CBS ADAM

The Complete Computer System

OWNERS MANUAL

For use on UK (PAL) colour T.V. sets only



GETTING STARTED

Easy-to-follow instructions on setting up and using your CBS ADAM™ Family Computer System.

READ THIS FIRST

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Operating Hints

1. Line Voltage: CBS ADAM™ operates on 240V—normal household voltage and should not be used on the same electrical line with appliances containing electric motors such as vacuum cleaners, refrigerators, etc. (televisions or monitors are fine).

Your ADAM may not operate properly if either:

- a.) the line voltage in your area falls outside the 240V range, (storms etc.) or:
- b.) you are in an area susceptible to line transients.

Neither of these should generally be problems, but if you encounter intermittent difficulties with your ADAM, an electrician can test for these conditions. If either exists, a line regulator/transient suppressor, available in most computer retail stores, can be used.

- 2. **Digital Data Pack Drive:** ADAM's digital data packs use a magnetic medium that is adversely affected by magnetic fields.
 - a.) Do **not** place your digital data pack on your TV set, ADAM computer or any household appliance.
 - b.) Do **not** leave the digital data pack in the drive when turning the ADAM unit on or off.

Failure to observe these points may damage your data packs.

CBS ADAMTM Computer System Set-Up Manual

by Deborah J. Miller and Deborah Q. Voosen Copyright 1983 by Robert J. Brady Co.

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Chapter 1 Setting Up

Everything You Need To Make Your CBS ColecoVisionTM Video Game System A Complete Computer!

Expansion Module 3 (connects to your CBS ColecoVisionTM Game System) includes:

- •64K RAM Memory Add-on with one Digital Data Drive (total 80K RAM)
- Professional Quality Keyboard with 75 Full-Travel Keys
- ■SmartWRITERTM Letter-Quality Printer

Plus:

- Controller Holder to Attach to Keyboard
- System Interlock Tray
- 1 Pica-10 Daisy Wheel Printer Element *(May already be assembled inside SmartWRITER™ Printer)
- ■1 Multistrike Carbon Ribbon *(May already be assembled inside SmartWRITERTM Printer)
- Complete Set-Up Introductory Manual
- ■Built-in SmartWRITERTM Word Processing Program
- ADAM™ SmartWRITER™ Easy Reference Guide
- Word Processing Manual
- •SmartBASIC™ Manual-SmartBASIC™ Digital Data Pack
- ■BUCK ROGERSTM Planet of ZoomTM by SEGA[®] Super Game Pack
- Game Play Manual–Blank Digital Data Pack
- 3-to-2 Prong Plug Adaptor (not provided in Canada)—Connecting Cables
- Coiled Cord for Keyboard

1. Keyboard and game controller holder

This is a professional quality typewriter keyboard. The special function keys are colour-coded, so they're easier to use. One game controller from your CBS ColecoVision $^{\text{TM}}$ Video Game System can be hand-held and the other attached to the keyboard.

2. Memory Console

You'll find more memory than in any other home computer system on the market, when you connect the Memory Console to your CBS ColecoVision $^{\text{TM}}$ Video Game System.

3. Printer

The SmartWRITERTM is a letter-quality, daisy wheel printer. It prints at the rate of 120 words per minute. You can use regular paper or fanfold computer paper. And you'll find the ribbon cartridge makes changing ribbons easy.

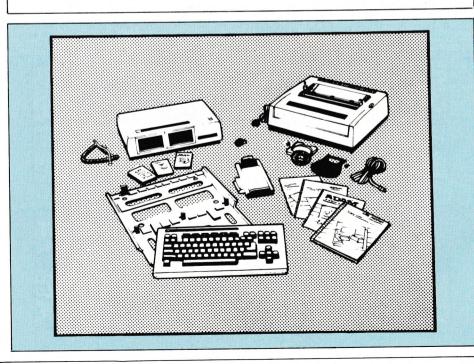
4. Cords and additional equipment

All the wires and cords you need are included with your computer. In addition, three digital data packs come with CBS ADAM TM -Buck Rogers TM Planet of Zoom, SmartBASIC, TM and a blank digital data pack. Also, you received several important manuals and cards with your computer. Take the time to read each one of these, and fill in information, if appropriate.

