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Preface

This addendum contains the technical information necessary for servicing and repairing the NEC PowerMate® Enterprise Pentium-based and Pentium II-based Educational Series computers. Use this addendum as a supplement to the following manuals:

- PowerMate Enterprise Service and Reference Manual
- PowerMate Enterprise Pentium-Based Minitower Series Service and Reference Manual
- PowerMate Enterprise Pentium II-Based Minitower Series Service and Reference Manual.

The manuals and addendum are written for NECCSD-trained customer engineers, system analysts, and dealers.

The manual is organized as follows:

Section 1, Educational Series Hardware, provides an overview of the PowerMate Enterprise Pentium and Pentium II processor-based Educational systems and their associated components.

Section 2, Illustrated Parts Breakdown, provides the illustrated parts breakdown diagrams and revised parts lists for the PowerMate Enterprise Pentium and Pentium II processor-based Educational systems.

Section 3, Service Telephone Numbers, provides NECCSD telephone numbers for accessing the NECCSD Technical Support Center and other services.

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Section 1

Educational Series Hardware

This section provides a description of PowerMate Enterprise Educational Series hardware.

PowerMate Enterprise Educational Series systems are available in the following configurations:

- Pentium[®] processor-based desktop and minitower models with a Pentium 166-MHz, 200-MHz, or 233-MHz microprocessor with MMX technology
- Pentium II processor-based minitower models with a Pentium II 266-MHz or 300-MHz microprocessor with MMX technology.

In addition to the common hardware available in all PowerMate Enterprise systems, the Educational Series comes with the following equipment:

- Microsoft[®] SideWinder[®] game pad
- Microsoft Natural keyboard
- microphone.

See the information in this section for a description of the game pad, keyboard, and microphone.

Table 1-1 and Table 1-2 list the hardware features for each PowerMate Enterprise Educational Series model.

NOTE: A 15-inch (C550) or 17-inch (C700) monitor is available from NECCSD as optional equipment for the Educational system.

For information on other system features, see:

- *PowerMate Enterprise Service and Reference Manual* (819-181828-000)
 - *PowerMate Enterprise Pentium Processor-Based Minitower Service and Reference Manual* (819-181884-000)
 - *PowerMate Enterprise Pentium Processor-Based Minitower Service and Reference Manual* (819-181892-000).
-

Table 1-1 PowerMate Enterprise Pentium Processor-Based Educational Series Hardware Description

Feature	Model Number			
	ES166D	ES166M	ES200M	ES233M
CPU	P166 MMX	P166 MMX	P200 MMX	P233 MMX
Cache	512 K	512 K	512 K	512 K
Memory	16-MB	32-MB	32-MB	32-MB
Hard Drive	2.1-GB IDE	3.2-GB IDE	4.3-GB IDE	6.4-GB IDE
Controller	IDE	IDE	IDE	IDE
Graphics Board	S3 with 2 MB of video memory	S3 with 2 MB of video memory	S3 with 2 MB of video memory	S3 with 2 MB of video memory
Audio	Creative Labs CT4335 AWE-32 sound board	Creative Labs CT4335 AWE-32 sound board	Creative Labs CT4335 AWE-32 sound board	Creative Labs CT4335 AWE-32 sound board
Network Card	Intel Pro 100 - 10/100	Intel Pro 100 - 10/100	Intel Pro 100 - 10/100	Intel Pro 100 - 10/100
	Wake-on-LAN	Wake-on LAN	Wake-on-LAN	Wake-on-LAN
Chassis	Desktop	Minitower	Minitower	Minitower
CD-ROM	24X Max	24X Max	24X Max	24X Max
Operating System	Windows [®] 95	Windows 95	Windows 95	Windows 95
Keyboard	Microsoft Natural	Microsoft Natural	Microsoft Natural	Microsoft Natural
Mouse/ Game Pad	Microsoft/ Microsoft SideWinder	Microsoft/ Microsoft SideWinder	Microsoft/ Microsoft SideWinder	Microsoft/ Microsoft SideWinder
Microphone	Yes	Yes	Yes	Yes
Speaker	ACS90 Mist White	ACS90 Mist White	ACS90 Mist White	ACS90 Mist White

Table 1-2 PowerMate Enterprise Pentium II Processor-Based Educational Series Hardware Description

Feature	Model Number	
	ES266II	ES300II
CPU	Pentium II 266-MHz MMX (with 512 K cache)	Pentium II 300 MHz MMX (with 512 K cache)
Memory	32-MB	32-MB
Hard Drive	4.3-GB IDE	6.4-GB IDE
Controller	IDE	IDE
Graphic	ATI XPERT@Work AGP 2X with 4 MB of video memory	ATI XPERT@Work AGP 2X with 4 MB of video memory
Audio	Creative Labs CT4335 AWE-32 sound board	Creative Labs CT4335 AWE-32 sound board
On-board LAN	Intel Pro 100B-compatible with Wake-on-LAN	Intel Pro 100B-compatible with Wake-on-LAN
Chassis	Minitower	Minitower
CD-ROM	24X Max	24X Max
Operating System	Windows 95	Windows 95
Keyboard	Microsoft Natural	Microsoft Natural
Mouse/ Game Pad	Microsoft/Microsoft SideWinder	Microsoft/Microsoft SideWinder
Microphone	Yes	Yes
Speaker	ACS90 Mist White	ACS90 Mist White

GAME PAD

A twelve-button Microsoft SideWinder game pad is part of the system and connects to the MIDI port on the sound board installed in one of the computer's ISA expansions slots on the rear of the system (see the following figures).

