

UNDERWORLD I & II CD-ROM INSTALL GUIDE

ORIGIN does not support the use of disk compression utilities with these games. The use of disk compression utilities might cause them to be unplayable from your CD-ROM drive.

The following instructions apply to both games — Underworld (UW1) and Underworld II (UW2)— unless specifically stated otherwise.

The **Reference Cards** begin with instructions for beginning play if the game you are about to play is installed on your hard disk. If you are playing from the CD, follow the instructions in **Installation, Step 9** (below), instead.

QUICK INSTALLATION

Notes: It is possible to play both games directly from the CD, but it is necessary to copy some files to your hard disk and to create a directory for your saved games first. See **Troubleshooting** for instructions on how to copy the entire game to your hard disk, should you choose to do so.

Each game must be installed individually. However, you can install one game now and the second game at another time or both games now, one after the other.

While selecting options, you can press **[Esc]** at any time to return to DOS. This aborts the installation process.

When appropriate, use **[↑]** and **[↓]** to highlight the option you want. A highlighted option appears as blue text in a white box. Press **[Enter]** to select a highlighted option.

1. Insert the CD-ROM disk (label side up) into your CD-ROM drive. (Some drives may require that you put the disk into a CD caddy before inserting it in the drive itself.)
2. Change to your CD-ROM drive by typing its drive letter followed by a colon (e.g., D:) and pressing **[Enter]**.
3. UW1: Type INSTALL1 and press **[Enter]**.
UW2: Type INSTALL2 and press **[Enter]**.
4. The program will list all hard drives to which you may install. The program will then prompt you for the letter of the hard drive to which you want your system configuration data and saved games written. Press the letter on your keyboard corresponding to a hard disk with adequate space.
5. The next configuration option is *Sound System Installation*. This determines how music and sound effects will play during the game. Your choices are:

NO SOUND	PC SPEAKER (UW1 only)
ADLIB	SOUND BLASTER
SOUND BLASTER PRO	ROLAND MT-32 OR LAPC-1

Highlight the sound board you have (or NO SOUND or PC SPEAKER (UW1) only) if you don't have a sound

board) and press **[Enter]**. If you chose ROLAND MT-32 OR LAPC-1, it will ask if you have a Sound Blaster or Sound Blaster Pro to use for digitized speech.

6. If you choose SOUND BLASTER or SOUND BLASTER PRO in Step 5 (either originally or after selecting ROLAND), you will have to tell the installation program the "Base IO" and "IRQ" settings for your sound card. If you have a Sound Blaster Pro, you will also need to know what DMA channel it uses. For example, the factory default settings are Base IO: 220H, IRQ 7 and DMA channel 1. (Some newer Sound Blaster models default to IRQ 5.) Use **[↑]** and **[↓]** to highlight each appropriate selection, then press **[Enter]**.
7. After you have chosen your sound card, you will be shown your current settings. If the configuration is correct, select **[Y]** to continue. If it is incorrect, select **[N]**. If you select **[N]**, you begin again at Step 4.

When the *Confirm Selections* screen appears, you must decide if you want to copy the necessary files to your hard disk. If the configuration is correct, press **[Y]** to continue.

If the configuration is incorrect, press **[N]**. You can now begin again from the drive selection screen (Step 4).

8. After you select **[Y]**, the installation program will write the configuration information to your hard disk and prepare it to receive saved games. This process takes only a few seconds; almost all information is kept on the CD-ROM.
9. When the installation is complete, you automatically return to the prompt of your CD-ROM drive. You can now play either game you have installed.

UW1: To play *Underworld*, type UW at the CD-ROM prompt.

UW2: To play *Underworld II*, type UW2 at the CD-ROM prompt.

(In the future, when you want to play either game, just repeat Steps 1, 2 and 9.)

10. If you have never played *Underworld* or *Underworld II* before, consult the appropriate *Player's Guide*. Each guide begins with a tutorial and explains everything you need to know to start playing the game. If you encounter any difficulties, check **Troubleshooting** in this *Install Guide*.

CHANGING YOUR CONFIGURATION

If you ever add a sound card or change from one card to another, simply re-run the installation program as described above.

