

BeeHive4

FAST UNIVERSAL 4 X 48-PINDRIVE CONCURRENT MULTIPROGRAMMING SYSTEM

ELNEC

DEVICE PROGRAMMERS COMPANY

USB B
UNIVERSAL SERIAL BUS

BeeProg

more than 22700 devices supported
November 2005

Extremely fast universal USB/LPT interfaced programmer

- size: 16Lx19Wx4.2H [cm] (6.3"Lx7.5"Wx1.7"H) • weight: 1.1 kg (2.4 lbs)
- includes: AC adapter, diagnostic POD, dust cover, USB and LPT cables, ISP cable, SW, manual

• Multiprogramming solution by attaching more programmers to one PC

Attaching of more BeeProg programmers to the same PC (through USB port) is achieved a powerful multiprogramming system with as much chips supported as BeeProg can and without obvious decreasing of programming speed. It is important to know, there is a concurrent multiprogramming - each programmer works independently and each programmer can program different chip, if necessary.



• with optional accessories - up to 8 devices simultaneously

picture contains:
• JetProg • Common multiprogramming module no. 1
• MCS51-DIL40-2-7 submodule (4 pcs)
(see full list of accessories at www.elnec.com)

ord. no. Description
60-0032 JetProg



more than 19800 devices supported
November 2005

- Four independent universal programming modules in one unit
- extremely fast programming, one of the fastest programmers in this category. Programs 16-Mbit Flash memory less than 18 seconds
- powerful independent pin driver circuit for each and every pin of the programmer
- Very low voltage support for latest Flash memory chips
- ESD protection on each pin of the sockets
- no adapter required for any DIL devices
- USB (2.0 compatible) interface to PC
- Windows 2000/XP/2003/XPx64 compatible SW

- size: 506Lx213W x86H mm (19.9"Lx8.4"W x 3.4"H)
- weight: 4.8kg (10.58 lb) • includes: diagnostic PODs, dust covers, 1.8m (6 ft) cable, SW

ord. no. Description
60-0042 BeeHive



- extremely fast programming, one of the fastest programmers in this category
- 48-pins powerful pindrivers, no adapter required for any DIL devices
- connector for in-circuit programming (ISP)
- dual connection to PC: USB or parallel (printer) port
- USB 2.0 compatible interface
- high-speed IEEE 1284 (ECP/EPP) printer-port interface

ord. no. Description
60-0036 BeeProg

USB B
UNIVERSAL SERIAL BUS

Device support BeeHive / BeeProg / JetProg:

• EPROM: NMOS/CMOS, 27xxx and 27Cxxx series, with 8/16 bit data width, full support for LV series • EEPROM: NMOS/CMOS, 28xxx, 28Cxxx, 27Exxx series, with 8/16 bit data width • Flash EPROM: 28Fxxx, 29Cxxx, 29Fxxx, 29Bxxx, 29LVxxx, 29Wxxx, 49Fxxx series, from 256Kbit to 32Mbit, with 8/16 bit data width, full support for LV series • Serial E(E)EPROM: 24Cxxx, 24Fxxx, 25Cxxx, 45Dxxx, 59Cxxx, 25Fxxx, 25Pxxx, 85xxx, 93Cxxx, NVM3060, MDxxx series, full support for LV series • Configuration (EE)EPROM: XCFxxx, XC17xxx, XC18xxx, EPCxxx, AT17xxx, 37LVxx • 1-Wire E(E)EPROM: Ds1xxx, Ds2xxx • PROM: AMD, Harris, National, Philips/Sigmatic, Tesla, TI • NV RAM: Dallas DSxxx, SGS/Immos Mxxx, SIMTEK STKxxx, XICOR 2xxx, ZMD U63x series • PLD: Altera: MAX 3000A, MAX 7000A, MAX 7000B, MAX 7000S, MAX7000AE • PLD: Lattice: ispGAL22V10x, ispLS1xxx, ispLS1xxxEA, ispLS12xxx, ispLS12xxxA, ispLS12xxxE, ispLS12xxxVE, ispLS12xxxVL, LC4xxx/C/V/ZC, M4-xxx/xx, M4A3-xxx/xx, M4A5-xxx/xx, M4LV-xx/xx • PLD: Xilinx: XC9500, XC9500XL, XC9500XV, CoolRunner XPLA3, CoolRunner-II • other PLD: SPLD/CPLD series: AMI, Atmel, AMD-Vantis, Gould, Cypress, ICT, Lattice, NS, Philips, STM, VLSI, TI • MCU 48 series: 87x41, 87x42, 87x48, 87x49, 87x50 series • MCU 51 series: 87xx, 87Cxxx, 87LVxx, 89Cxxx, 89Sxxx, 89LVxxx, all manufacturers; Philips Philips 87C748...752 series, LPC series • MCU Intel 196 series: 87C196 KB/KC/KD/KT/KR/... • MCU Atmel AVR: AT90Sxxx, ATtiny, ATmega series • MCU Cypress: CY8Cxxxx • MCU ELAN: EM78Pxxx • MCU Microchip PICmicro: PIC10xxx, PIC12xxx, PIC16xxx, PIC17Cxxx, PIC18xxx, dsPIC series • MCU Motorola (Freescale): 68HC05, 68HC08, 68HC11 series • MCU Myson MTV2xx, 3xx, 4xx and 5xx* series • MCU National: COPxxx series • MCU NEC uPD78Pxxx series • MCU Scenix (Ubicom): SXxxx series • MCU SGS-Thomson: ST6xx, ST7xx, ST10xx series • MCU TI: MSP430 and MSC121x series • MCU ZILOG: Z86/Z89xxx and Z8xxx series • MCU others: EM_Microelectronic, Fujitsu, Goal Semiconductor, Hitachi, Holtek, Princeton, Macronix, MDT, Myson, Winbond, InLineOne (Siemens), Samsung, Toshiba, ... • 2708 (with additional module)

