Options by IBM: Storage Products

Eight new storage products, including a DASD "hot swappable" enclosure, expand the list of Options™ by IBM® storage solutions.

The 364MB (million bytes) and 527MB External PCMCIA Disk Drives offer instant storage expansion for systems with PCMCIA Type II sockets. Device drivers supporting IBM DOS, OS/2® and Microsoft** Windows[1] operating environments are shipped with the products.

The 3432 Optical Disk Drive Model 705 (127MB) with a 3.5-inch form factor provides removable storage for personal computer and workstation users.

Two 1.3GB (1,000 million bytes) multifunction read/write Optical Disk Drives (5.25-inch form factor), external and internal, attach via SCSI cable to a personal computer. These drives provide high-capacity removable storage for applications such as desktop imaging, multimedia, and large data file storage. And the drives support rewritable magneto-optic media, ablative WORM (write once, read many), media and magneto-optic WORM media (also referred to as CCW WORM) media.

One 1GB internal hard drive with 16-bit SCSI "hot swappable" interface offers storage expansion for personal computer and workstation users.

A high-capacity, 2.88MB formatted, 3.5-inch slimline diskette drive is capable of reading/writing 720KB, 1.44MB, and 2.88MB diskettes.

The DASD Hot Swap Expansion Enclosure provides you with external storage expansion at a very competitive price. The floor-standing enclosure features "hot swap" capability, enabling you to remove and insert Hot Swap SCSI Hard Disk Drives, without removing power to the enclosure.

Description	Part Number	Planned Availability Date	Single Unit Price
364MB External PCMCIA Drive	3513364	May 17, 1994	$ 569
527MB External PCMCIA Drive	3513527	May 17, 1994	685
Optical Disk Drive (127MB)	3432705	June 7, 1994	829
1.3GB Optical Disk Drive (External)	3431705	May 17, 1994	2,995
1.3GB Optical Disk Drive (Internal)	62G2929	June 7, 1994	2,589
1GB Fast/Wide SCSI-2 Drive	70G9743	August 4, 1994	949
3.5-inch 2.88MB Diskette Drive	32G4338	May 17, 1994	89
Hot Swap Expansion Enclosure[2]	35167V0	August 4, 1994	1,145

™   Trademark of International Business Machines Corporation
®   Registered trademark of International Business Machines Corporation
**   Product or company name is a trademark or registered trademark of its respective holder.
[1]   Trademark of Microsoft Corporation
[2]   This product is not yet approved by the Federal Communication Commission (FCC) and is not and may not be offered for sale or lease, or sold or leased until the approval of the FCC is obtained.

IN BRIEF . . .

364MB External PCMCIA Hard Disk Drive and 527MB External PCMCIA Hard Disk Drive

♦ External hard disk drives with AC power
♦ PCMCIA/IDE Interface Card plugged into PCMCIA Type-II sockets
♦ DOS, Microsoft Windows and OS/2 device drivers included

3432 Optical Disk Drive Model 705

♦ Externally mounted 3.5-inch rewritable magneto-optic disk drive

3431 Optical Disk Drive Model 705 and 1.3GB Optical Disk Drive

♦ 1.3GB capacity, multifunction read/write optical disk drives
♦ Tamper-resistant WORM media

1GB Fast/Wide SCSC-2 Hot Swap Hard Disk Drive

♦ 3.5-inch form factor, SCSI-2 compatible 1GB drive
♦ "Hot swappable" in the DASD Expansion Enclosure and PS/2 Server 95 Array systems

3.5-inch 2.88MB Diskette Drive

♦ 2.88MB capacity
♦ 3.5-inch form factor

DASD Hot Swap Expansion Enclosure

♦ External enclosure with "hot swap" capability
♦ Open bay supports up to seven hot swap SCSI disk drives

Technical Support

♦ Call the HelpCenter® at 800-426-7299, or send a fax to 800-426-3395.

364MB External PCMCIA Hard Disk Drive (3513364)

The 364MB (million bytes) External PCMCIA Hard Disk Drive offers you the ability to instantly expand storage for systems with PCMCIA Type-II sockets. Device drivers are also included for DOS, OS/2 and Windows operating environments.

Availability Date: May 17, 1994

Technical Information

Drive Specifications:

	364MB
Formatted capacity	364 million bytes (MB)[1]
Average media data rate	37.6Mb/sec, 4.7MB/sec
Average seek time	12.0ms
Average latency	6.67ms
Sector interleave	1:1
MTBF	200K hours[2]

[1] Capacity prior to installation of an operating system. The total user-accessible capacity may vary slightly based on the operating system environment.

[2] MTBF includes early life and end of life failures. Product description data represents IBM's design objectives and is provided for comparative purposes; actual results may vary depending upon a variety of factors. This product data does not constitute a warranty. Questions regarding IBM's warranty terms or methodology used to derive data should be referred to your IBM representative. Data is subject to change without notice.

Physical Specifications:

- Drive Dimensions:

  - Width: 163 mm (6.4 in.)
  - Depth: 34 mm (1.3 in.)
  - Length: 210 mm (8.3 in.)

- PCMCIA Card Interface Cable Dimensions:

  - Length: 0.3 m (1 ft)

- Power Cable Dimensions:

  - Length: 1.8 m (6 ft)

- Temperature: 5°C to 35°C (41°F to 95°F)

- Relative humidity: 8% to 95% (non-condensing)

Power Specifications:

- 100 to 120 V AC
- 50/60Hz (nominal)
- 15 Watts (maximum)

Agency Approvals: This product is designed to meet FCC Class B, VCCI Class B, CISPR 22 Class B and VDE GOP Agency limits.

For safety, UL, CSA, TUV or VDE and Nordic criteria are satisfied.

Original Country of Origin: Taiwan

Note: This may vary through the life of the product.

Hardware Requirements — IBM Systems: The 364MB External PCMCIA Hard Disk Drive (3513364) is supported on all models of the following IBM platforms/models:

Description	Machine Type
ThinkPad® 350	2618
500	2603
720	9552
730T	2524
750	9545
PS/2 E	9533

Hardware Requirements — Non-IBM Systems: This External PCMCIA Hard Disk Drive complies with the following specifications:

- PC Card Standard Specification Release 2.01
- Card Service/Socket Service Release 2.0
- PC Card ATA Mass Storage Specification Release 1.01

Software Requirements:

- OS/2 2.1, or later
- IBM DOS 5.0, or later

Compatibility: The 364MB External PCMCIA Hard Disk Drive is designed to be compatible with industry standard computers that meet PCMCIA 2.01 Type-II standard and have Card and Socket Services 2.0 installed. IBM has performed compatibility testing on a broad mix of non-IBM computers.

Note: Some configurations may not be compatible.

Limitations:

- NEC Versa System: Only the bottom PCMCIA Socket is supported.
- Austin 486 is not supported.

