General Recording Troubleshooting

Due to the fact that the cause of your problem will be difficult to diagnose, the following is some things that can to be tried resolve the problem:

Ensure that you have the latest firmware. New firmware can be obtained from our sight at http://www.ricohcpg.com/firmware.html. If you are using the PE Logic card, you can download the kit to a floppy and then follow the instructions on the readme.txt file. To find your level of firmware, go to your device manager and under CDRoms go to Ricoh MP6200. Click on Properties and then go to settings. At the time of this writing, the most current firmware is 2.03.

Ensure you are also running the latest premastering software. Updates can be obtained from Adaptecs page at http://www.adaptec.com.

If you are trying to do a CD to CD copy, it is highly recommended that your source drive be a SCSI player. Another thing, that if you are failing on CD to CD copy, try doing a burn from your Hard Drive. If the problem goes away when burning fro your hard drive, then the problem is with the CD player.

If you are running an autoexec.bat and a config.sys, try renaming them to ensure that a DOS driver is not causing the problem.

If you have a scanner attached to your system, try removing it to see if that resolves the problem.

If you are on Windows 95, ensure that you are running version 4.00.950a or 4.00.950B or newer. If you have just 4.00.95 please go to http://www.microsoft.com to download the service pack. (You can get the version by going to "Control panel", then "System". On the "General" tab, you will find the version of Windows 95 you are using.

If you have Direct CD 1.x on your system and also have a Microtek scanner, please download the patch for Direct CD 2.0 a there are known incompatibilities with the earlier version of Direct CD and the Microtek scanner.

If you have a Matrox Millennium Video card and are running Direct CD, please go to the Matrox site and download the late drivers at http://matrox.com.

If you are using the SCSI version of the Ricoh drive, ensure that you have you follow the rules of termination in regard to having the first and the last device on the chain terminated (everything in the middle is not terminated) and that each devi has its on unique ID.

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You can get this errors while recording in several ways:

1) Dragging and dropping files from "my computer", Norton's File Utility or from the LEFT side of Explorer. You should ALWAYS drag and drop from the RIGHT side of Explorer.
2) Using inconsistent media. Try using Ricoh, TDK or Taiyo Yuden (That's CDR!) ***VERY IMPORTANT!!! MAKES A BI DIFFERENCE!!!***
3) Defective Media
4) Using files that had been extracted from another CD ROM drive that does not fully support data extraction. Try draggir and dropping files that had been created from the hard drive and record. If this is successful, then your source CD ROM player could have a possible problem extracting files and copying corrupt files to your CD or hard drive.
5) Temp directory is full. You will need to delete all unnecessary files from this directory.

Please ensure of the following:

1) In Device Manager, CD-ROM, settings tab for all CD-ROM devices:
   - Enable Auto Insert Notification
   - Disable Sync Data Transfer
   - Enable Disconnect
2) End Task on all programs running in the background except Explorer and Systray by pressing ctrl+alt+del
3) Disable all memory resident programs: Virus checker, screen saver, power management, system monitors, etc..
4) Run Scan Disk and Defragment the hard drive

5) Do not run a Config.sys or an Autoexec.bat under Windows 95
6) Log Off all networks
7) Do not record from a compressed drive
8) Update drivers for your ADAPTEC card by going to: ftp.adaptec.com/pub/BBS/win95. Download win95mpd.exe to you Windows/System/Iosubsys directory and execute.

The following is information on Buffer Underruns from Adaptec. This is good information to follow to ensure that you have your system set for optimal performance.

A buffer underrun (or over run) is the most common problem in CD recording. A buffer underrun/overrun occurs when the system can not deep up a steady stream of data as required by CD recording. The CD recorder has a buffer to protect against interruptions and slowdowns, but if the interruption is long enough that the recorder's buffer is completely emptied overflows with too much information, a buffer underrun/overrun occurs, writing halts and most often the recordable CD is irretrievably damaged. You can check out the helpful hints for buffer underruns/overruns on Adaptec's web site to help out your situation at:

www.adaptec.corn/support/cdrec/bufunder.html

CD writing is a real-time process which must run constantly at the selected recording speed, without interruptions. The CD recorder's buffer is constantly filled with a reserve of data waiting to be written, so that small slowdowns or interruptions in the flow of data from the computer do not interrupt writing

