

# KEELOQ® Programming System

## HCSXXX Device Programmers



### Features:

- Set up HCSXXX encoder/decoder programming options
- Multiple algorithms for key generation
- Smartcard protection of manufacturer's keys
- Automatic serialization of encoders
- Logging to disk for factory record keeping
- Interface to automated test equipment
- Menu-driven user-friendly software includes:
  - Smartcard initialization program
  - Setup program to configure the various encoder/decoder programming options
  - Transmitter programming software
  - Receiver programming software
- Comprehensive User's Guide with easy-to-follow, step-by-step *Getting Started*

## Programs KEELOQ Encoders and Decoders in manufacturing environment

The **KEELOQ® Programmer** provides manufacturing with the capability to program large quantities of HCS200, HCS300, HCS301, HCS360, HCS361 encoders and HCS509 and HCS512 decoders. The Code Hopping Encoder devices are used in the transmitter portion and the decoder devices in the receiver portion of secure RKE systems. The devices use the KEELOQ code hopping algorithm which combines high security, a small package outline and a very low cost to make this an ideal solution for unidirectional RKE systems.

Primary applications for the KEELOQ devices include automobile keyless entry and security systems, garage door openers, home security systems, central locking systems, gate openers, transaction cards, pre-paid telephone cards, vehicle immobilizers, identity tokens, electronic tagging, passive (batteryless) transponders, point-of-sale readers adaptors and a growing list of other applications.

The KEELOQ Programmer is supplied with software to automate the programming of HCSXXX devices in the customer's factory production environment, and comes complete with accessories to be used with a host PC computer system. The KEELOQ Programmer includes an interface PCB, Smartcard reader, Smartcards and set of probes.

The versatility and security of the hardware-based key generation allow product range protection.



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The Embedded Control Solutions Company™

# KEELOQ® Programming System

## Ordering Information:

### Model Name:

KEELOQ Programming Station

### Ordering Part Number:

PG306001

### Devices Supported:

HCS200, Encoder; HCS300, Encoder; HCS301, Encoder; HCS360, Encoder; HCS361, Encoder;

HCS509, Decoder; HCS512, Decoder

### Host System Requirements:

- PC-compatible computer: 386DX, 486 or Pentium™ based with ISA or EISA bus
- EGA, VGA, 8514/A, Hercules graphic card (EGA or higher recommended)
- MS-DOS®/PC/DOS® v. 5.0 or greater; Microsoft Windows 3.1 or greater in 386 enhanced mode
- 4 MB RAM, 4 MB free disk space; 3.5 inch diskette drive; One 8-bit PC/AT (ISA) I/O expansion slot (half size)

## System Description:

The KEELOQ Programming Station Hardware consists of a Key generation card used to securely generate encryption and decryption keys. The card may be plugged into a standard ISA bus slot on a PC. Also included is a Smartcard used to securely store the Manufacturer's Key, which is further protected by a PIN. A Smartcard reader and a set of spring-probes for connection to the transmitter PCB to be programmed complete the programming station hardware.

The accompanying user-friendly menu-driven Software, is supplied on 3.5" diskette and includes all the necessary software for programming large quantities of HCS300 and HCS301 code hopping devices.

To order or obtain more information about KEELOQ or any other Microchip product, contact the Microchip sales office nearest you.

## Customer Support:

Microchip maintains a worldwide network of distributors, representatives, local sales offices, Field Application Engineers and Corporate Application Engineers as well as a multifaceted Bulletin Board System. Microchip's Internet home page can be reached at: <http://www.microchip.com>

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MPLAB™	Integrated Development Environment (IDE)
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ICEPIC	Low-cost modular in-circuit emulator
PRO MATE™ II	Full-featured, modular device programmer
PICSTART® Plus	Entry-level development kit with programmer
PICSTART® Lite	Low-cost entry level development kit
fuzzyTECH®-MP	Fuzzy Logic development software
MP-DriveWay™	Application Code Generator*
KEELOQ®	Code Hopping Device Tools

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