USER'S GUIDE

SPECTRE VR

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VELOCITY·

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INTRODUCTION

ABOUT VELOCITY

At Velocity, it's our goal to create only the very best of computer games. But it isn't easy. We've learned that the recipe for a great computer game isn't simply a matter of programming. A lot of it has to do with intangible qualities- things like understanding the intrinsic nature of fun, constantly pushing the envelope of your creativity, maintaining a design integrity, and most of all, learning how to stay young at heart. We hope our approach works, and that we've delivered some solid entertainment value to you!

Open your mind and read on. Spectre VR will draw you in, hold you and, we hope, devour any free time you may have. Enjoy!

About Spectre VR

Get ready for an all new surge to the electronic adrenaline rush of the year! In this sequel to the bestselling smash hit, you can soar above it all with your cybercraft. You now have smart weapons like Pulsebursts, Spinners, Smart Missiles, Proximity Mines, Cyberblasts and Scattershots! Escape through transporter gates! Submerge into negative cyberspace! And finally, by using our optional virtual reality editor, VRchitect, you can even design Virtual Worlds to play in later and share with your friends! Now you can play eight players over a network!

Unsurpassed Range of Features

- Build your own virtual world with our VRchitect cyberspace editor.
- Hover, soar and glide over the virtual world of your design.
- Real time artificial intelligence gives teams of enemies challenging tactics.
- Battle Slicers, smart Acid pools, cloaked robots, flying Hunter Killers and gauntlets of Orbiters.
- Use cyber-blasts, EM-Pulse emitters, Smart Missiles, Seekers, Grenades, Proximity Mines, Scattershots and Spinners.
- You still see transporter gates, Cybermud, intelligent Acid pool guardians, ICE, moving walls, maze levels and submergence devices that let you explore negative cyberspace.
- This game is even more addictive than before!!!
- Network games have been enhanced! Now you can play with eight participants in over a dozen enhanced network scenarios - Strafe City, Cyber Dogfight, Maze Rally, Bitball, SuperArena and CyberSoccer.

GETTING STARTED

Welcome to *Spectre VR!*

If you're new to *Spectre*, we think you will find *Spectre VR* to be one of the most enjoyable games you've ever played. We have tried our best to combine high-speed graphics, addictive gameplay, networking capabilities, intense action and FUN!

Please read the **Read Me** file on the disk for any last minute information.

How to Use This Manual

Experienced Users

If you're familiar with your computer, you should skip to the next section to learn how to INSTALL and RUN *Spectre VR*. Then select Play from the main menu to start. Hey, nothing to it, just do it! To learn about the keyboard layout, simply refer to the *Quick Reference Card*. This will get you started on the first levels. Come back to this manual when you attain level 10.

New Computer Owners

If you're new to PC or Macintosh computers or have never used a product like this before, this chapter is for you.

If you see computer-related terms that look unfamiliar to you, you should consult the manual that came with your computer.

Spectre VR should run on most newer PCs and Macintoshes. Following is a list of the equipment required to run the game.

REQUIREMENTS

For IBM PC Compatibles

• An IBM or 100% compatible computer with a 286/16 MHz or better processor.
• A hard disk drive with at least 3 MB free space
• A 100% VGA compatible graphics card and monitor.
• A double density 3.5" (720K disk drive).

The following are also supported by *Spectre VR*:

• An AdLib or Sound Blaster compatible sound board.
• A Microsoft or 100% compatible mouse and driver.
• A Joystick or game pad.
• Microsoft Windows 3.0 or later.
• We recommend using a 386/25 MHz or better processor under DOS and a 486/25 MHz or better under Windows. A graphics accelerator card will improve performance significantly.
• QuickTime for Windows version 1.5 to play the optional QuickTime movies.

For Macintosh

Spectre VR requires the following equipment in order to run:

- A Macintosh Plus or better.
- At least 3 MB RAM under System 6.0.3. Or at least 4 MB RAM under System 7.1.
- A 3.5" diskette drive.
- A hard drive with at least 3 MB free and available.

We also recommend that you use:

- A Macintosh with at least a 68020 Processor.
- At least 4 MB RAM for full graphics and sound capabilities.
- An 8-bit color card and monitor
- QuickTime version 1.5 to play the optional QuickTime movies.

INSTALLING *SPECTRE VR*

Before you install *Spectre VR*, please be sure you have met all the requirements listed above. If you are not sure that you have the correct equipment, you may want to ask your computer dealer.

Spectre VR MUST be installed to a hard disk drive. There is no disk-based copy protection, so you don't have to worry about things like hidden files.

PC Installation

- Step 1 Turn on your computer and 'Boot Up' normally.
- Step 2 Insert the *Spectre VR* disk in a diskette drive.
- Step 3 Type that drive letter followed by a colon (usually A: or B:) and press [Enter].
- Step 4 Type INSTALL and press [Enter].

Now, simply follow the on-screen instructions. The Install program will copy and decompress *Spectre VR* to your hard disk. You MUST run the install program to play *Spectre VR*. You cannot simply copy the *Spectre VR* files to your hard disk. The installation program will default by *Spectre VR* to the C:\SVR directory. You can easily change this during installation.

Macintosh Installation

- Step 1 Turn on your computer and 'Boot Up' normally.
- Step 2 Insert the *Spectre VR* Diskette #1 in a diskette drive, or the CD-ROM into the CD-ROM Drive...You only have to do this step once (unless you install any hardware upgrades to your system).
- Step 3 Click on the *Spectre VR* Install icon on the Floppy Disk

Follow the onscreen instructions and that's all there is to it!

RUNNING *SPECTRE VR*

After you install, you can run the program. New computer users can follow the detailed instructions below:

PC Users

- Step 1 Log on to the drive where *Spectre VR* was installed: **C: [Enter]**
- Step 2 Change into the directory where *Spectre VR* was installed: **CD\SVR [Enter]**
- Step 3 Run the game by typing: **SVR [Enter]**

Macintosh Users

- Step 1 Double click on the *Spectre VR* Icon in order to start playing
- Step 2 Enter the serial # located on the disk label. You only have to do this step once.

Please note that your old Spectre, version 1.0, serial number won't work with *Spectre VR*.

STARTUP OPTIONS

PC Options

Please consult the **Read Me** file for PC Options information.

```
┌─────────────────────────────────────────┐
│            Enter Access Code             │
├─────────────────────────────────────────┤
│ Please register this copy of Spectre     │
│ Supreme (the serial number is printed    │
│ on the disk)                             │
│                                          │
│  Name:       │ Skip Kerns          │     │
│                                          │
│  Serial      │                     │     │
│  Number:     │                     │     │
│                                          │
│    │ Cancel │         │ OK  ⏎ │          │
└─────────────────────────────────────────┘
```
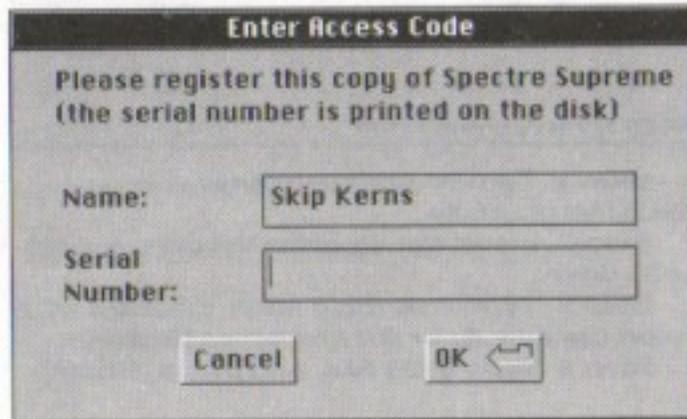
Name and Serial Number Dialog

Macintosh Options

If you have a Mac II with a color or gray scale monitor, *Spectre VR* will automatically boot up in the best available video mode. In order to view the game with filled polygons and gradient backgrounds, rather than vector line representations, you need to have at least 1800K of free RAM in your system. Also, if you have less than 1600K of free RAM, you will not be able to hear the full sound set.

Having Trouble?

If the any of the above didn't work correctly for you, there may be something 'in' your computer system configuration causing trouble. *Spectre VR* has been tested on ALL types of PCs and Macintoshes, but it is IMPOSSIBLE to simulate each user's individual configuration, especially if you are using third party hardware or a sizeable number of software INITs or TSRs.

Please consult the *Troubleshooting* section if you're still having trouble.

A SHORT TUTORIAL

Experienced Users

If you're familiar with *Spectre*, just start playing! The only difference in the motion controls is you can edit them now and there's one more button for selecting an optional weapon. Simple, huh?

New Users

If you're new to *Spectre*, this Tutorial was written specifically for you! With a couple of keystrokes you will learn some of *Spectre VR's* most important features and be up and playing in minutes.

The instructions on the preceding pages, should enable you to launch *Spectre VR*. Once the Main Menu appears on your screen, select **Play** by clicking on it with the mouse or pressing either the **P** or the **Return** key.

After selecting the **Play** button, the **Vehicle Selection Dialog** appears. Choose the **Balanced Spectre** vehicle for this first time. Each vehicle is useful for various strategies, and has its own strengths and weaknesses. Select the vehicle by double clicking on the animated icon, clicking on the **Play** button with the mouse or pressing the **Return** key. The words **'Level 1'** spin up on your screen. You will then descend into the Arena.

Notice the keyboard layouts. If you have a standard keyboard, with a numeric keypad included, the **8** and the **2** move you forwards and backwards. (If you have a different keyboard, please look in the *Playing Spectre VR : Maneuvering your Vehicle* section in order to study how the system remaps the keyboard for your particular configuration). The **4** and the **6** keys turn you to the left and right. Try the **4** or **6** key and hold it down. Do you see a little enemy craft approaching you? Right about now, they should be firing at you, and your vehicle should be taking a hit or two. Adjust the direction with the **4** and **6** keys, until you have lined up the enemy robot craft in your sights, and then press the Space Bar to fire your Cannon. If you hit the enemy craft, it will blow up. Do this for any other enemy craft in your sights.

Now try the **8** key in combination with the **4** or **6** keys to practice moving around in the Arena. Also, the **7** and **9** keys work as well. When an enemy is firing toward you, you can evade its shots by using the **1** and **3** keys to weave as you retreat from him. You can also fire as you are retreating. Practice maneuvers like this to get used to moving around effectively.

If you prefer, you can press the **Tab** key, and this will give you an external camera view. Pressing the **Tab** key again brings you to an overhead map view, and the third time toggles you back into the internal cockpit view. Use the **+** and **-** keys to zoom in/out while in the external and overhead map views. In the forward view, you also have a radar in the upper right corner that allows you to locate enemy craft, Ammo Dumps and flags. Your cybercraft is in the middle of the radar and the arena rotates around your position.

The single player game is played in levels of increasing difficulty. To complete a level, you must collect all the flags on the level, while avoiding or destroying the enemy robot crafts. Drive around until you see a flag. To collect a flag, run over it. If you see a robot craft, shoot it. You receive an extra bonus if you destroy all the crafts during a level before collecting all flags.

If you haven't returned to the internal view, do so now by pressing the **Tab** key once or twice. There are a few other things you should note. First, every time a robot craft's cannon hits you, you lose shield strength. This is noted in the damage level. Every time you shoot your Cannon, you lose ammo. This is noted in your ammo count. To re-arm and boost your shield strength, simply drive over an ammo dump, signified by the undulating squares scattered all over the Arena.

Have fun. When you're done experimenting, press <**Control-Q** on PC and **Command   -Q** on Mac> to leave the Arena and return to the Main Menu.

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THE STORY SO FAR...

Spectre VR is based on something called virtual reality, or cyberspace. By reading this chapter, you will become acquainted with the underlying concepts, so that you may understand how the game is played.

Anyway, hope you like cyberpunk. Here's some for you to read.

Novella

Hart commanded his mind to move his left arm slowly, releasing the *ch'i* force to lift it to the desired height, and he gently assumed the position called *Embracing the Tiger*. Ever since he took up *tai chi ch'uan*, his reflex rates in cyberspace had almost doubled. It was a breakthrough, putting him in the limelight as this year's darkhorse contender. He shifted his weight and the direction of his intention, and entered *Repulsing the Monkey*. Holding the stance until he began to burn a little in the thigh, he mentally noted on his body monitor implant that his basal metabolism was up about twenty percent. He felt his palms sweating and his fingers tingle. He was breathing deeply. It felt like being in a state of walking alpha.

What a crazy six months it had been since he signed with Sousa. He'd won every bout by TKO, brainfrying just about every netrunner willing to come up against him in the local fights. Now Sousa had his eyes on the big time. The Central Systems Matrix Internet Championships. The rush of mundane worldly thoughts he was processing was ruining his tai chi alpha state. The parasympathetic response rate was dropping, so Hart tightened the reins on the horse of his mind, and focused back into his body.

"Hart!"

Hart sighed. Couldn't get a minute of rest.

"Hart! Someone's trying to call you!" chirped a helpful towelboy, running into the workout room.

Hart broke his concentration. He gave the boy his dirtiest look.

"Ah... sorry. This guy says he wants to talk to you, and his cellnet triangulated you here. Why'ja turn off your phone?" Hart waited a beat, while holding the Single Whip stance, continuing to stare at the kid. "Because I wanted to."

"Oh...Sorry."

Hart quickly made it to the *Cross Hands* set ending position, and released the *ch'i* energy. He thought to his interface, *openchannelcellnet1499216*, and the cellular communications implant came to life, *acceptcellincoming*. Just a hit of static and then, "Hart? Hart? Is that you?"

Hart mentally retrieved the ISDN header, and saw that it was Shotgun, his netrunning partner. *Yeah. What is it, man?*

"Hey, buddy, buddy, how's things hanging?"

Hey, man, you've got the worst timing in the world. Call me in about an hour. After I'm done with my workout and take a shower, okay? Click.

'Buddy, buddy.' It was Shotgun's signal that something was wrong, and that the line wasn't secure. We have a buddy listening on the line. 'How's things hanging' meant something else entirely. It meant that he was in mortal jeopardy. Shoot! This gave Hart about an hour to chip into the net, find a secure, encrypted channel, and find out what was going on. Hart tore out of the workout hall, remembering to disconnect the InterNet cellular dialtone and direct it to scramble the return signal to spoil further triangulation. He ran into the locker room. The gym was a semisleazy establishment in the Marina red light district that sold a mixture of martial arts, the latest muscle-stimulating electric exercise and a questionable brand of anti-body cocktails to decelerate the aging process. Integrating East and West was newthink at its best. The gym was called BodyFitness Systems. Exclusive distributor of Kromer Genelab's Ever-Young antibodies. For whatever ails you.

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Hart wasn't into the electric exercise and he wasn't about to trust designer recombinant refreshments. He just went there because his *tai chi* master, Chan, was on retainer to Kyocera Biologics I.G., under which BodyFitness was a subsidiary. After the elimination of martial arts by the United Nation Peacekeeping Force, the only martial artform allowed to continue publicly was *tai chi ch'uan*. It was deceptively non-invasive in form, so it made it past the censors, and blossomed in popularity. Almost every other martial art, from *aikido* to *wing chun*, went completely underground.

In the locker room, Hart popped off his cotton tai chi shoes, and got into his street clothes in a frantic rush. The combat boots took an entire two minutes to lace. Four minutes more and he was out of the gym. He hailed a johnnycab at the street corner, and entered the command to head for his safe house. The sun was finally setting and people were beginning to mill around in the street, now that the UV radiation threat was subsiding. Nu Frisco was far enough north to not have to worry incessantly about skin cancer, but who could trust the government's estimates of safe dosages of atmospheric ultraviolet? Boy, you don't miss that ozone 'til it's packed and gone.

