

THE IBM PS/2 MODEL L40 SX SYSTEM AND FEATURES

IBM Announcement Letter Number 191-030 dated March 26, 1991
IBM US - Last Revised on March 26, 1991

Brief Description of Announcement, Charges, and Availability

The Personal System/2 (R) (PS/2 (R)) Model L40 SX is a small, lightweight, battery (AC/DC) operated portable laptop system. The PS/2 Model L40 SX is designed for the mobile professional who needs a high function portable that is convenient to carry and use, and has the speed and capacity to support advanced applications. Standard features include a 20MHz 80386SX processor, 2MB of 80ns memory (expandable to 18MB), 60MB fixed disk, 3.5-inch 1.44MB diskette drive, Video Graphics Array (VGA) resolution Liquid Crystal Display (LCD), 84/85 key keyboard, and serial, parallel, keypad/mouse, VGA monitor, and external expansion I/O ports for attaching external devices. In addition, each system includes an external 17 key numeric keypad, an AC adapter, a rechargeable battery pack, and a carrying case.

Also announced as options for the PS/2 Model L40 SX are a data/fax modem for the U.S. and Canada, a second serial adapter, a Trackpoint pointing device, 2, 4, or 8MB memory upgrades, a quick charger and a car battery adapter.

Planned Availability Date: March 26, 1991, for system, options, accessories and supplies. April 15, 1991, for the Car Battery Adapter, Trackpoint, Data/Fax Modem, and Quick Charger. April 30, 1991, for the French Canadian model.

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Customer Letter Section

HIGHLIGHTS

- o Improves productivity of mobile professionals who need a high function, small, lightweight, battery (AC/DC) portable laptop system
- o Enables advanced business solutions in AC/DC portable laptops by providing a fast processor (20MHz 80386-SX), large memory (2 to 18MB), large DASD (60MB), and an internal data/fax modem option
- o Improves satisfaction with usability of AC/DC operated portable laptops for users who want a high resolution LCD, familiar IBM keyboard layout, and efficient power management
- o Protects user's investment in supported IBM peripherals and software

DESCRIPTION

USER PRODUCTIVITY

The small, lightweight PS/2 Model L40 SX is convenient for mobile professionals to take to home, client and classroom locations where AC outlets are not always conveniently accessible. Timely electronic capture of data at its source, and immediate access to information in

the remote work place, improves users' productivity, and adds quality and value to the products and services they provide.

The PS/2 Model L40 SX physical package is based on a clamshell design. The PS/2 Model L40 SX fits in most attache cases and weighs 7.7 pounds, including the rechargeable battery pack.

The high function in a small size and lightweight is achieved by combining advanced technologies such as:

- o 10mm thick, cold fluorescent sidelit, black on white monochrome LCD with VGA resolution
- o 2.5-inch fixed disk
- o 17mm high "super slim" 3.5-inch floppy disk drive
- o Thin 84/85 key keyboard
- o Highly integrated planar
- o Power management hardware and firmware
- o Low power DASD, LCD, memory technologies.

BUSINESS SOLUTIONS

The PS/2 Model L40 SX combines the flexibility of a portable laptop and a desktop system, with the system resources to run advanced PS/2 applications.

While in the office or at home, users can attach one of the supported IBM color displays or use the integrated LCD. The external numeric keypad is provided with all systems for numeric data entry applications. The following IBM PS/2 Model L40 SX standard I/O ports are provided:

- o Pointing device port for the external numeric keypad, the IBM PS/2 Trackpoint for Model L40 SX or the IBM Mouse. The numeric keypad also has a mouse port to enable both numeric keypad and pointing device connections concurrently.
- o Serial device port for connecting serial devices or external modems for connectivity to Wide Area Networks including the Ardis data radio services network.
- o Parallel device port for connecting devices such as printers.
- o VGA display port for connecting supported IBM VGA monitors.
- o External expansion port reserved for future use.

To boost performance, a co-processor socket, designed to be compatible with Intel 80387SX 20MHz co-processor or equivalent, is provided for process/compute intensive applications. For applications that require or perform better with large size memory, each PS/2 Model L40 SX has 2MB of memory with optional memory modules for up to 18MB. There are two memory sockets available for up to two memory module option kits. Memory module options of 2, 4, and 8MB support memory configurations of 2 (standard), 4, 6, 8, 10, 12, 14, and 18MB.

In the U.S. and Canada, the optional IBM PS/2 Internal Data/Fax Modem for Model L40 SX is available for communicating with other systems. It has two RJ11 phone jacks for concurrent network and telephone handset connections. It supports data (up to 2400bps) and fax (9600bps) communications, and standard Hayes AT (R) commands. For customers worldwide who need a second serial port, the IBM PS/2 Serial Adapter for Model L40 SX is optionally available. The co-processor, memory and modem or serial adapter sockets are inside the system unit.

