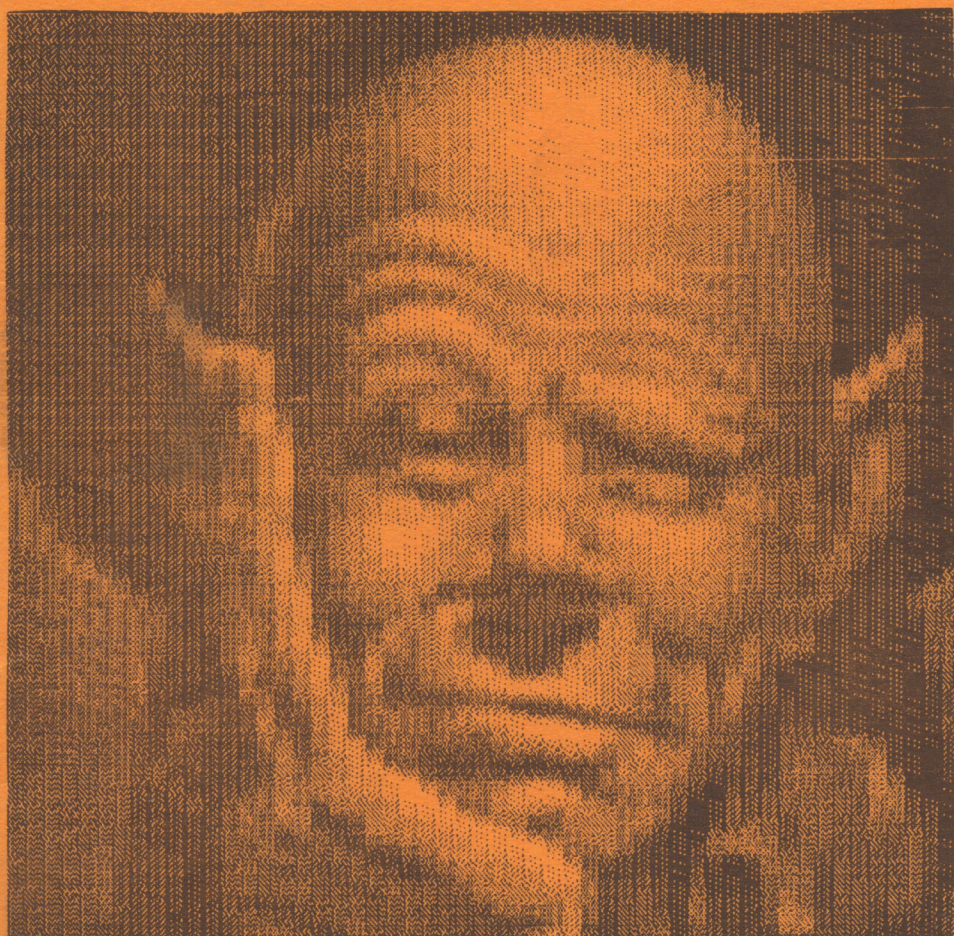


For All Atari 8-Bit Computer Systems

MAGNIPRINT II+



ALPHA
SYSTEMS



MAGNIPRINT II+

BY JEFF BADER
(C) COPYRIGHT 1984

AN ALPHA SYSTEMS PRODUCT

This manual is solely for the use of the purchaser and no part of this manual may be reproduced in any way without prior written consent from Alpha Systems.

Atari is a registered trademark of Atari, Inc.