Note: devices marked * are not supported by JetProg

BeeProg device support through ISP connector, JetProg - ISP module: • Serial E(E)EPROM: IIC series MW series, SPI series, KEELQ series, serial data Flash, PLD configuration memories • MCU Atmel: AT89Sxxx, AT90Sxxx, ATtiny, ATmega series • MCU Cypress: CY8C2xxx • MCU Elan: EM78Pxxx, EM6xxx series • MCU EM Microelectronic: 4 and 8 bit series • MCU Microchip PICmicro: PIC10xxx, PIC12xxx, PIC16xxx, PIC17xxx, PIC18xxx, dsPIC series • MCU Motorola/Freescale: HC11 series, HC908 series (both 5-wire, All-wire) • MCU NEC: uPD7xxx series • MCU Philips: LPC2xxx series, LPC series, 89xxx series • MCU Scenix (Ubicom): SXxxx series • MCU TI: MSP430 (both JTAG and BSL series), MSC12xxx series • PLD: Lattice: ispGAL22xV10x, ispLS1xxxEA, ispLS12xxxE, ispLS12xxxVE, ispLS12xxxVL, M4-xxx/xx, M4LV-xx/xx, M4A3-xx/xx, M4A5-xx/xx, LC4xxx/C/V/ZC • Various PLD (also by JAM player/JTAG support): Altera: MAX 3000A, MAX 7000A, MAX 7000B, MAX 7000S, MAX 9000, MAX II • Xilinx: XC9500, XC9500XL, XC9500XV, CoolRunner XPLA3, CoolRunner-II



more than 22400 devices supported
November 2005

- extremely fast programming • 48-pins powerful pindrivers, expandable to 256 pins • DIL48 socket module in base configuration, no adapter required for any DIL devices
- In-circuit programming capability
- multiprogramming capability for most supported devices
- high-speed IEEE 1284 printer-port interface

- size: 27.5L x 15W x 3.8H [cm] (10.8"L x 6.2"W x 1.5"H)
- weight: 1.5 kg (3.3 lbs) • includes: AC adapter, diagnostic POD, dust cover, 1.8m (6 ft) cable, SW, manual

ord. no. Description
60-0032 JetProg

Socket converters

DIL to PLCC, PSOP, QFP, SDIP, SOIC, SSOP, TSOP, BGA ...

See full list at www.elnec.com



SmartProg SmartProg2

with LPT connection

with USB connection

CE



universal very fast programmer / 40 pin drivers / ISP capability

- small, fast and powerful universal programmer
- DIL40 ZIF socket, devices in DIL package up to 40 pins are supported without adapters
- in-circuit serial programming (ISP) capability included
- connection to PC
- parallel (printer) port (SmartProg)
- USB port (SmartProg2)

- size: 16L x 9W x 3.5H [cm] (6.3"L x 3.8"W x 1.4"H)
- weight: 0.5 kg (1.1 lbs)
- includes: DC adapter, diagnostic POD, dust cover, 1.8m (6 ft) cable, ISP cable, SW, manual

