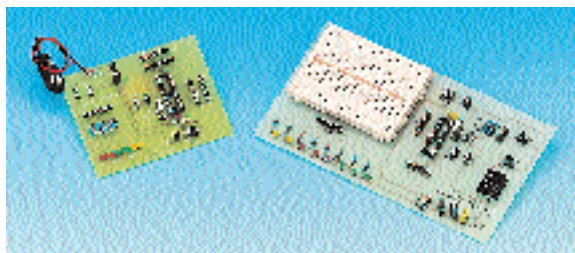


## 87C750/751 Development Kits

Hirschel Electronics



Two kits are available for 87C750/751 development, designed to getting projects off the ground with minimum of effort and expense. The I/O is pinned out to give maximum flexibility during development and both boards handle the 24 pin DIL package. All the necessary components are included i.e. sockets, regulator, reset components, LED's resonator etc. A circuit diagram and construction notes are also included.

The 87C75/751 Project Board (120-066) has an additional prototyping block, slide and push switches and connector for an external 9V supply.

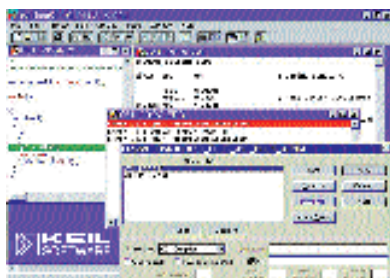
Use in conjunction with DS750 Development Kit (485-068).

SEM225

87C750 HSK .....	Order Code 527-749	each
87C750 PROJ.....	Order Code 120-066	each

## Keil - 8051 Software Development Tools

KIEL



The Keil PK51 Professional Developers Kit comprises of a comprehensive suite of development tools for the 8051 family. The Windows Integrated Development Environment encompasses an optimising ANSI-C compiler, Macro Assembler, Software Simulator and Target Debugger, Integrated Editor and a powerful Project Management Utility. The C-compiler generates highly optimised code for any 8051 derivative and features microcontroller-specific language extensions allowing all resources of the target micro to be utilised.

### Features:

- Windows Intergrated Development Environment compatible with Windows 3.11, 95 and NT
- Optimising ANSI-C compiler
- Macro Assembler
- Software Simulator and Target Debugger
- Integrated Editor
- Powerful Project Management Utility
- Supports code generation for most 8051 derivatives which feature either internal or external code memory

### Device Support:

- Generic 8051/8052/87C families
- Philips 87C750/751/752
- Atmel 89C and 89S families
- Infineon 80C517
- Dallas 80C320/520/530

SEM681

PK51-2K, Keil PK51-2K - 8051 Tool Set.....	Order Code 121-058	each
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## 8051 with On-Board FLASH Memory

The 89C5x family of microcontrollers from Philips contain non-volatile FLASH memory that is parallel and In-System Programmable. The devices also have four 8-bit I/O ports, three 16-bit timer/counters, nested interrupt, enhanced UART, on-chip oscillator and timing circuits.

The 89C51Rx+ provides added functionality for applications that require PWM, high-speed I/O, up/down counters.

SEM688

Pins	Description	Mfrs. List No.	Order Code	Price Each		
				1+	10+	100+
89C51	44	8-bit MCU, 32Kb FLASH EEPROM, 512b RAM – 33MHz. PLCC Package.....	P89C51RC+IA	<a href="#">SMD 120-662</a>		
89C51	44	8-bit MCU, 64Kb FLASH EEPROM, 1Kb RAM – 33MHz. QFP Package.....	P89C51RC+IB	<a href="#">SMD 316-6016</a>		
89C51	40	8-bit MCU, 32Kb FLASH EEPROM, 512b RAM – 33MHz.....	P89C51RC+IN	120-674		
89C51	44	8-bit MCU, 64Kb FLASH EEPROM, 1Kb RAM – 33MHz. PLCC Package.....	P89C51RD+IA	<a href="#">SMD 316-5930</a>		
89C51	40	8-bit MCU, 64Kb FLASH EEPROM, 1Kb RAM – 33MHz.....	P89C51RD+IN	316-5942		
89C52	44	8-bit MCU, 8Kb FLASH EEPROM, 256b RAM – 33MHz. PLCC Package.....	P89C52UBAA	<a href="#">SMD 316-6168</a>		
89C54	44	8-bit MCU, 16Kb FLASH EEPROM, 256b RAM – 33MHz. PLCC Package.....	P89C54UBAA	<a href="#">SMD 316-6170</a>		
89C58	44	8-bit MCU, 32Kb FLASH EEPROM, 256b RAM – 33MHz. PLCC Package.....	P89C58UBAA	<a href="#">SMD 316-6181</a>		

## Keil PK51 2K to 8K Upgrade

KIEL

This software package allows an existing user of the Keil 'PK51-2K' 8051 Toolset to upgrade to a version which can generate up to 8K bytes of executable program code. The upgrade includes floating point mathematical libraries making it ideal for scientific and educational projects. A full suite of reference documentation is also included.

### Features:

- Upgrade from PK51-2K to 8K bytes version
- Integrated Development Environment (IDE) including an ANSI C Compiler, Macro Assembler, project management utility and software simulator/debugger (limited to 8K total code output)
- Floating point mathematical libraries making it ideal for scientific/educational projects
- Full Keil PK51 Reference Manual Set
- Supports most popular 8051 devices

SEM762

PK51-8K-UPG Keil PK51 2K to 8K Upgrade .....	Order Code 302-2262	each
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## Micro-Pro PLUS device Programming System

Supports Atmel, Dallas, Intel, ISSI, Philips, Temic, etc.



This programming system has the ability to program the on-chip code/EEPROM space of most 8051 microcontroller derivatives from Atmel, Dallas, Philips, Intel ISSI and Temic. Support for the majority of the Atmel AVR microcontroller family is also offered together with a selection of Atmel products including EEPROM and FLASH memories. The powerful Windows interface software supports code and data buffers, setting of special option bits and a device auto-program utility. System contents include a programmer, parallel cable, software and mains power supply adaptor.

### Features:

- Supports programming of on-chip memory of most 8051/251 and Atmel AVR microcontrollers
- Supports programming of many Atmel serial and parallel EEPROM devices plus a selection of Atmel FLASH memories
- Powerful Windows Interface Software (compatible with Win 3.11, 95 and NT)
- Compatible with binary and Intel HEX files
- Accepts 8/20/40 pin DIL devices without adaptor
- Fast programming algorithms (many approved by manufacturer)
- Field upgradeable programmer by virtue of FPGA architecture
- Connects to PC parallel port

### Device Support:

- Atmel 89C, 89F, 89S, 90S (AVR) microcontroller families
- Atmel serial EEPROM devices
- Atmel parallel EEPROM family
- Atmel FLASH memory family
- Dallas 87C520
- Intel 87C51-FA/FB/FC, 87C52, 251
- Philips 87C51-FA/FB/FC, 87C52
- Temic 87C51, 87C52, 251

Note: not all devices may be supported within a family

SEM356

	Order Code	Price Each
MPW-PLUS (UK) Micro-Pro PLUS Programmer	111-715	
MPW-PLUS (EU) Micro-Pro PLUS Programmer	327-0294	
Re-programming Adaptor	790-151	
PLCC 44 Adaptor	701-040	
SOIC 20 Adaptor	701-051	