (RETURN TO SET)2
BASE ADDRESS (IN HEX)
2F8
IRQ NUMBER
3
RESET TO DEFAULT
ACCEPT

higher than 14400, it is still better to choose a 38400 baud rate if your UART will support it. This lets the program spend less time communicating with the modem, thus improving the frame rate. If you're unsure of the type of UART your machine has, you can try selecting the 38400 baud rate option; the program will tell you if it does not detect a 16550 UART.
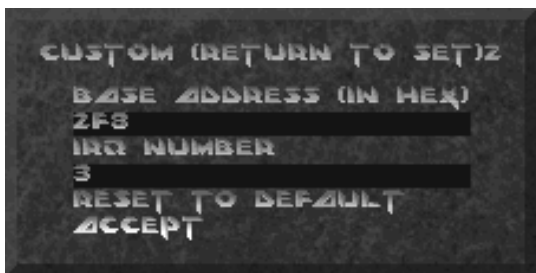
Descent requires a modem that is capable of at least 9600 baud with an error correction protocol (v.42 bis is preferable). Data compression is also helpful, and should be enabled in the modem. The modem should respond to a drop in the DTR control line by hanging up the modem. Fortunately, most modern modems have these settings as their factory defaults.

If you receive good performance at 9600 baud or above when using your modem for things like online services, no special initialization string should be necessary to run Descent (ATZ should work). If your modem is something more exotic, you may want to use the initialization string AT&F1 to reset the modem to factory defaults; this setting should work great with Descent.

CONNECTING A SERIAL GAME

STEP1

Starting a game of serial Descent is a two-stage procedure. First, a link must be established between two machines. There are two ways to establish this link: null-modem cable link or modem (and phone line). This is accomplished differently depending on whether you're using a null-modem cable or a modem. If you are establishing a null-modem game link, both players must select Establish Null-Modem Link from the Serial Game menu. After the two computers have established a connection over the null-modem cable, you will be returned to the menu and should have new options available to you. If the two machines fail to achieve a link, check the serial parameters on both sides. The baud rate settings must be identical on both sides for them to communicate properly. After establishing the null-modem link, one machine is designated as the master and the other is the slave. This is not visible from the menu; when you start a game, only one of the two machines will prompt for the game settings to use.

If you're establishing a modem link, one person must select Dial Modem from the Serial Game menu and the other must select Answer Modem. The easiest way to coordinate this is to decide before starting which side will answer the modem; this person should select Answer Modem and wait until the phone rings. After the modems connect, you will be returned to the serial game menu and new options will be available to you.

STEP 2

The second phase of starting a modem/serial game is actually running the game. This option is only available after you have connected via modem or null-modem. If you do not see the Start Game option on your menu, make sure your settings are correct and try again. The second line in the menu (highlighted in blue) helps to confirm whether or not you are connected. If the line reads Not Currently Connected, you must select one of the three options (Establish Null-Modem, Dial or Answer) before you can start a game.

When selecting Start Game, one computer will wait for the other computer to start. The other computer will be offered a menu of game options such as Start Level and Game Mode. If a modem is being used, the person who dials is also the one who selects the parameters. In the case of serial games, the person who selects the parameters is randomly determined.

Once the parameters are set, both players will be placed in the mine and the game begins. After the game is finished or when one of the players decides to leave the game, both players are returned to the Serial Game menu. *Please note that the communication link is still active.* If you want to play another game - maybe with different settings or a different starting level - just select Start Game again. If you want to hang up the modem or release the null-modem connection, select Close Link.

DISCONNECTING A SERIAL GAME

Make sure you select Close Link or Exit The Serial Game Menu after you're done playing a modem game. If you don't, the modem connection will remain established with the other player (which could rack up quite a phone bill)!

MODEM GAME FEATURES

 • You can send messages back and forth between players while connected You can do this by selecting Send Message from the Serial Game menu (this option is only available if a connection has been established). This is useful if you do not have an extra phone line for voice communications during play and you need to negotiate the terms of the game.