5. Guides for using CBS ADAM™

You're reading one of the three manuals that comes with your CBS ADAMTM Family Computer System. A second manual explains how to use SmartWRITERTM Word Processing. The third manual shows you how to write your own programs using SmartBASICTM. A special SmartWRITERTM Easy Reference Guide has also been enclosed, showing basic word processing commands and functions at a glance.

Check to make sure that you have everything shown in the picture if you just purchased the Expansion Module 3 that attaches to your CBS ColecoVision™ Video Game System.



Setting Up Expansion Module 3 to Your CBS ColecoVision™ Games Module

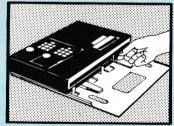
Place the CBS ColecoVision™ Video Game System on the plastic tray which comes with Expansion Module 3. Make sure the plastic clips on the front and back of the tray snap into place as shown.

Lift the Expansion Module Interface Door on the front of the CBS ColecoVision Video Game System. Make sure it snaps into position and remains open. Turn to the next page to continue setting up your computer

- 1 Then slide the Memory Console into the CBS ColecoVision™ Video Game System. This procedure is a safety measure to prevent accidentally using the power source with ADAM,™ and to lock the CBS ColecoVision™ Video Game System and Memory Console together.
- 2 Plug the keyboard cord into the port on the back of the keyboard. And then plug the other end of the keyboard cord into the front of the Memory Console. The picture shows what your properly set up units will look like.
- 3 Attach the game controller holder to the keyboard.
- 4 Then put game controller number 1 into it.

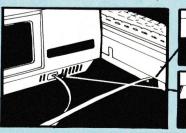


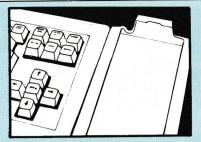




Place the CBS ColecoVision™ Video Game System on the plastic tray









Attach the game controller holder

Then put game controller number 1 into it

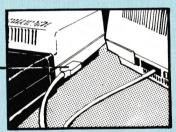
Plug the SmartWRITER™ Printer cord into the left side of the Memory Console. The picture shows what your properly set up units will look like.

Make sure the video cable from the CBS ColecoVision $^{\text{TM}}$ Video Games Module is connected to the switch box and the switch box to a colour $^{\text{TV}}$.

Plug the power cord from the back of the printer into a 240V wall socket.

IMPORTANT: DO NOT TURN ON THE COMPUTER SYSTEM YET. Turn to the next chapter for those directions.





Plug the SmartWRITER™ Printer cord into the left side of the Memory Console

Chapter 2 Getting Started

Turning On Your Computer

- 1A Make sure the switch box which connects the console to the TV is set at "games."
- **1B** Or, make sure the switch box is set at "computer"—whichever is appropriate for your switch box.

6

- Turn on your T.V. and select a channel which is not normally used for broadcast reception (For example if your T.V. receives programmes on BBC1, BBC2, ITV3 and ITV4 you could use Channel 5). Switch on the console—you will probably get a hissing sound and a snow storm effect on the picture. Adjust the tuning of the channel you have selected. The exact method of tuning varies from set to set, but in most cases there is a small screw or wheel.
- Make sure the foam packing is removed from the carriage of the printer, then locate the ON/OFF switch on the back of the SmartWRITER™ Printer, and flip it to the ON position.

The electronic typewriter screen will appear. You may now operate the system as an electronic typewriter. This is explained on Page 11.

IMPORTANT: If your system did not turn on, or the picture on the screen is not clear, you'll find some remedies on the following page.

4 Check the red POWER ON light located on the right side of the keyboard. This light should be ON whenever the system is on.

CAUTION: CBS COLECOVISION™ GAME CARTRIDGES SHOULD NOT BE INSERTED WHEN THE COMPUTER IS ON, OR PERMANENT DAMAGE MAY RESULT. INSERT GAME CARTRIDGES BEFORE TURNING ON YOUR COMPUTER. REMOVE GAME CARTRIDGES AFTER TURNING IT OFF.



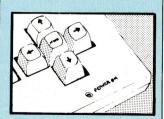
Make sure the switch box to the TV is set at "games" or "computer"

-whichever is appropriate for your switch box.