IF YOU HAVE TROUBLE INSTALLING ...

SYSTEM REQUIREMENTS

Computer. These games call for an IBM-PC 386SX or higher or a 100% compatible system.

Video Card. An IBM VGA or compatible video card with at least 256K of video ram is required. (Note: MCGA, as found on the PS/2 model 25 and model 30, will not work.)

Free RAM. You must have at least 640K of base RAM (memory) to play *ULTIMA Underworld* or *Underworld II*. Of that 640K, at least 527,360 bytes (UW1) or 544,768 bytes (UW2) of base memory must be available at the DOS prompt to run the minimum game configuration. Other configurations may need as much as 566,272 bytes free RAM (UW1) or 581,632 bytes free RAM (UW2). See **Memory Requirements** for more information.

EMS. To play either *Underworld* game, you must configure your computer to make use of *expanded memory*. The amount varies:

UW1: In addition to 515-553K of free base RAM, you will need at least 480K (491,520 bytes) of expanded memory available at the DOS prompt. UW1 won't run with less than that.

UW2: In addition to 532-568K of free base RAM, you must have at least 656K (671,744 bytes) of expanded memory available at the DOS prompt. UW2 won't run with less than that. See **Memory Requirements** and **Optimizing Your System** for more information.

Hard Disk. You must have a minimum of 2 free megabytes on your hard disk to install and play either or both games from the CD.

CD-ROM. MS-DOS CD-ROM extensions 2.1 or higher are required; a CD drive with 350ms or faster seek time is recommended.

MEMORY REQUIREMENTS

There are three types of RAM referred to in this manual: DOS (*conventional base RAM*), *extended* and *expanded*. UW1 and UW2 have specific minimum requirements for each of these types of memory. If you are unsure about these different types of memory, consult your DOS manual.

To find out how much DOS, extended and expanded memory your computer has available, type MEM at the DOS prompt. When the memory information is printed on the screen, look for the following listings:

- **Largest Executable Program Size** (This number indicates how much DOS memory is available.)
- **Total Extended** or **XMS** or **Total Contiguous Extended** (This is the amount of extended memory in your computer.)
- **Bytes Free of EMS** or **Free Expanded (EMS)** (This is the amount of expanded memory available to the program.)

If any of the numbers listed on your screen are less than the requirements listed below, refer to **Optimizing Your System** (page 3).

UW1 Memory Requirements

Type of memory	Minimum requirement to run game <i>without</i> sound effects, music, or speech	Minimum requirements to run game with Internal (PC) speaker (sound effects only)	Minimum requirements to run game with speech, music and sound effects (sound card only)
DOS (Conventional Base RAM)	527,360 bytes	535,552 bytes	565,248 bytes
*Extended	1,024,000 bytes	1,024,000 bytes	1,024,000 bytes
Expanded	492,000 bytes	492,000 bytes	492,000 bytes

UW2 Memory Requirements

Type of memory	Minimum requirement to run game <i>without</i> sound effects, music or speech	Minimum requirements to run game with speech, music and sound effects (sound card only)
DOS (conventional BASE RAM)	544,768 bytes	581,632 bytes
*Extended	1,024,000 bytes	1,024,000 bytes
Expanded	671,744 bytes	671,744 bytes

* You must have a total of 1,024,000 bytes of extended memory on your computer to run either or both of these games. However, this memory must be converted to expanded memory by using an expanded memory manager in your CONFIG.SYS file. The two most common expanded memory managers are Quarterdeck's QEMM386.SYS or Microsoft's EMM386.EXE (available in Microsoft DOS 5.0 or higher, or Microsoft *Windows* 3.1) If you are unsure how to load the expanded memory manager from DOS, refer to **Optimizing Your System** (page 3). For assistance with QEMM, consult your documentation.

OPTIMIZING YOUR SYSTEM

If you are experiencing problems running the *Underworld/Underworld II* CD-ROM games, it might help to create a separate boot disk or decrease the number of memory-resident programs (TSRs) you have loaded with the suggested configurations listed below.