• **device support:** • EPROM: NMOS/CMOS, 27xxx and 27Cxxx series, with 8/16 bit data width, full support of LV series (*1) • EEPROM: NMOS/CMOS, 28xxx, 28Cxxx, 27EExxx series, with 8/16 bit data width, full support of LV series (*1) • Flash EPROM: 28Fxxx, 29Cxxx, 29Fxxx, 29Bxxx, 29Lxxx, 29Wxxx, 49Fxxx series, with 8/16 bit data width, full support of LV series (*1) • Serial E(E)PROM: 17Cxxx, 24Cxxx, 24Fxxx, 25Cxxx, 59Cxxx, 85xxx, 93Cxxx, full support of LV series (*1) • Configuration PROM: 17xxx series, LV series including • NV RAM: Dallas DSxxx, SGS/Inmos MKxxx, SIMTEK STKxxx, XICOR 2xxx, ZMD U63x series • PLD: series: Atmel, AMD-Vantis, Cypress, ICT, Lattice, NS, ... (*1) • MCU MCS51 series: 87Cxxx, 87Lxxx, 89Cxxx, 89Sxxx, 89Lxxx series from Atmel, Atmel W&M, Intel, Philips, SST, Winbond (*1), parallel and serial (ISP) mode • MCU Atmel AVR: ATtiny, AT90Sxxx, ATmega series (*1), parallel and serial (ISP) mode • MCU Microchip PICmicro: PIC12xxx, PIC16xxx, PIC17Cxxx, PIC18xxx series, 8-40 pins (*1), parallel and serial (ISP) mode • MCU Sconix (Ubiocom): SX18xxx, SX20xxx, SX28xxx series

• **through ISP connector:** • MCU Atmel: AT89Sxxx, AT90Sxxx, ATtiny, ATmega series • MCU EM Microelectronic: 4 and 8 bit series • MCU Microchip PICmicro: PIC12xxx, PIC16xxx, PIC17xxx, PIC18xxx, dsPICxxx series • ELAN Em78xxx

Notes: (*1) - suitable adapters are available for non-DIL packages

ord. no.	Description
60-0035	SmartProg
60-0038	SmartProg2

SEEPROM

CE



serial EEPROM programmer

- small and powerful portable programmer for all 8-pin serial EEPROMs
- supports interfaces IIC (24Cxx), Microwire (93Cxx), SPI (25Cxx)
- supports programming LV (3.3V) EEPROM
- connection to PC via printer port
- weight: 0.15 kg (0.33 lbs)

- size: 9L x 10.5W x 2.5H [cm] (3.5"L x 4.1"W x 1.0"H)
- includes: DC adapter, 1.8m (6 ft) cable, SW, manual
- **Device support:** • EEPROM I2C (24Cxxx)
- EEPROM Microwire (93Cxxx)
- EEPROM SPI (25Cxxx)
- specially devices (digital thermometers, ...)

ord. no.	Description
60-0022	SEEPROM

more than 3000 devices supported
November 2005

MEMprog universal memory programmer

more than 5700 devices supported
November 2005



- small, fast and powerful programmer of EPROM, EEPROM, Flash EPROM, NVRAM and serial EEPROM
- DIL40 ZIF socket, memories in DIL package up to 40 pins are supported without adapters
- connection to PC - parallel (printer) port
- high-speed IEEE 1284 printer-port interface, up to 1MB/sec. transfer rate
- size: 13.7L x 6.5W x 4H [cm] (5.4"L x 2.6"W x 1.6"H)
- weight: 0.2 kg (0.4 lbs)
- includes: DC adapter, 1.3m (4.3 ft) cable, diagnostic POD, dust cover, SW, manual
- **Device support:** • EPROM: NMOS/CMOS, 2708(*3), 27xxx and 27Cxxx series, with 8/16 bit data width, full support of LV series (*1*) • EEPROM: NMOS/CMOS, 28xxx, 28Cxxx, 27EExxx series, with 8/16 bit data width, full support of LV series (*1*) • Flash EPROM: 28Fxxx, 29Cxxx, 29Fxxx, 29Bxxx, 29Lxxx, 29Wxxx, 49Fxxx series, with 8/16 bit data width, full support of LV series (*1*) • Serial E(E)PROM: AT17Cxxx, 24Cxxx, 24Fxxx, 25Cxxx, 59Cxxx, 85xxx, 93Cxxx, NVM3060, MDA206x, full support of LV series(*1) • Configuration PROM: 17xxx series, LV series including (*1) • NV RAM: Dallas DSxxx, SGS/Inmos MKxxx, SIMTEK STKxxx, XICOR 2xxx, ZMD U63x series

*1) - suitable adapters are available for non-DIL packages
*2) - there exist only few adapters for devices with more than 40 pins. Therefore think please about more powerful programmer (LabProg+, BeeProg, JetProg), if you need to program memories with more than 40 pins
*3) - programming with additional module

ord. no.	Description
60-0037	MEMprog

MEMprogl universal memory programmer

CE

NEW!

