Specifications

PSX400 Gang/Set Programmer

General Description

Data I/O®'s PSX400™ is an affordable gang/set programmer designed for low- to mid-volume prototyping or production applications. Featuring flexible, removable socketing modules, the PSX400 supports EPROM, EEPROM, Flash EPROM, and both Intel® and Motorola®-style microcontrollers in a variety of packages.

The PSX400 offers two modes of operation. For operation in a stand-alone environment, you can use the PSX400's simple four-button keyboard. Or, for greater flexibility and automation, the PSX400 can be controlled from a PC using Data I/O's TaskLink™ PC Control Software.

To speed programming operations, the PSX400 supports rapid data transfers through either an RS-232 port or an optional IEEE-488 interface in any of 34 translation formats.

Programming data is stored in the standard 1 MB RAM; RAM can be expanded to 16 MB if required for large devices or sets.

Affordable Quality

The PSX400 is based on Data I/O's industry-standard PSX Parallel Programming Series, but is downsized to match the cost requirements of low- to mid-volume programming operations. It shares many common circuit elements and software with the field-proven PSX family, ensuring the highest reliability, quality, and performance right from the start.
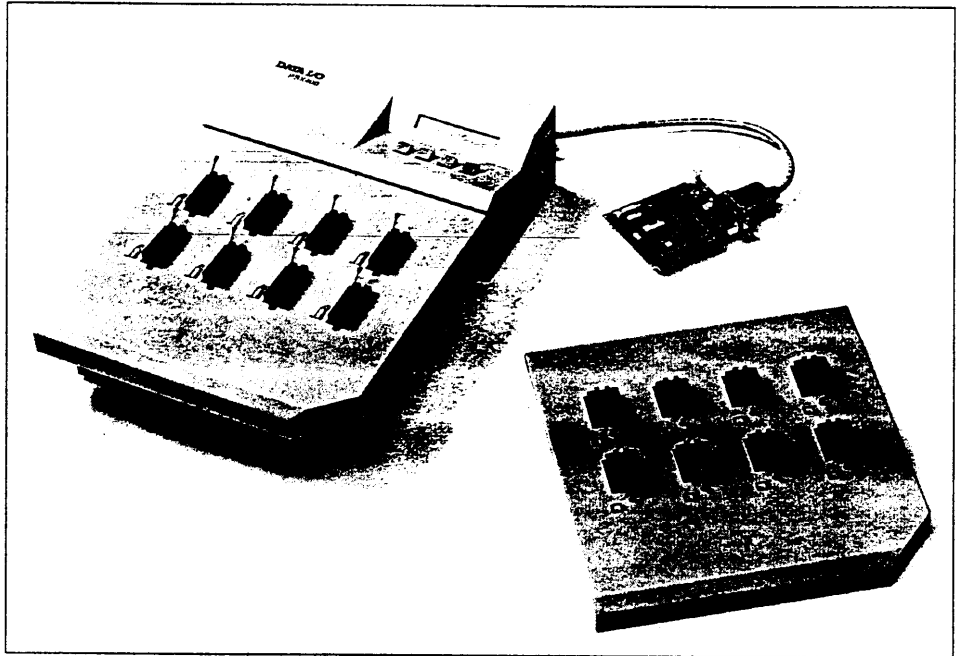
From the PSX family comes the PSX400's rapid download and programming times. The PSX400 transfers data at 38.4 Kbaud through the RS-232 serial port, and as fast as 170 Kbytes/second through the optional IEEE-488 port. Data can also be loaded into RAM from master devices through the programming sockets.

With the data downloaded, the PSX400 can then execute the manufacturer-certified programming algorithms faster than any other comparable programmer available. Typical programming time for eight 1 MB Flash parts is approximately 30 seconds, sometimes less depending on the manufacturer of the devices being programmed.

Configure to Your Needs

The PSX400 is available with a wide range of throughput, socketing, and RAM options, allowing you to configure the programmer to meet your exact needs.

