

MasterList CD Addendum

Version 2.2 for Macintosh

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PN 934207493-00 REV A

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What's New in MasterList CD 2.2

System Requirements

- ◆ Qualified PCI-based Power Macintosh compatible computer
- ◆ A SCSI hard disk qualified for use with your chosen Digidesign system

For the latest list of qualified computers and hard drives, contact your local Digidesign dealer or visit Digidesign's website.

- ◆ Mac O.S. 8.1, 8.5.1, or 8.6 (NOTE: Mac OS v8.5 is not supported)
- ◆ 8 Megabytes of RAM minimum for the MasterList CD application
- ◆ DigiSystem™ INIT 3.4.2 or higher (not required for stand-alone operation)
- ◆ 14" or larger color monitor (as supported by your computer)
- ◆ (Optional) For higher quality output monitoring, any of the following Digidesign system hardware:
 - Pro Tools 24 MIX
 - Pro Tools 24
 - Pro Tools III PCI
 - Pro Tools Project PCI
 - Audiomedia III
 - Project II

New Features

Improved SCSI Device Support

MasterList CD 2.2 has improved support for finding CD recorders on multiple SCSI buses. It corrects a limitation that could prevent MasterList CD from recognizing a CD recorder on one SCSI bus if there is another device with the same SCSI ID on a different bus. MasterList CD 2.2 may also improve SCSI performance on certain system configurations, decreasing the chances of buffer underruns and allowing some configurations to reliably write at higher speeds than with previous versions of the software.

Resolved Problem with Yamaha CD Recorders

MasterList CD 2.2 addresses a problem whereby, under certain circumstances, some disc writes were not being "closed" and were therefore being rejected by some replicators. Version 2.2 makes sure that the Disc Lead-out is complete, disallowing any multi-session options that the CD Recorder might have.

Consolidates Power Macintosh Support

MasterList CD 2.2 supports the Blue and White Power Macintosh G3 as well as other Power Macintosh models. Unlike the MasterList CD version 2.1.1 and version 2.1.2 releases, there is now only one version for all supported Power Macintosh computers.

New CD Recorder Support

MasterList CD 2.2 adds support for the following CD Recorders:

Make	Model	Firmware
Plextor	CD-R PX-W8220T	1.00
Plextor	CD-R PX-W4220T	1.00
Plextor	CD-R PX-R820T	1.02
Teac	CD-R58S	1.0H
Teac	CD-R56S	1.0H
Yamaha	CRW 6416S	1.0b

Operational Information

Digidesign Systems with SCSI Accelerators

If your hard drive(s) are attached to a Digidesign approved SCSI accelerator card, you may also attach your CD Recorder to the SCSI card. If you experience any problems while writing discs with this configuration, move the CD Recorder to the Macintosh SCSI bus.

If your Digidesign System includes a Blue and White Power Macintosh G3 Computer,

you must connect your CD recorder to an approved SCSI accelerator card. This is because your computer does not have an external SCSI bus. This card should be installed in the highest numbered slot (the one farthest away from the monitor slot).

Your CD recorder should be the last device connected to the SCSI chain and should be properly terminated. For best results, optimize your hard drive before writing a CD.

For a list of approved SCSI accelerator cards, contact your local Digidesign dealer or visit Digidesign's website.

▲ When adding a narrow SCSI device (50 pin connector) to a wide SCSI bus (68 pin connector), all wide devices MUST come before any narrow devices on the SCSI bus. Between the last wide device and first narrow device, you must use a wide to narrow adapter that actively terminates the high byte (unused signal lines) of the wide bus.

Pro Tools III PCI and Pro Tools Project PCI Systems

Do not connect your CD recorder to the SCSI bus of the Pro Tools III Disk I/O card or Pro Tools Project card. Instead, connect the CD recorder to the Macintosh SCSI bus or Digidesign approved SCSI accelerator card.

For best results, always optimize your hard drive before writing the CD and make sure the SCSI bus is properly terminated.

Starting up your Macintosh from a Macintosh CD-ROM Drive

When a CD Recorder is connected to your system, you must first turn it off or remove it from the Macintosh SCSI bus before starting up from the Macintosh CD-ROM drive.