Planning Information

Cable Orders Required: No

Installation Time: 20 minutes

Help and Service Information: During the warranty period, technical support is available (800-426-7299) 24 hours a day, seven days a week, for answering any questions about your new IBM option. If you need warranty service, return or exchange is available. In addition, if your IBM option is installed in an IBM computer, you may be entitled to service at your location. Your technical support representative can help you determine the best alternative.

Packaging: One box

Shipment Group

- Drive
- PCMCIA card
- Publication
- Diskette

Note: An *Options by IBM Hardware Maintenance Manual Supplement* (S83G-8092) is available in support of this product.

Security Auditability and Control: User management is responsible for evaluation, selection and implementation of security features, administrative procedures and appropriate controls in application systems and communications facilities.

Terms and Conditions

Field Installable Feature: Yes

Warranty Period: Two years

Warranty Service: IBM On-Site Exchange

Customer Setup: Yes

Volume Discount: Volume purchasing is not available under the Volume Discounts section of the IBM Customer Agreement (ICA).

For information regarding volume orders, contact your IBM representative.

IBM Credit Corporation Financing: Term leases and installment payment plans are available for commercial and state and local government customers.

Customer Fulfillment Option Applies: Yes

IBM Hourly Service Rate Classification: One

IBM Warranty Service, Maintenance Service or IBM Hourly Service may be obtained by calling 800-IBM-SERV (426-7378). IBM Hourly Service is available at the applicable rate and terms, including element exchange price if applicable.

Volume Maintenance Option: The 3513 is an eligible machine for the Volume Maintenance Option* of the ICA.

Mid-Range System Option: The 3513 is an eligible machine for the Mid-Range System Option* of the ICA.

Eligible Type	Discount	
	Three-Year	Five-Year
3513	17%	22%

Corporate Service Option: The 3513 is an eligible machine for the Corporate Service Option* of the ICA.

Option	Discount	
	Three-Year	Five-Year
Network	25%	30%
System	17%	22%

Extended Maintenance Option: The 3513 is an eligible machine under the Extended Maintenance Option of the ICA.

Central Facility Maintenance Service Option: The 3513 is an eligible machine for Central Facility Maintenance Service Option* of the ICA.

A minimum of six machines is required to be at the central facility before requesting maintenance service. The Additional Maintenance Charge Factor is currently 0.5 hours. The terms and conditions are stated in the Attachment for Central Facility Maintenance Service Option.

* A revised exhibit will be available at a later date.

Product Availability Status: New product available

Licensed Internal Code: No

Charges

Description	Part Number	Single Unit Price*
364MB External PCMCIA Hard Disk Drive	3513364	$569

* The single unit price reflects the purchase price for a single unit acquired from IBM, and is subject to change without notice. This price is for information purposes only, and shall not limit in any way the remarketers' ability to set their own prices for IBM products.

Annual Minimum Maintenance Charges:

IBM On-Site Exchange (IOE)	Central Facility Maintenance Service (CFMS)
$25	$23

527MB External PCMCIA Hard Disk Drive (3513527)

The 527MB (million bytes) External PCMCIA Hard Disk Drive offers you the ability to instantly expand storage for systems with PCMCIA Type-II sockets. Device drivers are also included for DOS, OS/2 and Windows operating environments.

Availability Date: May 17, 1994

Technical Information

Drive Specifications:

	527MB
Formatted capacity	527 million bytes[1]
Average media data rate	37.6Mb/sec, 4.7MB/sec
Average seek time	12.0ms
Average latency	6.67ms
Sector interleave	1:1
MTBF	200K hours[2]

[1] Capacity prior to installation of an operating system. The total user-accessible capacity may vary slightly based on the operating system environment.

[2] MTBF includes early life and end of life failures. Product description data represents IBM's design objectives and is provided for comparative purposes; actual results may vary depending upon a variety of factors. This product data does not constitute a warranty. Questions regarding IBM's warranty terms or methodology used to derive data should be referred to your IBM representative. Data is subject to change without notice.

Physical Specifications:

- Drive Dimensions:

  - Width: 163 mm (6.4 in.)
  - Depth: 34 mm (1.3 in.)
  - Length: 210 mm (8.3 in.)

- PCMCIA Card Interface Cable Dimensions:

  - Length: 0.3 m (1 ft)

- Power Cable Dimensions:

  - Length: 1.8 m (6 ft)

- Temperature: 5°C to 35°C (41°F to 95°F)

- Relative humidity: 8% to 95% (non-condensing)

Power Specifications:

- 100 to 120 V AC
- 50/60Hz (nominal)
- 15 Watts (maximum)

Agency Approvals: This product is designed to meet FCC Class B, VCCI Class B, CISPR 22 Class B and VDE GOP Agency limits.

For safety, UL, CSA, TUV or VDE and Nordic criteria are satisfied.

Original Country of Origin: Taiwan

Note: This may vary through the life of the product.

Hardware Requirements — IBM Systems: The 527MB External PCMCIA Hard Disk Drive (3513527) is supported on all models of the following IBM platforms/models:

Description	Machine Type
ThinkPad 350	2618
500	2603
720	9552
730T	2524
750	9545
PS/2 E	9533

Hardware Requirements — Non-IBM Systems: This External PCMCIA Hard Disk Drive complies with the following specifications:

- PC Card Standard Specification Release 2.01
- Card Service/Socket Service Release 2.0
- PC Card ATA Mass Storage Specification Release 1.01

Software Requirements:

- OS/2 2.1, or later
- IBM DOS 5.0, or later

Compatibility: The 527MB External PCMCIA Hard Disk Drive is designed to be compatible with industry standard computers that meet PCMCIA 2.01 Type-II standard and have Card and Socket Services 2.0 installed. IBM has performed compatibility testing on a broad mix of non-IBM computers.

Note: Some configurations may not be compatible.

Limitations:

- NEC Versa System: Only the bottom PCMCIA Socket is supported.
- Austin 486 is not supported.

Planning Information

Cable Orders Required: No

Installation Time: 20 minutes

Help and Service Information: During the warranty period, technical support is available (800-426-7299) 24 hours a day, seven days a week, for answering any questions about your new IBM option. If you need warranty service, return or exchange is available. In addition, if your IBM option is installed in an IBM computer, you may be entitled to service at your location. Your technical support representative can help you determine the best alternative.

Packaging: One box

Shipment Group

- Drive
- PCMCIA card
- Publication
- Diskette

Note: An *Options by IBM Hardware Maintenance Manual Supplement* (S83G-8092) is available in support of this product.

Security Auditability and Control: User management is responsible for evaluation, selection and implementation of security features, administrative procedures and appropriate controls in application systems and communications facilities.

Terms and Conditions

Field Installable Feature: Yes

Warranty Period: Two years

Warranty Service: IBM On-Site Exchange (IOE)

Customer Setup: Yes

Maintenance Service: IOE

Volume Discount: Volume purchasing is not available under the Volume Discounts section of the IBM Customer Agreement (ICA).

For information regarding volume orders, contact your IBM representative.

IBM Credit Corporation Financing: Term leases and installment payment plans are available for commercial and state and local government customers.

