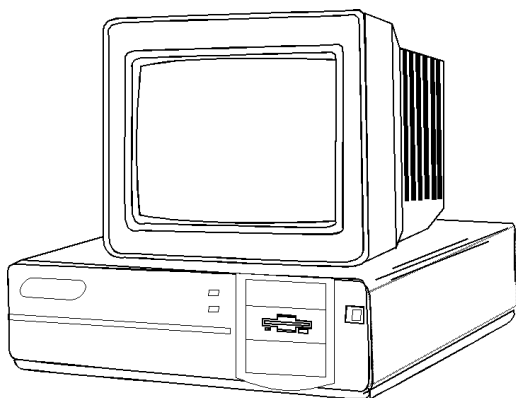


Compaq Prolinea Desktop Family



Compaq Prolinea Desktop Family

Specifications

Processor

- Intel 386SX/25, 486SX/25, 486SX/33, 486DX/33
- Intel 486DX2/50, Intel 486DX2/66

Memory

- 2/4MB standard, expands to 32MB

I/O Expansion Slots

- 3-16 bit ISA expansion slots

Diskette Drive

- 1-3.5" 1.44MB diskette drive

Integrated Features

- ECP parallel, serial, keyboard, mouse, local bus video

Internal Expansion Bays

- 3-user accessible bays, 1-internal drive bay

I/O Architecture (Buses supported)

- 16-bit ISA

Power Supply

- 145 watt power supply

Diagnostics

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

Tools And Software Requirements

- Flat bladed and Torx screwdriver
- Needle nose pliers
- 25 pin and 9 pin loopback plugs
- Modem termination plug
- ROM/Coprocessor removal tool
- Diagnostics and formatted blank diskettes
- Anti-static wrist strap

Jumper Settings

Jumpers, 386SX System Boards (002596,002903)

| Jumper | Pins | Description |
|--------|---------------------|----------------------------------------------|
| P1 | IN/OUT | turns on/off mouse |
| P2 | 1,2/2,3 | turns on/off VGA |
| P9 | 1,2/2,3/ no jmpr | external/internal battery clears password |
| P12 | 1,2/2,3 | Internal/external speaker |

Jumpers, 486 System Boards

(002670,002792,002795,002888,002891,002894)

| Jumper | Pins | Description |
|---------|--------------------|---------------------------------------------------------|
| P4 | 1,2 no jmpr | monochrome monitor VGA or color display |
| P5 | no jmpr 1,2 | I/O select 398h/399h I/O select 25Eh/26Fh |
| P6 | 1,2,no jmpr | 0 wait state/1 wait state |
| P7 | no jmpr | No EGA emulation |
| P8 | 1,2/2,3 | Internal speaker/ext. speaker |
| P50,P51 | 1,2/2,3 | Turns on video/turns off video |
| P52 | 1,2/2,3 no jmpr | external battery/int. battery clears password (CMOS) |

| | 486SX | 486DX/DX2 | 487SX/OD |
|----------------|-------|-----------|----------|
| P1 CPU select | 2,3 | 1,2 | 1,2 |
| P2 CPU select | 1,2 | 2,3 | 2,3 |
| P3 CPU select | Open | 1,2 | 2,3 |
| P11 CPU select | 2,3 | 2,3 | 2,3 |

Jumpers, 486 System Boards w/ Local Bus Video

(003218,003233,003236,003239)

| Jumper | Pins | Description |
|------------|-----------------|----------------------------------------------|
| P5 | 1,2/2,3* | turns off/turns on video |
| P6 | 1,2/2,3* | turns off/turns on video |
| P7 | 1,2*/2,3 | can use PQFP/can't use PQFP |
| P8 | 1,2/2,3* | 33MHz/25MHz clock speed |
| P9/P10/P11 | | processor selection |
| P12 | 1,2/OFF* | mono/color or VGA monitor |
| P13 | OFF 1,2 | I/O select 398h/399h I/O select 26Eh/26Fh |
| P14 | 1,2/2,3* OFF | external/internal battery clear CMOS |
| J4 | 3,4*/OFF | internal/external speaker |

| | 486SX (PGA) | 486SX (PQFP) | 486DX/DX2 | 487SX/OD |
|----------------|----------------|-----------------|-----------|----------|
| P7 on PQFP | | 1,2 | | |
| P7 off PQFP | | 2,3 | | |
| P9 CPU select | 2,3 | 1,2 | 1,2 | 1,2 |
| P10 CPU select | 1,2 | 1,2 | 2,3 | 2,3 |
| P11 CPU select | 3,4 | 1,2 | 1,2 | 2,3 |

