Atari 400 and 800

The Atari 800 shown here consists of a 16KB RAM, a cassette program recorder, a 40-cps 4-inch roll printer, a 5¼-inch 92KB mini-diskette drive, and a user-supplied color TV set or monitor. Total cost of this system is about $2,200. Programs can be loaded either via plug-in ROM cartridges, cassette tapes, or diskettes. The 800 is programmable in BASIC or Assembly language.

BACKGROUND INFORMATION

Atari Computer Division, a Warner Communications Company, 1265 Borregas Ave., P.O. Box 427, Sunnyvale, CA 94086. Telephone (408) 745-2038.

When Atari entered the personal computer marketplace in 1979, it came as no great surprise to the industry. With revenues of about $200 million per year and a highly successful track record in manufacturing and marketing high technology consumer electronic games, it was natural for Atari to turn its attention to personal computers.

Atari sells two personal computers: the Atari 400 and Atari 800. The 400 is a limited size (8KB-16KB), low-end system intended for home use, costing $499 (8KB) or $630 (16KB). The 800 has more RAM capacity and costs from $1,080 to over $5,000. It is capable of handling small business and professional applications, as well as sophisticated home processing applications.

Atari has entered into a license agreement with Control Data Corporation for servicing the Atari computers. Under this agreement, CDC service centers nationwide have established Atari repair facilities, and can fix most problems in a 48-hour period. Atari has also entered into an agreement with CDC whereby Atari is marketing four CDC CYBERWARE investment programs that run on the Atari 800.

In addition to relying on its strong distribution network, Atari stresses that a major selling point of the 400 and 800 systems is the use of plug-in ROM cartridges. These cartridges provide low-cost, easy-to-use program availability.

Current models: Atari 400; Atari 800.
Memory: Atari 400—8KB-16KB; Atari 800—16KB-48KB RAM, 88KB-352KB mini diskette, 163KB-326KB dual diskette.
Workstations: not applicable.
Base list price: Atari 400—$499 (8KB), $630 (16KB); Atari 800—$1,080-$1,480 (processor/memory).
Typical list prices: about $720 (student)—Atari 400 with 8KB RAM, Atari 410 program recorder, user-supplied TV set; about $1,980—Atari 800 with 32KB RAM, 1 mini disk drive, user-supplied TV set.
Primary uses: color graphics, professional offices, education, home/hobby, small business (Atari 800).
Popular options: from Atari—joystick, paddles, printer, mini disk drive, add-on memory; from independents—home controller, graphic I/O tablet, plotter.
Principal programming languages: BASIC, Assembly Language, PASCAL, PILOT.
Principal applications software: Personal Finance, Music Composer, Education System, Invitation to Programming, Mailing List, Touch Typing, Calculator, Graph It, Statistics, TeleLink I.
First shipment: 1979.
Number installed to date: information not available.
Current shipment rate: information not available.
Available through: about 875 direct and indirect vendors, computer dealers and electronics specialty shops, Sears Roebuck and Penney's.

SYSTEM CHARACTERISTICS

The Atari computers are compact units consisting of a keyboard chassis which holds the plug-in ROM and provides plug connectors for external peripherals. Both systems are essentially the same. The differences are: (1) RAM capacity: 400—8KB-16KB; 800—16KB-48KB; (2) Keyboard: 400—monopanel, touch-sensitive; 800—regular typewriter type; (3) 800 has a monitor jack, it can be used with a monitor instead of a TV if desired; (4) ROM cartridge slots: 400 has one; 800 has two, one for future expandability.

The 800 can use all of the Atari controllers and peripherals. The Atari 400 is capable of attaching game controls, a cassette recorder, and a 40-column printer as external peripherals in addition to a TV set display monitor. A 16KB RAM Model 400 is required when using diskette drives.

The Atari 800 can run the 400's program and attach the 400's peripherals, and can also have from 1 to 4 mini-diskette drives (88KB-352KB), and a 40-cps printer. The 800 has 10KB-26KB ROM capacity, as well as a full-stroke, tactile keyboard. RAM memory upgrades on the 800 may be made directly by the user without taking the system to an Atari service center. Three programmable game buttons are provided on the right of the 400 and 800 front panels for game interaction or other human input to the Atari systems.

Atari 400 and 800

HARDWARE/PACKAGING

PROCESSOR/MEMORY
Model: 6502 microprocessor; 8 bits
RAM: Atari 400—8KB-16KB (8KB upgrade costs $200 at an authorized service center); Atari 800—16KB-48KB in 8KB ($124.95) or 16KB ($199.95) increments
ROM: Atari 400—10KB internal, 2KB-16KB cartridge; Atari 800—10KB internal, 2KB-16KB cartridge
System prices: Atari 400—8KB ($499), 16KB ($630); Atari 800—16KB ($1,080), 24KB ($1,205), 32KB ($1,280), 40KB ($1,405), 48KB ($1,480)