- IEEE-488 I/O port with matching PC-interface board and cabling provides data download at transfer rates up to 170 Kbytes/second

- PSX32X8 Memory Module supports 28- and 32-pin EPROM, EEPROM, and Flash memory devices in either DIP or PLCC packages

- PSX48X8 Micro/Memory Module supports 28- and 32-pin devices, and adds support for Intel/Motorola-style programmable microcontrollers and 16-bit EPROMs – up to 48 pins – in either DIP or PLCC packages

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Translation Formats

- 34 formats available: Absolute Binary, ASCII-B10F, ASCII-BHLF, ASCII-BNPF, ASCII-Hex(Apostrophe), ASCII-Hex(Comma), ASCII-Hex(Percent), ASCII-Hex(Space), ASCII-Hex SMS, ASCII-Octal(Apostrophe), ASCII-Octal(Percent), ASCII-Octal(Space), ASCII-Octal SMS, Binary, BNPF (5-level), DEC Binary, Fairchild Fairbug, Hewlett Packard 64000, Hewlett Packard Unix, Intel Hex-32, Intel Intellec 8/MDS, Intel MCS-86 Hexadecimal, Intel OMF286, Intel OMF386, MOS Technology, Motorola 32-bit (S3), Motorola Exorcisor, Motorola Exormax, RCA Cosmac, Signetics Absolute Object, Spectrum, Tektronix, Extended Tektronix Hexadecimal, Texas Instruments SDSMAC

Accessories

Standard

- Power cord
- User manual
- Anti-static strap

Options

- IEEE-488, complying with IEEE-488 Standard 488-1978 and 1980 supplement
  - high-speed data transfer rate using eight data lines and eight bus management lines
  - up to 170 Kbytes/second
  - PC interface card and EMI shielded IEEE-488 connectors and 60-inch cable
  - individual programmers may be controlled on a common bus
- Dust cover
- Padded hard-sided carrying case

Electrical Requirements

Operation Voltages: 90 VAC to 264 VAC, 47-63 Hz

Power Consumption: 165W/220 VA maximum

Physical Specifications

Dimensions: 33×50×10 cm (13×19.5×4 in)

Weight: 5.0 kg (12 lbs)

Environmental Specifications

Temperature:
Operating: +5°C to +45°C (+41°F to 113°F)

Storage: -40°C to +70°C (-40°F to 158°F)

Humidity: To 90% noncondensing

Operational Altitude: To 8500 m (28,000 ft)

Safety Standards

The PSX400 is designed to comply with the following safety standards: UL 1244; CSA C22.2 No. 231; IEC 348 and 1010-1; VDE 0871 Limit B

DATA I/O

- PSX32X4 DIP Socket Module provides a truly affordable four-socket programmer for up to 32-bit applications (eight bit/device by four devices), or for very low-volume production

- 1 MB RAM is standard; 8 MB and 16 MB options are available

Features

Standard

- Performs gang and set programming for 28- and 32-pin EPROM, EEPROM, and FLASH memory devices using 32-pin ZIF sockets

- Includes 1 MB standard user RAM

- Comes with manufacturer-approved and certified algorithms to assure the highest possible programming yields

- Designed to comply with UL, CSA, and VDE product safety requirements; and with FCC, VDE, and IEC EMI emissions requirements