Within ten minutes, Hart found himself in his spare apartment. The one he conveniently forgot to list with the housing authority database. It was about seven thirty, and he had about a half hour before whatever was threatening Shotgun would demand another attempt for contact. Hart reclined into his net-sofa. He connected the console's various fibre-optic neural interfaces into his various brain-sockets, and he closed his eyes. It was dreamtime, bro.

The system slowly rerouted his nerve impulses, and he felt a buzz descending over his consciousness. Behind his closed eyes, it dimmed slowly, and suddenly it flared with bright light. For an instant he felt his body, and the terror of hypnagogic paralysis passed through him. Fortunately, awareness of his body dissolved and a distant light coalesced slowly into the familiar purple horizon of the net. It sure beat the pain of the old direct connect electrodes.

Welcome to CyberNet.

He was in. Next task. He rushed at the speed of thought toward his Net mailbox. With a few deft manipulations of prime numbers, he passed into his system memory partition, and straight down the InterNet optical cables into his own home. Made it! He was in his own home workstation. Now, the tricky part. He slowly disconnected the layers of protection he placed on the home video surveillance system, and slipped himself in. Suddenly, virtual view windows opened around him in cyberspace and he could see into his own home, through several cameras mounted all over the place.

"Come on kid. Time's up. Call him!" It was a very unsavory plugnosed character who was using a cattle prod to convince Shotgun to cooperate.

"Okay man."

"Don't use your implant or I'll fry you. Use the damned handset."

"Hey! Careful with that thing!"

The plugnose handed Shotgun the telephone. "Get him over here. All I wanna do is talk."

Suddenly, the lights in the room dimmed, and all the video monitors went on. Hart was on every screen. Automatic locks went off and barred every window and shut and locked every door. "Here I am." A ghostly rendition of Hart's voice filled the room.

Plugnose was clearly alarmed. "You Hart?"

"Of course I am. Now state your business or I'll get bored and cancel your credit cards."

Plugnose waved the cattle prod and said, "You do what I say, or..."

"Or what, pal?"

"Or I'll fry your best friend here."

"Go ahead."

"What?"

"I said, go ahead."

Plugnose made an even uglier face, and pressed the cattle prod against Shotgun.

Nothing.

No hiss. No spark. Nothing.

Hart deadpanned, "I disabled power to that outlet to your left and reprogrammed the prod." Suddenly, a spark jumped off of the prod, and arc'ed back at Plugnose.

"Oww, damn it!" Plugnose dropped the prod.

"Okay, jerk, I'm gonna count to three trillion, which shouldn't take very long in cyberspace, and if you don't spill your guts..." Hart threatened, and then another arc came off the prod, and made contact with Plugnose's right calf.

"Ahhh!!! Okay! Okay!"

"Two trillion and..."

"I was sent by King Ratface. He wants you back."

"Uh huh. Or else what?"

"Uh... or else?"

"Yeah. Or else what? He didn't send you to sing a telegram."

"Um, ah, or else... or else I'm supposed to bash your brain-sockets in." Plugnose finally decided to show a little bravado.

The prod discharged for twenty two seconds. His heart stopped beating after eight.

Openchannelcellnet911.

Emergencyserviceshowmayiassistyou?

Sendambulance1442larkinstreetunit4b. problemdescriptionplease

accidentalelectrocutionvictimcardiacarrest

okaysendingambulancepleasestabilizevictim thankyou

Shotgun let the paramedics in. They saw Plugnose sprawled over the floor in the computer room. One paramedic bent over, and checked the carotid artery.

"Umm. This guy is awfully dead."

Shotgun looked at him. Deadpan.

"It'll... cost you *extra*... you know, to resuscitate him."

Shotgun knelt over his body, and pulled out Plugnose's wallet. Opened it. The ID stated that the body belonged to Vincenzo Paolini. Shotgun rifled the contents, and pulled out a Kaiser Kard. He slowly handed it to the paramedic.

"Shoot. What do I care. Knock yourself out."

The other paramedic started struggling with the immense body, and managed to get half of Vincenzo onto the body cart.

The paramedic kept selling. "Well, for a Benjie, I could postpone resuscitation until a more than reasonable amount of oxygen deprivation occurred, resulting..."

Shotgun lost it. "Hey, get out of here before what happened to him happens to you." Man, he hated these paramedics. What happened to people who actually cared about life?

Miffed, the paramedics started making their way out. Number two said, "Man, I knew we shoulda stayed in intercable installation."

Shotgun walked over to the sofa, sat back, plugged himself in, closed his eyes, and entered the Net. Soon, he was standing in front of Hart.

Hey, man, what was that all about?

Ratface. I used to cyberfight for him. Out in Nu York.

So what? You so lousy he wanna kill you for it?

No. I expect he wants me to take a dive. Recover some losses from Sousa.

Man, we need security.

Be cool. Worry not. Hart is here.

Easy for you to say. I'm riding shotgun here.

Hart thought about it. Shotgun was right. Whoever was riding shotgun was connected in serial between Hart and the outside world. Anyone sending a vectored virus to wipe Hart's brain registers had to brainfry Shotgun first. It was like having someone you really depended on, watching your back for you. Indispensable in CyberArena fights.

Yeah, Shotgun. You're right. Sorry. We need better security.

Okay. Thanks. That guy scared the daylights outa me.

See you back at the ranch.

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The problem with the cyberfight business wasn't the constant risk of neural injuries. It was the class of people you ran into.

Hart was in training for the Central Systems Matrix CyberNet Championships. The reining champ, Tony McGuire, was still leading Hart 3 to 1 in the betting pool networks. Sousa would rake in some serious money if Hart upset the Champ, so naturally Sousa offered Hart a sizeable bonus if he'd just go the distance and show some commitment.

It wasn't like Hart hadn't been showing some commitment for quite a while now. First, Sousa talked Hart into accepting an implant, when Cooper Industries came out with a neuro-optical brain-socket that was even more efficient than direct connect. Once the hardware went into his head, it became progressively more difficult to refuse the latest speed increase boost, courtesy of Cooper Industries. More onboard neuro-buffer RAM? Sure. More bandwidth? Why not. A Josephson junction based pre-processor? Of course! Come on in! Plenty of space up here for all of you. Pretty soon, Hart began to feel a bit, you know, top-heavy.

The aching doubt that he'd sold out his own humanity was starting to creep into his subconscious. Nevertheless, he continued to show commitment by recruiting the best backup team he could, with Shotgun riding netshadow, and Spira providing the bio support. Spira. Now there was a woman built for combat. Proportioned like a fashion model, but secretly an underground aikido champion. Trained in the Last War as a combat paramedic, she knew how to do everything from covert wetwork to cohering a fiber-optic brain-socket to delivering a baby in a johnnycab. *Close enough to kiss is close enough to kill.* That's her motto.

Hart purchased the latest equipment and biologics on both the FDA and black markets. Better living through science and chemistry. He did everything it took to become a contender.

And it was paying off handsomely. He was wealthier than he'd ever been in his entire life. Unfortunately, that wasn't saying very much. He could pick up just about any woman he wanted, and was welcome in any bar. When you're a winner, the world is your pal. He'd been trying to forget that when you lose, the world usually beats a path to spit on you.

The only thing that was bothering him were the *dreams.*

About a month before, Hart began to have these really strange dreams. It started with glimpses. This blonde. And man, what a blonde. It was the same thing every time it happened. Instead of the feeling of dropping into cyberspace, he felt like he was being lifted into a kind of lucid dreamspace. And then he'd see her. For just the briefest instant. Sometimes in cyberspace. Sometimes sitting on the antique Harley Davidson motorcycle he had when he was eighteen. She'd smile, and melt away as he woke.

He asked Spira about it, and she couldn't find too many hits or matches in the database search at either UniNet or through the Cooper Industries research database, which she hacked on the FDA Net. Hart was beginning to suspect that the manufacturers were putting some video firmware into his onboard buffer RAM, but all the diagnostics indicated that he was clean, clean, clean.

Oh well. He had bigger problems to deal with than a recurring ghost in his wetware.

Shotgun was booting the neurophysical bypass code, and handling the final checklist before the drop into cyberspace. "Norepinephrine levels are about 110% of nominal. Your neural plasticity level is a bit low, but the transient is climbing. Respiration and cardio functions are normal. Cerebro-energetics entering your bloodstream even as I speak and your synaptic booster circuitry is red hot and on line. Oh yes, we are gonna make your neurons scream, Hart!"

Hart was still unsettled. He'd been on edge, and his performance in the last few bouts were less than stellar. Okay, but he'd been saving himself by pure instinctual reflexes. He'd been getting less and less sleep, and the *dreams* were getting stronger. But it was cyber time, so he focused like he was trained to focus. Completely and religiously.

"Awright! Talk to me," chirped an upbeat Shotgun.

"What?"

"Hart?"

"Oh, sorry. I was thinking."

"Well, stop thinking. It's time to run on reflex."

"Yeah. No problem. Let's do it."

"Spira, brief him on what to expect."

Spira stopped what she was doing at her biomonitor console. She picked up a hardcopy of the latest CyberFights Digest fax and read it. "Hmm. This level, you go up against clusters of rovers, all using Level Four small unit tactics. A couple of slicers, but nothing too nasty. I'd recommend using scattershot. Conserve your shots and you'll be okay. All right?"

Hart was trying to listen, but things weren't exactly clicking. He nodded and Spira went back to the console she was monitoring.

Shotgun smiled. "Surf's up, dude." He pressed the keyboard, and Hart felt a weight pressing him into unconsciousness.

Bam. Hart felt the descent into cyberspace with every simulated nerve in his virtual gastrointestinal lining. It didn't matter how many times he fell into cyberspace, it just wasn't something human beings were ever supposed to get used to. He looked around. The skyline was sharp as a razor, and objects had that trademark clarity. It pays to buy the best hardware and interconnects. And that sound! The kind of sound that went way beyond the stuff that had to go through air. Cybersound has this ability to glisten in cyberspace. Even the most subtle tones cause emotions to purr. Hmm

baby. Hart looked around. He saw flags, defended heavily by ice and gun turrets. Hart saw a slicer in the distance, leaping gracefully out of negative cyberspace. He made a mental note of the best approach angles.

Hartareyouonline?

Shotgun!

Shotgun was pretty busy. Spira just got a fax update, and the match lineup was changed at the last minute. It wasn't just clusters of simple of Rovers. It was serious now. He knew that Hart was a bit off tonight, and was secretly hoping for a quiet little sparring session. But this was something else. Hart would need every edge he could get.

YesImonline.

"Great. Hey man. Now I want you to listen carefully."

YesImallears.

"Okay. In this cyberspace matrix, it ain't simple Rovers. They've coded smart acid guardians all over the place."

YeahIcanhandleit.

"Oh, great. So you're feeling cocky. Sorry to bother you. Just thought you'd like to know that their ice defense is so strong that it would take you forever to knockthrough it. Hart, they are basically indestructible."

Ohcrap.

"Yeah, I thought you might feel that way."

Whatcanido?

"Try every weapon you have on them. Who knows. Also, if you see a flight pickup, grab it. It'll let you hover at a safe altitude. Some combination of them might work."

Wellheregoesnothing.

Hart pressed on the gas pedal of his mind, and the vehicle began to course forward. Scanning the long range radar display in his inner ocular HUD, he noted that the closest enemies were still at least 700 milliseconds away, even at full throttle. He checked his fuel and shields, and noted that smart missile were his optional weapon. He quickly switched to spinners. If the enemy was too strong to kill, at least he could buy some time to test other weapons on them. He moved up to a limiter line, coursed along it toward the array of structures he could use as cover from unfriendly fire. And it was almost always unfriendly.

Clunk. Hart took a hit from the right. Damn. He wasn't paying attention. *Clunk.* Lost another shield! He whipped around, on pure instinct, parried shots with some fancy moves, and dispatched the Rover with a single shot from the cannon. Well, shoot. There goes the avoidance bonus.

He moved forward. A little more cautiously.

Shotgun was banging away at the keyboard. "Hart! Hart! Can you read me?"

The commlink died. No communications either way. Hart was doing okay though. Racked up his first kill with hardly a scratch. But no commlink. Jeez, yet another bug to track down. How many failure states could a MacCray 4000 personal supercomputer have?

Hart was breezing along. It was a pretty easy wave. But Shotgun was pretty quiet. Shotgun?Shotgun? *Opencybernetcommlinkfive. Shotgun?* Shotgun wasn't answering. Well, Hart had bigger fish to fry right now. The acid pools Shotgun described were in fact sliming along, but they didn't have enough energy and speed to be much of a threat. *Boink!* Oops. Where did that wall come from?

Boink! Hey, what's going on?

The walls are moving! Hey! The... walls...

Clunk. Clunk. Clunk. Wait a minute. What was hitting him with cannonfire? Some kind of sensor error. *Clunk. Boink!* Ouch.

Szzzzz. Ow! What the hell was that? *Danger. CyberNet overload.* What's going on? Something's draining the shields. *Boink!*

The smart acid. Damn, that burns!

CyberNet overload. Simulation terminating.

Whoa. Glad that was over. Hart felt the lifting sensation. Then he saw a mist, a bluish-yellow mist, and the yellow mist became hair. A girl. Smiling at him. Oh my gosh, it was the dream girl. Smiling. And then she was mist again.

Hart opened his eyes and looked up. Hart and Spira were concerned looking.

"Hey, you got your butt kicked pretty bad." Shotgun was smirking. Hart wanted to say something, but found that he couldn't speak.

"Hey, you okay?"

Hart coughed. Who was that girl? Maybe she was on some other Matrix that was echoing its signal over into his CyberNet? He forced himself to create the words that came out of his mouth. "The walls! The walls were intelligent... they team up... with the acid pools."

"Yeah. We know... now."

"Where were you?"

Shotgun held up a cable. "Faulty fiber-optic bus cable. Sorry. We didn't have a stable commlink. Praise Murphy that it wasn't your cardio-assist monitor or something."

"Yeah. Well, good thing it was only a sparring session."

"Well, yeah."

Spira spoke up, "Hey, we'll do better next time. We gotta keep training."

And they did. They kept training. With the Cooper optical brain-socket, neural fatigue wasn't much of an issue anymore, as long as they kept the dorph flowing. Hart's reflex time was slowly improving again, and the dreams stopped. Pretty much. Well, at least he stopped looking so haunted all the time.

The doorbell rang. Spira went to the door, half expecting some pesky religious terrorist/fanatic. But she knew that it was the time that the Federal Postman arrived to deliver the mail. Thank goodness Federal Express won the hostile takeover bid for the US Postal Service. Now the mail absolutely, positively got delivered on time these days. Even if a letter cost $25 instead of 25¢. But it was all a little too late - with high-resolution true-color faxes, cyberlink conferencing, electronic notary publics, legal A.I. agents that generated and reviewed contracts and agreements in real time, nano-second commodities arbitrage and everything else. It was pretty rare to get a letter or package these days.

This package was addressed to Hart and it was from Nu York. It felt like bad news.

"Hey Hart."

"Yeah."

"Bad news coming."

Hart looked unperturbed. "What now?"

"It's from Nu York."

"Okay."

