NOTES

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Please write in your unit's serial number for easy reference when calling tech support:

_____

Ricoh Consumer Products Group
475 Lillard Drive • Sparks, NV 89434
Tel 702.352.1600
www.ricohcpg.com

RICOH®

MEDIAMASTER™

CD-REWRITABLE TECHNOLOGY

External Dual Function
CD-ReWritable Drive
CD-Recordable Drive
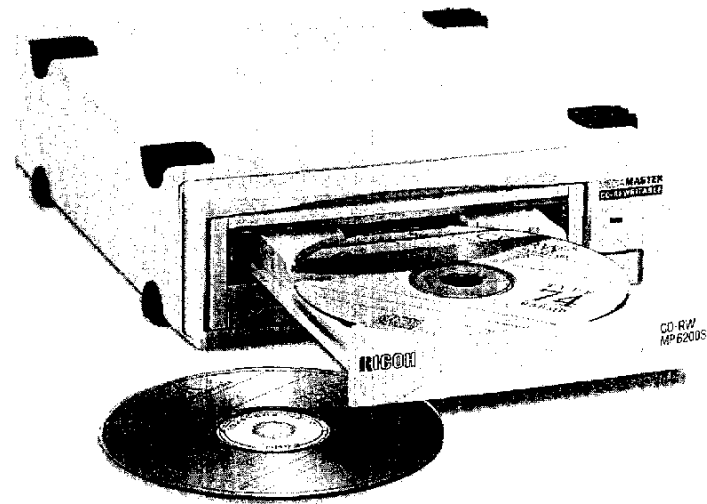
EXTERNAL MP6200S SCSI DRIVE FOR WINDOWS & MACINTOSH

SKU# 339150-M

FCC DECLARATION OF CONFORMITY

PRODUCT NAME: MediaMaster CD-ReWritable external

MODEL NUMBER: MEDIAMASTER

FCC RULES: Tested to comply with FCC Part 15, class B

OPERATING ENVIRONMENT: For home or office use

FCC COMPLIANCE STATEMENT:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

INFORMATION TO USER:

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation, if this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

1. Re-orient/relocate the receiving antenna
2. Increase the separation between the equipment and receiver
3. Connect the equipment into an outlet on a circuit different from that which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment

THE PARTY RESPONSIBLE FOR PRODUCT COMPLIANCE

Ricoh Corporation, Consumer Products Group

475 Lillard Drive

Sparks, NV 89434

(702) 352-1600

V. ENVIRONMENTAL CONDITIONS

Temperature:

Operating	5 ~ 50 degrees Celsius
Non-operating	-30 ~ 65 degrees Celsius

Humidity:

Operating	5 ~ 90% (no condensation)
Non-operating	5 ~ 95% (no condensation)

Temperature Gradient: 20 degrees Celsius per hour (Max.)

Humidity Gradient: 10% per hour (Max.)

Altitude:

Operating -305 ~ 3,048 Meters

VI. RELIABILITY AND USEABLE LIFE

MTBF: 100,000 POH (Power On Hours)

MTTR: 30 minutes or less

Equipment Life: 5 Years

MSBF: 20,000 times or more

Error Rate (Unrecoverable errors) Once per 10^{-12} bits or less

VII. SAFETY STANDARD

Application Standard: UL, cUL

Radio interference: FCC-Class B

VIII. APPEARANCE

Dimensions: W=7.80" x H=2.56" x D=10.16"

Weight: 5.8 Lbs

II. AUDIO SPECIFICATION

Audio Output: Line output level   0.6V +/- 0.1V rms
                 Headphone output level   0.6V +/- 0.1V rms

III. PERFORMANCE SPECIFICATION

Rotation Speed: Write*3 1X, 2X
                     Read   1X, 2X, 6X

*3) CD-RW discs must be recorded at 2X speed, 1X or 2X is suitable for recording CD-R discs.

Write/Read Speed (Ave.): 6X: 900Kb/sec. (Mode 1, Mode 2 form 1)
                          6X: 1,026Kb/sec. (Mode 2 form 2)
                          2X: 300Kb/sec. (Mode 1, Mode 2 form 1)
                          2X: 342Kb/sec. (Mode 2 form 2)
                          1X: 150Kb/sec. (Mode 1, Mode 2 form 1)
                          1X: 171Kb/sec. (Mode 2 form 2)
                          1X: 172Kb/sec. (CD-DA)

Access Time: 350ms. or less (without SCSI overhead)
                      465ms. or less (including SCSI overhead)

Power Consumption: 40W (Max)

Acoustic Noise: Idle   40dB or less (Sound Power Level)
                 Operating   55dB or less (Sound Power Level)

IV. CONDITION FOR USE AND SAFETY STANDARD

Power Supply: AC, 100~240V 50/60Hz input

Power OFF - ON Sequence: More than 1 second

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

DO NOT OPEN THE COVER OF THE CD-RECORDER UNIT, THERE ARE NO USER SERVICEABLE COMPONENTS INSIDE.

