

FRONT

PICTURE 1

Rewritable Optical Drive

March 26, 1991

This package contains an update to the IBM Personal System/2 *Hardware Maintenance Reference* manual (part number 15F2190, form number S15F-2190-00).

Instructions for updating the manual are on page ii.

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Part Number 13F9708
Form Number S13F-9708-00

Instructions

To update your manual, follow the instructions below.

Remove from your reference manual

Insert from this package

No removals

Rewritable Optical Drive Supplement
behind the "Options and Adapters
(Micro Channel)" tab.

1.0 Rewritable Optical Drive Supplement

Subtopics

- 1.1 General Information
- 1.2 Diagnostic Information
- 1.3 Repair Information
- 1.4 Locations

1.1 General Information

The IBM* Personal System/2 (*) Rewritable Optical Drive can read, write, and erase data on a 128MB Rewritable Optical Cartridge. The formatted capacity of the rewritable optical cartridge is 127.1 million bytes of data.

The drive conforms to the American National Standards Institute (ANSI) standard for the Small Computer System Interface (SCSI). The SCSI standard allows up to seven SCSI devices to be connected to a single SCSI adapter. Each device connected to a SCSI adapter must be assigned a unique identification (ID) number.

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Subtopics

- 1.1.1 Option Compatibility
- 1.1.2 Setting the SCSI ID for Internal Installation
- 1.1.3 Removing the Terminators

1.1.1 Option Compatibility

SCSI devices must be used only with SCSI adapters. See the *Hardware Maintenance Service* manual parts catalog for the IBM SCSI adapter.

IBM PS/2 Rewritable Optical Drive HMR
Setting the SCSI ID for Internal Installation

1.1.2 Setting the SCSI ID for Internal Installation

The SCSI ID of a new drive must match the ID of the drive being replaced.
The following procedure describes how to set the ID jumpers:

1. Locate the three sets of pins on the top of the new drive (the jumpers are pre-set to SCSI ID 3). Remove a jumper by pulling it straight up. Install a jumper, by aligning the two holes in the jumper with the appropriate two pins on the drive. Then push the jumper onto the pins until the jumper is completely seated and covers both pins.

PICTURE 2

2. Refer to the figure below and set the SCSI ID (represented by black rectangles) to correspond with the ID of the drive being replaced.

SCSI ID	Setting Position	SCSI ID	Setting Position
6	:	2	: :
5	:	1	: :
4	: :	0	: : :
3	:		

Note: Remove the jumpers when the optical drive is to be installed in a Model 3510.

1.1.3 *Removing the Terminators*

If more than one device is connected to the SCSI adapter cable, all devices in the chain, except the last device, must have the three terminators removed. To remove the three terminators on the top of the drive you are installing, locate the tabs that have "T-RES" printed on them and pull them straight up.

Note: Remove the terminators when the optical drive is to be installed in a Model 3510.

PICTURE 3

1.2 Diagnostic Information

The diagnostic programs contained on the option diskette update the programs on the Reference Diskette to test the optical drive. If an error is detected, the diagnostic program will indicate the failing FRU. The system configuration and diagnostic messages might refer to the optical drive as **Optical Memory**.

The optical drive requires a minimum amount of air flow through it. Always install the system covers before performing a long continuous drive test.

1.3 Repair Information

PICTURE 4

CAUTION:

Do not open the drive, no user adjustments or serviceable parts inside.

The optical drive removal and replacement is the same procedure as the fixed disk drive (front bay) removal and replacement.

Contaminated optical lenses will cause the optical drive to be slow in reading from and writing to an optical disk. They also could cause a read or write failure. The Objective Lens Cleaning Cartridge (PN 85F0043) will correct most drive problems caused by a contaminated objective lens.

If the drive continues to be slow in performing a read or write function, the prism lens may require cleaning. Use the Prism Lens Cleaning Cartridge (85F0054) to clean the prism lens. If the problem continues replace the drive.

If the system loses power while an optical cartridge is loaded in the drive, the cartridge can be manually ejected. Insert a straight object, such as a small screwdriver, through the manual-cartridge-eject opening in the cover plate. Push the screwdriver in until the cartridge ejects.

1.4 Locations

Subtopics

1.4.1 Front View (Bezel)

1.4.1 Front View (Bezel)

- 1 Optical cartridge slot
- 2 Activity indicator
- 3 Eject button
- 4 Opening for manual cartridge eject

PICTURE 5

1.4.2 Rear View

- 1 Power connector
- 2 SCSI cable connector
- 3 SCSI remote ID switch connector

PICTURE 6