- TaskLink PC Control Software provides an easy-to-use PC interface
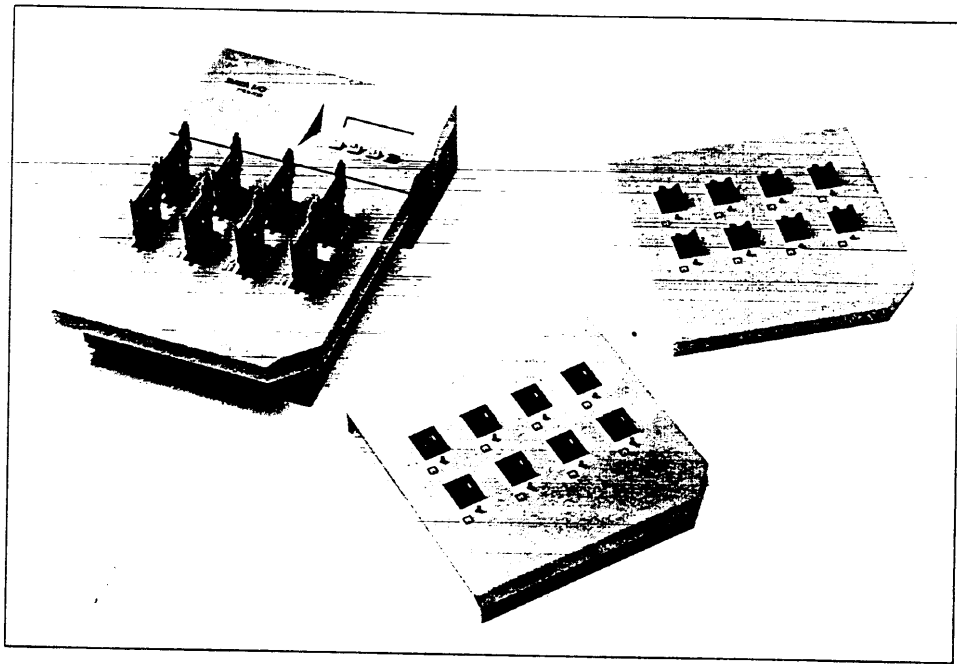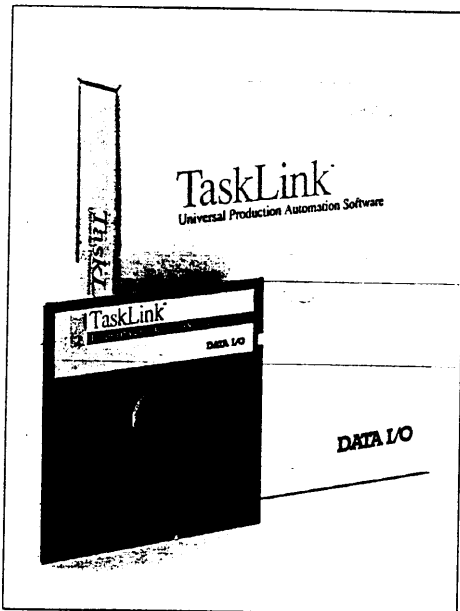
The PSX400 features flexible, interchangeable socket modules supporting DIP and PLCC packages, as well as PCMCIA memory cards.

Options

- 8 or 16 MB of additional user RAM

- 48-pin Micro/Memory Module programs 28- and 32-pin EPROMs, plus Intel/Motorola-style microcontrollers, memory cards, or 16-bit EPROMs

- 48-pin Memory Card Module supports type 1, 2, and 3 PCMCIA memory cards

- IEEE-488 communications port, with matching PC interface card and cabling, allows data download at transfer rates of up to 170 Kbytes/second

Functional Specifications

User RAM

- 1 MB standard

- 8 or 16 MB optional

Devices Programmed

- 32-pin Memory Module: EPROM, EEPROM and FLASH memories

- 48-pin Micro/Memory Module: 32-pin memory devices, plus Intel and Motorola-style programmable microcontrollers and 16-bit memories

Packages Supported

- DIP (28 to 48 pins), PLCC (32 to 44 pins)

Device Operations

- Load, program, verify, sumcheck, ID test, illegal bit check, blank check, erase (for electrically erasable devices), and continuity check