STATEMENT OF COPYRIGHT INFRINGEMENT NOTICE

The Ricoh MediaMaster is designed to assist you in reproducing material in which you own the copyright or have obtained permission to copy from the copyright owner. Unless you own the copyright or have permission to copy from the copyright owner, you may be violating copyright law and be subject to payment of damages and other remedies. If you are uncertain about your rights, you should contact your legal advisor.

OVERVIEW

The Ricoh MediaMaster allows you to create CDs in a wide variety of formats.

• Back-up your hard drive onto CD-RW or CD-R discs for easy, portable back-up.

• Copy your favorite music or other audio information onto a CD for playback.

• Convert .WAV files to Red Book (CD audio) files and save them on a CD.

• Store digital images or other files on discs readable on any standard CD-ROM drive using CD-R discs.

• Save data in a "mixed mode" format which combines audio and data on one CD.

• Read commercial or self-produced CDs at 6X speed.

INTRODUCTION

WELCOME

Thank you for purchasing the Ricoh MediaMaster external CD-ReWritable kit, and welcome to the Ricoh family. You have purchased one of the best built, best supported CD-RW rewriters/recorders available today. Because we care about you as a customer, please take a moment to complete the enclosed registration card and mail it back to us. This will register your warranty for the MediaMaster and give you access to Ricoh's technical support personnel. Also, please take a few moments to read through this short manual before you get started installing your new MediaMaster, it's well worth your time!

INTRODUCING CD-REWRITABLE

What is CD-ReWritable? Simply put, CD-ReWritable (or CD-RW) allows you to record and re-record computer data or music on the same CD-RW disc, up to 1,000 times! The MediaMaster is a multi-functional CD recorder, which means that it is capable or recording the rewritable (CD-RW) discs, and the write-once CD-Recordable (CD-R) discs. The MediaMaster can also read and play regular stamped discs, CD-R discs and CD-RW discs at up to 6X speed.

APPENDIX

I. BASIC SPECIFICATION

Type:	Desktop model, Multi-Function recorder		
Rotation System:	CLV (Constant Linear Velocity)		
Supported Function:	Read	Write	Play*1
CD-DA	*	*	*
CD-ROM	*	*	
CD-Extra	*	*	*
CD-ROM XA	*	*	
PhotoCD*2	*	*	
CD-I*2	*	*	
CD-G	*		

*1) Play means audio playback . Read means data transfer
*2) CD-I & PhotoCD requires special reader/player. PhotoCD writing requires Kodak license.

Writing Mode:	Track-at-Once
	Disc-at-Once
	Multisession
	Packet Writing (fixed & variable length)

Read Error Rate:	10^{-12} bits or less
Write Error Rate:	10^{-10} bits or less

Recording Capacity:	CD-R disc	650/550Mb (Type 74/Type 63)
	CD-RW disc	650Mb (Type 74)

Read/Write Transfer Speed	300Kb/sec. (Mode 1, Mode 2 form 1)
	342Kb/sec. (Mode 2 form 2)

Controller:	
Host I/F	SCSI-2, asynchronous
Data transfer speed	5Mb/sec. (Max)

Buffer Memory:	1 Megabyte

Loading System:	Tray mechanism

TROUBLESHOOTING

SCSI Installation

If you're having problems installing the SCSI card, or the Ricoh drive, before you call technical support, read through this check list to make sure everything was installed correctly.

- Check all the cable connections again. Most initial problems will result from a misconnected cable.

- Make sure the SCSI card is seated correctly in an ISA slot. Do not plug the enclosed SCSI card into a VLB or PCI slot.

- Take note of the setting on the PE Logic SCSI card. Make sure you have no other hardware conflicting at these settings.

- For more information, refer to the PE Logic Installation Guide.

- Check to ensure each device in the SCSI chain has a unique SCSI ID number. ID7 is reserved for the SCSI hoast adapter card or the Macintosh computer. Keep in mind that most Macintosh computers have the internal hard disk set to ID0 and the CD-ROM set to ID3.

- Check to ensure SCSI terminaton is correct. Only the first and last devices in a SCSI chain should be terminated. If the MediaMaster is the only device connected to the SCSI card (or Macintosh external port), then the terminator should be installed on the drive.

CD RECORDING TIPS

- Do not touch the data side of the disc when handling the media.

- Avoid swapping media. We recommend leaving the media in the caddy until the creation session is complete.

- To check your settings, try running a simulated write session before creating your CD.