- small and powerful Programmer of EPROM, EEPROM, Flash EPROM, NVRAM and serial EEPROM
- DIL32 ZIF socket, memories in DIL package up to 32 pins are supported without adapters
- connection to PC - parallel (printer) port
- size: 13.7L x 6.5W x 4H [cm] (5.4"L x 2.6"W x 1.6"H)
- weight: 0.2 kg (0.4 lbs)
- includes: DC adapter, 1.3m (4.3 ft) cable, SW, manual
- **Device support:** • EPROM: NMOS/CMOS, 27xxx and 27Cxxx series, with 8 bit data width, full support of LV series (*1*) • EEPROM: NMOS/CMOS, 28xxx, 28Cxxx, 27EExxx series, with 8 bit data width, full support of LV series (*1*) • Flash EPROM: 28Fxxx, 29Cxxx, 29Fxxx, 29Bxxx, 29Lxxx, 29Wxxx, 49Fxxx series, with 8 bit data width, full support of LV series (*1*) • Serial E(E)PROM: 24Cxxx, 24Fxxx, 25Cxxx, 59Cxxx, 85xxx, 93Cxxx, full support of LV series(*1) • NV RAM: Dallas DSxxx, SGS/Inmos MKxxx, SIMTEK STKxxx, XICOR 2xxx, ZMD U63x series

*1) - suitable adapters are available for non-DIL packages
*2) - there exist none adapter for devices with more than 32 pins. Therefore, please, consider a more powerful programmer (SmartProg/SmartProg2, LabProg+, BeeProg, JetProg), if you need to program memories with more than 32 pins

ord. no.	Description
60-0039	MEMprogl



One SW covers all programmers

95/98/Me/NT/2000/XP

T51prog

MCS51 series and Atmel AVR uP ISP capable fast programmer

CE



- small, very fast and powerful portable programmer for MCS51 series and Atmel AVR microcontrollers
- developed in close cooperation with Atmel W&M company
- in-circuit serial programming (ISP) capability included
- full-speed programming of serial EEPROM (IIC, Microwire and SPI interface)
- DIL40 ZIF socket, no adapter required for any MCS51/AVR in DIL package
- high-speed IEEE 1284 printer-port interface, up to 1MB/sec. transfer rate
- weight: 0.2 kg (0.44 lbs)
- size: 9L x 10.5W x 2.5H [cm] (3.5"L x 4.1"W x 1.0"H)
- includes: DC adapter, 1.8m (6 ft) cable, ISP cable, SW, diagnostic POD, dust cover, manual
- **Device support:** • microcontrollers MCS51 series: 87Cxxx, 87Lxxx, 89Cxxx, 89Sxxx, 89Lxxx series from Atmel, Atmel W&M, Intel, Philips, SST, Winbond, ... 8-40 pins (*1), parallel and serial mode • microcontrollers Atmel AVR: ATtiny, AT90Sxxx, ATmega series (parallel and serial mode), 8-40 pins (*1), parallel and serial mode • Serial E(E)PROM: 24Cxxx, 24Fxxx, 25Cxxx, 59Cxxx, 85xxx, 93Cxxx series

ord. no.	Description
60-0033	T51prog

PIKprog +

CE



fast programmer of Microchip PICmicro series microcontrollers, ISP capability

- small, very fast and powerful portable programmer of Microchip PICmicro series microcontrollers
- in-circuit serial programming (ISP) capability included
- full-speed programming of serial EEPROM (IIC, Microwire and SPI interface)
- DIL40 ZIF socket, all PICmicro@ chips in DIL package up to 40 pins are supported without adapters
- connection to PC - parallel (printer) port
- high-speed IEEE 1284 printer-port interface, up to 1MB/sec. transfer rate
- weight: 0.2 kg (0.44 lbs)
- size: 9L x 10.5W x 2.5H [cm] (3.5"L x 4.1"W x 1.0"H)
- includes: DC adapter, 1.8m (6 ft) cable, ISP cable, SW, diagnostic POD, dust cover, manual
- **Device support:** • PICmicro: 12xxx, 14xxx, 16xxx, 17xxx, 18xxx, 8 to 40 pin (*1), parallel and serial mode • Serial E(E)PROM: 17Cxxx, 24xxx, 25xxx, 59xxx, 85xxx, 93xxx, 95xxx

ord. no.	Description
60-0034	PIKprog+

EREPROM-01A EPROM eraser

- erases all UV erasable EPROMs
- holds a total of 5 pieces EPROM
- adjustable timer controlled by microcontroller
- weight: 0.23 kg (0.5 lbs)
- size: 15.8L x 6.9W x 3.7H [cm] (6.2"L x 2.7"W x 1.46"H)
- includes: DC adapter, pad, manual

ord. no.	Description
60-0001	EREPROM-01A

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