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The package was scanned and disinfected. When Hart finally opened it, it contained a bloody brain-socket stump, obviously torn from the head of some poor cyberfighter who was both brave and stupid enough to stand up for his rights and rock the boat. Someday, Hart vowed to himself, someday, I am gonna cross paths with Ratface and pay back what this guy had done to cyberfighters for ten years. He was gonna do to Ratface's brain what drug commercials did to brains in the early 1990s.

Hart closed the box before anyone else could see it.

Spira's eyes went up. "Bad?"

Hart shrugged. "Declaration of war."

The training continued. Every morning, Hart went to the BodyFitness gym to learn a little bit more tai chi. Every afternoon, Hart practiced in the Net. At first, this day seemed no different.

Hart was practicing his set, and Master Chan was reviewing his moves. For the first time, Chan did something besides grunt.

"So, Hart, what is it that you do?"

"Mister Chan. Can't you see my brain-sockets?" Hart was uncomfortable calling Chan his master. It was an outdated custom. The newthink was that all beings were equally masters in life. Self esteem über alles. The current political scene was controlled by New Age creative visualizers, and it had a sweeping effect on education, media and culture.

"Yes I see the scars, but what is it that you do?"

"I fight. In cyberspace."

"Ah..."

Then... silence. Chan seemed satisfied, so Hart began his set again, with Chan observing. About ten minutes passed, and Chan spoke up again.

"These fights. Tell me about them."

Hart then sat down next to Chan, and described the intricacies of cyberwarfare. When he finished, Chan stood up. "Mr. Hart. Let me demonstrate something to you."

Hart got up. Chan went over to the door and shut it. Hart's adrenaline level began to ramp up. His biomonitor implant came to life in part of his consciousness.

"Mr. Hart. Please do not report what I am about to show you to the authorities. Do I have your agreement?"

"Yes!"

"Fine. Now come to attack me."

"What?"

"I mean it. Actually attempt to strike me!"

"Ah..."

"Now!" And Hart dashed in to hit Chan. Hart thought that he had connected, but his fist didn't connect with anything. He swung again, with his left uppercut, like he saw in vintage boxing videos. It was like hitting the air, except that the instant before connecting, nothing was there. Somehow, the slightest motion from Hart was matched by the subtlest response from Chan. Hart rushed in and attempted a power right crossover punch. Cross extension reflex ma-

neuver. But suddenly, Chan's hand tapped Hart's elbow, and Hart found himself upside down on the floor eight feet away. Hart got up and stared in disbelief at Chan.

Chan smiled as he recited, "With four ounces of force you can deflect a thousand pounds of force. My teacher's teacher's teacher's teacher's teacher's teacher used these techniques in actual combat, and became the bodyguard of the Emperor of China. I have been entrusted with the secrets of this martial art, and if you wish, I would be willing to instruct you secretly."

Hart was completely emotionally uprooted. Chan had entrusted him with the knowledge of something so devastating, that the entire *tai chi ch'uan* movement could be forced underground by the newthinking bureaucracy. But more importantly, this was the key to a whole new slant in cyberwarfare. Hart was looking for something more than relaxation in these tai chi sessions, so here it was, staring him in the face. Chan was waiting for a response.

"May I address you as Master?" bowed a respectful Hart.

"If you are lucky enough!" replied a pleased Chan.

The training continued. Hart began to apply what he slowly learned from Chan to the cyberfights. At first, he learned that all hand to hand combat was predicated on managing the distance to your opponent. From this, he mastered the art of distancing. When the opponent

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came in for the kill, Hart but seemed to the opponent to be within reach, but actually was always just a hair out of range. When Hart came in for the kill, it felt to his opponents that it was like a thunderstorm had descended. After the beginning lessons, Hart managed to obtain from Master Chan bootleg paper books about strategy and combat. His favorite was Sun Tze's *Art of War*. From this he secretly learned how to plan a winning strategy and to implement the seemingly miraculous.

Spira and Shotgun were amazed at Hart's comeback. Not only was the old Hart back in action, but this new and improved cyberfighter was sometimes beyond belief. His moves were lightning speed, and his evasion techniques were flawless. He never needed to Hyperspace out of a fight anymore.

Things looked good. It was only three weeks to the Championship fight, and Hart was in the best form of his life.

However, on the negative side, packages continued to come in from Ratface in Nu York. The threats were not veiled. So finally, Hart decided to do something about it. He set up a cyberlink conference with Sousa, and asked Sousa if he was interested in a chance to make an extra $10 million. From Ratface. Sousa responded, "Don't you think Ratface can see through such a stupid strategy?"

Hart responded, "Hey, leave that to me, okay? Just take every penny of action you can when Ratface drops money on the table. Got that? It'll cost you ten percent of whatever you make."

Sousa nodded virtually, and his legal A.I. agent drew up the customary agreement, complete with warranties and waivers, disclaimers and deliverables. Hart's notary agent signed and placed its insoluble access code permutations onto the agreement. Hart directed all funds to be paid into his numbered Swiss account in the virtual BahamaNet.

Next, Hart called up Ratface. Hart met him in virtual telephone space.

"So you finally call."

"Yeah..." Hart was biding his time. Playing it cool.

"It's time you paid your respect to where you got your start."

"Hey, suck my interface." Well, maybe not *so* cool.

"You have so much attitude. Soon I'll have to teach you some manners. But now, let's get down to it."

"Hey. First of all, Sousa owns my contract now."

"I am gonna rip that Sousa's interconnects out one by one. I don't give a damn what his legal A.I.'s tell me. Bury me with interrogatories, and I'll bury him in dirt. You hear me, Hart! As far as I'm concerned, I still own you."

"Well, you'd better send someone better'n Vincenzo Paolini to collect."

"Okay, Hart!" Ratface was actually starting to get pissed now. "This is what is gonna happen. I am gonna bet against you in your upcoming fight with McGuire. If you win, you and your little team, everyone one of you... I will cut your heart out, I will show your netshadow what a Shotgun really is all about, and your little Spira will expira."

"Hey, I applaud your poetics, but I got a better idea."

Ratface couldn't hide his interest. "Yes?"

"Cut me in for twenty five percent, and I take a dive."

A pause. And then, "Five percent. Plus your life."

"Fifteen percent and that's my best offer."

"Ten percent and I'll let you know about your life later."

Hart was silent. One one thousand, two one thousand...

Ratface gave in. "Twelve."

Hart waited an instant, and responded, "Done." And their respective legal A.I.'s responded an instant later with a flurry of proposals and counterproposals. They converged on a contract in another 350 milliseconds.

Shotgun was worried. "Now whad'ya gonna do?"

"It's better if I don't tell you, man." Hart was being truthful. He had a plan.

"Either side loses money and we die."

"I know it's hard, but trust me."

"Okay, but don't forget, I have to ride shotgun."

"I *know*. Trust me. Trust me. Trust me. I won't let anything happen to you. You are the best friend I have ever had in my life. You're my bro, and I won't mess up. Promise."

"Okay, man. But I get a bad feeling about all of this..."

Training went on. And on. And on. Master Chan didn't hold back his teachings, and Hart began to see that the cyberfight was a metaphor for life. He began to see the deeper connections and allegories, and slowly began to see that the cyberfight was a process for dismantling your own fear. He applied principle after principle, and slowly began faster than any orbiter, more deadly than any slicer, and more cunning than any combat subprogram. The day of the fight grew near.

That afternoon before the day of the fight, Hart went in for a quick bout without Shotgun's assistance. It wasn't exactly kosher, but Hart had done it before. He slipped in, and looked around. He found a submergence trap door, and slid into negative cyberspace. It was quiet, and nothing could touch him. He closed his virtual eyes to rest in absolute space. He fell into cybersleep, which was like dreaming that you were dreaming, except that you weren't.

Suddenly, alarms went off, and he opened his eyes to see three cybersharks approaching. They were rare traveling alone, but three in a pack was against all odds. He braced for the impact, and suddenly, without pain, he found himself lifting. His consciousness expanded as he lifted, like an adiabatic cloud. And suddenly, a brilliant light formed in front of him, and coalesced into his dream girl.

But this time, she was solid.

"Oh it's you again!"

"Hello?" Hart tried to access his cellular communications implant. Not only wasn't it active, but he suddenly realized that it wasn't even there. He didn't feel *top-heavy* anymore!

"You've come back to see me! I was hoping you would!"

"Are you on the Western Extent Matrix? I'm thinking that you're an echo across the net, or something?"

She smiled. "I've never been called an echo before."

"What *are* you called?"

"In Zen, they call me Void. The Sufi's call me the Nectar of Ecstasy. Some call this space cyberparadise."

"What?"

"Listen. It's so quiet here. Beautiful isn't it?"

Hart listened, and then he realized that he wasn't in cyberspace anymore. The sound of her voice didn't sound like cybersound. It was entirely something else. The constant hum of cyberspace wasn't there at all.

"There isn't any pain here either. You can rest here. You could be very, very happy with me here..." Oh oh. She had *that look* on her face. At least with cybersex, there are no infectious diseases.

Hart suddenly felt a lurching feeling in his gut.

"Oh." She looked disappointed. "You have to go again."

Hart looked at her, and realized that she was the loveliest woman he had ever seen. She was as beautiful as he imagined an angel could be.

"Come see me again, okay?"

Hart watched her as she dissolved into light, and felt the drop.

Microseconds later, Hart opened his eyes, and saw Shotgun and Spira hovering over him. Shotgun was *P.O'd.*

"Damn it Hart! What were you thinking!"

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"What's wrong?" Hart realized he had a headache. A substantial migraine.

"What's wrong? You were in the state of cardiac arrest for seven seconds. And you know how I *hate it* when you go into cardiac arrest!"

"Whoa!"

Spira jumped in, "Hart, are you feeling okay?"

"Got a headache, but otherwise, I feel okay."

She was worried. "I gotta give you a full brain scan and eval. You were taking a major chance dropping into cyberspace without a netshadow. Preliminary readings show no brain damage. Let's get you onto the table, okay?"

Fortunately, there were no negative effects on his health readings. A dose of Kromer Genelab's Ever-Young antibodies and Hart was good as new. Just in time for the fights. Hart was a bit apprehensive about going to sleep, but this fatigue won out over his fear, so he slept. Like the dead.

The next morning, Hart woke like he always did. In desperate need of a hot caffeinated beverage. Some things time will never change. Coffee is one of them. Hey, like they say, Death before decaf. Hart comforted himself with the thought that at the very least he woke up at all. What a weird dream.

The minutes before the fight were tinged with anticipation. Shotgun looked at Hart with a kind of trust that hope has abandoned. "I don't suppose you'll let me in on how you'll be resolving our differences with Mr. Ratface."

"Don't worry, Shotgun. I promise I won't let anything happen to you."

"Okay, man. I trust you with my life. Literally."

And they prepared for the biggest fight of their lives. Tens of millions of dollars were placed on this fight all over the pari-mutuel gambling networks. Ratface had bet a reported seventeen million on McGuire. Hart and his team stood to make a personal gain of over two million dollars. Spira didn't look too motivated either, but she did her best to look tough and concerned at the same time.

"Hey, you too, Spira. It's all gonna turn out..."

She smiled bravely.

The light of a thousand suns transmuted into the horizon of cyberspace. Hart felt the drop in his gut, and he landed in cyberspace.

Hartareyouonline?

Yeah!

Surfsupdude?

Situation looks good.

Hart looked around. Things looked pretty good. Behind all those geometric figures and transporter gates and robot A.I.'s, McGuire was lurking. Prowling. Looking for an angle of attack. Hart was doing the same. Only thing Hart was hoping was that McGuire hadn't read the *Art of War.*

Shotgun was banging away at the console. He had a million and one things to do, and only a million MB of core RAM. He was shouting into the mike.

"Hart! Your vital signs look good. Synaptic booster circuitry is on line and functioning a okay. Plasticity is nominal. More than nominal. You look sharp. Just..."

The monitors began to spew data at a rate a hundred times faster than normal.

Spira looked up just in time to see Shotgun turn white as a ghost with fear. Her adrenaline level jumped to crisis mode.

Shotgun was screaming to Hart or Spira or maybe to no one in particular. "Oh, I'm dead meat! This is the worst frigging virus attack I ever saw."

Suddenly, sparks blew out of his head-socket, and Shotgun screamed, "These guys are wicked, man..." and was suddenly blasted backwards, out of his chair. He went into an epileptic seizure, and started to shake violently. Spira was freaked. Badly. She started to scream into the mike...

Hart!HART!Allhellhasbrokenloose!
Spira? Where's Shotgun?

*HART!SHOTGUNISBRAINFRIED.VIRUS
ATTACKTHELIKEOFWHICHIHAVE
NEVERSEEN!*

Hart felt his virtual adrenaline surge. And as he began to retreat, he tried to open his cellcomm implant. He didn't need it. Ratface had already invaded his home network.

Hart!ThisisRatface!

Yeah! What do you want?

Hart!Ihaveyoumetshadowcompletely brainarrested.

Get to the point, creep!

Takeadiveandyourfriendcomeshome unharmed.Messwithmeandhebraindies.

Hart was all adrenaline now. Ratface fell for the bait. A week before, Hart hacked his way into Ratface's best strategy A.I. agent, and left a Trojan horse virus that suggested this very strategy. And Ratface was dumb enough to follow this strategy to the tee. The entire plan depended on Ratface being arrogant enough not to use an intermediary to deliver this checkmate message.

Hart made a quick left, and found the submergence trap door, and entered it. Once he entered negative cyberspace, and free from the viruses and ice that Ratface would have brought with him, he unleashed his innovative command program. This program invoked a virus attack similar, but superior, to the one Ratface just used on Shotgun. Another subprogram dismantled the brain arrest on Shotgun, releasing him. Checking the biomonitors verified that Shotgun was okay. Spira was probably treating him now. One more subprogram to load.

Hart worked on this special subprogram for two weeks. It was a very subtle, yet invasive, modification of the bodyslam routines developed by the Yakuza cyberfight hackers. It went into the Net, grabbed Ratface, and slammed him into McGuire's codespace, and threw McGuire out of cyberspace. Somewhere out there in the real world, a very surprised McGuire was waking up. A coded message to his netshadow would explain the situation, and they'd clearly let what was about to happen unfold.

Ratface was now in the cyberfight. The only difference was that if he won, he'd survive and return home to fight another day. If he lost, the very braindeath routines he was planning to use on Shotgun and Hart would be used on him. Ratface was trapped, and was facing a master on the killing fields. Hart planned this entire campaign carefully, consulting Chan at every step, and everything had proceeded according to plan. Now all he had to do was triumph over Ratface, who was somewhere out there in cyberspace. Ratface had compiled a formidable record as a cyberfighter before he went into management, but that was ten years ago. Surely Ratface was rusty by now.

Hart scanned his inner ocular HUD and spotted Ratface in the faint distance. Ratface had surmised his situation and had embraced the inevitable. He was heading full speed toward Hart, impatient get it over with. Oh, this is gonna be fun! thought Hart. It's time to go hunting. The battle's just begun.

