

ADAMTM

SYSTEM CHECK-OUT AND TROUBLE-SHOOTING GUIDE

IMPORTANT!

This brochure contains important information regarding the use and maintenance of your equipment. To get the most from your **ADAMTM** Family Computer System,

READ ME!

Includes System
Check-Out, Operating
Hints, Trouble Shooting
and Other Helpful Information

OPERATING TIPS

Line Voltage: ADAM™ operates on 108-132V—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 108-132V range, (storms or brown-outs), 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 conditioner/transient suppressor, available in most computer retail stores or through our toll-free ADAM™ number (see page 2), can be used. Coleco recommends the use of a line conditioner/transient suppressor.

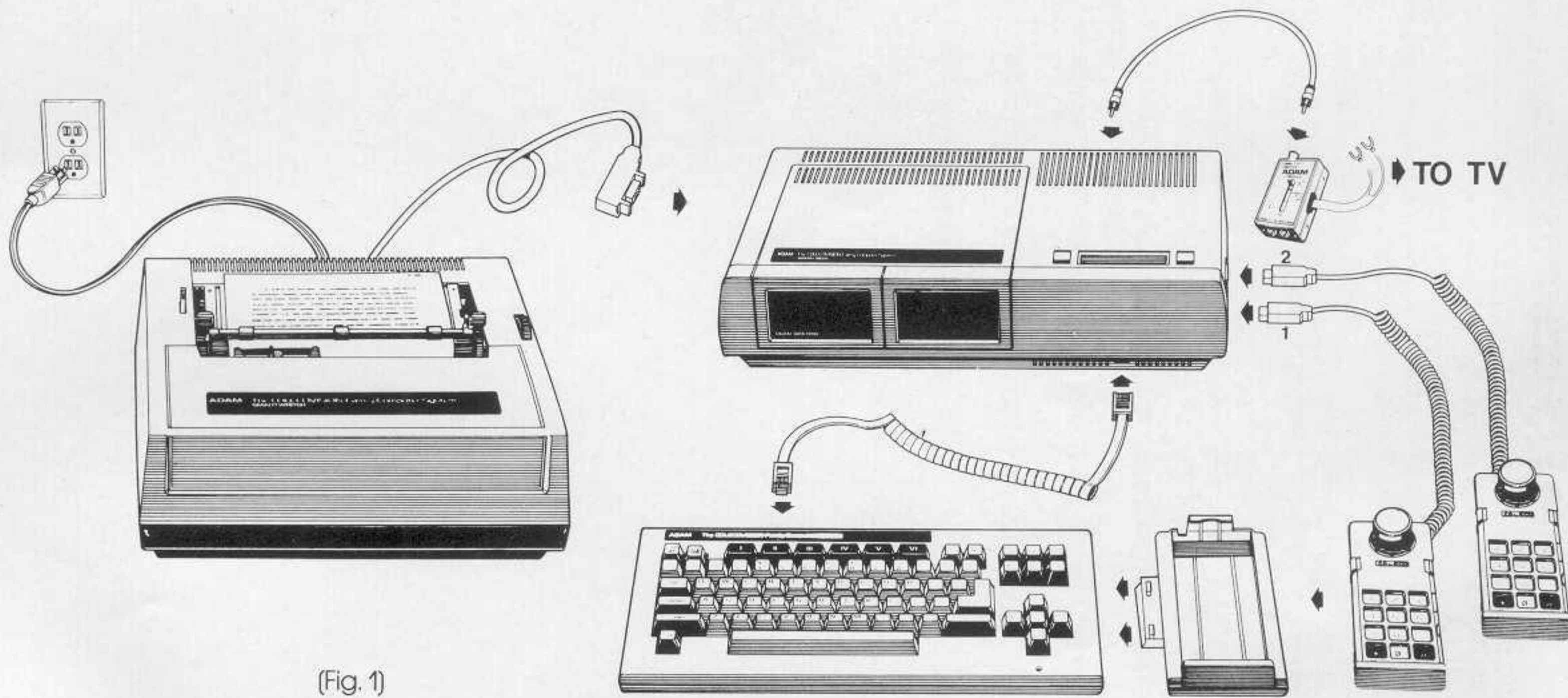
Digital Data Packs: ADAM's™ digital data packs use a magnetic medium and can be damaged by magnetic fields.

- a.) Do not place your digital data pack on your TV set, ADAM™ printer or any appliance.
 - b.) Do not leave the digital data pack in the drive when turning the ADAM™ unit on or off.
 - c.) Never open drive door when tape is in motion.
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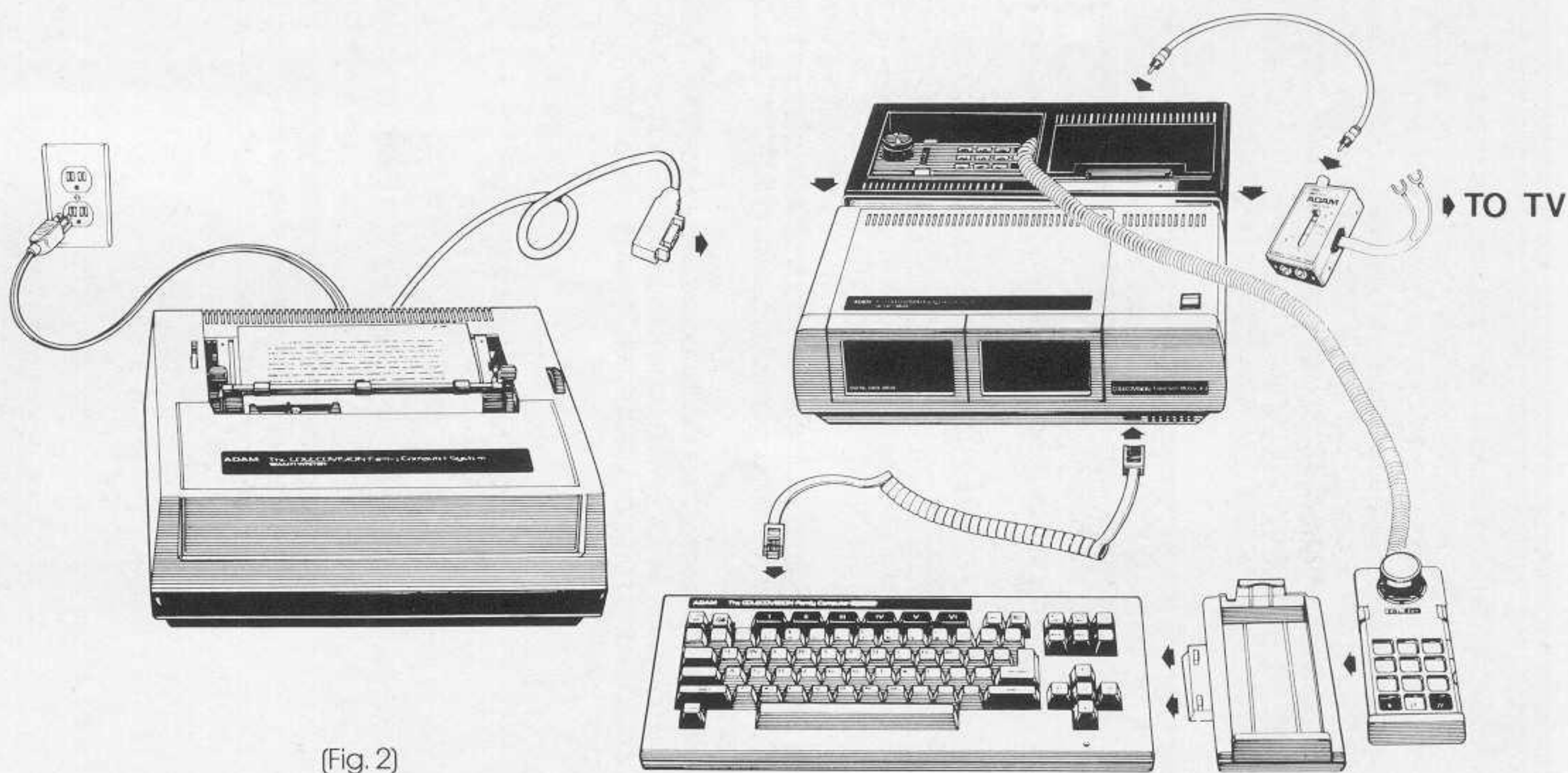
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ADAM™ SET-UP PROCEDURE



EXPANSION MODULE #3 SET-UP PROCEDURE



CHECK OUT YOUR SYSTEM

Now that you've hooked up your computer, following the step by step instructions on Page 13 of the Set Up Manual (for the complete ADAM™ system—see Fig. 1) or on Page 21 (for Expansion Module #3—see Fig. 2), you can check out the system by performing the following tests. Use these tests any time you have problems to see which component is causing the problem and how to correct it.

If you have completed the check out procedures, tried all of the suggested remedies for problems, and still need help, call COLECO's toll-free service hotline for instructions on how to proceed: **1-800-842-1225** nationwide or **1-800-361-2122** in Canada. Trained operators will answer your questions from 8:00 a.m.-10:00 p.m. Eastern Standard Time in the U.S.A, and from 9:00 a.m.-4:30 p.m. in Canada.

- CAUTION:**
- Do not connect or disconnect any components, cables or the daisy wheel while the computer is turned on, except as noted in these manuals.
 - Do not turn the computer on or off when a data pack is in the drive.
 - Do not try to use modular telephone cord in place of the keyboard cord.

Step 1

Make sure there is no data pack in the data pack drive. Make sure there is no cartridge in the cartridge slot. Turn the system on by sliding the OFF/ON switch on the back of the printer to ON.

The red light at the bottom right of the keyboard should come on. (**NOTE:** Should this light fail, the computer will otherwise continue to operate normally when the power is on.) You should hear a hum from the printer. The print mechanism should move to the left and click.

If the computer does not come on, check these things:

- The OFF/ON switch on the back of the printer should be in the ON position.
- The power cord should be plugged into a power outlet. (108-132 volts).
- The outlet should have current. Try another electric appliance in the outlet to check.
- The computer reset switch (Fig. 3) should slide freely. Check to make sure it is not stuck in the reset (frontmost) position.
- For ADAM™ owners, the cartridge reset switch should slide freely and not be stuck in the reset (frontmost) position. For Expansion Module #3 owners, the ColecoVision® power supply should not be plugged in, and the ColecoVision® ON/OFF switch should be off.
- The "computer" cable from the back of the printer should be connected to the left side of the Memory Console.
- The coiled keyboard cable should connect the keyboard to the front of the Memory Console.
- Roll the paper advance knob (Fig. 7) back and forth a few times to be sure that the printer's mechanism is not jammed.
- WHEN YOU TURN ON THE POWER THE PRINT MECHANISM SHOULD MOVE TO THE LEFT, SPIN THE DAISYWHEEL, MOVE ABOUT ONE INCH TO THE RIGHT AND STOP. IF IT FIRST MOVES TO THE RIGHT, OR IF THE PRINT MECHANISM MOVES TO THE LEFT AND STICKS AND/OR VIBRATES, TURN OFF THE POWER AND REFER TO "CHECKING THE PRINTER" ON PAGE 9.