**Jumpers, 486 System Boards w/ 4MB RAM
(003428,003429,003430,003431,003434)**

| Jumper | Pins | Description |
|--------------------|-------------------|--------------------------------------------------------------|
| P5,P6 | 1,2 2,3 | turns on video (on both pins) turns off video (no jumper) |
| P7 | 1,2/2,3 no hdr | microprocessor select on/off socketed |
| P8 | 1,2/2,3 | 33MHz/25MHz |
| P9 ^{1,2} | 1,2 2,3 | 486DX/DX2,486SX non sckt, 487SX/OD 486SX socketed |
| P10 ^{1,2} | 1,2 2,3 | 486SX non sckt, 486SX socketed 486DX/DX2, 486SX/OD |
| P11 ² | 1,2-2,3 3,4 | 486DX/DX2 - 487SX/OD 486SX(nonsckt), 486SX(sccktd) |
| P13 I/O | 1,2* no jmpr | 26Eh/26Fh 398h/399h |
| P14 | 1,2 | clears password |

* Default, ¹ headers not used in 486/33 models.

² headers not used in 486/50 models.

Config is set by 0-ohm resistors

| Microprocessors | OEM Part | IBM Part |
|-----------------|------------|----------|
| 486DX2/50 | 194394-001 | 68H0187 |
| 486DX2/66 | 194395-001 | 48H7476 |

Removal Procedures

Before beginning removal complete the following steps.

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

System Cover

Warning: Screws used in the Prolinea are not interchangeable, using an incorrect screw can damage the unit.

1. Remove the two torx screws connecting the cover to the rear bezel
2. Lift the rear of the cover and pull it from the system unit

Field Replaceable Units

| Memory | Assembly | OEM Part | IBM Part |
|-------------------|------------|------------|----------|
| 1MB ¹ | 141124-001 | 141750-001 | 52H6059 |
| 1MB ² | 118666-004 | 141752-001 | 22H0688 |
| 2MB ² | 118667-004 | 141753-001 | 20H8474 |
| 4MB ¹ | 141124-002 | 141751-001 | 20H8510 |
| 4MB ² | 137854-001 | 141754-001 | 20H6294 |
| 8MB ² | 137853-002 | 141755-001 | 90G7098 |
| | 129041-002 | | |
| | 136805-003 | | |
| 16MB ³ | 137143-003 | 149947-001 | 90G7101 |

¹ 386 systems, ² 486 systems, ³ 486 w/ 4MB RAM on board

| Controller | Assembly | OEM Part | IBM Part |
|------------------------------|--------------------------------------------------------------------------------------------|------------|----------|
| 6260 SCSI-2 | 00400 | 146993-001 | 90G6453 |
| ENET 16TP | 003086 | 147220-001 | 20H8457 |
| Token Ring | 160782-001 | 142836-001 | 20H8133 |
| Ser/Parl | 000990 | 106886-001 | 93F7110 |
| Sound Bd. PAS-16 | 160919-001 | 20H8514 | |
| | ¹ 160921-001 | | |
| Sound Bd. SB-16 ² | 197492-001 | 197493-001 | 20H8458 |
| Qvision 1024/I | 002948 | 148866-001 | 20H8089 |
| Qvision 1280/I | 002951 | 139182-001 | 20H8090 |
| 14.4 Modem | 193052 | 193080-001 | 20H8511 |
| 9.6K modem ³ | 141605-001 | 141607-001 | 20H8512 |
| | 197457-002 | | |
| Speedpaq 144/I | 003002 | 147453-001 | 55H1777 |
| | ¹ 4/25CDS, ² 4/33s, ³ 4/25s, CDS, 4/33, 4/33s, 4/50, 4/66 | | |