A buffer underrun error means that for some reason the flow of data from hard disk to CD recorder was interrupted long enough for the CD recorder's buffer to be emptied, and writing was halted. If this occurs during an actual write operation rather than a test, your recordable disc may be ruined

Possible Causes of Buffer Underruns

Hard Disk
* "Dumb" thermal recalibration.
* Fragmented hard drive.
* Sector size at 32kb instead of 16kb.
* Not enough space in temporary directory. Hardware
* Slow source devices.
* Source devices that transfer data in bursts.
* Incorrect recorder controller settings.
* Inability of the devices to sync properly.
* Overall system configuration.
* Computer unable to allow fast enough data transfer.
* Old device drivers.

Memory-Resident Programs
* Any program that may activate on its own
* Anti-virus software
* Screen savers
* System agents
* Schedulers
* TSR (terminate and stay resident) software
* Networks
* System sounds
* Animated icons

Networks
* Recording across the network (usually too slow to maintain adequate throughput speed).
* Incoming e-mail or faxes.
* Other people accessing your computer.

Windows 95
* Modify Virtual Memory Settings
* If you have more than 16 MB of RAM, disable Auto Insert Notification
* If you have more than 16 MB of RAM, change the hard drive's Typical Role to Network Server

Files to Be Recorded

* Recording many small files.
* Damaged source files (data loss).
* Trying to record files in use by the system or other applications. Other
* Copying from a CD that is scratched, dirty, or damaged.
* Recorder malfunction.

Checks / Prevention

* Disable or remove everything in the computer EXCEPT the operating system, the recording software, and the drivers for your source devices.
* De fragment your hard drives at least once a week to prevent files from scattered across the hard drive.

If you are using any Adaptec SCSI card under Windows 95, please download the latest miniport driver (ftp://ftp.adaptec.com/pub/BBS/win95, filename WIN95MPD.EXE) from the Adaptec FTP site and install it.

For any Adaptec controller in Windows 95 or NT, we also recommend that you download and install the new 32-bit ASPI layer (Ap://ftp.adaptec.com/pub/BBS/win95, filename ASPI32.EXE).

There are download links to these files from http://websvrl.adaptec

* Do not record across a network. Copy the desired files to your local hard drive.
* Log out of any networks if possible, including Windows for Workgroups and/or Microsoft Network.
* For best results use SCSI 2 source devices.
* Disc to disc copying, requires a SCSI 2, fully ASPI-compliant CD-ROM drive. We recommend at least a 4x. Copyi audio requires a source CD-ROM drive which supports digital audio extraction.
* Make sure your hard drive does Smart Thermal Recalibration. (that is, that it won't recalibrate if the CPU is being used).
* Record at a slower speed.
* Write an .ISO image to the hard disk first, if you have enough hard drive space
* In any operating system, always using the newest drivers from your SCSI controller card manufacturer
* Always set audio to write at 1x.
* Keep the CDs, the recorder, and your source CD-ROM drive free.
* Make sure your SCSI controller card is FULLY ASPI-compliant.
* Do not try to copy empty directories, zero byte files, or files that may be in use by the system at the time.
* More than 10,000 very small files should be written to an .ISO image first or recorded at 1x if possible.
* The temporary directory should always have space free at least twice the size of the largest file you are recording.
* The entire computer, from the motherboard bus to the recorder itself, needs to be configured properly for faster recording and highest maximum sync transfer rate.
* Change the DMA transfer rate for the card being used.
* With DOS 6.22 or below and a source hard disk 1 gigabyte or larger, partitions should be kept smaller than one gigabyte so that hard disk sector size is 16kb instead of 32kb.
* Try a different hard disk and /or gold recordable disc.

The following CR-R media is recommended:

Ricoh
Kao
MTC (Mitsui Toatsu Corporation)
TDK
Kodak
Taiyo Yuden

Another thing you can try is if you are using a SCSI card other than the PE Logic, put the PE Logic card in for testing purposes to see if the problem goes away. If it does, the problem lies with the original SCSI card.