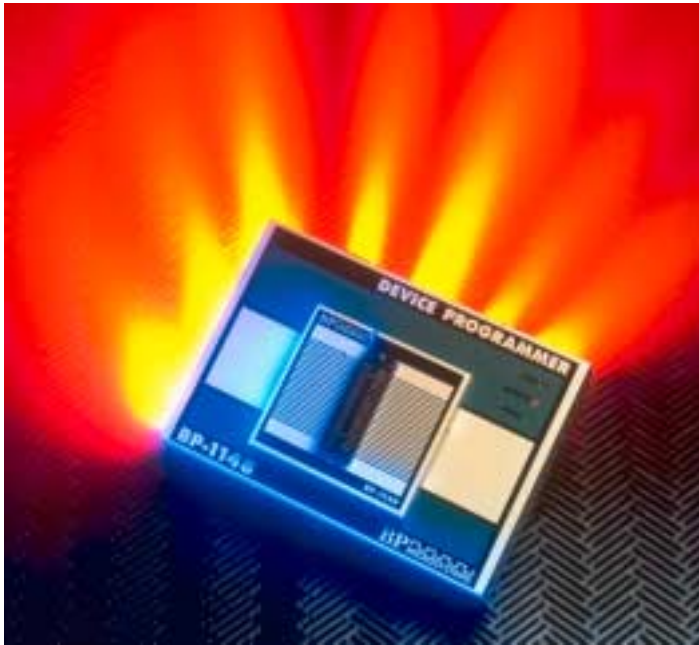# BP-1148 Device Programmer

- Low cost upgradeable programmer

- Uncompromised quality and performance

- Supports many popular devices including PROM, EPROM, EEPROM, Flash EPROM, Microcontrollers, SPLD, CPLD

- One year warranty

- Free lifetime software updates released every six weeks

- Entry level programmer with high-end performance

The BP-1148 device programmer is in a class by itself: it's priced like a low cost programmer, but it has the performance and device support of a high-end universal programmer. It's the first low-cost programmer that offers support for thousands of EPROMs, Flash EPROMs, microcontrollers, and PLDs—twice as many as competing programmers—and a field upgrade path to make it fully universal.

The BP-1148 supports over 10,000 devices. For the first time, you can purchase a programmer with uncompromised quality and universal hardware at a low price. The BP-1148 comes with a 48-pin DIP socket and adapters are available for additional devices. The BP-1148 includes free lifetime software support that ensures trouble-free programming for years to come.

The BP-1148 also comes with BPWin with JobMaster™—a powerful tool that incorporates the use of ".bp" files. A feature exclusive to BP programmers, ".bp" files are valuable for both production and engineering departments. The JobMaster software allows a user to easily transfer any ".bp" file, even by e-mail. This enables BP customers to transfer data securely around the world, sharing programming files between customers and programming centers.

Jobmaster ".bp" files are error checked automatically, and help to reduce or eliminate human error by only running jobs which have been tested and verified by a supervisor. The ".bp" files cannot be used if they have been modified inadvertently by an operator.

BP MICROSYSTEMS

SPECIFICATIONS

SOFTWARE

File Type: binary, Intel, JEDEC, Motorola, POF, straight hex, hex-space, Tekhex, Extended Tekhex, and others

File Size: limited by hard disk

Test Vectors: limited by hard disk

Device Commands: blank, check sum, compare, configure, options, program, test, verify

Features: data editor, revision history, session logging, on-line help, device and algorithm information

Installation: automatic (just copy the file to your hard disk)

HARDWARE

CPU: 16-bit, 16MHz, with proprietary hardware accelerator

RAM: 512K; does not limit device or file size

Calibration: automatic self-calibration

Diagnostics: pin continuity test, RAM, ROM, CPU, pin drivers, power supply, communications, cable, calibration, timing, AC, DAC

Communications: Centronics parallel, up to 1 Mbps

PIN DRIVERS

Analog & Digital: 48, located on 6 circuit boards

Voltage: 0 to 25.00V. 25mV steps

Current: 0-1A in 1mA steps

Slew Rate: 0.001 to 2500V/ms

Timing: 0μs-1s, ±1ms, ±0.01%

Clocks: 1MHz to 16 MHz, any pin

Protection: overcurrent shutdown, power failure shutdown

Independence: each analog pin may be set to a different voltage

GENERAL

Size: 24cm L X 17.5cm D X 10.8cm H; 9.5" L X 7" D X 4.25" H

Mass: 2kg; 4.5 lbs

Power: 90-260VAC, 47-63 Hz, 80 VA, IEC inlet connector for worldwide use

Maintenance: none required

COMPUTER REQUIREMENTS

Operating System: MSDOS/Windows

Port: Standard parallel printer port (standard, bi-directional, or enhanced)

Memory: 4M available minimum

Disk: 1.44M floppy, hard disk or network with at least 20 MB of space

CPU: 80286 to Pentium

STANDARD ACCESSORIES

software disk
user manual
power cable
data cable
48-pin DIP module

User Interface: menu driven intuitive interface with on-line help; one key activates commands

Portability: just copy one file to the hard disk and plug in the cable; compatible with notebook computer; 90-260VAC operation

File loading: automatic file type identification; no download time because programmer is PC controlled; supports Intel, JEDEC, Motorola S-record, POF, straight hex, hex-space, Tekhex, and other file formats; configurable file splitting and set programming

Device Selection: intelligent device selector allows you to type as little or as much of the part number as you like, then choose from a list of devices matching your description

Algorithms: only manufacturer approved or certified algorithms are used: BP Microsystems has an excellent record of being first to provide certified algorithms for new devices

Programming Yield: assured by dedicated internal power supply, microprocessor, universal pin drivers, short distance from pin drivers to device, and accuracy of waveforms

Algorithm Updates: algorithm changes and algorithm updates are available free of charge

Devices Supported: PROM, EPROM, EEPROM, Flash EPROM, microcontrollers, SPLD, CPLD

SMT Package Support: DIP-to-package adapters are available for PLCC, SOIC, TSOP, and QFP

Maximum device size: 8 Megabit; file size limited by disk space only; no RAM requirement

Test Vectors: supported on devices up to 48 pins

Continuity Test: each pin is tested before every programming operation; any pins failing will be displayed, greatly aiding the troubleshooting of dirty or defective devices, adapters and sockets

Protection: overcurrent shutdown; power failure shutdown, ESD protection

Socket: 48-pin gold plated DIP socket, zero insertion force; may be replaced when worn

Communication: 8-bit bidirectional or standard parallel printer port; 1Mb/s (much faster and easier than serial communications); no ISA bus card required

Options: package adapters

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BP MICROSYSTEMS

Setting the Standard in Device Programming