Adaptec Toast Software

There is a known conflict between MasterList CD and the Toast CD Reader extension. To avoid this conflict when using MasterList CD, remove the Toast CD Reader extension from your Extensions Folder (inside your System Folder) and restart your computer.

Creating Large MasterList CD Documents

When making large MasterList CD documents, you should consider increasing MasterList CD's memory allotment in the Finder. This can be done by first quitting MasterList CD, selecting the Get Info command in the Finder's File menu while the MasterList CD application icon is highlighted, and increasing the Preferred Size value. Doing this will decrease the amount of time it takes to open and edit the document, especially when many audio files and crossfades are used in the document.

▲ Always leave the Minimum Size at the Default setting.

Maximum File Limit

There is a maximum number of open files that the Macintosh Operating System will allow. This number can be anywhere between 291 to 340 files, depending on the

computer/OS configuration. MasterList CD can detect when this maximum number has been reached, but not until after you have added (opened) the audio files and have attempted to play back audio from the MasterList window.

Writing Image Files in Background

Performing operations in the Finder, such as mounting a hard drive volume while MasterList CD is writing an image file could result in a system crash. Avoid performing any SCSI-related operations until MasterList CD has finished writing the image file.

Updates to the MLCD User Guide

Disc Write Speed

With the optimization of CD recorders for writing at higher speeds, 1x and 2x write speeds can exhibit write errors that were not seen in previous, slower, models. Digidesign recommends that you write CDs at the highest speed that your system will allow.

Use blank media that is recommended by the manufacturer and is rated for the write speed that you choose. Also, it is a good idea to perform a disc write in Test Mode when using any new system configuration.

DDP tape mastering not supported

The Export As 8mm DDP command is not supported, and is not included in the File

menu of MasterList CD version 2.1 or higher.

Configuring Sound/Hardware Setup

When using MasterList CD 2.1 or higher with supported Digidesign audio hardware, you can configure audio playback to be routed through your Digidesign system for higher fidelity output, monitoring, or digital output.

When MasterList CD 2.2 is installed on systems with Digidesign hardware already in place, playback will default to using the Digidesign audio hardware, not the Macintosh's Sound Manager.

After installing and launching MasterList CD for the first time, check that your playback system is configured properly. To configure your audio hardware directly from within MasterList CD, use the Digidesign Hardware Setup command in the Sound menu.

Command Name Changes

Since the MasterList CD User's Guide was written, all commands that used the term "Soundfile" in the MasterList CD menus have been changed to read "Item." For example, *Add Soundfile* is now *Add Item*. The operation of these renamed commands is unchanged.

Locating Missing Audio Files

MasterList CD may prompt you to locate a soundfile when opening a saved MasterList CD document. This may be due to the fact that the file was moved from one folder or hard drive to another, or because it was renamed. It is very important that the origi-

nal soundfile is selected or audio playback problems, system crashes and possibly even MasterList CD document corruption will occur if it is saved after choosing the wrong soundfile.

If MasterList CD prompts you to locate a missing soundfile, select the original soundfile and verify that it is the correct file by listening to it from the MasterList before saving changes to the document.

Performance Tips

Batch Loading of MasterList Items

While MasterList CD does not specifically offer batch loading of list items, whole Soundfiles can be dragged and dropped onto the MasterList CD application icon. Multiple Soundfiles can be selected for drag and drop by shift-clicking on the desired files. If no current MasterList is open when the files are dropped onto the application icon, MasterList CD will create a new list and the files will appear in alphanumeric order. Multiple Soundfiles can also be added to an open MasterList CD document in the same manner. The new list items will be added to the open MasterList immediately after the currently selected MasterList item.

Overlapping Crossfades with Multiple Track List Items

When applying an overlapping crossfade where the incoming MasterList item contains multiple CD tracks, be aware that the start times of tracks within that item will be adjusted earlier by half the total length of

the crossfade. This limitation is due to the fact that overlapping item crossfades set the index 1 of the incoming item to be midway through the crossfade transition.

To avoid timing inaccuracies in your finished CD, please follow the “Simplest Sequence of Events” (see below).

