TEXAS INSTRUMENTS
TI-99/4A HOME COMPUTER

This is THE Home Computer

TEXAS INSTRUMENTS

Creating useful products
and services for you.

CL758A

A Home Computer
What it is.
What it does.
Why you should have one.

OK, so you want a home computer. But you don't know how to use one. Or exactly what to use it for. And you don't know a byte from a baud or a RAM from a ROM.

Relax. It's not as hard as it looks. In fact, it's easy.

A computer is a computer. Whether it sits in your living room or fills the first fourteen floors of your office building. It's simply an electronic processor of information.

Here's how it works in three steps: First, you tell it what you want it to do, giving it any special facts it needs to do it. That's called input. Second, it uses a "program", either prewritten (software) or one you've written yourself (programming), to process the information to provide the desired result. That's called processing. Finally, you receive the result displayed on a screen, printed or even spoken. That's called output.

And that's all there is to it. Whether you're figuring your taxes, learning to speak Spanish or defending the earth against an "alien invasion."

And it really is easy. With no more than the TI-99/4A console, your own TV and a library of Solid State Software™ cartridges, you can manage your household finances, evaluate and track investments, teach your children everything from spelling to science, learn to program, provide hours and hours of family fun and much more.

So much more, in fact, that the best way to find out all the things you may want to do with the Home Computer, is to visit your dealer and see first-hand the broad choice of programs available.

And when, and if, you need more capability, it's easy to add accessories — so that the Home Computer can grow as your needs grow.

You'll find that a Home Computer is practical, useful, educational, fascinating... and fun... for the whole family.

The TI-99/4A.

Easy-to-use, yet powerful. More power than any other computer in its price range. With a big selection of useful software.

Dollar for dollar, feature for feature, the TI-99/4A delivers more for your money than any other home computer in its price range.

And, it's a true home computer. With plenty of memory for powerful programs, a big choice of useful software, and it's easy-to-use. It's the best way to introduce your family to the fascinating world of home computing.

A powerful Home Computer.

Everything about the TI-99/4A has been designed to make it easy to use. The TI-99/4A offers top quality equipment that you can connect to your own home TV set and be ready to go to work from the very first push of a button.

A wide range of Solid State Software™ cartridges is available. Simply select a program from more than 100 software cartridges — educational programs for children that make learning fun, financial planning programs for yourself, or exciting arcade-style games for the whole family — the TI-99/4A is ready to teach, manage information or entertain.

The TI-99/4A is expandable and versatile. TI BASIC is built-in, and the capability for using a number of other popular languages is available. So, you can use existing programs, or you can write your own, simply and easily.

16K RAM — expandable to 48K

The TI-99/4A has a powerful 16K Random Access Memory — and with the addition of the Peripheral Expansion System's 32K Memory Expansion Card, total RAM may be increased to 48K. Internal Read Only Memory supplied is 26K bytes — and Solid State Software™ cartridges can add programs of up to 36K bytes, each. So, total ROM can be as much as 62K bytes.

TI BASIC is built in.

The TI BASIC programming language is contained in the TI-99/4A internal Read Only Memory. This not only saves you time and effort in loading the language, but you also save valuable RAM for program execution.

TI BASIC is a rich, versatile programming language designed to make programming easy — and easy-to-learn — yet, it's capable of handling complex programs and demanding tasks.

Other, more advanced programming languages are available as optional additions.

Easy-to-use — with a broad choice of software.

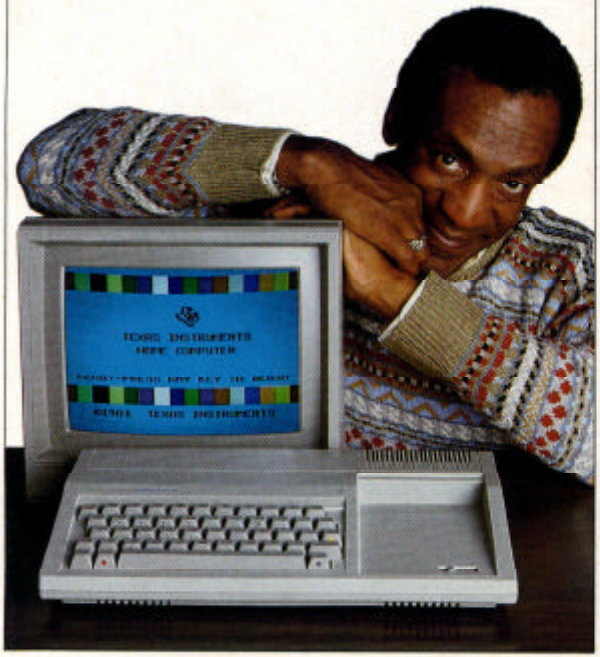
Use TI's new, compact HEX-BUS™* peripherals — or, the Peripheral Expansion System.