Turn on your T.V. and select a channel which is not normally used





Locate the ON/OFF switch on the back of the SmartWRITERTM Printer

Check the red POWER ON light whenever the system is on

Troubleshooting

Sometimes you don't get the result you expected when you turn on your computer. Most difficulties are easy to resolve. Refer to the chart below to help remedy any problem.

Symptom	Cause	Remedy
Indicator Light not "On"	Computer not "On"	Make sure power switch is in "On" position
	Power cable not plugged in	Check power socket for loose or disconnected power cable.
	Power supply not plugged in	Check connection with wall outlet
	TV on wrong channel	Check other channel for picture
	Video cable not plugged in	Check TV output cable connection
Random pattern on TV with game cartridge in place	Cartridge not properly inserted	Reinsert cartridge after turning off power
Picture without colour	Poorly tuned TV	Retune TV
Picture with poor colour	Bad colour adjustment on TV	Adjust colour/hue/brightness controls on TV
Sound with excess background noise	TV volume up high	Adjust volume of TV
Picture OK, but no sound	TV volume too low	Adjust volume of TV
	Sound turned off through Smart Key	Refer to Chapter 4, Word Processing Manual

Your SmartWRITER™ Printer

The SmartWRITERTM Printer that came with your computer is a wonderful product. It is a letter-quality printer with its own built-in microprocessor that is comparable to other printers that are much more expensive. The printer can be used with the computer either as an electronic typewriter or as a printer.

The SmartWRITERTM Printer uses any kind of paper—up to 9½" wide, including continuous fanfold paper. If you use continuous fanfold paper, a low-cost, paper-feed mechanism called a "tractor" is expected to be available in 1984. This attachment is not necessary, but it is recommended to keep fanfold paper from slipping or becoming askew in the printer.

The popular Pica 10 daisy wheel is included with your computer. Other daisy wheels can be purchased to change the style of your typeface, but it is recommended that you purchase only Coleco brand daisy wheels for most reliable results.

Finally, your SmartWRITERTM Printer uses a special, high-quality, multistrike ribbon cartridge manufactured by Coleco.

You will find information on changing the ribbon and daisy wheel in Chapter 6 of this manual.

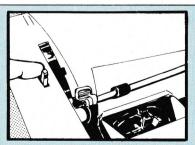
Inserting Paper

You insert a single sheet of paper into the SmartWRITERTM printer almost exactly as you would into a typewriter.

- The paper is inserted from the back of the printer under the platen or roller.
 Make sure the paper is centred on the roller.
- 2 Lift the paper bar and turn the platen knob to move the paper forward until the top of the paper is just under the paper bar.
- If the paper is not straight, move the paper release lever forward and straighten the paper. Then push the lever back to hold the paper firmly in place.



Platen knob



Paper release lever

Using CBS ADAM™ as a Typewriter

When you first turn on your computer, it can be used as an electronic typewriter. As you can see, by looking at your computer screen, typing with CBS ADAM $^{\text{TM}}$ is similar to typing on a typewriter. There is a roller at the bottom of your screen—where words appear as you type. And, at the top of your screen, are left and right margin settings.

Practice

To practice using CBS ADAM $^{\text{TM}}$ as an electronic typewriter, complete the steps listed below. (Your computer must be on to do this. If it is not on, complete the steps on page 7 first.)

- Insert a piece of paper into your SmartWRITER™ Printer— the same way you would put paper in a typewriter. If you need help, turn to the previous page and follow the instructions there.
- Type the following. As you reach the right margin, be sure to listen for the "end of line" bell. Then press RETURN as you would on a typewriter.
 - CBS ADAMTM is the first home computer system that is easy to operate and understand CBS ADAMTM thinks like you, so you don't have to think like a computer.
- 2 Remove the paper you had in your printer by turning the platen knob. Notice that what you typed now appears on your screen and on the paper.
- 3 Clear the screen by pulling the COMPUTER RESET slide switch which is located to the left of the cartridge slot. The command key "CLEAR" will not clear the screen when the system is in the typewriter mode. Then turn off the computer by pressing the switch on the back of the printer to OFF. Finally, turn off the TV.