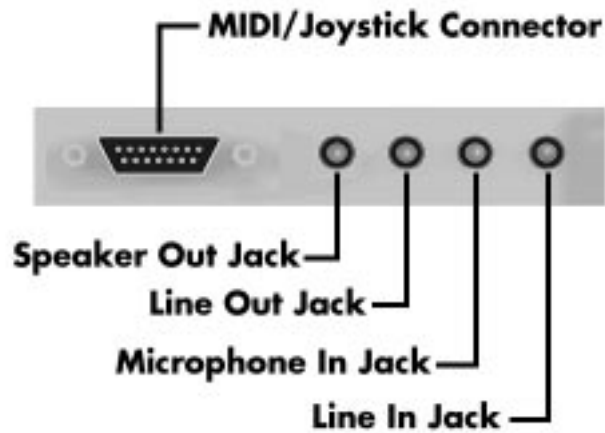


Figure 1-1 Sound Board MIDI/Joystick Connector - Desktop models

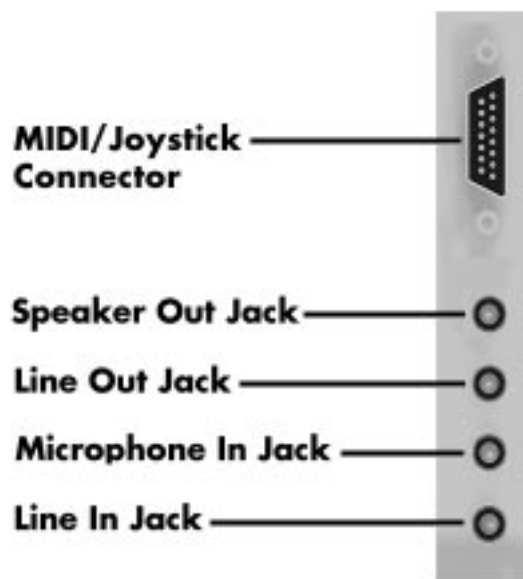


Figure 1-2 Sound Board MIDI/Joystick Connector - Minitower models

The game pad provides the same controls available on a console system. The controls provide an extensive range of movement and include an eight-way directional control, action buttons, and a variety of other buttons.

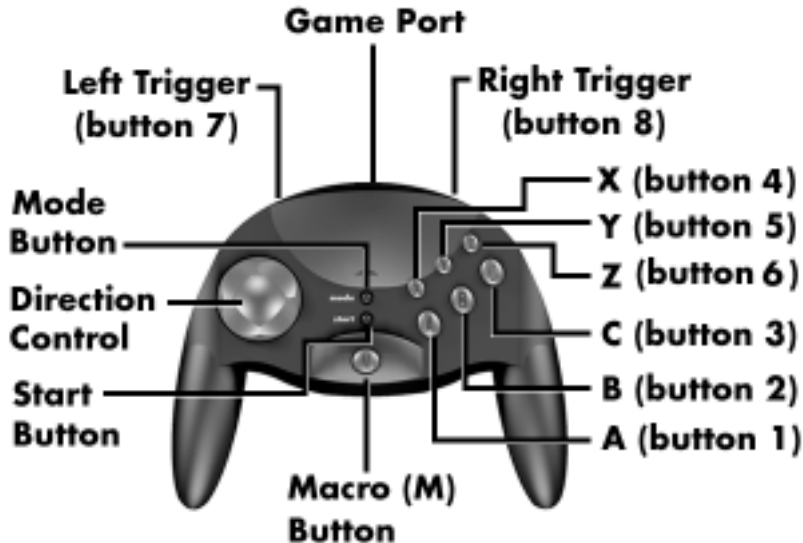


Figure 1-3 Game Pad Controls and Buttons

The following is a brief description of the game pad controls and buttons.

- Gaming buttons — A, B, C, X, Y, Z, and the left and right trigger actions can differ between games (check the game documentation). These buttons correspond to buttons 1-8 on a joystick.
- Direction control — This control allows you to move in eight different directions.
- Macro (M) button — The M button plays user-created macros. To play the macro, hold down the Macro button and press the game pad button assigned to the macro.
- Mode button — Use the Mode button to switch between game pad modes. The light on the game pad tells you which mode you are in:
 - Light on: you are in Digital Overdrive for normal game pad play (one player)
 - Light off: you are in Pass-through mode allowing you to use another game pad connected to the first game pad (multiple players).
- Start button — Press the Start button to start or restart any game that specifically supports the SideWinder game pad.

The game port on the game pad lets you connect another game pad. You can daisy-chain up to four game pads.

The game pad cable connects to the 15-pin MIDI/joystick connector on the Creative Labs sound board installed in one of the system's ISA expansion slots. The game pad is compatible with any game that supports a joystick. Windows[®] 95 is required for keyboard emulation.

MICROPHONE

The microphone that comes with all PowerMate Enterprise Educational systems allows recording of voice and sound into computer data files. The microphone connects to the microphone jack located on the rear of the computer. The microphone works in conjunction with the audio software shipped with the system.



Figure 1-4 Microphone

KEYBOARD

The PS/2-compatible Microsoft Natural ergonomic keyboard is standard equipment for the system. The keyboard provides a numeric keypad, separate cursor control keys, 12 function keys, and is capable of up to 48 functions. Key status lamps on the keyboard include Num (Numeric) Lock, Caps (Capital) Lock, and Scroll Lock. The keyboard's six-pin connector plugs into the keyboard port on the rear of the system.