The HEX-BUS™ Interface is all you need to make the TI-99/4A compatible with TI's new, compact HEX-BUS™ peripherals. There's a four-color Printer/Plotter, a Wafertape™ Drive, a Telephone Modem and an RS-232 Interface. Each has its own dedicated, built-in microprocessor — to reduce the need to use valuable computer RAM for peripheral control.

The Peripheral Expansion System allows the addition of accessories through the use of plug-in peripheral cards. There's a Disk Drive Controller Card which permits the addition of up to three disk drives, a 32K Memory Expansion Card, a P-Code Card, and an RS-232 Interface Card.

The TI Impact Printer can handle 40, 66, and 132 column widths with 80-character-per-second bidirectional printing.

*Subject to FCC approval.



Solid State Speech™ Synthesizer

The Solid State Speech™ Synthesizer plugs directly into the TI-99/4A console and reproduces human speech electronically — with a variety of inflections and appropriate pitch.

When used with TI's software cartridges designed for speech, the TI-99/4A can give voice instruction and ask (and answer) questions. With the Speech Editor or TI's Extended BASIC software cartridges it allows you to add speech to your own programs, drawing from a vocabulary of 370 words. With the Terminal Emulator II cartridge, it provides virtually unlimited text-to-speech capability.

Broad choice of software.

More than 2000 programs are available from Texas Instruments and Independent producers — including more than 100 easy-to-use Solid State Software™ cartridges.

A wide variety of programs encompasses Information Management, Personal Finances, Education, for everyone including preschoolers, Computer Programming (even advanced languages), Math and Engineering, and a big selection of exciting arcade-style games for the whole family.

Many more features you'd expect to find only on much costlier computers.

16-color graphics capability. Sound effects. Five musical octaves with 3-part harmony. Typewriter-style keyboard with full-travel sculptured keys. And more.

Special services, activities and information.

The TI-99/4A is supported by special TI information activities, publications and services — users groups, Advantage Club courses, newsletters, magazines, books — and toll-free action numbers that get you fast answers, when you need them.

It's The Home Computer

Powerful. Easy to use. Affordable. The TI-99/4A is the best way to introduce your family to the fascinating world of home computing.

TI's new HEX-BUS™ peripherals.

Texas Instruments new HEX-BUS™ compact peripherals offer you big power in very small packages.

A Printer/Plotter, Wafertape™ Drive, RS-232 Interface, and Telephone Modem may be stacked in a space only 4.63" wide X 5.75" deep X 5.68" high.

And, in the language of computer designers, they are "smart"—which means each has its own dedicated, built-in microprocessor — to reduce the need to use valuable computer RAM for peripheral control.

A HEX-BUS™ interface is available to permit the use of these new, compact peripherals with your TI-99/4A Home Computer.*

Wafertape™ Drive

TI Wafertape™ cartridges offer a convenient, low-cost way to store data or programs. Continuous loop tape cartridges are available with a variety of storage capacities (up to 48K).

Tapes are completely computer controlled, and require no rewinding.

*Subject to FCC approval

Stackable space savers, "smart" memory savers.

The Wafertape™ system is much faster and more accurate than start/stop audiocassette drive systems. A 4K program can be loaded in less than 10 seconds. And built-in file management allows you to access files by name rather than position numbers. The TI Wafertape™ drive comes with an AC adapter — it may also be powered by 4 AA batteries (not included).

