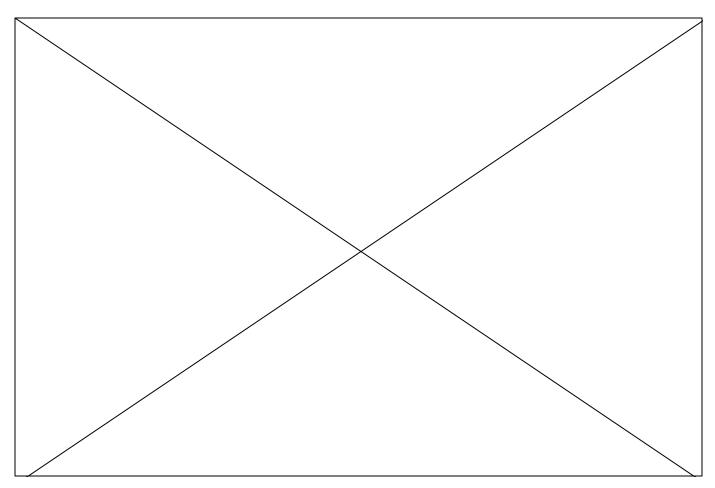
# **MacintoshLC**





# Overview

The Apple® Macintosh® LC personal computer is Apple Computer's lowest-cost color-capable Macintosh. Combining the flexibility of a modular system with a sleek new design, the Macintosh LC gives you a range of options for larger screens, color displays, and system expansion, all at an even more affordable price.

The computer features a 16-megahertz 68020 microprocessorthatin creases system responsiveness more than 100 percent over the Macintosh SE and the Macintosh Cassic<sup>®</sup>.

The Macintosh L Calso offers built-in support for three Applemonitors—including the Macintosh 12" RGB Display, the Macintosh 12" Monochrome Display, and the Apple Color™ High-Resolution RGB Monitor. This means you can choose the monitor you want to work with—without having to add a separate video card.

Rightfromthestart, with a Macintosh LCyoucanenhance graphics, presentation materials, and other documents with a

rangeofshadesandcolors—256colorson the Macintosh 12" RGBD is play, 16 shades of gray on the Macintosh 12" Monochrome Display, and 16 colors on the Apple Color High-Resolution RGB Monitor.

WithanoptionalMacintoshLC512K VRAM(videorandom-accessmemory) SIMM(SingleIn-lineMemoryModule), the systemiscapableofgeneratingevenmore colorsorshadesofgrayonallthree monitors.

The Macintosh L Calsoprovides an important new Macintosh capability: sound input. Macintosh computers have always offered sound output, but the Macintosh L Chasbeen designed so you can add so und sto do cuments created with the computer.

The system comes standard with the 1.4-megabyte Apple Super Drive ™ disk drive, which allows you to work more easily in different computing environments because it can read from and write to 3.5-inch disks initialized for the Macintoshas

wellasMS-DOS,OS/2,andProDOS®. Inaddition,a40-megabyteintemalhard diskdriveaccommodateslargefilesand applications.

Sevenbuilt-inportsallowyoutoexpand the system with popular peripheral equipments uch as additional hard disks, scanners, and printers. Built-innetworking makes it easy to connect to different networks for sharing information. And a processor direct slot allows you to adda high-performance expansion card for additional graphics, communications, and other capabilities.

What's more, when equipped with the Apple lle Card, the Macintosh L C can run virtually all applications developed for Apple llesystems. And the Macintosh L C will be able to run the next generation of Macintosh application—those supported by Macintosh systems of twareversion 7.0—when they become available.

# **Features**

# **Benefits**

68020microprocessor,runningat16 megahertz	Offersmore than 100 percent faster performance and system responsiveness than Macintosh SE and Macintosh Classic systems.
Built-in video support for three Apple monitors:     —Macintosh 12" RGB Display     —Macintosh 12" Monochrome Display     —Apple Color High-Resolution RGB Monitor	Letsyouchoose from the most popular Appledisplays, both color and monochrome.     Letsyouwork with up to 256 colors simultaneously on the Macintosh 12" RGB Display, up to 16 shades of gray on the Macintosh 12" Monochrome Display, and up to 16 colors on the AppleColor High-Resolution RGB Monitor.     Allows you to change displays without adding a video card.
OptionalMacintoshLC512KVRAMSIMM	<ul> <li>Boosts the color depth to 256 colors or shades of gray on the Apple Color High- Resolution RGB Monitor and Macintosh 12" Monochrome Display.</li> <li>Provides 32,000 colors on the Macintosh 12" RGB Display.</li> </ul>
Soundinput	<ul> <li>Allows you to add voice comments to voice- capable word processing, spread sheet, and other documents; send spoken electronic mail messages; add voice excerpts to presentations; and create spoken password protection for sensitive files.</li> </ul>
AppleSuperDrive (1.4-megabytefloppydiskdrive)	<ul> <li>Allows convenient transfer of datafiles between Macintosh, OS/2, MS-DOS, and Apple Ilsystems.</li> <li>Provides almost twice the storage capacity of 800K disk drives.</li> </ul>
ApplelleCard	<ul> <li>Allows you to run virtually all applications that have been developed for Apple IIe computers.</li> <li>Preserves your investment in Apple IIe software.</li> </ul>
020 Direct Slot	<ul> <li>Allowsyoutoexpandsystemcapabilities with a high-performance expansion card for communication, emulation, graphics and other options.</li> </ul>

