



1700 Universal Engineering Programmer

The 1700 Universal Engineering Programmer is the industry standard for programming speed, device support and flexibility. It combines ultra-fast programming technology, BP Micro's new FX4™ socket modules, and support for over 18,000 devices including very low voltage devices down to 1.5V.

The 1700 is designed specifically for today's highest density devices and their longer programming times, including Flash. The 1700 uses BP Micro's new FX4™ socket modules. FX4™ socket modules program up to four devices simultaneously on just one programming site, so it's ideal for low volume production environments that require the speed and device support that only BP Micro can provide. The 1700 uses any of BP Micro's over 900 standard manual and automated socket modules (including FX™ socket modules.) It is also ideal for design engineers who need to program a full range of device types and packages.

- **Supports over 18,000 devices with very low voltage devices down to 1.5V (Vdd) including, but not limited to, EPROM, EEPROM, Flash EPROM, Microcontrollers, PLD, CPLD, FPGA and antifuse FPGAs**
- **FX4™ socket modules include 3 separate LED's per socket and allow the 1700 to program 4 devices simultaneously**
- **Compatible with all existing socket modules, standard and automated**
- **Patented solution to guard against passing blank parts—available only from BP Micro**
- **Supports all device packages, including but not limited to, DIP, SDIP, PLCC, TSOP, SSOP, PCMCIA, SOIC, LCC, QFP, PQFP, PGA, SIMM, CSP, BGA, µBGA, TQFP and TSSOP**
- **Ideal for design engineering and low-volume production**
- **7th Generation of a robust and proven platform originally released in 1994**

General

Power:	90-260VAC, 47-63 Hz., 1.2 KVA, IEC inlet connector for worldwide use
Dimensions:	11.75" (298mm) x 8.65" (220mm) x 4.68" (119mm)
Mass:	7.22 lbs. (3.28 kg)

Software

Required:	BPWin
File Type:	including, but not limited to, binary, Intel, JEDEC, Motorola, POF, RAM, straight hex, Tekhex, Extended Tekhex, ASCII hex, Formatted Binary (.DIO), AFM, OMF, LOF
Device Commands:	blank, check sum, compare, options, program, test, verify
Features:	data editor, revision history, session logging, on-line help, device and algorithm information

Hardware

Calibration:	automatic self-calibration
Diagnostics:	pin continuity test, RAM, ROM, CPU, pin drivers, power supply, communications, cable, calibration verification timing, ADC, DAC
PC System Requirements:	Microsoft Windows 95 or above

PIN Drivers

Quantity:	240-pins standard
Slew rate:	0.001 to 2500V/ μ s
Vpp Range:	0-25V in 25mV steps
Ipp Range:	0-70mA continuous, 250mA peak
Vcc Range:	0-12V
Icc Range:	0-1A, 12 μ A resolution
Very low voltage:	to 1.5V (Vdd)
Rise Time:	800ps
Overshoot:	none
Clocks:	continuously variable 1 MHz to 30 MHz
Protection:	overcurrent shutdown, power failure shutdown
Independence:	pin drivers and waveform generators are fully independent and concurrent on each site

Standard Accessories Included

software on CD-ROM
user manual on CD-ROM
power cable
data cable
48-pin DIP socket module (not pictured)
3-year hardware warranty

Features

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
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
Devices Supported:	including, but not limited to, Antifuse, Low Voltage, PROM, EPROM, EEPROM, Flash EEPROM, Microcontrollers, SPLD, CPLD, FPGA
Continuity Test:	each pin, including Vcc, ground, and signal pins, may be tested before every programming operation
Protection:	overcurrent shutdown; power failure shutdown; ESD protection, reverse insertion, banana jack for ESD wrist straps
Options:	available Socket Modules including, but not limited to, Universal PLCC, standard PLCC, PGA, CSP, BGA, μ BGA, SOIC, QFP, TSOP, LCC, SDIP, PCMCIA, SIMM—JobMaster™ software, and Advanced Feature Software
Programming Yield:	assured by independent universal pin drivers on each socket, short distance from pin drivers to device, and accuracy of waveforms
Algorithms:	all algorithms are manufacturer approved or certified (if required)—BP Microsystems has an excellent record of being first to provide certified algorithms for new devices
Algorithm Updates:	free software updates are available eight times per year

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TECHNOLOGY

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