FingerPrint® G+
Enhanced Parallel Graphic Printer Interface Card for the Apple II+/IIe/IIGS.

Owners Manual

THIRDWARE COMPUTER PRODUCTS
A Division of Precision Software, Incorporated
The
FingerPrint™ G+
Parallel Printer Interface

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4747 N.W. 72nd Avenue
Miami, FL

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Thirdware Computer Products, Inc. maintains a strong commitment to customer service and to full support of all its products. To qualify for our continued service it is necessary for the owner to complete the warranty registration immediately and mail it to Thirdware Computer Products, Inc. 4747 N.W. 72nd Avenue Miami, FL 33166.

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If, within two years of purchase, your Fingerprint G+ should prove defective in any way, Thirdware Computer Products will exchange it or repair it at no charge. In order to return a product please write or call for a Return Merchandise Authorization number (RMA). Upon obtaining the authorization to return the merchandise, please send the merchandise to Thirdware Computer Products together with a copy of your sales receipt, for a no hassle repair or exchange. However, please do not return the card without the RMA number.

Support Line

We are committed to providing all users of Fingerprint G+ with the support and assistance they need to derive full benefit from our products. Should you need assistance of any kind call Customer Service at (305) 592-7522.
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1 The FingerPrint G+ Printer Interface

The Apple II is purposely made to accept expansion boards. The owner can add the serial or parallel printer interface that is appropriate for the kind of printer connected to the computer.

What It Is

The FingerPrint G+ is a small circuit board that sends data from the Apple II to your printer. It plugs into an empty slot on the main circuit board, the motherboard, of your Apple II.

What It Does

The FingerPrint G+ operates automatically through your software or if writing your own programs, through simple keystroke commands. It enables the programmer to print screen graphics, or text in full color or black & white. It will send commands to the printer to set page margins, line length, line feed, and page length, etc. If you are using commercially prepared software, these features are done by the software. The FingerPrint G+ will let you dump the screen to the printer, rotate the screen-dump 90 degrees, double its size, etc.

The FingerPrint G+ is compatible with the majority of brand name printers. The FingerPrint G+ offers more flexibility with the computer and the printer than with any other printer interface.
Warranty

Important: Save the Sales Receipt. The FingerPrint G+ comes with a two year no hassle warranty. If there is ever a problem with the FingerPrint G+ Printer interface during the warranty period, write or call Thirdware for a Return Merchandise Authorization, then return it to: Thirdware Computer Products, Inc. 4747 N.W. 42nd Avenue Miami, FL 33166 along with the sales receipt for a no hassle repair or exchange.
3 How It Works

The FingerPrint G+ works in either of two ways:

- If commercially prepared software is used, the FingerPrint G+ acts only as a passive device that sends your data to the printer. The card works by itself. Plug it in and forget it.

- But, if the computer is being used in BASIC, or any computer language then, through keyboard commands or a print statement in the program, the interface card will respond, and tell the printer how the operator desires the data to be printed.

**WAIT!**

Don't install it yet. You must set the Dip Switch for your printer. Setting the Dip Switch is easier if the card is not installed in the computer.
Prior to installation, find the small group of 8 switches mounted on the card. This is called the Dip Switch. Locate your printer on the printer chart below, and set each switch handle on the dip switch to either on or off, according to the chart. The switch will show 1 and 0. 1 is on and 0 is off. If your printer is not listed, ask your dealer which of the below is compatible and use those settings.
# Dip Switch Printer Settings

<table>
<thead>
<tr>
<th>Printer</th>
<th>Switch</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<td>Apple DMP</td>
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<td>1</td>
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<tr>
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<td>1</td>
<td>0</td>
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</tbody>
</table>

*Switch Number One on the dip switch to control line feed after carriage return. Line Feed advances the paper one line.

If switch One is set to Off there will be no line feed sent to the printer after carriage return.

The IDS printers require a special cable or a modification to the cable supplied with FingerPrint G+. Your dealer is the person to help you get the correct cable.
Installation requires no tools or special knowledge.