Four-Color Printer/Plotter

The Texas Instruments Printer/Plotter gives you hard copies of all your work. Words. Numbers. Plots. Even graphics can be reproduced in up to four colors. You can easily make pie charts, bar graphs, line charts, and more.

You can select 4 different print angles and 10 different type sizes. Print up to 36 characters-per-line, with print speeds up to 11 characters-per-second on 2 1/4-inch plain paper.

The Printer/Plotter has its own rechargeable power supply using a detachable recharger (included).

RS-232 Interface

The HEX-BUS™ RS-232 Interface will let you connect other accessories to the TI-99/4A Home Computer. For example, you can connect a full-page 80-column printer — such as the TI Impact Printer. The HEX-BUS™ RS-232 Interface is powered by standard 120 volt AC.

Telephone Modem

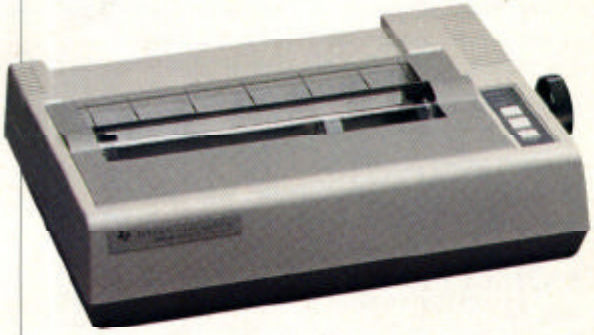
For use with the TI Home Computer through the HEX-BUS™ intelligent peripheral port, this low-cost peripheral is a 300 BAUD full-duplex, direct-connect device that is Bell 103 compatible. Battery-operated, the modem is able to send and receive data simultaneously. It plugs directly into the phone line using standard modem plugs. The unit uses four AA batteries.

TI accessories to help you . . .

The Speech Synthesizer

The Solid State Speech™ Synthesizer plugs directly into the Home Computer's built-in connectors without external cables.

When used with one of TI's Solid State Software™ cartridges designed for speech, the Home Computer can give voice instructions and ask — and answer — questions. When used with the Speech Editor cartridge, it allows you to add speech to your own programs, drawing from a vocabulary of 370 words. When used with the Terminal Emulator II cartridge, it provides virtually unlimited text-to-speech capability to help you develop sophisticated speech programs.



TI Impact Printer

The TI Impact Printer is a quiet, high-performance, versatile printer — yet it's low in cost. It prints at a fast 80-character-per-second speed . . . bidirectionally. You may select from three type sizes and four printing densities. It features a long-life, 9x9 dot-matrix print head. The printer is adjustable for 40, 66, 80, or 132-character column widths, and is capable of printing both text and graphic data. The TI Impact Printer requires an RS-232 Interface.

. . . customize your home computer system.

Video Monitor

With the TI Home Computer you can use your own TV or take advantage of special features of our Video Monitor. Our 10" Video Monitor was designed to handle the Home Computer's wide range of graphic and musical capabilities with a sharp, bright color picture and clean, clear sound.

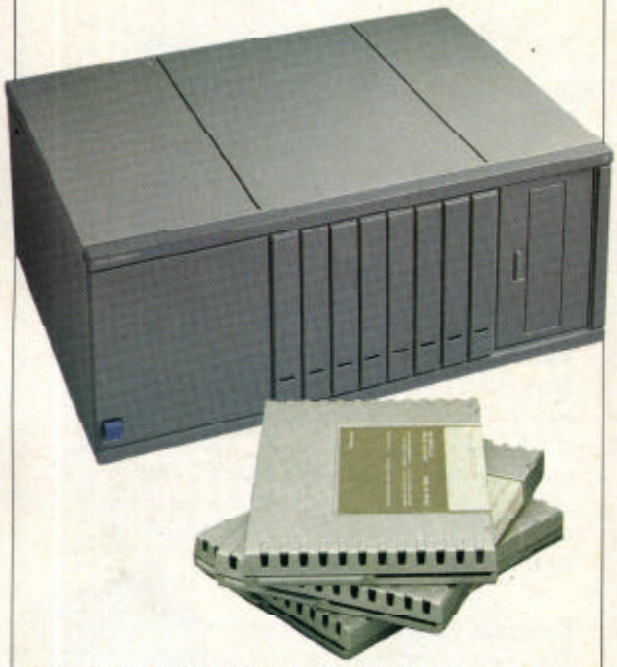
Program Recorder

The Texas Instruments Program Recorder is designed specifically for use with the TI Home Computer as a low cost memory storage device. The recorder is controlled by the computer, providing reliable loading, storage and retrieval of data on regular audio cassette tapes. Includes cassette cable.