(Normal Position)

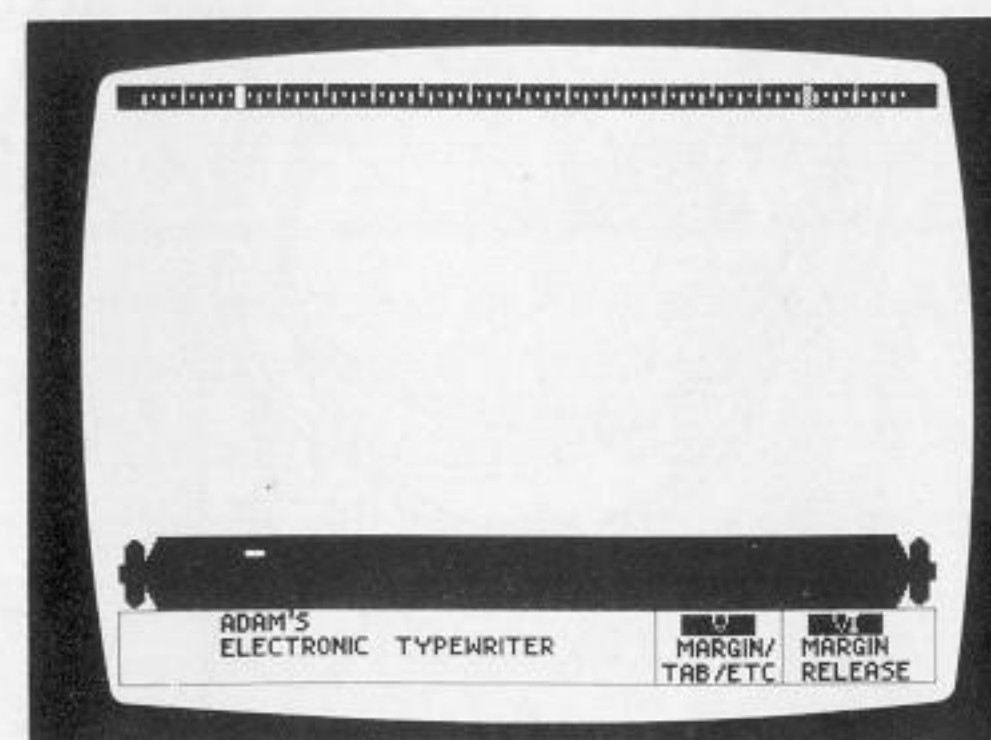


(Reset Position)

(Fig. 3) Computer Reset Switch

Step 2

Once the computer is on, and the red light on the keyboard is lit, turn on the TV. The screen should look like this:

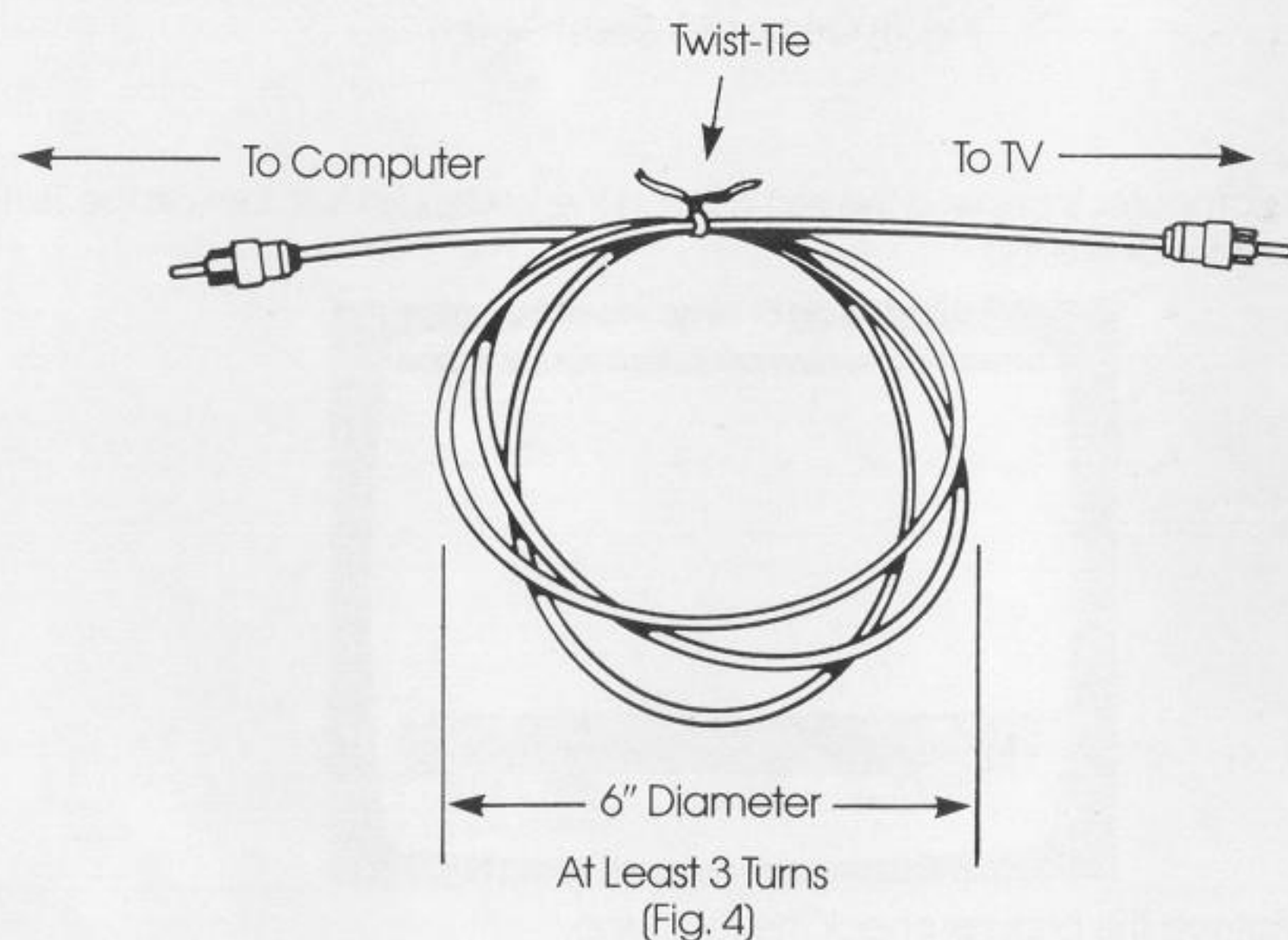


If you do not see this picture, check the following:

- The TV should be plugged into a working power outlet.
- The switch on the antenna switch box should be on either "Game" or "Computer."
- The channel switch on the back of the Memory Console or ColecoVision® should be set to the same channel as the TV. For the best picture, the TV should be on Channel 3 or 4, whichever does not receive a TV station in your area.
- A cable should run from the top of the switch box to the connector marked "TV" on the back of the Memory Console. If you have Expansion Module #3, the cable should run from the top of the switch box to the ColecoVision® console.
- Re-check the instructions on how to install the switch box on Pages 14 through 17 of the Set-Up Manual. Make sure that you are using the proper installation for your antenna wire.
- If present, turn power off and disconnect Expansion Module #1.

If the picture is not clear:

- Use the fine tuning control on your TV to tune in the station more clearly.
- Rearrange the cable that connects the computer to the TV. Try several rearrangements of the wire to get the best picture.
- Make an approximately 6" diameter coil with at least 3 turns from the same cable. Hold the coil together using a twist-tie. (See Figure 4.)
- Move the computer away from the TV.
- Plug the computer and the TV into different outlets, so there is no interference.
- Use a shorter length of cable to connect the computer to the TV. The cable can be obtained at any audio store or electronic specialty store. Purchase a "shielded 75-ohm impedance coaxial cable with phono plugs on each end." Purchase the shortest length that will connect the computer to your TV.



If there is no color or poor color on your color TV screen:

- Slide the lever on the switch box to "TV" and select a strong, local TV station. Then, make sure the TV is properly tuned, and adjust the tint/brightness/color controls. When done with adjustments, return TV to channel 3 or 4 and switch box to "game" or "computer."

If the display is not perfectly centered or is too large on the screen:

- Try adjusting the vertical and horizontal hold controls on your TV.
- Try another TV.
- This may be an overscan problem with your TV. A professional TV repairman may be able to adjust it if the problem is severe.

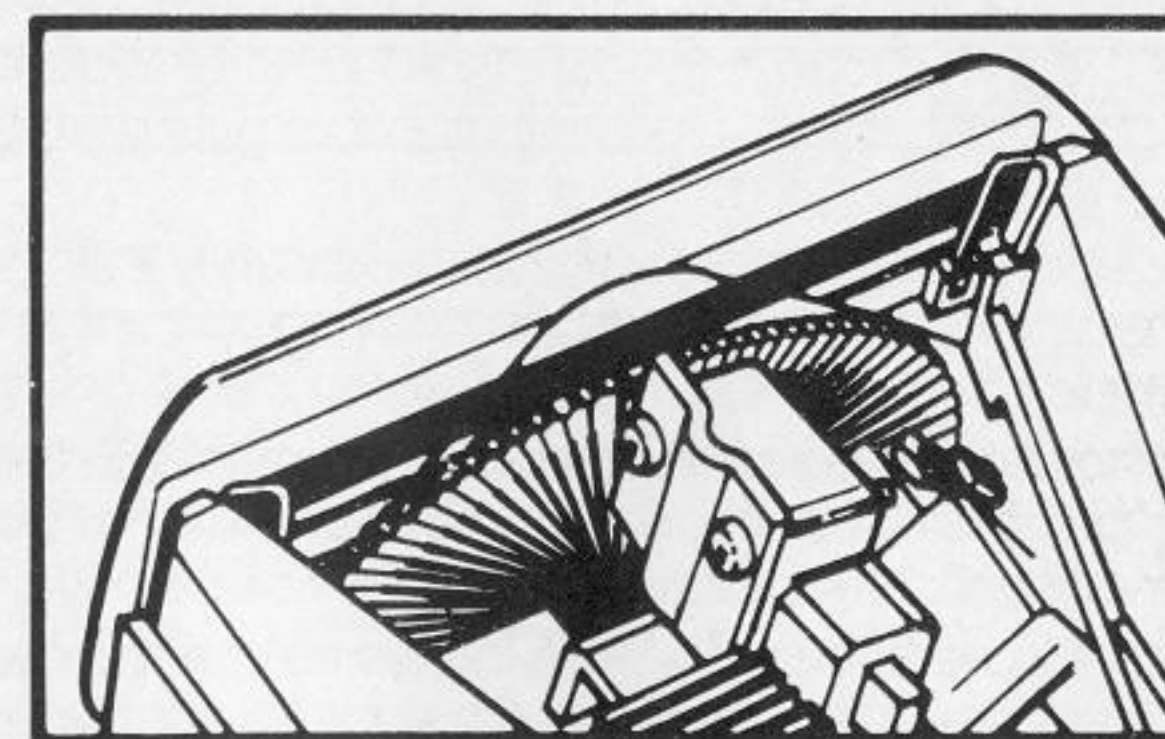
CHECKING THE KEYBOARD

In Electronic Typewriter Mode:

Before Inserting a sheet of paper:

It is easiest to insert paper into the printer if the print mechanism is not in the extreme left hand position. If it is in the extreme left hand position, slide the print mechanism right a few inches. DON'T FORCE IT. If you feel resistance when you push, wait 30 seconds for the computer to release the mechanism, then slide it.

Insert a single sheet of paper into the printer (Page 33/Set Up Manual). If the paper catches on the clear plastic guard, gently lift the left corner of the plastic and guide the paper under it. Then, make sure that the printer contains a daisy wheel and a ribbon. (See pages 52-55 Set-Up Manual for proper installation of the ribbon and daisy wheel.) Make sure that the ribbon lays between the clear plastic guard and the daisy wheel. Turn the white ribbon advance wheel clockwise to take up the slack in the ribbon, if necessary. The ribbon should not be tangled in the daisy wheel.



While in electronic typewriter mode check the keyboard by typing the following sentence. (Don't be concerned if you make mistakes.)

The quick brown fox jumped over the lazy dogs.