1. First unplug your Apple II. Unplug and remove the monitor. Then place both hands at the rear of the Apple's top and lift up on the two tabs, separating the velcro fastener.

2. Slide the top towards the rear and lift the top off. As you look inside the computer, you will see a metal box to your left. It is the power supply.

Cable should run to the right, away from the component side of the circuit board. The cable should never cross over the top of the board.
3. Locate the empty slot marked number 1 next to the power supply. Note: If at all possible, Slot 1 should be used. Most programs will search for the printer interface in slot 1; however it will work in any other slot except 0. If you insert the FingerPrint G+ in any other slot, remember which slot number it is. If you write your own programs, you will have to tell the computer the slot number when you turn the FingerPrint G+ on.

4. To plug in the board: Align the copper strips on the projected part of the board with the socket and push the card in with a gentle rocking motion. Be careful not to upset the dip switch settings. The board is designed so it will only go in one way.

5. To plug in the cable: Guide the small end of the cable into the nearest chassis opening and plug it into the board. It may be easier to insert the cable through the chassis opening and plug it into the board before plugging the board in. Then plug the other end into the printer. Refer to photograph number two for correct placement of the plug on the board.

6. Replace the cover. Replace the monitor, plug them all in and you’re ready.

Important: If you do not plan on writing your own programs then there is nothing else you need to do. Close the computer and get started. The rest of the manual is for those who write their own programs.

Quick Installation Summary

1. Set the Dip Switches on the board, according to the printer chart.
2. Remove the Apple’s cover.
3. Insert the interface board in the slot nearest the power supply.
4. Pull the small connector on the cable into the computer through the nearest chassis opening and plug into the board.
5. Plug in the large cable connector into the Printer.
6. Replace the cover, replace the monitor.
7. Plug the Apple in. You’re through.
Testing the Installation

Insert an Apple DOS disc into drive 1, and turn on the computer and the printer. When the prompt "\" appears on the screen, type PR# (NOTE: Type PR#1 if you have installed the card in slot #1. Type PR#2 if it is in Slot #2 etc.) This turns the interface card on. Press the return key. Each time you press return, the printer will print the prompt and feed one line. If not, double check the installation instructions or the summary and make sure everything is plugged in and turned on. If there is still trouble and your dealer cannot help, call the FingerPrint G + Help line (305) 592-7522.

CP/M Test

If the Apple is used with a CP/M operating system, the interface card must be in slot 1. When the "A:\" prompt appears on the screen, press Control, hold it down and press "P". Release both keys.

This executes the command that turns the FingerPring G + card on, when in CP/M. The printer will not react visibly to this command, but everything typed on the screen will be sent to the printer when you strike Return.

Repeating the same command will turn the FingerPrint G + card off when in CP/M.
FingerPrint G+ is ready to use immediately after installation. When writing your own programs, commands are sent, in BASIC, by pressing Control, the capital letter "I", holding both down, releasing and pressing one of the keys listed below for the command. No space or hyphen between the I and the command is needed.

Operation Commands

Use these commands to set up your card. Depress the Control and the I, hold both, release and strike the command letters.

1. The commands show a hyphen between the control and the letter I. It should not be typed.

2. Where you see the small letter n, you must insert a number in its place. For example, if you want the line length to be 30 characters long, you would use Control-I 30 N.
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If you have suggestions or ideas for products to meet your special needs, let us hear from you. Together, we can make a difference.

We hope that you enjoy our product!

(Fold Here)

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4747 NW 72nd Avenue
Miami, FL 33166
ACCESSORIES ORDER FORM

Use this form when you wish to order accessories or replacement parts for your FingerPrint® card. To order, just provide the quantity of each respective product and fill in the total at the bottom of the form. If you wish to pay by credit card, please be sure to provide the information regarding account number, date of expiration and name of card holder. If you are paying personal check, please make out the check to: “Thirdware Computer Products”.

It is very important that you also check to make sure that you have filled out your address correctly and provided us with a day time telephone number where you can be reached if any questions arise.