Wired Remote Controllers

For fun and games. They let you maneuver objects on the screen. Each unit features an eight-position remote control with an action button.

The Peripheral Expansion System.



The TI Peripheral Expansion System is an easy and convenient way to expand your TI Home Computer's capabilities.

Measuring just 7½ inches by 12 inches by 18 inches, the system can house up to 7 plug-in peripheral cards and a TI Disk Drive.

It provides simple, centralized expansion without additional cable or clutter.

Just plug in a peripheral card to add the function you want.

Choose now from Disk Memory System, RS-232 Interface, Memory Expansion and P-Code card.

Disk Memory System

A Disk Drive Controller Card and a Disk Memory Drive (you can connect up to three, one housed within the enclosure) allow you to store and retrieve data on 5¼ inch single- or double-side diskettes.

You can store your own programs, or purchase prewritten programs on efficient, large-capacity diskettes. More than 2000 programs are available from TI and other sources.

Diskettes permit efficient, high-volume data storage. On a single side, up to 92,000 characters may be stored in variable or fixed length records, sequential files, or relative files. For example, if you had 100 BASIC programs, each 50 lines long, you could store them all on one side of a diskette. Unoccupied disk space is automatically reassigned for file allocation.

RS-232 Interface

The RS-232 Interface Card lets you connect two important peripherals: a printer and a modem to your TI Home Computer. You can communicate over ordinary telephone lines with other home computers, terminals, office computers, data bases, time sharing networks, and more. For example, you can tie into the TEXNET℠ Information Service and choose from more than 1,200 programs and services at economical fees. (Requires use of a telephone coupler and Terminal Emulator II cartridge.) It also allows the use of printers such as the TI Impact Printer.

Baud rates from 110 to 9600, all parameters software programmable, two bi-directional serial ports, one parallel port.

Memory Expansion Card

The Memory Expansion Card adds 32K bytes of Random Access Memory (RAM) to the TI Home Computer. It is designed for use with TI Extended BASIC, Editor/Assembler, TI LOGO, or any other Solid State Software™ cartridge requiring expanded memory.

P-Code Card

The P-Code Card allows you to use a variety of high-level computer languages — to develop your own programs or use existing programs.

It allows access to UCSD Pascal, TI PILOT, and more.

Requires the Memory Expansion Card and Disk Memory System or cassette recorder.

TEXNET is a Service Mark of Texas Instruments.

TI offers a broad choice of useful programs . . .

TI Home Computer software is available in three easy-to-use formats: Solid State Software™ cartridges which plug directly into the computer console, diskette programs which require the use of a disk memory system and cassette programs which require the use of an audio cassette recorder and connecting cables.

Solid State Software™ cartridges make it easy for anyone to use the TI Home Computer, even if they've never used a computer before. Just snap one in place and the program is instantly available for use, with easy-to-follow on-screen instructions to guide you.

. . . including more than 100 Solid State Software™ cartridges.

A fast-growing library of more than 100 cartridges includes useful programs in Information Management, Education, Computer Programming, Math and Engineering and an exciting array of arcade-style games.

Information Management

Information Management and personal finance programs help you set personal and household budget goals, make informed decisions about loans and savings, organize taxes and time payments, track investments and determine if you should lease or buy . . . there's even a program to help you balance your checkbook.

Education

Programs for all ages, even preschoolers. Programs that make learning fun. Programs developed in cooperation with some of the most respected names in education; Scott, Foresman. Addison-Wesley. Scholastic, Inc. Subjects include reading, spelling, math, science and more. You'll find TI LOGO II in this category — the computer language for children that develops computer awareness and enriches a childs math, logic and communications skills.