Clearing the Screen

You can clear the electronic typewriter screen at any time by pulling COMPUTER RESET toward you.

Turning off the Computer

When you have finished using the computer, remember to turn off these two items:

The power switch on the back of the printer.

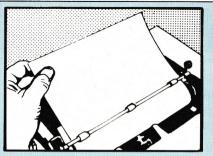
The TV set.

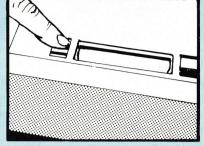
Insert paper into printer





Computer screen





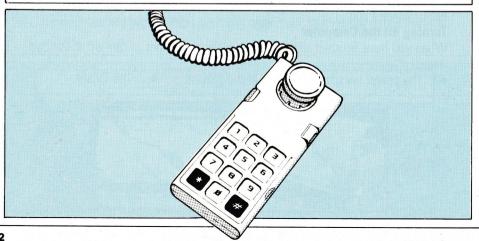
Remove paper – turn platen knob.

Clear the screen - COMPUTER RESET

Using Your Keypad Controller for Data Entry

Your keyboard controllers may also be used as a handy aid for numerical data entry. Just be sure they are attached to their controller ports. Their uses are as follows:

- If you press a number on the keypad, it will appear on your screen.
- The asterisk (*) yields a period.
- The number symbol (#) yields a carriage return.
- The side buttons will allow you to scroll text up and down.
- In the word processor mode, the joystick allows you to control cursor movement in much the same way the arrow keys do. You can also scroll text with the joystick.
- Consult the SmartBASICTM manual included with your computer to learn how to add, subtract, multiply, divide and perform advanced mathematical tasks with your computer.



Chapter 3 Using SmartWRITERTM Word Processing

Using SmartWRITER™ Word Processing

In Chapter 2, you used CBS ADAMTM as an electronic typewriter. You can also use CBS ADAMTM to do word processing. Using word processing is like using an electronic typewriter—with one important difference. When you use a typewriter, anything you type immediately appears on paper. If you make a mistake or want to change something, you can't. You have to type the page again.

When you use word processing, anything you type appears on your computer screen. If you make a mistake or want to change something, you can. You correct your work on the computer screen. Then, when everything is perfect, you tell the computer to print a copy of your work. When using word processing, you don't have to press RETURN at the end of each line. Instead, the computer automatically moves words that don't fit at the end of one line to the beginning of the next line. This "wraparound" feature makes typing easy and fast. The only time you press RETURN when using word processing is to end a paragraph before indented text, or to create a blank line.

SmartWRITERTM Word Processing is built into your CBS ADAMTM Family Computer System. SmartWRITERTM Word Processing is simple to use and understand. You will find that it makes typing letters, homework assignments, and resumes easy and fun.

Practice

To practice using SmartWRITERTM Word Processing, complete the following steps.

- 1 To begin, press the key labelled "ESCAPE/WP." This causes the labels on the bottom of the screen to change.
- 2 To practice using with SmartWRITER™ Word Processing, type the following paragraph:
 - SmartWRITER™ Word Processing is built into my computer. As I type, words appear on the computer screen.

- To end a paragraph, press RETURN. And then create a blank line by pressing RETURN again. You will see a RETURN symbol (◄) display each time you press RETURN.
- Type the second paragraph: With word processing, I can correct my work before printing it. I can also store my work, and get it back later.
- 5 To end a paragraph, press RETURN.
- 6 Notice how the two paragraphs appear on your screen. Print a copy of your work by doing the following:
 - a. Put paper in your printer (again, the same way you would put paper in a typewriter).
 - b. To begin printing, press the key on the right side of the keyboard labelled "PRINT."
 - Notice the information that now appears on the bottom of your screen.
 - c. Press the key labelled "PRINT SCREEN" at the top of your keyboard. Notice the new information that appears on the bottom of your screen.
 - d. To print the information that now appears on your screen, press the black key V labelled "PRINT."

As you can see, SmartWRITERTM Word Processing is easy to use. With SmartWRITERTM Word Processing you can: delete mistakes, insert new material, copy information, move information from one place to another, and store your work on a digital data pack for editing or printing later on.

