

*TITLE Title Page*

**Personal System/2  
Option Compatibility and  
Reference Diskette  
Information**

Document Number SA38-0081-01

October 15, 1991

*COVER Book Cover*

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**Personal System/2**

**Option Compatibility and  
Reference Diskette  
Information**

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SB0F-2480-00.

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**PS/2 Option Compatibility and Reference Diskette Information**  
Advanced Diagnostic/Reference Diskettes

*1.0 Advanced Diagnostic/Reference Diskettes*

The Personal System/2\* (PS/2\*) SIM Manual contains Advanced Diagnostic and Reference Diskettes for the PS/2 family of products.

The PS/2 Reference Diskettes (Micro Channel\* systems only) for PS/2 Models 50/60, 55/65, 70/80, 70 486, P70 386, and P75 486 have been modified to include selected option diagnostic files (ADF/DGS) to support added system options or features. The PS/2 Reference Diskettes for PS/2 Models L40 SX, 57 SX, 90 XP 486, and 95 XP 486 continue to be base system diskettes without modification due to space limitations and licensing restrictions.

The chart below indicates the options included on each Reference Diskette.

**Note:** THESE REFERENCE DISKETTES ARE PROVIDED FOR SERVICERS ONLY. THEY ARE NOT INTENDED FOR CUSTOMER USE.

| Option Name                    | Reference Diskette |       |       |        |     |     |
|--------------------------------|--------------------|-------|-------|--------|-----|-----|
|                                | 50/60              | 55/65 | 70/80 | 70 486 | P70 | P75 |
| 3270 Connection                | X                  | X     | X     | X      | X   | X   |
| 8514/A Display Adapter         | X                  | X     | X     | X      |     |     |
| Dual Asynchronous              | X                  | X     | X     | X      | X   | X   |
| Multiprotocol Communications   | X                  | X     | X     | X      | X   | X   |
| SCSI                           | X                  | X     | X     | X      | X   | X   |
| 60MB Fixed Disk Drive          | X                  | X     | X     | X      | X   |     |
| 300/1200 Internal Modem/A      | X                  | X     | X     | X      | X   | X   |
| 300/1200/2400 Internal Modem/A | X                  | X     | X     | X      | X   | X   |
| ARTIC Multiport/2              | X                  | X     | X     | X      | X   | X   |
| 2-8MB 80286 Memory Expansion   | X                  | X     |       |        |     |     |
| 0-8MB Expanded Memory          | X                  | X     |       |        |     |     |
| 2-8MB 80386 Memory Expansion   |                    |       | X     | X      | X   | X   |
| 5.25 In. Diskette Dr. Adapter  | X                  | X     | X     | X      | X   | X   |
| 6157 Tape Attachment           | X                  | X     | X     | X      | X   | X   |
| Internal Tape Backup Unit      | X                  | X     | X     | X      |     |     |
| Token Ring Network Adapter     | X                  | X     | X     | X      | X   | X   |
| Token Ring 16/4 Adapter/A      | X                  | X     | X     | X      | X   | X   |
| 36/38 Workstation Emulation    | X                  | X     | X     | X      | X   | X   |
| Personal Pageprinter Adapter   | X                  | X     | X     | X      | X   | X   |
| Image Adapter/A                | X                  | X     | X     | X      | X   | X   |

## **PS/2 Option Compatibility and Reference Diskette Information**

Personal System/2 Options and Adapters (8525, 8525 286, 8530, 8530 286, 8535 SX, and 8540 SX)

*2.0 Personal System/2 Options and Adapters (8525, 8525 286, 8530, 8530 286, 8535 SX, and 8540 SX)*

This section addresses PS/2 options and adapters designed for the 8525, 8525 286, 8530, 8530 286, 8535 SX, and the 8540 SX.

Subtopics

2.1 Option Compatibility Chart

2.1 Option Compatibility Chart

| Option Name                          | Option No. | FRU No. | Machine Type |        |        |        |
|--------------------------------------|------------|---------|--------------|--------|--------|--------|
|                                      |            |         | 855255       | 855233 | 855233 | 855200 |
| <b>MEMORY</b>                        |            |         |              |        |        |        |
| 2MB Expanded Memory (XMA)            | 2685193    | 1497250 | X            |        |        |        |
| PS/2 Multifunction Adapter           | 30F5364    | 30F5447 | 1            | 1      |        |        |
| 256KB Memory Pack                    | 30F5348    | 1497256 | 1            | 1      |        |        |
| 1MB Memory Pack                      | 30F5360    | 74X8637 | 1            | 1      |        |        |
| All Chargecard                       | 30F2863    | 34F3054 | 1            | 1      |        |        |
| 256KB Memory Module Pkg.             | 6450345    | 61X8906 | X            | X      |        |        |
| 1MB (85ns) Mem Mod                   | 6450603    | 90X8624 |              |        | X      | X      |
| 2MB (85ns) Mem Mod                   | 6450604    | 92F0104 |              |        | X      | X      |
| 2MB (80ns)                           | 6450608    | 92F0103 |              |        | X      | X      |
| 4MB (80ns)                           | 87F9977    | 87F9980 |              |        | X      | X      |
| 8MB (80ns)                           | 6450129    | 92F0102 |              |        | X      | X      |
| 2MB (70ns)                           | 6450902    | 92F0105 |              |        | X      | X      |
| 4MB (70ns)                           | 6450128    | 64F3605 |              |        | X      | X      |
| 8MB (70ns)                           | 6450130    | 64F3606 |              |        | X      | X      |
| <b>FIXED DISKS</b>                   |            |         |              |        |        |        |
| 20MB w/Adapter                       | 6451075    | 27F4130 | X            |        |        |        |
| 30MB                                 | 6451030    | 6128279 |              | 2      |        |        |
| 20MB                                 | 6451031    | 6128285 |              | 3      |        |        |
|                                      | 78X8958    | 61X8929 | X            | X      |        |        |
| 40MB                                 | 6451073    | 64F4132 |              |        | X      | X      |
| 45MB                                 | -          | 92F0016 |              | 8      |        |        |
| 80MB                                 | 6451074    | 64F4133 |              |        | X      | X      |
| <b>DISKETTE DR.</b>                  |            |         |              |        |        |        |
| 360Kb Ext. DDr. Adptr.               | 6450244    | 72X6757 | X            | X      | X      | X      |
| 360KB Ext. Diskette Dr.              | 4869001    | 72X6759 | X            | X      | X      | X      |
| 720KB DDr. (1/2 High)                | N/A        | 61X8899 | X            | X      |        |        |
| 720KB DDr. (1/3 High)                | N/A        | 27F4119 | 4            | 5      |        |        |
| 1.44MB DDr. (1/2 High)               | 6450353    | 64F0207 |              | 8      |        |        |
| 1.44MB DDr. (1/3 High)               | 6451072    | 64F0162 | 7            | 8      |        |        |
| 1.44MB Slim- High DDr.               | 6451130    | 85F0050 |              |        | X      | X      |
| 2.88MB DDr.                          | 6451106    | 64F4148 |              |        | X      | X      |
| 1.2MB Internal 5.25-In Drive         | 6451066    | 64F4102 |              |        | X      | X      |
| <b>TAPE DRIVES AND OPTICAL DISKS</b> |            |         |              |        |        |        |
| 6157 Streaming Tape Adapter          | 59X4156    | 92X6063 | X            | X      |        |        |
| 3363 Optical Disk Adapter            | N/A        | 63X4157 | X            | X      |        |        |
| Internal Tape Backup                 | 30F5279    | 30F5263 |              |        | X      | X      |
| <b>PRINTERS AND SCANNERS</b>         |            |         |              |        |        |        |

PS/2 Option Compatibility and Reference Diskette Information  
Option Compatibility Chart

|                                 |         |         |   |   |   |   |
|---------------------------------|---------|---------|---|---|---|---|
| High Speed Adapter              | 65X2016 | 6456750 | X | X | X | X |
| 4250 Printer Adapter            | N/A     | 6193068 |   | 6 |   |   |
| Personal Page- printer Adapter  | N/A     | 75X8247 |   | 6 |   |   |
| 3117 Adapter                    | 65X2017 | 6456806 | X | X |   |   |
| <b>COMMUNICATIONS</b>           |         |         |   |   |   |   |
| Token Ring 16/4 Adapter w/o RPL | 25F7367 | 93F0334 | X | X | X | X |
| Token Ring 16/4 Adapter w/RPL   | -       | 92F9119 |   |   | X |   |
| Token Ring Network Adapter II   | 25F9858 | 16F0463 | X | X | X | X |
| Token Ring RPL Module           | 83X7839 | 83X7839 | X | X | X | X |
| PC Network Adapter              | 6450213 | 8286171 | X | X | X | X |
| PC Network Adapter II           | 1501220 | 72X8105 | X | X | X | X |
| PC Network Baseband             | 1501221 | 72X8101 | X | X | X | X |
| ARTIC Multiport (512KB)         | 85X2706 | 16F2223 |   | X | X | X |
| ARTIC Multiport Model 2 (1MB)   | 33F8971 | 33F8967 | X | X | X | X |
| BSC Adapter                     | 1501204 | 8286098 | X | X |   |   |
| SDLC Adapter                    | 1501205 | 8286099 | X | X | X | X |
| PS/2 3278/3279 Emulation        | 53F6425 | 53F6424 | X | X | X | X |
| Enhanced 5250 Emul. Adapter     | 30F5383 | 30F5384 | X | X | X | X |
| Serial/ Parallel Adapter        | 6450215 | 8286147 | X | X | X | X |
| S/370 Channel Emulator          | 6193413 | 70X5061 |   | 6 | X | X |
| 4683 Mod/2 Adapter              | 96X4842 | 67X0829 |   | X |   |   |
| <b>MISCELLANEOUS</b>            |         |         |   |   |   |   |
| 8087 Math Coprocessor (8MHz)    | 1501217 | 61X8922 | X | 6 |   |   |
| 80287 Math Coprocessor (10MHz)  | 6450356 | 72X8528 |   | 8 |   |   |
| Speech Adapter                  | 1501216 | 61X8921 | X | X |   |   |
| Speech Control Unit             | N/A     | 61X8934 | X | X |   |   |
| Screen Reader Adapter           | 6450602 | 33F4842 | X | X |   |   |
| Data Migration                  | 1501224 | 61X8936 | X | X | X | X |
| 5364 Driver                     | 4234548 | 4234520 |   | 6 |   |   |
| Game Control Adapter            | 1501300 | 8529151 | X | X | X | X |
| 4055 Infowindow EGA             | 56X2412 | 8654215 |   | X |   |   |
| 4055 IEGA Jumper                | 8565146 | 8575153 |   | X |   |   |
| GPIB Adapter                    | 6451503 | 6181770 |   | 6 |   |   |
| Mouse                           | 6450350 | 61X8923 | X | X | X | X |
| DAC Adapter                     | 6451502 | 6181768 |   | 6 |   |   |
| DAC Dist. Panel                 | 6451504 | 6181769 |   | 6 |   |   |
| Music Adapter                   | 81X8630 | 81X8620 | X | X |   |   |
| MIDI Adapter Unit               | N/A     | 81X8624 | X | X |   |   |
| PS/2 Display Adapter (VGA)      | 1887744 | 1887743 |   | 6 |   |   |
| Audio Capture/ Playback Adapter | 34F2783 | 34F2786 | X | X | X | X |
| <b>Legend</b>                   |         |         |   |   |   |   |
| 1 = 8525/8530 286               |         |         |   |   |   |   |

PS/2 Option Compatibility and Reference Diskette Information  
Option Compatibility Chart

|   |   |  |
|---|---|--|
| 2 | = | 8530-001; 8530 286   |
| 3 | = | 8530-001; 8530-021 with S/N 2500000 to 2999999 and 55AA001 to 55ZZ999; 8530 286  |
| 4 | = | All 8525 systems above S/N 0100000   |
| 5 | = | All 8530-001; 8530-002 with S/N 55A0001 to 55Z9999 and 7000000 to 7499999; 8530-021 with S/N 2500000 to 2999999 and 55AA001 to 55ZZ999 |
| 6 | = | 8530 only  |
| 7 | = | 8525 286 only  |
| 8 | = | 8530 286 only  |

The following list describes personal computer options that are compatible on the 8525, 8530, 8535, and 8540. Most options are listed in the preceding option compatibility chart.

