COMMODORE 64

"THE COMMODORE 64 COULD BE THE MICROCOMPUTER INDUSTRY'S OUTSTANDING NEW PRODUCT INTRODUCTION SINCE THE BIRTH OF THIS INDUSTRY." —SHEARSON/AMERICAN EXPRESS EQUITY RESEARCH BULLETIN

COMMODORE 64 GIVES YOU WHAT NOBODY ELSE CAN GIVE YOU FOR TWICE THE PRICE.

Even at twice the price, you won't find the power of a Commodore 64™ in any personal computer: The Commodore 64 has a built-in memory of 64K.

That fact alone would have sent computer critics and analysts such as Shearson/American Express to the typewriter for the kind of praise you read on the cover.

But there's more. As a quick read here will tell you.

THE 64, QUITE SIMPLY, HAS NO COMPETITION. AS A QUICK LOOK AT OUR COMPETITION WILL TELL YOU.

Features	COMMODORE 64	APPLE II+®	IBM® PC	TANDY TRS-80® III	ATARI 800®
Advanced Personal Computer Features					
Built-in User Memory	64K	48K	16K	16K	16K
Programmable	Yes	Yes	Yes	Yes	Yes
Real Typewriter Keyboard	Yes (66 keys)	Yes (52 keys)	Yes (83 keys)	Yes (65 keys)	Yes (61 keys)
Graphics Characters (from Keyboard)	Yes	No	No	No	Yes
Upper and Lower Case Letters	Yes	Upper Only	Yes	Yes	Yes
5¼" Disk Capacity Per Drive	170K	143K	160K	178K	96K
Audio Features					
Sound Generator	Yes	Yes	Yes	No	Yes
Music Synthesizer	Yes	No	No	No	No
Hi-Fi Output	Yes	No	No	No	Yes
Video Features					
TV Output	Yes	Extra	Extra	No	Yes
Input/Output Features					
"Smart" Peripherals	Yes	No	No	No	Yes
Software Features					
CP/M® Option (Over 1,000 Packages)	Yes	Yes	Yes	Yes	No
Game Machine Features					
Cartridge Game Slot	Yes	No	No	No	Yes
Game Controllers	Yes	Yes	Yes	No	Yes

WITH A COMPUTER THAT'S LIGHT YEARS AHEAD OF ITS COMPETITION, WE THOUGHT IT APPROPRIATE THAT ITS SOFTWARE SHOULD BE AT LEAST A FEW YEARS AHEAD.

Here's how we did it.

PART I. THE FIRST ORDERLY APPROACH TO SOFTWARE.

Commodore's programmers examined the whole jungle of software available today—literally hundreds of programs—and isolated the most popular and most useful.

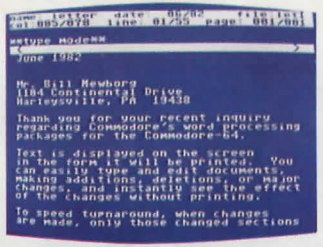
Then they made them better. The result: a variety of highly refined, perfected programs for home, business and education.

PART II. AN ALMOST INFINITE ARRAY OF SOFTWARE.

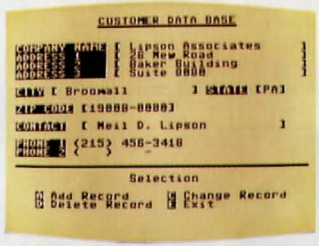
Independent makers of software have already hopped on the 64 bandwagon. They've come to Commodore for training on the 64 and are adapting the world's most popular programs to the 64.

Further, the 64 is compatible with CP/M® Which means a simple optional add-on opens up over 2,000 additional useful programs.

Plus—and a big plus this is for educators—you can also have access to programs developed for the Commodore PET,® as it uses the same BASIC language as the Commodore 64.