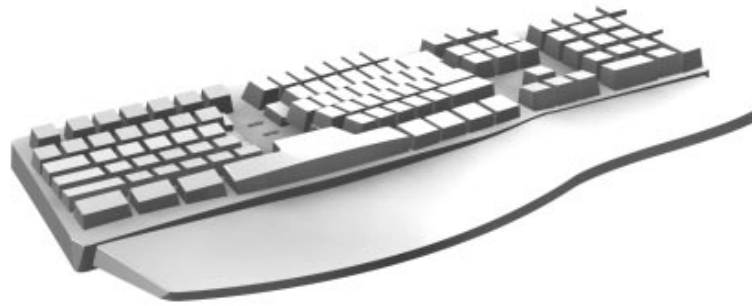


Figure 1-5 Microsoft Natural Keyboard

Section 2

Illustrated Parts Breakdown

This section provides the illustrated parts breakdown diagrams and revised parts lists for the PowerMate Enterprise Pentium-based and Pentium II-based Educational systems.

Table 2-1 provides telephone numbers for ordering the parts and options described in this section.

Table 2-1 Ordering Parts and Options

Items	Telephone Number
To order spare parts (Dealers)	1-888-632-8692
To order spare parts (Customers)	In the U.S. 1-800-233-6321 In Canada 1-800-727-2787
To order options	1-888-863-2669 (1-888-8NEC-NOW)

POWERMATE ENTERPRISE PENTIUM-BASED EDUCATIONAL SYSTEMS

This subsection contains the illustrated parts breakdown (IPB) and NECCSD part numbers for the PowerMate Enterprise Pentium Processor-Based Educational Series desktop and minitower computers. This information applies to PowerMate Enterprise Educational systems with the following model numbers:

- ES166D (desktop system)
 - ES166M (minitower system)
 - ES200M (minitower system)
 - ES233M (minitower system).
-

Minitower

This subsection contains the illustrated parts breakdown (IPB) and NECCSD part numbers for the PowerMate Enterprise Pentium Processor-Based Educational Series minitower computer (models ES166M, ES200M, ES233M).

Table 2-2 lists the field-replaceable parts for the computer. Table 2-3 lists the documentation and packaging for the computer. Figure 2-1 is the illustrated parts breakdown.

Table 2-2 PowerMate Enterprise Pentium-Based Educational Series Minitower Spare Parts List*

Item	Description	Part Number
1	Power Cable	808-857649-101A
2	Microsoft IntelliMouse	230-00026
3	Microsoft Natural keyboard	120072
4	Wake-on LAN Cable (for Intel LAN Pro 100M2)	233-00103
5	Diskette Drive Signal Cable, 3-connector	233-00105
6	SCSI 4-Connector Signal Cable	158-052178-001
7	IDE Hard Drive Cable, 3-connector	158-050562-019
8	CD-ROM Signal Cable, 3-connector	158-050562-019
9	166-MHz Pentium Processor	158-082502-017
	200-MHz Pentium Processor	080591
	166-MHz MMX Pentium Processor	712-00017
	200-MHz MMX Pentium Processor	712-00016
	233-MHz MMX Pentium Processor	081778
10	Heatsink w/Clip	158-060324-001
11	16-MB SDRAM (2 MB x 64) DIMM	710-00029
	32-MB SDRAM (4 MB x 64) DIMM	710-00028
	64-MB SDRAM (8 MB x 64) DIMM (when available)	710-00033
	128-MB SDRAM (16 MB x 64) DIMM (when available)	710-00034
12	Coin-cell Battery	158-060367-000
13	I/O Plate (with Audio, with USB)	780-00031
	I/O Plate (without Audio, with USB)	780-00026
14	System Board with Audio	158-056658-000
15	System Base Stand	210-00153

* This data was prepared January 1998. For an up-to-date listing of spare parts, call FaxFlash at 1-888-329-0088 (or 1-978-635-6090 outside the U.S.) and order document 42181898.

Table 2-2 PowerMate Enterprise Pentium-Based Educational Series Minitower Spare Parts List*

Item	Description	Part Number
16	Riser Card	203-00022
17	System Board Plastic Slide Rail	158-052266-004
18	Chassis Ground Clip (requires 2)	158-052289-000
19	Plastic Motherboard Ejection Lever	158-052266-006
20	Chassis Cover, Side/Top	158-052280-002
21	Chassis Cover, Side	158-052280-017
22	Front Bezel (includes lens, IR board, and cable)	158-052280-003
23	Plastic Blank Panel – 5-1/4 inch	158-030890-100
24	Logo, NEC PowerMate Enterprise	400-00358
25	9 Watt Speakers w/Cables and Adapter, Altec ASC-90	158-052310-000
26	Intel Pro 100M2 Network Interface Card (NIC)	207-00066
	3COM 3C509B Network Interface Card (NIC)	158-050796-000
	3COM 3C509B (Rev. C) Network Interface Card (NIC)	158-052287-000A
	3COM 3C905-TX Network Interface Card (NIC)	158-052256-000A
27	Number-9 3D Video Card with 4-MB	158-052285-000A
28	Number 9 4-MB Memory Module	158-052286-000A
29	Sound Card, Creative Labs CT4335	207-00065
30	Speaker Adapter	158-056391-000
31	Fax/Data Modem, 56.6-Kbps (Akita II)	207-00068
32	Adaptec 2940 SCSI Controller Board	158-052132-001A
33	Front Panel Ribbon Cable	158-050559-008
34	Front Panel PCB Switch w/IR (includes Power, Sleep & Reset)	158-052280-005
35	IR Cable and Board	158-052280-907
36	Fan Assembly	158-052266-022
37	Power Supply, 200-Watt	213-00014
38	Rail Kit	210-00064
39	Diskette Drive, without Bezel	219-00016
40	Iomega 100-MB Zip Drive	158-052282-001
41	Lite-ON 24X MAX CD-ROM Reader	158-052294-001

* This data was prepared January 1998. For an up-to-date listing of spare parts, call FaxFlash at 1-888-329-0088 (or 1-978-635-6090 outside the U.S.) and order document 42181898.