Subtopics

- 2.1.1 2Mb Expanded Memory Adapter
- 2.1.2 PS/2 5.25-In External Diskette Drive Adapter
- 2.1.3 6157 Streaming Tape Drive Adapter
- 2.1.4 Optical Disk Adapter
- 2.1.5 High Speed Adapter
- 2.1.6 3117 Scanner Adapter
- 2.1.7 IBM Personal Pageprinter Adapter
- 2.1.8 4250 Printer Adapter
- 2.1.9 PC Network Adapter
- 2.1.10 PC Network Adapter II
- 2.1.11 PC Network Baseband Adapter
- 2.1.12 Token-Ring Network PC Adapter
- 2.1.13 Token-Ring Network PC Adapter II
- 2.1.14 Token-Ring Network 16/4 Adapter
- 2.1.15 Token-Ring Remote Program Load (RPL) Module
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- 2.1.36 Personal System/2 Speech Adapter
- 2.1.37 Personal System/2 Data Migration Facility
- 2.1.38 PC Music Feature
- 2.1.39 PS/2 Pointing Device (Mouse)
- 2.1.40 All Chargecard
- 2.1.41 Audio Capture and Playback Adapter

2.1.1 2Mb Expanded Memory Adapter

PICTURE 1

Figure 1. 2Mb Expanded Memory Adapter

This adapter provides 2Mb of expanded memory function and a standard parallel printer port for the 8530. The 2Mb Expanded Memory Adapter supports the device drivers resident within the 3270 Workstation Program, Version 1.0 or 1.1, that provide application programs with expanded memory support, an "EMS" interface, and up to two PC DOS virtual disk interfaces. The "EMS" is the expanded memory specification issued by Lotus, Intel, and Microsoft.

The 2Mb Expanded Memory Adapter may be installed in any full length slot of an 8530. Maximum: One.

*2.1.2 PS/2 5.25-In External Diskette Drive Adapter*

This attachment allows the 4869 to be connected to the 8525/30. It is a half-length feature card, and it occupies one expansion slot. The back of the card has a 37-pin D-shell connector that allows the 4869 External Diskette Drive unit to be attached. When installed, it becomes the B drive. Prerequisites: An available slot in the 8525/30. Maximum: One.

*2.1.3 6157 Streaming Tape Drive Adapter*

This adapter supports the attachment of a 6157 Streaming Tape Drive, which provides for data interchange as well as fixed-disk backup and restore at rates up to 5Mb per minute in image dump mode. Maximum: One. This adapter requires one expansion slot.

2.1.4 *Optical Disk Adapter*

PICTURE 2

Figure 2. Optical Disk Adapter

The optical disk adapter card supports the IBM\* 3363 drive units only. The 3363 Optical Disk Adapter card presents a high-level command interface to software I/O drivers. Representative commands are Read, Write, Seek, and Sense.

2.1.5 High Speed Adapter

PICTURE 3

Figure 3. High Speed Adapter

The High Speed Adapter is designed to provide an RS-422-A standard interface for attachment of the 3118 Scanner and 3117 Scanner with Extension Unit attachment to the 8525/30. The High Speed Adapter permits the 3118 Scanner or the 3117 Scanner with Extension Unit to send image data to the 8525/30 at a maximum speed of 1Mb/ps, using the RS-422-A interface. This adapter requires one expansion slot. Maximum: One.

2.1.6 3117 Scanner Adapter

PICTURE 4

Figure 4. 3117 Scanner Adapter

The 3117 Scanner Adapter is designed to provide the capability of attaching the 3117 Scanner to the 8525/30. The 3117 Scanner Adapter provides the function of 3117 mechanical control, charged couple devices (CCD) image sensor control, and video signal processing to capture image data from 3117 Scanner operations. This adapter requires one expansion slot. Maximum: One.

*2.1.7 IBM Personal Pageprinter Adapter*

This adapter provides a component of the IBM SolutionPac Personal Publishing System for users who wish to acquire the components and configure a unique solution utilizing the IBM Personal Pageprinter 4216 Model 020. Prerequisites: An available expansion slot in the 8530. Maximum: One.

2.1.8 4250 Printer Adapter

PICTURE 5

Figure 5. Print Adapter Card

This adapter provides the capability to communicate with a 4250 II ElectroCompositor or a 4250 printer over a standard 3270 communication link. Uses an available expansion slot.

### 2.1.9 PC Network Adapter

The network adapter jumpers perform the following functions:

|               |                                       |
|---------------|---------------------------------------|
| <b>W1</b>     | Automatic IPL                         |
| <b>W2</b>     | Not used                              |
| <b>W3</b>     | Sets adapter to use interrupt level 2 |
| <b>W4</b>     | Sets adapter to use interrupt level 3 |
| <b>W5, W7</b> | Sets adapter as alternate adapter     |
| <b>W6</b>     | Sets adapter as primary adapter       |
| <b>W8</b>     | Enables ROM on adapter.               |

PICTURE 6

Figure 6. PC Network Adapter

This adapter allows the 8525/30 to be connected to an IBM PC network. The PC network is a low-cost broadband local area network that is designed for offices, departments, and small businesses. Using the PC Network Program, or the PC Local Area Network Program, it supports peer-to-peer communications among processors in the network. Standard broadband components and 75-ohm coaxial cable (CATV compatible) are used to provide a reliable low-maintenance network that uses carrier sense multiple access/collision detection (CSMA/CD) protocol to transmit data at 2Mb/ps. Each processor on the network requires the network adapter, which has a unique serial number contained in ROM that is used as the network identifier of the processor in which the adapter is installed. The network adapter contains an Intel 80188 Processor, Intel 82586 Network Controller, a fixed-frequency modem, and network microcode that off-loads the network control and interface functions from the system microprocessor. The fixed-frequency modem operates at a 50.75 MHz transmit frequency and a 219 MHz receive frequency for transmission on a single-cable broadband network. Direct memory access is used for data transfer. The network microcode (NETBIOS) that resides in the network adapter's ROM is the basis of program control of the network. NETBIOS supports up to 32 peer-to-peer sessions active at one time. The network adapter is provided with a 9-ft cable for attaching the processor to the 5178 Network Translator unit. Additional PC Network cabling components connect to allow the processor with the network adapter to be located up to 1,000 ft from the 5178 unit.

2.1.10 PC Network Adapter II

PICTURE 7

Figure 7. PC Network Adapter II

This feature card connects the 8525/30 to a PC Network. It is compatible with the form factor and bus design of the original IBM Personal Computer\*. This adapter requires one expansion slot.

2.1.11 PC Network Baseband Adapter

PICTURE 8

Figure 8. PC Network Baseband Adapter

This feature card connects the 8525/30 to the PC Baseband Network. It is compatible with the form factor and bus design of the original IBM Personal Computer with greater Intel 80286 and 8086 processing speeds. This adapter requires one expansion slot.

2.1.12 Token-Ring Network PC Adapter

PICTURE 9

Figure 9. IBM Token-Ring Network Adapter

The Token-Ring Network Adapter is a feature card which contains a microprocessor operating under control of adapter-resident microcode. The adapter transmits and receives at a speed of 4Mb/ps using protocols conforming to IEEE 802.5 and ECMA 89 standards. The adapter provides logical link control functions conforming with the IEEE 802.2 standard. Diagnostics invoked during adapter initialization verify the adapter operation and check out the cabling to the access unit. The adapter detects permanent errors, such as loss of receive signal, and generates a notification signal to initiate automatic network recovery. Recoverable errors, such as bit errors in the transmitted message, are detected by the adapter for subsequent reporting to a ring diagnostic program.

2.1.13 Token-Ring Network PC Adapter II

PICTURE 10

Figure 10. Token-Ring Adapter II

This option provides an alternative for attaching the 8525/30 to the Token-Ring Network. In addition to the function provided by the Token-Ring Network Adapter, this feature can be used to attach devices that require additional RAM for increasing message segment size and/or increasing the number of link stations supported by the adapter. For example, the Token-Ring Network PC Adapter II in a server may improve performance when multiple workstations require simultaneous access to the server. Prerequisites: Requires a system expansion slot.

2.1.14 *Token-Ring Network 16/4 Adapter*

The IBM Token-Ring Network 16/4 Adapter provides for the attachment of Personal Computers 5160, 5162, and 5170 and Personal System/2 8525 and 8530 to the IBM Token-Ring Network. Attachment is provided for rings operating at either 4 Mbps or 16 Mbps.

The IBM Token-Ring Network 16/4 Adapter is an enhanced, high performance companion to the 4 Mbps IBM Token-Ring Network PC Adapter II. Major functional enhancements include the ability to attach to rings operating at 16 Mbps and the inclusion of 64Kb of shared RAM buffer memory. This new adapter is compatible at the PC internal bus and, when running at 4 Mbps, with the previously announced IBM Token-Ring Network PC Adapters. It requires a single standard length (approximately 8 in) feature slot in the supported PCs and PS/2s.

The IBM Token-Ring Network 16/4 Adapter protocols conform to IEEE 802.5 and ECMA 89 standards. The adapter provides logical link control functions conforming with the IEEE 802.2 standard and is compatible with International Standard ISO 8802/5.

2.1.15 *Token-Ring Remote Program Load (RPL) Module*

The IBM Token-Ring Network Remote Program Load (RPL) feature allows IBM PCs or PS/2 Models 25 and 30, with the appropriate Token-Ring Adapter, to gain access to the Token-Ring Network and request program loads, even though the system may not have a disk or diskette drive. The RPL is a 24-pin module designed to be plugged into a designated socket on the Token-Ring Network PC Adapter II.

There are two IBM Token-Ring Network RPL features. Both features are functionally equivalent but are designed for different IBM Token-Ring Network adapters (Micro Channel and non-Micro Channel architecture).

**Note:** The RPL module is a separate FRU. When replacing a defective Token-Ring Adapter card, the RPL module should be removed and transferred to the new card.

2.1.16 Serial/Parallel Adapter

PICTURE 11

Figure 11. Serial/Parallel Adapter

This option provides a serial port and a parallel port. It occupies only one expansion slot. The serial portion is fully programmable and supports asynchronous communications from 50 to 9600 bps. The back of the adapter has a 9-pin D-shell connector that is classified as an RS-232-C port. When the optional 10-ft serial adapter cable or 10-in serial adapter connector is connected to the adapter, the 25-pin end of the cable or connector has all the signals of a standard EIA RS-232-C interface. The parallel portion of the adapter provides the ability to attach various devices that accept 8 bits of parallel data. The parallel port is provided by a 25-pin, D-shell connector. Maximum: Two.

Limitations: This adapter does not support current loop operation. This adapter requires one expansion slot.

2.1.17 Binary Synchronous Communications (BSC) Adapter

PICTURE 12

Figure 12. Binary Synchronous Communications Adapter

This adapter provides an EIA RS-232-C interface. A maximum of two adapters may be installed. Only one adapter may be installed if an SDLC Adapter is installed. This adapter requires one expansion slot.

*2.1.18 Synchronous Data Link Communications (SDLC) Adapter*

PICTURE 13

Figure 13. Synchronous Data Link Communications Adapter

This adapter provides an EIA RS-232-C interface. Only one SDLC Adapter may be installed. This adapter requires one expansion slot.