- Avoid data stream interruptions: Make sure than Adaptec's CD Creator software is the only program running on your system while creating your CD.

- Defragment your hard drive before recording; this will ensure a steady stream of data going to the CD-Recordable/ReWritable unit.

CAUTION

CD-RW discs are not compatible with regular CD-ROM drives and CD players. Recorded CD-RW discs are fully compatible with Multi-Read CD-ROM and DVD-ROM drives or CD-ROM drives stating compatibility with CD-RW discs. If you need to create a CD that can be read/played by standard CD-ROM drives, please use a CD-R disc in the MediaMaster for that application. Recorded CD-R discs are fully compatible with regular CD-ROM drives and CD players. If you need to interchange CD-RW discs, please ensure that the destination CD-ROM drive is Multi-Read compatible.

A Multi-Read drive is required to read CD ReWritable media or compatible drives advertising CD-RW compatibility.

The Ricoh MediaMaster is easy to install and use. The following sections guide you through step-by-step, and also include some tips for first time CD creation.

KIT CONTENTS

This kit contains everything required to create your own CD:

- Ricoh MediaMaster External CD-Recorder / Re-Writer unit with 1MB buffer.
- PE Logic SCSI-2 Host Adapter.
- External DB25 to CEN-50 SCSI cable.
- 6' AC Power cord.
- External SCSI terminator.
- 1 blank Ricoh 650MB/74min. CD-R disc.
- 1 blank Ricoh 650MB/74min. CD-RW disc.

WINDOWS SOFTWARE

- Adaptec Easy-CD Creator Standard Edition.
- Adaptec DirectCD drive letter access packet writing software for Windows 95 only.
- Seagate Backup Exec back-up software for Windows 95 and NT WorkStation v4.0.

MACINTOSH SOFTWARE

- Adaptec Toast.
- Dantz Retrospect back-up software.

SOFTWARE BONUS COUPON

- For Adaptec DirectCD for Macintosh and Windows NT v4.0 Workstation

Disc Tray

This is the tray for the disc. Place the disc on the ejected disc tray, then lightly push the tray (or push the eject button) and the CD will be loaded.

Do not use force to pull out or push in the disc tray. This might cause damage to the loading section of the drive.

Tray Open/Close Button

This is the button used to eject or bring in the disc tray.

Disc activity LED

This indicator light shines green when power is on. When the disc tray or disc is being accessed, the light shines or flashes red. Even when a disc is loaded or a disc is not being accessed, the light shines green. When an illegal disc is loaded or some hardware trouble occurs, the indicator light blinks.

Headphone Jack

This jack is for connecting headphones or mini-speakers.

Volume Control

This is used to adjust the output volume of the headphone jack. It cannot be used to adjust the output volume for the audio output connectors on the rear panel.

AC Power Input

This is used to connect to an AC wall outlet.

SCSI I/O Connector

Use a 50-pin centronics-type cable to connect to the SCSI interface.

Connecting or disconnecting connectors while power is ON may result in a short circuit, causing damage to the equipment. When connecting or disconnecting connectors, make sure to turn OFF the power beforehand.
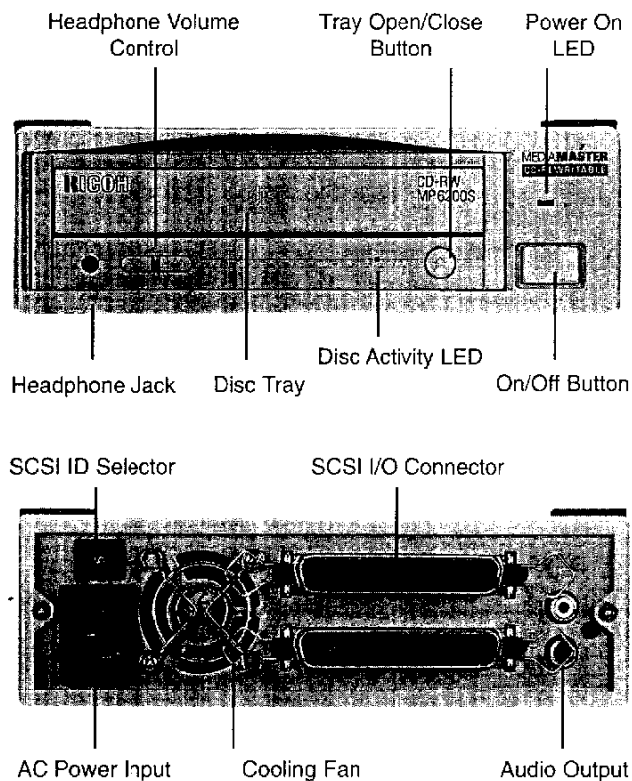
SCSI ID Selector

Used when selecting the SCSI ID number. IDs 0-6 are possible. SCSI ID changes become valid after power is turned OFF then turned ON again.

