

# PowerMate V486, Desktop and Mini-Tower

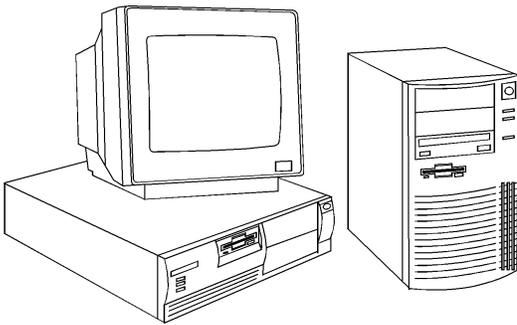


Figure 1. NEC PowerMate V486 Desktop and Mini-Tower

## Specifications

### Processor

- Intel 486DX2/66, 486DX4/100MHz

### Memory

- 8MB RAM standard, expands to 64MB

### I/O Expansion Slots

- Desktop: Three 16 bit ISA slots  
One PCI/ISA slot
- Mini-Tower: Four 16 bit ISA slots  
One PCI/ISA slot

### Diskette Drive

- 1.44MB drive standard

### Integrated Features

- Integrated Video & graphics accelerator (1MB VRAM)
- One parallel and two serial ports
- 32 - bit PCI enhanced IDE disk interface
- PS/2 style keyboard and infrared mouse

### Internal Expansion Bays

- Desktop: Two 3.5" and two 5.25" drive bays
- Mini-Tower: Two 3.5" and three 5.25" drive bays

### I/O Architecture (Bus s supported)

- PCI and ISA

### Power Supply

- Desktop: 145 Watt
- Mini-Tower: 200 Watt

### 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 or function key (F2) on power-up.

## Tools and Software Requirements

- Phillips head screwdriver
- Needle nose pliers
- Diags and formatted blank diskette
- Anti-static wrist strap

## Jumper/Switch Settings

### System Board, Jumper Settings

Jumper	Setting	Function
JP1	1-2*	33MHz clock spd. for DX2/DX4
JP2	Unjumped * Jumped	Password functions normally Password clears
JP3	Unjumped *	Reserved do not change
JP4	Jumped *	Reserved do not change
JP5	Jumped *	Reserved do not change
JP6	Jumped	Reserved do not change
JP7	Jumped *	Reserved do not change
JP8	Jumped *	Reserved do not change
JP9	Unjumped*	Reserved do not change
JP16 / JP17	Unjumped * Unjumped * 2 - 3 1 - 2	No secondary cache used 256KB secondary cache
JP19	3 jumped *	33MHz clock spd. for DX2/DX4
JP20	Unjumped *	Reserved do not change
JP21	Unjumped *	Reserved do not change
JP22	Unjumped *	Reserved do not change
JP23	Unjumped *	Reserved do not change

\* Default

### System Board, Processor Voltage Jumpers

VR1	VR2	VR3	VR4	Function
closed	closed	closed	closed	Voltage for DX2/66
open	open	open	open	Voltage f/ DX4/100

## 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.
4. Discharge any status by touching static strap to chassis.

### System Cover

How to remove the cover:

#### Desktop:

1. Remove the two cover screws on rear of unit.
2. Slide the cover about an inch toward the back of the unit.
3. Lift the top cover up and off the system unit.

#### Mini-Tower:

1. Remove the three cover screws on rear of unit.
2. Pull the cover two inches towards the front of the system.
3. Lift the cover up and off of the system.

## Special Notices:

### BIOS Functions

- All IRQ used by built-in ports are not available for use by any ISA cards in the system
- The system unit's CMOS is set with the correct hardware settings at the factory. Time and date may be the only thing to change

### Memory

- Memory used is 1,2,4,8MB x 32 bits @ 70ns speed
- Memory sizes can be intermixed on the system board.
- Socket 1 needs to be removed to populate socket 2.

## Field Replaceable Units

Memory	OEM Part	IBM Part
256KB Cache Board	158-053745-000	62H1302
4MB @ 4MB X 9 SIMM	158-082552-070	61H5845
4MB @ 1MB X 32 SIMM	158-053746-000	47H9640
8MB @ 8MB X 9 SIMM	158-082553-070	37H8754
8MB @ 2MB X 32 SIMM	158-053746-001	37H8990
16MB @ 16MB X 9 SIMM	158-082556-070	37H8755
16MB @ 4MB X 32 SIMM	158-053746-003	37H8991
32MB @ 8MB X 32 SIMM	158-053746-002	37H8992

Internal Hard Drive	OEM Part	IBM Part
540MB, IDE HD	158-050395-322	71H0400
850MB, IDE HD	158-050395-337	37H8752
1.3GB, IDE HD	158-050395-338	68H9060

Cables	OEM Part	IBM Part
Diskette signal cable	158-050690-001	66H7494
HD IDE signal cable	158-050691-000	66H7495
CD-ROM IDE signal cable	158-050691-001	66H7496
Audio cable for CD-ROM	158-050824-000	66H7520

Diskette Drives	OEM Part	IBM Part
5.25", 1.2MB Floppy	158-053476-000	22H1988
3.5", 1.44MB Floppy	808-870954-101A	37H8753

Miscellaneous	OEM Part	IBM Part
PCI/ISA backboard bracket	158-050685-006	61H7408
PCI/ISA backboard bracket	158-050795-000A	61H7410
Network board	158-050796-000	66H0436
Battery 3.6v	158-056137-000	37H8761
Microphone	158-050696-100	61H7414
Keyboard PS/2 style	158-050707-000	37H8765
NEC PS/2 style mouse	158-050484-002	55H1100
PCI/ISA backboard <sup>1</sup>	158-050798-000A	61H5819
Power supply <sup>1</sup> (200 Watt)	158-050699-000	48H7032
Sound board	158-050797-000	37H8757
Speaker assembly	158-050685-003	37H8764

<sup>1</sup> For Mini-Tower

System Boards	OEM Part	IBM Part
System board, no CPU	158-050794-000A	37H8756

Processors	OEM Part	IBM Part
Heat-sink	158-060219-002	65H9785
Intel 486DX2/66	158-082534-000	67H9773
Intel 486DX4/100	158-082577-001	67H9774
Intel 486DX2/66 Mini-tower	158-082533-000	37H8760

CD-ROM Drives	OEM Part	IBM Part
4x speed CD ROM	158-050817-000	37H8763