2.1.19 Data Acquisition and Control (DAC) Adapter

PICTURE 14

Figure 14. Data Acquisition and Control Adapter

This adapter provides analog input/output channels and digital input/output ports to receive data from and send data to instruments and devices. The adapter provides four analog input channels with throughput to memory at 15,000 conversions per second, two analog output channels with throughput to memory at 25,000 conversions per second (both with 12-bit resolution and user-selectable unipolar or bipolar modes), 16 digital input lines and 16 digital output lines with programmed or interrupting mode of operation for analog input/output channels, and programmed I/O mode for digital input/output. Prerequisites: An available slot in the 8530 for each adapter desired. Maximum: Three.

2.1.20 DAC Adapter Distribution Panel

PICTURE 15

Figure 15. Data Acquisition and Control Adapter Distribution Panel

This panel provides easy access to the I/O signals, voltages, and grounds of the Data Acquisition and Control Adapter and is connected to that adapter by a shielded flat cable 34 in long that is permanently connected to the panel. The distribution panel is a printed circuit board with four barrier-type screw terminal strips, which provide a total of 88 terminations. The circuit board is housed in a metal enclosure that is slotted to allow user cabling to enter and exit the panel. This panel can be used to quickly connect, change, or remove instruments and/or control points being used. Prerequisites: A Data Acquisition and Control Adapter for each panel desired. Maximum: Three.

2.1.21 General Purpose Interface Bus (GPIB) Adapter

PICTURE 16

Figure 16. GPIB Adapter

This adapter provides an interface between the IBM Processor and the IEEE-488 General Purpose Interface Bus (GPIB), allowing control of up to 48 devices or instruments (such as plotters, multimeters, and disk drives). The adapter is designed to the ANSI/IEEE-488 standard, including the 488-1980 supplement, and supports up to 14 devices or instruments. The adapter provides a direct memory access data rate of up to 300Kb/ps and programmed I/O data rate of up to 10Kb/ps. It allows the user to select interrupt level and memory access channels. Prerequisites: An available slot in the 8530 for each adapter desired. Limitations: This adapter card should be inserted in either of the bottom two slots in the 8530. Maximum: One.

2.1.22 Enhanced 5250 Display Station Emulation Adapter

PICTURE 17

Figure 17. Enhanced 5250 Display Station Emulation Adapter

This adapter permits an 8525/30 to be connected to a S/34, S/36, or S/38 directly or remotely via the 5294 Remote Control Unit to emulate a 5250 workstation. This adapter is supported by the Enhanced 5250 Emulation Program. As a 5250 workstation, the 8525/30 can emulate a 5291 or 5292 display and a 5256 or 5219 printer. One or two host sessions and one native mode session can be active concurrently. Prerequisites: An available expansion slot in the 8525/30. Maximum: One.

2.1.23 S/370 Channel Emulator

PICTURE 18

Figure 18. S/370 Channel Emulator

The S/370 Channel Emulator is an adapter card for the 8530, which emulates the operation of an IBM System/370\* channel. The card may be used with appropriate application software to channel attach certain S/370 devices to the PS/2.

2.1.24 3278/3279 Emulation Adapter

PICTURE 19

Figure 19. 3278/79 Emulation Adapter

This adapter expands the capabilities of the 8525/30 by providing coaxial cable attachment to the 3174, 3274, and 3276 Control Unit; the 4321, 4331, or 4361 Processor Display/Printer Adapter; the 4361 Workstation Adapter; or the 4701 Finance Communication Controller. When used with the IBM PC 3270 Emulation Program, Entry Level, the 8525/30 can emulate the functions of a 3278 Display Station Model 2 or a 3279 Color Display Station Model 2A or S2A, and it can support file transfer with the host. Both the host-controlled 3270 session and a local PC DOS session can be active concurrently, and the user can interact with either session alternately. The 3278/79 Emulation Adapter and the speech adapter cannot be installed in the same system unit. Prerequisites: An available expansion slot. Maximum: One.

*2.1.25 IBM Realtime Interface Coprocessor Multiport*

The IBM Realtime Interface Coprocessor Multiport Adapter is a single-slot, multiple device, interface subsystem. This feature includes the real-time control microcode that provides a real-time, multi-tasking operational environment for supporting applications running on the coprocessor. The coprocessor is designed to attach to a wide variety of equipment. The coprocessor is based on a high-performance Intel 80186 Microprocessor with up to 512Kb of user memory. Typical applications include protocol and/or data conversion for outboard devices, multiline communication concentrator, and other functions to off-load the 8530 Personal or Industrial Computer.

The Multiport Adapter Model 2 provides greater throughput on the serial I/O ports, onboard memory of 1MB, and more electrical interface selections for connection to outboard devices and/or communication lines.

2.1.26 *IBM Four-Port Addition*

The Four-Port RS-422 Addition attaches to the IBM Realtime Interface Coprocessor Multiport to provide an additional four RS-422 serial input/output ports to the coprocessor adapter.

*2.1.27 4683 Model 2 Attachment Adapter*

The 4683 Model 2 Attachment Adapter provides the capability for attaching one or two 4683 Model 2 or A02 Point-of-Sale Terminals to an 8530.

Prerequisites: An available full-feature slot in the system unit.

Maximum: One.

2.1.28 InfoWindow Enhanced Graphics Adapter (IEGA)

PICTURE 20

Figure 20. IEGA Adapter

Provides the digital RGB text and graphics to the InfoWindow\* Display. Up to 640 | 350 resolution for high-definition graphics and 8 | 14 pel character quality for text. Allows up to 16 colors selectable from a 64-color palette under program control. Prerequisites: Enhanced Graphics Adapter jumper card. This adapter requires one expansion slot. The InfoWindow environment also requires the GPIB Adapter and Cable.

2.1.29 Enhanced Graphics Adapter (EGA) Jumper Card

PICTURE 21

Figure 21. Enhanced Graphics Adapter Jumper Card

This card provides an external synchronization from the IBM 4055 InfoWindow Display to allow text and graphics stored on the 8530 to overlay motion or still frame video stored on a videodisc player and displayed on the 4055 InfoWindow. The IBM EGA jumper card attaches to the feature connector of the InfoWindow Enhanced Graphics Adapter and to the IBM General Purpose Interface Bus Adapter (IRQ connector Row B, pins 2-6).  
Maximum: One.

*2.1.30 IBM Personal System/2 Screen Reader*

This feature enables the blind or visually impaired computer user to "hear" the display as the sighted computer user would "see" it. Screen Reader\* consists of an 18-key keypad, software, and documentation in print, on cassette, and online diskette.

2.1.31 Game Control Adapter

PICTURE 22

Figure 22. Game Control Adapter

The Game Control Adapter can have up to two joysticks or up to four game paddles attached. This adapter can also be used as a general-purpose I/O card with four analog (resistive) inputs plus four digital input points. This adapter requires one expansion slot.

*2.1.32 Personal System/2 Display Adapter*

The Personal System/2 Display Adapter provides support for attachment of one of the following displays: 8503, 8512, 8513, and 8514.

2.1.33 5364 Driver Card

This card allows connection to the S/36 5364 System Unit. This adapter requires one expansion slot.

*2.1.34 Personal System/2 8087 Math Coprocessor*

This feature is a high-performance numeric 8087 Math Coprocessor extension with floating point, extended integer, and BCD data types. When installed, it works in parallel with other system functions and enables the system to perform high-speed arithmetic, logarithmic functions, and trigonometric operations. This feature is inserted into the math coprocessor socket on the system board and does not require an expansion slot.

*2.1.35 Personal System/2 80287 Math Coprocessor*

This feature is a high-performance numeric 80287 Math Coprocessor used for the 8530 286. This feature is inserted into the math coprocessor socket on the system board and does not require an expansion slot.

2.1.36 *Personal System/2 Speech Adapter*

This adapter allows the user to add voice capability to the 8525/30. It provides two technologies for speech reproduction: speech encoding (speech to data) and decoding (data to speech) using a continuously variable slope delta (CVSD) modulation technique, and speech synthesis using linear predictive coding (LPC). Nonapplication-oriented software support needed to control the speech adapter is incorporated into an internal ROM module. This adapter requires one expansion slot. Limitation: The speech adapter and the 3278/79 Emulation Adapter cannot be installed in the same system unit.

*2.1.37 Personal System/2 Data Migration Facility*

This connecting tool provides an easy method for customer file transfers from an installed PC with a 5.25-in diskette drive to the Personal System/2. It will operate via the printer cable on the existing system and the parallel port on the new system.

2.1.38 PC Music Feature

PICTURE 23

Figure 23. PC Music Feature

This feature provides FM stereo sound output with 336 voices/instruments, 240 that are preset and 96 that are user programmable. Up to eight voices/instruments may be selected simultaneously, permitting an ensemble performance. Limitations: A maximum of two PC music feature cards can be installed in a system unit. Prerequisites: The PC music feature requires a full-size slot.

*2.1.39 PS/2 Pointing Device (Mouse)*

This option is a two-button mechanical mouse for those users whose applications are more efficiently operated using this type of device. The mouse plugs into the system unit and no additional hardware features are required. It does not require external power.

2.1.40 All Chargecard

The All Chargecard provides the PS/2 Model 30 286 with an advanced memory management unit. It is a credit card sized board that installs between the 80286 processor and its socket. It uses the unused portions of the address space between 640KB and 1024KB to expand the amount of memory available for DOS applications.

*2.1.41 Audio Capture and Playback Adapter*

This adapter provides the capability to capture and playback near-CD quality audio through standard audio input/output devices. It is intended for use with the Audio Visual Connection Program. The adapter accepts audio input signals from a microphone or line output cord through a standard mini-jack on the card. It converts the analog signal to a digital format, which is compressed and stored for later use. As a playback vehicle, the adapter converts the compressed, digitized sound back to an analog signal for playback through headphones/speakers or an amplifier (line out).

## **PS/2 Option Compatibility and Reference Diskette Information**

Personal System/2 Options and Adapters (8543, 8550, 8555, 8557, 8560, 8565, 8570, P70, P75, 8580, 8590, and 8595)

3.0 *Personal System/2 Options and Adapters (8543, 8550, 8555, 8557, 8560, 8565, 8570, P70, P75, 8580, 8590,*

This section addresses PS/2 options and adapters designed to function with the PS/2's Micro Channel architecture.