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PLAYING SPECTRE VR

OVERVIEW

In *Spectre VR*, you see a virtual world from the point of view of a battle craft, a 'Spectre', roaming around a computerized Arena. The object of the game, of course, is survival. Shoot your enemies, collect ammo and flags, and race on to higher levels. That's basically all there is to it. Try not to get too addicted, okay?
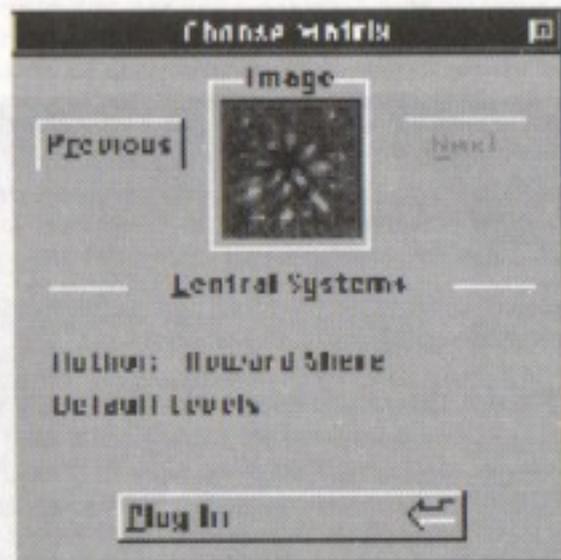
PCStartup

NOTE: These instructions are for DOS users. Specific instructions for running Spectre from Microsoft Windows can be found in the section "Running Spectre from Windows". We HIGHLY RECOMMEND that you get Spectre running from DOS before you try it from Windows.

To begin playing *Spectre*, simply change into the directory in which you installed the game, and type **SVR [Enter]**.

Spectre VR will run several tests to determine if you have enough free RAM and if you have VGA graphics. If you don't have 510K free RAM or VGA graphics, *Spectre VR* will print a warning message.

In rare situations the test may incorrectly print a warning. For example, if you have an exotic VGA card it may not be detectable. In this case, you can type **SVR B [Enter]** to Bypass the startup test.

Matrix Plug-In Dialog

Macintosh Startup

To begin playing *Spectre VR*, simply double click the **Program icon** in the Finder, and you will see the Main Menu.

If there is more than one matrix file in the same folder with *Spectre VR*, a dialog box (shown below) will appear. You need to choose which matrix file you wish to play.

'Default Levers' is the description for this matrix file. 'Central Systems' is the name of this matrix file. The 'Image' is the picture which comes out of the matrix file. 'Author' is the name of the person who created this matrix file.

The **Next** and **Previous** buttons can be used to step through the files. The **Plug-In** button chooses the currently selected matrix file for play.

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TO BEGIN PLAY...

You can play the game by clicking the **Play** button or pressing the **P** key. To start on a higher level, hold down the **Option** key while selecting **Play** or the **P** key. Incidentally, there is a demo mode that can be activated by pressing the **D** key or **Option-D**.

Play — Initiates the cyberspace simulation in single player mode

NetPlay — Initiates the cyberspace simulation in multiple player mode

Scores — Retrieves the High Score Legend

About — Provides information about our company and the program designers.

Help — Gives you very quick tips about the game and keyboard layouts.

Options — Lets you set various user preferences, including keyboard layout, sounds, complex shapes and difficulty level.

Quit — Ends the game and returns you to the Desktop.

If this is your first time at play, click on the **Play** button at this time.

Playing a Single Player Game

Immediately after clicking on the **Play** button, the **Vehicle Selection Dialog** box appears. Choose the Spectre vehicle you wish to use. Different vehicles are useful for various strategies, and each of the four has its own strengths
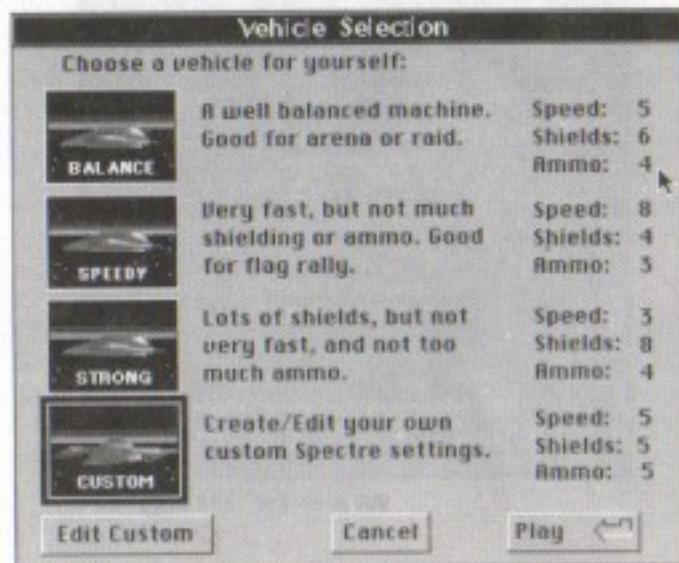
Vehicle Selection Dialog
PC Version

and weaknesses. If you wish to create a more finely tuned vehicle, select the **Custom Spectre** at the bottom of the dialog, and click **Edit Custom**...This will bring up the **Custom Vehicle Dialog**. You have 15 points to distribute between speed, shields and ammo.

Speed - You will need to experiment with these settings to become familiar with just how fast a setting feels to you. Here's a hint: the Speedy craft may be more easily destroyed, but in many cases you can play "chicken" against a robot or your opponent, run past him, quickly swing around and open fire.

Shields - Each point is one shield of armor. Each shot that hits your Spectre destroys one shield. Shield settings may range from 1 to 10.

Ammo - Each point of ammo allows you to carry 10 rounds (shots) for your Cannon. You may not carry more than the maximum number you set here. Ammo may range from 1 to 5, giving you between 10 and 50 rounds.

Coast - Set this slider to any value other than 0, and your Spectre hover engines will allow you to glide over the Arena surface. The higher the setting, the greater the momentum.

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The Object of the Single Player Game

The single player game is played in levels of increasing difficulty. To complete a level, you must collect all the flags on the level. Flags are represented on your radar as small flashing crosses, and appear in the 3D views as rotating flags. To collect a flag, just run over it, at which point you will hear a confirming sound. When you have collected the next-to-last flag, you will hear a different sound. The exact sound you will hear is a function of the memory available on your Computer. Incidentally, if you manage to kill all of the enemies on a level before you get the last flag, you will receive a bonus of 50 points per enemy. This bonus applies only if you kill all the robots.

Don't dally however, since there is another bonus for beating a time clock. This time clock is displayed at the top of the screen and increases as the levels get more difficult. On the lower levels it is usually worth foregoing the time bonus in favor of the robot bonus. If you are good at hunting robots, that is...

Finally, a portion of the score is computed based on your ability to avoid getting shot. This is known as the avoidance score.

All this killing of robots could leave you short on ammo. Fortunately, there are Ammo Dumps all over the board. These are represented by pulsating diamonds on the ground. These Ammo Dumps appear as very small dots on your radar. Running over an ammo dump will restore 20 rounds of ammo and one point of armor to your Spectre craft. But beware! On the higher levels, the Robot Spectres wise up to your maneuvers and begin to guard these Ammo Dumps as well as the flags!

THE LAY OF THE LAND

After you have selected the vehicle you want to use, select **Play** to descend into the Arena. The first thing you're going to want to do is get a quick understanding of what types of physical objects you will find in the CyberArena. First of all, you will find flags, walls and buildings. But you will also find obstacle objects that adhere to the ground. These objects include ice, mud, and acid.

Ice

When you encounter Ice obstacles, you will suddenly discover that you slip over the surface of the Ice, and lose all turning ability when you hit the Ice. You might notice that Ice can be found surrounding flags, which will make them a bit more difficult to collect. Ice is white and arrayed in square, crystalline order.

Cybermud

Cybermud patches are hexagonal in shape, colored gold. When you run over them, they tend to slow down the cybercraft. It isn't uncommon to find Cybermud defending a flag or teleporter. Also, as the game progresses, Cybermud acquires intelligence and may begin to track you and follow you. If you're in flight, be careful as Cybermud sometimes spits at you, lowering your flight energy level.

Acid

When you run over it, your cybercraft is damaged severely. Stay too long... and it will vaporize you entirely. As the game progresses, Acid acquires intelligence and begins to track and stalk you. After a while, you might notice that certain enemies like to team up with Acid.

Flow Fields

In certain levels, you will find Flow Fields. These are shaped like arrows, and are usually light blue. They force you to move in the direction they point.

Force Fields

Force Fields are lines on the surface of cyberspace that you cannot cross over. Sometimes, they are arrayed to form mazes. You can fly over Force Fields if you hover high enough.

Anti Grav Packs

In certain levels, you will find flat square objects that will provide you with the ability to fly or hover. The Anti Grav number in your **F** cell indicates flight time remaining. Picking up additional packs will give you a greater amount of flight time. By running over an Anti Grav Pack, you gain the ability to fly or hover.

Ammo Dumps

Ammo Dumps, or shot cans, are arrayed randomly throughout the CyberArena. There are 4 kinds: Partial Charge (ammo & repair), Full charge (ammo & repair), Shield Charge, and Flight Charge (Anti Grav Packs). Green ones help you to slowly re-arm and repair your vehicle. However, you might want to look around for white shot cans, as they can instantly re-arm and repair your vehicle completely.

In addition to these obstacles, you will find several objects of great use to you. The most useful objects are the teleporter, the submergence and the emergence.

Teleporter

Teleporters appear in pairs. These look like gates in complex shapes mode and diamonds in simple shapes mode. They show up on your radar as the letter **T**. Pass through one and you will be teleported to the other.

Submergence & Emergence

In certain levels, many of the enemies are actually underground as well as above ground. To greatly increase your odds of eliminating this enemy, you must locate and enter (i.e., run over it like a flag) the Submergence Device (**D** on your radar). Once you enter this device, you are allowed to explore the quiet of negative cyberspace. Watch out, you aren't completely safe here! To return to normal cyberspace find an emergence to drive under (**U** on your radar).

Invulnerability Shield

In certain levels, you will find gold-colored pickup objects. If you acquire this pickup, you will notice a gold battering ram in front of your cybercraft. This will grant you complete invulnerability from cannon shots aimed from the front. Picking up additional shields will protect you from other directions. But, if you actually use this battering ram to run into an enemy, it will be destroyed. The Invulnerability Shield is destroyed or lost when you bump the edge of the Arena, submerge, emerge, or hit the enemy.

ENEMIES

Robot Spectres

Enemy Robot Spectres come in many forms with diverse capabilities. Each Robot Spectre's armor gets an additional shield every five levels, starting at level 10. This means they require more direct hits to destroy. They also begin to move faster at higher levels. Oh, one last thing... Be careful not to get too close to them.

Rovers
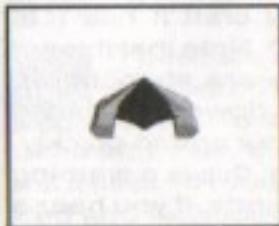
The most basic Spectre is known as a Rover. You will see Rovers all over the place in every level of the game. They aren't too bright - they typically find a flag to guard and wait for you to come to them, although sometimes they will surprise you. In the beginning levels they only have 1 shield for armor and are relatively easy to destroy. One direct hit will usually do the trick.

Warriors
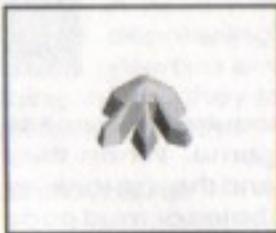
The mean robots begin to appear at level 3 and beyond. They're called Warriors. They have more armor, move faster, are more intelligent and fire more often. But wait, there's more... they also have the ability to 'lead' their shots - that is, they fire at where you will be, not where you are. So don't travel in a straight line when they follow you. Finally, beware that they like to travel in packs...

Radar Cloaked Robots

Radar Cloaked Robots are invisible to your long range radar scanner. The only way to spot them is visually. However, on the positive side, they aren't too smart!

Optically Cloaked Robots

Optically Cloaked Robots are basically invisible. You can, however, spot them on your long range radar scanner. They can shoot at you while invisible, so you need to either strafe wildly, use the scattershot, or select an optional weapon that can lock onto the target.

Slicers

One of the nastiest enemies you will encounter is the slicer. Think of it as a moving can opener and then think of yourself as the can. They track at a speed somewhat faster than your vehicle, but they can be defeated with Cannon fire. Here's a warning, keep away from them after you submerge into negative cyberspace. By the way, if you're hovering, you aren't safe. Some varieties of Slicers can leap up from under cyberground to smash into you midair.

VAMs

Vertical Area Mines, also known as VAM's. They do just what their name would suggest, pop up to hit you if you are hovering.

Turrets

Auto-Turrets are automated Gun Turrets, which shoot a stream of Smart Missiles at you. They are very resilient, and will often need several shots to decommission. They are usually found guarding something valuable.

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Hunter Killers

Known affectionately as HK's, these enemies are not limited to terrain travel. They can fly. And when they land, they usually land near you, and are pretty nasty adversaries. And they only land to pilfer Ammo Dumps, or to take a shot at you!

Orbiters

28
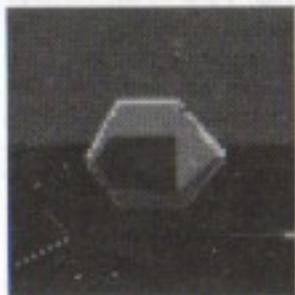
Orbiters are designed to guard areas of the arena at extreme velocities, and to explode on impact. They cannot be easily defeated with Cannon fire or missiles. Due to their extreme speed, they are often difficult to lock onto. If you're in flight, Orbiters sometimes convert into Bouncers that can reach you.

There are also enemy types that are not robots. These include -

Cybermud

Cybermud, aka Acid Pools acquire awareness and locomotion during the game. When they start moving, they're hungry, and they're looking for you! They now spit Acid bubbles or mud pods into the air which can slow you down or damage you when they hit. Fortunately, they move rather slowly. But unfortunately, they are virtually impossible to destroy! If you're in flight, take care, they may spit Acid bubbles at you.

Intelligent Walls

During the course of the game, you will discover that some walls become intelligent, and acquire the ability to move. When they start moving, they often team up with Acid pools to trap you! Oh, by the way... they are also virtually impossible to destroy!

Bouncers

Are like Orbiters, above, only they bounce around in a circle.

Other

In advanced levels, you may find additional enemies of diverse capabilities.

WEAPONS AND CONTROLS

In the single player game you have a choice of several weapons. This is how they work:

Cannon

This weapon is normally fired by pressing the **Space Bar**, but this can be customized using the customizable keyboard layout system, found in the Options system. When flying, the Cannon becomes a 'Pulse Burst Cannon' which allows the tank to fire down towards the ground.

The cannon fires one round of ammo and causes one point of damage to any craft it hits (i.e. destroys 1 unit of armor shield). Note that this will not always kill whatever you are shooting at. Holding any of these keys down will cause multiple firings and deplete your ammo quickly. If you hear a short beep-beep, this is a warning that you are getting low on rounds. If you hear a click when you fire, it means that you are out of ammo. Better find an ammo dump quickly! Keep in mind, in the higher levels, enemy robot tanks may require more than one Cannon round to destroy.

In addition to the Cannon, there are a variety of optional weapons, but you can only use one optional weapon at a time. With the standard keyboard layout, the optional weapon can be

selected using the **Command** key and fired using the **Option** key. If you are a new user, you should be careful to note that the keyboard controls can be remapped with the Options system, accessible from the Main Menu. Also, in the standard Matrix used by beginning users, these optional weapons are introduced one at a time. Usually, they are released to your use at every other level. This means that you will not be able to access all the weapons until the twelfth level. You will be notified by the system that you have a full weapon set at that time.