# **Features**

# **Benefits**

Sevenbuilt-inports:     —OneSCSIport     —OneAppleDesktopBus™(ADB)port     —Twoserialports     —Onesound-inport     —Onesound-outport     —Onevideooutputport	<ul> <li>Provide supportfor up to seven popular peripherals such as CD-ROMdrives, scanners, and printers.</li> <li>Permit communication with the keyboard, mouse, and other input devices</li> <li>Provide easy external access to optional expansion cards.</li> <li>Provide access to Local Talk® cable-based networks, which allowy out oconnect Macintosh LC systems to other computers and to Laser Writer® printers through the Apple Talk® networksystem.</li> <li>Support sound input via microphone or phonojack adapter.</li> <li>Supply high-quality sound output that is compatible with all applications that use Macintosh sound.</li> <li>Provide connection to external video display devices.</li> </ul>
<ul> <li>40-megabyte internal harddiskdrive</li> <li>2megabytesofon-boardRAM,</li> </ul>	<ul> <li>Handlesabroadrangeofcomputdiskample storagecapacityforfilesandapplications.</li> <li>Providesasimplegrowthpathasyouneed</li> </ul>
expandableto 10 megabytes	additional memory.  • Lets you work with large amounts of data, such as spreadsheets, scanned images, and sound files.
Macintosh user interface, including mouse, icons, windows, and pull-downmenus	<ul> <li>Makes most applications intuitive and easy to learn.</li> <li>Reduces training and support costs.</li> <li>Provides a consistent user interface a cross applications.</li> </ul>
MultiFinder® operating system	<ul> <li>Allows multiple applications to be opened concurrently.</li> <li>Let syoue asily cut and paste parts of documents from one application to another.</li> <li>Allows background tasks to be run while you interact with applications in the foreground.</li> </ul>
Software compatibility	<ul> <li>Lets your un virtually all Macintosh software.</li> <li>Allows you to run virtually all applications that have been developed for Apple IIe computers using the Apple IIe Card.</li> </ul>

# **Product Details**

# Systemconfiguration

The Macintosh LC comes with 2 megabytes of RAM (expandable to 10 megabytes), internal 1.4-megabyte Apple Super Drive floppy disk drive, internal 40-megabyte hard disk drive, ADB keyboard and mouse, systems of tware, and training disk.

# **RAMconfigurations**

- The Macintosh LC comes with 2 megabytes of RAM on the main logic board. Up to 8 megabytes of RAM can be added by installing a memory expansion card and then adding SIMMs. Some possible configurations include:
- —4megabytes(2megabytesonmainlogic board;two1-megabyteSIMMs)
- —10 megabytes (2 megabytes on main logic board; two 4-megabyte SIMIVIs)

# SCSI

 SCSI (Small Computer System Interface) is a high-performance interface bus used to connect hard disks and other SCSI-based devices, such as the Apple CDSC®CD-ROM drive, the Apple Scanner, and the Apple Personal Laser Writer to the Macintosh LC. This single interface can support up to seven SCSI peripheral devices.

# Network support

• The Macintosh LC provides full ROM support for all Apple Talk protocols and includes built-in serial ports for Local Talk network connections.

# Operating system support

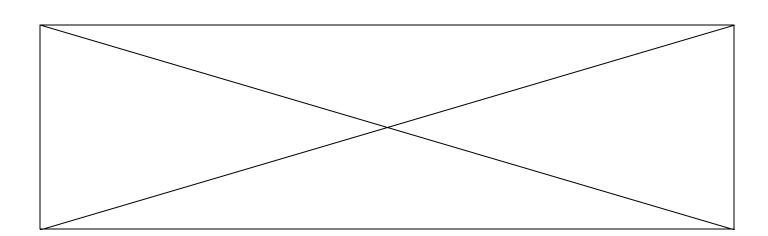
- Macintoshsystemsoftwareindudes:
   —Systemsoftwareversion 6.0.6 or later (the Macintosh Operating System) with System Startup disk
- —SystemAdditionsdisk(includesutilitiessuch astheAppleFileExchange,HDSCSetup, CloseView,DiskFirstAid™,andFont/DAMover)
- HyperCard® 2.0 Home, Addresses with Audio, Appointments with Audio, Audio Palette, and Audio Help stacks.

# Sound input

 The Macintosh L Chasbeen designed to accept and process sound as well as generate it. Using a microphone or phonojack adapter, and appropriate software, you can speak into the computer to create electronic voice messages and add voice comments to files. Sound entering the computer is filtered through a custom filter/preamplifier chip, converted to digital form, and stored in DRAM or directly on the hard disk.

# Sound generator

 The sound generator is a high-quality sampling generator that provides the sound signal to the internal speaker or to both channels of stereomini-phone-jackheadphones.