 • Another feature is automatic notification of starting a game. If player A selects Start Game but player B doesn't, player B will be informed that player A is ready and will be given the option of starting. If player B is not ready to start, player A will be informed of this.

 • A small phonebook is available from the Dial menu under the Serial Game menu. This lets you store the names and phone numbers of your eight most frequently called opponents. To edit the phonebook, go to the Dial menu and select Edit Phonebook.

MODEM PLAY TROUBLESHOOTING

 • If your frame rate is lower in modem games than in standard games, try setting your baud rate higher in the COM setup menu. The lower the baud rate, the more time the computer spends writing data to the serial port, and therefore the slower the game's frame rate. If possible, outfit your computer with an improved 16550 UART which will enable COM speeds of up to 38400.

 • If your program hangs with the message Waiting for Opponent displayed, this may indicate a failure in the serial link (errors caused by using too high a baud rate, interference with the null-modem cable, or uncorrected errors in the modem connection). However, in many situations it is normal to pause for a long time at this screen. One case where this happens is after a level is completed. If one player exits the mine early in the countdown, the game must wait until the other player has either escaped or has been killed before continuing. Since the countdown timer is up to 40 seconds and the sequence of flying through the escape tunnel can take several more seconds, a wait of 60 seconds or more at this screen between levels is not a sign of problems. On the other hand, waiting for the opponent at the start of a new modem game or establishing a connection should be brief - a wait of more than 10 seconds is a sign of problems.

 • If you are getting numerous errors in the serial connection, the program will inform you with an onscreen dialog box. This is a warning to you that you are probably driving the serial hardware in your computer at too fast a rate. If you continue without reducing the baud rate, there is a chance important communications between the two players will be lost and the game will behave erratically. Try reducing the baud rate in the COM setup menu or adding an improved UART to your computer.

The following DOS command line options can be used when loading Descent. Type the command line after DESCENT and then press Enter to start the game (e.g., DESCENT -CyberMaxx).

-CyberMaxx   **Enables CyberMaxx helmet display**

-MaxxTrak <n>   **Enables CyberMaxx head tracking via COM port n**

-VFX   **Enables VFX helmet support**

-VFXTrak   **Trak Enables VFX head tracking (VFX1.COM must be resident)**

-VFXMono   **Enables monoscopic rendering for VFX helmet**

-Volume <v>   **Sets sound volume to v, where v is a value between 0 and 100**

-Socket <n>   **Changes IPX socket for network games; n is a value**

-LowMem   **Lowers animation detail for better performance with low memory machines**

-Verbose   **Shows initialization steps for technical support**

-NoSound   **Disables sound drivers**

-NoMemCheck   **Disables memory requirement checking**

-NoLoadPats   **Disables patch loading for Gravis UltraSound**

-NoNetwork   **Disables network drivers**

-NoSerial   **Disables serial drivers**

-NoJoystick   **Disables joystick support**

-NoMouse   **Disables mouse support**

-NoDosCheck   **Ignores results of Dos version check. May be needed for DR DOS users**

-NoMusic   **Disables music; sound effects remain enabled**

-NoCyberman   **Disables Cyberman support**

Regardless of your computer configuration, you should have no troubles running Descent. Just in case you do have some issues, here are some tips.

GENERAL PROBLEMS

Q: I have a Gateway 2000 P75. The colors in Descent are completely screwed up. What do I do?

A: Do a hard reboot of your computer and go into your Bios Setup. Find the "VGA Palette Snoop" option and disable it. This should fix the problem.

Q: Descent runs slowly on my machine, especially in large battles. What can I do?

A: Try putting your detail level on a lower setting. Also try using F3 and +/- to change the size of the game window. Also, lowering the number of available sound channels through the Options/Detail/Custom menus can help significantly in large battles.

Q: I have a small game window and a low detail level, but Descent still loads and runs slowly. What can I do?