Table 2-2 PowerMate Enterprise Pentium-Based Educational Series Minitower Spare Parts List*

Item	Description	Part Number
42	8-GB Tape Backup Drive, Seagate Travan4	158-052284-001
43	1.0-GB IDE Hard Drive, Seagate Medalist (non-DMA)	158-050395-398
	2.1-GB IDE Hard Drive, Quantum ST Ultra DMA	300669-01
	3.2-GB IDE Hard Drive, Quantum ST Ultra DMA	300668-01
	4.3-GB IDE Hard Drive, Quantum ST Ultra DMA	300667-01
	6.4-GB IDE Hard Drive, Quantum ST Ultra DMA	300666-01
	4.55-GB SCSI Hard Drive, Seagate or Quantum	216-00007
44	Microphone	230-00011
45	Microsoft Sidewinder Gamepad	230-00013
46	RJ-11 Cable	158-050519-001
----	PCB Card Edge Guide (not shown)	158-052280-020
----	CD-ROM Audio Cable – for onboard audio (not shown)	233-00122
----	Slide Rail Ground Clip – requires 4 (not shown)	158-052266-020
----	Chassis Intrusion Switch/Assembly (not shown)	158-052263-001
----	Chassis Intrusion Switch Housing (not shown)	158-052266-019

Table 2-3 PowerMate Enterprise Pentium-Based Educational Series Minitower Documentation and Packaging*

Description	Part Number
PowerMate Enterprise User's Guide	451-00184
Shipping Carton	158-040630-000
PowerMate Enterprise Pentium Processor-Based Minitower Series Service and Reference Manual	819-181884-000
The NEC Select Install CD-ROM – WIN95 "Educational"	370-00309
The NEC Select Install CD-ROM – WIN95	370-00287
The NEC Select Install CD-ROM – Windows NT 4.0	370-00288

* This data was prepared January 1998. For an up-to-date listing of spare parts, call FaxFlash at 1-888-329-0088 (or 1-978-635-6090 outside the U.S.) and order document 42181898.

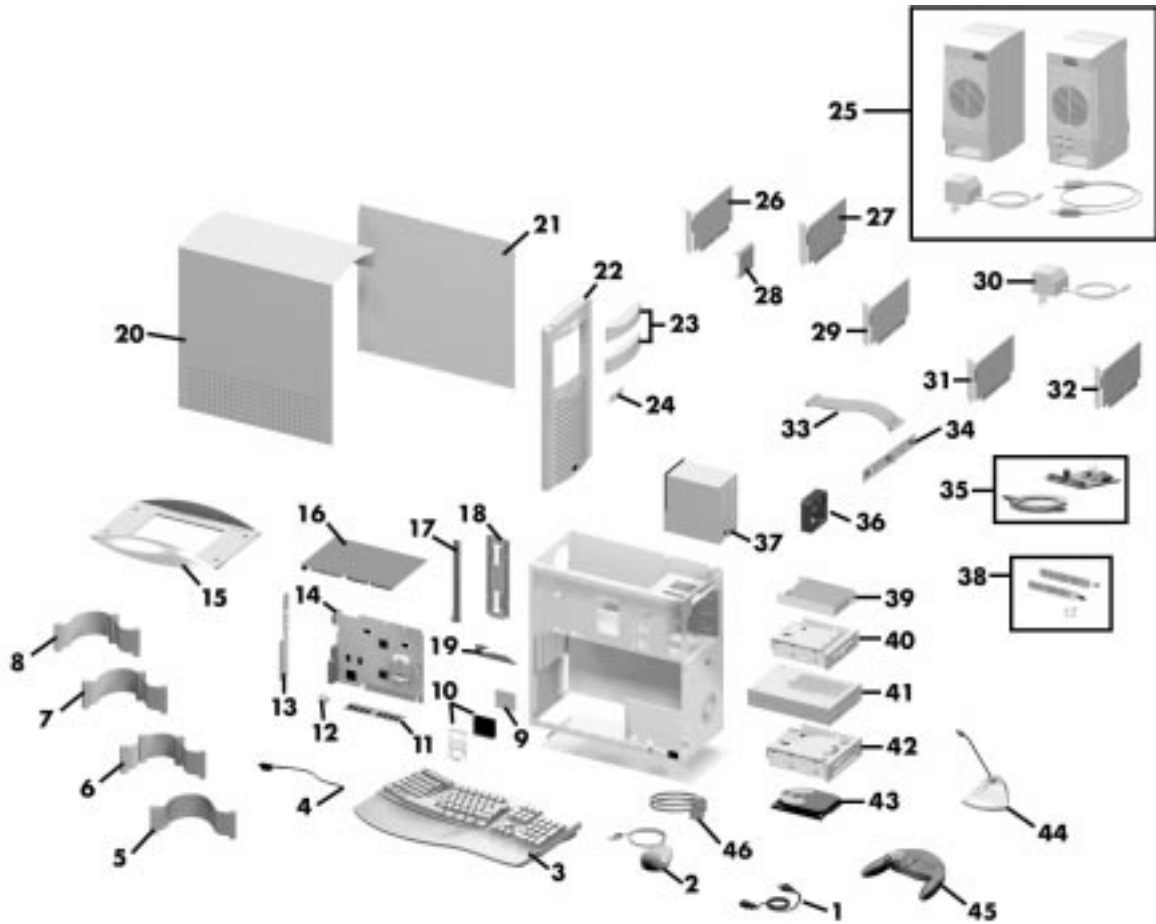


Figure 2-1 PowerMate Enterprise Pentium-Based Educational Series Minitower Illustrated Parts Breakdown*

* This data was prepared January 1998. For an up-to-date listing of spare parts, call FaxFlash at 1-888-329-0088 (or 1-978-635-6090 outside the U.S.) and order document 42181898.