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SYSTEMS MANAGEMENT AND USABILITY

The display, keyboard, power management, and packaging technologies used in the PS/2 Model L40 SX improves user satisfaction with the convenience and usability of AC/DC portables. The design provides:

- o Convenient weight and size for carrying in a briefcase or via the standard or optional carrying cases:
 - The standard carrying case is included with each PS/2 Model L40 SX system. It is a thin, leather, black case with a shoulder strap, a compartment for the system unit, and several small pockets for carrying diskettes.
 - The optional deluxe carrying case is a black, cloth case with pockets and compartments to carry portable options or business materials in addition to the system unit.
 - The optional travel case is a black, molded plastic, luggage type case with easy rolling wheels, a handle for carrying, and a telescopic handle for pulling. The interior is padded and contains space for portable options or peripherals, and business materials, as well as the system unit. It conforms to FAA luggage regulations which allow it to be carried on board aircraft.
- o Easy to read, 10-inch Supertwisted Nematic (STN) Liquid Crystal Display (LCD) with 640 X 480 Video Graphic Array (VGA) resolution, and cold fluorescent sidelighting with a 12 to 1 contrast ratio. Depending on the application, up to 32 grey scales can be addressed on the LCD. It displays black characters on a white background with 80 characters per line and 25 lines per screen.
- o Familiar IBM Keyboard layout with 84/85 keys and an external, 17 key numeric keypad totaling 101/102 full size keys. The location, size and spacing of the keys will be familiar to users of the IBM enhanced keyboard.
- o Adaptable two-sided pointing device (Trackpoint) option used to control cursor movement. One side supports trackball operation and the other side is used as a mouse.
- o Efficient power management:
 - To allow productive use of the mobile user's time, a suspend/resume function is provided. An application is suspended by closing the clamshell leaving the power switch on. When the clamshell is opened, the application resumes at the point it was suspended. During suspension system components are automatically powered off except for the real time clock and application memory. The system can be set to resume at a specific time of day.
 - For changing the rechargeable battery pack without disrupting the application, an internal backup battery is provided.
 - To reduce the frequency of recharging the batteries, trickle recharging occurs during AC operation.
 - To prolong battery life between recharges, a switch is provided for user selection of manual or automatic mode. In automatic mode, the hardware initiates low clock speed operation during idle periods. In manual mode, the processor runs at the default clock speed set by the user when the system is configured. The clock speed settings are 20, 10, and 5MHz.

- To conserve battery power, the hardware supports sleep mode. Sleep mode conserves battery power during idle times between clock cycles and key strokes by putting system components in an idle state resulting in low power usage. Sleep mode is not operational when an external display is attached. This function is exploited by DOS and OS/2 (R). Application, operational, operating system, and environmental characteristics will affect actual battery duration between recharges.
- o Informative LCD display with international symbols that indicate operational and environmental status including battery gauge, dew point (humidity), temperature limit indicator, modem carrier detect, numeric lock, scroll lock, speaker enabled, suspend mode, diskette drive in use, and fixed drive in use.

INVESTMENT PROTECTION

The PS/2 Model L40 SX is designed as a compatible member of the PS/2 family using the IBM DOS or OS/2 operating systems. Users of IBM keyboards and software should adapt to the new PS/2 Model L40 SX quickly. Mobile professionals who already have compatible peripherals and applications may view the portable PS/2 Model L40 SX as an extension of their current investment strategy.

STATEMENT OF GENERAL DIRECTION

IBM intends to provide an AC powered expansion unit for the PS/2 Model L40 SX to provide connectivity to IBM 3270, 5250 and Token-Ring networks using the Personal Computer AT (R) half sized adapter cards. Any other half size adapters that may be supported will be identified at announcement.

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PUBLICATIONS

The Quick Reference manual and Reference Diskette (S84F-7577) are shipped with the system unit.

The Quick Reference manual contains an introduction to the computer and trouble-shooting instructions. The Reference Diskette contains diagnostics and utilities. Additional copies are available.

The following publications are available:

PUBLICATION	ORDER NUMBER	PART NUMBER
Hardware Maintenance Library	S15F-2271	15F2271
Technical Reference	S15F-2270	15F2270
Keyboard 3-Template Set	S84F-9782	84F9782
Data/Fax Modem Technical Reference	S15F-2268	15F2268

The Hardware Maintenance Library publication is for service personnel and details many aspects of maintaining the machine. The publication includes a parts catalog, the reference diskette containing advanced diagnostics, and instructions for identifying the failing field replaceable unit.

