



Technical Information

For Macintosh PowerBook 180c

Specifications

Processor

- 68030
33 MHz clock frequency with FPU

Memory

- 4 MB pseudostatic RAM; expandable to 14 MB
1 MB ROM

Disk drives

- Internal 80 MB or larger hard disk drive
Built-in 1.4 MB floppy disk drive

Video display

- 640 x 480 backlit active matrix, 256 colors

Main battery

- Rechargeable nickel cadmium battery
1.5–2 hours of operation

Backup battery

- 30 mAh rechargeable lithium battery for clock chip

Sound generator

- 4-voice sound with 8-bit digital-analog conversion
recording at 11 kHz or 22 kHz sample rate

Interfaces

- Apple Desktop Bus (ADB) port for keyboard, mouse, and other input devices using a low-speed, synchronous serial bus
- Two serial ports for printers, modems, and other serial devices (RS-422)
- SCSI port for hard disk drives, scanners, printers, and other devices (HDI-30 connector)
- Sound output port for external audio amplifier
- Sound input port for monaural sound input

- Video port (micro DB-15) for 8-bit/256-color video output to most Apple monitors, VGA monitors (640 x 480), and SVGA monitors (600 x 800); includes 512K VRAM to support external monitor, and cable with standard DB-15 connector

Power adapter

- Input: AC100–240 V, 50/60 Hz
- Output: DC 7.5 V, 3.0 A
- ❖ *Note:* The PowerBook 180c can be used at any input voltage within the range above, with no effect on performance. ❖

Clock/calendar

- CMOS custom chip with long-life lithium battery

Keyboard

- 3.0 mm travel keyboard
18 mm vertical pitch, 18.63 mm horizontal pitch

Trackball

- 30 mm diameter

Weight

- 3.18 kg (7.01 lb.)

Dimensions

- 286 mm x 236 mm x 59.43mm (11.26" x 9.29" x 2.34")

Apple Desktop Bus power requirements

- Maximum current draw for all ADB devices is 200 mA
- ❖ *Note:* The maximum number of ADB devices recommended in a daisy chain connected to the ADB port is three. ❖

RAM configurations

All models come with 4 MB of RAM. Additional RAM can be installed on a memory expansion card. Apple recommends that installation of additional memory be done by an authorized Apple dealer or service provider.

For best results, RAM chips must be rated at 85 ns access time or faster.

Microphone/Sound

- The internal microphone is an omnidirectional electret type. Microphone output voltage is 4 millivolts (mV) peak to peak at normal speaking volume. An external microphone can also be used with this computer.
- ❖ *Note:* You can also use adapters to input sound from audio equipment with line level outputs, but the line level signals must be attenuated before reaching the computer's sound input port. An attenuation of 500:1 is recommended when inputting line level signals. Appropriate attenuation cables and adapters are available from most electronics stores. ❖

Environment

Operating temperature

- 10°C to 40°C (50°F to 104°F)

Storage temperature

- -25°C to 60°C (-13°F to 140°F)

Relative humidity

- 20% to 80% noncondensing

Altitude

- Operating: 3048 m (10,000 ft.) maximum
- Shipping (non-operating): 4572 m (15,000 ft.) maximum

Options and accessories

The following are available as options and accessories for your PowerBook computer.

Item	Part number
Macintosh PowerBook 4 MB Memory Expansion Kit	M4664
Macintosh PowerBook Battery Recharger	M1027
Macintosh PowerBook Rechargeable Battery	M5545
Macintosh PowerBook AC Adapter	M4662
Macintosh PowerBook Fax/Data Modem (for US, Canada, and Japan)	M0970
Macintosh PowerBook Fax/Data Modem (for Europe, Australia, and some South American countries)	M0980
Macintosh PowerBook Express Modem (for US, Canada, and Japan)	M1366
Macintosh PowerBook Express Modem (for Europe, Australia, and some South American countries)	M1365
Apple HDI-30 SCSI Disk Adapter	M2539
Apple HDI-30 SCSI System Cable	M2538

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