As you are typing, the letters should appear on the screen and be printed on the printer. You should hear a key tone just after you press each key.

If nothing happens when you try to type:

- Check the POWER ON light on lower right of keyboard. If not lit, review Set-Up Manual procedures.
- Insure that the cable from the back of the keyboard to the front of the memory console is correctly attached. Note: telephone cable will not work in your computer.
- Pull the computer reset switch.

If you get all capital letters:

- Press the LOCK key once.

If you don't hear the key tones or they are too loud:

- Adjust the volume on your TV.
- Fine tuning of the TV may be necessary.

Some Command Keys and Smart Keys, the arrow keys and the Control Key do not operate in the electronic typewriter. The Wild Card key is reserved for future use.

CHECKING THE GAME CONTROLLER

Press the ESCAPE/WP key to go from electronic typewriter mode to word processing mode. Now press the number keys 1 through 9 on the game controller. You will hear a key tone as you press each number, and the number appears on the screen. When you press * on the game controller, a period appears on the screen. When you press # on the game controller, a return symbol (↵) appears on the screen. Move the control stick in any direction. The cursor moves in that direction. Press either of the side buttons. The cursor moves to the first character of the first line.

If the characters do not appear and the cursor does not move:

- Make sure that the cord for the game controller is plugged into the Col-ecoVision® Console or the port on the right side of the Memory Console.

If you don't hear the key tones:

- Turn up the volume on your TV.
- Press Smart Key II (Screen Options), then press Smart Key V (Full Sound).

Additional Notes

The game controller has no immediate functions with SmartBASIC.™ However, you can program the game controllers using the PDL function. Refer to "Programming with ADAM,™" the SmartBASIC™ Manual for further information.

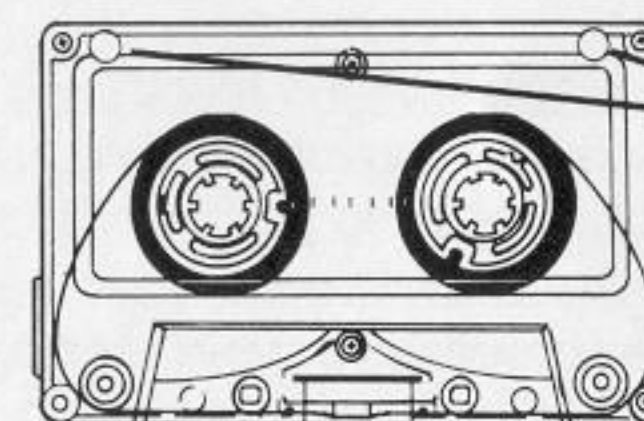
Each super game or software package will use the game controller somewhat differently. Refer to the instruction guide supplied with each for specific information.

During game play, if the keypad or control stick does not respond:

- Make sure that Player 1 is using the controller plugged into the port marked "1" and Player 2 is using the controller plugged into controller port "2."

CHECKING THE DATA PACK DRIVES AND DATA PACKS

Insert a blank data pack in the drive. Open the drive door by pushing back the release bar on the top of the door. Insert the data pack with the label facing frontwards and the bottom (where the tape is exposed) tilted inward. Close the door by pushing on both sides of the top frame of the door. Do not force the door closed; however, it is normal to exert a noticeable amount of pressure. If the data pack is not inserted properly, remove it and try again. Data Packs should always be inserted with the exposed tape facing downwards and with the side of the pack showing open (locating) holes in each of the upper corners facing the rear.



Locating Holes
(on rear of data pack)

As with all magnetic storage devices, ADAM™ may occasionally misread a digital data pack. **If ADAM™ does not read your digital data pack, open the drive door when the tape is not spinning, remove and carefully re-insert your digital data pack, and attempt to read again.** If after several tries you still can't read, then try the following:

- If all of the tape has wound onto the right spool (looking at label side), it must be partially rewound manually. Manually turn the empty wheel a few dozen turns.
- If the tape inside the data pack appears to be wound irregularly, slap the label side of the pack against a hard flat surface and repeat action on opposite side. Repeat procedure until tape appears to be wound evenly.
- Remove the digital data pack and make sure that the rubber roller (Fig. 5) turns freely. In order to test the roller, using a clean eraser at the end of a pencil, CAREFULLY and GENTLY spin this roller and be certain it is turning freely. USE EXTREME CARE AND AVOID TOUCHING THE TAPE HEAD.
- Carefully clean the tape head by rubbing it with a foam tipped swab dipped in isopropyl alcohol. (Available in the ADAM™ accessory kit or at audio specialty stores).
- Shut ADAM™ off and wait 10 minutes.

Using Data Packs in Word Processing

Press the GET Command Key, then press Smart Key VI (GET) and Smart Key III (Drive A). You should see the file directory appear. If there are no files on the data pack, the file directory will not show any file names.

If the file directory does not appear and you get a message "Cannot Access This File":

- Check if you have a Super Game Pack in the drive by mistake. You can't look at the files in a Super Game Pack.
- Make sure you have the digital data pack inserted properly, label facing you and the tape on the bottom. The door must be closed.

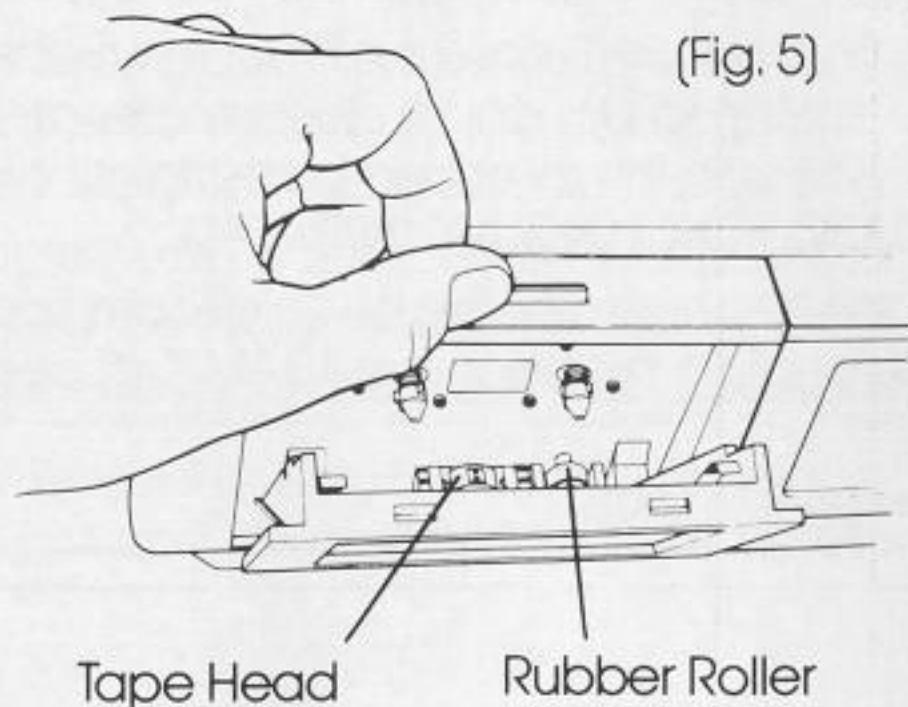
It is common practice to save important files twice—on separate digital data packs! We strongly recommend this practice so that you will never lose valuable files.

Removal and Replacement of Digital Data Drive

If you have trouble using all of the data packs, you may have a problem with your drive. If only one data pack does not load, the data pack itself may have a problem. Should it be necessary to remove a digital data drive, use the following procedures. These procedures should be performed carefully to avoid damaging your unit. If in doubt, consult our 800 number or a competent repair technician. NOTE: Before you begin this procedure, remove any digital data pack that may be in the drive, and unplug the power cord.

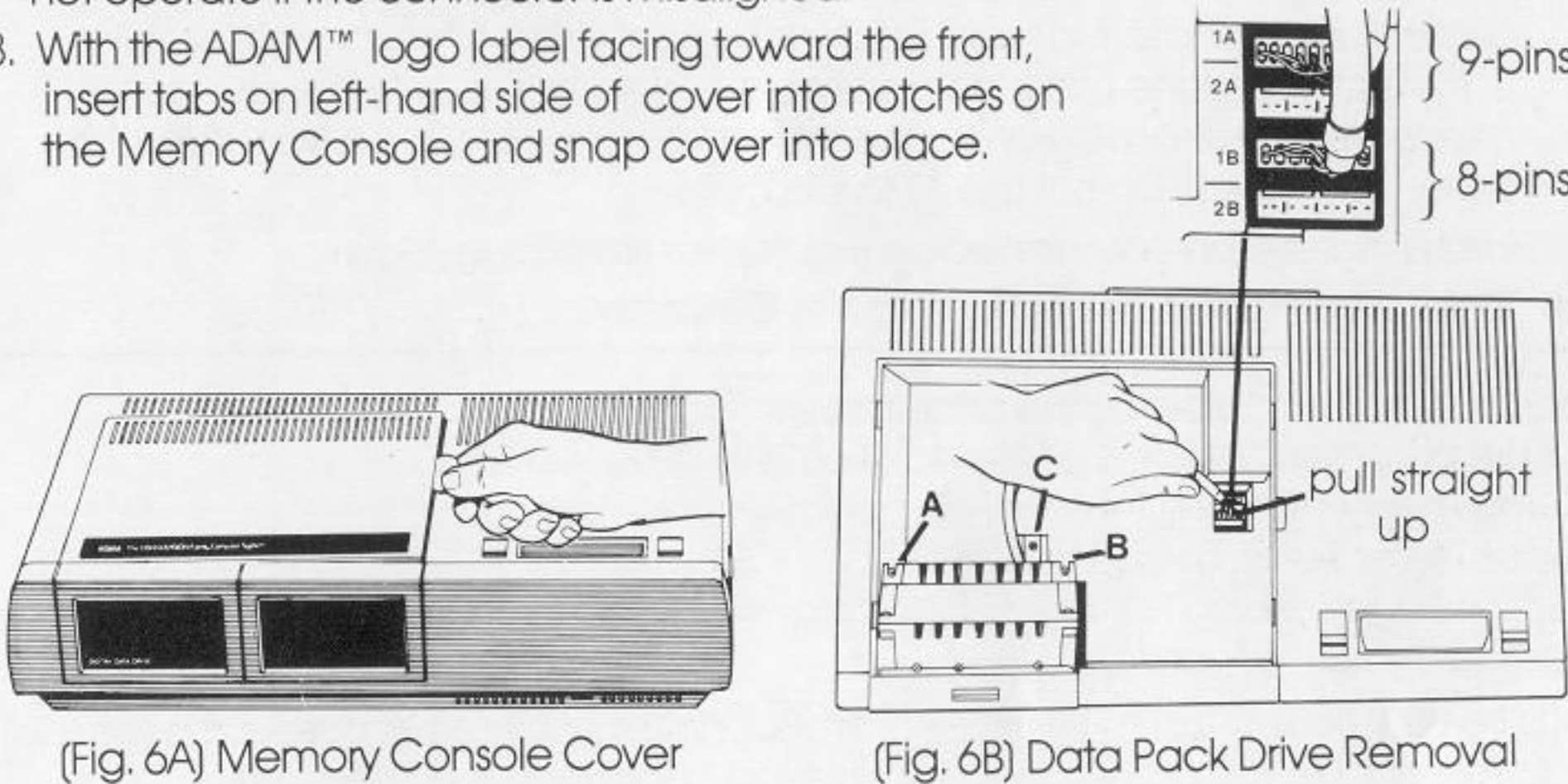
Removing Digital Data Drive

1. Remove the Memory Console Cover by inserting a quarter or similar size coin into the recess on the right side of the cover. Twist coin to pry up cover (see Fig. 6A)
2. Remove the two cable connector plugs labeled 1A and 1B located on the Memory Console to the right of the expansion connectors, by smoothly pulling straightup on the large cable. (see Fig. 6B)
3. Remove three screws labeled A, B, and C (GROUND), and two washers securing the drive to the Memory Console using a Phillips Head screwdriver. (see Fig. 6B)
4. Grasping the drive by the top, gently slide the drive forward and lift it out of the Memory Console.