Desktop

This subsection contains the illustrated parts breakdown (IPB) and NECCSD part numbers for the PowerMate Enterprise Pentium Processor-Based Educational Series desktop computer (model ES166D).

Table 2-4 lists the field-replaceable parts for the computer. Table 2-5 lists the documentation and packaging for the computer. Figure 2-2 is the IPB.

Table 2-4 PowerMate Enterprise Pentium-Based Educational Series Desktop Spare Parts List*

Item	Description	Part Number
1	Microsoft Natural keyboard	120072
2	Microsoft IntelliMouse	230-00026
3	Power Cable	808-857649-101A
4	IDE Hard Drive Cable, 2-connector	233-00100
5	Diskette Drive Signal Cable, 2-connector	233-00105
6	CD-ROM Signal Cable, 2-connector	233-00102
7	Front Panel PCB Switch w/IR (includes Power, Sleep & Reset)	207-00084
8	PCB Card Edge Guide	158-052266-009
9	Fan Assembly	158-052266-022
10	Front Panel Ribbon Cable	233-00104
11	16-MB SDRAM (2MB x 64) DIMM	710-00029
	32-MB SDRAM (4MB x 64) DIMM	710-00028
	64-MB SDRAM (8MB x 64) DIMM (when available)	710-00033
	128-MB SDRAM (16MB x 64) DIMM (when available)	710-00034
12	CD-ROM Audio Cable	233-00109
13	Plastic Motherboard Ejection Lever	158-052266-006
14	Coin-cell Battery	158-060367-000
15	166-MHz Pentium Processor	080577
	200-MHz Pentium Processor	080591
	166-MHz MMX Pentium Processor	712-00017
	200-MHz MMX Pentium Processor	712-00016
	233-MHz MMX Pentium Processor	081778

* This data was prepared January 1998. For an up-to-date listing of spare parts, call FaxFlash at 1-888-329-0088 (or 1-978-635-6090 outside the U.S.) and order document 42181898.

Table 2-4 PowerMate Enterprise Pentium-Based Educational Series Desktop Spare Parts List*

Item	Description	Part Number
16	Heatsink w/Clip	158-060324-001
17	System Board with Audio	158-056658-000
	System Board without Audio	158-056659-000
18	I/O Plate (with Audio, with USB)	780-00031
	I/O Plate (without Audio, with USB)	780-00026
19	Intel Pro 100M2 Network Interface Card (NIC)	207-00066
20	Wake-on LAN Cable (for Intel LAN Pro 100M2)	233-00103
21	3COM 3C509B Network Interface Card (NIC)	203-00003
22	3COM 3C905-TX Network Interface Card (NIC)	204-00001
23	Sound Card, Creative Labs CT4335	207-00065
24	Audio Cable for Creative Labs Sound Card	158-050824-000
25	Diamond Stealth Video 2000 Pro w/4MB EDO Video Memory	207-00067
26	Fax/Data Modem, 56.6-Kbps (Akita II)	207-00068
27	RJ-11 Cable	158-050519-001
28	Riser Card	203-00013
29	Chassis Cover	210-00175
30	Power Supply, 200-Watt	213-00014
31	2.1-GB IDE Hard Drive, Quantum ST Ultra DMA	300669-01
	3.2-GB IDE Hard Drive, Quantum ST Ultra DMA	300668-01
	4.3-GB IDE Hard Drive, Quantum ST Ultra DMA	300667-01
	6.4-GB IDE Hard Drive, Quantum ST Ultra DMA	300666-01
32	NEC 16X MAX CD-ROM Reader	CDR1600A/BR
	Lite-ON 24X MAX CD-ROM Reader	217-00033
33	Diskette Drive, without Bezel	219-00016
34	Front Bezel	158-052266-103
35	Plastic Blank Panel – 5-1/4 inch	210-00147
36	Logo, NEC PowerMate Enterprise	400-00358
37	9 Watt Speakers with Cables and Adapter, Altec-Lansing	160323

* This data was prepared January 1998. For an up-to-date listing of spare parts, call FaxFlash at 1-888-329-0088 (or 1-978-635-6090 outside the U.S.) and order document 42181898.

Table 2-4 PowerMate Enterprise Pentium-Based Educational Series Desktop Spare Parts List*

Item	Description	Part Number
38	Speaker Adapter	158-056391-000
39	Microphone	230-00011
40	Microsoft Sidewinder Gamepad	230-00013
39	Motherboard Plastic Slide Rail (not shown)	158-052266-004
40	Slide Rail Ground Clip (requires 4) (not shown)	158-052266-020
41	Chassis Ground Clip (requires 2) (not shown)	158-052289-000
42	Chassis Intrusion Switch/Assembly (not shown)	158-052263-001
43	Chassis Intrusion Switch Housing (not shown)	158-052266-019
44	Rail Kit (not shown)	210-00064

Table 2-5 PowerMate Enterprise Pentium-Based Educational Series Desktop Documentation and Packaging*

Description	Part Number
PowerMate Enterprise User's Guide	451-00135
Shipping Carton	500-00057
PowerMate Enterprise Service and Reference Manual	819-181828-000
The NEC Select Install CD-ROM – WIN95 “Educational”	370-00309
The NEC Select Install CD-ROM – WIN95	370-00287
The NEC Select Install CD-ROM – Windows NT 4.0	370-00288

* This data was prepared January 1998. For an up-to-date listing of spare parts, call FaxFlash at 1-888-329-0088 (or 1-978-635-6090 outside the U.S.) and order document 42181898.