Grenades

These are an awesome and destructive weapon. This weapon usually becomes available starting with level 3, but with some Matrices, the starting level will be different. It uses 10 rounds of ammo for each grenade fired and explodes in midair, doing damage to anything nearby, and will destroy anything it directly hits. These Grenades are fired with the **Option** key. Take care not to hold down the **Option** key when firing or you will launch multiple Grenades and exhaust your ammo rounds too quickly. This weapon is best used when you enter the Arena and are attacked by the mean, smart Robot Spectres. Destroy them with a grenade, and other nearby robots will be taken out as well.

Smart Missiles

A Smart Missile is also accessed by depressing the **Option** key, and will cost you two ammo points to fire. The good thing is that they lock onto and track enemies quite effectively!

Seekers

A Seeker will cost you two ammo points to fire. It is simply a cannon shell that has a limited amount of self-targeting logic. If a target is in your sights, the Seeker will usually lock onto it and cause a point of damage.

Scattershot

Scattershots are shotguns. They fire in a wide pattern, in about a 75° angle. They are especially effective against closely knit units of multiple enemies.

Proximity Mines

With a proximity mine, you can lay down a mine which can destroy anything that touches it. You are limited in the number of mines that can be placed at one time, so be careful.

Spinners

The Spinner is a weapon that imparts angular momentum to the target. For example, if your enemy is too strong to destroy, you might spin it for a few seconds, in order to get around it! This is the best way to beat a turret.
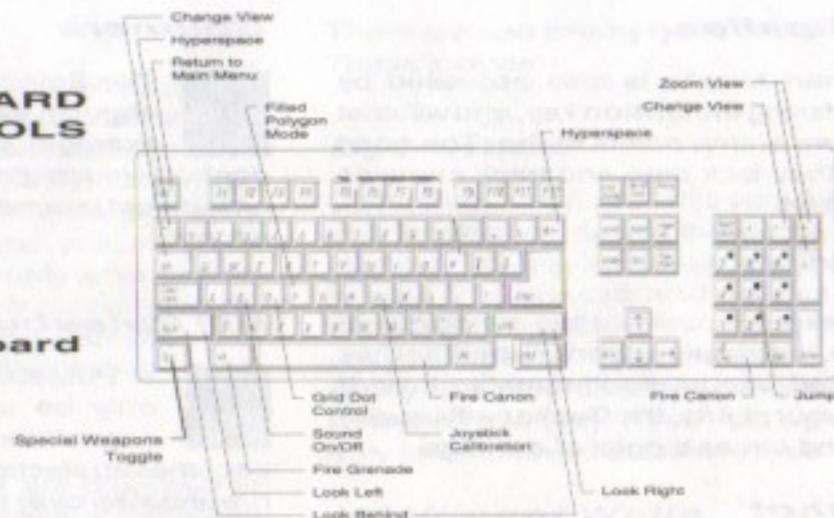
EM Pulsebursts

A Pulseburst is a weapon that can only be used by a craft with flight capabilities. When used, a Pulseburst becomes an electromagnetic disturbance which propagates over the surface of the ground. A Pulseburst has a greater width than a Cannon round and may be more effective against squads of enemies.
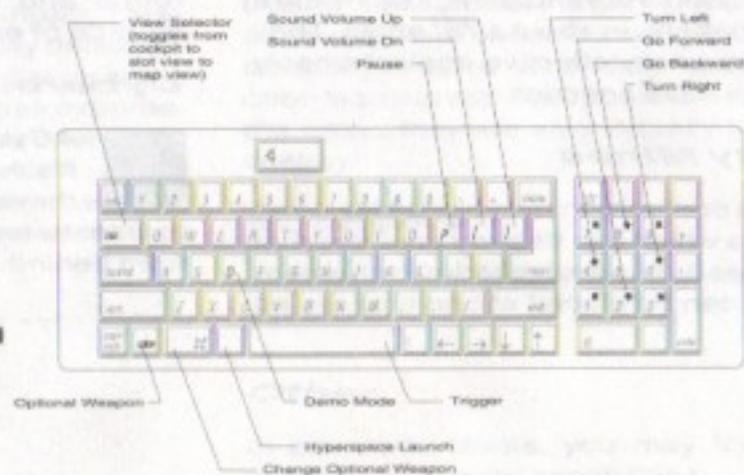
Cyberblasters

A Cyberblast is an electromagnetic bomb. It's like a grenade, but it's dropped straight down by a hovercraft. It can be used to terminate any enemies intent on tracking you from behind.

DEFAULT KEYBOARD CONTROLS

PC Keyboard

Change View
Hyperspace
Return to Main Menu
Filled Polygon Mode

Zoom View
Change View
Hyperspace

Grid Dot Control
Sound On/Off
Fire Grenade
Look Left
Look Behind
Special Weapons Toggle

Fire Canon
Joystick Calibration

Fire Canon
Jump
Look Right

Macintosh Keyboard

View Selector (toggles from cockpit to slot view to map view)

Sound Volume Up
Sound Volume On
Pause

Turn Left
Go Forward
Go Backward
Turn Right

Optional Weapon
Demo Mode
Trigger
Hyperspace Launch
Change Optional Weapon

MANEUVERING YOUR VEHICLE

In *Spectre VR*, the keyboard is reconfigureable. You can access the Options system to do so.

In the keyboard configuration system, you will find several layouts already designed for you. There are layouts for extended keyboards, Apple keyboards, PowerBook layouts, and layouts for lefthanded players. After you reconfigure a layout, you will need to rename it in order to save it.

You can navigate your battle craft using the keyboard, a mouse or a joystick. Most users will probably prefer to use the keyboard. The joystick also works well, but the mouse is not a recommended control system. Still, it is available for those users who wish to try it. To control the mouse move it in the direction you want to go and click the button to fire.

Movement- the numeric keypad. The arrow keys on the numeric keypad move your craft in the specified direction. You can also use combinations of keys to move and turn at the same time.

When flying, the faster you go the lower to the ground you get. You do not have complete control over altitude. When you collect a flight charge, or Anti Grav Pack your vehicle will begin

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to hover, and glide on the cybercurrents. Your vehicle will naturally rise and fall rhythmically. As you accelerate, the vehicle will lose altitude. If you decelerate, you will rise gently. When recovering flags or entering transporters, you will need to accelerate to the proper velocity and altitude.

The Display

A. The top indicator shows the number of lives remaining in this session. The indicator directly below it shows the damage level that you have sustained. The bottom number indicates the number of Cannon rounds you have remaining.
B. The top indicator shows your total score. The indicator directly below it shows the level you are currently attempting. And the bottom number indicates the number of bonus points remaining.
C. This is your Flight Cell. You may fill it by running over Anti Grav Packs. When it empties you become grounded.
D. This shows the state of the Hyperspace Launch Energy Cell. You should let this cell fully recharge before attempting to Hyperspace. If you launch before fully charging the ship might implode. Enemies may drain your cell too!
E. This shows which optional weapon is currently selected and armed.

F. This is your radar screen. At the center of the display your vehicle is represented by a single large dot. Moving dots (red or orange on color monitors) represent the enemy robots. Flashing crosses signify the location of flags. And little dots (green on color monitors) are Ammo Dumps.

G. This is a flag signifying a mission check point. You collect flags by running over them.
H. This is your aiming crosshair.
I. This is an ammo dump. Running over this flashing. pulsating diamond will resupply your shields and re-arm your Cannon.

Lives: 2   Score: 2760
Damage: ▮▯   Level: 6
Ammo: ▬▬ 40   Bonus: 068
WEAPON
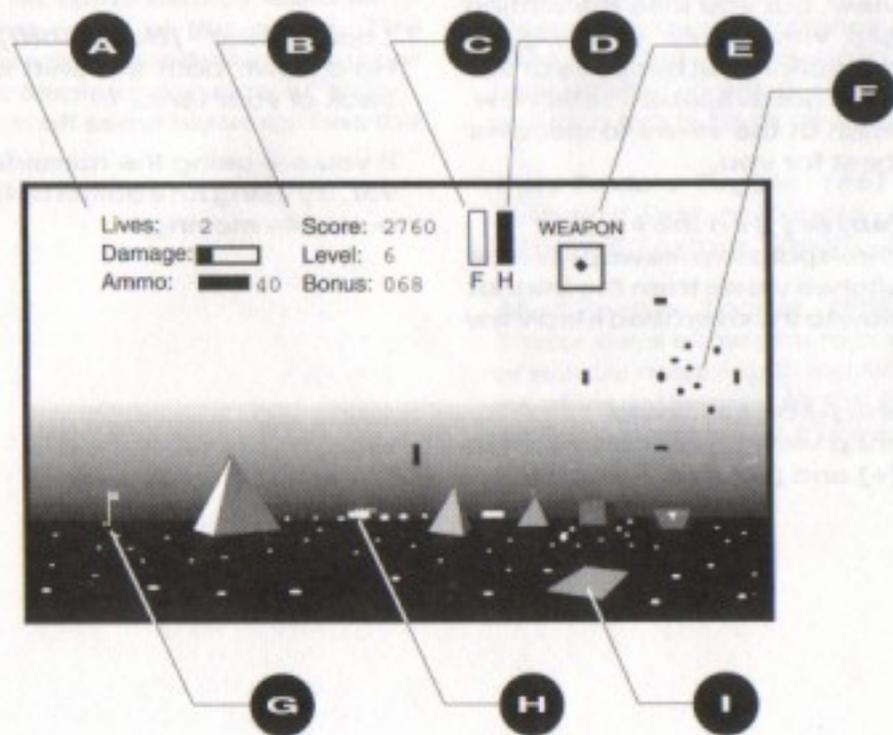
Views

There are three main view positions in *Spectre VR*: Interior, Exterior, and Map. Each view has its pros and cons. In the Interior view you see all the action, but only what is in front of you. You also have the radar to locate enemies, flags and Ammo Dumps. The Exterior view provides a more panoramic view, but you lose the aiming crosshair. The Map view gives you a good overhead view of the action, but because of this advantage the radar is not available in this view. Try playing from each of the views to discover which one(s) are best for you.

Change View - [Tab] or [*] on the keypad
To cycle between three possible views press the [Tab] key. This switches views from the Interior view to a Exterior view to the overhead Map view and back again.

Zoom View - [+] and [-] on keyboard
In the exterior or map views, you can zoom in and out. Use the [+] and [-] keys.

PC Only:

Look Right - [Right Shift]
When in interior view, this lets you look out the right of your tank.

Look Left - [Left Shift]
Looks out the left of your tank.

Look Behind - [Both Shift] keys
Hold down both the shift keys to look out the back of your tank.

If you are using the numeric keypad to maneuver, try using an additional finger to zoom in and out while moving.

Hyperspace

Cannons are blazing, you're surrounded by a horde of enemy craft and your ammo and shields are giving out! Who ya gonna call? Hyperspace! Hit the key, usually a ~ (Tilde) or Backspace key in most standard layouts, and you will be immediately transported to a new position in the Arena. Before doing so be sure to check your Hyperspace energy cell which is the vertical bar indicator labeled H located in the top central portion of your display. If this bar is solid then you have a full Hyperspace charge and may transport without the risk of being destroyed. Once you Hyperspace, the energy cell will be completely expended and the bar will become empty and will resupply over time. If you try to Hyperspace again before it is fully recharged you face the risk of self implosion (sounds gross, huh?). It is not a pretty sight to de-rez your own craft. Enemies may drain your Hyperspace energy cell too!

Command-Q will exit the game and pressing the **P** key will pause action in the single player game. The [and] keys will raise and lower the sound volume.

Radar

Your radar is located at the upper right hand area of your screen. It will tell you where the bad guys are as well as Ammo Dumps, transporter gates and submergence devices.

Flashing dot- flag
Green or white dot- ammo dump
"S"-Slicer, (enemy)
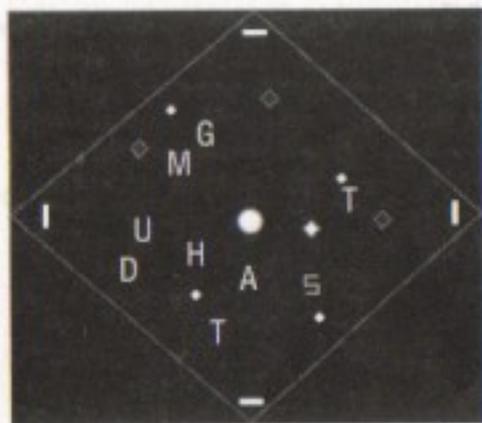"T"-Transporter Gate
"U"-The "Up" Emergence Object
"D"-The "Down" Submergence Object
"H"-Hunter Killer
"M"-Cybermud
"A"-Acid
"G"-Gun turret

The Options System

This part of the program lets you set various user preferences, including keyboard layout, sounds and difficulty level.

Users with fast machines may want all display features turned on. Users on slower machines may prefer to turn off some display features to increase the "frame-rate" of the game. The "frame-rate" refers to the smoothness of anima- tion. If you feel your display is too slow or "jerky", you may want to turn off some features. See the diagrams following ....

PC Options

Grid Dot Control - [D]
The [D] key will change the density of the dots on the ground of the Arena. Users with slower machines may want to decrease the number of dots to speed up the display.

Filled Polygon Mode - [F]
Users on slower machines may want to turn off filled polygons by pressing [F]. Your Arena will now appear in wireframe mode. To turn filled polygon mode back on, simply press [F] again.

Flag Texture Toggle - [F5]
Billboard Texture Toggle - [F6]
Windmill Texture Toggle - [F7]

Misc Texture Toggle - [F8]
These keys allow you to customize the amount of texture mapping in the Arena. Textures add a lot of visual impact to the Arena, but they take additional processing power. Users with slower textures off.

Controller
- ● Keyboard
- ○ Mouse
- ○ Joystick

Sound Driver
- ○ PC Speaker
- ○ AdLib
- ● Sound Blaster

- ● Sounds ON
- ○ Sounds OFF

Grid Dots
- ● Many
- ○ Some
- ○ Few
- ○ None

Selecting fewer dots will speed up the display on slower machines.

Texture
- ☒ Flags
- ☒ Billboards
- ☒ Windmills
- ☒ Misc

Turning off texture options will speed up the display on slower machines.

Network Options...   Done
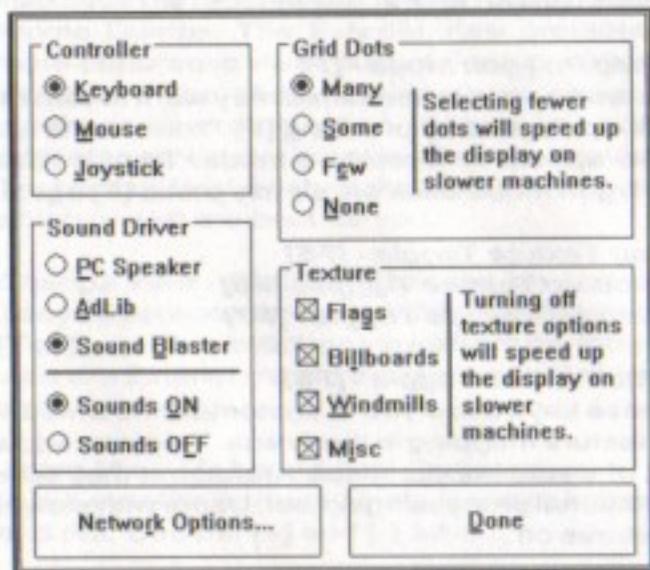
PC Options Dialog Box
See **Read Me** file for latest changes.