Method of payment:  [ ] Check enclosed $ _________  [ ] Credit Card

Name:

Address:

City:_________  State:_________  Zip Code:_________

Day-Time Phone #:_________  Credit card: [ ] MC  [ ] Visa

Account #:_________  Date of Exp.:_________

---

FINGERPRINT® ORDER FORM

<table>
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<tr>
<th>Quantity</th>
<th>Description</th>
<th>Price</th>
<th>Total</th>
</tr>
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<td></td>
<td>FingerPrint parallel cable</td>
<td>$28.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FingerPrint ImageWriter II cable</td>
<td>$28.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FingerPrint serial cable</td>
<td>$28.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FingerPrint communications cable</td>
<td>$28.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FingerPrint upgrade</td>
<td>$35.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FingerPrint activator button</td>
<td>$9.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FingerPrint manual</td>
<td>$8.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FingerPrint * Slide-Show</td>
<td>$15.00</td>
<td></td>
</tr>
</tbody>
</table>

Sub TOTAL..................................................$ ______

Shipping & Handling add $3.50 $ 3.50

Florida residents add 6% sales tax $ ______

TOTAL..........................................................$ ______

* Indicate which FingerPrint card you own: Plus, GSI, SS or G+
Thirdware Computer Products publishes a user's newsletter six times annually. The newsletter contains tips and ideas on how to use the FingerPrint® card at home, in the office and in the classroom to create materials and make yourself more effective.

Fill out the application below, and send it to Thirdware Computer Products together with your check for US $5.00 (in USA, otherwise US $10.00) or we will not be able to process your subscription.

☐ Please send me the "FingerPrint® User's News Letter" for one year. Enclosed is my check for $ to cover postage and handling costs.

Name: ________________________________
Address: ________________________________
City: __________________ State: ______ Zip: ______

FINGERPRINT® WARRANTY CARD

Name: ________________________________
School/Organization: ________________________________
Address: ________________________________
City: __________________ State: ______ Zip: ______
Title: __________________ Schl/Off Phone: __________________

Product: [ ] FingerPrint GSi [ ] FingerPrint Plus [ ] FingerPrint LLC
[ ] FingerPrint SS [ ] FingerPrint G+ [ ] Other: ______

Date of Purchase: __________
Purchased From: ________________________________

What computer magazines do you read regularly?:
[ ] A+ [ ] InCider [ ] Nibble [ ] Compute [ ] Personal Computing
[ ] Electronic Learning [ ] Classroom Computer Learning [ ] THE Journal

How did you learn about FingerPrint?: [ ] Magazine [ ] Dealer [ ] Friend

We welcome your comments: ________________________________

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Miami, FL 33166
7 Text Commands

To Print Text

<table>
<thead>
<tr>
<th>Command</th>
<th>Control Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Feed</td>
<td>Control-I A</td>
</tr>
<tr>
<td>High Order Bit</td>
<td>Control-I H</td>
</tr>
<tr>
<td>Cancel Line Feed</td>
<td>Control-I K</td>
</tr>
<tr>
<td>Left Margin</td>
<td>Control-I nL</td>
</tr>
<tr>
<td>Line Length</td>
<td>Control-I nN</td>
</tr>
<tr>
<td>Page Length</td>
<td>Control-I nP</td>
</tr>
<tr>
<td>Screen Dump (40 Col)</td>
<td>Control-I S</td>
</tr>
<tr>
<td>Transparent model</td>
<td>Control-I T</td>
</tr>
<tr>
<td></td>
<td>or Control-I Z</td>
</tr>
<tr>
<td>Print Version</td>
<td>Control-I V</td>
</tr>
<tr>
<td>Cancel High Order Bit</td>
<td>Control-I X</td>
</tr>
<tr>
<td>Changing Control Character</td>
<td>Control-I Control-Y</td>
</tr>
<tr>
<td>80 Column Text Screen Dump</td>
<td>Control-I 8S</td>
</tr>
<tr>
<td>Print Page 2</td>
<td>Control-I 2S</td>
</tr>
</tbody>
</table>

Print Statement Commands

The print statement is an alternative way of sending printer commands. The command is placed within the program to print what the user wants the printer to do.