PLATO® Courseware

Developed by Control Data, PLATO Courseware is a tested, proven learning system with 108 courses to choose from.

The Basic Skills curriculum for grades three through eight covers grammar, reading and math. The High School Skills curriculum covers reading, writing, math, science and social studies.

To use PLATO courses on the TI Home Computer, you'll need the Memory expansion System, Disk Drive and Disk Drive Controller. Then you just plug in the PLATO interpreter cartridge and select the course disk you want to use.

More than 2000 programs available . . .

Computer Programming Aids
Whether you want to take advantage of a variety of existing programs, or learn how to program, or develop sophisticated programs of your own, the TI-99/4A is capable of handling up to six high-level languages with programs to meet your needs.

Math and Engineering
From Statistics to Graphing to Circuits Analysis to Electrical Engineering, there's a variety of programs specially selected to accomplish even the most esoteric mathematical tasks.

Entertainment
The wonder and whirl of the arcade comes home to enchant, fascinate and captivate game players of all ages.

Battle alien attack ships — outmaneuver cunning hoonos — climb Mt. Everest — visit the Old West — search for hidden treasure — seek out the elusive Wumpus — all this and more when you enter the world of fantasy, flight and fun with TI arcade-style game software.

Independent Software Producers
See the new TI Software Directory.
Call 1-800-858-4075.

Software Albums
TI makes it easy for you when it comes to software. Now you can purchase software in ten different subject areas as two or three cartridges together in a software album. You get programs that are designed to complement each other and cover a field. To help keep you organized, the programs come in their own attractive easy-to-store binder.

. . . from TI and independent software producers.

Entertainment Value Pack

TI's new Entertainment Value Pack contains six popular game programs now in one specially priced package. Here's what you get:

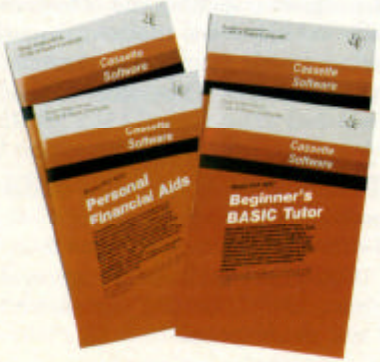
Parsec	Blasto††
Adventure†	Connect Four††
Hangman††	Oldies But Goodies II

†Developed by Scott Adams
††Developed by Milton Bradley.

Variety Value Pack

Learn about programming, handle personal finances, play exciting games. The Variety Value Pack offers four programs in one educational, entertaining, specially priced package. Here's what you get:

Beginner's BASIC Tutor
Personal Financial Aids
Market Simulation
Oldies But Goodies I



A wide choice of programming languages

TI BASIC
With your TI Home Computer you have the advantage of TI BASIC built right in.

With TI BASIC you receive a rich, versatile programming language designed to make programming easy for you. You can apply it to the most demanding problems because it's powerful and accurate, yet it's one of the easiest languages to learn.

TI Extended BASIC
TI Extended BASIC offers the same versatility, accuracy and ease of operation as TI BASIC. Additionally, this more powerful language gives you a number of important capabilities such as: More than 40 new or expanded commands, statements, functions and subprograms; Multiple-statement lines for speed and efficiency; User-written subprogram capability; The ability to load and run one program from another (chaining); Improved error handling; Arrays up to seven dimensions.

TI LOGO II
TI LOGO II is an ideal computer language for children and students of all levels of ability. Even children as young as 4 find TI LOGO II an easy-to-understand language that actually makes learning fun.

TI LOGO II uses a step-by-step discovery method of learning that encourages the student to control the learning experience — and its commands are simple English words that small children can understand easily. It helps the student develop spelling and communications skills and sequential thinking through line drawings (turtle graphics) or animated graphics (sprites). The TI Memory Expansion Card is required when using TI LOGO II.

UCSD Pascal Version IV.0
UCSD Pascal* is a highly structured efficient programming language that is faster, more logical, and substantially more powerful than TI BASIC. And you can take advantage of the many existing UCSD Pascal Programs with little, if any, modification.

*UCSD Pascal and UCSD P-System are trademarks of the Regents of the University of California

. . . from the simplest to the most sophisticated.