### Subtopics

3.1 Option Compatibility Chart (Machine Types 8543, 8550, 8555, 8557, 8560, and 8565)

3.2 Option Compatibility Chart (Machine Types 8570, 8573 P70, 8573 P75, 8580, 8590, and 8595)

3.1 Option Compatibility Chart (Machine Types 8543, 8550, 8555, 8557, 8560, and 8565)

| Option Name                          | Option No. | FRU No. | Machine Type |      |      |      |      |      |
|--------------------------------------|------------|---------|--------------|------|------|------|------|------|
|                                      |            |         | 8543         | 8550 | 8555 | 8557 | 8560 | 8565 |
| <b>MEMORY CARDS/KITS</b>             |            |         |              |      |      |      |      |      |
| 0-8Mb Exp Mem Adptr/A                | 1497259    | 1497253 |              | X    | X    |      | X    | X    |
| 1-8Mb Mem Exp Opt                    | 6450685    | 85F0480 |              | X    | X    |      | X    | X    |
| 0.5Kb Mem Module                     | 30F5348    | 1497256 |              | X    | X    |      | X    | X    |
| 2Mb Mem Mod Kit                      | 30F5360    | 74X8637 |              | X    | X    |      | X    | X    |
| 2-8Mb 80286 Mem Exp Opt              | 6450609    | 85F0480 |              | X    | X    |      | X    | X    |
| 80286 Mem Exp Adptr                  | 6450344    | 72X8532 |              | X    | X    |      | X    | X    |
| 80286 256Kb Mem Module               | 6450345    | 61X8906 |              | X    | X    |      | X    | X    |
| 2Mb Mem Mod Kit for 25MHz Sys (80ns) | 6450608    | 92F0103 |              |      |      |      |      | X    |
| <b>MEMORY SIMMS</b>                  |            |         |              |      |      |      |      |      |
| 1Mb (85ns)                           | 6450603    | 90X8624 |              | X    | X    |      | X    | X    |
| 2Mb (85ns)                           | 6450604    | 92F0104 |              | X    | X    |      | X    | X    |
| 4Mb (80ns)                           | 87F9977    | 87F9980 |              |      | X    |      |      | X    |
| 2Mb (80ns)                           | 79F0999    | 79F1002 | X            |      |      |      |      |      |
| 4Mb (80ns)                           | 79F1000    | 79F1003 | X            |      |      |      |      |      |
| 8Mb (80ns)                           | 79F1001    | 79F1004 | X            |      |      |      |      |      |
| 2Mb (70ns)                           | 6450902    | 92F0102 |              |      |      | X    |      |      |
| 4Mb (70ns)                           | 6450128    | 92F0105 |              |      |      | X    |      |      |
| 8Mb (80ns)                           | 6450130    | 64F3606 |              |      |      | X    |      |      |
| <b>HARDFILES</b>                     |            |         |              |      |      |      |      |      |
| 20Mb                                 | 6451075    | 72X8522 |              | X    |      |      |      |      |
| 30Mb                                 | -          | 64F4146 |              |      | X    |      |      |      |
| 30Mb                                 | -          | 6128287 |              | X    |      |      |      |      |
| 40Mb (SCSI)                          | 6451047    | 56F8896 |              |      | 4    |      |      |      |
| 44Mb (ST506)                         | 6450354    | 72X8541 |              |      |      |      | X    |      |
| 60Mb (ESDI)                          | 6450606    | 6128294 |              | X    |      |      |      |      |
| 60Mb (SCSI)                          | 6451049    | 6128296 |              |      |      | X    | X    | X    |
| 60Mb                                 | -          | 79F1009 | X            |      |      |      |      |      |
| 60Mb                                 | -          | 85F0049 |              |      | X    |      |      |      |
| 70Mb (ESDI)                          | 6450355    | 72X8519 |              |      |      |      | X    |      |
| 80Mb (SCSI)                          | 6451043    | 56F8892 |              |      | 4    |      |      |      |
| 80Mb (SCSI)                          | 6451045    | 56F8854 |              |      |      | X    | X    | X    |
| 115Mb (ESDI)                         | 6450377    | 90X7392 |              |      |      |      | X    |      |
| 120Mb (ESDI)                         | -          | 6128291 |              |      |      |      |      |      |
| 120Mb (SCSI)                         | 6451050    | 6128298 |              |      |      | X    | X    | X    |
| 160Mb (SCSI)                         | 6451046    | 56F8851 |              |      |      | X    | X    | X    |
| 160Mb (SCSI)                         | 6451044    | 56F8893 |              |      |      |      | X    |      |
| 320Mb (SCSI)                         | 6451108    | 85F0011 |              |      |      |      | X    | X    |
| 400Mb (SCSI)                         | 6451081    | 85F0012 |              |      |      |      | X    | X    |
| <b>DISKETTE DRIVES</b>               |            |         |              |      |      |      |      |      |

**PS/2 Option Compatibility and Reference Diskette Information**  
 Option Compatibility Chart (Machine Types 8543, 8550, 8555, 8557, 8560, and 8565)

|                                       |         |         |   |   |   |   |   |   |
|---------------------------------------|---------|---------|---|---|---|---|---|---|
| 1.44Mb (1/2)                          | 6450353 | 64F0207 |   | X |   |   | X |   |
| 1.44Mb (1/3)                          | 6451072 | 64F0162 |   |   | X |   |   | X |
| 1.44Mb Slim                           | N/A     | 38F5936 |   |   |   |   |   |   |
| 1.44Mb Thin                           | N/A     | 79F0983 | X |   |   |   |   |   |
| 1.44Mb Slim                           | 6451130 | 85F0050 |   |   |   | X |   |   |
| 1.44Mb Slim                           | N/A     | 79F3225 |   |   |   |   |   |   |
| 2.88Mb (1/3)                          | 6451106 | 64F4148 |   |   |   | X |   |   |
| -----                                 |         |         |   |   |   |   |   |   |
| Ext. DDr. Adapter/A (360Kb)           | 6450245 | 72X6758 | X |   |   |   | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| Ext. DDr. Adapter/A (1.2Mb)           | 6451007 | 15F7996 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| Ext. DDr. (360Kb)                     | 4869001 | 72X6759 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| Ext. DDr. (1.2Mb)                     | 4869002 | 15F7993 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| Int. DDr. (1.2Mb)                     | 6451006 | 64F4102 |   |   |   |   | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| <b>TAPE DRIVES</b>                    |         |         |   |   |   |   |   |   |
| <b>OPTICAL DISKS</b>                  |         |         |   |   |   |   |   |   |
| <b>COMPACT DISKS</b>                  |         |         |   |   |   |   |   |   |
| -----                                 |         |         |   |   |   |   |   |   |
| Intl. Tape Backup Unit                | 30F5279 | 30F5273 |   | X | X |   | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| 6157 Tape Drive Adapter/A             | 92X1458 | 92X1459 |   | X | X |   | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| 3363 Optical DDr. Adptr.              | 63X4166 | 63X4266 |   | X | X |   | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| Internal Opt. Disk                    | 63X4166 | 68X8825 |   | X | X |   | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| CD-ROM Dr. Internal                   | 6451113 | 81F7930 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| CD-ROM Dr. External                   | 3510001 | 53F3422 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| 3.5-Inch Rewritable Optical Dr        | 6450162 | 85F0015 |   |   | X | X | X |   |
| -----                                 |         |         |   |   |   |   |   |   |
| <b>COMMUNICATIONS</b>                 |         |         |   |   |   |   |   |   |
| -----                                 |         |         |   |   |   |   |   |   |
| Dual Asynch-ronous Adapter/A          | 6451013 | 34F0008 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| Multiprotocol Adapter/A               | 6451003 | 90X8995 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| High Speed Adapter/A                  | 65X1905 | 65X1900 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| 3117 Adapter/A                        | 65X1925 | 65X1920 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| Pageprinter Adapter/A                 | 75X8627 | 75X8213 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| 3119 Adapter/A                        | 94X2415 | 94X2425 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| 3270 Con-nection                      | 74F3465 | 74F3464 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| Sys 36/38 W/S Emul. Adapter/A         | 69X6279 | 69X6294 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| 300/1200 Int. Modem/A                 | 6450349 | 34F0006 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| 300/1200/ 2400 Int. Modem/A           | 94X1755 | 65X1253 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| ISDN Interface Co-processor/2 Model 2 | 44F7228 | 45F7230 |   | X |   |   | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| Leased Line Modem                     | 26F1862 | 26F0724 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| 4680 Store Loop Adapter/A             | 83X8187 | 96X4852 |   |   | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| 4680 Second Store Loop Adapter/A      | 83X7575 | 96X4852 |   |   | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| 5250 DSEA Adapter/A                   | 92X0743 | 69X6294 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| ARTIC Multi-port/2 (512Kb)            | 09F1897 | 09F1888 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| ARTIC Multi-port/2 (1Mb)              | 16F1820 | 09F1962 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| X.25 I/F Coprocessor                  | 16F1858 | 44F7123 |   | X | X | X | X | X |
| -----                                 |         |         |   |   |   |   |   |   |
| ARTIC Port-master                     | 53F2601 | 53F2603 |   | X | X | X | X | X |

**PS/2 Option Compatibility and Reference Diskette Information**  
Option Compatibility Chart (Machine Types 8543, 8550, 8555, 8557, 8560, and 8565)

|   |         |         |  |   |   |   |   |   |   |
|---|---------|---------|--|---|---|---|---|---|---|
| Adapter/A                                     |         |         |  |   |   |   |   |   |   |
| Ethernet Adapter/A                            | 6451091 | 64F0217 |  | X | X | X | X | X |   |
| FaxConcen-<br>trator<br>Adapter/A             | 94X2530 | 94X2530 |  | X | X | X | X | X |   |
| Token Ring Adapter/A                          | 69X8138 | 25F7540 |  | X | X | X | X | X |   |
| Token Ring 16/4 Adapter/A                     | 16F1133 | 93F0331 |  | X | X | X | X | X |   |
| Token Ring RPL Module                         | 25F8887 | 83X9180 |  | X | X | X | X | X |   |
| PC Network Adapter II/A                       | 1501222 | 72X8106 |  | X | X | X | X | X |   |
| Token-Ring 16/4 Busmaster<br>Server Adapter/A | 74F4140 | 74F4149 |  | X | X | X | X | X |   |
| PC Network Baseband<br>Adapter/A              | 1501223 | 72X8102 |  | X | X | X | X | X |   |
| <b>MISCELLANEOUS</b>                          |         |         |  |   |   |   |   |   |   |
| 80287 Math Coprocessor                        | 6450356 | 72X8528 |  | X |   |   |   | X |   |
| 80387SX Math Coprocessor<br>(16MHz)           | 27F4676 | 33F8160 |  |   | X |   |   |   | X |
| SCSI Adapter                                  | 6451109 | 85F0002 |  | X | X | X | X | X |   |
| SCSI Adapter with Cache                       | 6451110 | 85F0000 |  | X | X | X | X | X |   |
| 8514/A Disp. Adptr/A                          | 1887972 | 1887971 |  | X | X | X | X | X |   |
| 8514 Mem. Expansion                           | 1887989 | 1887708 |  | X | X | X | X | X |   |
| Pointing Device (Mouse)                       | 6450350 | 61X8923 |  | X | X | X | X | X |   |
| XGA Display Adapter/A                         | 75X5887 | 75X5886 |  |   | X | X |   |   | X |
| M-Audio Capture/ Playback<br>Adapter/A        | 87F9909 | 34F2787 |  | X | X | X | X | X |   |
| Video Capture/ Playback<br>Adapter/A          | 34F2785 | 34F2788 |  | X | X | X | X |   |   |
| M-Motion Video Adapter/A                      | 34F3087 | 34F3091 |  | X | X | X | X | X |   |
| Enh M-Motion Video<br>Adapter/A               | 95F1091 | 95F1094 |  | X | X | X | X | X |   |
| Image Adapter/A                               | 07F4400 | 07F4401 |  | X | X | X | X | X |   |
| Image Adapter/A 1Mb                           | 44F9914 | 07F2508 |  | X | X | X | X | X |   |
| Image Adapter/A 3Mb                           | 44F9919 | 07F2481 |  | X | X | X | X | X |   |
| Screen Reader                                 | 6450602 | 1393515 |  | X | X |   |   | X | X |
| <b>Legend</b>                                 |         |         |  |   |   |   |   |   |   |
| 1 = Model 041/071                             |         |         |  |   |   |   |   |   |   |
| 2 = Models 081/111/121/161/311/321            |         |         |  |   |   |   |   |   |   |
| 3 = Model A21/A61/B21/B61                     |         |         |  |   |   |   |   |   |   |
| 4 = Models LTO/LEO                            |         |         |  |   |   |   |   |   |   |
| 5 = Models E61/121                            |         |         |  |   |   |   |   |   |   |

