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848A

Introduction

848A is next member of Windows 95/98/ME/NT/2000/XP based B+K PRECISION specialized programmers. Programmer is built to meet the demands of the development labs and field engineers for a specialized low-cost memory programmer.

848A supports memory types up to 32 pins - EPROM, EEPROM, NVRAM, Flash EPROM and serial EEPROM - including low voltage types. 848A isn't only programmer, but also static RAM tester.

848A provides very competitive price with excellent hardware design for reliable programming. Offer outstanding "value for money" in this class. Performance, dimensions and speed of 848A can be utilized mainly in the maintenance.

848A interfaces with the IBM PC Pentium compatible or higher, portable or desktop personal computers through any parallel (printer) port.

848A has the powerful TTL pindriver, which deliver signals without overshoot or ground bounce for all supported devices. Pin drivers provide TTL levels in the range suitable also for the low-voltage devices. Generators for supply voltage and programming voltage are digitally controlled in wide range of voltages.

848A performs programming **verification** at the marginal level of supply voltage, which, obviously, improves programming yield, and guarantees long data retention.

848A is driven by an easy-to-use control program with pull-down menus, hot keys and on-line help. Selecting of device is performed by its class, by manufacturer or simply by typing a fragment of vendor name and/or part number.

Standard device-related commands (read, blank check, program, verify, erase) are enhanced by some **test functions** (signature-byte check), and some **special functions** (autoincrement).

All known data formats are supported. Automatic file format detection and conversion during load of file.

The rich-featured **autoincrement function** enables to assign individual serial numbers to each programmed device - or simply increments a serial number, or the function enables to

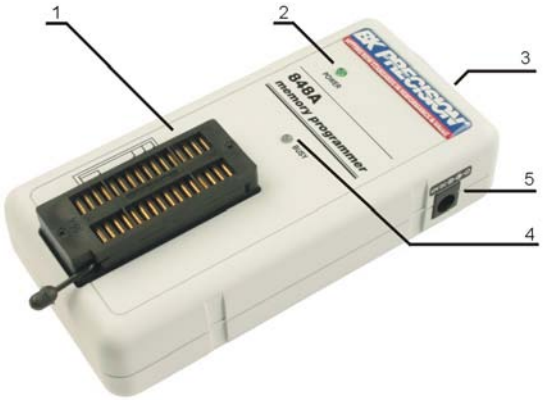
read serial numbers or any programmed device identification signatures from a file.

The software also provide a many informations about programmed device. As a special, the drawing of all available packages are provided. The software provides also explanation of chip labeling (the meaning of prefixes and suffixes at the chips) for each supported chip.

Various socket converters are available to handle device in PLCC, SOIC, SSOP, TSOP, TSSOP and other packages.

848A elements

① 32 pin ZIF socket
② LED power/sleep
③ LPT connector for PC ↔ 848A communication cable
④ LED, which indicate work result
⑤ Power supply connector



Power supply connector

Connecting 848A programmer to PC

Switch off the PC and programmer. Insert the connection cable, included in the 848A programmer delivery, to the free printer port of PC. If your computer is equipped with only one

printer port, substitute the programmer cable for the printer cable. Connect the opposite cable end to the programmer. Screw on both connectors to counter connectors. This is very important mainly for the connector to programmer. Though replacing the printer cable by the programmer cable is uncomfortable, it is not recommended to operate the 848A programmer through a mechanical printer switch. Use of an electronic printer switch isn't possible.

Connect the mains connector of the power supply (or wall-plug power supply self) to a mains plug, connect the connector to the appropriate programmer's connector. Then, on the programmer lights up LED POWER and the programmer 848A is ready to run. Next switch on the PC and run the control program.

Caution! *If you don't want to switch off your PC when connecting the 848A, proceed as follows*:

- ***When connecting** the programmer to the PC: **FIRST** insert the **communications cable** and **THEN** the **power-supply connector.***
- ***When disconnecting** the programmer from the PC: **FIRST** disconnect the **power-supply connector** and **THEN** the **communication cable.***

Problems related to the 848A ⇔ PC interconnection, and their removing

If you have any problems with 848A ⇔ PC interconnection, see section ***Common notes*** please.