To learn more about SmartWRITERTM Word Processing, look at one of the manuals that came with your computer—**TYPING WITH ADAM,**TM or the SmartWRITERTM Easy Reference Guide.



To end a paragraph, press RETURN.



Put paper in your printer (the same way you would put paper in a typewriter)

SmartWRITER™ Word Processing is built into computer.

Chapter 4 Using Ready-To-Run Programs

Using Ready-To-Run Programs

You can choose from a variety of ready-to-run programs when using CBS ADAM.™ You may use any program or game stored on a digital data pack. Also, you can play CBS ColecoVision™ game cartridges.

By adding Expansion Module 1 to ADAM,TM you can also play video game cartridges made for the Atari® 2600 Video Computer System, ActiVision,TM Imagic,TM Parker Brothers,TM and many more. Expansion Module 2 turns ADAMTM into an arcade-style racing machine. In addition, two exciting game controllers are available for CBS ADAMTM—Roller Controller and Super Action Controllers

NOTICE

When using any expansion ports for accessory equipment, shielded connecting cables are required. Contact the accessory manufacturer for further information. Follow the steps below to use ready-to-run programs and games on your computer.

Programs and Games Stored on Digital Data Packs

To begin using a program stored on a digital data pack:

- 1 Insert the digital data pack into the digital data pack drive (on the Memory Console). Refer to page 20 to do this.
- 2 Pull the computer reset switch forward.
- If there is a digital data pack in Drive A when the computer reset is pushed, the computer will "load" the digital data pack. If there is no digital data pack in Drive A, the computer will reset and come up in the Electronic Typewriter Mode.

Note: If a "blank" digital data pack is in Drive A when computer reset button is pushed, the digital data pack will start to turn, but it cannot be loaded. The computer will come up in Electronic Typewriter Mode.

CBS ColecoVision™ Game Cartridges

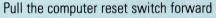
To begin playing CBS ColecoVisionTM game cartridges, you have to complete only three steps:

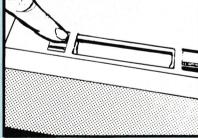
- Turn off your computer at the switch behind the printer.
- 3 Insert a CBS ColecoVision[™] cartridge in the game cartridge slot (on the Memory Console).
- Turn on your CBS ADAM™ Family Computer System. Pull the cartridge reset switch forward.

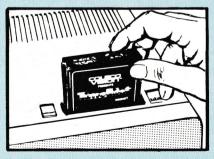
After Step 3, the name of the game appears on your screen. Then, the game begins.



Insert the digital data pack into the digital data pack drive







Insert a CBS ColecoVision™ cartridge in the game cartridge slot

Chapter 5 Writing Your Own Program

Writing Your Own Program

There are lots of ready-to-run programs available for your CBS ADAMTM Family Computer System. In addition, you can create your own programs using CBS ADAM'sTM SmartBASIC.TM

BASIC is a simple computer language designed especially for beginners. SmartBASICTM is ADAM'sTM special version of BASIC. It's especially useful in that the computer "prompts" you when you may have made a mistake, and stops you from going too far before you know something is wrong.

When using SmartBASIC, $^{\text{TM}}$ you will write a program in numbered lines, like the program shown here.

10 INPUT "HOW MANY MILES DO YOU WANT TO DRIVE"; M
20 INPUT "HOW MANY PENNIES DOES A GALLON OF GAS COST"; P
30 INPUT "HOW MANY MILES-PER-GALLON DOES YOUR CAR GET"; R
40 PRINT "THE GAS FOR YOUR TRIP WILL COST YOU S"; M*P/(R*100)

Each line will contain a word that tells ADAMTM exactly what to do. Then, when ADAMTM reads the lines (in numerical order), it will do what you want it to do.

You don't have to learn SmartBASICTM to use ADAM.TM Many people, though, enjoy writing their own programs. Just like sewing or carpentry, programming can be a creative and fun hobby.

To learn more about SmartBASIC $^{\text{TM}}$ and how you can write your own programs, look at one of the manuals that came with your computer—

Programming with CBS ADAM.™

Chapter 6 Routine Procedures

Routine Procedures

As you use your CBS ADAMTM Expansion Module 3, you will need to perform some common procedures—such as changing the ribbon, changing the daisy wheel, or inserting and removing a digital data pack. Explanations of these procedures follow.