In writing print statement commands the FingerPrint G + must first be turned on or off by using the commands:

```
PR#1 (for Slot #1) for on, and PR#0 for off.
```

If FingerPrint G + is installed in a slot other than #1, to turn it on use PR# and the number of the slot it is in. Remember, the FingerPrint G + will not operate in slot Zero.

For Apple 40 column test with the following program:

```
10 PR#1
20 PRINT CHR$(9);"S"
30 PR#0
RUN
```
If your Apple II has an 80 column card try this:

```
10 PR# 1
20 PRINT CHR$(9); "8S"
30 PR#0
RUN
```

The contents of your screen should be dumped to the printer. If not, check to see that everything is plugged in and switched to on. If you still have problems call our Help Line (305) 592-7522. Note: This command also works with Videx Super Term and Videx Ultra Term.

Formatting a Printed Page

When a printed page is formatted it is given boundaries. How long, how wide etc. Most word processing programs enable the user to set the boundaries of the page and thus format it.

If you are not using a word processor you may use FingerPrint G+ text commands to set up your card and give your page the layout you want.

Note: In the commands below where a small n is indicated, insert the number you want in place of that small n. For example, if the line length is 80 and the command is Control-I nN the command would be Control-I 80N. (replacing 80 for the n).

Text Command Explanations

<table>
<thead>
<tr>
<th>Line Length</th>
<th>Control-I nN</th>
<th>PRINT CHR$(9); &quot;80N&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sets line length. The “n” (n = number) designates the number of character spaces from the left edge of the page where the line will end. A carriage return will be sent after the nth character. This command causes the monitor screen to be turned off and data sent only to the printer. If the line length is set for 0, the FingerPrint G+ will not send a carriage return until the Apple sends one.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Left Margin</th>
<th>Control-I nL</th>
<th>PRINT CHR$(9); &quot;10L&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sets the left margin to nth column. All subsequent printing will have “n” spaces at the beginning of each line.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Page Length
Control-I nP  PRINT CHR$(9);“60P”
Sets the page length to the number of lines. The FingerPrint G+ will send a form feed after the number of lines specified has been printed. If a page length of 60 lines has been specified the printer will print 60 lines and send a form feed command. A Zero page length disables this function.

Add Line Feed
Control-I A  CHR$(9);“A”
This command adds a line feed to the carriage return. In BASIC a line feed after a carriage return will not be sent. This command automatically advances the paper after each carriage return. If the printer spaces two lines, check the dip switch on the printer that sends the line feed. When it is set and the Control I A is used, two lines feed are being received by the printer.

Cancel Line Feed
Control-I K  PRINT CHR$(9);“K”
Does not add a line feed to the carriage return. Cancels Control I A.

Screen Echo
Control-I I  PRINT CHR$(9);“I”
This command allows you to send to the screen the data that is being sent to the printer.

Stop Screen Echo
Control-I nN  PRINT CHR$(9);“80N”
Turns off Screen Echo.

Screen Dump
Control-I S  PRINT CHR$(9);“S”
Page 1, 40 column
Sends the 40 column screen to the printer.

Screen Dump
Control I 2S  PRINT CHR$(9);“2S”
Page 2, 40 column
Sends Text Page 2 to the Printer.

Cancel High Order Bit
Control I X  PRINT CHR$(9);“X”
Does not send the 8th bit, high order bit, puts the printer back into normal text mode and overrides the Control I H command.
Change Control  Control I Control Y  PRINT CHR$(9);CHR$(25);
Changes the Control character from Control I to Control Y. Use Control Y
when entering commands in CP/M or PASCAL.