3.2 Option Compatibility Chart (Machine Types 8570, 8573 P70, 8573 P75, 8580, 8590, and 8595)

| Option Name                          | Option No. | FRU No. | Machine Type |          |          |      |      |      |
|--------------------------------------|------------|---------|--------------|----------|----------|------|------|------|
|                                      |            |         | 8570         | 8573 P70 | 8573 P75 | 8580 | 8590 | 8595 |
| <b>MEMORY CARDS/KITS</b>             |            |         |              |          |          |      |      |      |
| Enh 80386 Mem Exp (2Mb)              | 34F3077    | 87F9916 | X            | X        |          | X    |      |      |
| 80386 Sys Bd Mem Exp/1Mb             | 6450375    | 72X6670 |              |          |          | 1    |      |      |
| 80386 Sys Bd Mem Exp/2Mb             | 6450379    | 92F0669 |              |          |          | 2    |      |      |
| 2-8Mb 80386 Mem Exp Opt              | 6450605    | 90X9556 | X            | X        | X        | X    |      |      |
| 2Mb Mem Mod Kit for 25MHz Sys (80ns) | 6450608    | 92F0103 | 3            |          |          |      | X    | X    |
| 80386 Mem Exp Adptr                  | 6450367    | 72X6671 | X            | X        |          | X    |      |      |
| 80386 Mem Exp Adptr Kit/2Mb          | 6450372    | 72X6672 | X            | X        |          | X    |      |      |
| <b>MEMORY SIMMS</b>                  |            |         |              |          |          |      |      |      |
| 1Mb (85ns)                           | 6450603    | 90X8624 | X            | X        |          | X    | X    | X    |
| 2Mb (85ns)                           | 6450604    | 92F0104 | X            | X        | X        | X    | X    | X    |
| 4Mb (80ns)                           | 87F9977    | 87F9980 | X            | X        |          | X    | X    | X    |
| 2Mb (70ns)                           | 6450902    | 92F0102 |              |          | X        |      | X    | X    |
| 4Mb (70ns)                           | 6450128    | 92F0105 |              |          | X        |      | X    | X    |
| <b>HARDFILES</b>                     |            |         |              |          |          |      |      |      |
| 30Mb                                 | -          | 64F4146 |              |          |          |      |      |      |
| 30Mb                                 | -          | 6128287 |              | X        |          |      |      |      |
| 44Mb (ST506)                         | 6450354    | 72X8541 |              |          |          | X    |      |      |
| 60Mb (ESDI)                          | 6450606    | 6128294 | X            | X        |          |      |      |      |
| 60Mb (SCSI)                          | 6451049    | 6128296 |              |          |          | X    | X    | X    |
| 60Mb                                 | -          | 79F1009 |              |          |          |      |      |      |
| 60Mb                                 | -          | 85F0049 |              |          |          |      |      |      |
| 70Mb (ESDI)                          | 6450355    | 72X8519 |              |          |          | X    |      |      |
| 80Mb (SCSI)                          | 6451043    | 56F8892 | X            |          | X        |      |      |      |
| 80Mb (SCSI)                          | 6451045    | 56F8854 |              |          |          | X    | X    | X    |
| 115Mb (ESDI)                         | 6450377    | 90X7392 |              |          |          | X    |      |      |
| 120Mb (ESDI)                         | -          | 6128291 | X            | X        | X        |      |      |      |
| 120Mb (SCSI)                         | 6451050    | 6128298 | X            |          | X        | X    | X    | X    |
| 160Mb (SCSI)                         | 6451046    | 56F8851 |              |          | X        | X    | X    | X    |
| 160Mb (SCSI)                         | 6451044    | 56F8893 | X            |          |          |      |      |      |
| 314Mb (ESDI)                         | 6450381    | 90X8745 |              |          |          | X    |      |      |
| 320Mb (SCSI)                         | 6451108    | 85F0011 | X            |          | X        | X    | X    | X    |
| 400Mb (SCSI)                         | 6451081    | 85F0012 | X            |          | X        | X    | X    | X    |
| <b>DISKETTE DRIVES</b>               |            |         |              |          |          |      |      |      |
| 1.44Mb (1/2)                         | 6450353    | 64F0207 | X            |          |          |      |      |      |
| 1.44Mb (1/3)                         | 6451072    | 64F0162 | X            |          |          | X    | X    | X    |
| 1.44Mb Slim                          | N/A        | 38F5936 |              | X        | X        |      |      |      |
| 1.44Mb Thin                          | N/A        | 79F0983 |              |          |          |      |      |      |
| 1.44Mb Slim                          | 6451130    | 85F0050 |              |          |          |      |      |      |
| 1.44Mb Slim                          | N/A        | 79F3225 |              |          | X        |      |      |      |
| 2.88Mb (1/3)                         | 6451106    | 64F4148 |              |          |          |      |      |      |
| Ext. DDr. Adapter/A (360Kb)          | 6450245    | 72X6758 | X            | X        |          | X    |      |      |

**PS/2 Option Compatibility and Reference Diskette Information**  
 Option Compatibility Chart (Machine Types 8570, 8573 P70, 8573 P75, 8580, 8590, and 8595)

|   |         |         |   |   |   |   |   |   |   |
|---|---------|---------|---|---|---|---|---|---|---|
| Ext. DDR. Adapter/A<br>(1.2Mb)            | 6451007 | 15F7996 | X | X | X | X | X | X | X |
| Ext. DDR. (360Kb)                         | 4869001 | 72X6759 | X | X | X | X | X | X | X |
| Ext. DDR. (1.2Mb)                         | 4869002 | 15F7993 | X | X | X | X | X | X | X |
| Int. DDR. (1.2Mb)                         | 6451006 | 64F4102 |   |   |   | X | X | X |   |
| <b>TAPE DRIVES</b>                        |         |         |   |   |   |   |   |   |   |
| <b>OPTICAL DISKS</b>                      |         |         |   |   |   |   |   |   |   |
| <b>COMPACT DISKS</b>                      |         |         |   |   |   |   |   |   |   |
| Intl. Tape Backup Unit                    | 30F5279 | 30F5273 | X |   | X | X | X | X | X |
| 6157 Tape Drive Adapter/A                 | 92X1458 | 92X1459 | X | X | X | X | X | X | X |
| 3363 Optical DDR. Adptr.                  | 63X4166 | 63X4266 |   | X | X | X | X | X | X |
| Internal Opt. Disk                        | 63X4166 | 68X8825 |   | X | X | X | X | X | X |
| CD-ROM Dr. Internal                       | 6451113 | 81F7930 | X |   | X | X | X | X | X |
| CD-ROM Dr. External                       | 3510001 | 53F3422 | X |   | X | X | X | X | X |
| 2.3GB Full High SCSI Tape<br>Dr           | 6451121 | 85F0055 |   |   |   |   |   |   | X |
| 3.5-Inch Rewritable<br>Optical Dr         | 6450162 | 85F0015 |   |   |   | X | X | X |   |
| <b>COMMUNICATIONS</b>                     |         |         |   |   |   |   |   |   |   |
| Dual Asynch-ronous<br>Adapter/A           | 6451013 | 34F0008 | X | X | X | X | X | X | X |
| Multiprotocol Adapter/A                   | 6451003 | 90X8995 | X | X | X | X | X | X | X |
| High Speed Adapter/A                      | 65X1905 | 65X1900 | X | X |   | X |   |   |   |
| 3117 Adapter/A                            | 65X1925 | 65X1920 | X | X | X | X |   |   |   |
| Pageprinter Adapter/A                     | 75X8627 | 75X8213 | X | X |   | X | X | X |   |
| 3119 Adapter/A                            | 94X2415 | 94X2425 | X | X | X | X | X | X | X |
| 3270 Con-nection                          | 74F3465 | 74F3464 | X | X | X | X | X | X | X |
| Sys 36/38 W/S Emul.<br>Adapter/A          | 69X6279 | 69X6294 | X | X | X | X | X | X | X |
| 300/1200 Int. Modem/A                     | 6450349 | 34F0006 | X | X | X | X | X | X | X |
| 300/1200/ 2400 Int.<br>Modem/A            | 94X1755 | 65X1253 | X | X | X | X | X | X | X |
| ISDN Interface Co-<br>Processor/2 Model 2 | 44F7228 | 45F7230 | X |   |   | X | X | X |   |
| Leased Line Modem                         | 26F1862 | 26F0724 | X |   | X | X | X | X |   |
| 4680 Store Loop Adapter/A                 | 83X8187 | 96X4852 | X |   |   | X | X | X |   |
| 4680 Second Store Loop<br>Adapter/A       | 83X7575 | 96X4852 | X |   |   | X | X | X |   |
| 5250 DSEA Adapter/A                       | 92X0743 | 69X6294 | X | X | X | X | X | X | X |
| ARTIC Multi- port/2<br>(512Kb)            | 09F1897 | 09F1888 | X | X | X | X | X | X | X |
| ARTIC Multi- port/2 (1Mb)                 | 16F1820 | 09F1962 | X | X | X | X | X | X | X |
| X.25 I/F Coprocessor                      | 16F1858 | 44F7123 | X | X | X | X | X | X | X |
| ARTIC Port- master<br>Adapter/A           | 53F2601 | 53F2603 | X | X | X | X | X | X | X |
| Ethernet Adapter/A                        | 6451091 | 64F0217 | X | X | X | X | X | X | X |
| FaxConcen- trator<br>Adapter/A            | 94X2530 | 94X2530 | X | X | X | X | X | X | X |
| Token Ring Adapter/A                      | 69X8138 | 25F7540 | X | X | X | X | X | X | X |

**PS/2 Option Compatibility and Reference Diskette Information**  
Option Compatibility Chart (Machine Types 8570, 8573 P70, 8573 P75, 8580, 8590, and 8595)

|  |         |         |   |   |   |   |   |   |   |
|--|---------|---------|---|---|---|---|---|---|---|
| Token Ring 16/4 Adapter/A                  | 16F1133 | 93F0331 | X | X | X | X | X | X | X |
| Token Ring RPL Module                      | 25F8887 | 83X9180 | X |   | X | X | X | X | X |
| Token Ring P70 386 Adapter/A               | 39F9598 | 25F7540 |   | X | X |   |   |   |   |
| PC Network Adapter II/A                    | 1501222 | 72X8106 | X | X | X | X | X | X | X |
| Token-Ring 16/4 Busmaster Server Adapter/A | 74F4140 | 74F4149 | X | X | X | X | X | X | X |
| PC Network Baseband Adapter/A              | 1501223 | 72X8102 | X | X | X | X | X | X | X |
| <b>MISCELLANEOUS</b>                       |         |         |   |   |   |   |   |   |   |
| 80387 Math Coprocessor (16MHz)             | 6450369 | 72X6673 | X | X |   |   | 1 |   |   |
| 80387 Math Coprocessor (20MHz)             | 6450378 | 90X7393 | X | X |   |   | 2 |   |   |
| 80387 Math Coprocessor (25MHz)             | 6450607 | 15F7661 | 5 |   |   |   |   |   |   |
| Processor Upgrades                         |         |         |   |   |   |   |   |   |   |
| 486/25                                     |         |         |   |   |   |   |   |   |   |
| 486/25                                     | 6450876 | 64F0123 | X |   |   |   |   |   |   |
| 486/33                                     | 6450755 | 64F0201 |   |   |   |   |   | X | X |
| 486/50                                     | 6451094 | 64F0198 |   |   |   |   |   | X | X |
|  | 6450757 | 92F0048 |   |   |   |   |   | X | X |
| SCSI Adapter                               | 6451109 | 85F0002 | X | X | X | X | X | X | X |
| SCSI Adapter with Cache                    | 6451110 | 85F0000 | X | X | X | X | X | X | X |
| 8514/A Disp. Adptr/A                       | 1887972 | 1887971 | X |   | X | X | X | X | X |
| 8514 Mem. Expansion                        | 1887989 | 1887708 | X |   | X | X | X | X | X |
| Pointing Device (Mouse)                    | 6450350 | 61X8923 | X | X | X | X | X | X | X |
| XGA Display Adapter/A                      | 75X5887 | 75X5886 |   |   | X | X | X | X | X |
| M-Audio Capture/ Playback Adapter/A        | 87F9909 | 34F2787 | X |   | X | X | X | X | X |
| Video Capture/ Playback Adapter/A          | 34F2785 | 34F2788 | X |   | X | X | X | X | X |
| M-Motion Video Adapter/A                   | 34F3087 | 34F3091 | X |   | X | X | X | X | X |
| Enh M-Motion Video Adapter/A               | 95F1091 | 95F1094 | X |   | X | X | X | X | X |
| Image Adapter/A                            | 07F4400 | 07F4401 | X | X | X | X | X | X | X |
| Image Adapter/A 1Mb                        | 44F9914 | 07F2508 | X |   | X | X | X | X | X |
| Image Adapter/A 3Mb                        | 44F9919 | 07F2481 | X |   | X | X | X | X | X |
| Wizard Adapter                             | 34F3062 | 88F0063 | X | X | X | X | X | X | X |
| Screen Reader                              | 6450602 | 1393515 | X |   |   | X | X | X | X |
| <b>Legend</b>                              |         |         |   |   |   |   |   |   |   |
| 1 = Model 041/071                          |         |         |   |   |   |   |   |   |   |
| 2 = Models 081/111/121/161/311/321         |         |         |   |   |   |   |   |   |   |
| 3 = Model A21/A61/B21/B61                  |         |         |   |   |   |   |   |   |   |
| 4 = Models LTO/LEO                         |         |         |   |   |   |   |   |   |   |
| 5 = Models E61/121                         |         |         |   |   |   |   |   |   |   |

The information below describes PS/2 family options and adapters. Most options are listed in the preceding Option Compatibility Chart.