Customer Fulfillment Option Applies: Yes

IBM Hourly Service Rate Classification: One

IBM Warranty Service, Maintenance Service or IBM Hourly Service may be obtained by calling 800-IBM-SERV (426-7378). IBM Hourly Service is available at the applicable rate and terms, including element exchange price if applicable.

Volume Maintenance Option: The 3513 is an eligible machine for the Volume Maintenance Option* of the ICA.

Mid-Range System Option: The 3513 is an eligible machine for the Mid-Range System Option* of the ICA.

Eligible Type	Discount Three-Year	Five-Year
3513	17%	22%

Corporate Service Option: The 3513 is an eligible machine for the Corporate Service Option* of the ICA.

Option	Discount Three-Year	Five-Year
Network	25%	30%
System	17%	22%

Extended Maintenance Option: The 3513 is an eligible machine under the Extended Maintenance Option of the ICA.

Central Facility Maintenance Service Option: The 3513 is an eligible machine for Central Facility Maintenance Service Option* of the ICA.

A minimum of six machines is required to be at the central facility before requesting maintenance service. The Additional Maintenance Charge Factor is currently 0.5 hours. The terms and conditions are stated in the Attachment for Central Facility Maintenance Service Option.

* A revised exhibit will be available at a later date.

Product Availability Status: New product available

Licensed Internal Code: No

Charges

Description	Part Number	Single Unit Price*
527MB External PCMCIA Hard Disk Drive	3513527	$685

* The single unit price reflects the purchase price for a single unit acquired from IBM, and is subject to change without notice. This price is for information purposes only, and shall not limit in any way the remarketers' ability to set their own prices for IBM products.

Annual Minimum Maintenance Charges:

IBM On-Site Exchange (IOE)	Central Facility Maintenance Service (CFMS)
$45	$42

3432 Optical Disk Drive Model 705 (3432705)

The IBM 3432 Optical Disk Drive Model 705 is a 3.5-inch form factor rewritable magneto-optic disk drive externally mounted in a small form factor case that provides removable storage for attachment via SCSI cable to a personal computer. Applications include large data file storage and multimedia.

This drive consists of a one-inch high form factor with extremely low power dissipation (average 4.3 watts) and is thus ideal for external attachment to a personal computer or workstation. The drive reads 127MB (million bytes) rewritable media (ISO standard) as well as 122MB optical ROM media and 127MB partial ROM media. The media transfer read data rate is 640 KB/sec.

This drive is a SCSI device intended for attachment to personal computers such as Macintosh and PC compatibles.

Planned Availability Date: June 7, 1994

Technical Information

Drive Specifications:

	127MB
Formatted capacity	127 million bytes (MB)[1]
Form factor	3.5-inch, 1-inch high 4.5-inch x 1.7-inch x 8.7-inch case (115 x 43 x 221 mm)
Average seek time	40MS
Read data rate	640KB/sec
Interface	SCSI-2
Burst data rate	5MB/sec
MTBF	40K POH[2]
Data buffer	256K

[1] Capacity prior to installation of an operating system. The total user-accessible capacity may vary slightly based on the operating system environment.

[2] MTBF includes early life and end of life failures. Product description data represents IBM's design objectives and is provided for comparative purposes; actual results may vary depending upon a variety of factors. This product data does not constitute a warranty. Questions regarding IBM's warranty terms or methodology used to derive data should be referred to your IBM representative. Data is subject to change without notice.

Physical Specifications:

- Dimensions:

  - Width: 115 mm (4.5 in.)
  - Depth: 43 mm (1.7 in.)
  - Length: 221 mm (8.7 in.)

- Temperature: 10°C to 32°C (50°F to 90°F)

- Relative humidity: 8% to 80%

Agency Approvals:

- UL Listed
- CSA Certified
- SEMKO class 1 laser approval
- TUV 1EC 950/EN60950 (ELEC safety)
- DHHS registered as class 1 laser (CDRH)
- FCC class B certified (subject to part 15) rules for digital devices

Original Country of Origin: Japan

Note: This may vary through the life of the product.

Hardware Requirements — IBM System: The 3432 Optical Disk Drive Model 705 (3432705) is supported on the following IBM platforms/models:

Description	Machine Type	Model
PS/2®	8540[3]	040, 043, 045
	8556	All
	9556	All
	9576	All
	8557, 9557, 9577	All
	8560, 8580[3]	041, 071, 111, 131
	8565, 8580	081, 161, 321, A16, A31
	8590, 9590	All
	8595, 9585	All
	9595	All (except 3NG, 3NT, 3PG, 3PT, 3QG, 3QT)
ValuePoint™	6382, 6384, 6387[3]	All
PS/1®	2133[3]	G11,G43,W11,W43 W53,S11,S43,S53 111,114,144,154 174,G46,S45,W42 451,461,E46,R45 F46
	2155, 2168	All

[3] SCSI adapter card required

Hardware Requirements — Non-IBM Systems: This read/write optical drive is designed to be compatible with industry standard systems that adhere to ANSI specification X3T9.2/375R Revision 10K, dated March 17, 1993, for the SCSI interface.

Software Requirements: Device drivers for the following operating systems are shipped with this product:

- DOS 5.0, or later (to avoid problems with the 32MB partition limit)
- OS/2 2.0, or later
- Apple System 7.0, or later

These drives are also supported in the following operating environments:

- IBM 4680 Operating System Version 2.0
- IBM 4680 Operating System Version 4.0
- IBM 4690 Operating System Version 1.0

Compatibility: This read/write optical drive is designed to be compatible with industry standard systems that adhere to ANSI specification X3T9.2/375R Revision 10K, dated March 17, 1993, for the SCSI interface.

IBM has performed a variety of testing on a broad mix of non-IBM computers.

Note: Some configurations may not be compatible.

Planning Information

Cable Orders Required: Yes

Description	Part Number	SCSI Adapter Part Number
SCSI-2 50-Pin to 50-Pin Option Cable	32G4089	70G8496
IBM SCSI Card to SCSI Option Cable	32G4143	70G8497
IBM SCSI-2 Card to SCSI Option Cable	32G3915	70G8498

Installation Time: 30 minutes

Help and Service Information: During the warranty period, technical support is available (800-426-7299) 24 hours a day, seven days a week, for answering any questions about your new IBM option. If you need warranty service, return or exchange is available. In addition, if your IBM option is installed in an IBM computer, you may be entitled to service at your location. Your technical support representative can help you determine the best alternative.

Packaging: One box

Shipment Group

- Optical Drive (in a case)
- Eject Pin
- User's Guide
- Media (optical)
- Registration Card
- Device Driver DOS
- Device Driver OS/2
- Device Driver Apple
- Power Supply
- Pedestal
- SCSI Terminator

Note: An *Options by IBM Hardware Maintenance Manual Supplement* (S83G-8092) is available in support of this product.

Security Audibility and Control: User management is responsible for evaluation, selection and implementation of security features, administrative procedures and appropriate controls in application systems and communications facilities.