A: Check your sound card settings by running the Descent Setup program. Incorrect settings can cause significant slowing. To access the Setup program, go to the GAMES\DESCENT subdirectory, type SETUP and press Enter.

Q: Why do the walls in my game seem to jump around in the distance? Why do I get a colored wall in the middle of my tunnels?

A: This can happen when the Detail Level is set below the highest setting.

Q: My computer has 4 MB of RAM. How do I speed up the game and reduce the hard drive access time?

A: If you have less than 8 MB of RAM, try running a disk cache (even as small as 256k). This can help immensely. Also, load the game by typing DESCENT -lowmem so you trade off animation detail for speed. You might consider purchasing a memory upgrade; every meg of RAM you add will increase performance.

Q: Why does Descent lock up when I run it?

A: It could be a sound card problem. Load the program by typing "DESCENT -nosound". Run the Setup program and make sure your card settings are correct. If you don't hear digital sounds or music when you test them in Setup, try the Auto Detect Sound Hardware option. If this doesn't help, refer to your sound card manual for troubleshooting instructions or call Interplay's Technical Support.

Q: Why does my computer lock up during setup when autodetecting for a sound card?

A: Due to hardware conflicts, autodetecting for sound cards is a risky process. If you know the brand, port address, IRQ and DMA of your sound card(s), you should manually configure these items. Lockups are also common when autodetection is used but no sound cards are installed.

Q: Why don't I hear anything when I test my sound in setup?

A: There are several possibilities. You may have the wrong sound card selected. You may have selected the incorrect port, IRQ or DMA settings. The volume may be set too low in your sound drivers (or the volume slider on the back of your sound card). Hardware conflicts or loose cables may also be to blame.

Q: Why does the introduction music stop when I reach the Main menu?

A: You probably have your Music Volume slider set too low in the Options menu. All Options settings are stored in your pilot file; when the game identifies your pilot name, it lowers the volume to a level you may have customized.

Q: Why doesn't my joystick respond to the game?

A: Be sure you have Joystick selected in the Options/Controls menu, and make sure the joystick is calibrated. If your joystick connects to your sound card, make sure the joystick port jumper is enabled on the card. Some soundcards have this disabled by default.

Q: Hey! Why did some of my powerups disappear?

A: Certain powerups will remove themselves from the game if they have been around four or five minutes. This only happens to Concussion missiles, Energy powerups and Shield powerups dropped by a dead player.

Q: Why does Descent act strangely when I run it under Windows?

A: Although Descent may run under Windows, it isn't recommended. You will probably get odd behavior and slowdowns due to timer conflicts. Gravis Ultrasound users may get no sound at all under Windows.

Q: I have a Thrustmaster WCS hooked up with a joystick. When I use the stick to fly and the A and Z keys to move forward and backward, I start flying out of control. Why?

A: Because these devices intercept the keyboard signals, your ship may fly strangely when you also hold down keyboard keys (like A and Z). If you keep the WCS or FLCS on your system, it's recommended that you use those devices for throttle control and sliding, not the keyboard.

MODEM/SERIAL PROBLEMS

Q: Why does my game freeze during a modem/serial game and give me the message "Waiting for opponent"?

A: This screen will appear if you've died in or escaped from an exploding mine. If the other player is still flying there can be up to a 60 second delay. However, if your game sits at this screen much longer, chances are something is wrong. Likely culprits: opponent is having technical difficulties, interference with unshielded serial cables, loose cables, baud rate set too high, or uncorrected errors in the modem transmission.

Q: Why are my modem games a lot slower than my normal one-player games?

A: Try using a higher baud rate in the COM Settings menu. If your computer does not have a 16550 UART, you should consider getting one so you can go up to 38400 baud when communicating with the modem. See the "Modem/Serial Game Setup" section for details.

NETWORK PROBLEMS

Q: What do I do if I'm getting an error message stating that my IPX drivers are not loaded properly?