To run the UCSD P-System* programs, TMS 9900 assembly Language programs which use the P-System or Pascal requires the Peripheral Expansion System, Memory Expansion Card and the P-Code Card. Additionally, development of the P-System software requires the Disk Controller, at least one Disk Drive, and the applicable diskette software packages.

TMS 9900 Microprocessor Assembly Language
With the aid of the Editor/Assembler Cartridge, the UCSD P-System Assembler/Linker diskette, or the TI Mini-Memory Cartridge, you can write programs in the powerful assembly language of the TMS 9900 microprocessor in your Home Computer. TMS 9900 Assembly Language is the fastest, most efficient language you can write in for the Home Computer because it "speaks" directly to the computer on the machine level.

The Editor/Assembler cartridge requires the Peripheral Expansion System, the Memory Expansion Card, and the Disk Memory System with at least one Disk Drive.

TI PILOT
TI PILOT is an easy to use language for developing and using Computer Assisted Instruction (CAI) lessons. For use by educators, TI PILOT is ideal for developing quizzes and other course exercises in a wide variety of subject areas.

TI PILOT enables the programmer to have access to the Home Computer's unique instructional aids such as sprites, sound effects, and color graphics.

TI PILOT requires the Memory Expansion Card, the P-Code Card, and the Disk Controller, and one or more disk drives.

TI FORTH
This high-level language, which features extensibility, compactness, and fast execution, is appropriate for experts. Requires Memory Expansion Card, Disk Memory System, and Editor/Assembler cartridge.

Special information services and activities

Because you're buying a lot more than just hardware and software. You're buying state-of-the-art technology from a leader in consumer electronics. Affordable products, useful products, quality products with an AFTER THE SALE support program unmatched by any other company. Consider these benefits:

Consumer Hotline
The Consumer Hotline is open from 8:00 a.m. to 6:15 p.m. Monday through Thursday and from 8:00 a.m. to 3:15 p.m. on Friday. The national number is 1-800-858-4565.

Consumer Software Line
Consumers unable to purchase software from local dealers can order software from TI by calling 1-800-858-4075 from 8:00 a.m. to 5:15 p.m. Monday through Thursday and from 8:00 a.m. to 5:15 p.m. on Friday.

Delivery time is four to six weeks. Applicable state and local tax will be charged.

Consumers can also purchase software at suggested retail price from local Texas Instruments Exchange Centers. Consumers can save time by purchasing from the Exchange Centers, instead of ordering from Texas Instruments, when software is not available locally.

Consumer Technical Line
Home Computer users can call the technical line for questions about programming and applications. The line is open from 8:00 a.m. to 4:30 p.m. Monday through Thursday and until 3:15 p.m. on Friday. The direct number is 1-806-741-2663.

42 Consumer Exchange Centers in the U.S. and Canada
If your computer requires service, you can exchange the unit for a factory-reconditioned unit at the TI Exchange Center nearest you.

Factory representatives demonstrating the TI-99/4A Home Computer at major retail outlets.
Besides showing you the computer itself, these experts will answer your questions about the right software and peripherals for you.

Home Computer Users' Groups
There are now more than 45 TI Users' Groups around the world. These are TI Home Computer owners who meet regularly to discuss software programs and other relevant topics.

Software availability and support
There are more than 2000 preprogrammed packages including over 100 easy-to-use, plug-in Solid State Software™ cartridges.

TI Home Computer Newsletter
Published monthly by TI to keep Home Computer owners informed of the latest developments.

99'er Home Computer Magazine™
Covers the TI-99/4A Home Computer and other TI 16-bit personal computers. Published monthly by Emerald Valley Pub. Co.

TI Computer Advantage Club
For children and adults. Offers courses that provide "hands-on" experience by qualified instructors. Courses include Introduction to Computers, Programming in TI LOGO, Programming in TI BASIC. For more information on the Computer Advantage Club, call toll-free: 1-800-858-4069.
IN TEXAS: 1-800-692-1318

TEXNET℠ Information Service
TEXNET℠ is a special edition of THE SOURCE℠, an on-line, computer information and communication service. TEXNET℠ was developed jointly by TI and Source Telecomputing Corporation to support many of the special features of the Texas Instruments Home Computer.