Screen Dump  Control I 8S  PRINT CHR$(9);“8S”
80 column
Sends the 80 col. screen to the Printer. Supports Videx Super Term and Videx
Ultra Term.
Text Screen Dump Commands

The text screen dump sends whatever text data is on the screen to the printer. Find your computer on the following table and use the command indicated for Text Screen Dump:

<table>
<thead>
<tr>
<th>Computer</th>
<th>Display</th>
<th>Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple IIe/II+</td>
<td>40 column Applesoft</td>
<td>Control-IS</td>
</tr>
<tr>
<td>Apple IIe/II+</td>
<td>40 column CP/M</td>
<td>Control-YS</td>
</tr>
<tr>
<td>Apple IIe</td>
<td>80 column Applesoft</td>
<td>Control-I 8S</td>
</tr>
<tr>
<td>Apple IIe</td>
<td>80 column CP/M</td>
<td>Control-Y 8S</td>
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<td>Apple II+</td>
<td>80 column</td>
<td>Control-I 8S</td>
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<td>Apple II GS</td>
<td>40 column Applesoft</td>
<td>Control-I 8S</td>
</tr>
<tr>
<td>Apple II GS</td>
<td>40 column CP/M</td>
<td>Control-YS</td>
</tr>
<tr>
<td>Apple II GS</td>
<td>80 column Applesoft</td>
<td>Control-I 8S</td>
</tr>
<tr>
<td>Apple II GS</td>
<td>80 column CP/M</td>
<td>Control-Y 8S</td>
</tr>
</tbody>
</table>

For a Quick Screen Dump:

- Insert a system disc into drive 1, close the door and switch the computer to on.
- Turn the printer on and make certain it is on-line.
- After the monitor screen has the text you want to dump to the printer, type one of the commands listed above.
- The printer should be printing the screen.
9 Graphics Commands

Color Screen Dump ................................................. Control-I GC
Screen Dump Low Res Page 1 ............................ Control-I Gl
Screen Dump Low Res Page 2 ............................ Control-I G2l
Screen Dump Hi Res Page 1 ............................ Control-I G
Screen Dump Hi Res Page 2 ............................ Control-I G2
Screen Dump Pages 1 & 2 ............................. Control-I GS
Screen Dump Double Hi-Res ............................. Control-I Ge
Double Size ................................................... Control-I GD
Inverse ........................................................ Control-I GI
Rotate ........................................................ Control-I GR
Text Window .................................................. Control-I GM

FingerPrint G + lets you print double sized, rotate the screen 90 degrees, and print the inverse of the screen display. Inverse means everything that is dark on the screen will be dark on the paper and vice versa. You can dump graphics to the printer, and print a picture that has been saved on disc. you can print Lo-Res or Double Hi-Res, Page One or Two, or print them side by side.

To do a graphics screen dump in Applesoft BASIC press:

        Control-I G

All graphic commands begin with, and contain the Control-I G command. By typing a letter command after Control-I G, many variations are possible. Commands can even be strung together, typing several commands after the Ctrl-I G.

To print a graphics screen Double-Size, press:

        Control-I G D

To print a graphics screen Rotated 90°, press:

        Control-I G R

To print a graphics screen Double-size and Rotated 90° press:

        Control-I G D R
To print a graphics screen Double-size, Rotated 90°, Inverse and Hi-Res Page 2, press:

Control-I G D I R 2

To print a graphics screen in color use the command C.

Control-I G C

Explanation of Hi-Res Page 1 & Page 2

The term resolution refers to the density of the dots and the size of the dots on the screen, the greater the number of dots the higher the resolution. In Lo-Res, the dots are fewer and bigger in size. In Double Hi-Res they are smaller and packed more closely together. There are locations in memory set aside for Hi-Res called Page 1 and Page 2.

To print a picture the computer must be told which page to print. A picture may be loaded into either page 1 or page 2. The FingerPrint G+ is set up to automatically print Page 1. If you want to print page 2 you must tell it. If not, it will print page 1.