A: First, make sure you have a reasonable amount of low memory available. Although Descent uses a DOS extender to avoid low-memory hassles, some low memory is still needed for network buffers. If this fails, make sure your IPX.COM and other network drivers are loaded properly. A good way to test this is to log on to a network server, if one is available.

Q: Why does my network game seem slow and unreliable?

A: Try using a different socket number. It's possible that some other application on your computer uses socket 5100h, which prevents Descent from opening a proper network connection. Try large values for the -socket option (like 32 or 100). Remember, your opponents will need to use the same socket you do.

Q: What does it mean when Descent tells me my network card is missing packets?

A: This can be a result of a slow network card, heavy traffic on the network, or software conflicts in your system. If you get this message, you can rejoin the game and try again. If the problem persists, one of the following could be to blame:

 • **Loose cables.** Happens to the best of us. Check the plugs on the back of your computer, specifically the ones running to and from your network card.

 • **Too many players.** While eight players is offered as the maximum in Descent, it's possible that your LAN or computer configuration can only support four to six players reliably.

 • **Bad network card.** Some cards drop IPX packets even without heavy loads or interference. If you suspect your LAN card, try swapping it with one from another computer.

 • **Software conflicts.** Other drivers may be running that cause problems with the network interrupts. These conflicts may not emerge when performing other LAN tasks that either don't use IPX or have layers of error-checking. Try removing unneeded drivers from your CONFIG.SYS and AUTOEXEC.BAT.

 • **Router problems.** Playing Descent with players on different sides of a router may cause lost packets or delays. Playing this way is not recommended because it creates a significant load on the router that may disturb other LAN users.

Q: I tried everything to resolve my problem but I'm still stuck! Now what do I do?

A: Don't panic. Read through the Customer Support section on page 39. Interplay's Customer Support department is happy to help with any problems you may have.

You may also find additional Trouble shooting answers in the readme.txt file.

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CUSTOMER SUPPORT

If you have any questions about this, or any other Interplay product, you can reach our Customer Service/Technical Support Group at:

Interplay 16815 Von Karman Irvine, CA 92606 Attn: Customer Service. Customer Service is available 24 hours a day through our Automated Customer Service system, with a Customer Service representative available during normal business hours at (714) 553-6678.

Please have your system information available, or better yet, try to be at your computer. The more detailed information you can provide our support personnel, the better service we can provide you.

If you have a modem, you can reach us at the following:

The Interplay BBS: We have a 24-hour, 7-day a week multiline BBS available for customer questions, support and fixes. The number is 714-252-2822. Modem settings are 300-28.8k Baud, V.32bis, V.42bis, 8-N-1. This is a free service.

America Online: You can E-mail Interplay Customer Support at IPTECH. To reach our Customer Support board in the Industry Connection, press CTRL-K for "Go To Keyword." Then type INTERPLAY in the Keyword window. In addition to reading and leaving messages, you can download fixes and demos from the "Software Libraries."

CompuServe: We are available for IBM and compatible on-line support. We are located in the Game Publishers B Forum, type GO GAMBPUB at any "!" prompt. Then select "Section 4" for Interplay Productions. You can leave technical support questions there. You can also download fixes and demos from Library 4 in GAMBPUB. The best place for game play hints about our games is in the GAMERS forum. If you are not already a CompuServe member, you can call CompuServe toll-free at 1-800-524-3388 and ask Representative #354 for a free introductory membership and a $15 usage credit. For game play hints look in the Gamer's Forum (GO GAMERS). Besides technical support for Interplay products, CompuServe offers many other services, including communications, reference libraries, hardware and software support, travel, games and much more.

PRODIGY® Interactive Personal Service: You may send mail directly to us. Our ID is "PLAY99B".

Internet: You can reach Interplay with "support@interplay.com". Many Interplay demos and patches are available at Internet FTP sites.

To visit our World Wide Web site, point your browser to:

"http://www.interplay.com/"

INTERPLAY

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WARRANTY REPLACEMENTS
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