Internal Hard Drive

| Size | Type | OEM Part | IBM Part |
|---------------|------|------------|----------|
| 40MB (3/25zs) | 18 | 141815-001 | 20H8506 |
| 84MB (3/25) | 27 | 141814-001 | 20H8508 |
| 120MB | 50 | 143316-001 | 20H8502 |
| 200MB (4/33s) | 51 | 160702-001 | 20H8464 |
| 210MB (4/66) | 51 | 124013-001 | 93F7865 |
| 240MB | 1 | 143332-001 | 20H8504 |
| 340MB | 63 | 171923-001 | 20H8636 |

| System Bds (Machine) | Assembly | OEM Part | IBM Part |
|----------------------------------------|---------------------|------------|----------|
| 386SX/25 (3/25zs,3/25s) ⁴ | 002596 | 141667-001 | 20H8492 |
| 386SX/25 (3/25zs,3/25s) ^{1,4} | 002903 | 143331-001 | 20H8486 |
| 486SX/25(4/25s) ⁴ | 002792 | 143224-001 | 20H8496 |
| | 002888 | | |
| 486SX/25 (4/25s) ^{4,5} | 002888 | 143224-002 | 20H6293 |
| 486SX/25 (4/25s/CDS) ⁵ | 003431 | 160018-001 | 20H8488 |
| 486SX/25 (CDS) ⁴ | 003218 | 160172-001 | 20H8495 |
| | 003431 ² | | |
| 486SX/33 (4/33s) ³ | 003434 | 160420-001 | 20H8489 |
| 486DX/33 (4/33) ⁴ | 002670 | 143320-001 | 20H6814 |
| | 002894 | | |
| 486DX/33 (4/33) ^{2,4} | 003236 | 160123-001 | 20H8489 |
| 486DX/33 (4/33) ³ | 003428 | 160125-001 | 20H8487 |
| 486DX2/50 (4/50) ⁴ | 002795 | 146024-001 | 20H8493 |
| | 002891 | | |
| 486DX2/50 (4/50) ^{2,4} | 003233 | 160072-001 | 20H8491 |
| 486DX2/50 (4/50) ³ | 003429 | 160074-001 | 20H8490 |
| 486DX2/66 (4/66) ^{2,4} | 003239 | 160173-001 | 20H8494 |
| 486DX2/66 (4/66) ³ | 003430 | 160178-001 | 48H7107 |

¹ works with backplane 141782-001 (IBM Part 20H8481) or 141783-001 (IBM Part 20H8482) (rev c) or later.

² local bus system,

³ 4MB RAM on system board w/ local graphics,

⁴ external battery not included, ⁵ not available in Europe

| Tape Drives | OEM Part | IBM Part |
|-----------------|------------|----------|
| 60MB 1/3ht | 112524-001 | 93F7889 |
| 80/120MB 1/3ht | 131337-001 | 93F8241 |
| 80/120MB 1/2ht | 122087-001 | 93F8246 |
| 120/250MB 1/2ht | 197490-001 | 20H8465 |

All drives have compression

| Diskette Drives (Models) | OEM Part | IBM Part |
|-----------------------------------------------------|------------|----------|
| 1.2MB (3/25s,4/25s,4/33,4/50) | 141367-001 | 20H8462 |
| 1.2MB (3/24s,4/25s,4/33,4/33s,4/50,4/66) * | 141367-002 | 20H8463 |
| 1.44MB (3/25zs) | 141812-001 | 20H8497 |
| 1.44MB ** (3/25s,4/25s,4/33s,4/33,4/50,4/66) 2-mode | 141350-001 | 20H6298 |
| 1.44MB 3-mode(all 486 systems) | 147243-001 | 20H8500 |

| CD-ROM | OEM Part | IBM Part |
|--------------------------------|------------|----------|
| DualSpeed Internal | 133881-001 | 93F9345 |
| DualSpeed External | 133882-001 | 93F9344 |
| LMSI Drive (4/25s, CDS) | 160917-001 | 20H8501 |
| Tray load internal (4/33s,CDS) | 142223-001 | 20H8472 |
| Tray load External | 199430-001 | 20H8471 |

| Miscellaneous | Assembly | OEM Part | IBM Part |
|---------------------------------|------------|------------|----------|
| Backplane (2 slot) ¹ | 002606 | 141782-001 | 20H8481 |
| Backplane (3 slot) ⁴ | 002927-002 | 141783-001 | 20H8482 |
| Backplane (4 slot) ⁵ | 002927-001 | 143342-001 | 20H6295 |
| Microphone ⁶ | | 160940-001 | 66H7606 |
| Power Supply ¹ | | 141779-001 | 20H8516 |
| Power Supply (220) ² | | 141337-001 | 48H6623 |
| Power Supply (115) ³ | | 137633-001 | 20H6301 |
| Clock battery (4.5v) | | 160274-001 | 20H8456 |
| Clock battery (3.3v) | | 160273-001 | 55H1081 |