Terms and Conditions

Field Installable Feature: Yes

Warranty Period: One year

Warranty Service: IBM On-Site Exchange (IOE)

Customer Setup: Yes

Maintenance Service: IOE

Volume Discount: Volume purchasing is not available under the Volume Discounts section of the IBM Customer Agreement (ICA).

For information regarding volume orders, contact your IBM representative.

IBM Credit Corporation Financing: Term leases and installment payment plans are available for commercial and state and local government customers.

Customer Fulfillment Option Applies: Yes

IBM Hourly Service Rate Classification: One

IBM Warranty Service, Maintenance Service or IBM Hourly Service may be obtained by calling 800-IBM-SERV (426-7378). IBM Hourly Service is available at the applicable rate and terms, including element exchange price if applicable.

Volume Maintenance Option: The 3432 is an eligible machine for the Volume Maintenance Option* of the ICA.

Mid-Range System Option: The 3432 is an eligible machine for the Mid-Range System Option* of the ICA.

Eligible Type	Discount Three-Year	Five-Year
3432	17%	22%

Corporate Service Option: The 3432 is an eligible machine for the Corporate Service Option* of the ICA.

Option	Discount Three-Year	Five-Year
Network	25%	30%
System	17%	22%

Extended Maintenance Option: The 3432 is an eligible machine under the Extended Maintenance Option of the ICA.

Central Facility Maintenance Service Option: The 3432 is an eligible machine for Central Facility Maintenance Service Option* of the ICA.

A minimum of six machines is required to be at the central facility before requesting maintenance service. The Additional Maintenance Charge Factor is currently 0.5 hours. The terms and conditions are stated in the Attachment for Central Facility Maintenance Service Option.

* A revised exhibit will be available at a later date.

Product Availability Status: New product available

Licensed Internal Code: No

Charges

Description	Part Number	Single Unit Price*
3432 Optical Disk Drive Model 705	3432705	$829

* The single unit price reflects the purchase price for a single unit acquired from IBM, and is subject to change without notice. This price is for information purposes only, and shall not limit in any way the remarketers' ability to set their own prices for IBM products.

Annual Minimum Maintenance Charges:

IBM On-Site Exchange (IOE)	Central Facility Maintenance Service (CFMS)
$221	$209

1.3GB Optical Disk Drive Model 705 (3431705)

The 1.3GB[1] Optical Disk Drive is a 1.3GB capacity, multifunction read/write optical disk drive (5.25-inch form factor) for external attachment via SCSI cable to a personal computer. This drive provides high-capacity removable storage for applications in desktop imaging, multimedia, and large data file storage.

This drive supports rewritable magneto-optic media, ablative WORM (write once, read many), media and magneto-optic WORM media (also referred to as CCW WORM). The untamperable nature of ablative WORM provides the highest level of data integrity and security available for removable storage of computer data. These drives read and write 1.3GB capacity rewritable media, 1.3GB CCW WORM media, and 1.3GB ablative WORM media. The drives also read and write 650MB[2] capacity rewritable media and 650MB capacity ablative WORM media.

The drive has 256KB cache and a readout data transfer rate of up to 1561KB/sec (the burst transfer rate is 5MB/sec) for 1.3GB media. The write process on magneto-optical media consists of three passes: erase, write, and verify. The write data rate is approximately a third of the read data rate (this is true for all currently available magneto-optic drives). The write process for WORM media only requires two passes and thus the write data rate is approximately half of the read data rate. You can turn off the verify pass if the write data rate needs to be increased for applications such as multimedia where higher data rate is desired but the data integrity is not critical.

[1]   GB = 1,000 million bytes
[2]   MB = million bytes

Availability Date: May 17, 1994

Technical Information

Performance Specifications: The 5.25-inch multifunction optical drive (3431705) provides rewritable and write once features. Magneto-optic technology is used to provide the rewritable function. Ablative technology is used to provide the write once function. This 5.25-inch drive offers up to 1.3GB per cartridge.

Drive Specifications:

1.19GB

Formatted capacity	1.19GB on 512 byte format media
Average seek time	55ms
Average latency	12.5ms
Read data rate	1.561MB/sec on a 1.3GB disk (1024 byte sector size)
Interface	SCSI-2
Burst data rate	5MB/sec
Form factor	5.25-inch
Data buffer	256K.
MTBF	180,000 POH[3]
Compatible with rewritable	CCW WORM, and ablative WORM media

[3]   MTBF includes early life and end of life failures. Product description data represents IBM's design objectives and is provided for comparative purposes; actual results may vary depending upon a variety of factors. This product data does not constitute a warranty. Questions regarding IBM's warranty terms or methodology used to derive data should be referred to your IBM representative. Data is subject to change without notice.

Physical Specifications:

- Dimensions:
  - Width: 280 mm (11.02 in.)
  - Depth: 285 mm (11.22 in.)
  - Height: 122 mm (4.8 in.)

- Temperature: 10°C to 32°C (50°F to 90°F)

- Relative humidity: 8% to 80%

Agency Approvals:

- UL Listed
- CSA Certified
- SEMKO class 1 laser approval
- TUV 1EC 950/EN60950 (ELEC safety)
- DHHS registered as class 1 laser (CDRH)
- FCC class B certified (subject to part) 15 rules for digital devices

Original Country of Origin: Japan

Note: This may vary through the life of the product.

Hardware Requirements — IBM Systems: The 3431 Optical Disk Drive Model 705 (3431705) is supported on the following IBM platforms/models:

Description	Machine Type	Model
PS/2	8540[4]	040, 043, 045
	8556	All
	9556	All
	9576	All
	8557, 9557, 9577	All
	8560, 8580	041, 071, 111, 131
	8565, 8580	081, 161, 321, A16, A31
	8590, 9590	All
	8595, 9585	All
	9595	All (except 3NG, 3NT, 3PG, 3PT, 3QG, 3QT)
ValuePoint	6382, 6384, 6387[4]	All
PS/1	2133[4]	G11, G43, W11, W43, W53, S11, S43, S53, 111, 114, 144, 154 174, G46, S45, W42, 451, 461, E46, R45, F46
	2155, 2168	All

[4]   SCSI adapter card required

Hardware Requirements — Non-IBM Systems: This read/write optical drive is designed to be compatible with industry standard systems that adhere to ANSI specification X3T9.2/375R Revision 10K, dated March 17, 1993, for the SCSI interface.

IBM has performed a variety of testing on a broad mix of non-IBM computers.

Software Requirements: Device drivers providing rewritable functions for the following operating systems are shipped with this product. For the WORM function device drivers, contact your distributor.

- DOS 5.0, or later (to avoid problems with the 32MB partition limit)
- Windows 3.0, or later

- OS/2 2.0, or later
- Apple System 7.0, or later

Compatibility: The 1.3GB multifunction optical drive is compatible with all 650MB media that meets the ISO/IEC 10089 standard and 1.3GB media that meets the ECMA-184 standard. This drive is designed to maintain compatibility with Apple Macintosh and IBM PC and PC compatible machines (as listed in the **Hardware Requirements** section) providing appropriate device drivers are used. Examples of appropriate device drivers are in the **Programming Requirement** section.