DISPLAY
Model: color or B/W TV set (or monitor with Atari 800)
Number: none provided; maximum of one furnished by user
Screen size: any size
Chars./screen: 960 (40 chars./line, 24 lines); 480 (20 chars./line, 24 lines); 240 (20 chars./line, 12 lines)
Char. type: upper/lower case; 8 x 8 matrix
Features: up to 5 of 16 colors in 8 luminance levels; normal or inverse characters
Graphics: low resolution—800-point matrix (40 x 20); med. resolution—3,200-point matrix (80 x 40); hi resolution—12,800-point matrix (160 x 80); very hi resolution—41,200-point matrix (320 x 160); 4 text lines included
Interface: integral cable plug; RF modulator included

KEYBOARD
Type: Atari 400—typewriter style, non-tactile, fixed; Atari 800—typewriter style, tactile, fixed
No. of keys: 57, ASCII character set
Interface: integral connection

DIRECT ACCESS STORAGE

Model:	Atari 810	Atari 815
Type:	5¼″ mini diskette drive	5¼″ dual diskette drive
Capacity/drive:	88KB	163KB
Drives/system:	0-4; 4/controller	0-4; 4/controller
Avg. access time:	74 milliseconds	70 milliseconds
Transfer rate:	6,000 bps	11,500 bps
Interface:	1 port	1 port
Price:	$599.95 with controller	$1,499.95 with controller

PRINTERS

Model:	820	822	825
Type:	matrix, impact	matrix, thermal	matrix, impact
Paper:	plain paper, roll, 4″	thermal, roll, 4″	fanfold, tractor, 9.5″ single sheets
Char. set:	96	96	96
Chars./line:	40	40	80
Speed:	40 cps	37 cps	100 cps
Interface:	1 port	1 port	Interface Module ($219.95)
Price:	$499.95	$449.95	$999.95

DATA COMMUNICATIONS
Model: Atari 830 Modem, ($199.95)
Trans. mode: half/full-duplex
Protocol: asynchronous
Lines: one
Speed, 300 bps
Interface: Interface module, ($219.95)

OTHER I/O
Magnetic tape: Atari 410 program recorder, ($89.95)
Game controls: 2 handheld paddles ($19.95), 2 joysticks ($19.95)
Loudspeaker: built-in; 4-channel audio channel through TV set

I/O ELECTRONICS
Structure: 4 controller input jacks; Atari 400—1 external and 1 internal cartridge slot, Atari 800—2 external and 3 internal cartridge slots, 1 high speed serial I/O port, can connect Model 850 Interface Module to provide 4 RS-232 serial ports and 1 parallel port

SOFTWARE

LANGUAGES
BASIC: BASIC Language ROM cartridge ($59.95), included with Atari 400 and 800
Assembler: Assembler Editor ROM cartridge ($59.95)

OPERATING SYSTEM
Name: Atari Operating System
System requirements: 10KB ROM included with system
Concurrent tasks: one
Other functions: I/O device handling, keyboard and screen editing

UTILITIES
Sort: no
Text editor: no
Others: Assembler Editor ROM cartridge ($59.95)

DATABASE MANAGEMENT SYSTEMS
Name: Mailing List ($19.95)

COMMUNICATIONS SUPPORT
Name: TELELINK 1 ($24.95)
System requirements: Atari 830 Acoustic Modem ($199.95); Atari 850 Interface Module ($219.95)
Functions: allows access to databases and communications with other type of computers

APPLICATIONS PROGRAMS
Accounting: The Atari Accountant includes: inventory control; general accounting, accounts receivable; prices not yet available
Investment Analysis Series: bond analysis ($24.95), mortgage/loan analysis ($14.95), stock analysis/charting ($24.95 each)
Personal Interest and Development: An Invitation to programming ($19.95-$24.95), astrology ($49.95), biorhythm ($14.95), conversational French, German, Spanish and Italian ($59.95), mailing list ($19.95), music composer ($59.95), touch typing ($24.95)
Professional Applications: calculator ($29.95), graph it ($19.95), statistics ($19.95)
Education: education system master cartridge ($24.95), 16 education system cassettes (set of 4 for each subject—$29.95), educational game cassettes ($14.95); energy czar, hangman, kingdom, states & capitals, European countries and capitals
Entertainment: ROM cartridges ($39.95-$59.95): basketball, computer chess, star raiders, super breakout, 3-D tic-tac-toe, video easel; cassettes: blackjack ($14.95), space invaders ($19.95), asteroids, missile command—prices not yet available

SUPPORT SERVICES

DOCUMENTATION
Range: about 10 manuals available for $3 to $10.95 apiece, such as 400 Operator's Manual ($3), 800 Operator's Manual ($3), Atari BASIC Self-Teaching Guide ($5.95), BASIC Reference Manual ($10.95), Operating System User's Manual and Hardware Manual ($30)

SUPPORT
Training & education: none from Atari; available at discretion of dealer
Maintenance: available through Control Data Corporation Service Centers by agreement with Atari and some vendors

TERMS AND CONDITIONS
Lease terms: none
Discounts: none officially; available at retail level; some dealers and mail-order houses will offer up to 15% off list
Warranties: 90-days—parts and labor
Software terms: none specified ∎