The TEXNET℠ Information Service offers hundreds of different programs and includes a library of informative subjects, up to the minute sports, news and stock quotes, educational tools for children of all ages, electronic games, shop-at-home services, and much more.

The SOURCE is a service mark of Source Telecomputing Corporation, a subsidiary of The Reader's Digest Association, Inc.

Glossary. A crash course in "computerese".

BASIC: Beginner's All-Purpose Symbolic Instruction Code. A popular, easy-to-use computer programming language.

BAUD: The transmission rate of computer information from one point to another. Baud rates are measured in bits per second.

BINARY CODE: The coded strings of instructions used by a computer. Binary code is made up of a series of 1's and 0's that give the computer instructions, numbers and other information for processing.

BIT: A measure of information capacity. A bit is 1 binary digit.

BUFFER: A temporary storage area that handles computer information (data).

BUG: An error or malfunction in the software or hardware.

BYTE: A measure of computer information (normally equal to 8 bits). You can think of a byte as being able to represent one character.

CARTRIDGE: Also called Solid State cartridge. Plug-in software for the TI-99/4A Home Computer.

CASSETTE SYSTEM: A computer program and information storage system consisting of a cassette player, interface cables to connect the player to the computer, and cassette tapes.

CENTRAL PROCESSING UNIT (CPU): The "brain" of the computer. All information is sorted in the CPU and then disseminated to the specialized areas of the computer to be implemented.

CHIP: An integrated circuit designed to perform a specialized variety of functions.

DATA: Information or instructions used by the computer.

DISK: Also called diskette or floppy disk. A disk is a medium of data storage. The data is recorded on the disk much like a tape recorder records on tape. Disk information can be recalled from any location on the disk in a matter of micro-seconds. The disks used with the TI-99/4A Home Computer can store over 92,000 bytes of information.

DISK MEMORY SYSTEM: A data storage system consisting of a disk controller, one or more disk drives and disks. The computer transfers information onto a disk, or reads information from a disk into the computer via magnetic impulses.

HARDWARE: The computer equipment or parts, i.e. console, monitor, disk drive, etc., are all considered hardware.

INPUT: Any information or instructions given to the computer via the keyboard, cartridges, cassette tapes or disks.

K: K is an abbreviation for Kilo, or one-thousand, and is used to designate memory capacity. The TI-99/4A console has 16K bytes of Random Access Memory, expandable to 52K bytes.

LANGUAGES: The form of communication with the computer. Assembly, TI BASIC, TI PILOT and TI LOGO are examples.

MAINFRAME: Large computers capable of processing huge amounts of data.

MEMORY: Information storage. There are two types: Random Access Memory (RAM) and Read Only Memory (ROM).

MICROCOMPUTER: A smaller, microprocessor controlled computer with capabilities generally below those of larger minicomputers and mainframes.

MICROPROCESSOR: Chips designed to do the work of many different parts of the computer, rather than having one specialized function.

MINICOMPUTER: A smaller version of the mainframe computer.

OUTPUT: The results of the instructions given to the computer which are viewed on a screen, printed out, (hard copy), heard in speech, or saved on tape or diskette.

PERIPHERAL: Anything added to a computer to expand its capabilities. Disk systems and monitors are examples.

PROGRAM: A set of instructions telling the computer what to do.

RAM: Random Access Memory — All input goes into RAM, the workspace or "temporary storage area" of a computer. Computers contain both RAM and ROM (Read Only Memory). When you turn the computer off, the information in ROM remains and the information in RAM is erased. If you want to save what you've stored in RAM, you can use a cassette or diskette.

ROM: Read Only Memory — The computer uses ROM to keep the necessary operating instructions always available. This includes how to add, subtract, etc., the ability to be programmed, and the ability to accept and run different software.

SOFTWARE: A set of instructions for the computer. Software is available in several forms: built-in to the console (ROM), plug-in cartridge (ROM), cassette or disk storage that can be loaded into RAM. You can write your own software for the TI-99/4A in a variety of languages.

STATEMENT: An instruction you give to the computer to perform a specific task or operation.