This read/write optical drive is designed to be compatible with industry standard systems that adhere to ANSI specification X3T9.2/375R Revision&10K, dated March 17, 1993, for the SCSI interface.

IBM has performed a variety of testing on a broad mix of non-IBM computers.

Note: Some configurations may not be compatible.

Planning Information

Cable Orders Required: Yes

Description	Part Number	SCSI Adapter Part Number
SCSI-2 50-Pin to 50-Pin Option Cable	32G4089	70G8496
IBM SCSI Card to SCSI Option Cable	32G4143	70G8497
IBM SCSI-2 Card to SCSI Option Cable	32G3915	70G8498

Installation Time: 30 minutes

Note: If a non-IBM SCSI adapter is to be used with the drive you should consult your point of purchase for the proper cables.

Help and Service Information: During the warranty period, technical support is available (800-426-7299) 24 hours a day, seven days a week, for answering any questions about your new IBM option. If you need warranty service, return or exchange is available. In addition, if your IBM option is installed in an IBM computer, you may be entitled to service at your location. Your technical support representative can help you determine the best alternative.

Packaging: One box

Shipment Group

- Optical Drive
- Power Cord
- Installation Instructions
- Maintenance Manual
- Eject Pin
- Media (optical)
- SCSI terminator
- Registration card
- DOS Device Driver
- Apple Device Driver
- OS/2 Device Driver

Note: An *Options by IBM Hardware Maintenance Manual Supplement* (S83G-8092) is available in support of this product.

Security Auditability and Control: Small Computer System Interface (SCSI), as defined in the American National Standard for Information (ANSI) X3T9.2/375R Revision 10K, dated March 17, 1993, allows for multiple SCSI adapters (initiators) on the SCSI bus. The SCSI bus may be internal or external to the system unit. The IBM SCSI adapters are in conformance with this standard and have an external port.

User management is responsible for evaluation, selection and implementation of security features, administrative procedures and appropriate controls in application systems and communications facilities.

Terms and Conditions

Field Installable Feature: Yes

Warranty Period: One year

Warranty Service: IBM On-Site Repair (IOR)

Customer Setup: Yes

Maintenance Service: IOR

Volume Discount: Volume purchasing is not available under the Volume Discounts section of the IBM Customer Agreement (ICA).

IBM Credit Corporation Financing: Term leases and installment payment plans are available for commercial and state and local government customers.

Customer Fulfillment Option Applies: Yes

IBM Hourly Service Rate Classification: One

IBM Warranty Service, Maintenance Service or IBM Hourly Service may be obtained by calling 800-IBM-SERV (426-7378). IBM Hourly Service is available at the applicable rate and terms, including element exchange price if applicable.

Volume Maintenance Option: The 3431 is an eligible machine for the Volume Maintenance Option* of the ICA.

Mid-Range System Option: The 3431 is an eligible machine for the Mid-Range System Option* of the ICA.

Eligible Type	Discount Three-Year	Five-Year
3431	17%	22%

Corporate Service Option: The 3431 is an eligible machine for the Corporate Service Option* of the ICA. A revised

Option	Discount Three-Year	Five-Year
Network	25%	30%
System	17%	22%

Extended Maintenance Option: The 3431 is an eligible machine under the Extended Maintenance Option of the ICA.

Central Facility Maintenance Service Option: The 3431 is an eligible machine for Central Facility Maintenance Service Option* of the ICA.

A minimum of six machines is required to be at the central facility before requesting maintenance service.

The Additional Maintenance Charge Factor is currently 0.5 hours. The terms and conditions are stated in the Attachment for Central Facility Maintenance Service Option.

* A revised exhibit will be available at a later date.

Product Availability Status: New product available

Licensed Internal Code: No

Charges

Description	Part Number	Single Unit Price*
1.3GB Optical Disk Drive	3431705	$2,995

* The single unit price reflects the purchase price for a single unit acquired from IBM, and is subject to change without notice. This price is for information purposes only, and shall not limit in any way the remarketers' ability to set their own prices for IBM products.

Annual Minimum Maintenance Charges:

IBM On-Site Repair (IOR)	Central Facility Maintenance Service (CFMS)
$262	$248

1.3GB Optical Disk Drive (62G2929)

IBM 1.3GB[1] Optical Disk Drive. This drive has a 1.3GB capacity, multifunction read/write optical disk drive (5.25-inch form factor) for internal attachment via SCSI in a Personal Computer. This drive provides high-capacity removable storage for applications in desktop imaging, multimedia, and large file storage.

This drive supports magneto-optic rewritable media, ablative WORM (write once, read many) media, and magneto-optic WORM (or CCW WORM) media. The untamperable nature of ablative WORM provides the highest level of data integrity and security available for removable storage of computer data. This drive reads and writes 1.3GB capacity rewritable media, 1.3GB CCW WORM media, and 1.3GB ablative WORM media. The drive also reads and writes 650MB[2] capacity rewritable media and 650MB capacity ablative WORM media.

The drive has a 256KB cache and a readout media transfer rate of up to 1561KB/sec (the burst transfer rate is 5MB/sec) for 1.3GB media. The write process on magneto-optical media consists of three passes: erase, write, and verify. The write data rate is approximately a third of the read data rate (this is true for all currently available magneto-optic drives). The write process for WORM media only requires two passes and thus the write data rate is approximately half of the read data rate. You can turn off the verify pass if the write data rate needs to be increased for applications such as multimedia where higher data rate is desired but the data integrity is not critical.

[1]   GB = 1,000 million bytes
[2]   MB = million bytes

Planned Availability Date: June 7, 1994

Technical Information

Performance Specification: The 5.25-inch multifunction optical drive (62G2929) provides rewritable and write once features. Magneto-optic technology is used to provide the rewritable function. Ablative technology is used to provide the write once function. This 5.25 inch drive offers up to 1.3GB per cartridge.

Drive Specifications:

Formatted capacity	1.3GB on 1024 byte format media
	1.19GB on 512 byte format media
Average seek time	55 ms
Read data rate	1.561MB/sec on 1.3GB disk (1024 byte sector size)
Interface	SCSI-2
Burst data rate	5MB/sec
Form factor	5.25-inch
Data buffer size	256K
MTBT	180,000 POH[3]

[3]   MTBF includes early life and end of life failures. Product description data represents IBM's design objectives and is provided for comparative purposes; actual results may vary depending upon a variety of factors. This product data does not constitute a warranty. Questions regarding IBM's warranty terms or methodology used to derive data should be referred to your IBM representative. Data is subject to change without notice.

Physical Specifications:

- Dimensions:
    - Width: 146 mm (5.75 in.)
    - Depth: 205.5 mm (8.09 in.)
    - Height:82.5 mm (3.25 in.)