Keyboard

- Four-button keypad

Display

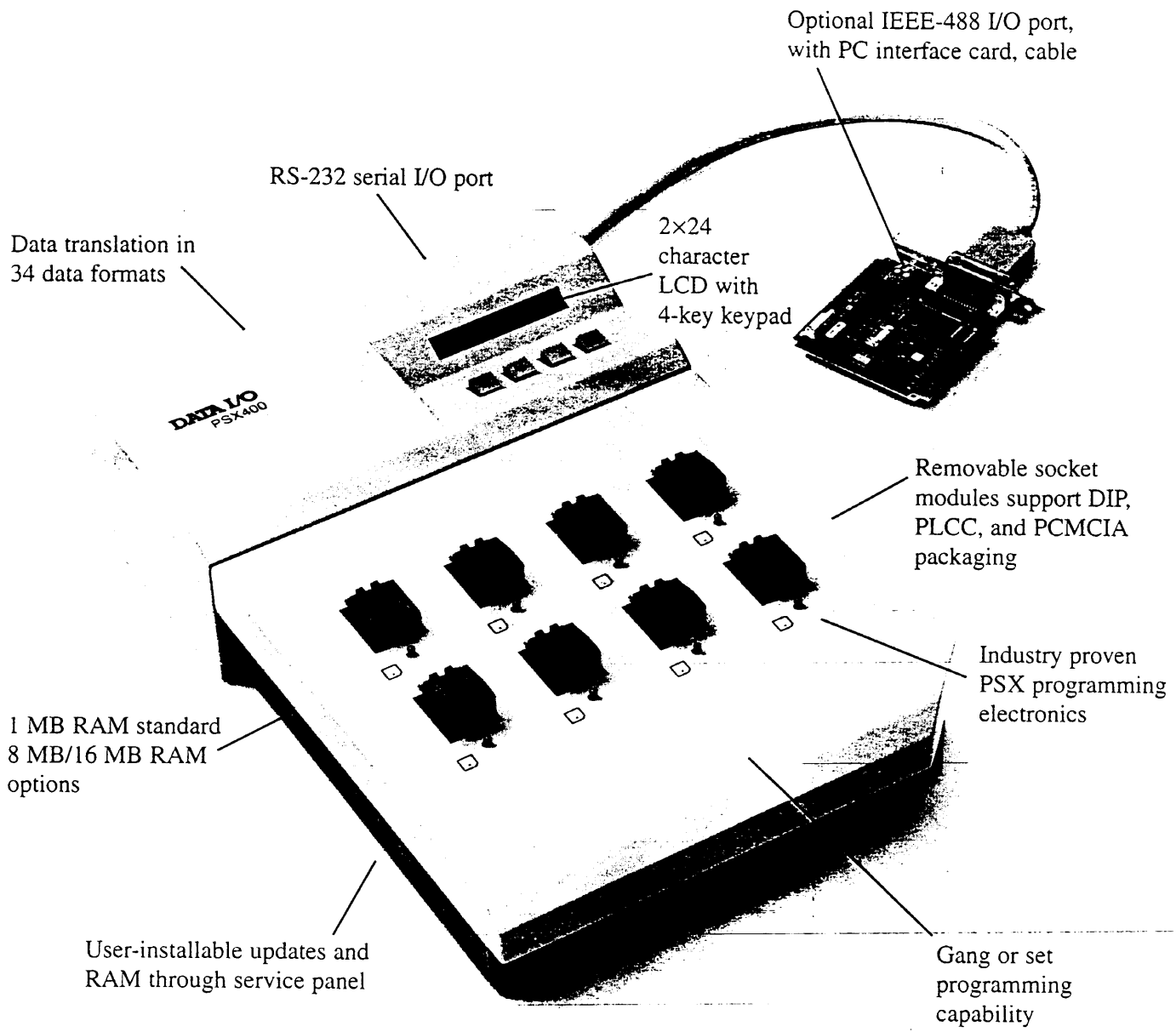- Two-line by 24-character alphanumeric

Serial I/O

- RS-232 with the following baud rates: 50, 75, 110, 134.5, 150, 200, 300, 600, 1050, 1200, 1800, 2000, 2400, 4800, 9600, 19.2K, and 38.4K

Remote Control

- Compatible with Data I/O computer remote control

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Optional IEEE-488 I/O port,
with PC interface card, cable

RS-232 serial I/O port

Data translation in
34 data formats

2×24
character
LCD with
4-key keypad

DATA I/O
PSX400

Removable socket
modules support DIP,
PLCC, and PCMCIA
packaging

Industry proven
PSX programming
electronics

1 MB RAM standard
8 MB/16 MB RAM
options

User-installable updates and
RAM through service panel

Gang or set
programming
capability