Simplest Sequence of Events

Remember that editing in the MasterList window affects how your CD will sound and editing in the PQ window affects how your CD will look to a CD player. For this reason, and because certain timing edits performed in one window can affect timings in the other window, we suggest that you do not perform any edits in the PQ window until your MasterList plays through exactly the way you want your finished CD to sound.

After your MasterList sounds the way you want it to, it is time to open the PQ window and perform any edits desired. Before opening the PQ window, however, be sure to assign any MasterList items that represent multiple CD tracks with the appropriate value(s) in the #Trks field.

The best sequence of events when working in the PQ window is to make any Track time edits before creating or editing any Indexes. Setting new Track Start Times in the PQ window will shift the start times of all index points within that track by the same amount. When creating multiple tracks from within one MasterList item, always set all of the new track start times before creating or editing any indexes within those tracks.

Before opening the Write Compact Disc dialog, check to see that any Begin Access Offset is set to your liking as this setting will also affect the timings within your finished CD.

CD Recorder Information

General Information

Subcode Parameters

Note that certain CD recorders differ in their restrictions on certain subcode parameters. For instance, some recorders might require fixed Index 0 lengths, or require silence-only gaps, or support a limited number of tracks.

CD Index Lengths

To avoid possible Table of Contents problems with certain CD recorders, all indexes within CD tracks should have a minimum length of one second. The exception to this rule is Index 0 of the first track. The Red Book standard requires that this index be between two and three seconds in length.

Specific CD Recorders

The following sections cover known limitations and performance notes for particular CD Recorder models. Some characteristics may be specific to certain CD-R firmware versions; this is noted where applicable.

Hewlett Packard HP-4020i

Due to limitations in the tested version of Hewlett Packard HP-4020i firmware, support of the SCMS feature has been disabled in MasterList CD. Digidesign has found that while this unit appeared to write SCMS to disc, analysis of the resultant disc using a PQ Analyzer showed that none of the specified SCMS flags had been set. Preventing use of SCMS flags with this CD recorder and MasterList CD is intended to prevent users from incorrectly believing that the selected disc tracks have SCMS encoding.

JVC XR-W2010

Due to limitations in the tested versions of the JVC XR-W2010 firmware, the Catalog and ISRC Code options have been disabled in MasterList CD. Digidesign has found that while this unit was behaving as though Catalog and ISRC Codes were being written to disc, the resultant discs did not have the codes written properly. Preventing use of these options with this CD recorder and MasterList CD is intended to prevent users from incorrectly believing that their discs have Catalog or ISRC Codes encoded as specified.

Under certain circumstances, writing a disc immediately after performing a test write will result in a disc that is still blank.

Though MasterList CD will appear to be writing the disc, in actuality a test write had been performed. This is an extremely rare occurrence, and usually does not happen if the Write CD window is closed and reopened prior to writing the disc.

JVC XR-W2001/S201

During a disc write with the JVC XR-W2001/S201, sometimes a buffer underrun or disc write error will be reported at the very beginning of the disc write and the write process will be aborted. However, the disc is still blank and can be written to. This seems more likely to occur on longer lists.

During a disc write, the JVC XR-W2001/S201 will sometimes appear to write a disc much faster than the 1x write speed that is selected. However, no writing is actually occurring and the CD writer's busy light is not lit. Just before the start of lead out, the entire disc will be written with silence and cannot be used again. This is an extremely rare occurrence.

Kodak PCD-225

Due to limitations in the tested version of Kodak PCD-225 firmware, support of the Copy Prohibit feature has been disabled in MasterList CD. Digidesign has found that while this unit appeared to write Copy Prohibit to disc, analysis of the resultant disc using a PQ Analyzer showed that none of the specified Copy Prohibit flags had been set. Preventing use of Copy Prohibit flags with this CD recorder and MasterList CD is

intended to prevent users from incorrectly believing that the selected disc tracks have Copy Prohibit encoding as specified.

If a disc write is aborted, the Kodak PCD-225 will remain busy (indicated by the flashing Write LED) for the remaining duration of the disc it was in the process of writing, even though it isn't writing audio to the disc. During this time, the CD recorder will retain control of MasterList CD and your computer. If a power cycle is performed in order to shorten this process, be sure to open the CD recorder's disc drawer via the front panel (after power-up is complete) in order to reset it.