POWERMATE ENTERPRISE PENTIUM II-BASED EDUCATIONAL SYSTEMS

This subsection contains the illustrated parts breakdown (IPB) and NECCSD part numbers for the PowerMate Enterprise Pentium II Processor-Based Educational Series minitower computer. This information applies to PowerMate Enterprise Educational systems with the following model numbers:

- ES266II
- ES300II.

Table 2-6 lists the field-replaceable parts for the computer. Table 2-7 lists the documentation and packaging for the computer. Figure 2-3 is the illustrated parts breakdown.

Table 2-6 PowerMate Enterprise Pentium II-Based Educational Series Minitower Spare Parts List*

Item	Description	Part Number
1	Power Cable	808-857649-101A
2	Microsoft IntelliMouse	230-00026
3	Microsoft Natural keyboard	120072
4	Diskette Drive Signal Cable, 3-connector	233-00124
5	SCSI 4-Connector Signal Cable	233-00120
6	IDE Hard Drive Cable, 3-connector	233-00119
7	CD-ROM Signal Cable, 3-connector	233-00119
8	CPU Assembly	
a	233-MHz MMX Pentium II Processor CPU Assembly	712-00013
b	266-MHz MMX Pentium II Processor CPU Assembly	081753
c	300-MHz MMX Pentium II Processor CPU Assembly	081796
d	Heatsink	158-060446-000
9a	CPU Assembly Retention Mechanism	301-00038
9b	Heatsink Top Bar	235-00006
10a	16-MB SDRAM (2MB x 64) DIMM	710-00029
10b	32-MB SDRAM (4MB x 64) DIMM	710-00028
10c	64-MB SDRAM (8MB x 64) DIMM (when available)	710-00033
10d	128-MB SDRAM (16MB x 64) DIMM (when available)	710-00034
10e	256-MB SDRAM (32MB x 64) DIMM (when available)	710-00063
11	Coin-cell Battery	158-052263-000

* This data was prepared January 1998. For an up-to-date listing of spare parts, call FaxFlash at 1-888-329-0088 (or 1-978-635-6090 outside the U.S.) and order document 42181898.

Table 2-6 PowerMate Enterprise Pentium II-Based Educational Series Minitower Spare Parts List*

Item	Description	Part Number
12	I/O Plate (with Audio, with USB)	780-00036
13	System Board with Audio and LAN (Intel NX440LX)	201-00092
14	System Base Stand	210-00153
15	Riser Card	203-00022
16	Chassis Cover, Side/Top (mist white)	210-00125
17	Chassis Cover, Side (mist white)	210-00154
18	Front Bezel (mist-white), includes IR PCB, cables (complete assembly)	210-00171
18	Front Bezel (mist-white), includes IR PCB, cables (complete assembly)	158-052280-003
19	Plastic Blank Panel – 5-1/4 inch (mist white)	210-00164
20	Logo, NEC PowerMate Enterprise	158-030872-089
21a	9 Watt Speakers w/Cables and Adapter, Altec ASC-90	160323
21b	Speaker adapter	158-056391-000
22a	3COM 3C905-TX Network Interface Card (NIC)	158-052256-000A
22b	3COM 3C509B (Rev. C) Network Interface Card (NIC)	203-00024
23a	Diamond Laguna DM-5465 AGP Video Card with 2 MB of Video Memory	207-00114
23b	ATI XPERT@Work AGP 2X Video Card with 4 MB of Video Memory (Model 1331)	207-00115
23c	Number 9 3D PCI Video Card with 4-MB of Video Memory	060202
24a	4MB module for ATI XPERT@Work Video Card (increases ATI card from 4 MB to 8 MB of Video Memory)	207-00116
24b	Number 9 4-MB Memory Module (increases PCI card from 4 MB to 8 MB of Video Memory)	060204
24c	Number 9 8-MB Memory Module (increases PCI card from 4 MB to 8 MB of Video Memory)	207-00120
25	Sound Card, Creative Labs CT4335 (AWE-32)	207-00065
25a	Audio Cable for Creative Labs Sound Card	158-050824-000
26	U.S. Robotics Fax/Data Modem, 56.6-Kbps (Akita II)	207-00068
27	Adaptec 2940 Ultra Wide SCSI Controller Board	207-00121
28	Front Panel Ribbon Cable	233-00117

Table 2-6 PowerMate Enterprise Pentium II-Based Educational Series Minitower Spare Parts List*