The memory location for page 1 is A$2000
The memory location for page 2 is A$4000

Graphics Command Explanations

<table>
<thead>
<tr>
<th>Screen Dump Page 1</th>
<th>Control-I G</th>
<th>PRINT CHR$(9);“G”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prints Hi-Res screen page. Every white dot on the screen will be a black dot on the paper. To reverse this use the Inverse command.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Screen Dump Page 2</th>
<th>Control-I G 2</th>
<th>PRINT CHR$(9);“G2”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prints Hi-Res page 2.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Screen Dump Pages 1 &amp; 2</th>
<th>Control-I GS</th>
<th>PRINT CHR$(9);“GS”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prints Hi-Res Pages 1 and 2, side by side.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Double Hi-Res Screen Dump**

Control-I Ge  PRINT CHR$(9);"Ge"

For use with Apple IIe models Rev B or later. Requires 80 column card.

**Double Size**

Control-I GD  PRINT CHR$(9);"GD"

Prints the graphic screen double the normal size. Actually it is four times normal size, printing four dots on paper for every dot on the screen.

**Inverse**

Control-I GI  PRINT CHR$(9);"GI"

Makes a positive image into a negative. Prints every white dot on the screen as a white dot and every black dot on the screen becomes a black dot.

**Rotate**

Control-I GR  PRINT CHR$(9);"GR"

Rotates the graphics on the screen 90° clockwise. Text cannot be rotated.

**Text Window**

Control-I GM  PRINT CHR$(9);"GM"

Prints text within the graphics, in a window four lines high, at the left edge of the paper.

**Lo-Res Page 1 screen Dump**

Control-I GI  PRINT CHR$(9);"GI"

Dumps Page 1 in Lo-Res to the printer.

**Lo-Res Page 2 screen Dump**

Control-I GI 2  PRINT CHR$(9);"GI2"

Dumps Page 2 in Lo-Res to the printer.

**Color Screen Dump**

Control-I GC  PRINT CHR$(9);"GC"

Dumps the Screen in Color.
While running a program if you want to print a graphics picture do this:

1. Press control and reset at the same time. A copy protected program will not allow the interruption or allow the screen data to be printed. (Thirdware makes a product for the Apple II called FingerPrint + that has a wafer switch that adheres to the computer, it lets you immediately dump the screen to printer without interrupting the program.)

2. Turn on the FingerPrint G + by pressing PR#1 and press RETURN.


To Print a Picture Saved to Disc

Assuming the FingerPrint G + is on and the prompt "[" is on the screen, put the disc containing the picture you wish to print in Drive A. If the name of the picture is GRAPH type:

```
HGR
BLOAD GRAPH, A$2000
```

and press RETURN

The picture should be loaded to the screen. Remember to insert the name of your picture where we have used GRAPH. Then use Control I-G to dump the screen to the printer. After the picture is printed type TEXT and RETURN to get back to the text mode. If you want to print Page 2, you would substitute HGR2 and A$4000 and use Control-I G2 to print the picture.

While writing a program if you want to load a file:

For Page 1, type: `PRINT CHR$(4);"BLOAD [File's name],A$2000"`

For Page 2, type: `PRINT CHR$(4);"BLOAD [File's name],A$4000"`
To Print Hi-Res Pages Side-By-Side

With the FingerPrint G+ turned on, and both files loaded into pages one and two, use the command Control-I GS to print both pages.

In Applesoft, type the following program to print side by side. Remember to press RETURN after each line.

```
10 PRINT CHR$(4);"BLOAD GRAPH 1,A$2000"
20 PRINT CHR$(4);"BLOAD GRAPH 2,A$4000"
30 PR#1
40 PRINT CHR$(9);"GS"
50 PR#0:END
RUN
```
We have included a program to demonstrate text formatting in Applesoft. It will set up both right and left margins, line length and page length.