Replacing Digital Data Drive

1. Insert the guide tabs, located on the bottom of the drive, into the slots on the bottom of the Memory Console.
2. Slide the drive into position so that the metal tab which extends from the back point labeled C (GROUND) on the Memory Console aligns over the hole.
3. Insert one screw into hole labeled C (GROUND) on the Console.
4. Insert two washers and screws into holes on Console labeled A and B.
5. Tighten all 3 screws. **DO NOT OVER TIGHTEN.**
6. Insert the nine-pin cable connector of the drive into the connector on the Console labeled 1A.
7. Insert the eight-pin cable connector of the drive into the connector on the Console labeled 1B. Be especially careful to align holes and pins properly. Your drive will not operate if the connector is misaligned.
8. With the ADAM™ logo label facing toward the front, insert tabs on left-hand side of cover into notches on the Memory Console and snap cover into place.



CHECKING THE PRINTER

General caution if printer adjustment is necessary: for your safety, insure that power is removed from the printer prior to attempting any adjustment. In making these adjustments, use of moderate force is sometimes required. **These procedures should be performed carefully to avoid damaging your unit. If in doubt, consult our 800 number or a competent repair technician.**

Begin by turning the power OFF. Manually slide the print mechanism (see Fig. 8) to the far right side. Now turn on the power and observe that the following sequence takes place:

1. Print mechanism should move all the way to the left edge.
2. The daisy wheel should spin briefly.
3. The platen should advance one line.
4. The print mechanism should move right approximately one inch.

While in the word processing mode, type the following sentence:

This is a test of the word processor.

Press the Command Key labeled PRINT, then Smart Key IV (PRINT SCREEN) then Smart Key V (PRINT). The printer should print everything on the screen.

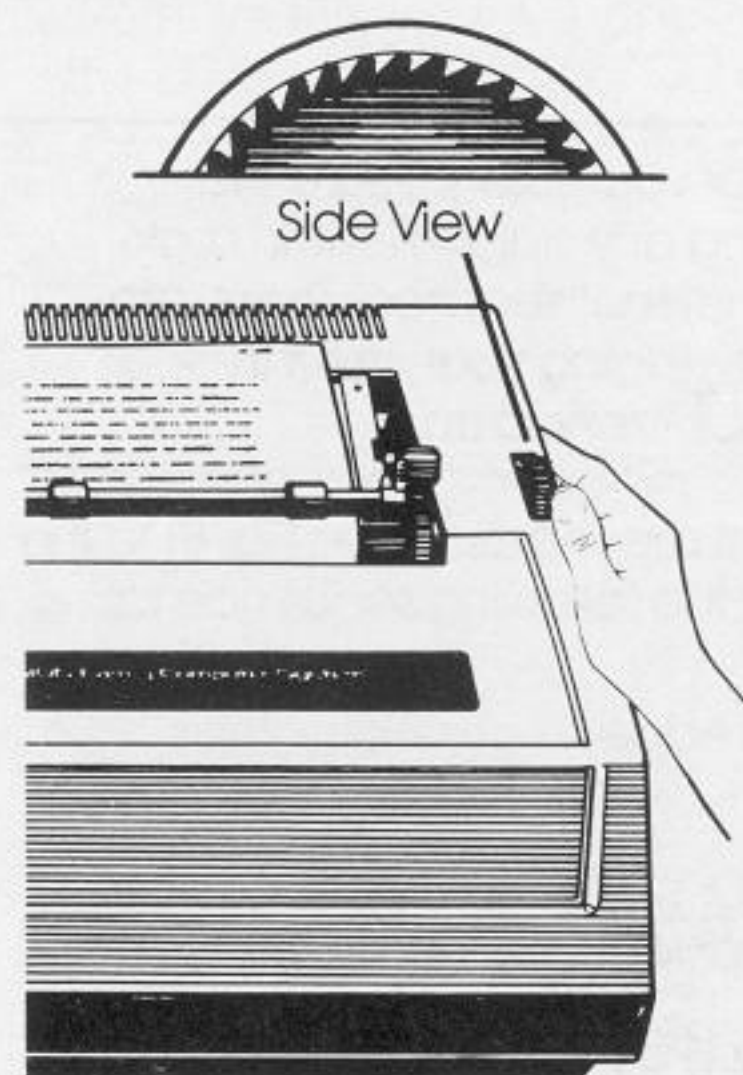
If you do not observe the power-on sequence described above, the printer incorrectly prints text, or the left margin is not maintained, check the following:

- Roll the paper advance knob (Fig. 7) back and forth several lines to be sure that the mechanism is not jammed. This is the first thing you should do if the printer ever appears to be jammed.
- Turn off the power, remove the cover on the printer (see below) and examine the carriage return switch (Fig. 8) to the left of the carriage. If the contacts are open even slightly (Fig. 10) carefully bend them so that the upper bar is parallel to the base of the printer and the two electrical contacts are making good contact (Fig. 9).
- Check for obstructions preventing full travel of print mechanism.
- Check that the cable is tightly wound (See Fig. 11)
- The rods (Fig. 11) that the print mechanism slides on may need lubrication. Apply a dry synthetic lubricant (such as Dupont Teflon Dry Lubricant or Fuller Transmission Silicone Lubricant, available in automotive or hardware departments) onto a clean rag and wipe the rods to lubricate them. Very little lubrication is required. Do **not** use oil to lubricate.
- Insure that the printer connectors (Fig. 11) are firmly plugged in.
- Turn the computer off and try again in 10 minutes.

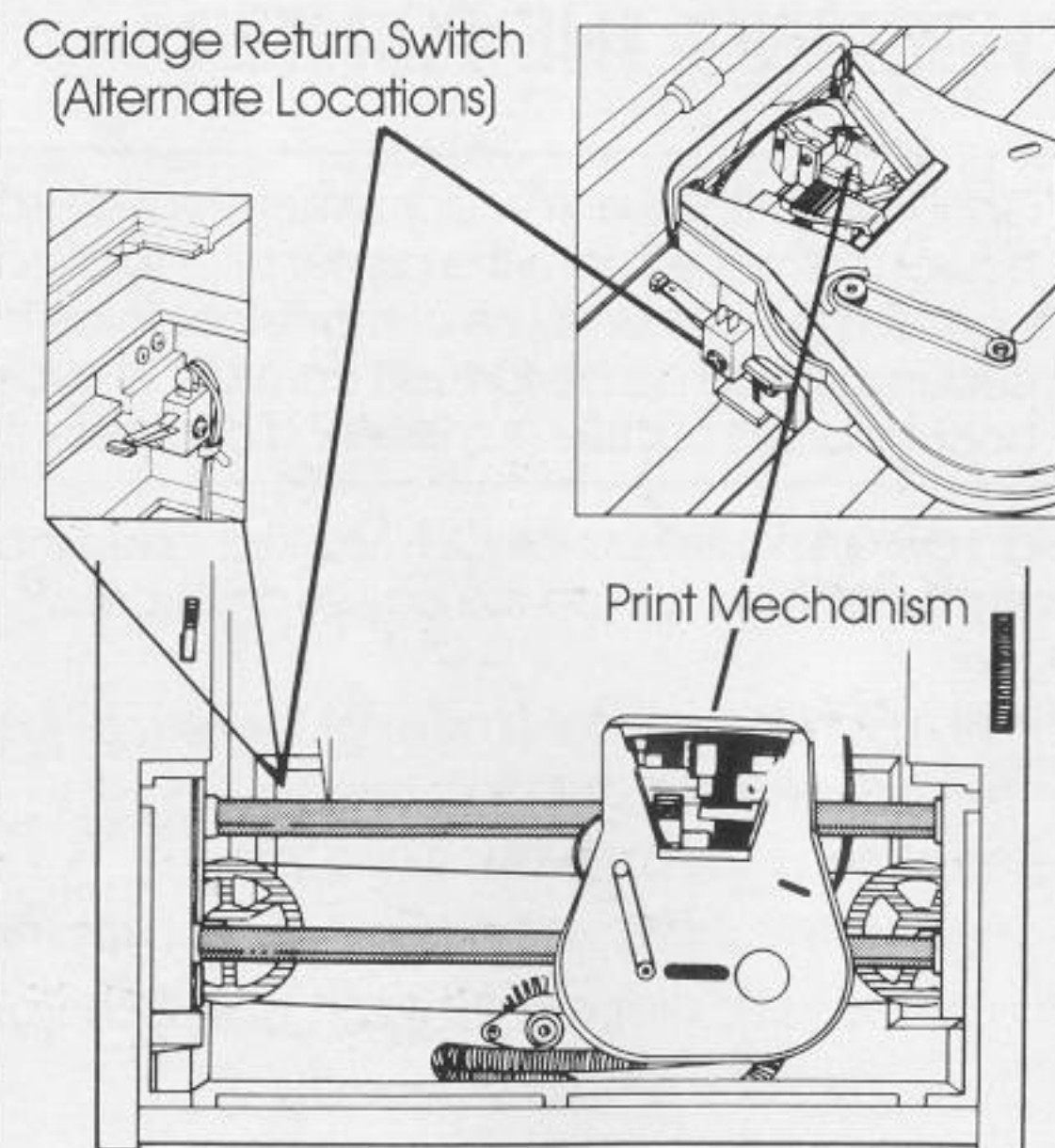
NOTE: To remove or replace the printer cover (Fig. 12):

1. Insure print mechanism is centered (wait until it moves freely)
2. Grasp rear edge of print cover on each side
3. Bow up center of far edge of cover
4. Lift far edge upward for removal and down fully for reinsertion, keeping near edge seated in main cover slots.

NOTE: Be very careful not to pull the print mechanism cable off its pulleys. It is very difficult to re-establish the proper tension once the cable has been derailed.