The Technical Reference publications are for programmers, engineers and others who want to understand the PS/2 Model L40 SX system unit in greater detail. The publications include functional specifications, hardware specifications and pinouts for peripheral

connectors.

Publications may be ordered from an IBM Authorized Dealer, an IBM representative, or through the Technical Directory. Also, publications are available through the IBM Software/Publications response line (1-800-327-5711). A complete listing of IBM Personal System/2 and IBM Personal Computer hardware publications is available by calling the Technical Directory at 1-800-IBM-PCTB (1-800-426-7282).

SCHEDULE

The planned availability date is March 26, 1991, for system, options, accessories and supplies. The Car Battery Adapter, Trackpoint, Data/Fax Modem, and Quick Charger will be available April 15, 1991. The French Canadian model will be available April 30, 1991.

TECHNICAL INFORMATION

SPECIFIED OPERATING ENVIRONMENT

PHYSICAL SPECIFICATIONS:

- Width: 325mm (12.8-in.)
- Depth: 272mm (10.7-in.)
- Height: 53.2mm (2.1-in.)
- Weight: 3.5kg (7.7 lb. including the battery pack)

OPERATING ENVIRONMENT:

- o Temperature at sea level: 5 (degs)to 35 (degs)C (41 (degs) to 95 (degs)F)
- o Relative Humidity: 5% to 95%
- o Wet Bulb: 29.4 (degs)C (85 (degs)F)
- o Altitude: 8000 ft. Maximum (2438 Meters)

PROGRAMMING REQUIREMENTS: The following operating systems support the PS/2 Model L40 SX:

- o IBM DOS 3.3
- o IBM DOS 4.0
- o Operating System/2 (R) Standard Edition Version 1.3 at refresh level 1.30.1
- o Operating System/2 Extended Edition Version 1.3 at refresh level 1.30.1.

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COMPATIBILITY: The PS/2 Model L40 SX is designed to be compatible with the IBM Personal Computer, Personal Computer XT (TM) and Personal Computer AT at the BIOS interface level (BIOS not identical) and at most hardware interfaces. The PS/2 Model L40 SX has been designed to maintain compatibility with existing personal computer software and non-timing dependent features. Due to battery operation, small size and lightweight design, Personal Computer XT and Personal Computer AT memory upgrades and adapters are not supported.

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LIMITATIONS: Only one IBM PS/2 4MB Memory Module Option Kit for Model L40 SX upgrade per system. There are no internal slots for attaching adapters/cards other than the specific IBM PS/2 Model L40 SX options. When the VGA port is operational, the integrated LCD is not operational. The IBM PS/2 Internal Data/Fax Modem for Model L40 SX and IBM PS/2 Serial Adapter for Model L40 SX optional features use the same internal connector so only one of

these options can be installed per system. External keyboards are not supported. When the 5MHz manual speed option is selected, some applications (such as communications and timing dependent programs) may not function properly. Operating System/2 Standard Edition (SE) and Extended Edition (EE) Versions 1.3 are only supported at refresh level 1.30.1 or later. PS/2 Model L40 SX customers wishing to install an existing OS/2 Version 1.3 SE or EE license not at refresh level 1.30.1 or higher, may obtain a modification to their OS/2 that will support the IBM PS/2 Model L40 SX by calling 1-800-426-7282 (U.S. and Puerto Rico). There is no charge for this modification which will be available no later than April 12, 1991, for EE and March 26, 1991, for SE.

PLANNING INFORMATION

CABLE ORDERS: All cables are included with the system.

INSTALLABILITY: By following the setup instructions, the user attaches peripherals and inserts the Reference Diskette. Power is then turned on and Set Configuration is run after the computer has successfully completed its initial self-tests.

PROBLEM DETERMINATION: If a failure is found at initial installation, an instruction will appear on the screen. If the test is successfully completed, the system attempts to load an operating system from the "A" drive. If an operating system is not found, the system attempts to load one from the fixed disk drive. If an operating system is not found, the user will be prompted via an icon to insert a diskette. A final default is provided through the use of a ROM-loaded BASIC interpreter as explained in the Quick Reference manual.

PACKAGING: Each PS/2 Model L40 SX ships from the plant in a single carton. Since the keyboard is integrated with the system unit (clamshell), a unique part number is required for each PS/2 Model L40 SX model and country specific keyboard.

The model and part number for U.S., Canadian and Asia/Pacific English countries are:

- o 8543-044 -- 79F1049

Each U.S., Canadian and Asia/Pacific English carton contains:

- o System unit with U.S. keyboard
- o AC adapter
- o Rechargeable battery pack
- o U.S. power cord
- o U.S. numeric keypad and cable
- o Carrying case
- o Quick Reference and Reference Diskette
- o Hints and tips.