Option cards are smaller and redesigned for the Micro Channel architecture. Therefore, PS/2 family options and IBM PC family options are not compatible with each other.

Subtopics

- 3.2.1 80287 Math Coprocessor (8550 and 8560)
- 3.2.2 80387 Math Coprocessor (8555, 8565, 8570, 8573, and 8580)
- 3.2.3 80286 Memory Expansion Option (8550, 8555, 8560, and 8565)
- 3.2.4 80286 Memory Expansion Kit (8550, 8555, 8560, and 8565)
- 3.2.5 0Mb-8Mb Expanded Memory Adapter
- 3.2.6 1Mb-8Mb 286 Memory Expansion Option
- 3.2.7 2Mb-8Mb 80286 Memory Expansion Option
- 3.2.8 2Mb Memory Module Kit
- 3.2.9 0.5Mb Memory Module Kit
- 3.2.10 System Board Memory Expansion Kit (8580)
- 3.2.11 80386 Memory Expansion Adapter (8570, 8573, and 8580)
- 3.2.12 80386 Memory Expansion Kit (8570, 8573, and 8580)
- 3.2.13 2Mb-8Mb 80386 Memory Expansion Option
- 3.2.14 Enhanced 80386 Memory Options
- 3.2.15 5.25-in Diskette Adapter/A
- 3.2.16 5.25-in External Diskette Drive Adapter/A
- 3.2.17 20Mb Fixed Disk Drive
- 3.2.18 30Mb Fixed Disk Drive
- 3.2.19 5.25-in 44Mb Fixed Disk Drive (8560 and 8580)
- 3.2.20 60Mb Fixed Disk Drive
- 3.2.21 5.25-in 70Mb Fixed Disk Drive (8560 and 8580)
- 3.2.22 5.25-in 115Mb Fixed Disk Drive (8560 and 8580)
- 3.2.23 120Mb (ESDI) Fixed Disk Drive (8570, 8573)
- 3.2.24 5.25-in 314Mb Fixed Disk Drive (8580)
- 3.2.25 40Mb, 60Mb, 80Mb, 120Mb, 160Mb, 320Mb, and 400Mb SCSI Fixed Disk Drives
- 3.2.26 2.3GB Full High SCSI Tape Drive
- 3.2.27 6157 Streaming Tape Drive Adapter
- 3.2.28 3363 Optical Disk Drive
- 3.2.29 3363 Optical Drive Adapter
- 3.2.30 Internal Tape Backup Unit
- 3.2.31 CD-ROM Drive (Internal/External)
- 3.2.32 3.5-Inch Rewritable Optical Drive
- 3.2.33 System 36/38 Workstation Emulation Adapter/A
- 3.2.34 Dual Asynchronous Adapter
- 3.2.35 Multiprotocol Adapter
- 3.2.36 3270 Connection
- 3.2.37 300/1200 Internal Modem
- 3.2.38 300/1200/2400 Internal Modem/A
- 3.2.39 PS/2 Leased Line Modem
- 3.2.40 High Speed Adapter/A
- 3.2.41 3117 Adapter/A
- 3.2.42 IBM Realtime Interface Coprocessor Multiport/2
- 3.2.43 ARTIC Multiport/2 with 1Mb Memory
- 3.2.44 X.25 Interface Coprocessor/2
- 3.2.45 Realtime Interface Coprocessor Portmaster/A
- 3.2.46 IBM Personal Pageprinter Adapter/A
- 3.2.47 4680 Store Loop Adapter Kit
- 3.2.48 Store Loop Cable
- 3.2.49 4680 Second Store Loop Adapter
- 3.2.50 3119 PageScanner Adapter/A
- 3.2.51 PC Network Adapter II/A
- 3.2.52 PC Network Adapter II/A (Frequency 2 and 3)
- 3.2.53 IBM PC Network Baseband Adapter/A
- 3.2.54 IBM Token-Ring Network Adapter/A
- 3.2.55 Token-Ring 16/4 Adapter/A
- 3.2.56 IBM Token-Ring Network Adapter/A (Remote Program Load)
- 3.2.57 Token-Ring Network 16/4 Busmaster Server Adapter/A
- 3.2.58 PS/2 Adapter/A for Ethernet Networks
- 3.2.59 FaxConcentrator Adapter/A
- 3.2.60 ISDN Interface Co-Processor/2 Model 2
- 3.2.61 Pointing Device (Mouse)
- 3.2.62 XGA Display Adapter/A
- 3.2.63 Display Adapter 8514/A
- 3.2.64 8514 Display Adapter Memory Expansion Kit
- 3.2.65 IBM InfoWindow Attachment Kit
- 3.2.66 Image Adapter/A 1MB and 3MB
- 3.2.67 M-Audio Capture/Playback Adapter/A
- 3.2.68 Video Capture/Playback Adapter/A
- 3.2.69 M-Motion Video Adapter/A
- 3.2.70 Enhanced M-Motion Video Adapter/A
- 3.2.71 Wizard Adapter and Wizard Memory Expansion Option
- 3.2.72 SCSI Adapter
- 3.2.73 SCSI Adapter with Cache

*3.2.1 80287 Math Coprocessor (8550 and 8560)*

This companion processor to the 80286 Microprocessor increases speed and precision in arithmetic, logarithmic, and trigonometric functions. The parallel operation decreases operating time by allowing the coprocessor to do mathematical calculations while the 80286 Microprocessor continues to do other functions. A special socket on the system board is reserved for this optional processor chip.

**PS/2 Option Compatibility and Reference Diskette Information**  
80387 Math Coprocessor (8555, 8565, 8570, 8573, and 8580)

*3.2.2 80387 Math Coprocessor (8555, 8565, 8570, 8573, and 8580)*

This companion processor to the 80386 Microprocessor increases speed and precision in arithmetic, logarithmic, and trigonometric functions. The option is available in three speeds: 16 MHz, 20 MHz, and 25 MHz for Models 70, 73, and 80.

The optional 80387SX Math Coprocessor provides enhanced performance in arithmetic calculations for the PS/2 Models 8555 and 8565.

*3.2.3 80286 Memory Expansion Option (8550, 8555, 8560, and 8565)*

This option comes with 512Kb of random access memory (RAM) and is expandable in 512Kb increments to a maximum of 2Mb. The base field replaceable unit (FRU) card contains no RAM.

Two 256 | 9 single inline packages (SIPs) form a bank of 512Kb of pluggable, dynamic RAM. Each expansion card can support four banks. Special connectors allow easy memory expansion and repair. This option card plugs into any expansion slot in the system unit.

*3.2.4 80286 Memory Expansion Kit (8550, 8555, 8560, and 8565)*

This kit provides an additional 512Kb memory on the memory expansion option adapter. Each kit contains two 256Kb memory SIPs. Each memory expansion adapter comes with one memory expansion kit installed. Three additional kits can be installed on each memory adapter, for a total of 2Mb maximum on each adapter card.

3.2.5 0Mb-8Mb Expanded Memory Adapter

This adapter extends the memory of the PS/2 Models 50, 55, 60, and 65 up to 2Mb when using the IBM 3270 Workstation Program, Version 1.0 or 1.1. Users can run up to six PS/DOS sessions and/or up to four host sessions concurrently. PC/DOS applications written to the expanded memory specifications and/or requiring virtual disks are also supported by the IBM 3270 Workstation Program when utilizing this adapter.

This adapter extends the 8550, 8555, 8560, and 8565 memory to 3Mb when using the IBM Operating System/2 (standard or extended edition). Multiple adapters may be installed to extend the system memory when running IBM PS/2 (standard or extended edition). When using the IBM 3270 Workstation Program, only one adapter can be installed per PS/2 system unit.

This memory adapter is expandable up to 8Mb for all models of the 8550, 8555, 8560, and 8565.

### 3.2.6 1Mb-8Mb 286 Memory Expansion Option

This adapter expands memory up to 8MB by using existing memory kits: 1MB Memory Module Kit (85ns), and 2MB Memory Module Kit (85ns). This feature also comes with an expanded memory device driver compatible with "LIM EMS" Version 4.0, (Lotus/Intel/Microsoft Expanded Memory Specification Version 4.0). The adapter provides support for both extended and expanded memory applications. For expanded memory, support is provided for the IBM Work Station Program and for applications that adhere to the "LIM EMS" 4.0 specification. For extended memory, this adapter supports up to 8MB of contiguous memory for use with OS/2 standard and extended editions.

Limitations: In order to achieve the maximum capacity of 8MB, the standard 1MB memory module must be replaced with a 2MB Memory Module Kit. Maximum two cards per system up to the limits of the system address space or number of slot available.

*3.2.7 2Mb-8Mb 80286 Memory Expansion Option*

This adapter provides memory expansion for all models of the IBM 8550, 8555, 8560, and 8565. It is a 16-bit, full-length card with 2Mb of 85ns standard memory, expandable to a maximum of 8Mb using optional memory kits (1Mb and 2Mb). It can be installed in any open expansion slot and contains no jumpers or switches.

3.2.8 2Mb Memory Module Kit

This kit expands the memory capacity of the IBM PS/2 0Mb-8Mb Expanded Memory Adapter/A and the IBM PS/2 80286 Expanded Memory Adapter/A in increments of 2Mb up to a maximum of 8Mb per adapter. Each kit consists of two 1024Kb memory modules which are inserted into memory module sockets on the adapter. A maximum of four kits can be added to each adapter. The 2Mb memory module kit may be installed with the 0.5Mb memory module kit on the same card as long as the memory modules are installed in pairs on the four socket banks on the adapter. Installation of the 2Mb Memory Module Kit on the IBM Personal System/2 80286 Expanded Memory Adapter/A will require removing a pair of installed 256Kb memory modules before inserting the 1024Kb memory modules in their place.

3.2.9 0.5Mb Memory Module Kit

This kit expands the memory capacity of the IBM PS/2 0Mb-8Mb Expanded Memory Adapter/A in increments of 512Kb up to a maximum of 2Mb per adapter. Each kit consists of two 256Kb memory modules which are inserted into memory module sockets on the adapter. A maximum of four kits can be added to each adapter. The 0.5Mb memory module kit may be installed with the 2Mb Memory Module Kit on the same card as long as the memory modules are installed in pairs on the four socket banks on the adapter.