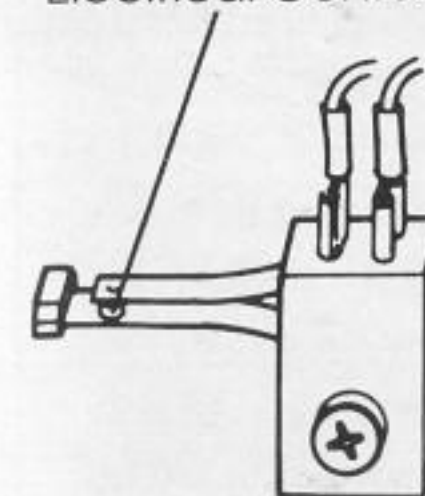


(Fig. 7)



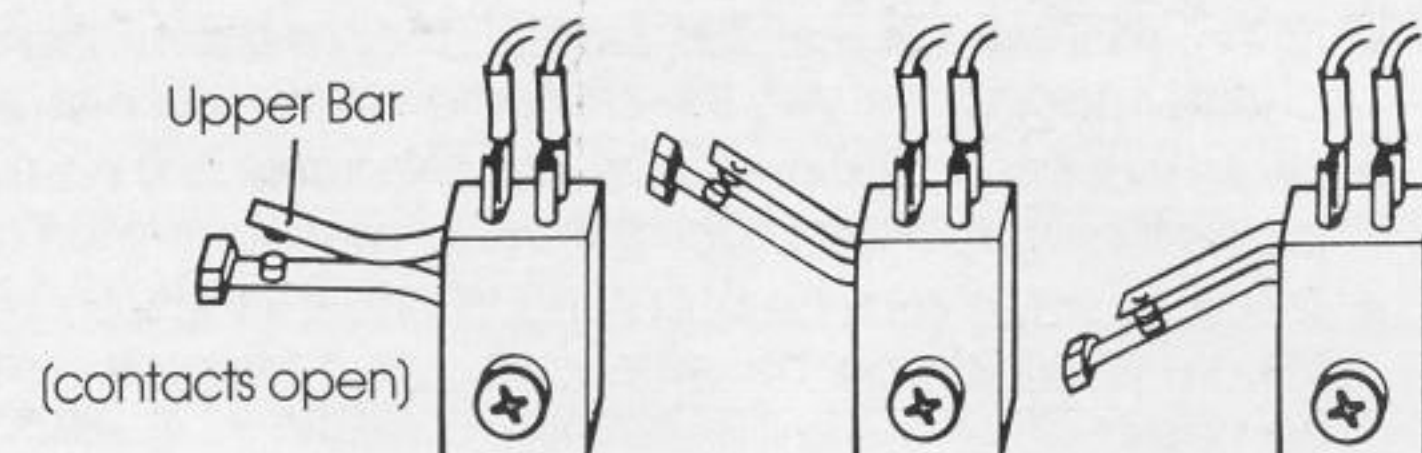
(Fig. 8)

Electrical Contacts



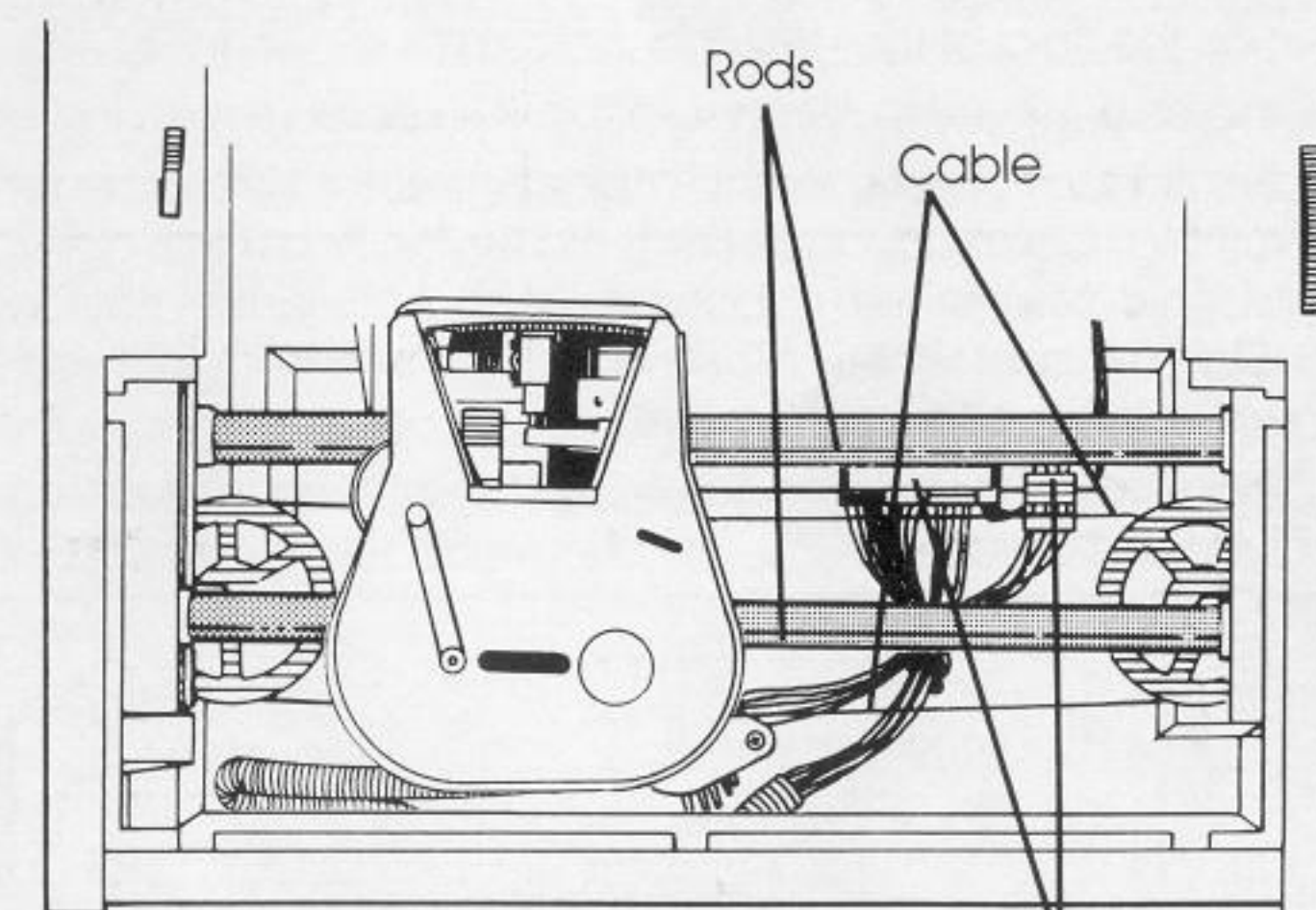
(Fig. 9) Correct Position

Bars Not Parallel to Base of Printer

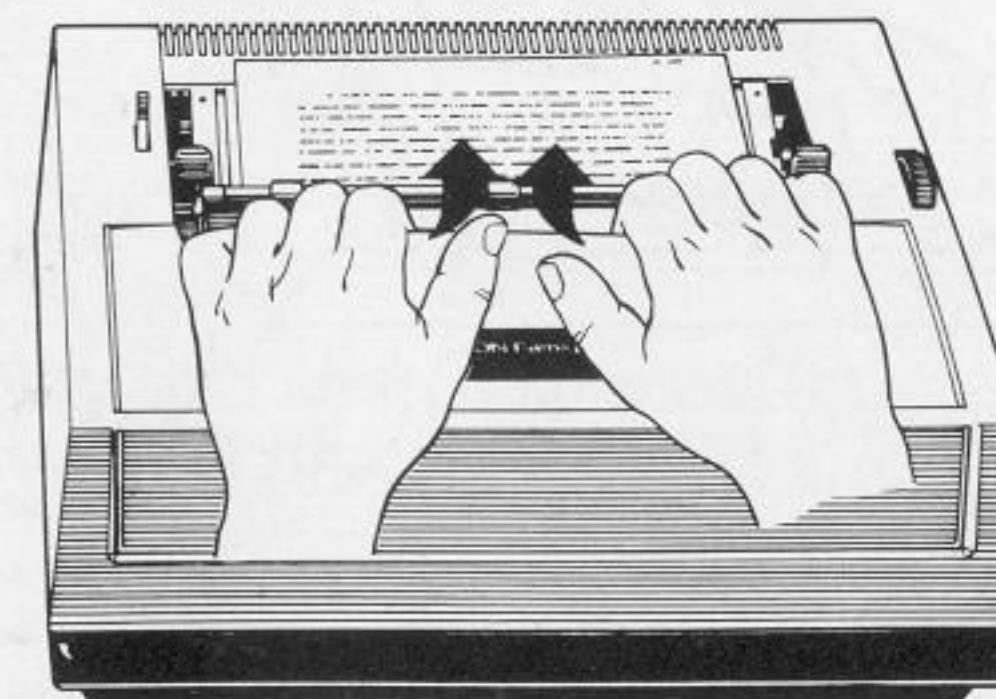


(Fig. 10) Incorrect Positions

Carriage Return Switch



(Fig. 11) Printer Connectors



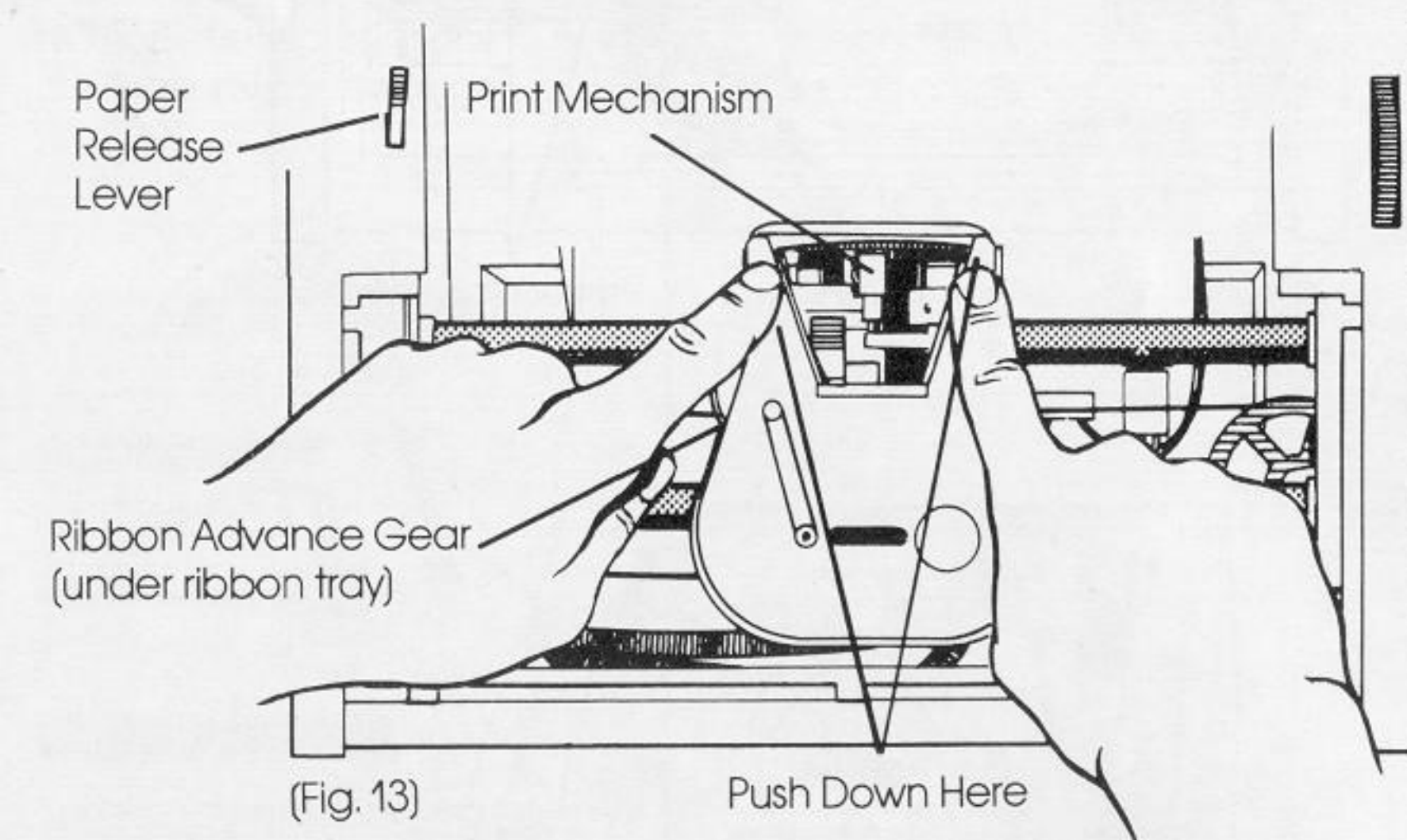
(Fig. 12)

If the printer works but the characters you typed are not the characters that appear:

- Check that you are using a 96-petal daisy wheel supplied by COLECO or another daisy wheel with the characters in the same sequence.
- Insure that the daisy wheel does not encounter any obstacles inside the printer throughout the travel of the print mechanism left and right.
- The daisy wheel may be out of alignment. Pull the Computer Reset switch toward you and type the sentence again. If the problem remains, turn off the computer. Lift off the printer cover and slide print mechanism to middle. Press the two plastic latches under the ribbon plate, on either side of the print mechanism, towards each other. Tilt the print mechanism up. Check that the daisy wheel has no broken petals, and is firmly snapped into place. The square hole on the daisy wheel should fit tightly over the peg on the print head.