Do not delete your AUTOEXEC.BAT or CONFIG.SYS files completely — without them, your computer will not function.

Before creating a boot disk, we recommend that you generate a hard copy printout of your hard drive CONFIG.SYS and AUTOEXEC.BAT start-up files. To do so, at the DOS prompt, type:

```
TYPE CONFIG.SYS
```

Use the PRINT SCREEN key to generate a printout of this startup file. At the DOS prompt, type:

```
TYPE AUTOEXEC.BAT
```

Use the PRINT SCREEN key to generate a printout of this startup file.

Creating a Boot Disk

To create a separate boot disk, insert a blank high density disk in your A: drive. From the DOS prompt, type:

```
FORMAT A: /s 
```

Modifying CONFIG.SYS

When the DOS prompt returns and the format is complete, type:

```
EDIT A:\CONFIG.SYS 
```

When the new screen appears, type the commands shown below. This configuration is generic and may require additional drivers. Consult your CD-ROM manual and printouts for more information.

CONFIG.SYS using DOS's EMM386.EXE

```
FILES=20
BUFFERS=20
DEVICE=C:\DOS\HIMEM.SYS
DEVICE=C:\DOS\EMM386.EXE 1024 /I=E000-EFFF M9 A=4
D=128 RAM
DOS=UMB
DOS=HIGH
SHELL=C:\DOS\COMMAND.COM /P
DEVICEHIGH=C:\path>\<CDROM driver><all parameters from the original CONFIG.SYS>
```

(Refer to your hard drive CONFIG.SYS printout to fill in the blanks in the last line above.)

After Typing the CONFIG.SYS Commands

After typing these lines, you should exit and save your file. Do so by typing:

```



```

Next you need an AUTOEXEC.BAT file on your boot disk. Type:

```
EDIT A:\AUTOEXEC.BAT 
```

When the new screen appears, type:

```
PROMPT SP$G
PATH=C:\DOS
C:
C:\<path>\MSCDEX.EXE <all parameters from the original AUTOEXEC.BAT with the following exceptions>
• delete the /E parameter
• change /M:## to /M:S
LH C:\MOUSE\MOUSE.COM
```

(Your mouse driver may need to be loaded differently. Refer to the printout of your original AUTOEXEC.BAT.)

Exit and save this file by typing:

```



```

To Use Your New Boot Disk

1. Turn your computer off, insert your new boot disk in your A drive and turn the computer back on. (If your CD drive is external, turn it on.)
2. Insert the CD-ROM disk (label side up) into your CD-ROM drive. (Some drives may require that you put the disk into a CD caddy before inserting it in the drive itself.)
3. Change to your CD-ROM drive by typing its drive letter followed by a colon (e.g., D:) and pressing .
4. UW1: To begin playing *Underworld*, type: UW
UW2: To begin playing *Underworld II*, type: UW2

TROUBLESHOOTING

Q: *Underworld* or *Underworld II* fails to load or run and generates an error code. What's wrong with my game?

A: Certain error codes can easily be interpreted and remedied:

A### (i.e. an "A" followed by three numbers) usually means a low file count.

• Your CONFIG.SYS file may need to be modified. If you get a message that reads "Internal Error" or "Underworld can no longer run. Error code A###," edit your CONFIG.SYS file so the line reading "FILES=##" reads "FILES=20" (or more). This should allow you to play the game. (Consult **Optimizing Your System** (above).)

B### means low conventional (base) memory.

• Run the MEM program included with DOS to check your computer's available RAM. To do this, type MEM after the prompt for the drive in which you have installed the game. Consult the "Largest executable program size" line. UW1 requires 565,248 bytes for all options and UW2 requires 581,632 bytes for all options. Free up RAM if needed or make a new floppy boot disk. (Consult **Optimizing your System** (above).)

C### means a problem with expanded (EMS) memory.

- You may be using a non-compatible memory manager. UW1/UW2 requires a LIM4.0 EMS or 100% compatible driver. Compatible memory managers include DOS's EMM386.EXE and QEMM386.SYS. This error may also indicate that you do not have enough expanded memory allocated to run this game. Consult **Memory Requirements and Optimizing Your System** (above).