<table>
<thead>
<tr>
<th>Type this</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 I$ = CHR$(9)</td>
<td></td>
</tr>
<tr>
<td>20 PR#1</td>
<td>Turns FingerPrint G+ on</td>
</tr>
<tr>
<td>30 PRINT I$;&quot;80N&quot;</td>
<td>Sets line length</td>
</tr>
<tr>
<td>40 PRINT I$;&quot;60P&quot;</td>
<td>Sets page length</td>
</tr>
<tr>
<td>50 PRINT I$;&quot;10L&quot;</td>
<td>Sets left margin</td>
</tr>
<tr>
<td>60 FOR I = 1 TO 100</td>
<td></td>
</tr>
<tr>
<td>70 PRINT “EVERY GOOD BOY DOES FINE.”</td>
<td>Type two spaces between . and ”</td>
</tr>
<tr>
<td>80 NEXT I</td>
<td></td>
</tr>
<tr>
<td>90 PR#0</td>
<td>Turns FingerPrint G+ off</td>
</tr>
<tr>
<td>100 END</td>
<td></td>
</tr>
</tbody>
</table>

Turn your printer on, put it “on-line” and type RUN then press RETURN.
12 Default Settings

The FingerPrint G+ has been designed to operate with preset values. These values are already “programmed” in FingerPrint G+. They are the most commonly used values. They determine the length of a line, the width of a page etc. These preset values are called Default Settings. The FingerPrint G+ is made with pre-determined print values. So if you do not assign different values the pre-determined values we call Default Settings will be assumed by FingerPrint G+.

Default Settings

Left Margin: 0
Line Length: 0
Page Length: 0
Screen Display: On (in Applesoft, BASIC)
Screen Display: Off (with PASCAL and CP/M)
Line feed (after carriage return): Yes or No depending on Dip Switch setting. No with PASCAL and CP/M
Eighth bit

Custom Drivers

For writing your own drivers here are the locations used to access the card.
Y = N0 where N = Slot#

<table>
<thead>
<tr>
<th>Address</th>
<th>Read</th>
<th>Write</th>
</tr>
</thead>
<tbody>
<tr>
<td>$C080, Y</td>
<td>Status</td>
<td>Output</td>
</tr>
</tbody>
</table>

Note: When you write into $C080, Y a strobe signal to the printer is automatically generated.
Assembler Driver Sample

This list gives an example of how to output a character using these locations:

- **PHA**
  - ;SAVE OUTPUT CHARACTER ON STACK
- **LDY #10**
  - ;SET UP Y-REGISTER FOR SLOT I
- **BUSY**
  - LDA $C080,Y
  - ;CHECK STATUS FOR BUSY,
  - AND #08
  - ;CHECK BIT 3
  - BNE PAPER?
  - ;IF SET THEN BUSY, RECHECK
- **ACK**
  - LDA $C080,Y
  - ;CHECK STATUS FOR PRINTER ACK
  - AND #01
  - ;CHECK BIT 0
  - BEQ BUSY
  - ;IF SET THEN PRINTER IS BUSY
- **OUTPUT**
  - PLA
  - ;RESET OUTPUT CHARACTER
  - STA $C080,Y
  - ;STORE TO OUTPUT LATCH
  - RTS
  - ;RETURN FROM SUBROUTINE

If further programming support is needed, put your questions in the mail to TCP, 4747 N.W. 72nd Avenue, Miami, FL 33166.
Thirdware Computer Products is committed to providing all users of FingerPrint G+ with the support and assistance they need to derive full benefit from our products. Should you need assistance of any kind call (305) 592-7522.
Class B Peripheral Device - Certification

This equipment generates and uses radio frequency energy and may cause interference to radio and television reception if not installed and used in strict accordance with the manufacturer's instructions. It has been certified, type 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 FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: (1) Reorient the receiving antenna, (2) Reorient the computer with respect to the receiver, (3) Move the computer away from the receiver, (4) Plug the computer into a different outlet so that the computer and receiver are on different branch circuits. If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio TV Interference Problems". This booklet is available from the US Government Printing Office, Washington, DC 20402, Stock No. 004-000-00845-4. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. It is the responsibility of the user to correct such interference.
Unleash the full power of your Apple computer and take full control of your printer and software. Become more productive and more creative by using FingerPrint® enhancement products from Thirdware Computer Products, the personal computer enhancers. Makers of high quality computer enhancement products since 1983.

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