The appropriate power cord is added for each Asia/Pacific country by the distribution center. For Japan, U.S. AC Adapter (65F0218) and U.S. power cord (6952301) are replaced with a Dentori approved AC Adapter with power cord (79F3910) at the appropriate AP distribution center.

The Canadian French model and part numbers are:

- o 8543-3F4 -- 79F1201

Each Canadian French carton contains:

- o System Unit with Canadian French keyboard
- o AC Adapter
- o Rechargeable Battery Pack

for Model L40 SX	3844	79F3844
IBM PS/2 Rechargeable Battery Pack for Model L40 SX	Supply	79F0197

To order the cases, contact your IBM marketing representative or authorized dealer. The rechargeable battery pack can be purchased from IBM Telemarketing Operations (TMO). Call IBM TMO at 1-800-IBM-2468. Mail orders should be sent to:

IBM Corporation
IBM Telemarketing Operations
One Culver Road
Dayton, NJ 08810

SECURITY, AUDITABILITY AND CONTROL

Security is provided by a user-invoked password capability on the Reference Diskette.

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

TERMS AND CONDITIONS

On January 22, 1991, IBM announced the IBM Customer Agreement (ICA). The subject of this announcement is available to customers under the ICA or any equivalent agreement, accepted by IBM, that is still in effect.

INTERNATIONAL HARDWARE WARRANTY SERVICE: International Hardware Warranty Service is available only in the countries in which this product is sold by IBM, IBM Authorized Personal Computer Dealers, or IBM Authorized Industry Remarketers. Hardware warranty service is subject to the terms and conditions of the Statement of Limited Warranty provided with the product in the country of purchase. Customers may be required to show proof of original purchase to obtain warranty service.

VOLUME DISCOUNT: Volume purchasing is available under the Volume Discounts section of the IBM Customer Agreement.

The PS/2 Model L40 (8543-044) is included in Category A, Discount Group 1, of the Workstation and Related I/O Exhibit (WKSX). Customers with an existing volume discount commitment in Category A of the exhibit may order the PS/2 Model L40 as additional quantities to, or as direct substitutes for, any other machines in the same category subject to availability.

For further information regarding volume orders, contact your IBM marketing representative.

IBM CREDIT CORPORATION FINANCING: Term leases and installment payment plans are available for commercial and state and local government customers.

CUSTOMER FULFILLMENT OPTION APPLIES: Yes.

WARRANTY PERIOD: One year.

WARRANTY SERVICE: Customer Carry-In Repair (CCR).

NOTE: Customers may temporarily use IBM programs in support of this machine outside the country of acquisition. However, no program warranty or services are available outside the country of acquisition.

ALTERNATIVE SERVICE: IBM On-Site Repair (IOR): This IOR warranty service alternative is not available as an International Hardware

Service Offering.

SERVICE/MAINTENANCE AFTER WARRANTY: IBM On-Site Repair (IOR).

IBM HOURLY SERVICE RATE CLASSIFICATION: One.

IBM Warranty Service, Maintenance Service or IBM Hourly Service may be obtained by calling 1-800-IBM-SERV. IBM Hourly Service is available at the applicable rate and terms, including element exchange price if applicable.

VOLUME MAINTENANCE AMENDMENT (VMA): The PS/2 Model L40 (8543-044) is an eligible machine and a qualifying machine for the Volume Maintenance Option of the IBM Customer Agreement. A revised exhibit will be available at a later date.

MID-RANGE SYSTEM OPTION: The PS/2 Model L40 (8543-044) is an eligible machine for the Mid-Range System Option of the IBM Customer Agreement. A revised exhibit will be available at a later date.

ELIGIBLE	DISCOUNT	
TYPE	THREE YEAR	FIVE YEAR
8543	17%	22%

CORPORATE SERVICE OPTION: The PS/2 Model L40 SX (8543-044) is an eligible machine for the Corporate Service Option of the IBM Customer Agreement. A revised exhibit will be available at a later date.

ELIGIBLE	DISCOUNT	
TYPE	THREE YEAR	FIVE YEAR
Network	25%	30%
System	17%	22%

EXTENDED MAINTENANCE OPTION: The PS/2 Model L40 SX (8543-044) is an eligible machine for the Extended Maintenance Option of the IBM Customer Agreement. A revised exhibit will be available at a later date.

CENTRAL FACILITY MAINTENANCE SERVICE: The PS/2 Model L40 SX (8543-044) is an eligible machine for Central Facility Maintenance Service Option of the IBM Customer Agreement. A revised exhibit will be available at a later date.

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

PRODUCT AVAILABILITY STATUS: New product available.

FIELD INSTALLABLE FEATURES/MODEL CONVERSIONS: Yes.