*3.2.10 System Board Memory Expansion Kit (8580)*

This memory expansion kit provides 1Mb of 80 nanosecond (ns) memory (Model 041 only) on the system board. The addition of this option completes the 2Mb capacity of the system board. No user setup is required.

*3.2.11 80386 Memory Expansion Adapter (8570, 8573, and 8580)*

The 2Mb-8Mb memory expansion option is a single, full-length, family two-circuit card and provides the expansion of supported memory to 16Mb. The adapter comes standard with 2Mb of 80 ns memory inserted in one of the three 96-pin connectors provided for memory expansion kits. It is designed to fit into any of the three 32-bit I/O connectors located on the system board and has no switch settings or setup requirements for the user. This adapter can be used without fully populating the system board memory slots.

3.2.12 80386 Memory Expansion Kit (8570, 8573, and 8580)

This memory expansion kit provides 2Mb of 80 ns memory and can be installed only on the memory expansion option card. Memory read operations are performed at the same speed as the system board memory through the use of a unique architectural feature called the Matched Memory Cycle. Using the new 1Mb chips, 6Mb can be installed on one option card. No user setup is required.

*3.2.13 2Mb-8Mb 80386 Memory Expansion Option*

The option is a single, full-length memory expansion option for the IBM 8570, 8573, and 8580. It comes standard with 2Mb of 85 ns memory. Up to three 2Mb memory module kits (85 ns) can be added to the card to provide up to 8Mb of memory. It requires one 32-bit expansion slot. Additional 2Mb-8Mb 80386 Memory Expansion Options can be installed on the IBM 8570, 8573, and 8580 to provide a maximum of 16Mb of memory. No switch setting is required.

*3.2.14 Enhanced 80386 Memory Options*

These options utilize 4Mb Memory Technology to provide up to 16Mb of memory in a single 32-bit expansion slot of the PS/2 Models 70, 73, and 80. The 80386 Enhanced Memory Expansion Option 2Mb or 4Mb Kit contains a 32-bit full-length adapter card available with either 2Mb or 4Mb of memory, respectively, expandable up to 16Mb with any combination of 1Mb, 2Mb, or 4Mb Memory Module Kits.

3.2.15 5.25-in Diskette Adapter/A

This feature allows the 4869-001 or -002 to be attached to IBM PS/2 systems. In addition, it allows a 5.25-in internal diskette drive to be supported in the IBM PS/2 8560, 8565, 8580, 8590, and 8595 systems. The adapter can thus accommodate up to two 5.25-in diskette drives on a Model 60, 65, 80, 90, or 95, one internal and one external.

3.2.16 5.25-in External Diskette Drive Adapter/A

This adapter allows the 4869 5.25-in external diskette drive (360Kb) to be connected to the PS/2 system. This option consists of an adapter card, an internal cable assembly, and a feature card. The adapter card plugs into the connector for the 3.5-in drive. The feature card occupies one expansion slot in the PS/2 system. The internal 34-pin, flat cable is used to connect the two cards. When installed, it becomes the B drive.

3.2.17 20Mb Fixed Disk Drive

The 20Mb fixed disk drive is installed in a Model 50 only.

*3.2.18 30Mb Fixed Disk Drive*

The 30Mb fixed disk drive can be installed in the 8550, 8555, and 8573. Refer to unique FRU numbers for each system.

3.2.19 5.25-in 44Mb Fixed Disk Drive (8560 and 8580)

The 44Mb fixed disk is an ST506 drive. It is provided for the Model 041 only. This file attaches via the disk adapter provided with the system unit and does not require an additional expansion slot. The ST506 system adapter supports a maximum of two 44Mb fixed disk drives.

3.2.20 60Mb Fixed Disk Drive

The 60Mb feature is a fixed disk upgrade for the IBM Personal System/2 Model 50 (8550-021) or Model 50Z (8550-031). The 60Mb ESDI and SCSI drives are system-specific, attached via either adapters or integrated controllers.

3.2.21 5.25-in 70Mb Fixed Disk Drive (8560 and 8580)

The 70Mb disk drive attaches via the high performance enhanced small device interface (ESDI) disk adapter provided with the system unit and does not require an additional expansion slot. It can be installed as the second fixed disk drive on Models 071 and 111. The system adapter supports a maximum of two fixed disk drives.

3.2.22 5.25-in 115Mb Fixed Disk Drive (8560 and 8580)

The 115Mb disk drive attaches via the high performance ESDI disk adapter provided with the system unit and does not require an additional expansion slot. It can be installed as the second fixed disk drive on Models 071, 111, and 311.

3.2.23 120Mb (ESDI) Fixed Disk Drive (8570, 8573)

The 120Mb ESDI fixed disk drive is used in the 8570 and 8573 via an integrated ESDI controller.

3.2.24 5.25-in 314Mb Fixed Disk Drive (8580)

The 314Mb disk drive attaches via the high performance ESDI disk adapter provided with the system unit and does not require an additional expansion slot. It can be installed as the second fixed disk drive on Models 071, 111, and 311.

**PS/2 Option Compatibility and Reference Diskette Information**

40Mb, 60Mb, 80Mb, 120Mb, 160Mb, 320Mb, and 400Mb SCSI Fixed Disk Drives

*3.2.25 40Mb, 60Mb, 80Mb, 120Mb, 160Mb, 320Mb, and 400Mb SCSI Fixed Disk Drives*

The SCSI fixed disk drives can be installed in the 8555-95 with a PS/2 SCSI adapter or SCSI Adapter with cache. Refer to unique FRU numbers for each system.

*3.2.26 2.3GB Full High SCSI Tape Drive*

The IBM PS/2 2.3GB Full High SCSI Tape Drive is an internal 5.25-inch full high SCSI tape drive that features up to 2.3GB formatted capacity per cartridge, 245KB per second data transfer rate, and complies to the ANSI SCSI STANDARD X3.131-1986 for single ended devices. This tape drive is supported when combined with Sytos Plus/IBM OS/2 File Backup Utilities (obtained separately), and provides a high performance, easy-to-use tape backup/restore system. The drive supports 8mm helical scan camcorder data type cartridges that adhere to the ANSI Helical-Scan Digital Computer 8mm Tape Cartridge Format Standard, X3B5/89-136. One 8mm blank cartridge and one Cleaning Tape are packaged with the tape drive

Limitations: Only one tape drive is supported in PS/2 Models 95 and 3511-003 and only in bay D (lowest front bay). It is recommended that a Service Representative set up and install this SCSI device.

*3.2.27 6157 Streaming Tape Drive Adapter*

This adapter provides for attachment of the 6157 Streaming Tape Drive to the PS/2 system. The 6157 allows fast, convenient, safe/restore and interchange capabilities on 1/4-in magnetic tape cartridges when used in conjunction with the SYTOS/IBM tape utilities. One adapter can be installed per system unit.

3.2.28 3363 Optical Disk Drive

This write once/read many drive permits backing up resident fixed disk drives. Removable media permit any number of 200Mb backup disks. This drive can be installed internally as the second drive.

3.2.29 3363 Optical Drive Adapter

This adapter allows the 3363 Optical Disk Drive to be connected to the system. This adapter requires one expansion slot.

3.2.30 *Internal Tape Backup Unit*

The IBM Personal System/2 Internal Tape Backup Unit is a 3.5-in form factor tape drive that is installed internally on a PS/2 Models 50-95 (except 8557 and P70). When used with the IBM Personal System/2 Internal tape Backup Program, the Internal Tape Backup Unit allows the user to transfer up to 80Mb of DOS-formatted files from a disk storage device to a removable tape cartridge for later recall.

3.2.31 *CD-ROM Drive (Internal/External)*

The CD-ROM drive is a compact disc-read only memory drive. It adheres to the Small Computer System Interface (SCSI) and supports compact discs with 600MB typical capacity.

3.2.32 3.5-Inch Rewritable Optical Drive

The 3.5-Inch Rewritable Optical Drive is an internal 3.5-inch rewritable optical drive. It accepts either a single removable 3.5-inch magneto-optical (MO) cartridge with up to 127MB formatted capacity, which may be written and read many times, or a 3.5-inch optical read only memory (O-ROM). The drive adheres to the industry standard Small Computer System Interface (SCSI) X3.131-1986 single ended devices.

The 128MB Rewritable Optical Cartridge is a 3.5-inch MO cartridge, similar in appearance to 3.5-inch diskette media. This cartridge has a formatted capacity of up to 127MB, which can be read and rewritten many times. The drive also supports O-ROM, which is 3.5-inch optical read-only memory with up to 122MB typical capacity. This media can be used by software/application developers to distribute CD-ROM-like applications.

The Optical Drive Kit A is specifically designed and required to support the installation of either a 3.5-inch Rewritable Optical Drive in PS/2 Models 60 and 80-041, 071, 111 and 311 with either SCSI adapter installed. The kit contains installation instructions and SCSI cable required to attached to a Micro Channel SCSI adapter.

Limitations: The PS/2 Optical Drive Kit A is required to install this device in the front bay of PS/2 Models 60, 80-041, 071, 111, and 311. It is recommended that a Service Representative set up and install this SCSI device.

3.2.33 *System 36/38 Workstation Emulation Adapter/A*

This option provides attachment capability to the IBM System 36 and IBM System 38 and is attached via the normal twinaxial interface using the IBM System 36/38 Workstations Emulation Cable.

3.2.34 *Dual Asynchronous Adapter*

This option provides multiuser attachments on two independent RS232C ports. The option is programmable and supports asynchronous communications from 50 to 19,200 bps. This adapter supports up to 50 ft of cable and requires one expansion slot.

3.2.35 *Multiprotocol Adapter*

This option provides a full-duplex, multiprotocol, serial data transmission channel. It supports asynchronous, bisynchronous, high-level data link control (SDLC) protocols. It supports modes or direct attachment. The option is programmable at speeds of up to 19,200 bps. It supports automatic protocol switching via software at setup and requires one expansion slot.

3.2.36 3270 Connection

This option expands the capability of the system by providing a coaxial cable attachment to the 3274 and 3276 Control Unit; the 4321, 4331, or 4361 Processor Display/Printer Adapter; the 4361 Workstation Adapter; the 9370 Workstation Subsystem Controller; or the 4701 Finance Communication Controller. This adapter requires one expansion slot.

3.2.37 300/1200 Internal Modem

This adapter requires one expansion slot.

3.2.38 300/1200/2400 Internal Modem/A

This modem can be installed in PS/2 Models 50 to 95. It is Hayes compatible (certain unique functions are not supported) and provides standard capability via CCITT V.22 BIS, Bell 212A, and Bell 103 full-duplex operation. It has one external standard U.S. telephone connector.

3.2.39 *PS/2 Leased Line Modem*

The PS/2 Leased Line Modem (PSLIM) allows high-speed synchronous transmissions over leased voice grade telephone lines. It includes support for Link Problem Determination Aids (LPDA) operating with NetView\*.

The PSLIM is functionally equivalent, for the PS/2 system, to a stand-alone external modem. A modem self-test can be performed in a stand-alone mode without support from the PS/2 system. The modem is not defined as a PS/2 Micro Channel device. As such it is not known by the PS/2 system as part of configuration or status. Refer to the Modem Service Program and associated service documentation. Requirements: Multiprotocol or ARTIC Multiport/2 Adapter.

3.2.40 *High Speed Adapter/A*

This adapter provides for the attachment of the 3117 Scanner with extension unit or 3118 Scanner to the IBM PS/2. This adapter is installed into one expansion slot of the IBM PS/2 system unit.

3.2.41 3117 Adapter/A

Allows connection of the 3117 Scanner to the PS/2. This adapter is installed into one expansion slot of the IBM PS/2 system unit.

