



Figure 1. NEC PowerMate SX/20

Specifications

Processor

- Intel 80386SX 8/20MHz

Memory

- 2MB standard, expands to 10MB

I/O Expansion Slots

- Four 8/16 bit slots

Diskette Drive

- 1.2MB, 5.25" or 1.44MB, 3.5" standard

Integrated Features

- Diskette drive controller
- IDE interface
- Enhanced keyboard
- One parallel port
- One RS-232C serial port.
- VGA, 320x200x256, 640x480x16, 800x600x16

Internal Expansion Bays

- Two 5.25" half height user accessible bay,
- One 3.5" half height internal bay.

I/O Architecture (Bus s supported)

- Industry Standard Architecture (ISA)

Power Supply

- 110 Watt

Dimensions

- 4.8 h X 17.1 w X 16.0 d

Diagnostics

- Normal Post Diags performed on Power UP of system.
- For Advanced Diags use a PC Diagnostic Utility.
- Troubleshoot according to errors found during test.

CMOS Access

- QAPlus/FE

Tools and Software Requirements

- 2 PT Phillips screwdrivers
- Needle nose pliers
- Diags and formatted blank diskette
- Anti-static wrist strap

Jumper/Switch Settings

System Configuration, Switch SW1

Switch	Setting	Function
1	ON * OFF	Color monitor installed Monochrome monitor
2	ON * OFF	Diskette drive I/O port is first Diskette drive I/O port is second
3	ON * OFF	Diskette drive controller on Diskette drive controller off
4	ON * OFF	Serial port select is COM1 Serial port select is COM2
5	ON * OFF	Serial port is on Serial port is off
6	ON * OFF	Parallel port is on Parallel port is off
7	ON OFF *	Keyboard controller D1 command on Keyboard controller D1 command off
8	ON OFF *	VGA adapter on VGA adapter off
9	ON OFF *	Memory selection 0 to 512KB Memory selection 0 to 640KB
10	ON * OFF	Mouse interface on Mouse interface off

* Default

System Jumper Settings

Jumper	Setting	Function
J1	1-2 2-3 *	Security lock reset Security lock on
J2	1-2 2-3 *	IDE Interface jumper is ON IDE Interface jumper is OFF
J3	1-2 2-3 *	Serial IRQ jumper is COM2 Serial IRQ jumper is COM1
J5	open * closed	Manufacturing jumper off Manufacturing jumper on
J7	1-2 2-3 *	BIOS ROM jumper 27C512 BIOS ROM jumper 27C256
J8	1-2 * 2-3	VGA adapter not installed VGA adapter is installed

* Default

Optional Memory Board Switch Settings

SW1	SW2	SW3	SW4	SW5&6	Memory
ON	OFF	OFF	OFF	OFF	Bank 1 2MB
ON	ON	OFF	OFF	OFF	Bank 1-2 4MB
ON	ON	ON	OFF	OFF	Bank 1-3 6MB
ON	ON	ON	ON	OFF	Bank 1-4 8MB

VGA Adapter Jumper Settings

Jumper	Setting	Function
S1	1-2 * 2-3	132 col. 800 x 600, 36Mhz VCLK Input clock from feature connector

* Default

Removal Procedures

Before beginning removal complete the following steps:

1. Turn off the computer and any peripheral devices.
2. Disconnect AC power cord from outlet and system.
3. Disconnect all peripheral devices from the computer.

System Cover

How to remove the system cover:

1. Unlock the cover if the cover lock is present.
2. Remove five screws holding the cover to the unit rear.
3. Remove two screws located on each side at the base of the system unit.
4. Grasp each side of the cover and slide back.
5. As you pull the cover outward, lift it up and off.

Special Notices:

- All NEC hard drives are formatted at the factory and need no formatting and are configured as primary by default.
- All switch settings will not be reflected until the system has been completely repowered.
- Memory may exceed the 10MB limit if it is on low speed (8MHz) with a 1 wait state only.
- IDE drive can not be used with the ST506 or ESDI type controller boards. Remove the Non-IDE boards.

Field Replaceable Units

Memory	OEM Part	IBM Part
Memory Expansion board	136-260373-812A	67H9208
512KB memory exp. brd.	136-008689-450A	67H9127
512KB memory exp. mod.	136-008689-451A	67H9128
2MB @ 2MB x 9 SIMM	136-260373-811A	67H9207
2MB memory exp. board	136-007954-251A	67H9115
2MB @ 2MB x 9 SIMM	158-050294-002	61H6760
4MB memory exp. board	136-007954-250A	67H9114

Internal Hard Drives	OEM Part	IBM Part
42MB, 3.5", ST506 HD	158-053237-226	66H0136
42MB, 5.25", ST506 HD	158-053236-426	66H0137
42MB, 3.5", IDE HD	136-260373-251A	67H9205
42MB, 5.25", IDE HD	136-260373-253A	67H9206
100MB, 3.5", ESDI HD	134-500571-159O	67H9043
109MB, 3.5", IDE HD	136-260373-252A	47H8795
140MB, 5.25", ESDI HD	136-006632-620A	67H9102
* Note: IDE drives do not require a HD controller board.		

System Boards	OEM Part	IBM Part
G8FZA - System board	158-050311-000	48H7015
System board	158-050311-000B	47H9471
System board	158-050311-000C	47H9472

Processor Boards	OEM Part	IBM Part
G8FZE- Processor Board	158-050300-000	48H6414

Video	OEM Part	IBM Part
G8EZE - VGA adapter	136-260712-504A	67H9210

Diskette Drives	OEM Part	IBM Part
5.25", 1.2MB Floppy	136-009598-420A	47H8616
3.5", 1.44MB Floppy	136-261568-301A	20H9489
3.5", 1.44MB Floppy (Thin)	136-009598-425A	20H9520

Tape Drives	OEM Part	IBM Part
40MB, 5.25", tape drive	158-053116-003	47H9599
150MB, 5.25", tape drive	158-053208-001	47H9600

Controllers	OEM Part	IBM Part
G8CDQ ST506 HD cntrlr.	808-865892-007A	62H1455
G8BUT ESDI HD controller	808-865892-013A	69H5455

Cables	OEM Part	IBM Part
Keyboard / Mouse interface	136-009534-226A	66H6828
Floppy data & signal cable	136-009534-220A	66H6826
5", ESDI HD, signal cable	808-840656-005A	67H2180
ST506, 5", HD data cable	808-840069-011A	67H2171
ESDI HD data cable	808-840069-017A	67H2173

Miscellaneous	OEM Part	IBM Part
IS backboard	136-009534-217A	67H9141
Fan	136-009534-235A	66H6830
Power supply (110 Watt)	808-891039-001A	20H9522
Keyboard PS/2 style	808-897060-001A	49H5552
Battery	802-140887-002A	47H9678