The following optional features are not Customer Setup (CSU). These features are designed to be installed by IBM trained personnel.

- o IBM PS/2 Internal Data/Fax Modem for Model L40 SX
- o IBM PS/2 Serial Adapter for Model L40 SX
- o IBM PS/2 2MB Memory Module Option Kit for Model L40 SX
- o IBM PS/2 4MB Memory Module Option Kit for Model L40 SX
- o IBM PS/2 8MB Memory Module Option Kit for Model L40 SX.

CUSTOMER SETUP: Customer setup allowance is one day for the system unit. IBM setup is available at the applicable IBM Hourly Service rate and terms.

LICENSED INTERNAL CODE: No.

IBM EDUCATION ORDER CENTER: This product is available for ordering through the IBM Education Order Center. Please note that availability through the Education Order Center may not coincide with the product availability dates noted in other sections of this

document.

The IBM Education Order Center is the order processing location for selected personal computers and related hardware/software for eligible education end users. Eligible end users are defined as faculty and staff members of qualified kindergarten through twelfth grade education institutions and students, faculty and staff members of higher education institutions which have an Education Product Coordinator.

NATIONAL EDUCATION PRICE (NEP): A National Education Price is available under the terms and conditions of the National Education Price Exhibit. The NEP price which represents a 40% discount from the single unit purchase price, is not subject to any further discount or allowance. The machine in this announcement is included in the National Education Price Exhibit.

CHARGES

PRODUCT

DESCRIPTION	MACHINE TYPE	MODEL NUMBER	PURCHASE PRICE
PS/2 Model L40 SX	8543	044	\$ 5,995

FEATURES

DESCRIPTION	FEATURE NUMBER	PURCHASE PRICE
IBM PS/2 Serial Adapter for Model L40 SX	0979	\$ 149
IBM PS/2 Internal Data/Fax Modem for Model L40 SX	1198	659
IBM PS/2 Car Battery Adapter for Model L40 SX	1012	249
IBM PS/2 2MB Memory Module Option Kit for Model L40 SX	0999	899
IBM PS/2 4MB Memory Module Option Kit for Model L40 SX	1111	1,995
IBM PS/2 8MB Memory Module Option Kit for Model L40 SX	1112	3,595
IBM PS/2 Carrying Case for Model L40 SX	3981	89
IBM PS/2 Deluxe Carrying Case for Model L40 SX	0981	199
IBM PS/2 Travel Case for Model L40 SX	3844	369
IBM PS/2 Quick Charger for Model L40 SX	0192	219
IBM PS/2 Trackpoint for Model L40 SX	7040	159

SUPPLY: The following can be ordered from IBM Telemarketing Operations at 1-800-IBM-2468.

DESCRIPTION	PART NUMBER	PURCHASE PRICE
IBM PS/2 Rechargeable Battery Pack for Model L40 SX	79F0197	\$ 129

PUBLICATIONS

ORDER NUMBER	CHARGE
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Hardware Quick Reference and Reference Diskette	S84F-7577	\$ 53.50
Hardware Maintenance Library	S15F-2271	38.00
Technical Reference	S15F-2270	59.00
Keyboard 3-Template Set	S84F-9782	168.00
Data/Fax Modem Technical Reference	S15F-2268	9.60
WARRANTY OPTION UPGRADE CHARGES:		
WARRANTY UPGRADE OPTION	WARRANTY UPGRADE	
FROM TO	CHARGE	
CCR IOR	\$ 40	
ANNUAL MINIMUM MAINTENANCE CHARGES:		
IBM	CENTRAL FACILITY	
ON-SITE REPAIR	MAINTENANCE SERVICE	
(IOR)	(CFMS)	
\$ 430	\$ 408	

ATTACHMENT A

The IBM PS/2 (R) Model L40 SX is designed to be compatible with the following peripherals and software products that run on other PS/2 systems. Other peripherals may also work, but have not been tested by IBM.

I/O DEVICES SUPPORTED

PERIPHERALS

2205-001	PS/1 (TM) Printer
3117	Scanner
3118	Scanner
3812-001	Pageprinter
3852-002	Color Inkjet Printer
4019-001	LaserPrinter
4019-E01	LaserPrinter
4072	ExecJet (TM)
4201-002	Proprinter (R) II
4201-003	Proprinter III
4202-001	Proprinter XL
4202-002	Proprinter II XL
4202-003	Proprinter III XL
4207-001	Proprinter X24
4207-002	Proprinter X24E
4208-001	Proprinter XL24
4208-002	Proprinter XL24E
4212-001	IBM Printer
5201-001	Quietwriter (R)
5201-002	Quietwriter
5202-001	Quietwriter III
5204-001	Quickwriter (R) Printer
5853	IBM PC 2400 Baud Modem (external)
6180	IBM 6180 Color Plotter
6182	IBM 6182 Color Plotter
6184	IBM 6184 Color Plotter
7372	IBM 7372 Color Plotter
8512	IBM 8512 Color Display

