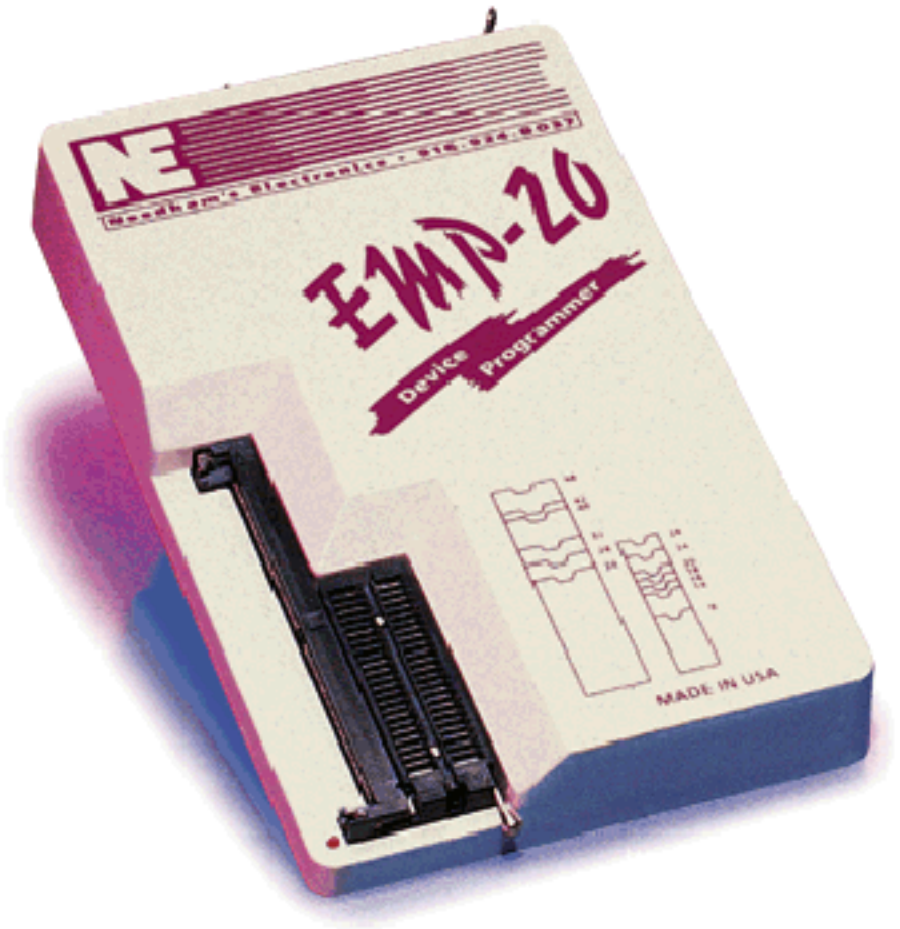


DISCONTINUED

Software | Devices | Adapters | Prices

The EMP-20 programmer is an inexpensive, portable, parallel port programmer that was designed from the ground up to be fast and versatile. It easily connects to your PC through a standard parallel port. Since the EMP-20 doesn't use a bus slot, and fits easily into a briefcase, it is very useful for programming devices in the field, with a portable computer. The EMP-20 programs a wide variety of devices - See The EMP-20 programmer device list for more information. Each family module supports an entire family of devices. Three family modules are included in the base price of the programmer to support 8/16 bit EPROMS, 87xxx MICROS, and a number of PLDs, with vector testing available. See The EMP-20 programmer price sheet for more information. Relays and discrete DAC-controlled analog drivers provide power and ground connections.

SPEED

The EMP-20 uses the same parallel port I/O scheme as the EMP series programmers, for an extremely fast communication.

Programming and verifying on a Pentium		
Manufacturer	**Device**	**Time**
Intel	27C010	19 Seconds
Lattice	22V10	3 Seconds
Atmel	89C51	7 Seconds

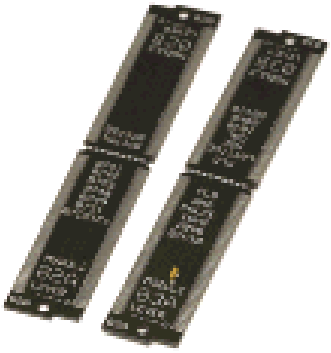
PORTABILITY

The EMP-20 is extremely portable; since it doesn't occupy a bus card in your PC, you can pack it up and take it with you anytime you wish. At only 1.5"x5"x8", with a 2" high power transformer, the EMP-20 fits into a briefcase or toolbox with ease. The programmer, parallel cable, transformer, and Family Modules, together weigh in at less than **three** pounds!

STABILITY

- The EMP-20 carries a 1 year warranty on all parts and labor, and a 30 day money-back guarantee (restocking fee may apply)
- The EMP-20 is static-protected at the ZIF Socket, Family Module socket, parallel port, and power connector. The static protection on the parallel port also protects the parallel port on the EMP-11 from the 12 volts of a serial port.
- It's case is made of tough .125" thick ABS plastic.
- CE Compliant, for sale into the European Community.

FAMILY MODULES



Family Modules are not an entirely new idea. They have been used in other programmers from time to time, to inexpensively route power and ground to the device. When you're programming devices fairly slow, then straight, slide-in connectors are just fine. However, the EMP-20 programs at speeds near the theoretical maximum of some devices, so the digital signals traveling to the device must be clean, and the power and ground lines must be solid. Slide-in connectors can experience noise problems, higher resistance, and corrosion.

SYSTEM REQUIREMENTS

To use the EMP-20, you must have the following:

- ***Operating System:*** An IBM-Compatible PC, 286 or above, with 640Kb of RAM
- ***Hard Drive Space:*** At least 5Mb of free space
- ***Interface:*** A standard parallel port
- ***Power:*** 12-16 Volts @ 2.5 Amp, AC or DC

INCLUDED ITEMS

- A standard parallel port cable
- A 48-Pin ZIF socket for DIP parts
- An AC 110V transformer (a 220V transformer at additional cost is available upon request)
- **Numbers 01, 02, and 03** Family modules are included with the EMP-20, in a small carrying wallet