retro (ombs

https://www.stevencombs.com/plus4

User's Manual



USER'S MANUAL STATEMENT

"This equipment generates and uses radio frequency energy. If it is not properly installed and used in strict accordance with the manufacturer's instructions, this equipment may interfere with radio and television reception. This machine has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. If you suspect interference, you can test this equipment by turning it off and on. If you determine that there is interference with radio or television reception, try one or more of the following measures to correct it:

- reorient the receiving antenna
- move the computer away from the receiver
- change the relative positions of the computer equipment and the receiver
- plug the computer into a different outlet so that the computer and the receiver are on different branch circuits

If necessary, consult your Commodore dealer or an experienced radio/television technician for additional suggestions. You may also wish to consult the following booklet, which was prepared by the Federal Communications Commission:

"How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00345-4."

You should use only the cables, accessories, and peripherals recommended by Commodore for your Plus/4. All cables, including the cables for the television hookup, serial port, video port, Datassette ™, and joysticks, are specially shielded, in accordance with the regulations of the Federal Communications Commission. Failure to use the appropriate accessories and cables will invalidate the FCC grant of certification, and may cause harmful radio interference.

Copyright © 1984 by Commodore Electronics Limited All rights reserved.

This manual contains copyrighted and proprietary information. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of Commodore Electronics Limited.

Commodore BASIC v. 3.5

Copyright © 1984 by Commodore Electronics Limited, all rights reserved. Copyright © 1977 by Microsoft, all rights reserved.



COMMODORE PLUS/4 USER'S MANUAL

TABLE OF Contents	CHA CHA	RODUCTION APTER 1 APTER 2 APTER 3 APTER 4	Unpacking and Setting Up	
		APTER 5	Numbers and Calculations 55	
		APTER 6	Beginning BASIC Programming 65	
	DAMES AND TOTAL	APTER 7	Using Graphics and Color	
	CH	APTER 8	Making Sound and Music on the Plus/4 93	
	CO	MMODOR	E PLUS/4 ENCYCLOPEDIA 101	
	1		5 Encyclopedia102	
		Commands		
	2	BASIC 3.5	S Abbreviations	
	3	Conversio	on Programs154	
	4	Error Mes	sages 156	
	5	TEDMON		
	6	Screen Display Codes		
	7	7 ASCII and CHR\$ Codes		
	8 Screen and Color Memory Maps			
	9	Memory Register Map		
	10	Deriving Mathematical Functions		
	11 Musical Note Table		ote Table182	
	12	Programs	to Try 183	

INTRODUCTION



You've made a wise purchase... the Plus/4 is the first home computer ever designed especially for productivity applications. Of course, it's still able to do all the other things a home computer can be used for. This manual is designed to help you learn those "other things" your Plus/4 can do. You'll learn how to:

- Set up your Plus/4
- Use the different functions of all the keys on the keyboard
- Access different types of Commodore Software
- Use the mathematical, graphics, sound and programming capabilities of your Plus/4

The other manual included with your computer (*The Plus/4 Built-in Integrated Software Manual*) tells you how to use the wordprocessing, electronic spreadsheet, database and graphics packages. If your main interest is in these productivity applications, and you can't wait to get started using them, we still recommend that you read through at least chapter one of this manual ("Unpacking and Setting Up") before reviewing the *Built-in Software Manual*.

WHAT'S SPECIAL ABOUT THE PLUS/4

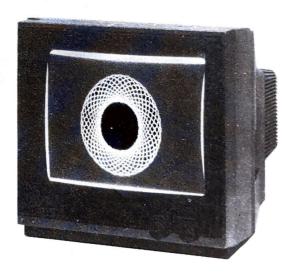
- 64K RAM (60K available for BASIC programming)
- Full Typewriter Style Keyboard
- Optional Built-In Software
- Screen Window Capability
- HELP Key
- 8 Pre-programmed, Reprogrammable Function Keys
- Four Separate Cursor Keys
- Uses Most COMMODORÉ 64 and VIC-20 Peripherals
- 121 Colors (16 primary colors, 8 luminance levels)
- Over 75 BASIC Commands
- High Resolution Graphics Plotting
- Split-Screen Text With High-Res Graphics
- Graphic Character Set On Keyboard
- Keyboard Color Controls
- 320 × 200 Pixel Screen Resolution
- Reverse and Flashing Characters
- 2 Tone Sound Generators
- Built-In Machine Language Monitor (17 commands)

CREATING A COMPLETE COMPUTER SYSTEM



Computer: Commodore PLUS/4

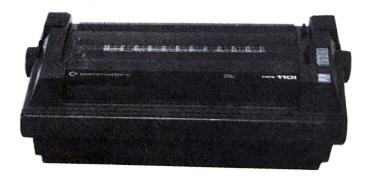




Display: Commodore 1702 or 1802/1803 Color Monitor



Storage: Commodore 1531 Datassette™ (tape recorder) or Commodore Disk Drive



Printer: Commodore Printer



Modem: Commodore MODEM/300



Controller: Commodore PLUS/4 Joysticks

WHERE TO FROM HERE?

By now you've done enough reading and you want to get started. Here's what we recommend you do now:

- Send in your warranty card
- Subscribe to the Commodore magazines to get the latest information on your computer

Read this manual and try the exercises. Read the built-in software manual and get used to the four integrated packages. Keep checking in with the Commodore dealers in your area for new developments in software, books and peripherals. Learn, program, file, write, calculate, graph, play... enjoy your new Commodore Plus/4!