8513 IBM 8513 Color Display
 8514 IBM 8514 Color Display (VGA mode only)
 8515 IBM 8515 Color Display (VGA mode only)

FEATURES AND ACCESSORIES

PART NUMBER	FEATURE NUMBER	DESCRIPTION
6450350	8770	Personal System/2 (R) Mouse

VENDOR CONNECTIVITY AND PRINTER PRODUCTS: The following Independent Option Vendors (IOV) have tested their listed connectivity and printer products with the IBM PS/2 Model L40 SX and have advised IBM of compatibility. IBM has not evaluated these products and makes no comments or judgements about their functions, quality, performance, etc.

IOV	PRODUCT	MODELS
Eastman Kodak (1)	Diconix (1) 150 Plus Printer	Serial, Parallel
Xircom (2) Inc.	Pocket Ethernet Adapter	PE10B2, PE10BT, PE10BX
	Pocket Token-Ring Adapter	PT04B3, PT04BT
	Pocket Arcnet Adapter	PA02B6, PA02BT
	Parallel Port Multiplexor	PPX-02
Axonix Corp.	LapStation (3) Expansion Unit	LS1, LS2

IBM SOFTWARE COMPATIBILITY

The following IBM software products are designed to be compatible with the IBM PS/2 Model L40 SX systems and will operate substantially as described in their program documentation.

DESCRIPTION	VERSION	PROGRAM NUMBER	ORDERING VEHICLE	FEATURE NUMBER
OPERATING SYSTEMS				
IBM DOS	3.3	6280060	5871-AAA	0957
IBM DOS	4.0	6280256	5871-AAA	1419
Operating System/2 (R) Standard Edition with Refresh 1.30.1	1.3	84F7588	5871-AAA	1615
Operating System/2 Extended Edition with Refresh 1.30.1	1.3	15F7195	5871-AAA	1570
LANGUAGES				
Basic Compiler/2 (TM)	1.2	6280179	5871-AAA	0822
C/2 (TM)	1.1	6280284	5871-AAA	1410
COBOL/2 (TM)	1.01	6280207	5871-AAA	0816
FORTRAN/2 (TM)	1.1	6280185	5871-AAA	0824
Macro Assembler/2 (TM)	1.0	6280181	5871-AAA	0820
PASCAL Compiler/2 (TM)	1.0	6280183	5871-AAA	0826
APPLICATIONS				
DisplayWrite (R) 4 Version 2	3.0	25F5951	5871-BBB	5951
DisplayWrite 5 Composer	2.1	86F2450	5871-BBB	1375
DisplayWrite 5/2 Composer	1.1.3	25F5999	5871-BBB	5999
Writing Assistant (TM)	2.0	6024460	5875-MMM	4460
Filing Assistant (R)	2.0	6024457	5875-MMM	4497
Storyboard (TM) Plus	1.01	73F6005	5872-BBB	1139
IBM CAD-DOS	1.2.1	64F6914	5871-AAA	0707
IBM CAD/Plus-DOS	1.2.1	64F6921	5871-AAA	0636
SAA (TM) Personal Application				

System/2	2.0	32F8344	
SAA Personal Application			
System Development/2	2.0	32F8346	
SAA Personal Application			
System Statistics/2	2.0	32F8348	
SAA Personal Application			
System Business Planning/2		32F8350	
SAA Personal Application			
System Project Management/2		32F8352	
EDUCATION SOFTWARE PRODUCTS			
TITLE	VERSION		3.5-INCH
Bouncy Bee Learns Letters	1.01		6024511
Bouncy Bee Learns Words	1.01		6024510
BIOLOGY SERIES VERSION 1.01			
The Environment I: Habitats and Ecosystems			6024658
The Environment II: Cycles and Interactions			6024656
Leaf: Structure and Physiology			6024637
Light, Plants, and Photosynthesis: Energy in Conversion			6024638
Plants: Growth and Specialization			6024645
Cell Functions: Growth and Mitosis			6024635
Cytology and Histology: Cells and Tissues			6024612
Passive Transport: Diffusion and Osmosis			6024639
Regulation and Homeostasis: Systems in Balance			6024615
Human Life Processes I: Cellular Physiology			6024649
Human Life Processes II: Systems Level			6024616
Human Life Processes III: Development and Differentiation			6024657
Pathology: Diseases and Defenses			6024646
Modern Genetics: Chromosomes and Coding			6024648
TITLE	VERSION		3.5-INCH
BIOLOGY SERIES VERSION 1.01 (CONTINUED)			
Mendelian Genetics: The Science of Inheritance			6024613
Chemicals of Life I: The Structure of Matter			6024636
Chemicals of Life II: Water, Carbohydrates, and Lipids			6024647
Chemicals of Life III: Proteins and Nucleic Acids			6024614
Pollination and Fertilization: Seeds, Fruits, and Embryos			6024633
Taxonomy: Classification and Organization			6024655
EARTH SCIENCE SERIES			
Hydrologic Cycle 1.01			6024518
Ground Water 1.01			6024516
Surface Water 1.01			6024519
Moisture in the Atmosphere 1.01			6024520
Earthquakes	1.01		6024517
Volcanoes	1.01		6024521
Landslides	1.01		6024522
Glacial Landforms	1.00		6024514
Listen to Learn	1.01		6024506
Missing Letters	1.01		6024507
PHYSICS SERIES			
Investigating Acceleration	1.01		6024624
Investigating Gravitational Force	1.01		6024622
Investigating Conservation of Energy	1.01		6024625
Investigating Thermal Energy	1.01		6024623
Investigating Wave Interference	1.01		6024628
Investigating Electric Fields	1.01		6024627

