

- Portable
- Compact
- One button operation
- Comprehensive device support
- Field or production use

Compatible with Windows 95/98/2000/NT4/XP/ME

Supports: All COP8 32K flash devices currently available.

Future device support upgrades via net



COP8 Keyfob Field Programmer

A portable ISP in a Keyfob package



The Keyfob

The ultimate programming tool for COP8 microcontrollers, in the field or on the production line - so easy a child can use it! The smallest stand-alone programmer for COP8 available, just load it once and then program target devices again and again and again.

Why COP8?

Features of the COP8 include: 32kbytes Flash program memory with security feature, 1kbyte volatile RAM, virtual EEPROM, three timers, brownout reset, MICROWIRE/PLUS, 13 multi source vectored interrupts, watch dog, clock doubler, 8-bit stack pointer, 10 bit ADC and many many more.

One Keyfob Starter Kit = Many Keyfobs

You require just one starter kit for your PC and you can load as many keyfobs as you need. Just connect the starter kit to your printer port and run the master software. Select your program file, device type and Fuse settings and now you can load the keyfobs with your program or test code in seconds. As the Keyfob is battery powered during load, you don't need any power supplies or cabling, just plug a Keyfob into the simple adapter supplied. Once a Keyfob is loaded, it is completely portable and can be used where you need it, not where your PC is located.



Field Updates

Think how often you need a simple upgrade to a vending machine, slot machine or other equipment such as lifts, security controls or medical equipment - simple, except it is hundreds of miles away. The rugged design and simple operation of this unique programmer means that you can "let the Keyfob do the walking" by sending the Keyfob rather than an expensive engineer. The Keyfob includes a 12V battery so your target system does not have to be powered for occasional programming although you will need power from the target for multiple programming to save battery life.

Connector

The standard connector is a 10-way box header with interleaved ground lines to increase EMC noise immunity. This makes the programmer more reliable in electrically noisy environments. If a different type of connection is needed, e.g. 6 way single header, then the lead can be modified but all of the GND lines must be connected together.

* 2 x Vcc generator on the Data (SI) line.

RST	SK	SI*	SO	N/C
9	7	5	3	1
10	8	6	4	2
GND	GND	GND	GND	Vcc

Target layout view

Production line

Wouldn't it be nice to have a simple to use, completely portable yet low cost programmer, which can be loaded with different program code or test vectors, available where required on the production floor? Not possible? It is now, with the Keyfob programmer - one button operation, auto sensing of target, auto verification and error indicator - that's really simple to use. Fits on a keyring and weighs less than one ounce - that's portable! Less than \$100 - that's low cost!

Programmer details

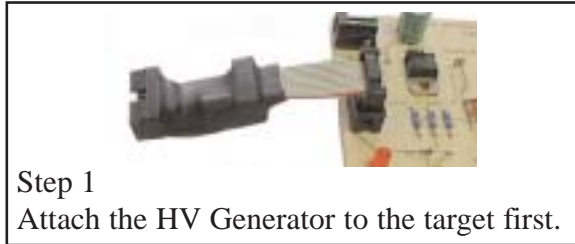
Small, light and completely portable, the Keyfob is the most flexible programming tool around. It measures just 4.5 by 3 by 1.3 cm - which is 1.8 by 1.3 by 0.5 inches for you non-metric types! It weighs just 27g (one ounce) so it is great value and easy to post or carry on your keyring. To give you really long life, the Keyfob can be loaded with new code thousands of times as it uses serial E2 technology. The 12V alkaline battery fitted in the Keyfob, mostly used for loading the Keyfob from the PC, can power more than 50 reloads. This battery is a standard car remote control type so it is easy to source and we even include a spare in the starter kit. The programmer supports 2xVcc pulses needed to program COP8 devices.

Downloading

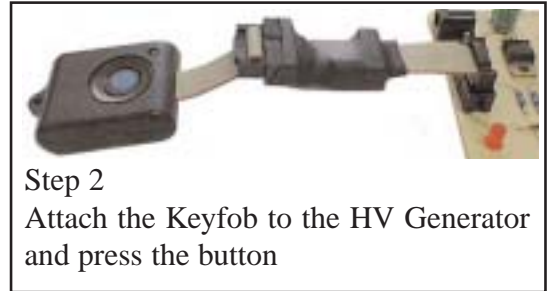


Attach the keyfob to the adapter, attach the adapter via the 10 way ribbon cable to the ISP. Connect the ISP to the printer port.

Programming



Step 1
Attach the HV Generator to the target first.



Step 2
Attach the Keyfob to the HV Generator and press the button

Note:the keyfob must be connected last and must not be left connected to preserve battery life.

Order Numbers

To help you get just what you need for your application, we can offer you a range of options.

Product	Order Number
Keyfob Starter kit	COPKF0010
Individual Keyfob Only	COPKF0020
Multipack (pack of 5 keyfobs)	COPKF0030
Field Service Pack (Starter kit plus 5 keyfobs)	COPKF0040

YOU MUST HAVE A KEYFOB STARTER KIT TO LOAD THE INDIVIDUAL KEYFOBS

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support upgrades
via net

Battery

Battery Specification

SIZE: 23A - 26mm x 10mm Diameter (1 inch x 0.4 inches)
 TYPE: ALKALINE
 VOLTAGE: 12V
 CAPACITY: 38mAH (current drawn not specified).
 AVAILABILITY: Auto warehouses/motor factors (standard car keyfob battery)

Current Consumption

1) Loading Keyfob from PC

KEYFOB during firmware download :	12mA
KEYFOB in idle mode (connected to PC) :	6mA
KEYFOB during EEPROM programming :	15mA

2) Target Programming

Target Vcc greater than 4V :	280uA
Target Vcc 4V or less (NOT RECOMMENDED):	TARGET Dependent

One battery should be able to power 50 Keyfob loads from PC. If target board voltage is greater than 4V, 100 hours of device programming should be possible.

Unpowered or Low Voltage Targets

An unpowered target or target with less than 4V Vcc will drain battery very quickly and only a few programming operations will be possible.

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