Item	Description	Part Number
29	Front Panel PCB	207-00126
30	Fan Assembly	233-00112
31	Power Supply, 200 Watt	213-00014
32	Rail Kit	210-00064
33	Diskette Drive (mist white), without Bezel	219-00016
34a	PCMCIA – 3.5" Drive Bay Adapter	237-00038
34b	4/8-GB Tape Backup Drive, Seagate Travan4	221-00028
35a	Lite-ON 24X MAX CD-ROM Reader (mist white)	217-00035
35b	Lucky Goldtar 24X MAX CD-ROM Reader (mist white)	730302
35c	NEC 24X MAX CD-ROM Reader (mist white)	217-00049
36	Iomega 100-MB Zip Drive (IDE)	320703
37a	2.1-GB IDE Hard Drive, Quantum ST Ultra DMA	300669-01
37b	3.2-GB IDE Hard Drive, Quantum ST Ultra DMA	300668-01
37c	4.3-GB IDE Hard Drive, Quantum ST Ultra DMA	300667-01
37d	6.4-GB IDE Hard Drive, Quantum ST Ultra DMA	300666-01
38	Microphone	230-00011
39	Microsoft Sidewinder Gamepad	230-00013
40	RJ-11 Cable	158-050519-001
41	Chassis Bottom Cover	210-00155
----	PCMCIA ISA Controller Card (not shown)	158-052263-000
----	PCMCIA Cable, 4 connector (not shown)	233-00123
----	PCB Card Edge Guide (not shown)	451-00226
----	CD-ROM Audio Cable (not shown)	233-00122
----	Chassis Intrusion Switch/Assembly (not shown)	207-00129
----	Chassis Intrusion Switch Housing (not shown)	158-052266-019

* This data was prepared January 1998. For an up-to-date listing of spare parts, call FaxFlash at 1-888-329-0088 (or 1-978-635-6090 outside the U.S.) and order document 42181898.

Table 2-7 PowerMate Enterprise Pentium II-Based Educational Series Minitower Documentation and Packaging*

Description	Part Number
PowerMate Enterprise User's Guide	819-181870-000 Rev. 00
Shipping Carton	500-00075
PowerMate Enterprise Pentium II Processor-Based Service and Reference Manual	819-181892-000
The NEC Select Install CD-ROM – WIN95 “Educational” (Enterprise Pentium II)	370-00309
The NEC Select Install CD-ROM – Windows NT 4.0 (Enterprise Pentium II)	370-00299
NEC Select Install CD-ROM – Windows 95 (Enterprise Pentium II)	370-00298

* This data was prepared January 1998. For an up-to-date listing of spare parts, call FaxFlash at 1-888-329-0088 (or 1-978-635-6090 outside the U.S.) and order document 42181898.

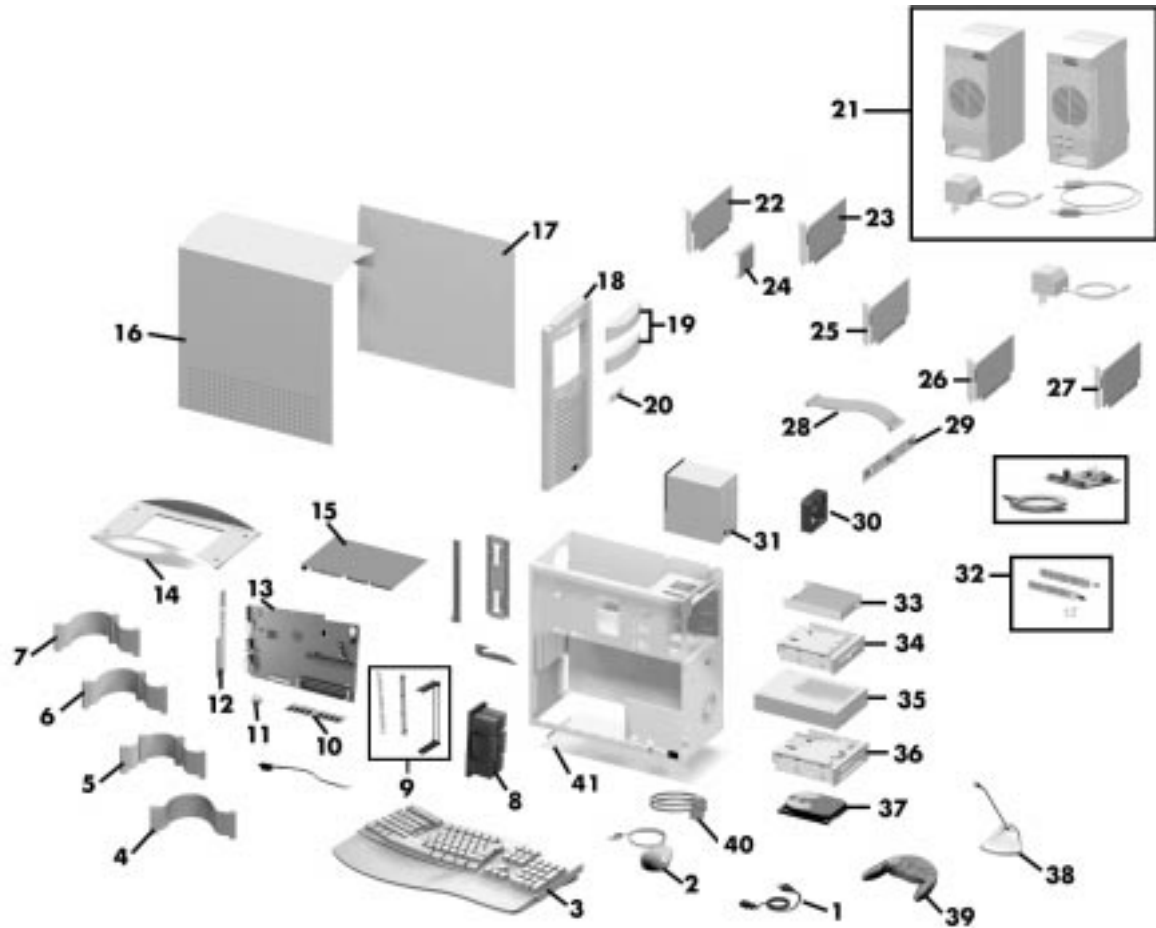


Figure 2-3 PowerMate Enterprise Pentium II-Based Educational Series Minitower Illustrated Parts Breakdown*

* This data was prepared January 1998. For an up-to-date listing of spare parts, call FaxFlash at 1-888-329-0088 (or 1-978-635-6090 outside the U.S.) and order document 42181898.