Investigating Models of Light	1.01	6024626
Investigating Atomic Models	1.00	6024523
Primary Editor	1.01	6024767
Private Tutor	2.01	6024508
BASIC SKILLS SERIES		
Reading for Meaning: Level II	2.00	57F1993
Reading for Meaning: Level III	2.00	57F1996
Reading for Meaning: Level IV	2.00	57F1999
Algebra One: Part One	1.00	6024775
Algebra One: Part Two	1.00	6024776
Algebra Two: Part One	1.00	6024777
Algebra Two: Part Two	1.00	6024778
IBM Math Exploration Toolkit	1.00	6024774
Teacher's Quiz Designer	1.00/1.01	6024509
Writing to Read (R) Program Kit	3.00	6024513
Scientific Reasoning Series	1.10	84F7763
Exploring Measurement, Time and Money Level I (4), (5)	1.00	6024870
Exploring Measurement, Time and Money Level II (4)	1.00	6280354
Exploring Measurement, Time and Money Level III (4)	1.00	6280357
Personal Science Laboratory (TM) Explorer	1.00	64F1430
LinkWay (TM) (4), (5)	2.00	84F7559

(4) Uses or requires mouse.

(5) Uses or requires speech and appropriate driver.

VENDOR SOFTWARE COMPATIBILITY

The following software products have been tested by the vendors in their latest versions and certified as compatible with the IBM PS/2 Model L40 SX. IBM has not evaluated these products and makes no comments or judgements about their functions, quality, performance, etc. Listed products may not be available in all countries.

SOFTWARE PUBLISHER	DESCRIPTION	VERSION
Borland		
International Inc.	Paradox (6)	3.5
	Paradox 386 (6)	2.03
	Paradox for OS/2 (6)	2.05
	Quattro Pro (6)	2.0
	SideKick (6)	1.58
	SideKick 2 (6)	2.0
	SideKick Plus (6)	1.01
	SideKick/PM (6)	2.0
IGC	VM/386 (7)	1.22
Lotus (8) Development Corporation	Symphony (8)	2.2
	1-2-3 (8)	2.2
	1-2-3	3.1
Microsoft (9) Corporation	Excel for Windows (9)	3.0
	Word for Windows (9)	1.1
	Works (9)	2.0
	Windows (9) *	3.0
Oracle Corporation	Professional Oracle	5.1C

Policy Management	IAP (10) -- Integrated	
Systems Corporation	Application Platform	2.1
Quarterdeck	Desview 386 (11)	2.32
Office Systems	QEMM 386 (11)	5.12
Symantec Corporation	GrandView (12)	2.0
	Q&A (12)	3.0
	Q&A Write	1.01
	The Norton Anti-virus (12)	1.0
	The Norton Backup (12)	2.0
	The Norton Commander (12)	3.1
	The Norton Editor (12)	2.0
	The Norton Utilities (12)	5.0
	Time Line (12)	4.0
WordPerfect		
Corporation	DataPerfect (13)	2.1
	DrawPerfect (13)	1.1
	LetterPerfect (13)	1.0
	PlanPerfect (13)	5.1
	WordPerfect (13)	5.1
	WordPerfect Executive	
	WordPerfect Office	3.0

* See the "Hints and Tips" document shipped with the system for requirements for running Windows.

SOFTWARE VENDOR PROGRAMS

The following software vendor products have been tested by an Independent Test Laboratory on the IBM PS/2 Model L40 SX. This list does not include all of the products that may run on the IBM PS/2 Model L40. The products operate substantially as described in their program documentation. IBM has not evaluated these products and makes no comments or judgements about their functions, quality, performance, etc. Listed products may not be available in all countries.