Audio Output

These stereo RCA-type jacks are used to connect the MediaMaster to a stereo system.

MediaMaster External
Nomenclature

Headphone Volume Control   Tray Open/Close Button   Power On LED

Headphone Jack   Disc Tray   Disc Activity LED   On/Off Button

SCSI ID Selector   SCSI I/O Connector

AC Power Input   Cooling Fan   Audio Output

MINIMUM REQUIREMENTS

System requirements for the Ricoh MediaMaster vary depending upon platform used:

PC REQUIREMENTS

Windows 95 or NT Workstation v4.0.

IBM compatible 486/25.

16MB RAM.

16MB of free disk space.

Hard drive with disk access less than 15ms, and sustained transfer of 800kb/sec.

1 open 16-bit ISA slot.

MACINTOSH REQUIREMENTS

Mac OS 7.5.1 or later.

68040 25MHz CPU or any PowerPC-based Mac.

16MB RAM.

12MB of free disk space.

Hard drive with disk access less than 15ms, and sustained transfer of 800kb/sec.

CUSTOMER SUPPORT - SCSI 2 HOST ADAPTER

If you have any questions or problems installing the SCSI-2 host adapter, please refer to your PE Logic manual or phone (714) 282-6196. Website: www.pelogic.com

RECOMMENDED MEDIA

CD-R: Ricoh, Kao, TDK, Mitsui Toatsu Chemical (MTC), Kodak and Taiyo Yuden.

CD-RW: Ricoh, Mitsubishi Chemical Corporation, Verbatim, Hewlett Packard and Panasonic.

CUSTOMER SUPPORT FOR RICOH MEDIAMASTER

If you have any questions or problems about the installation of the Ricoh MediaMaster, contact Ricoh Corporation's Customer Support as follows:

Phone: (702) 352-1694

              (Monday-Friday 7am-5pm PST)

Faxback: (800) 442-8796

Website: www.ricohcpg.com

Email: tech_support@ricohcpg.com

SUPPORT CALL CHECKLIST

Please have the following information readily available when contacting Ricoh Corporation's Customer Support:

* Type of CPU.
* Version of Operating System (System Software) used.
* Any other software or adapter cards presently installed in your system.
* Note any error messages or steps taken which lead up to the problem.
* Please be at your computer when you call.
* Please have your serial number ready (located on the bottom of the unit)

CAUTION

Be sure that the power to both the computer and the MediaMaster is turned off before opening the case to install the SCSI card (PC), or connecting the SCSI cable to the computer (Mac).

PC DRIVE INSTALLATION

1) Install your PE Logic SCSI card in accordance with the manufacturer's instructions.

2) Connect the 25 pin end of the SCSI cable into the external port of the PE Logic SCSI card.

3) Connect the 50 pin end of the SCSI cable into the top SCSI I/O connector of the MediaMaster external unit.

4) Select a SCSI ID for the MediaMaster unit. It comes from the factory set to ID5, however anyID from 0-6 can be selected. Each device on a SCSI chain must have a unique ID number.

5) If the MediaMaster unit is the only device attached to the PE Logic SCSI adapter, please connect the external terminator to the lower SCSI I/O connector of the MediaMaster unit.

6) Connect the AC Power cord to a grounded (3 prong type) wall outlet. Do not break off the ground prong if you do not a have a 3 prong outlet. Doing so could cause injury to yourself or the equipment. Connect the other end of the AC power cord into the MediaMaster unit.

7) Turn on the power to the MediaMaster external unit, then power on your computer and proceed to load the software that came with the MediaMaster.

MACINTOSH DRIVE INSTALLATION

1) Connect the 25 pin end of the SCSI cable into the external SCSI port of the Macintosh computer.

2) Connect the 50 pin end of the SCSI cable into the top SCSI I/O connector of the MediaMaster external unit.

4) Select a SCSI ID for the MediaMaster unit. It comes from the factory set to ID5, however any ID from 0-6 can be selected. Each device on a SCSI chain must have a unique ID number. Note that Apple ships its computer's with the Hard Disk's ID set to 0 and the CD-ROM's ID set to 3.

5) If the MediaMaster unit is the only device attached to the Mac's SCSI port, please connect the external terminator to the lower SCSI I/O connector of the MediaMaster unit.

6) Connect the AC Power cord to a grounded (3 prong type) wall outlet. Do not break off the ground prong if you do not a have a 3 prong outlet. Doing so could cause injury to yourself or the equipment. Connect the other end of the AC power cord into the MediaMaster unit.

7) Turn on the power to the MediaMaster external unit, then power on your computer and proceed to load the software that came with the MediaMaster.