Manipulation with the programmed device

After selection of desired device for your work, you can insert into the open ZIF socket (the lever is up) and close socket (the lever is down). The correct orientation of the programmed device in ZIF socket is shown on the picture near ZIF socket on the programmer's cover. The programmed device is necessary to insert into the socket also to remove from the socket when LED BUSY light off.

Warning: *848A programmer hasn't protection devices, which protect the content of programmed device against critical situations, for example power failures and PC failure (interrupted cable...). Moreover, a device is usually destroyed in the programming mode due to forced interruption of the control program run (Reset or switching the computer off) due to removing the connecting cable, or unplugging the*

programmed device from the ZIF socket. Incorrectly placed device in the ZIF socket can cause its damage or destruction.

Technical specification

HARDWARE

Programmer

- two D/A converters for VCCP and VPP, controllable rise and fall time
- VCCP range 0..7V/350mA
- VPP range 0..25V/200mA

ZIF socket, pindriver

- 32-pin DIL ZIF (Zero Insertion Force) socket accepts both 300/600 mil devices up to 32-pins
- pindriver: TTL pindrivers and GND/VCC/VPP pindrivers, specialized for memory programming
- TTL driver provides level H also for support of low voltage devices

DEVICE SUPPORT

Programmer

- EPROM: NMOS/CMOS, 27xxx and 27Cxxx series, with 8 bit data width, full support of LV series (*1*2)
- EEPROM: NMOS/CMOS, 28xxx, 28Cxxx, 27EExxx series, with 8 bit data width, full support of LV series (*1*2)
- Flash EPROM: 28Fxxx, 29Cxxx, 29Fxxx, 29BVxxx, 29LVxxx, 29Wxxx, 49Fxxx series, with 8 bit data width, full support of LV series (*1*2)
- 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

Notes:

- *(*1) - suitable adapters are available for non-DIL packages*
- *(*2) - There exist none adapters for devices with more than 32 pin. Therefore think please about more powerful programmer (865, 866, 864, 844USB, 844A), if you need to program devices with more than 32 pins*

- *For all supported devices see actual **Device list***

I.C. Tester

- Static RAM: 6116 .. 624000

Programming speed

Device	Operation	Time
27C010	programming and verify	42 sec
AT29C040A	programming and verify	45 sec
AM29F040	programming and verify	102 sec
M25P020	programming and verify	130 sec

Conditions: *P4, 2,4GHz,ECP, Windows XP*

SOFTWARE

- **Algorithms:** only manufacturer approved or certified algorithms are used.
- **Algorithm updates:** software updates are available approx. every 2 weeks, free of charge.
- **Main features:** revision history, session logging, on-line help, device and algorithm information

Device operations

- **standard:**
  - intelligent device selection by device type, manufacturer or typed fragment of part name
  - blank check, read, verify
  - program
  - erase
  - configuration and protection program
  - illegal bit test
  - checksum
- **security**
  - ID byte check
- **special**
  - auto device serial number increment
  - statistic
  - count-down mode

Buffer operations

- view/edit, find/replace
- fill, copy, move, byte swap, word/dword split
- checksum (byte, word)
- print

File load/save

- no download time because programmer is PC controlled
- automatic file type identification

Supported file formats

- unformatted (raw) binary
- HEX: Intel, Intel EXT, Motorola S-record, MOS, Exormax, Tektronix, ASCII-SPACE-HEX

PC system requirements

See section ***Introduction/ PC requirements***

GENERAL

- operating voltage 12..15V DC, max. 500mA
- power consumption max. 6W active
- dimensions 137x65x40 mm (5.4x2.6x1.6 inch)
- weight (without external power adapter) ca. 200g (7.06 oz)
- temperature 5°C ÷ 40°C (41°F ÷ 104°F)
- humidity 20%..80%, non condensing

Package included

- 848A programmer
- connection cable PC-programmer
- wall plug adapter 12V DC/500mA, unstabilized
- user manual
- software
- registration card
- transport case

Additional services

- Keep Current
- AlgOR
- free technical support (hot line)
- free life-time software update via Internet