Section 3

Service Telephone Numbers

This section provides NECCSD service telephone numbers (see Table 3-1).

NOTE: The PowerMate Educational System is covered by three year on-site service. This is a premium service above the warranty which is documented in the PowerMate Enterprise Series User's Guides. The Technical Support phone number for problems relating to the PowerMate Educational System is **888-632-8692**.

Table 3-1 NECCSD Service and Support Telephone Numbers

Service	Telephone Number
To contact the NECCSD Technical Support Center (TSC):	In the U.S. and Canada, call 1 (888) 632-8692
To order spare parts (Dealers):	Call 1 (888) 632-8692
To order spare parts (Customers):	In the U.S., call 1 (800) 233-6321 In Canada, call 1 (800) 727-2787
To contact Customer Service about service and contract warranty issues:	Call 1 (888) 632-9128
To log onto the NECCSD Electronic Bulletin Board System (EBS) to download software drivers and the latest BIOS for ROM flashing:	Call 1 (978) 635-4706
For information about NECCSD products, call FaxFlash SM (use this automated service to have the latest Technical Information Bulletins sent to your fax machine 24 hours a day):	In the U.S., 1 (888) 329-0088 1 (888) FAX-0088 Outside the U.S., call 1 (978) 635-6090
To send technical questions over email:	tech-support@neccsd.com
To fax technical questions to customer support:	In the U.S., fax 1 (978) 635-4100
To access the NECCSD Web page:	www.nec-computers.com
To access the NECCSD FTP site:	ftp.neccsdeast.com
To purchase a new system or an option kit through NEC NOW, or to obtain sales literature or option information:	Call 1 (888) 863-2669 1 (888) 8NEC-NOW

(For United States Use Only)

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from the one to which the receiver is connected.

Use a shielded and properly grounded I/O cable to ensure compliance of this unit to the specified limits of the rules.

FCC Modem Connection Requirements

The Federal Communications Commission (FCC) has established Rules that permit this device to be directly connected to the telephone network. Standardized jacks are used for these connections. This equipment should not be used on party lines or coin lines.

If the modem is malfunctioning, it may also be harming the telephone network. Disconnect the modem until the source of the problem is determined and repairs are made. If this is not done, the telephone company may temporarily disconnect service.

The telephone company may make changes in its technical operations and procedures. If such changes affect the compatibility or use of the modem, the telephone company is required to give adequate notice of the changes. You will be advised of your right to file a complaint with the FCC.

If the telephone company requires information on what equipment is connected to their lines, inform them of:

- The telephone number to which this unit is connected.
- The ringer equivalence number (see the modem label).
- The USOC jack required.
- The FCC Registration number (see the modem label).

The ringer equivalence (REN) is used to determine how many devices can be connected to your telephone line. In most areas, the sum of the RENs of all devices on any one line should not exceed five (5). If too many devices are attached, they may not ring properly.

Modem Service Requirements

If the modem malfunctions, all repairs should be performed by NEC Computer Systems Division or an NECCSD Authorized Service Center. It is the responsibility of users requiring service to report the need for service to NEC Computer Systems Division or to an NECCSD Authorized Service Center. Service can be obtained at:

NEC Computer Systems Division, Inc.
1414 Massachusetts Avenue
Boxborough, Massachusetts 01719-9984
Phone: 1-800-233-6321

(For Canadian Use Only)

This equipment is a Class B digital apparatus which complies with the Radio Interference Regulations, C.R.C., c.1374.

Cet appareil numérique de la classe B est conforme au Règlement sur le brouillage radioélectrique, C.R.C., ch.1374.

Canadian Department of Communications Modem Connection Requirements

NOTE: The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

WARNING: Users should not attempt to make such connections themselves, but should contact the appropriate inspection authority or electrician.

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the total of the Load Numbers of all the devices does not exceed 100.

BATTERY REPLACEMENT

A battery in your computer maintains system configuration information. In the event that the battery fails to maintain system configuration information, NECCSD recommends that you replace the battery (for battery removal procedures, see Section 4 in the appropriate PowerMate Enterprise Series service and reference manual for the system):

- *PowerMate Enterprise Service and Reference Manual (819-181828-000)*
- *PowerMate Enterprise Pentium Processor-Based Minitower Service and Reference Manual (819-181884-000)*
- *PowerMate Enterprise Pentium II Processor-Based Minitower Service and Reference Manual (819-181892-000).*

WARNING: There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

ATTENTION: Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

BATTERY DISPOSAL

Do not place used batteries in your regular trash.

A nickel-cadmium or nickel metal-hydrate battery must be collected, recycled, or disposed of in an environmentally approved manner.

The incineration, landfilling, or mixing of batteries with the municipal solid waste stream is **prohibited by law** in most areas.

Return batteries to a federal or state approved battery recycler. This may be where you purchased the battery or a local seller of automotive batteries. In MINNESOTA, call 1-800-225-PRBA if further disposal information is required.

Contact your local waste management officials for other information regarding the environmentally sound collection, recycling, and disposal of the batteries.