*3.2.42 IBM Realtime Interface Coprocessor Multiport/2*

The Realtime Interface Coprocessor Multiport/2 is designed as a single-slot, multiple device interface system for the PS/2. This adapter (and its related features) has the facilities to support applications requiring a realtime, multitasking environment. The coprocessor is based on a high-performance INTEL 80186 Microprocessor with 512Kb of user memory. Several related features are available for this adapter.

*3.2.43 ARTIC Multiport/2 with 1Mb Memory*

The Realtime Interface Coprocessor Multiport/2 with 1Mb memory provides an increased memory capacity of 1Mb on the Realtime Interface Coprocessor Multiport/2 Adapter.

3.2.44 X.25 Interface Coprocessor/2

The X.25 Interface Coprocessor/2 is a single-slot, Personal System/full-length adapter that can provide full-duplex synchronous or asynchronous communications through its single serial I/O port. The electrical interface is determined by the cable option: X.21 BIS V.24 up to 19.2 Kbps full duplex (EIA RS232/CCITT V.24), X.21 BIS V.35 64 Kbps full duplex (CCITT/V.35), or X.21 nonswitched up to 64 Kbps full duplex.

*3.2.45 Realtime Interface Coprocessor Portmaster/A*

This adapter enhances busmaster capability supporting full-duplex data rates of up to 64K bps for each of eight ports running concurrently or up to 2.048M bps for a single port. This adapter features a 12.5MHz Intel 80C186 microprocessor and up to 2MB of on-board storage.

3.2.46 *IBM Personal Pageprinter Adapter/A*

This adapter plugs into an expansion slot of the PS/2 system and provides a 10 MHz M68000 coprocessor, program, and page buffer storage that is designed to provide page formatting and printer control for the 4216 Model 20 IBM Personal Pageprinter.

3.2.47 4680 Store Loop Adapter Kit

Provides a Store Controller Kit which allows the IBM Personal System/2 Models 60, 70, or 80, in conjunction with the IBM 4680 Operation System Licensed Program, Version 2, to become a Store Controller for the IBM 4680 Store System.

3.2.48 *Store Loop Cable*

Provides for the connection of the Store Loop Adapter and the PS/2 to the Store Loop.

*3.2.49 4680 Second Store Loop Adapter*

The second Store Loop Adapter/A option can monitor the activity of another store loop and, with the IBM 4680 Operating System, take control of the monitored Loop if it detects lack of Store Controller activity.

3.2.50 3119 PageScanner Adapter/A

Allows connection of the 3119 PageScanner to the PS/2 Model 50 or higher.  
This adapter requires one expansion slot.

3.2.51 *PC Network Adapter II/A*

Attachment to a new or existing PC Network is provided via this option. The PC Network adapter runs at 2 Mbps, broadband. Network protocol is CSMA/CO. This adapter requires one expansion slot.

3.2.52 *PC Network Adapter II/A (Frequency 2 and 3)*

These adapters provide additional radio frequency (RF) channels for connecting the IBM PS/2 system to the broadband IBM PC Network. The broadband channels used by the frequency 2 adapter are 2 and 0. The frequency 3 adapter uses channels 3 and P. Each adapter features a 2 megabits per second (Mbps) transmission speed with a carrier sense multiple access (CSMA)/carrier detect (CD) access protocol and supports the 802.2/logical link control (LLC) protocols via the IBM Local Area Network (LAN) Support Program.

*3.2.53 IBM PC Network Baseband Adapter/A*

This is a feature card for connecting IBM PS/2 systems to the baseband IBM PC Network. This adapter features a 2 Mbps transmission speed with a CSMA/CD access protocol and supports 802.2/LLC protocols via the IBM LAN Support Program. The adapter also supports the remote initial program load feature and uses one slot in the PS/2 system unit.

3.2.54 *IBM Token-Ring Network Adapter/A*

The IBM Token-Ring Network Adapter/A is a feature card for any PS/2 system. The adapter contains a microprocessor operating under control of adapter-resident microcode. The adapter transmits and receives at a speed of 4 million bits per second (bps) using protocols conforming to the Institute of Electrical and Electronic Engineers (IEEE) 802.5 and European Computer Manufacturer's Association (ECMA) 1989 standards. This adapter requires one expansion slot.

3.2.55 *Token-Ring 16/4 Adapter/A*

The IBM Token-Ring Network 16/4 Adapter/A is an enhanced, high performance companion to the 4 Mbps IBM Token-Ring Network Adapter/A. Major functional enhancements include the ability to attach to rings operating at 16 Mbps and the inclusion of 64Kb of shared RAM buffer memory. This new adapter is compatible at the PS/2 Micro Channel interface and, when running at 4 Mbps, with the IBM Token-Ring Network Adapter/A. It requires a single standard length (approximately 12 in) feature slot in the Personal System/2 Computer.

The IBM Token-Ring Network 16/4 Adapter/A protocols conform to IEEE 802.5 and ECMA 89 standards. The adapter provides logical link control functions conforming with the IEEE 802.2 standard and is compatible with International Standard ISO 8802/5.

3.2.56 *IBM Token-Ring Network Adapter/A (Remote Program Load)*

This is an erasable programmable read-only memory (EPROM) that is plugged into an available socket on the IBM Token-Ring Network Adapter/A. It is required for each of the devices on the network that are loaded when the device is reset. The loading device program is the responsibility of the user and is not provided with this feature.

3.2.57 *Token-Ring Network 16/4 Busmaster Server Adapter/A*

The IBM Token-Ring Network 16/4 Busmaster Server Adapter/A is used to attach an IBM PS/2 to an IBM Token-Ring Network operating at either 16 million or 4 million bits per second. It requires one standard length feature slot in the PS/2. Maximum: 7.

*3.2.58 PS/2 Adapter/A for Ethernet Networks*

The IBM PS/2 Adapter/A for Ethernet Networks provides the ability to attach an IBM PS/2 Micro Channel system to an Ethernet network.

The adapter supports the Ethernet Version 2 and IEEE 802.3 (CSMA/CD) interfaces, and data transfers at 10Mbps via 10Base5 (thick cable), 10Base2 (thin cable), or 10BaseT (twisted pair) through an Attachment Unit Interface (AUI) connection and user-provided external transceiver.

Remote Program Load (RPL) is included as standard for systems requiring this capability. Only the Banyan Vines and Novell NetWare operating systems specified in the "Programming Requirements" section currently support Remote Program Load. The feature will automatically issue a request to a loading Server device any time the workstation is reset, has no system disk available, or the disk program boot has been disabled.

3.2.59 FaxConcentrator Adapter/A

The PS/2 FaxConcentrator Adapter/A is a high function microprocessor-based fax adapter that can provide voice prompting, telephone tone detection, and optical mark recognition functions, when used with a suitable application program.

Features of the PS/2 FaxConcentrator Adapter/A allow real-time process processing of tasks such as compression (Image to Group 3), decompression, and format conversions (Group 3 to Group 4) within the adapter, as opposed to doing these tasks with software in the PS/2's main processor.

The FaxConcentrator Adapter/A, when used with a suitable application program, allows the PS/2 Micro Channel architecture family computers to communicate with Group 3 facsimile devices over the public switched telephone network for the purpose of routing fax data.

Limitations: A maximum of eight FaxConcentrator Adapter/As can be installed in a PS/2 depending on slot availability.

*3.2.60 ISDN Interface Co-Processor/2 Model 2*

Provides attachment to the Integrated Services Digital Network Basic Rate Interface (ISDN BRI). When operating with supporting IBM software, enables full duplex data transmission at 64 Kbps concurrently over each of the two B channels. May be installed in PS/2 Models 50 and above.

3.2.61 *Pointing Device (Mouse)*

The two-button mouse is available for applications that operate more efficiently using a pointing device. This pointing device plugs into the system unit and requires no additional hardware features or external power.

3.2.62 XGA Display Adapter/A

The integrated Extended Graphics Array (XGA) provides 1024 x 768 x 16 colors or 640 x 480 x 256 colors as standard and can be optionally expanded to 1024 x 768 x 256 colors with the addition of the Video Memory Expansion. XGA supports all VGA modes and it is optimized for use with window managers and other 'Graphical User Interfaces' (for example, allowing for highly interactive pop-up icons and pull-down menus). XGA also provides hardware support for 132-character text mode (using 8515 or 8514 display) and 16-bit direct color mode (64K colors at 640 x 480 resolution). Micro Channel expansion Slot #3 of the IBM PS/2 Model 90 XP 486 system contains a video feature bus connector that can be used to install a video adapter.

3.2.63 *Display Adapter 8514/A*

This adapter supports the attachment of the IBM Color Display 8514. It supports the high content 1024 | 768 format, together with the lower content modes of the Video Graphics Adapter (VGA), Extended/Enhanced Graphics Adapter (EGA), and Color/Graphics Adapter (CGA) display adapters.

*3.2.64 8514 Display Adapter Memory Expansion Kit*

This kit provides 512Kb of additional memory and can be installed only on the IBM 8514 Display Adapter/A. Only one expansion kit per adapter card is installed.

3.2.65 *IBM InfoWindow Attachment Kit*

This feature allows the attachment of the 4055 InfoWindow Display to the IBM PS/2. Also required is the IBM general purpose interface bus (GPIB) cable.

3.2.66 *Image Adapter/A 1MB and 3MB*

This is a 16-bit PS/2 display adapter capable of driving up to 1600 x 1200 resolution at up to four Greyscales. All existing PS/2 monitors (including the 8506, 8507 and 8508) are supported at all resolutions, depending on the operating system used, and the number of colors/Greyscales that are dependent on the amount of memory added. It will also support specific printers, scanners, and the IBM 6091-019 Color Display. One 16-bit expansion slot is required.

*3.2.67 M-Audio Capture/Playback Adapter/A*

This adapter provides the capability to record and playback high-quality sound for use with the PS/2 Micro Channel systems. It is intended for use with the Audio Visual Connection Program. The adapter converts the analog signal from a microphone or line output cord to a digital format, which is compressed and stored for later use. As a playback vehicle, the adapter converts the compressed, digitized sound back to an analog signal for playback through headphones/speakers or an amplifier (line out).

*3.2.68 Video Capture/Playback Adapter/A*

This adapter provides the capability to capture, display, and digitize high-quality video images. It supports image capture/playback with PS/2 Models 8550-95 and is intended for use with the IBM Audio Visual Connection Program Product. The adapter works with standard video devices, including video cameras and VCRs.

3.2.69 *M-Motion Video Adapter/A*

This adapter card allows PS/2 Models 50-95 to display full motion, interactive color video on standard color PS/2 monitors. It receives analog signals from an audio-video source, processes the signals, and sends them to a PS/2 monitor and speaker. It supports all existing InfoWindow applications.

*3.2.70 Enhanced M-Motion Video Adapter/A*

This Micro Channel adapter allows the display of full motion interactive color video and VGA graphics/text on a standard PS/2 color display. It also provides full-line audio input/output capabilities with limited quality digital record/playback. It replaces the original M-Motion Video Adapter/A.

*3.2.71 Wizard Adapter and Wizard Memory Expansion Option*

This adapter utilizes a 33MHz i860 (Intel) microprocessor to perform very high levels of numeric-intensive processing in the 8570-95. It contains 2MB of RAM, which is expandable to a total of 8MB using the IBM PS/2 Wizard Memory Expansion Option.

3.2.72 *SCSI Adapter*

The Small Computer System Interface (SCSI) Adapter is a 16-bit bus master adapter that provides connection for multiple internal and/or external SCSI devices. It may be installed in a 16- or 32-bit card slot and enables connection of SCSI high performance fixed disk drives, scanners, printers, CD-ROMs, and other SCSI peripherals.

3.2.73 SCSI Adapter with Cache

The SCSI Adapter with Cache is a 32-bit bus master adapter with a 512 Cache buffer, which provides the ability to connect multiple internal and/or external SCSI devices. The 512Kb Cache buffer allows system memory to be totally dedicated to running the application rather than a portion being reserved for software caching.