¹ For 3/25zs,

² For 3/25s,4/25s,CDS 4/25, CDS 4/25s, 4/33,4/33s,4/50,4/66,

³ For 3/25s,4/25s,CDS 4/25s,4/33,4/33s,4/50,4/66,

⁴ For 3/25s,4/25,4/33,4/50,

⁵ For 4/25s,5/33,4/33s,4/50,

⁶ For 4/25CDS

System Board Identification

| Boards | Assembly | Serial# |
|------------|------------|-------------------|
| 386SX/25 | 002596 | HCU/HCV |
| | 002903 | HCU/HCV |
| 486SX/25 | 002792 | HDU |
| | 002888 | HDU |
| | 003218 | X334HEQ, HEP |
| | 003431-001 | X334-X401HEQ,HEP |
| 486SX/33 | 003431-002 | X402HEQ & UP |
| | 003434-001 | X402HGN, HGP & UP |
| 486SX/33 | 003434-002 | X402HGN,HGP & UP |
| 486SX/33 | 003651 | HKA |
| 486DX/33 | 002670 | HCW |
| | 002894 | |
| 486DX/33 | 003236 | X334,HES,HER |
| 486DX/33 | 003428-001 | X334-X401HES,HER |
| 486DX/33 | 003428-002 | X334-X402HES,HER |
| 486SX2/50 | 003857 | HKB |
| 486DX2/50 | 002795 | HDV |
| | 002891 | |
| 486DX2/50 | 003233 | X334HET,HEU |
| 486DX2/50 | 003429-001 | X334-X401HET,HEU |
| 486DX2/50 | 003429-002 | X402HET,HEU |
| 486DX2/50 | 003759 | HKC, HND |
| 486DX2/66 | 003239 | X334HEV, HEW |
| 486DX2/66 | 003430-001 | X334-X402HEV, HEW |
| 486DX2/66 | 003430-002 | X402HEV, HEW |
| 486DX2/66 | 003760-002 | HKD,HNE |
| 486DX4/100 | 003761 | HKE |

| Cables | OEM Part | IBM Part |
|---------------------------------------|------------|----------|
| HD cable | 141187-001 | 20H6299 |
| Dsktte Drv. Signal Cable ² | 143614-001 | 55H1033 |
| LED Cable ² | 141819-001 | 66H7188 |
| LED Cable ³ | 141346-001 | 20H6302 |
| CD ROM signal cable ⁴ | 160929-001 | 66H7605 |
| CD ROM data tray load ⁵ | 197842-001 | 66H7819 |
| CD ROM audio tray load ⁵ | 199493-001 | 66H7835 |
| CD ROM audio ⁶ | 160927-001 | 66H7604 |
| Power cable, drives | 160745-001 | 66H7597 |

² For 3/25zs,

³ For 3/25s,4/25s,4/33,4/50,

⁴ For 4/25s,CDS,

⁵ For 4/33s,CDS,

⁶ For CDS

| Assembly | System/Video ROM Locations |
|----------|----------------------------|
| 002596 | U10/U11 |
| 002903 | U10/U225 |
| 002670 | U6/U34 |
| 002792 | U6/U34 |
| 002795 | U6/U34 |
| 002888 | U6/U34 |
| 002891 | U6/U34 |
| 002894 | U6/U34 |
| 003218 | U37/N/A* |
| 003233 | U37/N/A* |
| 003236 | U37/N/A* |
| 003239 | U37/N/A* |
| 003428 | U37/N/A* |
| 003429 | U37/N/A* |
| 003430 | U37/N/A* |
| 003431 | U37/N/A* |
| 003434 | U37/N/A* |

* Local bus systems don't support a separate video ROM

| ROM Information | Assembly | OEM Part | IBM Part |
|--------------------|---------------|------------|----------|
| Sys. Rev. 102192 | 002596/002903 | 143613-001 | 66H7208 |
| Sys. Rev. 022593 | 002670/002894 | 143616-001 | 66H7210 |
| Sys. Rev. 020993 | 002792/002888 | 143223-001 | 66H7205 |
| | 002795/002891 | | |
| Video Rev. 070992 | 002596 | 143612-001 | 66H7207 |
| Video Rev. 110692 | 002792/002888 | 143615-001 | 66H7209 |
| | 002670/002894 | | |
| | 002795/002891 | | |
| Sys/Vid Rev 061394 | 003431/003434 | 160192-001 | 48H7109 |
| | 003428/003429 | | |
| | 003430 | | |

| Processor/Coprocessor | Location |
|-----------------------|----------|
| Processor 386SX/25 | U35 |
| Coprocessor 387SX/25 | U44 |