

NewLife 2 Manual Copy

Parts 1, 6 and 7

FEATURES

- **Low cost upgrade for Mac 128, Mac 512 and Mac 512e**
- **Eight SIMM sockets allow memory expansion to 4 MBytes**
- **Both 256K and 1Meg memory SIMMs can be used and intermixed**
- **Uses 512K motherboard memory in Mac 512 and 512e**
- **SCSI port for hard disk drives and other peripherals**
- **Up to 20% faster than a Mac Plus**
- **Allows a larger monochrome monitor to be connected to your system**
- **Software configurable screen sizes**
- **Flexible video adaptor uses standard PC compatible connector**

INTRODUCTION

Your Mac thanks you for giving it a NewLife™, and we welcome you to Newbridge Microsystems, where we make obsolescence is obsolete! NewLife™ 2 provides a flexible, yet inexpensive upgrade to your faithful Mac 128, Mac 512 or Mac 512e, and is designed to help you keep your Mac productive and useful in today's rigorous software environment.

An innovative memory management technique designed into NewLife 2 gives your old Mac performance equivalent to a Mac SE, while adding a SCSI port and 8 SIMM sockets to expand memory capacity up to 4 Meg and a versatile and configurable video adaptor interface which allows you to add a larger monitor to your system.

NewLife 2 is compatible with standard Macintosh programs, including graphics programs such as MacDraw, Freehand and Illustrator; spreadsheets such as Excel and WINGZ; word processing packages like WriteNow, Word and WordPerfect; and desktop publishing applications like PageMaker. Memory SIMMs can be added to give a maximum of 4 MBytes to further improve performance. Experience a boost in your own personal productivity with the extra capabilities afforded by adding a larger monitor to your system – those large spreadsheets and graphics files will really shine through!

This manual provides the step by step instructions required to install, configure and use the NewLife 2 products. Since some of the steps are potentially life-threatening to you, and hazardous for your Mac, we recommend that your dealer's qualified service technician do the installation for you. In the event you wish to proceed on your own, please be sure to review the safety precautions in Part 2. The actual installation steps for the board are given in Part 3. *If you are upgrading a Mac 128 or Mac 512, be sure that you have installed the 128K ROM kit before installing your NewLife board.* Installation and configuration of the video controller CDEV software is described in Part 4. Of course, we don't expect you'll be having any problems with your NewLife board ... but just in case you're plagued by the occasional troll or gremlin, Part 5 contains some useful hints to get you back on track.

You can now be happily on your way to some serious and productive computing!

List of Symbols used throughout this Manual



Caution



Notes



Warning

Plus whatever other symbols may be deemed necessary.

TECHNICAL SPECIFICATIONS

System Requirements

- Mac 128, Mac 512 or Mac 512e
- Mac 128 and 512 require 128K ROM set (available with 800K floppy disk drive kit)
- 800K floppy disk drive recommended

Specifications

Hardware

Low power CMOS logic throughout
CMOS 68HC000 CPU, 7.834 MHz
CMOS SCSI Controller
CPU Memory Controller CMOS ASIC
Video Controller CMOS ASIC (NewLife 2 only)

Power

Mac internal power supply
Voltage Required: 5 V ± 10%
Power Consumption: Max 4.5 Watts with eight 256 KByte SIMMs

Video Interface

DB-9 TTL Video connector

Display Modes

Resolution	DPI	Compatible Monitors
512 x 342	72	Standard 9" Mac screen
640 x 480	72	Apple Monochrome, NEC MultiSync II, NEC MultiSync GS, Princeton MAX-15, Sony Multiscan
720 x 350	80	NEC MultiSync II, NEC MultiSync GS, Princeton MAX-15, Sony Multiscan
800 x 560	88	NEC MultiSync II, Princeton MAX-15, Sony Multiscan
640 x 860	80	Samsung Full Page Display MP5671

Software Controls

Control panel device to select monitor and screen attributes

Environmental

Operating temperature: 10° to 40°C, 50° to 104°F

Storage temperature: -40° to 50°C, -40° to 122°F

Humidity: 5 to 90% RH non-condensing

Compatibility

Compatible with Apple HD20, SCSI disk drives, LaserWriter, Apple-Talk and monochrome monitors described in table above. For information updates about monitors not listed above, call Newbridge Microsystems or your dealer.

Software compatible with standard Macintosh software. Call Newbridge Microsystems or your dealer for specific information.

OTHER EXICTING NewLife PRODUCTS from Newbridge Microsystems

Whether you need a SCSI port, more memory, and a larger monitor or massive computing power for that really heavy duty application, Newbridge Microsystems has a NewLife product for your Mac. The NewLife story is laid out below. Should you wish to explore it further, please see your local dealer or contact us directly.

NewLife 1	Designed for Mac 128, 512 and 512e machines, NewLife 1 provides a SCSI port, a flexible memory upgrade path to 4 Meg using 256K or 1 Meg SIMMs or a combination of each, plus a 20% improvement in overall performance.
NewLife 2	NewLife 2 includes all the features and capabilities of NewLife 1 along with a versatile video adapter. Using a configurable DB-9 TTL PC compatible video connector, a variety of larger monochrome monitors (including the multiscanning types) can be added to increase your viewing window for large spreadsheets and graphics.
NewLife 25 for Mac 128 & 512(e)	Need a little more horsepower? NewLife 25 accelerates your Mac with the power of the 68030 microprocessor and the 68882 floating point math co-processor, both running at 25MHz. Four SIMM sockets allow memory expansion in 1 Meg or 4 Meg increments. An optional SCSI port is available, as is our versatile video adapter, for those who would like to connect a larger monitor.
NewLife 25 for Mac Plus	Offering the same features as the NewLife 25 package above, NewLife 25 for the Mac Plus attaches to the 64-pin connector inside the Mac Plus, and utilizes the Mac Plus SCSI port. The optional video adapter is available for those wanting to add a larger monochrome monitor to their systems.
NewLife 25 for Mac SE	Same as NewLife 25 for the Mac Plus, but designed to connect to the 96-pin SE bus connector. NewLife 25 for the Mac SE also offers a flow-through SE bus expansion connector, which will handily take our optional SE bus video adapter board.
NewLife 33 for Mac SE	For those who need the ultimate in computing power, Newbridge Microsystems proudly presents the NewLife 33. This board features a 68030 and 68882 FPU running at a blazingly fast 33 MHz plus four SIMM sockets for 4 Meg of memory expansion and is designed to just pop into your SE bus connector! Like NewLife 25, NewLife 33 also offers a flow-through bus expansion connector should you wish to add our optional SE bus video adapter or an additional third party board.