

# ISPjuno

## Portable ISP Programmer for Field-Service and Production applications



Selecting a project using the ISPjuno programmer keypad and display in **Standalone Mode**



The **ISPjuno** is a **portable ISP programmer** designed for field-service and production In-System Programming (ISP) applications. The programmer is capable of operating in '**Standalone Mode**' (without PC) allowing an operator to select from 1 of 64 '**Standalone Programming Projects**' using the display and keypad. A single '**Autoprogram**' key is then used to repetitively program the selected project.

- Portable In-System (ISP) Programmer
- Ideal for **Field-service** or **Production** programming applications
- Supports '**Standalone**' operation - no PC required after programmer has been configured with user projects
- Capable of storing up to 64 completely independent '**Standalone Programming Projects**'.
- Supports In-system Programming (ISP) of many different programmable microcontrollers, serial EEPROM / FLASH memory devices and other custom devices (**Device library required**)†
- Supports programming via SPI, JTAG, I2C, UART, XMEGA PDI, ATtiny TPI, ATtiny UPDI
- Supports programming of devices between 1.8V and 5.0V
- Interchangeable Target Interface Modules (TIM) available
- High-speed USB connection to the PC (plus legacy RS232 COM port)
- Programmer can be powered from: External power supply, External USB Power Pack or PC USB Port



**STANDALONE PROGRAMMING**

**PRODUCTION PROGRAMMING**

**FIELD-SERVICE**

**USB / EXTERNAL POWERED**

**FIRMWARE UPGRADEABLE**



**The Embedded Solutions Company**

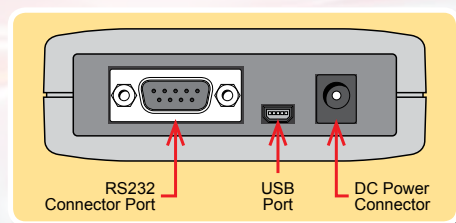
# ISPjuno

## Programming Interfaces:

- Supports most ISP hardware interfaces / protocols including JTAG, SPI, I2C, XMEGA AVR PDI, ATtiny AVR TPI, ATtiny UPDI, ATtiny AVR HV mode, 8051 UART Bootloader
- Very fast programming speeds suitable for high-throughput production environments
- Individually configurable programmer I/O pins
- All programmer I/O lines are fully ESD and over-voltage protected
- Supports programming of target ICs between 1.8 and 5.0V.
- Programmable frequency generator output on SCK2 pin - supports external clocking of AVR microcontrollers to speed up programming

## Control methods:

- PC control via on-board USB port or RS232 Serial (COM) port
- Manual operator control in **Standalone Mode** via the display and keypad



## ISPjuno connection ports

## Standalone Mode:

- Supports loading of up to 64 x **'Standalone Programming Projects'** into the programmer memory (16 Mbytes capacity)
- Project selection via the keypad and display (no PC required)
- Single-button **auto-program** operation allows repetitive execution of the selected project

## Device support libraries: †

- Atmel AVR SPI, AVR JTAG, XMEGA PDI, ATtiny TPI, ATtiny UPDI, ATtiny HV microcontrollers
- ARM FLASH microcontrollers - ARM7TDMI®, Cortex M0, Cortex M3, Cortex M4
- Selected 8051 FLASH microcontrollers
- Serial EEPROMs (I2C)
- Serial FLASH memories (SPI)
- Atmel AT45DB Serial DataFLASH™
- Silicon Labs Z-wave 300/500 series ICs and modules

## Ordering information:

- ISPjuno-PROG1** - ISPjuno programmer only. No Device Libraries included.  
**ISPjuno-AVR1** - ISPjuno programmer system supporting Microchip AVR microcontrollers.  
**ISPjuno-ZWAVE-SM1** - ISPjuno programmer system supporting Silicon Labs - Z-Wave 300 / 500 series ICs and modules (standalone mode only).

## Device Support Libraries †

The **ISPjuno-PROG1** system requires that a **'Device Support Library'** is purchased separately. Please see the **ISPjuno** programmer page for a full list of device support libraries.

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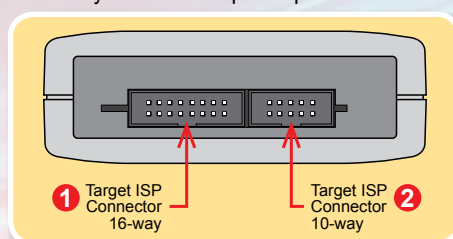
## Power supply / control:

- Programmer can be powered from:
  - PC USB port
  - External **'USB Power Pack'** (5.0V)
  - External power supply (9.0 - 24.0V)
- Programmer can switch either 3.0, 3.3 4.7 or 5.0V regulated supply to the Target System under programming control
- Fixed +12V **Target VPP** voltage generator for ATtiny HV devices

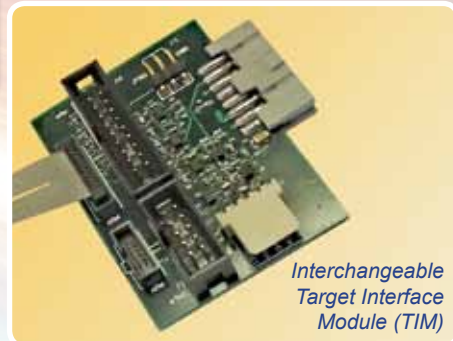
## ISP connectors / headers:

The **ISPjuno** features 2 x Target ISP connectors for direct connection to compatible target systems:

- 16-way 0.1" IDC - ISPnano pin-out
- 10-way 0.1" IDC - Equinox pin-out



It is also possible to use a **'Target Interface Module (TIM)'** which provides other target connector systems e.g. ARM JTAG / SWD.



## Software (as standard):

- EQTools** - creates **'Standalone Programming Projects'**
- EDS** - Development Mode for testing under PC control
- Upload Wizard** - uploads projects to the programmer

## Typical applications:

- Field-service programming** - supports up to 64 different customer firmware / product versions
- Low to medium quantity standalone **production programming**



## System Contents:

ISPjuno programmer, EQTools software, power supply, USB cable and IDC ISP cables.