Marantz CD 620

Due to limitations in the tested version of Marantz CD 620 firmware, support of the SCMS feature has been disabled in MasterList CD. Digidesign has found that while this unit appeared to write SCMS to disc, analysis of the resultant disc using a PQ Analyzer showed that none of the specified SCMS flags had been set. Preventing use of SCMS flags with this CD recorder is intended to prevent users from incorrectly believing that the selected tracks have SCMS encoding.

Philips CDD-2000

Due to limitations in the tested version of Philips CDD-2000 firmware, support of the SCMS feature has been disabled in MasterList CD. Digidesign has found that while this unit appeared to write SCMS to disc, analysis of the resultant disc using a PQ Analyzer showed that none of the specified SCMS flags had been set. Preventing use of

SCMS flags with this CD recorder is intended to prevent users from incorrectly believing that the selected tracks have SCMS encoding. If a future version of the CDD-2000 firmware addresses these limitations, a subsequent version of MasterList CD may be modified to support the SCMS option.

Philips CDD-522

Due to limitations in the tested version of Philips CDD-522 firmware, support of the Copy Prohibit feature has been disabled in MasterList CD. Digidesign has found that while this unit appeared to write Copy Prohibit to disc, analysis of the resultant disc using a PQ Analyzer showed that none of the specified Copy Prohibit flags had been set. Preventing use of Copy Prohibit flags with this CD recorder and MasterList CD is intended to prevent users from incorrectly believing that the selected disc tracks have Copy Prohibit encoding as specified. If a future version of Philips CDD-522 firmware addresses these limitations, a subsequent version of MasterList CD may be modified to support the Copy Prohibit option.

If a disc write is aborted, the Philips CDD-522 will remain busy (indicated by the flashing Write LED) for the remaining duration of the disc it was in the process of writing, even though it isn't writing audio to the disc. During this time, the CD recorder will retain control of MasterList CD and your computer. If a power cycle is performed in order to shorten this process, be sure to open the CD recorder's disc drawer via the front panel (after power-up is complete) in order to reset it.

Pinnacle RCD-5040

Due to limitations in the tested versions of the Pinnacle RCD-5040 firmware, the Catalog and ISRC Code options have been disabled in MasterList CD. Digidesign has found that while this unit was behaving as though Catalog and ISRC Codes were being written to disc, the resultant discs did not have the codes written properly. Preventing use of these options with this CD recorder and MasterList CD is intended to prevent users from incorrectly believing that their discs have Catalog or ISRC Codes encoded as specified. If a future version of the RCD-5040 firmware addresses these limitations, a subsequent version of MasterList CD may be modified to support the Catalog Code and ISRC Code option.

Under certain circumstances, writing a disc immediately after performing a test write will result in a disc that is still blank. Though MasterList CD will appear to be writing the disc, in actuality a test write had been performed. This is an extremely rare occurrence, and usually does not happen if the Write CD window is closed and reopened prior to writing the disc.

Pinnacle RCD-1000/RCD-5020

During a disc write with the Pinnacle RCD-1000/RCD-5020, sometimes a buffer underrun or disc write error will be reported at the very beginning of the disc write and the write process will be aborted. However, the disc is still blank and can be written to. This seems to occur more frequently on longer lists.

During a disc write, the Pinnacle RCD-1000/RCD-5020 will sometimes appear to

write a disc much faster than the 1x speed that is selected. However, no writing is actually occurring and the CD writer's busy light is not lit. Just before the start of lead out, the entire disc will be written with silence and cannot be used again. This is an extremely rare occurrence.

RCD-1000 Drive A Compatibility The Pinnacle RCD-1000 was released with two different drive models. Models with Drive A have serial numbers less than 4471180, and must have version 2.35 firmware to be compatible with MasterList CD. Contact Pinnacle Micro Customer Service to obtain this firmware.

Plextor CD Recorders

Index Points The maximum number of index points that can be written to the CD with the newly supported Plextor CD Recorders is 598 (with tested firmware). Writing a disc containing the full amount of index points may not be possible at the 8x write speed. Always perform a disc write in Test Mode first if you are using more than 100 total index points. Writing at 4x allows you to include the full 598 total index points.

