# 8-Bit Microprocessor ICs — continued

## Get Going with AVR



Get Going with AVR is an introduction to AVR microcontrollers, written by Peter Sharpe. It is intended as a fast track and as a reference guide. The book refers to the 8bit FLASH RISC AVR micros, introducing logic, planning designs, gives some useful design examples and comes with a development disk

Contents include:

- The AVR concept
- The range and functions
- Programming the AVR
- PWM methods
- Using the Watchdog timer

SEM576

Get Going with AVR microcontrollers ..... Order Code 692-803

each

### **PIC Development Tools**

## PICSTART Plus - Low Cost Development/Evaluation System





The PICSTART Plus development system from Microchip provides a highly flexible, low cost entry programming tool for all of the PIC 8-bit series of microcontrollers including One Time Programmable, Erasable and FLASH devices.

The 40 way universal ZIF socket accepts device sizes from 8-pin 0.3" to 40-pin 0.6"

PICSTART Plus operates in a Windows 3.1, 95, 98, NT environment on any PC compatible machine, access to a serial port is required for communication.

The PICSTART Plus is easy-to-use and features Microchip's highly acclaimed MPLAB® Integrated Development Environment (IDE) this features an editor, MPASM assembler and Windows based simulator which provides a comprehensive user interface with onscreen views of all used registers during program simulation.

Full documentation is included and software is supplied together with device data on

The development system is supplied complete with 9-way RS-232 cable, PIC16F84 device sample and a universal power supply

UK or International IEC power leads are available separately.

PICSTART Plus Development/Evaluation System UK mains lead European mains plug lead

704-740. 439-319 210-699

Order Code Price Each

# PIC IN A BOX - Ultimate PIC Starter Package



PIC IN A BOX is a complete starter kit for those intending to work with the PIC 8-bit microcontroller. Contents include a PICSTART  $^{\text{PLUS}}$  (programmer, editor, assembler/ simulator software, samples, power supply, all necessary cables and a copy of the Microchip data library on CD-ROM), a copy of "The Beginners Guide to the PIC" and "PIC Cookbook", a Project Board, PIC Soft with additional projects aimed at the beginner and starter guidance notes

Exclusive to Farnell in conjunction with Nigel Gardner.

**Order Code Price Each** PIC IN A BOX Starter Package 789-288 Power Supply 9V, 500mA (UK 240Vac) 110-899 + Power Supply 9V, 900mA (IEC 110-240Vac) 110-711 UK mains plug lead 439-319

#### **Programming Adaptors**

European mains plug lead

† Available until stocks are exhausted





To assist with product development, the following adaptors have been designed for use with the PICSTART Plus programmer.

210-699

	Order Code	Price Each
8 pin SOIC to DIL socket module for PICs	698-180	
14 pin SOIC to DIL socket module for PICs	113-554	
18/28 pin SOIC to DIL socket module for PICs	698-179	
44 pin PLCC socket module for PICs	797-005	
68 pin PLCC socket module for PICs	306-0809	
84 pin PLCC socket module for PICs	303-7356	
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### MPLAB-ICD In-Circuit Debugger





The MPLAB-ICD is a powerful development tool based on the FLASH PIC16F877 and can be used to develop this and other PICmicro microcontrollers from the 16Cxx family. It uses the In-Circuit Debugging capability of the PIC16F87x and In-Circuit Serial Programming (ICSP) protocol to offer a cost effective In-Circuit FLASH programming and debugging from the graphical user interface of the MPLAB-IDE. This allows a designer to develop and debug source code by watching variables, single-stepping and setting break points. The MPLAB-ICD also programs FLASH PIC16F87x family.

The MPLAB-ICD consists of three basic components: ICD module, ICD header and ICD demo board

# System Features:

# In-Circuit run-time debugging:

- Real-time code execution
- Single step
- One hardware breakpoint
- Variable watching 3.0V to 5.5V

#### Uses Microchin's free MPLAB IDE:

- Editor
- Assembler Linker
- Simulator

- 32kHz to 20MHz
- Development and Evaluation kit supporting PIC16F87x
- PC communication via serial interface at speeds up to 57600 baud
- Project Manager
- Source level symbolic debug
- Interface to ICD and other hardware

Devices Supported: PIC16F873/874/876/877

Also included are MPLAB-ICD User's Guide and MPLAB-ICD Tutorial.

SEM777

MPLAB-In-Circuit Debugger ......Order Code 307-0645

each