E### means that you do not have enough hard disk space. You must have at least 2 megs free on your hard disk to install and play either game, even if you are playing it directly from the CD.

- You may have chosen an invalid configuration during the install process. Check your configuration and if necessary, re-install the game.

- You may have filled all free space on the active hard drive. Use the DOS DIR command to check available hard drive space. You need at least 2 megabytes for saved games and temporary files.

Q: My mouse is not working with UW/UW2 CD-ROM. My mouse works with all of my other software applications — why not with UW/UW2?

A: If your mouse is not working with UW/UW2, you should first check to see if your mouse has been loaded in DOS (in your AUTOEXEC.BAT file) or onto the boot disk you are using to play the game. Windows and many other "multi-tasking" environments load their own built-in mouse driver. These mouse drivers will not operate outside of their shell environment. Loading a mouse driver into the DOS environment can be as simple as typing MOUSE **[Enter]** at the command prompt. For example:

```
C:\>MOUSE [Enter]
```

This command can differ depending on which mouse driver software you are using. Please consult your mouse user's guide for further details.

Some rare combinations of hardware and software cause mouse conflicts that freeze the on-screen pointer. If your mouse pointer ever stops moving, press **[Alt][F4]** to free the mouse and allow the pointer to move normally, or get a Microsoft mouse driver version 7.0 or higher.

Q: When I try to run the game, I get a message that says "Sound System Initialization Failed."

A: You probably have enough memory to run the game, but not enough to load the sound drivers you selected during installation. You will either have to increase the amount of free DOS memory (see **Optimizing Your System**) or play without sound.

or
If your sound card is not one of the cards listed on the box or in the installation program, but is 100% compatible with one of the cards listed, it may need to be configured for Sound Blaster emulation mode. Consult your sound card manual.

Q: (UW1 only) When I select PC Speaker sound effects all I get are "Beeps" and "Boops."

A: There's nothing wrong with your speaker or your game. The PC speaker sound effects are not intended to be realistic.

They do, however, provide important feedback (whether you hit a creature in combat, for example). The best answer is to upgrade your system with a sound card. (The installation menu lists the cards supported by *Underworld*.) If a system upgrade is impossible and you would rather play without sound, select the OPTIONS icon from the main game screen, followed by the SOUND option. Turn the sound off and return to the game.

Q: Is it possible to play different characters in different games?

A: Each game allows you to save up to four different games at once. For each game, you can save four different points in a single adventure. You can also save one character's adventure in the first saved game slot, another character's adventure in the second slot and so on. Any combination of characters and saved game slots is possible (up to the maximum of four per game). Note that you cannot transfer a UW1 character into UW2, or vice versa.

Q: The game runs too slowly.

A: Your computer may not be fast enough to run the game efficiently. The minimum configuration is a 386SX with a 16 MHz processor — but movement and animation are faster and smoother on a faster computer. From the main game screen, select the OPTIONS icon, followed by DETAIL. Experiment with the various detail levels until you find a balance between speed and detail that suits you.

Q: I've tried to save my game, but I keep getting a message that says "SAVED GAME FAILED."

A: Each saved game can take up to 500K of hard disk space. If you don't have that much available, you can't save. To get around this, you can save your new position over an existing saved game. Select the OPTIONS icon from the main game screen, followed by the SAVE GAME option. Then, simply select a saved game slot you've already used. When you are asked to enter a name for the game, press **[Enter]** to use the same name as the old game, or type in a new one. **In addition, you must have 700K (UW1) or 1200K (UW2) of free hard disk space available when you begin a session.**

Q: When I start, the music sounds very odd on my Sound Blaster Pro.

A: Early versions of the Sound Blaster Pro require different configurations than later versions. To correct this, run the SET-ENV program that came with your Sound Blaster Pro. This will automatically set the environment variable properly. If this doesn't work, this variable can be set manually. Consult your Sound Blaster Pro docs or your hardware dealer for more information.

Q: (UW2 only) I am having trouble using my joystick.