WORD PROCESSING



DATA BASE

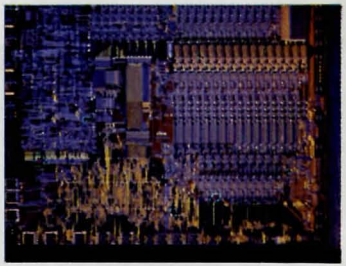
ELECTRONIC SPREADSHEET

WHY DID THE 64 COME FROM COMMODORE AND NOT SOMEBODY ELSE? BECAUSE WE MAKE OUR OWN CHIPS.

Commodore is one of the few companies that design and manufacture their own chips.

So, unlike other computer companies that have to buy their chips, when Commodore wants to alter a design or create a new one, their designers and engineers work hand in hand.

The result: a lot more computer for a lot less money.



1® is a registered trademark of Digital Research, Inc. Optional Z80 microprocessor required.

WHAT DOES THE COMMODORE 64 DO? WHAT DO YOU WANT IT TO DO?

Whether you're in business and want a personal computer for spreadsheet calculation or word and text processing or mailing lists or data storage and retrieval....

Or whether you're a musician looking for a music synthesizer (or a beginner who wants to learn how to play one)....

The 64, quite simply, can do almost anything you want it to. And all with graphics that have an incredible resolution.

FOR ABOUT $200 EXTRA, THE COMMODORE 64 CAN GET INFORMATION AND PROGRAMS FROM MULTI-MILLION DOLLAR COMPUTERS.

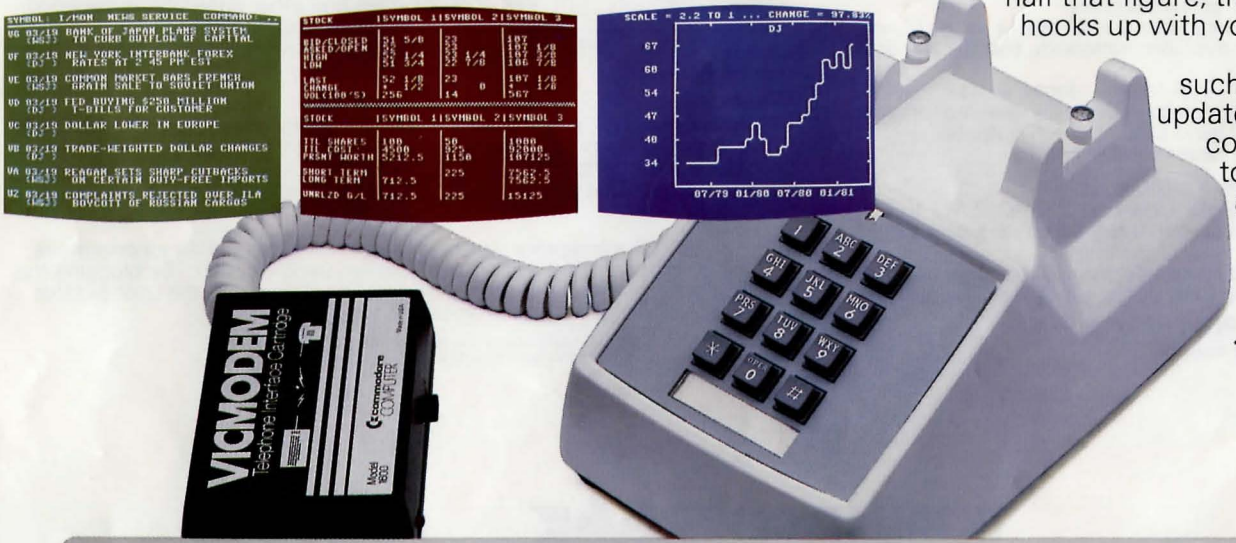
A modem is a device that connects your computer to your phone.

Telecomputing, they call it. They used to also call it expensive. A personal computer and modem would go for at least $2,500 and be judged "reasonable."

What happens when, for less than half that figure, the Commodore 64 hooks up with your telephone?