Here are some other important controls in Spectre VR:

Sound ON/OFF - [S]
This toggles the sound effects on and off. If you're blasting away, and the boss walks by, you may want to hit **[S]** to play it safe.

Return to Main Menu - [Esc]
At any time, you can return to the main menu by pressing **[Esc]**.

Pause Game - [P]
Pressing **[P]** will pause the game. Pressing **[P]** again will resume the action. Pausing is not allowed in network play!

Joystick Calibration - [J]
If you have selected the Joystick as your controller, you can recalibrate during game play by pressing **[J]**.

Save Game [Alt-S] (between levels only)
If you're doing great, but you just can't keep playing, you can save your game after the completion of a level. After you see your level stats, the "Level" message will spin up. During this, press the **[Alt]** and **[S]** keys together. You will be prompted to save your game.

Keyboard Setup - [ ]
You can select a keyboard configuration, or is you wish, select to customize it any way you like.

Macintosh Options

Visual Parameters
Adjust the visual parameters. You can switch from filled light-source shaded polygons to vector mode. Also, you can increase or decrease the complexity of the scene design. If you have a slower Macintosh, you should select the simpler setting.

Difficulty Level
Choose the difficulty level. This ranges from Basic to Cool to Killer. This affects world design, enemy numbers and enemy strength.

Inactivate options
You can inactivate the hints, QuickTime movies, help messages displays, and large screen monitor support.

Sound Volume
The volume level can be adjusted.

Keyboard Configuration
Select a keyboard configuration, or if you wish, select to customize it any way you like.

Music
The type of music you want to hear in the background can be selected.

Textures
You can select the use of texture mapped surfaces.

QuickTime
You can select the use of QuickTime movies that can be projected onto video walls within the VR world. This option should only be used on faster Mac's, like Quadra 700's and greater. Note: If you have a QuickTime movie you'd like to use within the game, you can do so by placing it in the **Movies** folder and rename it to replace me of the aliases included.

See **Read Me** file for any late breaking changes.

Customizing the Keyboard

You may customize the keyboard layout by selecting that button in the **Options Dialog Box**.

In this box, you should click in a box to make it active, and simply hit the key you wish to program for that function. For example, click in the **Fire Special** button rectangle, and then press the key you wish to use to fire the optional, special weapon. If you press **Option**, then the system will update the keyboard controls so that this key will operate that function.

When you have finished configuring the keyboard, rename the settings file to a unique name, and press **Save** to save these settings.
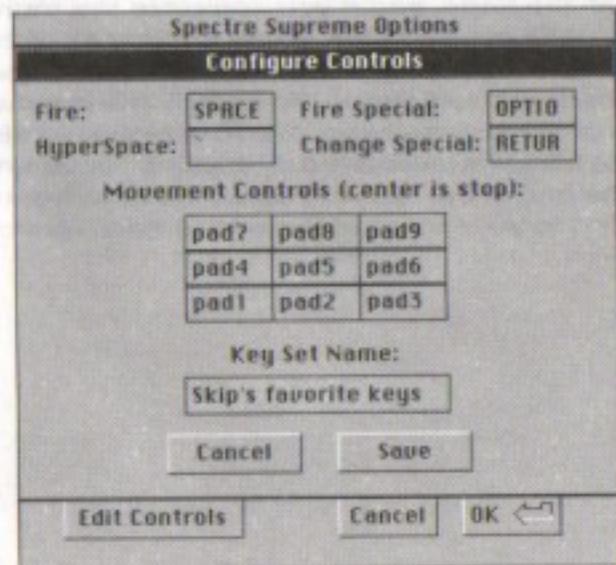
**Macintosh Keyboard
Options Dialog Box**

GAMEPLAY HINTS

Bonus Points

In the single player game you have the opportunity to score additional bonus points if you: destroy all the enemy robot craft before you pick up all the flags, and if you complete the round within the allowed time. If you destroy all of the enemy robots you will receive 50 points per robot destroyed during the round. The number of robots increase as you move to higher levels. Time bonus is calculated by the time remaining at the end of the round. You will see this bonus added to your score at the end of each round.

Maximizing Scoring

Once you descend into the Arena, take a quick glance at the radar and get a feel for the location of the enemy robots and the flag checkpoints. If you have a mean robot nearby, (Large dot moving quickly toward you!) take this guy out first and then proceed to the nearest flag. Try shooting the other robots as you are moving instead of stopping to take exact aim. If you miss you can always swing around to finish the job. Also, there will usually be a robot guarding the flags. Once he senses your presence he will fan out slightly from the flag and open fire. Study these movements as they are somewhat predictable. Be sure to kill all the robots in the round before capturing the last flag to get that bonus.

Extra Lives

You will receive an extra life at the following scores: 5,000; 10,000 and every additional 10,000 after that up to 60,000 points. Beyond 60,000 points you receive an extra life after every additional 20,000 points.

Starting at Higher Levels

You can start the gameplay at a higher level by pressing the **Option** key while selecting the **Play** button. You may start at any level between 1 and 50. To qualify for the high score list, you must complete the level that you begin on (i.e. if you started at level 20 you would have to get all the way through the round to qualify for high a score, otherwise points earned during the round won't count towards the high score).

QuickTime Movies

If you have a CD-ROM version of *Spectre VR*, you will be able to view short QuickTime movies between levels. These movies have two purposes. First, in the first levels, movies will introduce new features, enemies and weaponry before a level is initiated. In the higher levels, movies come sporadically as a form of video dessert. The higher the score you achieve, the more intense the video.

Matrix Additions

After you've played *Spectre VR* for a while, you may find that you want to vary the action level a bit. The first way is to change the difficulty level through the **Options Menu**. The second thing you can do is to look for a program in your folder called **More Matrices**. To install different variations of the level design, you can double click this program. This program will generate, or extract, two additional Matrices for your use. The next time you play *Spectre VR*, you will find that the first screen you see is not the title screen, but a dialog box that asks which Matrix you wish to load. The default Matrix is called **Central Systems**, which is the set of levels you are currently playing. By pressing on the Next button, you will access the **Western Extent matrix**, which is a much more difficult remix of the gameplay. By pressing again, you will access the **Spectre Classic** matrix, which is a remix which is played using only the Cannon and the grenade, designed for aficionados of the original implementation of Spectre, but with a greater variety of enemies.

If you enjoy these additional Game Matrices, watch for new Matrix Add-On disks that will become available in the near future. We are attempting to create infinitely replayable technology, and these Matrix files allow for this capability.

Registering as a user will place you on a mailing list so that we may alert you directly and immediately of the release of an Add-On *Spectre VR* product.

Read Me files contain the latest information regarding Matrices.

NETWORK BATTLE IN CYBERSPACE

Network play is the most fascinating part of Spectre. It is a first step towards easy to use, interactive cyberspace. *Spectre VR* will run on 4 types of networks:

- Novell IPX or compatible networks
- NetBIOS compatible networks
- AppleTalk network
- Serial port direct connect with a "null-modem" cable
- Modem to Modem play over the phone lines (PC version only)

This chapter does not discuss how to set up or configure a local area network. Networks are complex and each configuration is different. If you need help setting up your network, you should consult your dealer and your network documentation. Also, you may want to look in the *Troubleshooting* section at the end of this manual. We have a list of questions and answers that should help solve most network difficulties.

Spectre VR is both a single and multi-player game. Much of Spectre's appeal can only be seen during a *Spectre VR* network game. It is something that you have to experience yourself to appreciate. Once you talk a few other friends into playing with you over a network, read this chapter to become acquainted with the rules.
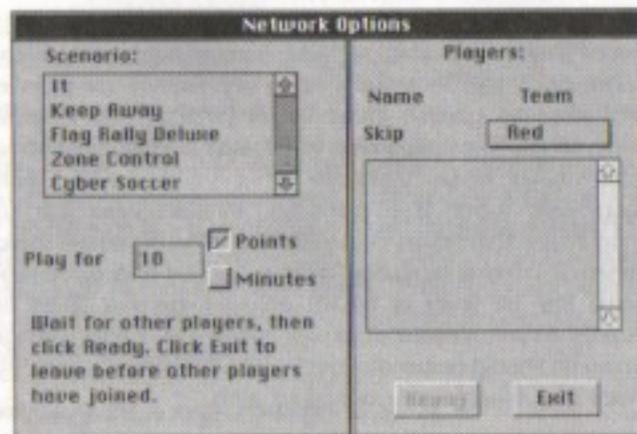
Macintosh Network Options

PLAYING THE MULTI-PLAYER GAME

To start a multi-player game each player on the network needs his or her own personalized copy of *Spectre VR*. This means that each user has to purchase their own copy of the program, or you need to purchase a LAN pack. It will not work if you let someone copy your software. Also, you should note that *Spectre VR* is not compatible with Spectre Version 1.0 over network mode. This is so we could enhance its efficiency. The serial number from your Spectre Version 1.0 will not work with *Spectre VR* .

To start a multi-player game, each player launches their copy of *Spectre VR* and clicks the **Net Play** button or presses **N** in the Main Menu screen. This brings up the **Network Options** dialog, displayed below. In this dialog the players can communicate with each other and decide the ground rules for the game to be played. All items in this dialog appear the same on all screens, and any changes made by any one player will be seen by all players. Pick a scenario from the listbox and a team to play on from the pop up menu.

When all players click the **Ready** button and select their *Spectre VR* type the network game begins.

Tip: If you have access to conference-calling on your phone, dial up your team-mates to talk with each other during game play. Nothing like hearing your opponent's or comrade's pleas for mercy. Use headsets or speaker-phones to keep your hands free.

Tip: If the **Multiple Zones** switch is off, the game will only play against others who are on, the same zone as you. If it is on you will be able to see all other zones on your network. This can be a problem if you have a large number of zones. The more zones, the longer it will take to bring up the **Network Dialog**.

If you have the **Multiple Zones** switch turned on, you cannot see other players who have the **Multiple Zones** turned off. If you have the switch turned off, you cannot see other players who have the **Multiple Zones** switch turned on.

Rules of Engagement

In a multi-player game, each player has an infinite number of lives. The match ends when one player, or team gets enough points to win, or when time expires. Be sure to specify how you want a match to end - by points or by time. Once the match has ended, each player will be disconnected from the network game and returned to the **Main Menu** screen.

One of the most unique features of Network Play in *Spectre VR* is that you may leave or join a Multi-player game that is in progress. If you leave, the other players will hear a Hyperspace sound and your vehicle and your name will disappear from the screen. When you join a game the other players will hear 'hello man' and see your name appear at the top of the screen. If you try to join a Multi-player game that is already in progress you will be presented with a **Game in Progress** dialog in which you may only select the team you want to join.

Once you begin a network game, all the players' names can be found along the top of the screen. There is a number next to each name (1 through 8) that will also appear on the radar to show each player's position. Anytime you line up someone else's cybercraft in your crosshairs, that person's name will appear directly above their vehicle. That way, you know exactly who you're about to blast!

The Cyberspace Multi-player Scenarios

In the Network Options dialog, you may choose one of many scenarios. The first three are the ones found in the previous version of Spectre (Version 1.0). However, the network messaging system has been improved, streamlined and made more efficient. This has rendered this system incompatible with Version 1.0. In other words, *Spectre VR* players will not be able to play against Spectre Version 1.0 players. The classic scenarios are -

Arena

A total free-for-all. Drive around, shoot your friends (and enemies), and get one point for each kill you make. The match is over when someone gets enough points, or time expires. A good scenario to vent your frustrations and polish up your visceral skills. This scenario is best for warming up as well as rooting out your friends and foes.

Flag Rally

This is similar to Arena, but a little more complicated. No teams, every man for himself, but this time to get a match point you must collect all six flags on the field (flashing lettered A through F). To collect a flag, simply run over it. Once you have collected a flag it will stop flashing in your

radar display and the letter of the captured flag will appear in the bar next to your name at the top of the screen. If you are destroyed, all the flags you have collected go to the person who destroyed you. There are no additional points for destroying other players in this scenario. The key to winning this scenario is to watch for the wise-guy making a run for all the flags. Let them blaze for a while and then blast them before they collect the final flag!

Base Raid

Remember capture-the-flag? Imagine it with missile weapons. Two teams, two bases, infinite lives. Each team gets a match point for "destroying" the other base. When the contest begins you will rez in near your home base. Home bases are identified in the radar by "W" for the White team and "R" for Red. To destroy the enemy base you must drive across the Arena and bump into it, not just shoot it. Tricky. Also there are no Ammo Dumps in this scenario. If you run out of ammo you must drive back to your base and bump into it to resupply. Best strategy is for one team member to stay in front of his her base and defend it while other team members attack the opposing enemy base.

NEW NETWORK GAME SCENARIOS

In *Spectre VR*, you have several new scenarios available to you. There are four different types of network game scenarios. The first two are enhancements to existing scenarios, noted above. Third, there are a variety of tag games. And finally, there are a number of team CyberSports.

Enhanced Standard Scenarios

SuperArena

Just like regular Arena, only now, you have access to Scattershots, Spinners and Mines. These are fired using the **Optional Weapon** fire key you configure in your user options system (default is the **Option** key). The arenas you will encounter also have transporter gates and submergence devices.

Flag Rally Deluxe

Just like the standard Flag Rally, but with each new flag you collect, you receive a new special weapon and lose your previous one. The **Space Bar** fires whatever weapon is active. In each round the weapons may be assigned to different flags, so keep on your toes!

Maze Rally

This game is similar to standard Flag Rally, but your movement is restricted by the limiter lines on the ground. This makes racing for the flags a bit more difficult. Particularly when you learn that while you can't drive over the limiter lines, you can certainly shoot over them. There is one other catch: you MUST pick up the flags in order, A-F. Finally, unlike standard Flag Rally, you don't get an enemies flags after you kill them.

Flight Based Scenarios

Strafe City

This game is just like Arena. It now has the addition of flying.

Coordinator

Coordinator adds flying features to the game of Flag Rally.

Tactical Air Support

Flying has been added to the Base Raid game.

Aerial Zone Control

Zone Control becomes an even more challenging game with the addition of flying.

Aerial It

The ever popular classic, It, is updated for cyber flight.

Cyber Dogfight

Mano A Mano (the obstacle free Arena game) now has the addition of flying.

Tag Game Scenarios

IT!

In this classic game, players score points while they are not IT. The player who is IT drives around trying to bump into other players. This game is every man for himself. The player with the most points at the end of the game wins.

Keep Away

This is the opposite of IT. In Keep Away, players score points only when they are IT. The player who manages to spend the most time being IT will win.

Bumper Tanks

In Bumper Tanks, you score by bashing head-on into other tanks in the Arena. You get 1 point for every head-on bash you make. There is no shooting in Bumper Tanks, but there are ways to de-rezz your enemies. The Acid pools in Bumper Tanks cause an instant de-rezz to anything that touches them. If the tank you bump into gets eaten by Acid, you get three points! So, try pushing your enemies into the Acid pools. Other obstacles scattered throughout the Arena make your job all the more interesting.

Zone Control

This is Tic Tac Toe with Cannons In cyberspace. In this game the Arena is divided into a 4 by 4 square grid. In the center of each square is a flag. When a player picks up the flag, the grid square is 'captured' by that team and becomes color coded on the radar. The goal of the game is to capture a complete row of grid squares. The row can be vertical, horizontal or diagonal. Grid squares can be re-captured by the other team at any time, so precise teamwork is necessary.