Copy Prohibit Limitation Plextor CD Recorders with currently tested firmware will write Copy Prohibit to all CD tracks regardless of what is selected in the PQ Subcode window. For current information regarding firmware upgrades which may resolve this limitation, contact your authorized Plextor sales representative or Plextor Customer Service.

Ricoh MP6200S and MP6201

If a disc write is aborted, the Ricoh MP6200S/MP6201 will remain busy for the remaining duration of the disc writing that was in progress. During this time, the CD recorder will retain control of MasterList CD and your computer. Power cycling the CD recorder will shorten this process and release control of your system.

Ricoh RS 1420-C

Due to limitations in version 1.4x of the Ricoh RS 1420-C firmware, support of the SCMS and Copy Prohibit options has been disabled in MasterList CD with this firmware version. Digidesign has found that while this unit appeared to write SCMS and Copy Prohibit to the specified disc tracks, analysis of the resultant disc using a PQ Analyzer showed that none of the specified SCMS or Copy Prohibit flags had been set. Preventing use of SCMS and Copy Prohibit flags with this firmware version of the RS1420-C CD recorder is intended to prevent users from incorrectly believing that the selected tracks have SCMS encoding.

MasterList CD will support the SCMS and Copy Prohibit options with the Ricoh RS 1420-C and firmware version 1.5 or higher.

Sony CDW-900E

When writing a CD, the system initially appears to pause for up to a couple of minutes. This is perfectly normal and is due to the writing of the lead-in after the recorder's 3 Megabyte buffer has been filled.

Multi-Device Writing The Sony CDW-900E is the only CD recorder supported by Mas-

terList CD which allows multiple units to be daisy-chained together for simultaneous writing on multiple machines, allowing you to write more than one copy of the same CD at a time. The CD Writer Setup lets you designate how many and which of the connected CD recorders are to be engaged during the write CD process. A daisy chain of CD recorders will appear as a single SCSI device. Each machine must be set to the same SCSI ID, and have their own specific unit ID, set using the DIP switches on the back of the unit. See the section, "Creating Your Output" in your MasterList CD manual for more information.

DIP Switch settings: Ensure that the DIP switch settings are as follows:

Encoder DIP Switches

(Up = ON, Down = OFF):

- 1: Encoder: ON
- 2: Unused: OFF
- 3: Terminator Power: ON

(This does not mean that the unit is terminated, but that the proper voltage is applied to the SCSI chain for use by a subsequent terminator.)

- 4: Unused: OFF
- 5: SCSI Parity: ON
- 6 - 8: SCSI ID

Writer DIP Switches

(Up = On, Down = Off)

- 1 - 2: Control I/F Terminator: ON
- 3: Write Enable: ON
- 4: Unused: OFF
- 5 - 8: Writer ID (relevant if daisy chaining more than 1 CD recorder)

Studer D741

Due to limitations in the tested version of Studer D741 firmware, support of the SCMS feature has been disabled in MasterList CD. Digidesign has found that while this unit appeared to write SCMS to disc, analysis of the resultant disc using a PQ Analyzer showed that none of the specified SCMS flags had been set. Preventing use of SCMS flags with this CD recorder is intended to prevent users from incorrectly believing that the selected tracks have SCMS encoding.

Teac CD Recorders

Index 0 Limitation The maximum number of index points that can be written to a CD with the newly supported Teac CD Recorders is 255. An Index 0 is counted against the total for every track, even if a given track does not have an Index 0 (with tested firmware).

Teac CD-R56S Index Limitation

There is a known problem with firmware 1.0H that limits the number of index points that can be written with the Teac CD-R56S. For current information regarding firmware upgrades which may resolve this limitation, contact your authorized Plextor sales representative or Plextor Customer Service.

Yamaha CDE-100/ CDR-102

MasterList CD may very occasionally report that there is no disc in the drive when clicking on the Write Disc button. Clicking on the Write Disc button again will usually

cause the CDE-100/ CDR-102 to correctly recognize the disc.

Buffer Underrun Reporting Some Yamaha CD recorders may report the following error when a buffer underrun has occurred: “A fatal error occurred while recording! Code (03, 0C, 0A)” If this happens, it may be necessary to turn off the CD writer, then turn it back on again to release the system. This will allow you to access MasterList CD again.