Just about anything, such as stock quotes, news updates, electronic mail and computer shopping—to name a few. In addition, Commodore has its own information network accessible through CompuServe.*

*A Trademark of CompuServe Inc. and H&R Block Company.



TO BE THE MOST BRILLIANT GAME MACHINE YOU CAN BUY.

With the 64, not only will you have an amazing array of terrific games, but what's really amazing is how you'll see them.

With a variety of colors that's never been offered before, with a full range of sound, and with a resolution that truly rivals arcades.

Since the 64 is a true computer, you can actually invent your own sophisticated (or unsophisticated) games.

COMMODORE 64 SYSTEMS SPECIFICATIONS

SYSTEM UNIT

Microprocessor: 6510, designed and produced by Commodore's MOS Division. Uses the same instruction set as the 6502, but has additional input/output lines.

Memory: 64K of RAM. 39K are user-accessible for BASIC programs; 64K for machine language programs.

20K of internal ROM contain the operating system and Commodore BASIC language.

Keyboard: Full-size typewriter style. 66 keys, upper and lower case. Four unassigned programmable function keys.

Color and the full set of 64 PET graphics can be selected directly from keyboard.

Display: 40 columns by 25 lines, 255 combinations of border/background colors, 16 text colors and use of all 64 PET graphic characters.

High-resolution graphics mode of 320 x 200 pixels for exceptional detail and clarity in games or animation. Can use 16 colors simultaneously.

8 independently movable Sprites can be created for games and animation. Each is 21 x 24 pixels, and may contain up to three colors.

Sound: 6581 Sound Interface Device provides music and sound to rival even some dedicated music synthesizers.

Produces three independent voices, each with a range of nine octaves. Four waveforms are available: sawtooth, triangle, variable pulse and noise.

Includes programmable ADSR (attack, decay, sustain, release) generator. Programmable filter can be individually selected for each voice; provides low-pass, high-pass, band-pass or notch outputs.

Variable resonance and master volume control.

COMMUNICATIONS

The Commodore 64 accepts a low-cost VICMODEM™ through its eight-bit user port, giving it access to other computers over ordinary telephone lines.

The modem allows users to gain access to large data bases such as The Source, CompuServe and Dow Jones News/Retrieval Service.

PERIPHERALS

The Commodore 64 will support:

Datassette Recorder: A low-cost tape unit which allows the storage of programs and data on standard audio tape cassettes.

Single-Disk Unit: Uses standard 5¼-inch floppy diskettes to store programs and data. Each diskette holds up to 170,000 characters of information. Disk units include their own microprocessors and memory systems, and therefore don't require memory resources from the Commodore 64 main unit. The Commodore 64 will support up to five single-disk units.

Printer: The VIC 1525 printer attaches directly to the Commodore 64 without additional interfaces. Prints 30 characters per second, dot-matrix. Uses plain tractor-fed paper.

Interface Cartridges: Specialized cartridges allow the Commodore 64 to use various standard devices, including printers, controllers and modems.

PET Emulator: Allows users to run most of the programs designed for PET systems with little or no modification.

Audio and Video Connections: Direct outputs from the Commodore 64 connect audio signals to high-quality stereo systems, and video signals to a monitor.

Cartridge Slot: Will accept games and other applications designed for Commodore 64 or Max Machine™ on plug-in cartridges.

Other Interfaces provide access for two joysticks, four game paddles or a lightpen.

SOFTWARE

Commodore has already created a variety of programs in several categories for the 64 and has plans for much, much more. Business, personal, entertainment and educational applications make the Commodore 64 an enormously useful and versatile tool.

CP/M®

A Z80 microprocessor on a plug-in cartridge makes an enormous amount of software available to users of the 64 system. By plugging the optional microprocessor into the 64's 8-bit user port, the user enables the Commodore to run programs written in CP/M.®

CP/M® is a registered trademark of Digital Research, Inc.
Preliminary release information. Specifications subject to change.

COMMODORE 64

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