- Temperature: 10°C to 40°C (50°F to 104°F)

- Relative humidity: 8% to 80%

Agency Approvals:

- UL Listed
- CSA Certified
- SEMKO class 1 laser approval
- TUV 1EC 950/EN60950 (ELEC safety)
- DHHS registered as class 1 laser (CDRH)
- FCC class B certified (subject to part 15) rules for digital devices

Original Country of Origin: Japan

Note: This may vary through the life of the product.

Hardware Requirements — IBM Systems: The 1.3GB Optical Disk Drive (62G2929) is supported on all models of the following IBM platforms/models:

Description	Machine Type	Model
PS/2	8595	All[4,5]
	9595	All[4,5] (except 3NG, 3NT, 3PG, 3PT, 3QG, 3QT)
External Storage Enclosure for SCSI Devices	3511	All[4,5]

[4]   System requires an open full-high bay and three sequential SCSI connectors, and the system will be limited to four internal SCSI storage devices. (Otherwise, refer to footnote #5.)
[5]   Can be attached via an External 1.3GB Optical Device (3431-705).

Hardware Requirements — Non-IBM Systems: This read/write optical drive is designed to be compatible with industry standard systems that adhere to ANSI specification X3T9.2/375R Revision 10K, dated March 17, 1993, for the SCSI interface.

IBM has performed a variety of testing on a broad mix of non-IBM computers.

Software Requirements: Device drivers providing rewritable functions for the following operating systems are shipped with this product. For the WORM function device drivers, contact your distributor.

- DOS 5.0, or later (due to 32MB partition limit) OS/2 2.0, or later
- Apple system 7.0, or later

Compatibility: The 1.3GB optical drive is compatible with all 650MB media that meet the ISO/IEC 10089 standard and 1.3GB media that meet the ECMA-184 standard. This drive is designed to maintain compatibility with Apple Macintosh and IBM PC and PC compatible machines (as listed in the **Hardware Requirements** section) providing appropriate device drivers are used. Examples of appropriate device drivers are in the **Software Requirements** section.

This read/write optical drive is designed to be compatible with industry standard systems that adhere to ANSI

specification X3T9.2/375R Revision 10K, dated March 17, 1993, for the SCSI interface.

IBM has performed a variety of testing on a broad mix of non-IBM computers.

Note: Some configurations may not be compatible.

Planning Information

Cable Orders Required: Yes. The distributors will provide cables to match the SCSI cards of the systems that the drives are integrated in.

Installation Time: 30 minutes

Note: If a non-IBM SCSI adapter is to be used with the drive you should consult your point of purchase for the proper cables.

Help and Service Information: During the warranty period, technical support is available (800-426-7299) 24 hours a day, seven days a week, for answering any questions about your new IBM option. If you need warranty service, return or exchange is available. In addition, if your IBM option is installed in an IBM computer, you may be entitled to service at your location. Your technical support representative can help you determine the best alternative. should consult his/her point of purchase for the proper cables.

Packaging: One box

Shipment Group

- Optical Drive
- Eject Pin
- Users Guide
- Optical Media
- Registration Card
- DOS Device Drivers
- OS/2 Device Drivers
- Apple Device Drivers

Note: An *Options by IBM Hardware Maintenance Manual Supplement* (S83G-8092) is available in support of this product.

Security Auditability and Control: Small Computer System Interface (SCSI), as defined in the American National Standard for Information (ANSI) X3T9.2/375R Revision 10K, dated March 17, 1993, allows for multiple SCSI adapters (initiators) on the SCSI bus. The SCSI bus may be internal or external to the system unit. The IBM SCSI adapters are in conformance with this standard and have an external port.

Physical access to the system and external SCSI devices must be controlled to limit this exposure.

User management is responsible for evaluation, selection and implementation of security features, administrative procedures and appropriate controls in application systems and communications facilities.

Terms and Conditions

Field Installable Feature: Yes

Warranty Period: One year

Warranty Service: Customer Carry-In Exchange (CCE)

Customer Setup: Yes

All other terms and conditions are the same as those applicable to the IBM machine type in which the feature is installed.

Charges

Description	Part Number	Single Unit Price*
IBM 1.3GB Optical Disk Drive	62G2929	$2,589

* The single unit price reflects the purchase price for a single unit acquired from IBM, and is subject to change without notice. This price is for information purposes only, and shall not limit in any way the remarketers' ability to set their own prices for IBM products.

Annual Minimum Maintenance Charges:

Feature Number	IBM On-Site Repair (IOR)	Central Facility Maintenance Service (CFMS)
2085	$238	$226

1GB Fast/Wide SCSI-2 Hot Swap Hard Disk Drive (70G9743)

The 1GB (1,000 million bytes) Fast/Wide SCSI-2 Hot Swap Hard Disk Drive, when used in conjunction with the DASD Hot Swap Expansion Enclosure (3516-7V0), provides external storage expansion at a very competitive price. The drive is mounted in a tray assembly that provides hot swap capability or the ability to remove and insert the drive without powering down the expansion enclosure.

This drive provides a 16-bit (wide) SCSI interface enabling SCSI data transfer rates of 20MB/sec, or 8-bit (narrow) drives for even better performance.

Planned Availability Date: August 4, 1994

Technical Information

Drive Specifications:

1.0GB Fast/Wide

Formatted capacity	1000 million bytes[1]
Ave media data rate	38.4Mb/sec, 4.8MB/sec
Ave seek time	8.6ms
Ave latency	5.56ms
Sector interleave	1:1
MTBF	800K hours[2]

[1] Capacity prior to the installation of an operating system. The total user accessible capacity may vary slightly based on operating system environments.
[2] MTBF includes early life and end of life failures. Product description data represents IBM's design objectives and is provided for comparative purposes; actual results may vary depending upon a variety of factors. This product data does not constitute a warranty. Questions regarding IBM's warranty terms or methodology used to derive data should be referred to your IBM representative. Data is subject to change without notice.

Physical Specifications:

- Dimensions:

    - Width: 101.6 mm (4.0 in.)
    - Depth: 146.0 mm (5.75 in.)
    - Height: 25.4 m (1.0 in.)

- Temperature: 5°C to 55°C (41°F to 131°F)

- Relative humidity: 5% to 90% (non-condensing)

Agency Approvals: This subassembly has been designed to meet the following when integrated into final products:

- FCC Class B
- VCCI Class 2
- CISPR 22 Class B
- VDE GOP

Original Country of Origin: Germany

Note: This may vary through the life of the product.

