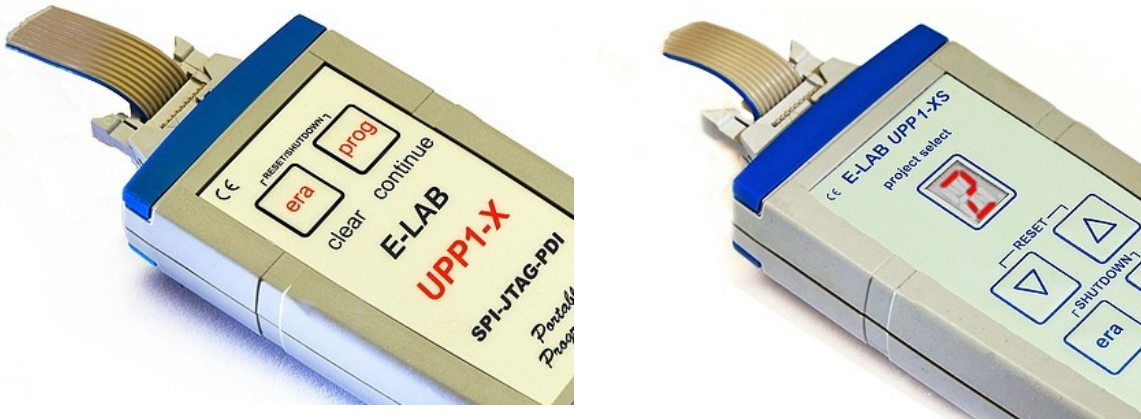


# UPP1-X/XS with AES encryption



Standalone operated with SD card or PC. With internal battery with 3.7V/700mAh

Version **S** with 14seg LED display and keyboard for program select.

## Incircuit Programmer for AVR, XMega, AT89Sxx, AT89LSxx, AT89LPxx, TI CC1110, CC2510 and CC2430, AVR S1200...Mega2560 in ISP + JTAG, XMega/PDI, Tiny/TPI/UPDI

- UPP1-X works in the Full-Speed USB-2 mode. Can also be connected to USB-1 ports and HUBs
- solid USB-C connector
- No power supply necessary. The UPP1 can be supplied from the PC interface (USB) or from target or from the internal battery
- Automatic adaption to the target voltage (1.8-5.5Volt, ca. 60mA)
- Powerful and extensive software
- Software runs on XP/Vista/WIN7/WIN8, 32 and 64bit.
- Supports all SPI, JTAG, PDI, TPI and UPDI programmable **AVRs**
- Supports all **XMegas** in PDI mode
- Supports Tins in TPI and **UPDI** mode
- Supports all SPI programmable **AT89Sxx, AT89LSxx** and **AT89LPxx** types
- Supports the TI/ChipCon **CC1110, CC2510 and CC2430** family
- Supports the **AT25DFxxx, S25FLxxx** and **SST25VFxxx** Serial Flash (SPI-Flash) families
- Programmable output voltage (supply) for the target system. 1.8..5.2Volt 30mA..300mA
- With **AES encryption** of the project and decryption in the UPP re-engineering is absolute impossible.
- Self update with new firmware through the Internet.
- Programs **128kB** Flash in ca. **3sec** (Mega128 JTAG Mode). Tiny44 in **1sec** (16MHz SPI)
- 2 programming modes, transparent = controlled by the PC and portable = operated from projects stored on the removable micro-SD card (included)
- With the version **S** upto 10 projects can be stored on the flash card and can be selected by the display and buttons
- External switching power supply 100..250VAC with 5Volt/800mA
- Car charger device
- USB cable
- 2 programming cables 100pin and 6pin
- Internal battery 3.7V/700mAh, optional 1500mAh
- Option **S** with display
- **UPP1** is optimal suitable for development desktop, programming stations, repair stations and for field services. Can be operated without a PC.

UPP1-X	€220.00 +ship
UPP1-X <b>S</b>	€267.00 +ship

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[www.elab-programmer.de](http://www.elab-programmer.de)

# E-LAB In-Circuit Programmer

## **UPP1-XS**

Version **S** with display and keyboard



With the arrow keys of the version **S** the user can select one out of ten projects stored on the flash card.

So this version is well predestinated for repair and service purposes and also for small series production programming.

### Properties of both versions:

The projects can be downloaded directly from the PC into the flash card plugged in the UPP1. Also the card can be plugged into the MMC card holder of the PC and then the projects can be directly stored onto the card without using the UPP1.

Internal battery with 700mAh, optional 1500mAh.

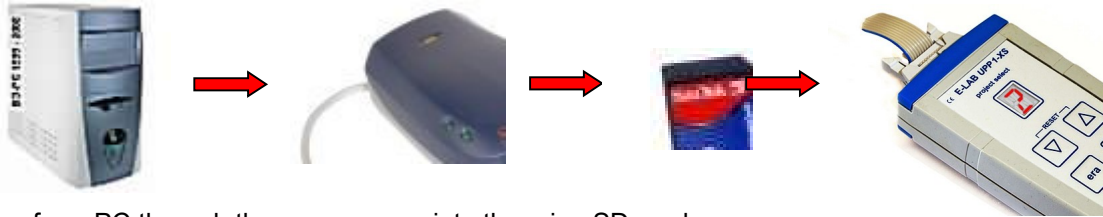
For small series production purposes the program PackProg is included. The functions are reduced to Load project, program target, test target. No manipulation of fuses etc. possible. For extended security the generated files can be AES encrypted. Remote control via Telnet is supported, also a DLL for extended control.

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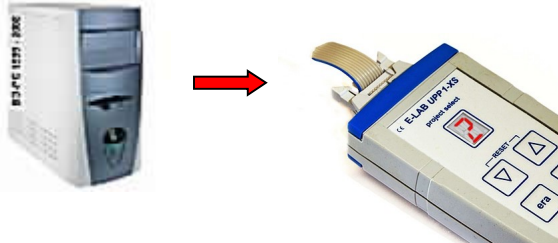
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## Data transfer

1. from PC with a Flash Writer into the microSD flashcard



2. from PC through the programmer into the microSD card



## Programming

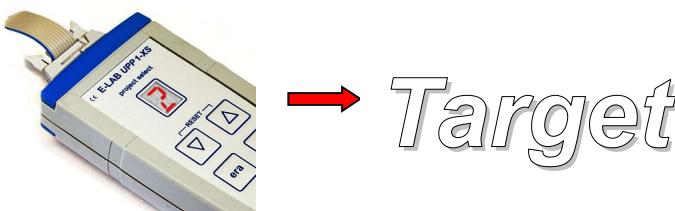
1. from PC without the use of the flash card in **Direct Mode**



2. from PC with the use of the flash card in the UPP-X in **Indirect Mode**



3. without a PC in **Stand-alone Mode** out of the microSD card



With the option "S" selecting one project out of 10 stored projects through a up/down arrow keys of the unit.