If the printed characters are unclear or cut off:

- Push down on the front of the print mechanism as shown in Fig. 13.
- Re-check the daisy wheel to make sure that it is seated firmly and evenly.
- Re-check the ribbon to make sure it is not tangled. Insure proper tension of ribbon by turning ribbon advance knob clockwise. If ribbon is not advancing: Remove ribbon cartridge, turn ribbon advance gear (under ribbon advance knob) clockwise several turns, replace cartridge, and try again. You may also turn the gear with the cartridge in place.
- The print head may be misaligned. Follow procedure described under Print Quality Adjustment Guide.



If the paper crunches on the sides:

- Use narrower paper. ADAM™ accepts paper 9½ inches wide or less.
- Paper release lever should be towards the rear to prevent paper slippage.

If you have a noise problem:

- If you hear a vibrating noise from the printer, check to make sure that the printer is on a solid surface. To minimize noise from the printer, do not use on a plastic table or glass surface, and use a thick pad under the printer.
- If there is a loud hum or platen fails to advance, immediately roll paper advance knob back and forth several lines. (Fig. 7)

If the paper feed seems tight or the paper advance knob seems tight:

- Feed in a stack of a half dozen sheets of paper at the same time to loosen the tension. This should make it easier to feed in a single sheet.
- Apply silicone grease or equivalent to inside edge of the paper advance knob on the serrated teeth and turn knob several complete turns. (See Fig. 7).

If the last few lines on the page run together (they do not have the proper vertical spacing):

- If you are using regular paper, try putting another sheet of paper behind the first sheet.
- If you are using continuous form paper, you need a tractor feed accessory.

Print Quality Adjustment Guide

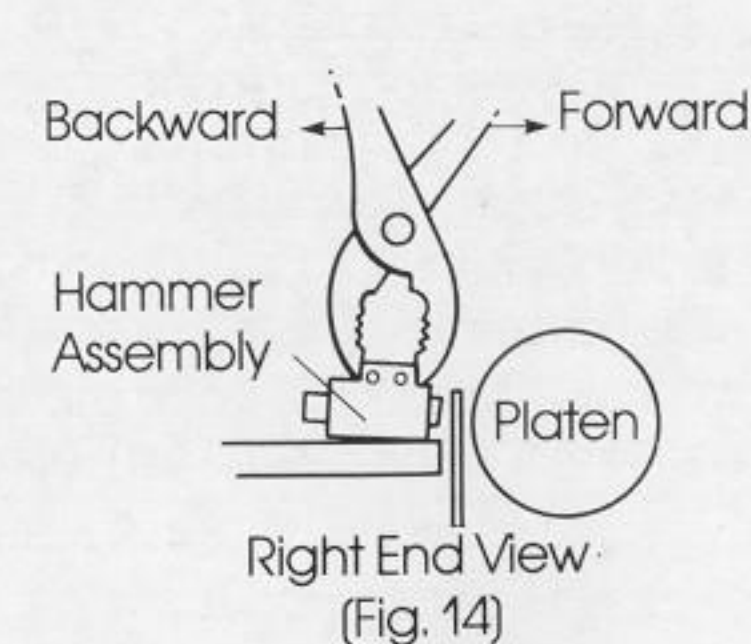
The following procedure should be performed carefully to avoid damaging the unit. If in doubt, consult our 800 number or a competent repair technician.

If your Adam printer prints either light on the top or bottom of characters, refer to figures below for adjustment procedures.

EXAMPLE: ooooooosssss

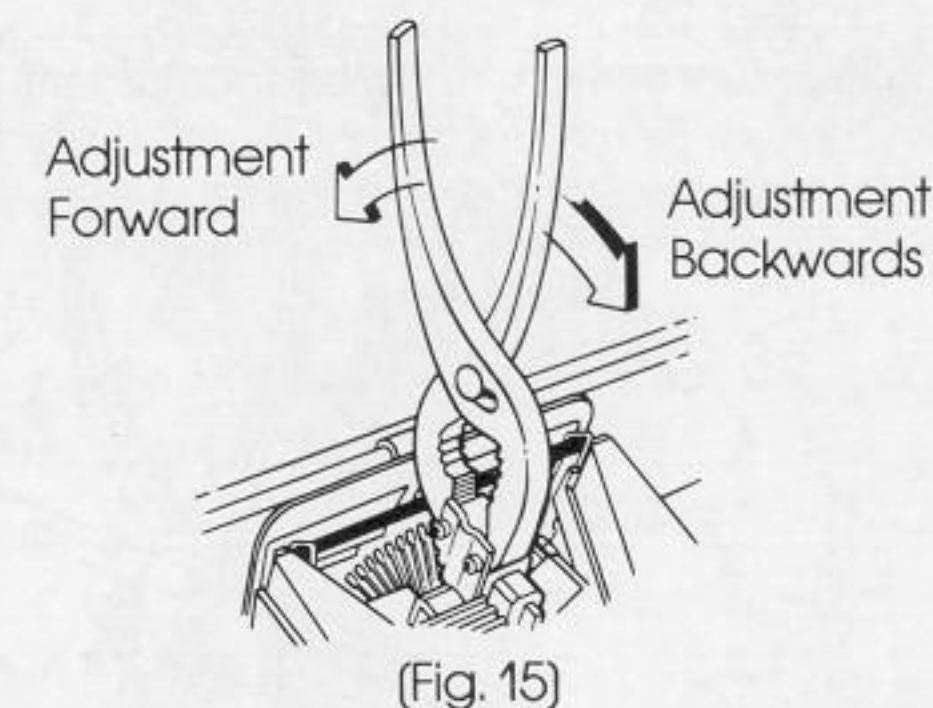
If characters are light on top, adjust hammer assembly slightly forward. (Fig. 15)


When adjusting, grasp hammer assembly with pliers as shown below in Fig. 14.



EXAMPLE: sssssssssss

If characters are light on bottom, adjust hammer assembly slightly backwards. (Fig. 15)



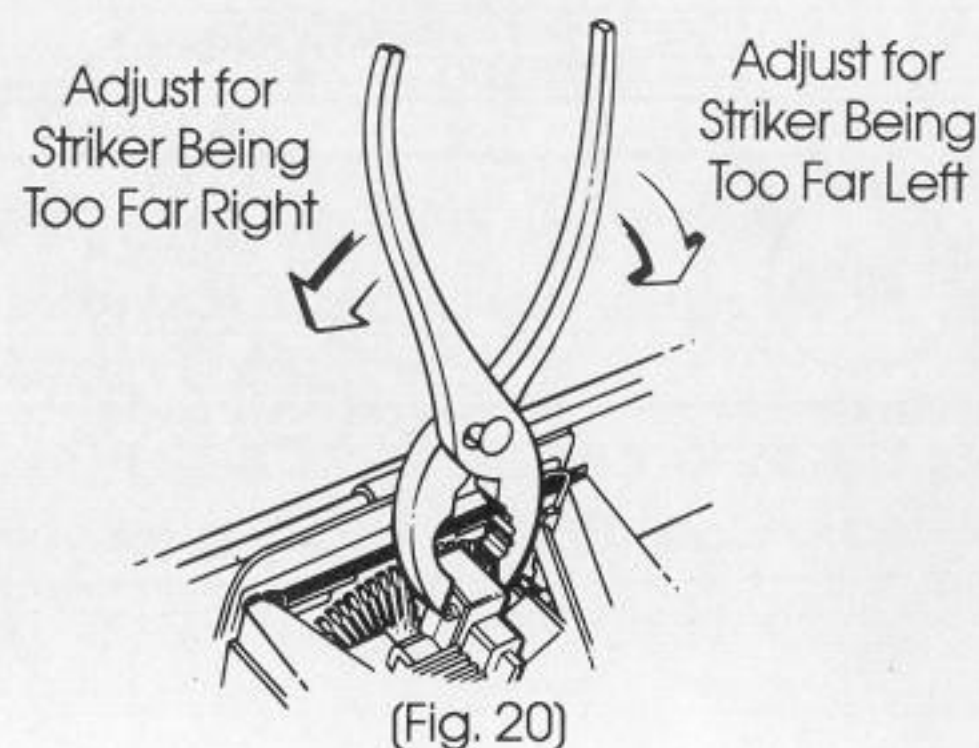
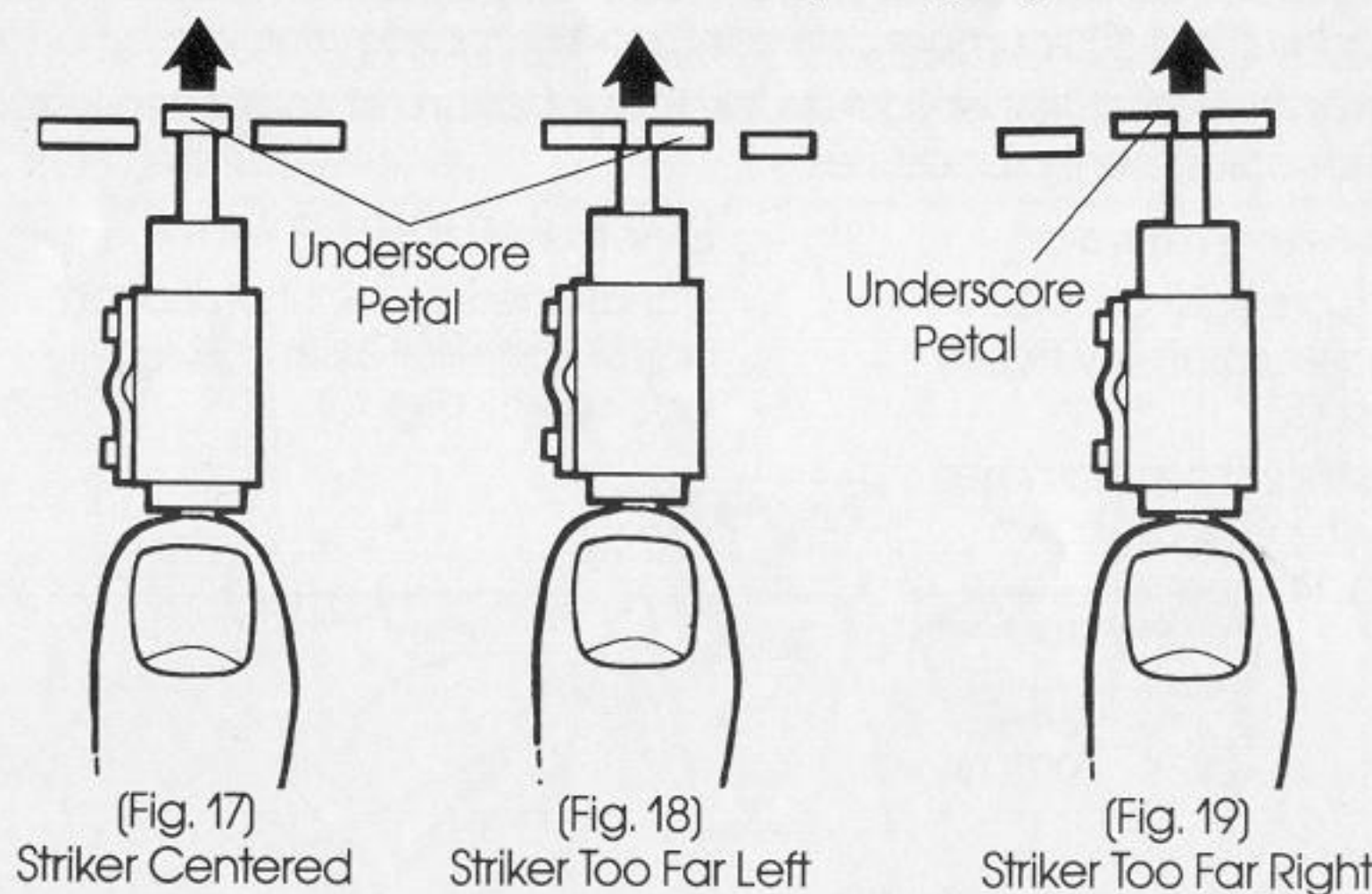