SOFTWARE PUBLISHER	DESCRIPTION	VERSION	TEST ENVIRONMENT	
			DOS 3.3 OR 4.0	OS/2 1.3
Aldus Corporation	PageMaker (14)	3.0		X
	PageMaker	3.01	X	
Ashton-Tate	Applause II (15)	1.1	X	
	dBASE III (15) Plus	1.1	X	
	dBASE IV (15)	1.1	X	
Autodesk, Inc.	AutoCAD (16) 386	11.0		
	AutoCAD for OS/2	10c14		X
	AutoSketch	2.0	X	
Borland International Inc.	Paradox for OS/2	2.0		X
	Quattro Pro	2.0	X	
	Sidekick	1.58A	X	
	Sidekick Plus	1.01	X	
	Sidekick for PM	2.0		X
Broderbund Software	New Print Shop (17)	3.0	X	

Caseworks, Inc.	CASE PM (18)	2.0		X
Chipsoft, Inc.	Turbo-Tax (19)	7.01	X	
Computer Associates International, Inc.	AccPac (20) Plus	6.0A		X
Contact Software International	Act! (21)	2.0	X	
Corel Systems Corporation	Corel (22) Draw	1.2	X	
DAC Software, Inc.	DAC-Easy (23) Accounting	4.1	X	
Digital Communications Associates, Inc.	Crosstalk (24) Mark IV	2.0	X	
	Crosstalk XVI	3.71	X	
Digital Research, Inc.	GEM (25) Draw PLus	2.01	X	
	GEM Graphics	1.0	X	
	GEM Presentation Team	3.1	X	
	GEM WordChart	1.0	X	
Digitaltalk, Inc.	Smalltalk (26) V/PM	1.1		X
			TEST ENVIRONMENT	
			DOS 3.3	OS/2 1.3
			OR 4.0	
SOFTWARE PUBLISHER	DESCRIPTION	VERSION		
Eighty/20 Software	Expeed Contract Manager (27)	1.0	X	
Fifth Generation Systems, Inc.	FastBack (28) Plus	2.1	X	
	Mace (28) Utilities	1990	X	
Fox Software, Inc.	Fox Pro (29)	1.01	X	
Hayes Microcomputer Products, Inc.	SmartCom III (30)	1.2A	X	
Hilgraeve, Inc.	HyperAccess/5 (31)	1.1		X
Intuit	Quicken (32)	3.0		
		Rel 6	X	
Language Processors, Inc.	RM/Fortran (33)	3.05.03		X
Meca Ventures	Managing Your Money	6.0	X	
MetaWare, Inc.	Metaware High C and 386/DOS Extender	2.03	X	
Micrografx, Inc.	Charisma (34)	2.0	X	
	Micrografx Designer (33)	3.01	X	
	Micrografx Draw Plus (33)	1.0	X	
Microrim	R BASE (35) for DOS	3.1	X	
	R BASE for OS/2	2.11		X
Microsoft Corporation	Microsoft Basic	7.1		X

Oracle Corporation	Microsoft C	6.0	X	X
Prodigy Services Company, Inc.	ORACLE (36) for OS/2	5.1B		X
Rightsoft Corporation	Prodigy (37)	8.19.16	X	
SNAP Software, Inc.	Rightwriter (38)	3.1	X	
Software Publishing Corporation	SNAP! (39)	4.01	X	
	Harvard Graphics (40)	2.3	X	
	PFS First Choice (40)	3.0	X	
	PFS First Graphics	1.0	X	
	PFS First Publisher (43)	0	X	
	Professional File (40)	2.01	X	
	Professional Write (40)	2.2	X	
Statistical Graphics Corporation	Statgraphics (41)	4.2		X
				TEST ENVIRONMENT
				DOS
				OS/2
				3.3
				1.3
				OR 4.0
SOFTWARE PUBLISHER Symantec Corporation	DESCRIPTION	VERSION		
	Q&A (12)	3.0	X	
	Q&A for OS/2	3.0		X
Traveling Software, Inc.	Lap-Link (42)	3.0A	X	
Wolfram Research, Inc.	Mathematica (43)	1.2.2	X	
WordPerfect Corporation	WordPerfect	5.1	X	
	WordPerfect for OS/2	5.0		X
MicroPro (44) International, Corporation	WordStar (44)	6.0	X	
Xerox Corporation	Ventura (45) Publisher	3.0	X	

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(6) Registered trademark of Borland International, Inc.

(7) Trademark of IGC.

(8) Registered trademark of Lotus Development Corporation.

(9) Registered trademark of Microsoft Corporation.

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