Hardware Requirements — IBM Systems: The 1GB Fast/Wide SCSI-2 Hot Swap Hard Disk Drive (70G9743) is supported on the following IBM platforms/models:

Description	Machine Type	Model
IBM DASD Hot Swap Enclosure	3516	7V0
IBM PS/2 Server 95 Array	9595	All

Software Requirements:

- OS/2 Standard and Extended 1.30.1, 1.30.2
- OS/2 2.0
- OS/2 2.0 Plus Service Pak

- OS/2 2.1
- OS/2 Extended Services™ 1.0
- OS/2 LAN Server 2.0
- OS/2 LAN Server 3.0 and NTS/2
- IBM DOS 5.0, or later
- NetWare** 3.11
- AIX® PS/2 1.3
- SCO** XENIX 2.3.4, UNIX** SYSTEM V/386 3.2v.4, OPEN DESKTOP** 2.0

Compatibility: This drive is designed to be compatible with industry standard systems that adhere to ANSI specification X3T9.2/375R Revision 10K dated March 17, 1993. However, this drive is mounted in a unique tray assembly designed to provide for hot-swapping of the drives in the IBM systems and is, therefore, not supported in non-IBM systems.

Limitations: A "wide" 16-bit SCSI adapter is required for support of this drive.

Planning Information

Cable Orders Required: No

Installation Time: 10 minutes

Help and Service Information: During the warranty period, technical support is available (800-426-7299) 24 hours a day, seven days a week, for answering any questions about your new IBM option. If you need warranty service, return or exchange is available. In addition, if your IBM option is installed in an IBM computer, you may be entitled to service at your location. Your technical support representative can help you determine the best alternative.

Packaging: One box

Shipment Group

- Drive (mounted in tray assembly)
- Installation Publication
- Product Registration Card

Note: An *Options by IBM Hardware Maintenance Manual Supplement* (S83G-8092) is available in support of this product.

Security Auditability and Control: Security and auditability features of the system in which this product is installed are:

- Mechanical lock to allow the user to lock the system cover (PS/2)
- User-invoked password function to prevent use by unauthorized persons.

Small computer system interface (SCSI), as defined in the American National Standard for Information (ANSI) X3T9.2/375R Revision 10K, dated March 17, 1993, allows for multiple SCSI adapters (initiators) on the SCSI bus. The SCSI bus may be internal or external to the system unit. The IBM SCSI adapters are in conformance with this standard and have an external port.

Physical access to the system and external SCSI devices must be controlled to limit this exposure.

User management is responsible for evaluation, selection and implementation of security features, administrative procedures and appropriate controls in application systems and communications facilities.

Terms and Conditions

Field Installable Feature: Yes

Warranty Period: Five years

Warranty Service: Customer Carry-In Exchange (CCE)

Customer Setup: Yes

All other terms and conditions are the same as those applicable to the IBM machine type in which the feature is installed.

Charges

Description	Part Number	Single Unit Price*
1.0GB Fast/Wide Drive	70G9743	$949

*   The single unit price reflects the purchase price for a single unit acquired from IBM, and is subject to change without notice. This price is for information purposes only, and shall not limit in any way the remarketers' ability to set their own prices for IBM products.

Annual Minimum Maintenance Charges:

Feature Number	IBM On-Site Exchange (IOE)	Central Facility Maintenance Service (CFMS)
2603	$95	$90

3.5-inch 2.88MB Diskette Drive (32G4338)

The 3.5-inch 2.88MB (million bytes) Diskette Drive provides industry leading capacity and performance for data migration and removable media storage.

Availability Date: May 17, 1994

Technical Information

Drive Specifications:

288MB

Formatted capacity	2.88 million bytes (MB)[1]
Average media data rate	1.0Mb/sec
Average seek time	94ms

[1] Numbers in million of bytes; actual user capacity may vary slightly based on different operating systems.

Physical Specifications:

* Dimensions:

  − Width: 101.6 mm (4.0 in.)
  − Depth: 150.0 mm (5.9 in.)
  − Length: 25.4 mm (1.0 in.)

* Temperature: 10°C to 50°C (50°F to 128°F)

* Relative humidity: 8% to 80% (non-condensing)

Agency Approvals:

* FCC CLASS B
* UL/CSA RECOGNIZED
* VCCI CLASS 2
* GOP VDE
* CSA No. 220

Original Country of Origin: Japan

Note: This may vary through the life of the product.

Hardware Requirements — Non-IBM Systems: The 3.5-inch 2.88MB Diskette Drive (32G4338) is supported on the following IBM platforms/models:

Manufacturer	Machine Type	Model
ValuePoint	6472[2]	All
	6482[2]	All
	6492[2]	All
	6484[2]	All
	6494[2]	All
	9615[3]	001

[2] Universal Mounting Kit (#9010, 70G8165) required for installation of this diskette drive in a 5.25-inch bay.
[3] Requires Diskette Drive Installation Kit (60G2880).

Compatibility: The 3.5-inch 2.88MB Diskette Drive can be used in the ValuePoint systems above.

Software Requirements: The following operating systems and extensions support the 3.5-inch 2.88MB Diskette Drive.

* OS/2 Standard and Extended 1.30.1, 1.30.2
* OS/2 2.0
* OS/2 2.0 Plus Service Pak
* OS/2 2.1
* OS/2 Extended Services 1.0
* OS/2 LAN Server 2.0

* OS/2 LAN Server 3.0 and NTS/2
* IBM DOS 5.0, or later
* NetWare 3.11
* AIX PS/2 1.3
* SCO XENIX 2.3.4, UNIX SYSTEM V/386 3.2v.4, OPEN DESKTOP 2.0

Planning Information

Cable Orders Required: No

Installation Time: 30 minutes

Help and Service Information: During the warranty period, technical support is available (800-426-7299) 24 hours a day, seven days a week, for answering any questions about your new IBM option. If you need warranty service, return or exchange is available. In addition, if your IBM option is installed in an IBM computer, you may be entitled to service at your location. Your technical support representative can help you determine the best alternative.

Packaging: One box

Shipment Group

* Drive
* Installation publication
* Screws
* Cable Converter

Note: An *Options by IBM Hardware Maintenance Manual Supplement* (S83G-8092) is available in support of this product.

Security Auditability and Control: User management is responsible for evaluation, selection and implementation of security features, administrative procedures and appropriate controls in application systems and communications facilities

Terms and Conditions

Field Installable Feature: Yes

Warranty Period: One year

Warranty Service: Customer Carry-In Exchange (CCE)

Customer Setup: Yes

All other terms and conditions are the same as those applicable to the IBM machine type in which the feature is installed.

Charges

Description	Part Number	Single Unit Price*
3.5-inch 2.88MB Diskette Drive	32G4338	$89

* The single unit price reflects the purchase price for a single unit acquired from IBM, and is subject to change without notice. This price is for information purposes only, and shall not limit in any way the remarketers′ ability to set their own prices for IBM products.

DASD Hot Swap Expansion Enclosure (35167V0)

The DASD Hot Swap Expansion Enclosure* provides external storage expansion at a very competitive price. The floor-standing enclosure features "hot swap" capability, enabling you to remove and insert IBM Hot Swap SCSI Hard Disk Drives without removing power to the enclosure. Also, when used with a host RAID SCSI-2 Fast and Wide compliant controller (such as the IBM SCSI-2 Fast/Wide Streaming-RAID Adapter A), the enclosure provides usage as an external Disk Array Enclosure. The DASD Hot Swap Expansion Enclosure is an open bay enclosure that supports up to seven IBM Hot Swap SCSI Hard Disk Drives. When coupled to a SCSI-2 Fast and Wide compliant controller (such as the IBM SCSI-2 Fast/Wide Adapter/A), the enclosure enables external Hot Swap storage expansion.