Glue

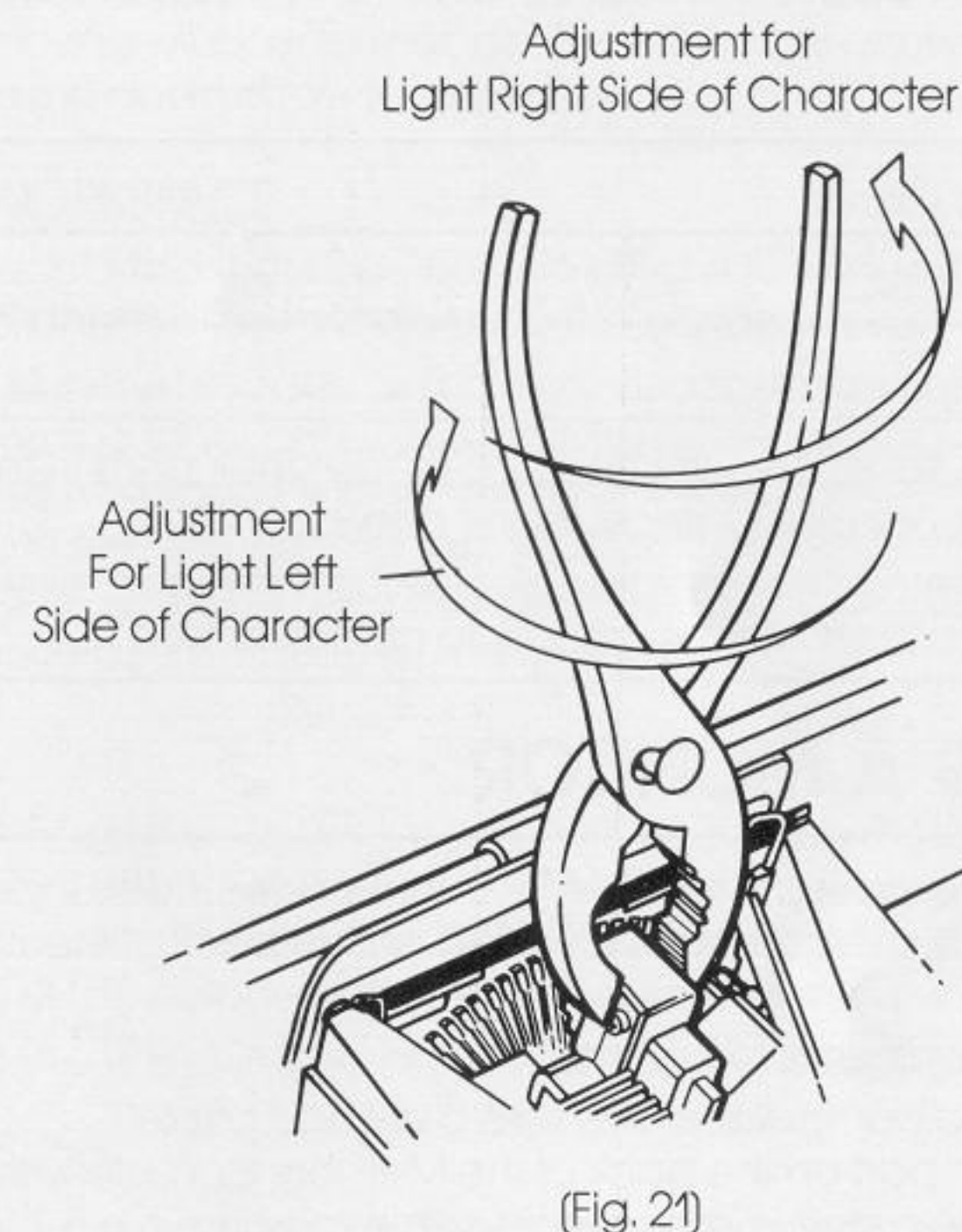
(Fig. 16)

EXAMPLE: 888 3 38 3 388333 3 3 3333

- A. Remove printer cover (See note on page 10.)
- B. Turn system on and insert paper.
- C. Press space bar to move print head to center of page. Then press underscore key by holding down the shift key and the number 6 key.
- D. Push the metal hammer striker forward with your thumb and observe if striker is centered on underscore petal. (Figs. 17, 18 and 19.)
- E. If hammer striker is not centered on the daisy wheel petal, adjust slightly as shown in figure 20 until hammer striker is centered. (See Fig. 17.)



NOTE: Check print after each slight adjustment.



CHECKING A COLECOVISION® GAME CARTRIDGE

CAUTION: Make sure that there are no data packs in the computer. Then turn the computer off by sliding the OFF/ON switch on the back of the printer to OFF.

Insert a game cartridge in the cartridge slot with the label facing toward the front of the unit. Make sure the cartridge is pushed in all the way. Then turn the OFF/ON switch on the back of the printer to ON. (**NOTE:** The ColecoVision® OFF/ON switch must always be left OFF when Expansion Module #3 is attached.)

If you are using the ADAM™ system, pull the Cartridge Reset switch toward you and release. The ColecoVision® Title Screen should appear.

If you are using Expansion Module #3, press the ColecoVision® Reset button on the ColecoVision® console. The ColecoVision® Title Screen should appear.

If the ColecoVision® Title Screen does not appear, turn the computer OFF and remove the cartridge.

- Re-check Steps 1 and 2 (see pages 2 through 4) and make any necessary adjustments.
- Repeat the above steps.

During game play, if there is no sound:

- Turn up the volume on your TV.

If the keypad or control stick does not respond:

- Make sure that the game controllers are firmly inserted in their ports in the right side of the computer or in the ColecoVision® console.
- Make sure that Player 1 is using the controller plugged into the port marked "1" and Player 2 is using the controller plugged into controller port "2."

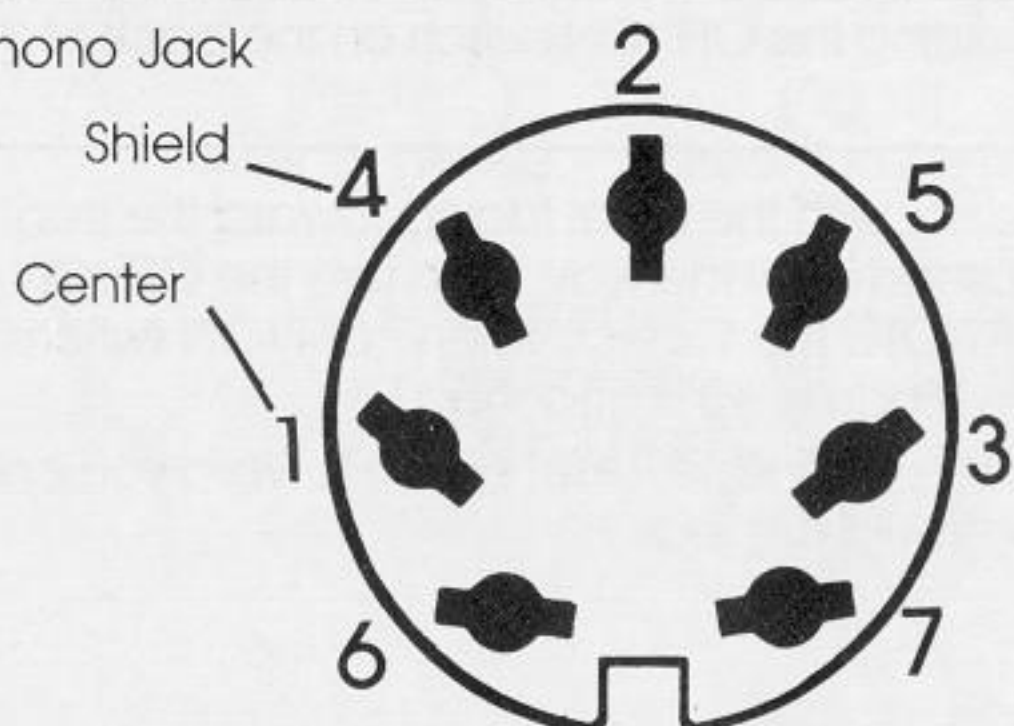
IF YOU ARE USING A MONITOR

- Make sure that the cable supplied with ADAM™ connects the video input port on the monitor to the port marked "MONITOR" on the back of the Memory Console.
- Make sure that the monitor is set for 75 Ohms.
- To receive sounds from the computer, make sure a second cable connects the "AUX VIDEO" port on the back of the Memory Console with the audio input port on the monitor. This second cable must have a 5-pin male DIN connector on one end and a standard phono jack on the other end. If it is necessary to wire this cable, use the following chart for proper wiring:

5-pin DIN Pin 1 to center of phono jack
Pin 4 to shield of phono jack

NOTE: UNLESS A PRE-WIRED CABLE IS SPECIFICALLY LABELED THAT IT WORKS WITH ADAM,™ IT IS UNLIKELY TO WORK.

Phono Jack



7 PIN CONNECTOR ON ADAM™
AS SEEN FROM BACK OF
MEMORY CONSOLE

PINS 6 & 7 ARE NOT ON A 5-PIN
CONNECTOR

PIN 1 = AUDIO

PIN 3 = COMPOSITE VIDEO

PIN 4 = GROUND

NOTE: A 5-pin DIN connector is recommended as 7-pin DIN connectors are not readily available.

WORD PROCESSING TIPS

ARROW KEYS

The Arrow Keys should be used to move the cursor over existing text. Blank lines must be created using RETURN or the space bar.

In the moving window format, don't use the right arrow to move the cursor to the next line. Use the down arrow to move down.

FULL WORKSPACE

Most people find that large files are difficult to work with and edit. A file that contains about 5 pages of text seems to be the preferred size.

Do not fill the workspace completely. If you completely fill the workspace, you will hear warning tones and will see the following message displayed: WORKSPACE FULL. Once the workspace is filled, you must first use the CLEAR SCREEN Smart Key to remove a screen's worth of text. You can then PRINT or STORE the rest of the text in the workspace. After you have completed one or both of these tasks, you can CLEAR the workspace and continue typing.

HI-LITE

Whenever you use HI-LITE to mark text, be sure the red hi-lite line is below all of the characters and spaces you want to mark.

If you are using the MOVE or COPY command, be sure the beginning HI-LITE and the ending HI-LITE include both the spaces and text you want to move or copy.

Use the HI-LITE ERASE Smart Key to remove extra highlighting from the screen.

KEYBOARD

The LOCK key lets you type capital letters. To cancel the LOCK key, press it once. The LOCK option is automatically cancelled when you press HOME, INSERT, DELETE, CLEAR, MOVE, COPY, or BACKSPACE.

If you are trying to type, but the characters don't appear on the screen, and a buzz is heard each time you press a key, check the Smart Keys to see if you have forgotten to complete a task. (See RETURN for additional tips.)

MARGINS, TABS, TYPE OF PAPER

Each file can have only one set of margins, one kind of line spacing, and one size of paper.

Whenever you change the horizontal margins on text you've typed, you should check paragraph indentations and other tabs to be sure they're where you want them.