A: Your joystick may be set to "auto fire." If this is the case, you have difficulty moving your character and the buttons may not function as you expect. To correct the problem, turn auto fire off. If your joystick doesn't allow you to turn auto fire off, unplug it and play with a mouse or use the keyboard controls.

Q: (UW2 only) I seem to spin around even when I am not touching the mouse, joystick or keyboard movement keys.

A: This can be caused by a miscalibrated joystick. Press **[Control][J]** and follow the instructions on screen to calibrate and center your joystick. If you cannot get the joystick correctly calibrated, you will have to unplug it and play with the mouse or the keyboard controls.

Q: Why does my computer crash when I try to play UW/UW2 through Microsoft Windows (or OS/2, Desqview or DOS 5.0 Task Swapper)?

A: "Multi-tasking environments" — Windows, Desqview, Software Carousel, DOS 5.0 Task Swapper and so forth — often conflict in their use of memory and other system resources with UW/UW2 CD-ROM. We do not recommend playing UW/UW2 under these circumstances. Even if you do run the game under a multi-tasker, do not swap to another application while playing. Your system will crash if you try to suspend UW/UW2 to run another program. In general, we recommend that you log out of Windows (or similar applications) and play from the DOS prompt.

Q: My CD drive is too slow to play the game from. Can I play either game from my hard drive?

A: To copy the CD version of *Underworld* onto your hard drive, follow these steps:

1. Make sure you have at least 13 megabytes of hard drive space available.
2. Type XCOPY D:\UW C:\UW /E/S **[Enter]**. This will copy all of the necessary files to a \UW directory on your hard drive. (This assumes your CD drive is D: and your hard drive is C: — if not, substitute the appropriate drive letter in the above entry.)
3. When the files have finished copying, change to your newly created C:\UW directory and type UNINSTALL **[Enter]**. This will begin the *Underworld* configuration process. (For UW1 only, at the option for SELECTING CUT SCENES STATIC OR ANIMATING, select ANIMATING. STATIC will not work.)
4. After completing the configuration, type UW **[Enter]** to begin playing.

To copy the CD version of *Underworld II* onto your hard drive, follow these steps:

1. Make sure you have at least 13 megabytes of hard drive space available.
2. Type XCOPY D:\UW2 C:\UW2 /E/S **[Enter]**. This will copy all of the necessary files to a \UW2 directory on your hard drive. (This assumes your CD drive is D: and your hard drive is C: — if not, substitute the appropriate drive letter in the above entry.)

3. When the files have finished copying, change to your newly created C:\UW2 directory and type UNINSTALL **[Enter]**. This will begin the *Underworld II* configuration process.

4. After completing the configuration, type UW2 **[Enter]** to begin playing.

Note: The install program will ask if you want to delete or leave extra sound files if you are running without digitized speech or with no sound. You can delete these files to save space, but (contrary to what the install program says) you will not be able to add them later without recopying the game to your hard drive.

Q: My Sound Blaster beeps before playing digital effects.

A: Under OS/2 old Sound Blaster ROM (1.5) will cause this. Reinstalling without digital effects will fix this, though you will lose digital effects. We recommend operating under a DOS 5.0 or higher environment.

Origin Customer Service

If, after reviewing **Troubleshooting**, you are still having a problem with the UW/UW2 software, please read this section and call us. We have a staff of customer service technicians ready to help you with any problems you may encounter with the game. Today's PCs run with millions of different hardware and software combinations. Because of this, you may also have to refer to your computer dealer, hardware manufacturer or software publisher in order to properly configure their product to run with our game. When you call, if at all possible, be near your computer. If it is not possible to be near your computer, be sure to have the following information:

- the error message displayed when the problem occurred (if any)
- The DOS version number you are currently running
- your mouse and mouse driver type
- a listing of your machine type and hardware contents
- the contents of your CONFIG.SYS and AUTOEXEC.BAT files
- your CD-ROM drive type and CD-ROM extensions version
- the contents of a CHKDSK and MEM /C statement

Contact ORIGIN Customer Service at (512)-335-0440 Monday through Friday, between 9 a.m. and 5 p.m., Central Time.

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