Team CyberSports Scenarios

BitBall

In this game players try to kick a cyberball into a goal located in the center of the Arena. The ball is kicked by running into it with your tank. You score by kicking the ball into the goal. If the ball gets trapped up against the edge of the Arena, you can run over it backwards to shove it back into play. Your team gets five points for scoring, but your team can choose to lose a point and shoot the ball before someone else scores.

Cyber Soccer

In Cyber Soccer, you score by kicking the ball into the other team's goal. After a score, the ball is placed in the center of the Arena. There are no points for de-rezzing other players, but destroying them will send them back to their base. You may even want to de-rezz your own team-mates to send one back to defend your goal! Just like in Base Raid, re-arming is done by bumping into your own goal. Sorry, no special weapons allowed in CyberSoccer. You might watch out for the Gun Turrets near your opponent's goal. Also, you should encourage your goalie place a few Proximity Mines around the goal. Your team can see your mines, but the opposition cannot!

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VEHICLE AND WEAPON SELECTION IN CYBERSPACE

After clicking on the **Ready** button in the **Network Options** dialog, the Vehicle **Selection** dialog appears. Choose the Spectre vehicle you wish to use. Different vehicles are useful for various strategies. Each of the four has its own strengths and weaknesses, so the selection of the vehicle is a vital component of a winning strategy in network play. If you wish to create a more finely tuned vehicle, select the Custom Spectre at the bottom of the vehicle selection dialog, and click **Edit Custom**...This will bring up the **Custom Vehicle Dialog**. You have 15 points to distribute among speed, shields and ammo.

Balance

This is a good vehicle for the Base Raid and Arena games. It balances all the capabilities you need to win. This vehicle may be too slow for competing in Flag Rally.

Speedy

This is particularly useful in Flag Rally. It is also useful for at least one team member in Base Raid. This person should be designated to lead the offensive against the enemy base.

Strong

Depending on the strategy and skill levels of your opponents, this could be a useful vehicle to select if you are going to guard the base in Base Raid.

Custom

True *Spectre VR* enthusiasts will definitely want to build custom vehicles to maximize their chances of winning. You can customize your craft to get that extra edge over your opponents. You might wish to maximize your speed and sacrifice or move the coast slide to maximum and glide right past your opponents.

Choose your Vehicle, click **Play** and prepare to descend into the Arena!
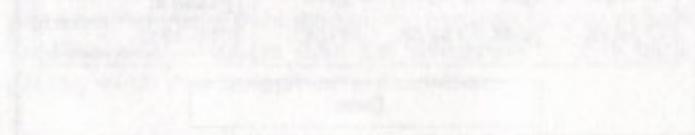
Hints for Better CyberBattles

Experience will be your best teacher here. After playing some network games, you will soon realize what makes for better network play. Here are a few hints we have found useful:

• If you have access to conference-calling on your phone systems, dial up your team members for voice dialogue during game play. Use headsets or speakerphones to keep your hands free. At Velocity, we use one intercom channel for the Red team, and one for the Blue team.

• If you only have two players, Maze Rally or Flag Rally Deluxe may be the best games for you.

• If you have a lot of players (6-8), you should give some of the CyberSports a try.

• Try organizing an Arena Tournament. Keep eliminating players until only the best 4 remain. Then host a "CyberBowl" to determine the winner. If you have enough players, you could have team tournaments, one for Flag Rally, and one for Base Raid. Loser buys lunch!

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INTRAMURAL TEAM CYBERSPORTS

Velocity is planning to release and support the capability for two physically distant AppleTalk networks to connect via Remote Access and let PCs play against Macs via Novell IPX, and host a match between two groups of players. In essence, intramural CyberSports. If you are interested in participating in intramural competitions or in obtaining more network scenario Add-On products, please return the *User Registration Card* with the appropriate check box marked for our records. We'll inform you when it ships!

PC Network Options

Before playing a network game, you will need to configure *Spectre VR* for your type of network. You access the network menu from the **Options Menu.**

Network Options Dialog Box
See **Read Me** file for the latest options

Network Type - Novell IPX, NetBIOS, Modem, or Direct Connect

If you are unfamiliar with networking PCs you may want to spend some time learning about modem communications. Modems are tremendously useful gadgets that can open your eyes to a whole new world. See your dealer for more information.

Modem

If you are using modems to connect two PCs you will need to set several options on the **Network Options Menu**. Select the **COM** port to which your modem is connected. Set a **Baud Rate** that both of your modems are able to handle. Then enter your name.

If you intend to host the session by having a friend call you, set your Modem Settings to **Modem Receive**. Otherwise select **Modem Call** and enter the telephone number of the person hosting the session.

Direct Connect

If you have two PCs close together you may be able to connect their serial ports using a NULL MODEM cable. This is one of the easiest and most inexpensive methods to connect two PCs and allows fast baud rates. Contact your local dealer if you need help getting a NULL MODEM cable.

Once you have successfully connected your PCs and are ready to jump into the *Spectre VR* Arena, follow all directions as though you are going to connect via modem. Set options for serial port, baud rate and enter your name. However, since you will not be using the phone lines you need not enter a telephone number to connect to the host.

Novell IPX
If you are using Novell NetWare or Novell NetWare Lite select IPX.

NetBIOS
Most network software uses or can emulate the NetBIOS standard. If you select NetBIOS, be sure you have the appropriate drivers loaded.

Serial Connection - COM1 or COM2
You will need to know which communications port your modem or null modem cable is connected to. If you have selected COM1 but do not seem to be getting ANY response from your modem you should select COM2 and try again.

Baud Rate - 1200, 2400, 4800, 9600, 19.2k, 38.4k, 57.6k, or 115k
Select a baud rate that both you and your opponent are capable of running. If you experience any difficulties at higher baud rates, try the next lower speed.

Enter your name
If you enter your name or 'handle' here it will appear above you as you glide through the Arena. You will see the names of other players as well.

Modem Settings
Modem Receive
If you will be HOSTING this session then you will want to set your modem to receive calls. Selecting Modem Receive will tell the game to configure your modem for HOST mode. You do not need to enter the telephone number of the caller when you are receiving.

Modem Call
If you are the REMOTE player, you will need to set your modem to call the HOST player. Select Modem Call and enter the phone number of the person hosting this session. Hayes compatible dialing commands can be entered in this box along with the telephone number.

DONE
After you have finished selecting your preferred options you may click on the **Done** button at the bottom of your screen, press the **[D]** key on your keyboard, or simply press the **[Enter]** key to return to the previous menu.

TROUBLESHOOTING

This is a technical reference chapter for PC and Macintosh. It is not meant to be light reading. To make this more readable, much of the chapter is presented in question and answer format. Try to find your question, and it will provide the answer.

These sections are divided into several parts. First, problems and questions concerning the installation process are discussed. The second part examines problems you may experience with getting Spectre VR to load and play.

Any questions you may have about playing the game and game strategies are covered in earlier chapters.

If for any reason the installation process fails on your machine, you should try it on another machine if at all possible. This will help diagnose the problem faster than anything else you can do.

PC TROUBLESHOOTING

This section will help you solve most problems you might encounter while installing and playing Spectre VR on your PC.

Problems Installing Spectre VR

If you have any trouble installing the game on your PC, you may want to:

1. Be sure you have at least 2 MB free on your hard disk.

2. Verify that you have a High Density 5.25" diskette drive or a Double Density 3.5" diskette drive.

3. Make sure you did NOT write-protect the original diskette

4. Be sure you have 510K free conventional RAM.

Questions about Installing Spectre VR

Q: Is there an un-installation process?
A: To remove Spectre VR from your machine, simply delete all the files in your Spectre VR directory (for most people this will be C:\SVR)

and remove the directory. If you need help deleting files and directories, please consult your DOS manual.

Q: Can I run Spectre VR from the original floppy disk?
A: No. Spectre VR is shipped in compressed format. You MUST install the game in order to run it.

Q: What if my floppy disk is not readable?
A: If you receive the message "Error reading drive A:", you may have a bad disk, the wrong format disk drive, or a dirty diskette drive. Try installing the program on another computer and see if your disk is ok. In the unlikely event that your disk is bad, you can obtain a replacement from the dealer, or direct from Velocity. Again, please BE SURE your disk drive is a HIGH DENSITY 5.25" drive if using 5.25" diskettes.

Q: The install program won't run on my machine.
A: Try the install program on a different computer. The install program is quite simple and should run on any machine. If you have trouble, that may be the sign of a hardware incompatibility. If it works on a different machine, you should notify your computer dealer. If the disk does not work on another machine, it may be damaged.

Q: Can I Run Spectre VR on a 286?
A: No way, Sorry Guys!

Q: Can I run *Spectre VR* from 3.5" or 5.25" floppy diskettes.
A: If you can fit all of the *Spectre VR* files you need (see previous question) on ONE DISKETTE, then there is no reason the program should not run. The install program will NOT install to diskettes. Consult your DOS manual for information on copying files and formatting disks.

Problems Running
Spectre VR

If you are having trouble running Spectre, please read this section. It covers the most common problems that people experience with their computers.

Software Conflicts

The most common cause of trouble with running any program is some sort of software conflict. You may have loaded a memory resident program, TSR, device driver, or utility that is 'taking over' part of the machine that *Spectre VR* needs direct access to. These programs are usually loaded via the **CONFIG.SYS** or **AUTOEXEC.BAT** files. For more information on these files consult your manual.

Spectre VR is self-checking. This means that if the program installs, it should work. If your disk was bad, it would probably not even install.

The first thing to do if *Spectre VR* stops running is to boot from a 'virgin' DOS system disk with no extra features added to it. You can create a system disk by using the **DOS FORMAT** command. Place a blank disk in drive A: and type:
FORMAT A: /S

The /S tells FORMAT to create a system disk. Now, you can use this new system disk to start your computer.

Note: You must create a system disk in drive **A:**. Most computers will not boot from a disk in drive **B:**.

Turn off your machine. Place the system disk in drive A: and turn the computer back on. Your machine will now boot-up from this new system disk instead of the hard disk drive. This will prevent any special software features you have added to your system from being loaded. You now have what many users refer to as a 'CLEAN SYSTEM'. Now see if *Spectre VR* will run properly.

If the game runs, you need to find and eliminate the program that was causing the problem.

Hardware Incompatibilities

If you're sure you don't have a software conflict, you should start checking for hardware incompatibilities. The BEST way to do this is to try running your copy of *Spectre VR* on a different computer. Perhaps you have a friend with a machine, or ask your computer dealer if they will let you try the game on their machine.

If the game runs fine on a different machine, and you're sure you don't have a software conflict, you may have some type of hardware incompatibility or 'quirk'.

Just because your computer dealer said your machine was 100% IBM compatible does not mean it truly is. Don't worry, however. Most hardware incompatibilities are actually easy to solve, and you can often get your dealer to help you out.

Because we probably don't have your specific type of machine here at Velocity, you will need to call your dealer, or the manufacturer of your computer for help. Describe to them the problem you are having, and let them know that the program worked on a different machine.

Computer manufacturers are usually happy to help out. After all, they want to be sure that their machine runs all of the software out there on the market. Also, we want to be sure that our software runs on their machines. So, if they ask for our number, please give it to them. We can usually work with the manufacturer to try to find a solution to the problem.

Questions about Running Spectre VR

Q: I run the program, but I don't see anything.
A: Be SURE you have VGA graphics. *Spectre VR* requires VGA and will not run in CGA, EGA, MCGA or Tandy 16 color mode.

Q: I was playing the game, everything was fine, and then suddenly my computer locked up!
A: You probably had a memory resident program, TSR, or hardware board that interrupted *Spectre VR* in such a way that the game could not recover. Simply re-boot your machine, and everything should work fine. If this becomes a chronic problem, you should try a 'boot-disk' as described above to isolate the program.

Q: The game said my copy was damaged and is now running in DEMO mode.
A: *Spectre VR* has found that one or more of your program files has become corrupt, or your serial number was not found. You should re-install the game from the original disks. Don't worry, your high scores and saved games should stay intact.

Q: I have a Sound Blaster Pro, and the volume level is very low.
A: The Sound Blaster Pro, and some other sound cards, have a software controlled volume setting. This control may be set low prior to running the game. The utilities that came with your sound board should allow you to adjust the volume before you play Spectre.

Q: Can I run *Spectre VR* under OS/2?
A: We don't recommend running *Spectre VR* from OS/2, performance may be up to 4 times slower than in DOS. Use the default DOS Compatibility Box settings, but change those listed below. This is for OS/2 2.1:

DOS_BACKGROUND_EXECUTION: off
DOS_FCBS: 0
DOS_FCBS_KEEP: 0
DOS_HIGH: on
DPMI_DOS: disabled
DPMI_MEMORY_LIMIT: 0
DPMI_NETWORK_BUF: 1
EMS_FRAME_LOCATION: none
EMS_HIGH_OS_MAP_REGION: 0
EMS_LOW_OS_MAP_REGION: 0
EMS_MEMORY_LIMIT: 0
HW_ROM_TO_RAM: on
HW_TIMER: on
IDLE_SECONDS: 60

```
IDLE_SENSITIVITY: 100
VIDEO_ONDEMAND_MEMORY: off
VIDEO_RETRACE_EMULATION: on
VIDEO_WINDOW_REFRESH: 125
XMS_HANDLES: 0
XMS_MEMORY_LIMIT: 0
```

Q: Could my Memory Manager be causing trouble? Spectre VR seems to work without it installed!

A: *Spectre VR* has been tested to work with all the major memory managers, but there is one important requirement: DON'T LET YOUR MEMORY MANAGER USE VIDEO MEMORY! If your memory manager uses the VGA video memory area, *Spectre VR* may not work. Why? Simple! *Spectre VR* is a GRAPHICS program, and it NEEDS that graphics memory. That memory is supposed to be RESERVED for graphics applications like Spectre.

Q: My Joystick won't work!
Q: I can't properly calibrate my joystick.

A: Joysticks are tricky things. Here are some suggestions: Be sure you don't have 2 joystick cards active in your computer at one time. Remember, the SoundBlaster has a joystick port! Disable one if necessary.

Some joystick cards were not designed to work with today's high speed computers. You may need a newer joystick adapter.

Q: I have a programmable joystick card, and I set it to match my machine, but it still doesn't work.

A: You must EXPERIMENT with the settings! Some people need to set their joystick adapter to 4 MHz even though their computer runs at 66 MHz.

Q: I can't use my Joystick to jump.

A: This can be caused by two things. First, some joysticks have an auto-repeat or "rapid-fire" feature. You may need to turn this off to use the jump button. Second, some joysticks have button configuration switches. You should be sure that the jump button is active.

Q: I can't get my Mouse to work.

A: First, be sure you have your mouse driver loaded, and confirm that your mouse works with other applications. Also be sure you have the most current version of your mouse driver. Second, your mouse must be 100% Microsoft compatible to work with Spectre. It is also important to know that Microsoft Windows has its own mouse driver. Just because your mouse works in Windows does NOT mean your driver is loaded!

Q: I'm using DOSSHELL and Spectre VR won't run.
Q: Spectre won't run from my menuing program.

A: *Spectre VR* requires all the resources of your computer. DOSSHELL and most menu programs use up some system resources when they launch other applications. *Spectre VR* may not be able to function without these resources available. Try exiting to DOS before running the game.