# **Technical Specifications**

# Microprocessor

- MC68020,32-bitarchitecture
- 16-megahertzdockspeed

# Memory

- 2megabytesofRAM,expandableto4or10 megabytes
- 512KofROM, socketedforfutureROM upgrades
- 256bytesofparametermemory

#### Disk drives

- Built-inAppleSuperDrive1.4-megabyte floppydiskdrive
- Internal 40-megabyte Apple SCSI harddisk drive
- Optional external Apple SCSI hard disk (many capacities available)

#### Monitors

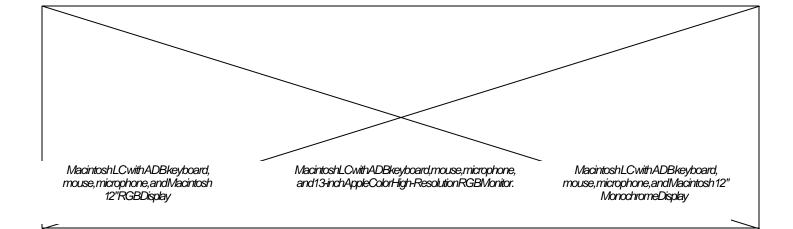
- Supports several color and monochrome monitors, including:
- -- Macintosh 12" RGB Display
- -- Macintosh12" Monochrome Display
- —AppleColorHigh-ResolutionRGBMonitor
- When equipped with a video expansion card, supports other Apple and non-Apple monitors; see your authorized Apple dealer for details.

#### Interfaces

 One Apple Desktop Bus (ADB) port, supporting a keyboard, mouse, and other devices daisy-chained through a low-speed, synchronous serial bus (a maximum of three daisy-chained devices is recommended)

- Twoserial(RS-232/RS-422)ports,230 kilobitspersecondmaximum(upto 0.920 megabitspersecondifclocked externally)
- Videoport, supporting color and monochrome monitors of various sizes and resolutions
- SCSI interface, using a 50-pin internal connector and a DB-25 connector for the first external device; all subsequent SCSI-based peripheral devices usest and ard SCSI-to-SCSI interface cables.
- Internal expansion slot, supporting an 020 Direct Slot expansion card
- Monophonic sound output port for external audiodevices
- Soundinputportformonauralsoundinput

(continued)





# MacintoshLC

Technical Specifications (continued)

### Sound input

- Monaural8-bitsound
- Soundsamplescanbemadeat
   22or11 kilohertz.
- Macintosh Audio Compression Expansion (MACE) soundutility, supporting 3:1 or 6:1 compression, which allows approximately halfan hour of sound to be stored on a single 40-megabyte harddisk

### Sound generator

 Monophonic8-bitdigital-analog conversionusing22-kilohertz samplerate—capableofsupplying thesamesignal to both channels of stereoheadphones or other stereo equipment through the sound jack

# Microphone

• "Handsfree" omnidirectional electretmicrophone

### Keyboard

- ADBkeyboardwithnumeric keypad
- Two-leveltiltadjustment

#### Mouse

 Apple Desktop Bus Mouse; mechanicaltracking: optical shaft or contact encoding; 100±10 pulses perin. (3.9±0.39 pulses permm) of travel

# **Electrical requirements**

- Linevoltage: 90 to 240 volts AC, RMS
- Frequency:47to63hertz, singlephase
- Power:50wattsmaximum,not includingmonitorpower

### ADB power requirements

- Maximumpowerdrawforall ADBdevices: 200 milliamps (a maximumofthree ADBdevices, daisy-chained to the port, is recommended)
- Mousedraws80milliamps.
- Keyboarddraws25milliamps.

# Size and weight *Main unit:*

- Height: 3.0 in. (7.7 cm)
- Width: 12.2in. (31.0cm)
- Depth: 15.0in. (38.2cm)
- Weight: 8.8lb (4.0kg)

#### *Mase*

- Height: 1.1 in. (2.8 cm)
- Width: 2.1 in. (5.3 cm)
- Depth: 3.8 in. (9.7 cm)
- Weight:6oz.(.17kg)

# Keyboard:

- Height: 1.8 in. (4.4 cm)
- Width: 16.5 in. (41.8 cm)
- Depth: 5.6 in. (14.2 cm)
- Weight: 2lb. (1 kg)

# Operatingenvironment

- Operating temperature: 50°F to 104°F (10°C to 40°C)
- Storage temperature: -40° Fto 116.6° F(-40° Cto 47° C)
- Relative humidity: 20% to 80%, noncondensing
- Maximumaltitude:10,000 ft.(3,048m)

### Ordering Information

# MacintoshLC OrderNo.M0442LL/A

# With your order, you'll receive:

- MacintoshLCpersonal computerwith2megabytesof RAM,built-in1.4-megabyteApple SuperDrivefloppydiskdrive,and internal40-megabyteharddisk drive
- Keyboard
- Mouse
- Complete setup, learning, and reference documentation
- System software and Hyper-Cardsoftware
- Trainingdisks
- Limitedwarrantystatement