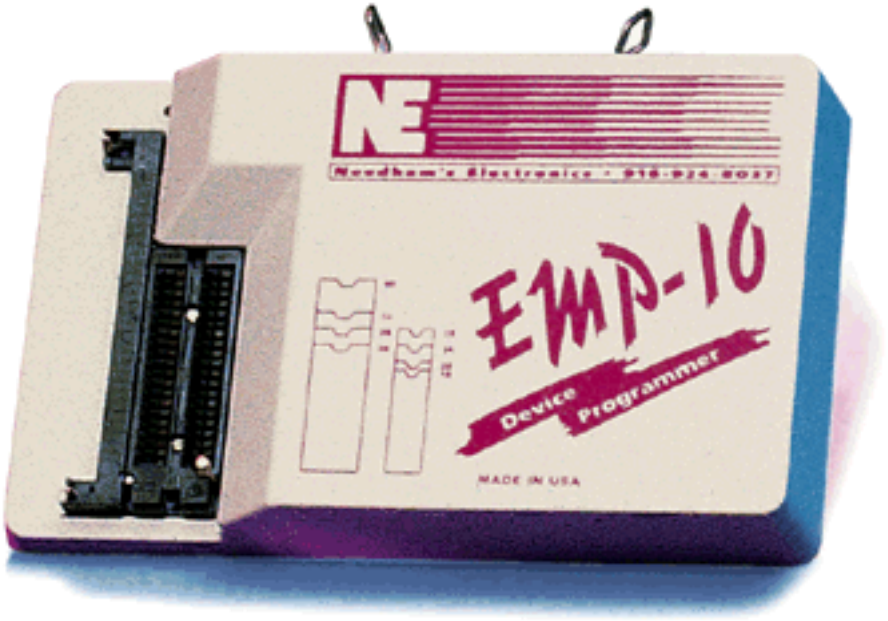

The EMP-10 Device Programmer:
$219.95 retail Buy Now

Software | Devices | Adapters | Prices

The EMP-10 programmer is an upgrade to our PB-10, but gives you the speed and portability of the EMP-20, without the price for extra device support you don't need. It supports 650 devices, including many programmable memories, many micros of the 8051 family, and the 22V10 GAL. To change device families, simply change or flip the Family Module. Three Family Modules are included. Relays and discrete DAC-controlled analog drivers provide power and ground connections.

SPEED

The EMP-10 uses the same parallel port I/O scheme as our EMP-20 programmer, for an extremely fast communication.

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

PORTABILITY

The EMP-10 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-10 fits into a briefcase or toolbox with ease. The programmer, parallel cable, transformer, and Family Modules, together weigh in at less than **three** pounds!

The EMP-10's power requirements are 12-16 Volts @ 1 Amp, from DC to 60Hz, so a battery can easily power it.

LOW PRICE

A number of design changes were made (from the EMP-20 design) in order to lower the cost (and therefore the price) of the EMP-10, without sacrificing speed, reliability, or portability.

- Most notably, restricting the number of supported devices to only the most popular ones allowed us to cut out the extraneous hardware; this is the bulk of the cost/price savings. Take a look at the device list for details.
-
- The EMP-10 is software activated, which eliminated the need for a power switch. We found that most people weren't programming devices every minute of every day, so they ended up unplugging their programmers and storing them away for some length of time, then plugging them in when the next firmware change was needed. So, turning on a power switch was simply an extra step; we decided to have the software power up the programmer instead.
-
- Like it's big brother, the EMP-20, the EMP-10 uses Family Modules to route power to the devices. This is a BIG cost saver. It lets us get by with a minimum number of very clean, precise pin drivers, instead of spending a lot of **your** money to drive every pin.

RELIABILITY

- The EMP-10 carries a 1 year warranty on all parts and labor, and a 30 day money-back guarantee (restocking fee may apply)
- The EMP-10 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-10 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-10 and EMP-20 program at speeds near the theoretical maximums 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 and higher resistance. The connectors that the EMP-10 and EMP-20 use are the same snap-in SIMM connectors that you may have holding the DRAM in your PC.

The purpose of Family modules is to allow us to use a few high quality pin drivers, instead of using a cheaper pin driver on each pin on the ZIF socket. This translates to cleaner, more manageable waveforms, at a much lower price.

SYSTEM REQUIREMENTS

To use the EMP-10, 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 @ 1 Amp, AC or DC

INCLUDED ITEMS

- A standard parallel port cable

- A 40-Pin ZIF socket for DIP parts
- An AC 110V transformer (a 220V transformer at additional cost is available upon request)
- **All** Family modules are included with the EMP-10, in a small carrying wallet