Changing the Ribbon

Ribbons for your CBS ADAM $^{\text{TM}}$ SmartWRITER $^{\text{TM}}$ printer are manufactured by Coleco and should be available at or through the store where you purchased your CBS ADAM. $^{\text{TM}}$.

- 1 Remove the printer cover.
- 2 To remove the ribbon, press the notched latch.
- 3 Pull the ribbon cartridge up and out. (This may take a small amount of time.)
- 4 Snap the new ribbon cartridge into the ribbon tray. Then make sure the ribbon feeds around the right spring, between the daisy wheel and platen (or roller), and around the left spring.
- 5 Turn the ribbon advance clockwise until the slack is taken up.
- Replace the printer cover.







Remove the printer cover

To remove the ribbon, press the notched latch







Pull the ribbon cartridge up and out. Snap in new ribbon cartridge -advance clockwise

Routine Procedures

Changing the Daisy Wheel

Daisy wheels can be purchased where you bought your computer or at office supply stores. For best results, purchase only Coleco brand daisy wheels which are manufactured especially for this system. You can substitute other brands of daisy wheels as long as they are plastic (not metal), 10 pitch, 96 characters, non-proportional spacing, and have the same sequence of characters as the PICA daisy wheel included with your printer. Coleco will make multiple styles available.

The steps for changing a daisy wheel are listed below and illustrated.

(WARNING: The power plug must be removed before a daisy wheel is changed.)

- Remove the cover. Then, remove the ribbon cartridge. (For instructions, see the preceding text page.)
- 1 Press in the two latches located on either side of print mechanism, under the ribbon tray. (The latches are approximately midway from the roller to the rear of the tray.)
- Tilt the print mechanism toward you. Pull the daisy wheel up and off.
- Place a new daisy wheel on the spindle, making sure the square hole in the daisy wheel lines up with its post. Push the print mechanism backdown firmly, ensuring that the daisy wheel does not catch on the shield and bend the character stems.
- 4 Replace the ribbon cartridge.
- Finally, replace the cover.

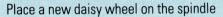


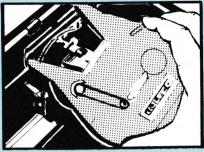
Press in the two latches located on either side of print mechanism



Tilt the print mechanism toward you







Replace the ribbon cartridge

Routine Procedures

Inserting and Removing Digital Data Packs

Note that digital data packs are specially designed for your computer. Although they may look like audio cassette tapes, digital data packs are very different. Do not attempt to use audio cassette tapes in place of digital data packs. Blank digital data packs are available at, or through, the store where you purchased your CBS ADAMTM Family Computer System.

To insert or remove a digital data pack, follow these steps.

- 1 To open the drive door, push back the tape release bar (on top of the door).
- 2 Insert or remove the digital data pack (front-side with label facing out).
- 3 Close the drive door. The tape must be securely in place or the tape will not load/move correctly.
- Never try to remove a moving digital data pack. Damage will result.



Push back the tape release bar



Insert or remove the digital data pack

Hints on Taking Care of Your Computer

Using your CBS ADAMTM Family Computer System is easy. The suggestions listed will help you keep CBS ADAMTM in tip-top condition.

Screen

To clean your screen, use any glass or window cleaner.

Keyboard and Memory Console

- Keep food, liquids, and smoke away from the computer.
- Clean your keyboard and Memory Console with a dry cloth.
- Do not connect a telephone line directly to an expansion port on your computer. Damage will result.

SmartWRITER™ Printer

- Keep fingers, clothing, hair, and jewellery away from the printer.
- Clean your printer with a dry cloth.

Digital Data Packs

- Keep digital data packs away from magnets.
- Keep digital data packs off printer.
- Store and use digital data packs away from extreme heat or cold.
- Store digital data packs in a safe place, away from dust, temperature extremes, and electrical currents.
- Never remove a moving digital data pack from its drive as damage may result to the tape.
- Never turn off the system (or pull the plug) while a tape is running, as erasure may occur on the tape.