Q: My arrow keys don't work.

A: Some keyboards send non-standard keycodes to the computer. If your arrow keys don't work, try using the arrows in the numeric keypad. If the keypad arrows don't work, use the dedicated arrows if you have them. You may have to hit the **[Num Lock]** key to get the arrows to work correctly.

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NETWORK SPECIFIC INFORMATION

Networks are tricky things. Before you start trying to diagnose a network problem yourself, you should check with an expert if you have one on hand. Also, be sure all other network software functions properly before running Spectre. Here is a list of some common network problems and solutions.

Local Area Networks

You MUST be sure your network is functioning properly before running *Spectre VR* in network mode. Almost all network problems are due to incorrectly configured network cards or memory managers.

• Verify that each player on the network has his/her own copy of Spectre. If *Spectre VR* sees two copies with the same serial number, it will only allow one to work over the network

• Make sure your memory manager is not using memory that your network card requires. Some memory managers may not be able to detect your network card and may relocate the network card's memory buffer.

• Be certain that your network card does not share an interrupt with your sound board, or other devices in your system. If you try to play a

network game of *Spectre VR*, and your SoundBlaster board is on the same interrupt, the results can be unpredictable.

• Be sure your drivers are PROPERLY loaded!

NOVELL IPX

If you experience any problems, try sending a message to the user you want to play *Spectre VR* with. Then be sure he can send you a message. You must verify that your two computers can communicate before playing Spectre.

NetBIOS

• If you are loading a NetBIOS emulator under NetWare or NetWare Lite, be sure IPX is loaded prior to NetBIOS.

Direct Serial Connect

Problems with direct serial connect are rare, but when they occur, they are usually due to a hardware problem with the cables, or a shared interrupt number.

• Be sure your null modem cable is operating properly.

• Be sure you have selected the correct serial port on both machines.

• Be sure there is no other hardware in the system that may be interfering with your serial port. For example, some sound boards may use the serial port hardware interrupt. If this is the case, you may get no sounds, or no serial communication, or both.

Modem to Modem

Modem to modem operation can be tricky. The most important thing to do is verify that your modem is working properly with other software before you attempt using it with Spectre.

• Be certain your modem is 100% Hayes compatible. We can't guarantee compatibility with other types of modems.

• If you are having trouble, make sure you can log on to a bulletin board with your modem.

• Be sure your serial cable has all the proper lines running through it. Some cheaper serial cables may not contain the necessary data lines.

Network Questions and Answers

Q: I am in network mode, and I don't see the tank animations on the vehicle selection dialog box.

A: Your network drivers may be taking up too much memory for *Spectre VR* to be able to load all the animation graphics. Don't worry, the game should still run fine. You should try to have 510K conventional RAM available before you run Spectre.

Q: Can I make two copies of my game and use them over a network?

A: No. Not only would this violate your copyright agreement but it won't work either. Each copy of *Spectre VR* needs a unique serial number in order to play a network game. Help us put out more great games and tell your friends to buy their own copy. It isn't that expensive!

Q: I tried to play a network game, but it said there was somebody else on the network running my copy of *Spectre VR*.

A: First, be sure you didn't lend your copy of the game to a friend. Also be sure a friend didn't accidently use your disks to install the game instead of his. The best solution is for you both to re-install the game from your respective original disks. Don't worry, this will not damage your high scores or saved games!

Q: Do I need to be a CLIENT or a SERVER to run *Spectre VR*?

A: NO! You can save memory and not load CLIENT or SERVER software. *Spectre VR* does not transfer any files over the network, just messages.

RUNNING SPECTRE VR FROM WINDOWS

Q: Can I run the game in a window?

Q: Is *Spectre VR* really a Windows program?

A: No to both. Microsoft Windows is unfortunately not suited to running high-speed 3D animation. *Spectre VR* contains a Windows "front-end" which allows you to configure and launch the game. When *Spectre VR* runs, it is actually a DOS based program. This allows us to take direct control of your computer's video system and produce smooth 3D animation.

Q: *Spectre VR* runs really slow when I launch it from Windows.

A: Be aware, Windows is multitasking and performs background processes while *Spectre VR* is running. As we said earlier, a fast 386 based computer or better is needed to make *Spectre VR* run smoothly from Windows. You can try closing as many Windows applications as possible before running *Spectre VR*. This may cut down the amount of background processing that is done and speed up the game.

Q: I get an error that says my sound card is in use by another application.

A: In some configurations, Windows won't let *Spectre VR* use the sound card properly. Usually, you can simply continue with the game and all sounds will be OK. If this does not work, we recommend running *Spectre VR* from DOS.

Q: The menus for *Spectre VR* work fine in Windows, but the game doesn't run.

A: You probably don't have enough free DOS memory. We recommend at least 550K free DOS memory before you try running *Spectre VR* from Windows.

Q: How can I make *Spectre VR* run better from Windows?

A: Windows slows the performance of *Spectre VR* down because it 'shares' system resources with other programs. Try closing as many applications as possible before running Spectre. Also, we recommend having AT LEAST 4 MB to run Spectre. If the game still won't run well, we recommend exiting to DOS before playing Spectre.

Q: I Get a error saying DMA buffer is too small.

A: Your system does not have enough resources to play the SoundBlaster digitized sounds. Consult your Windows documentation on increasing the size of the DMA buffers. You can also switch to AdLib sounds.

MACINTOSH TROUBLESHOOTING

This section will help you solve most problems you might encounter while installing and playing *Spectre VR*.

Problems Installing *Spectre VR*

In the event of difficulties, the two MOST IMPORTANT things to try are:

1. Try 'Booting Up' your computer with more free RAM. Try turning off some of your INITs, or your accelerator board, if possible. You can turn off all your INITs and extensions by restarting your computer with the SHIFT key depressed.

2. If the above doesn't work, try running *Spectre VR* on a DIFFERENT computer, perhaps a friend's machine or one at work (as long as the boss doesn't mind). This will tell us if your machine has a hardware conflict.

Questions about Installing Spectre VR

Q: How much hard disk drive space will I need to load *Spectre VR*?
A: You will need at least 2 MB of free space on your hard disk to install *Spectre VR*.

Q: How much available RAM will I need?
A: *Spectre VR* automatically senses the total amount of free RAM in your machine and adjusts its capabilities accordingly. To play *Spectre VR* you must have at least 1300K of free memory. For full sound effects and the "Filled" polygon option you must have at least 2000K of free memory. Systems with less than 1500K can play *Spectre VR*, but with a reduced set of sound effects. Texture Mapping requires about 3 MB RAM. See **Read Me** file for specifics.

Q: Is there an un-installation process?
A: To remove *Spectre VR* from your machine, simply remove the application file and the settings file (under preferences in your system folder) from your hard drive. You might, however, check your back-up disks to insure that you have the original program intact.

Q: Can I run *Spectre VR* from the floppy disk?
A: You bet, although you will experience some delays as the program loads in from the diskette.

You should also make sure that your floppy is not write-protected so that the serialization process will work correctly.

Q: What if my floppy disk is not readable?
A: *If you receive the message "This disk is unreadable, do you wish to initialize it?" Select the Eject button and try it on another machine. If it fails on other machines, contact the dealer where you bought your copy of Spectre VR. The fastest way to get a working copy is to exchange it at the dealer.*

Q: What if I'm trying to serialize *Spectre VR* but the floppy disk (with the serial number on the label) is in the disk drive?
A: You will need to eject the floppy from the disk drive. Press and hold down the **Command** key while pressing and holding the **Shift** and **1** key (the **1** that is at the top of the keyboard). This key sequence will eject the disk. Copy down the serial number, reinsert the disk and continue with entering your name and serial number.

Q: Can I loan my serial number to my friends so we can play a network game?
A: No. Not only would this violate your copyright agreement but it won't work either. Each copy of *Spectre VR* needs a unique serial number in order to play a network game. Come on, help us put out more great Mac games and tell your friends to buy their own copy. It isn't that expensive!

Problems Running *Spectre VR*

Spectre VR runs under Systems 6.0.3 and later. *Spectre VR* will run on any Macintosh and supports both Color and Monochrome monitors (2, 16 and 256 colors). The "Filled" polygon option is not supported on the Plus, Classic and SE and there is a reduced set of sounds to increase game speed. The solid "Filled" polygon option is optimized for the Mac IIfx, Quadra and Centris systems and may not play as smoothly on lesser machines.

To play *Spectre VR* you must have at least 1300 K of free memory. For full sound effects and the "Filled" polygon option you must have 2000 K of free memory.

If *Spectre VR* gameplay slows at higher levels, try toggling the sound off (press **S** key) and the animation will speed up. You may also toggle the "Filled/Vector" button in the startup screen to "Vector" for faster game play.

If your game score is among the top ten, you will be prompted to type in your name. To clear the high scores throw away the *Spectre VR* settings file located under preferences in your System folder.

If you have trouble firing on the smaller Mac keyboards, try using the Shift key instead of the Space Bar. Some keyboards have difficulty recognizing more than two keys being pressed simultaneously, but the Shift and Option keys will be recognized in any case. You know us software authors...always blaming the hardware!

Questions about Running Spectre VR

Q: How should I set up my monitor to play *Spectre VR*?

A: *Spectre VR* will run in 2, 16 or 256 color modes. Please select Control Panels from your Apple Menu and select the Monitor CDEV. Set this to "Black & White", 16 or 256 colors. You may also set the monitor to 16 or 256 Grays. If you have two or more monitors attached to your Macintosh, *Spectre VR* will automatically sense the monitor with the highest settings (i.e. most colors or grays) and play on that monitor. If you have multiple monitors and *Spectre VR* does not come up on your primary monitor (i.e. the one directly in front of you), reset the monitor settings so that your primary monitor displays a higher number of colors that your other monitors.

Q: Is *Spectre VR* compatible with the Apple or other 3rd party Full Page or Two Page Displays?

A: While we have endeavored to test in a number of machine and monitor configurations, we cannot assure that *Spectre VR* will work in every possible scenario. However, *Spectre VR* should work fine with most Full Page or Two Page Displays. If you experience any problems, try setting your monitor to different color or gray modes.

Q: Is *Spectre VR* compatible with Accelerator cards?

A: We tested against a number of these cards and found *Spectre VR* to be compatible. However, if you experience a problem disable the accelerator and try again.

Q: When I start up the program, it seems to load up properly, but I don't see anything on the screen!?

A: Press **Command** -Q to attempt to Quit out of *Spectre VR*. If nothing happens, reboot your computer and disable your INITs and Extensions. Under System 7.0 simply hold down the **Shift** key while you boot up to disable the Extensions. Finally, check your monitor settings. If you can successfully Quit out of the game it is likely that the monitor setting is not being supported properly. Try a different color or gray mode and restart *Spectre VR*.

Q: The program won't run at all. What should I do?

A: The first thing you should do is check to see that you have enough free RAM to run *Spectre VR*. Again the minimum amount of free RAM required is 1300K. If you do have enough free memory try rebooting your computer after disabling your INITs and Extensions.

Q: No matter what I do, the program won't boot!?

A: If nothing else works, there may be something 'built in' to your computer system configuration that is causing trouble. Spectre VR has been tested on all of the Macintosh line and a number of monitors and accelerators, but it is impossible to simulate each user's individual configuration. In the event of continued difficulties, try running Spectre VR on a DIFFERENT Macintosh. Perhaps a friend's machine or one at work (as long as the boss doesn't mind). This will tell you if your machine is causing the problem, or whether it is a problem with Spectre VR.

Q: I only have 1300K of free memory, is there any way I can run the program to force all the sounds to play?

A: Well, with a minimum memory configuration, the system loads 11K samples of sounds, so actually, you get all the sounds. With more memory, higher quality 22K samples get loaded and played.

Q: Will Spectre VR run on the older Mac Classics?

A: No way. Sorry guys!

Q: What if I am having problems with network play?

A: Problems can occur in network play if several players attempt to join or quit a game at the exact same time, or if a player disconnects, crashes or turns off his or her machine in the middle of setting up or playing a network game. In many cases Spectre VR will sense a network problem and gracefully return you to the **Main Menu**. Just try again. If you experience a problem with a network game (i.e. a player is unable to join a game, or a game suddenly halts with an error message) have all players return to the main screen and restart the network game. Under rare circumstances it may be necessary to reboot everyone's machine. We have made every effort to make the network code solid as a rock, but this is way complex stuff and there is lots of room for the unexplainable. No cop out, just the facts.

Another note on network play: Under System 7.0, with AppleTalk Phase 1 installed (the old AppleTalk), networks with heavy traffic tend to experience problems. Spectre VR may be affected. If you have a large network running some System 7.0 with Phase 1, and you experience problems with Spectre VR network play, we suggest you upgrade to Phase 2. Contact your local Apple Dealer for details.

Q: What if my vehicle suddenly starts to turn or spin?

A: Spectre VR supports the use of the mouse to steer the craft. Some people might prefer to use a mouse, although it provides less control. Occasionally you may bump your mouse while playing which will cause your craft to start spinning. Simply press the 5 on the numeric keypad or the G key to center your vehicle and continue.

Q: What if my keyboard seems to be getting stuck on a certain key?

A: On some keyboards the keys may get "stuck" after extended periods of play. Gently tap the stuck key and it will eventually release.

Q: Can I network Spectre VR Mac and Spectre VR PC?

A: At this time, no. But a release is forthcoming that will support Novell IPX so that Macs and PCs can battle against each other! Register, register, register Get the message?

Q: How do I get human help?

A: Spectre VR has been fully tested and includes this comprehensive user's manual. However, if you should encounter any difficulties not included in this manual, please follow these steps:

1. Make sure you have correctly installed and serialized your copy of Spectre VR and are running under a supported Mac with at least 1300K and System 6.0.3 or later.

2. Consult your local dealer. They should be able to help you with both your computer and the software.

3. Lastly, if you cannot get your question answered or problem solved, please call Velocity Development Registered User Support. The number can be found on your warranty registration card.

CUSTOMER INFORMATION

This chapter includes information for you as a registered user of *Spectre VR*. It includes the terms of the software licensing contract we entered into when you bought this program and opened the package, as well as the terms of the warranty provided. Information about customer service and programs is also included.

First of all, we'd like to take this opportunity to thank you for your support of Velocity and its software products. We are constantly striving to build the highest quality software we can, and as part of our commitment to total quality, we invite you to send us your comments and suggestions. It is only with your feedback that we can build a better product.

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Please take some time to fill out and send in your registration card. We need this information in order to notify you of new products, upgrades and any special offers we may introduce.

CUSTOMER SUPPORT

If you have a problem that the manual won't solve, there are several ways to get help. Because we are a small company, and want to provide the best support possible, we ask that you try some of these valuable sources of information before calling us for help.

Your dealer: Your dealer should be familiar with the products they sell. A quick call may help you out.

Send us a letter: If your problem is not urgent, or if you have suggestions you think would make for a better product, please feel free to send us a letter. If possible, use AppleLink to send your message.

If you find that you must take advantage of our telephone technical support services, please be in front of your computer if possible. Because 90% of all problems are caused by software conflicts, we will need to ask you questions about your hardware configuration and system INITs.

Velocity Development
P. O. Box 2749
San Francisco, CA 94126
Technical Support: 415-392-HELP
AppleLink: Velocity

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If you wish to contact Velocity for any reason, including warranty service, please write to: Velocity, PO Box 2749, San Francisco, Ca. 94126.

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