Text with many blank lines may require a slight reduction of the bottom margin setting.

When you GET a file from the digital data pack, check the margin settings and type of paper to be sure they're the ones you want. The original margin settings, line spacing, and type of paper (legal or letter size) are stored with the file.

When you are using word processing and your line length is less than 36 characters, there's no need to use the moving window format. The text will be displayed, line for line, as it will print in the standard format.

If your left margin is very close to your right margin, long words may be broken in strange places.

MOVE/COPY

A maximum of one screenfull of text can be moved or copied at one time. If you need to move or copy more text than you can fit on a single screen, repeat the task as necessary.

After you have moved or copied text, always check your work to be sure you haven't added or deleted spaces between words by mistake. Use the INSERT or DELETE commands to make corrections.

PRINT

If you are printing without paper in the printer, press the ESCAPE/WP key. You can then put paper in the printer, and start printing all over again.

The printer will accept both single sheets of paper and fanfold paper. As with most daisy wheel printers, fanfold paper can become crooked during printing. If you use fanfold paper, you should use a tractor feed attachment.

It's a good idea to store your text on a digital data pack before you PRINT.

If you are printing more than one page, and the printer does not stop at the end of the paper, try inserting an END PAGE at the appropriate location in your text, or adjusting the bottom margin.

COMBINING FILES

You can combine files by bringing them onto the screen one after another. When you merge files in this way, the margins, tab stop settings, and paper type for the new, combined file will be the same as those for the last file you got from the digital data pack. It's a good idea to check margins, tab settings, and paper type before printing when you have combined files. Anything in the workspace when you GET stays in the workspace—the text you GET is added to what's already there. Before you GET a file, always check what's on the screen and in the workspace. If necessary, CLEAR the text before getting a file.

If you put together two large files, you may find that you cannot fit both into the workspace at the same time. A message will be displayed that tells you this. Press the ESCAPE/WP key. ADAM™ will bring as much of the last file as it can into the workspace. (See Full Workspace for additional tips.)

RETURN

When you are typing lines of text that do not go all the way to the right margin, use the RETURN key to tell ADAM™ when to go to the next line. If you use an Arrow Key instead of RETURN, ADAM™ may combine your short lines of text into one long line. Use only the RETURN key to create blank lines in your text.

If you're trying to put a RETURN at the end of a line and you hear a buzz, press INSERT, then RETURN, then Smart Key VI, DONE.

If your printed text has an extra blank line between some paragraphs, you may have put in an extra RETURN. Look at the last line in the paragraph. If it ends exactly at the right margin of your page, you probably typed two RETURNS in a row, and one of them was not needed. Delete the unnecessary return.

Note that a line that is blank and does not even contain a RETURN character (◀) will not remain in the text.

Always INSERT text before a RETURN character, not after.

FORMATTING/INDENTING

In order to indent a line, make sure to press RETURN at the end of the previous line. Use TAB or the spacebar to indent. If you forget to press RETURN on the previous line, the line will not be indented. If more than one line is to be indented, use this procedure to indent each line.

SEARCH/REPLACE

When SEARCHING, ADAM™ doesn't make a distinction between capital and lower case letters. **ADAM™ does pay attention to upper and lower case letters when replacing text.**

You can SEARCH and REPLACE for text that contains special characters such as commas and periods, but these will not appear in the message area.

You can't SEARCH or REPLACE a group of characters that is longer than your line length.

SMARTBASIC™ FILES

For efficiency, SmartBASIC™ programs are compressed for display in SmartWRITER.™ Extra spaces are dropped, lines are put together, and PRINT is replaced by ?. When you display the same program again in SmartBASIC,™ it will look the same as when you typed it in.

STORE/GET

If you are trying to STORE or GET a file and get an error message, press the ESCAPE/WP key. You can then try again. If you're not successful in storing a file try another data pack; you can also PRINT the text so you'll have a hard copy.

When you bring a file on a digital data pack into existing text on your screen, the text coming from the data pack is inserted on the line below the line where your cursor is positioned.

SmartWRITER™ remembers the name of the last file you got, so if you change that file and want to store it under the same name, don't type the name again. Just press Smart Key VI. If you do type a file name that already exists and try to STORE, you will hear a buzz and see an error message. Press ESCAPE and begin the STORE command again, but use a different file name this time.

The spacebar is displayed as an underscore when you are typing a file name during the SmartWRITER™ STORE command.

If you lock a file in SmartBASIC™, you will not be able to delete that file in SmartWRITER™. If you want to delete a file through SmartWRITER™, you must first unlock it in SmartBASIC™.

If you fill up a data pack, you will get an error message when you try to store. You may have to delete two or three unwanted files of at least the size of your workspace to make room for the file you want to store.

You can print the file directory of a data pack using the SmartBASIC™ CATALOG command. First, insert the SmartBASIC™ data pack and pull the Computer Reset Switch. When SmartBASIC™ is loaded, remove the SmartBASIC™ data pack and put in the pack that contains your files. Type CATALOG and press RETURN. The file directory will be displayed on the screen. To print the screen, hold down the control key and press the P key.

If you want to use the STORE HI-LITE Smart Key, be sure you've highlighted the text you want to STORE. If you want to store highlighted text, but you forget to highlight any text, press ESCAPE. Then highlight the text you want to store, and repeat the STORE command.

If you use STORE-HI-LITE on text that contains underlines, the underlines will not be stored. If you want to store text and retain the underlines, use STORE SCREEN or STORE WORKSPACE.

VERTICAL AND HORIZONTAL MARGIN SCALES

The horizontal margin scale, located at the top of your screen, shows you how far across your page your cursor is at any time. This is especially helpful when you are in the standard format where a single line of text is "folded over" on the roller.

You can also use the horizontal margin scale to help you line up columns of text.

The vertical margin scale is located on the left side of your screen. It shows you what type of paper you should use for printing your text and approximately how far down on a page your cursor is at any time.

To approximately center text vertically on a page, press RETURN repeatedly until the white cursor on the vertical margin scale is halfway between the red margin markers.

WORD WRAP

ADAM™ does not hyphenate words at the end of a line. Instead, if a word won't fit on a line completely it is moved to the next line automatically.

This automatic shifting of words is called WORD WRAP. ADAM™ will wrap a word whenever the word and the following space won't fit on a line, or a word and its following punctuation mark won't fit completely on a line.

If a punctuation mark is enclosed within a quotation mark and falls at the end of a line, the quotation mark may wrap onto the next line.

SMARTBASIC™ TIPS

Don't turn ADAM™ on or off with a data pack in the drive. You may erase important information.

If you turn ADAM™ off or press either reset switch you will erase any program not stored on a digital data pack.

If you are unsuccessful in printing a program, save it on a data pack so you will have a copy.

It's not a good idea to use your SmartBASIC™ data pack to store files. If the power goes off while you are writing to the data pack, you may not be able to use it anymore. Remember that you can't fix the SmartBASIC™ data pack with INIT. Also all data packs will wear out eventually. It's best to take your SmartBASIC™ data pack out and put it away after SmartBASIC™ is loaded.

HIGH RESOLUTION GRAPHICS

The high resolution graphics screen is 256 wide (0 to 255) but as many as the first 8 columns (0-7) may not show up on some TVs.

If you try to plot two colors next to each other in HGR or HGR2 mode you may see strange results. There is nothing wrong with your computer, it's the way the video chip that gives ADAM™ all those beautiful graphics works. You won't have any problems with lines of one color on the black background; just when two colors are near each other.

ONSCREEN EDITING

Practice using the onscreen editing features to write and correct your program more efficiently. See "Programming with ADAM,™" The SmartBASIC™ Manual.

Explore to see where you must have spaces in your program. You will get error messages if you leave out necessary spaces, but extra spaces seldom result in errors.

OPENING AND CLOSING FILES

Close an open file before trying to delete it. Closing an already closed file won't hurt. You can spot open files by looking at the directory using the CATALOG command. Open files that will cause problems will fill all or almost all of the available tape space. When a new file is OPENed for writing, SmartBASIC™ doesn't know how big the file needs to be. So it sets aside all the rest of the space on the data pack for the new file. When you CLOSE the file, you get back any space that is no longer needed. Sometimes this can cause problems if you try to open two new files at once. If you need two new files open, you might OPEN them and CLOSE them one at a time, then OPEN them again. This will give you two small files (1K) to work with at the same time. APPEND will also temporarily take up the whole data pack, just like OPEN with a new file. Note that the CHR\$(4) must be the very first character on a line. At times, you must use: PRINT CHR\$(13); CHR\$(4); "command."

PRINTING

Everything "printed" goes to the screen unless you tell ADAM™ to print on the printer using the PR# command. See PR# in "Programming with ADAM,™" The SmartBASIC™ Manual.

If you press the P key while holding down the Control key, the printer prints the words on the screen. It is difficult to stop the printer at this point without losing the program. If pressing the control and C keys does not stop the printer, you must wait until the print is complete to continue programming.

If you are not successful in saving a program, be sure to print your program on the printer so you will have a copy.

STOPPING A PROGRAM

To stop a program, hold down Control and press the C key. It is possible to write a program that can't be stopped by Control/C (for example, 10 GET Q\$:GOTO 10). If this happens, you must press the Computer Reset switch. Use this as a last resort, because you will lose the program.

MACHINE LANGUAGE PROGRAMS

If you want to put machine language programs or shape tables in a place that will be safe from any changes in your program, change LOMEM:. The following example will give you a space of 100 bytes. Making LOMEM: higher is okay, but it also makes your workspace smaller.

```
LOMEM:28100
```

Store your machine language program starting at address 28000. See CALL in "Programming with ADAM," "The SmartBASIC™ Manual."

THE GET STATEMENT

The SmartBASIC™ GET statement can be used to get characters from data or text files one character at a time. This is very useful for manipulating text with commas, returns, and other punctuation. Be sure to use the GET statement with a string variable. This program shows you how:

```
10 d$ = CHR$(4)
20 PRINT d$; "open test"
30 PRINT d$; "write test"
40 FOR i = 1 TO 5
50 PRINT i;
60 NEXT
70 PRINT d$; "close test"
80 PRINT d$; "open test"
90 PRINT d$; "read test"
100 FOR i = 1 TO 5
110 GET a$
120 PRINT a$;
130 NEXT i
140 PRINT d$; "close test"
```

ZERO VERSUS O

The number zero and the letter O are different. The zero has a slash through it on the keyboard and screen, but looks just like the letter O on the printer.

ROUNDING

To round off to the nearest cent use the INT function like this:

```
INT(100*n + .5)/100.
```

This example prints out the number stored in variable "n" rounded to the nearest cent. To round to the nearest whole number, use:

```
INT(n + .5)
```

TAB FUNCTION

TAB works best if you keep the tab to 31 or less for the video screen and 80 or less for the printer. Larger TABs (up to 255) will work but may give strange results as the text wraps around. Sometimes HTAB or SPC is more appropriate than TAB.

ADDITIONAL TIPS

Like all electronic equipment, ADAM™ should be used and stored in a cool place. The vents in the computer's housing should be kept free so air can circulate inside the computer. For example, continuous feed paper should not block the air vents on the rear of the printer.

If you move the print mechanism during a print job, wait about 30 seconds before resuming the print.

On rare occasions, you may have no response from the keyboard. If this happens, try unplugging the keyboard from the Memory Console and then plugging it back again keeping the power on.

You can load pre-programmed data packs at any time by putting the data pack in the drive and pulling the COMPUTER RESET switch. Anything that was not previously stored or saved when you use COMPUTER RESET is lost. Do this with a SmartBASIC™ Digital Data Pack in the drive to load SmartBASIC.™ Do this with a Super Game Pack to start the game.