Product Positioning: The DASD Hot Swap Expansion Enclosure joins the family of "Options by IBM" SCSI DASD Storage Enclosures. The 3510 storage enclosure provides single bay expansion, whereas the 3511 provides expansion for seven SCSI devices. The 3516 DASD Hot Swap Expansion Enclosure specifically supports IBM Hot Swap Hard Disk Drives. Its primary benefit is seen when used as part of an external RAID DASD array.

Availability Date: August 4, 1994

Performance Specifications: Power Supply 110/220 V AC (200 Watt output)

Physical Specifications:

- Dimensions:

    - Height: 429.3 mm (16.9 in.)
    - Depth: 399.0 mm (15.7 in.)
    - Width: 188.0 mm (7.4 in.)

- Temperature: 0°C to 55° C (32°F to 131°F)

- Relative humidity: 10% to 95%

Agency Approvals:

- FCC ─ Class B* (applied for)
- UL 1950 (yes)
- CSA 22.2 #950 (yes)
- VCCI Class 2 (applied for)
- CE Mark (applied for)
- CISPR-B (applied for)
- NOM (yes)

* This product is not yet approved by the Federal Communication Commission (FCC) and is not and may not be offered for sale or lease, or sold or leased until the approval of the FCC is obtained.

Original Country of Origin: United Kingdom ─ Scotland

Note: This may vary through the life of the product.

Hardware Requirements ─ IBM Systems: The 364MB External PCMCIA Hard Disk Drive (3513364) is supported on all models of the following IBM platforms/models:

Description	Machine Type
PS/2	8590/95
	Server 95
	9576/77
	9590/95
	9585

Note:

Any of these IBM systems may be attached to the DASD Hot Swap Expansion Enclosure by use of the following SCSI-2 adapters:

- IBM SCSI-2 Fast/Wide Adapter/A (70G8498)
- IBM SCSI-2 Fast/Wide Streaming-RAID Adapter/A (70G9263)

Cables:

External	Part Number	Feature Number
SCSI-2 Card to SCSI-2 Option Cable 1-meter	06H3231	2452

* Recommended for use with DASD Hot Swap Expansion Enclosure when unit storage expansion is full. When connecting the enclosure with a non-IBM SCSI cable it is recommended that the cable length be limited to one meter.

Compatibility ─ Non-IBM Computers: This enclosure is designed to be compatible with controllers that meet the small computer system interface (SCSI), as defined in the American National Standard for Information (ANSI) X3T9.2/375R Revision 10K, dated March 17, 1993, and the following devices:

- IBM 1GB Fast/Wide SCSI-2 Hot Swap Hard Disk Drive (70G9743)

- IBM 540MB Hard Disk Driver for Server 95 A (70G7163)

- IBM 1GB Hard Disk Driver for Server 95 A (70G7164)

Limitations: Security and auditability features of the system in which this product is installed are:

- Mechanical lock to allow the user to lock the system cover

SCSI, as defined in the American National Standard for Information (ANSI) X3T9.2/375R Revision 10K, dated March 17, 1993, allows for multiple SCSI adapters (initiators) on the SCSI bus. The SCSI bus may be internal or external to the system unit. The IBM PS/2 SCSI adapters are in conformance with this standard and have an external port.

A data security exposure exists even with Power-On Password installed, since external SCSI adapters can attach through the external SCSI port and gain undetected read or write access to data stored on internal and external SCSI devices.

Physical access to the system and external SCSI devices must be controlled to limit this exposure.

Planning Information

Cable Orders Required: Yes

Installation Time: 30 minutes

Help and Service Information: During the warranty period, technical support is available (800-426-7299) 24 hours a day, seven days a week, for answering any questions about your new IBM option. If you need warranty service, return or exchange is available. In addition, if your IBM option is installed in an IBM computer, you may be entitled to service at your location. Your technical support representative can help you determine the best alternative.

Packaging: One box

Shipment Group

- Component parts:
    - DASD Hot Swap Expansion Enclosure (06H2606)
    - Publication group (10H0248)
    - Production Registration Card (92G7484)
    - Line cord (62X0663)

Note: An *Options by IBM Hardware Maintenance Manual Supplement* (S83G-8092) is available in support of this product.

Security Auditability and Control: User management is responsible for evaluation, selection and implementation of security features, administrative procedures and appropriate controls in application systems and communications facilities.

Terms and Conditions

Field Installable Feature: Yes

Warranty Period: One year

Customer Setup: Yes

Warranty Service: IBM On-Site Repair (IOR)

All other terms and conditions are the same as those applicable to the IBM machine type in which the feature is installed.

Volume Discount: Volume purchasing is not available under the Volume Discounts section of the IBM Customer Agreement (ICA).

IBM Credit Corporation Financing: Term leases and installment payment plans are available for commercial and state and local government customers.

Customer Fulfillment Option Applies: Yes

IBM Hourly Service Rate Classification: One

IBM Warranty Service, Maintenance Service or IBM Hourly Service may be obtained by calling 800-IBM-SERV (426-7738). IBM Hourly Service is available at the applicable rate and terms, including element exchange price if applicable.

Volume Maintenance Option: The 3516 is an eligible machine for the Volume Maintenance Option* of the ICA.

Mid-Range System Option: The 3516 is an eligible machine for the Mid-Range System Option* of the ICA.

Eligible Type	Discount Three-Year	Five-Year
3516	17%	22%

Corporate Service Option: The 3516 is an eligible machine for the Corporate Service Option* of the ICA.

Option	Discount Three-Year	Five-Year
Network	25%	30%
System	17%	22%

Extended Maintenance Option: The 3516 is an eligible machine under the Extended Maintenance Option of the IBM Customer Agreement (ICA).

Central Facility Maintenance Service Option: The 3516 is an eligible machine for Central Facility Maintenance Service Option* of the ICA.

A minimum of six machines is required to be at the central facility before requesting maintenance service. The Additional Maintenance Charge Factor is currently 0.5 hours. The terms and conditions are stated in the Attachment for Central Facility Maintenance Service Option.

* A revised exhibit will be available at a later date.

Product Availability Status: New product available

Licensed Internal Code: No

Charges

This product is not yet approved by the Federal Communication Commission (FCC) and is not and may not be offered for sale or lease, or sold or leased until the approval of the FCC is obtained.

Description	Part Number	Single Unit Price*
DASD Hot Swap Expansion Enclosure	35167V0	$1,145

* The single unit price reflects the purchase price for a single unit acquired from IBM, and is subject to change without notice. This price is for information purposes only, and shall not limit in any way the remarketers′ ability to set their own prices for IBM products.

Annual Minimum Maintenance Charges:

IBM On-Site Repair (IOR)	Central Facility Maintenance Service (CFMS)
$55	$52