

# Atari 400 and 800



The Atari 800 shown here consists of a 24KB RAM, cassette program recorder, 600 lpm 4-inch roll printer, 5/4-inch mini diskette drive capable of storing up to 92KB, and a user supplied color TV set. Total cost of this system is about \$2,500. Programs can be loaded either via plug-in ROM cartridges, or on cassette tapes. The 800 is programmable in BASIC or Assembler language.

## BACKGROUND INFORMATION

Atari Consumer Division, a Warner Communications Company, 1265 Borregas Ave., P.O. Box 427, Sunnyvale, CA 94086.

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 very limited size (8KB-16KB), low-end system costing about \$690 that is intended for home use. The 800 is an upgraded version of the system costing from \$1,000 to over \$5,000 that is capable of handling small business and professional applications, as well as sophisticated home processing applications.

Atari has taken the rather unusual step of entering into a license agreement with another computer company—Control Data Corporation—for servicing the Atari computers. Under this agreement, 200 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 eight CDC CYBERWARE investment programs that run on the Atari 800.

In addition to relying on its good name and an exceptionally strong distribution network for its personal computer products, Atari stresses that a major selling

**Current models: Atari 400; Atari 800.**

**Memory: Atari 400—8KB-16KB, Atari 800—8KB-48KB RAM; Atari 800—92KB-368KB mini-diskette.**

**Base list price: Atari 400—\$599.95; Atari 800—\$999.95-\$1,624.96 (processor/memory).**

**Typical list prices: about \$690 (student)—Atari 400 with 8KB RAM, program recorder, user-supplied TV set; about \$2,050 (student)—Atari 800 with 32KB RAM, one mini-diskette, 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-diskette, add-on memory; from independent sources—home controller, graphic I/O tablet, plotter.**

**Principal programming languages: BASIC, assembler. Principal applications software: Personal Finance, Music Composer, Education System.**

**First shipment: 1979.**

**Number installed to date: not available.**

**Available through: about 500 computer dealers, and through Sears Roebuck's and Penney's.**

point of the 400 and 800 systems is the use of plug-in ROM modules. These modules provide low-cost, easy-to-use program availability. Atari is placing particularly strong emphasis on this last point in approaching the educational market.

## SYSTEM CHARACTERISTICS

The Atari computers are compact units that consist of a keyboard chassis which hold the plug-in ROM's, and provide plug connectors for external peripherals. Both Atari computers have a built-in RF connector allowing a user-supplied B/W or color TV set to be used as a display monitor. Both systems are programmed in BASIC.

The Atari 400 is capable of attaching only game controls, a cassette recorder, and a 40-column printer as external peripherals in addition to a TV set display monitor. The 400 also has a touch-sensitive flat keyboard, and can have 8KB to 16KB of RAM plus 10KB-26KB of ROM. Upgrading an 8KB RAM system must be done by an Atari service center. These features result in a very low-cost unit, but one that is well suited mainly for home applications.

The Atari 800 can run the 400's programs and attach the 400's peripherals, and can also have one to four mini-diskette drives (92KB-368KB), and a 60 line per minute printer. From 8KB to 48KB of RAM and 10KB to 26KB of ROM are available for the 800, 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. Also, on the Atari 800, the cassette recorder is a standard item. Three programmable game buttons are provided on the right side of the 800's front panel for game interaction or other human input to the Atari systems.



## Atari 400 and 800

### HARDWARE/PACKAGING

#### PROCESSOR/MEMORY

Model: Synertek 6502 microprocessor; 8 bits  
RAM: Atari 400—8KB-16KB in 8KB (\$124.95) increment; Atari 800—8KB-48KB in 8KB (\$124.95) or 16KB (\$199.95) increments  
ROM: Atari 400—10KB internal, 2KB-16KB cartridge; Atari 800—10KB internal, 2KB-32KB cartridge  
System prices: Atari 400—8KB (\$599.95), 16KB (\$799.94); Atari 800—8KB (\$999.95), 16KB (\$1,124.90), 24KB (\$1,199.90), 32KB (\$1,324.85), 40KB (\$1,399.85), 48KB (\$1,524.80)

#### DISPLAY

Type: color or B/W TV set  
Number: none provided; maximum of one furnished by user  
Screen size: any size  
Chars./screen: 960 (40 chars./line, 24 lines); 480 (20 char./line, 24 lines); 240 (20 chars./line, 12 lines)  
Char. type: upper/lower case; 8 x 8 matrix  
Features: up to 4 of 16 colors in 8 luminance levels; normal or inverse characters  
Graphics: basic—29 character graphics symbols  
Graphics: lo 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—51,200-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 (16KB systems)

Model/price: Atari 810 Disk Drive; \$699.95 with controller  
Type: 5¼" diskette  
Capacity/drive: 92KB  
Drives/system: 0-4; 4/controller  
Interface: 1 port

#### PRINTERS

	<u>Model 820</u>	<u>Model 825</u>
Type:	matrix, impact	matrix, impact
Paper:	plain paper, roll, 4"	fan-fold, tractor, 9.5"
Char. set:	96	96
Chars./line:	40	80
Speed:	60 lpm	100 cps
Interface:	1 port	Interface Module
Price:	\$599.95	N/A

#### DATA COMMUNICATIONS

Model/price: Atari 830 Modem; price not avail.  
Trans. mode: half/full duplex  
Protocol: asynchronous  
Lines: 1  
Speed, bps: 300  
Interface: Interface Module

#### OTHER I/O

Magnetic tape: cassette program recorder; standard on Atari 800, optional on Atari 400 (\$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)  
Assembler: ROM cartridge (\$59.95)

#### OPERATING SYSTEM

Name: Atari Operating System  
Type: single-thread execution with priority I/O interrupt structure  
Functions: I/O device handling; keyboard and screen editing

#### UTILITIES

General: graphics aids  
Assembler DEBUG: on Assembler ROM cartridge (\$59.95)

#### DATA BASE MANAGEMENT SYSTEMS

Name/price: Record Keeping; \$59.95  
Function: create and maintain lists of books, records, serial numbers

Name/price: Mailing List/Address Book; \$59.95

Function: create and maintain address lists

Name/price: Personal Financial Management; \$59.95

Function: create and maintain income/expense records for personal money management

#### COMMUNICATIONS SUPPORT

None

#### APPLICATIONS PROGRAMS

Accounting: Charge Account Management (\$19.95), Accounts Payable (\$19.95), Payroll (\$19.95)  
Stock market: Personal Capital Investment Management (\$19.95)  
Inventory: Inventory Management (\$19.95)  
Education: Education System ROM (\$24.95), Guide to BASIC programming cassette (\$24.95), Touch-Typing Trainer (\$24.95), 16 Educational System cassettes (\$29.95 each), Invitation to Programming cassette (\$19.95)  
Entertainment: 6 ROM's from Chess (\$39.95) to Basketball (\$39.95); Basic Game Programs cassette (\$24.95)

### SUPPORT SERVICES

#### DOCUMENTATION

Range: about 10 manuals available for \$3 to \$5.95 apiece, such as 400 Operator's Manual (\$3), 800 Operator's Manual (\$3), Atari BASIC (\$5.95), BASIC Reference Manual (\$3)

#### SUPPORT

Training: none from Atari; available at discretion of dealer  
Maintenance: available through 200 Control Data Corporation Service Centers by agreement with Atari

#### TERMS AND CONDITIONS

Warranties: 90-day parts and labor  
Discounts: none officially available at retail level; some dealers and mail order houses will offer up to 15% off list ■