NOTICE: Portions of this product were produced using copyrighted software products of MONARCH DATA SYSTEMS, Cochituate, MA, 01778

ALPHA SYSTEMS
1012 SKYLAND DRIVE
MACEDONIA, OH. 44056

Magniprint II+

Table of Contents

Chapter 1	3
Introduction	
Chapter 2	5
Tutorial	
Chapter 3	17
Loading Instructions	
Chapter 4	18
Setting Magniprint II+ for your System	
Printer Selection	
Spacing Selection	
Other Spacing Options	
Chapter 5	21
Printing With Magniprint II+	
Loading & Printing Pictures	
Loading Pictures	
The Sample Picture Files	
Printing Pictures	
Basic Steps for Printing	
Sizes, Text & Special Effects	
Graphics Mode 8 and 7.5 (ANTIC E)	
Graphics Mode 7.5 (ANTIC E) Shading	
Color Printing	
Graphics Mode 9	
Graphics Modes 10 & 11	
Graphics Modes 3 - 7	
Graphics Modes 0, 1, & 2	

Chapter 6	35
Picture Conversion	
General Rules	
MicroPainter, Fun With Art, Super Sketch, Atari Graphics Light Pen, Strip Poker, Movie Maker	
Koala Pad, Atari Touch Tablet (Micro Illustrator compressed)	
Paint	
Print Shop	
Graphics Magician	
ComputerEyes	
Typesetter	
Others	
Chapter 7	42
Printing Pictures Drawn with BASIC	
Pictures in Modes 3, 4, 5, 6, 7, 7.5 (E), 8, 9, 10, & 11	
Text Modes 0, 1, & 2	
Putting Magniprint II+ Pictures in your BASIC Programs	
Chapter 8	46
Print All	
Appendix A Technical Information	47
Appendix B Problems	48
Appendix C Reference Card	52

Chapter 1

Introduction

Magniprint II+ is the latest step ahead in graphics printing. It offers new and enhanced features far beyond the capabilities of any other screen to printer dump utility on the market.

Magniprint II+ prints all Atari graphics & text modes. It is extremely flexible with Graphics modes 8 & 9, and Graphics mode 7.5 (ANTIC E), allowing multiple size printing, printing of selective areas of the picture, printing horizontally or vertically, in inverse or normal print, and large poster size printing. It even prints Graphics mode 7.5 (ANTIC E) with 4 level shading, and graphics mode 9 with 16 level shading. Magniprint II+ is the only printing program fully compatible with ComputerEyes.

Magniprint II+ also offers a small size "quick" print routine, multisize text addition to graphics modes 8, 7.5, and 9 screens, a touch-up mode to change pictures, color rotation for interesting visual effects, and expanded usage of pictures from other commercially available picture creating programs. You can add text in alternate character sets, and load and save pictures in compressed Micro Illustrator format.

Magniprint II+ now includes a Mirror Image feature, designed especially for T-Shirt Iron Ons. You can print the picture in Mirror Image with an iron-on ribbon. Pictures and text come out perfectly when transferred to your T-shirt. Magniprint II+ now gives you Picture Scrolling capabilities as well. New print routines for Graphics 8 and 7.5 (ANTIC E) now give truer screen to printer proportions. 130XE owners can now save and retrieve pictures from "D8:".

Your Magniprint II+ disk also contains a bonus program, Print All, which has been completely revised to allow you to print your BASIC programs or files showing all inverse and Atari graphics characters, exactly as they appear on the screen, with normal or alternate character sets.

Your Magniprint II+ manual is composed of several parts. The part you'll use the most is the Reference Card. Keep it handy, so you can quickly look up commands. Chapter 2 is a tutorial. If this is your first time using Magniprint II+, you'll probably want to read through it. If you are new to Atari computers, we recommend you follow the tutorial step by step. The remaining chapters cover all of Magniprint II+'s features in detail. If you need more information than the Reference Card provides, you can find it in these chapters.

Chapter 2

Tutorial

Magniprint II+ is the most powerful, flexible, and versatile print program available for your 8-bit Atari computer. You can print pictures from almost any commercial graphics or BASIC program, in sizes from 1/8 page to 6 feet across (depending on your particular printer).

About the Tutorial

Because Magniprint II+ does so many things, it may seem very complex at first. It's really not. The hardest part is setting everything up the first time. This tutorial will help you do that. It will guide you through the most often used features of Magniprint II+. After that, you'll have had enough experience with the program to experiment with some of the more unusual features on your own.

About the Manual

A handy Reference Card is provided with this manual. It's a quick summary of all of Magniprint II+'s features. If you ever need to know a command, look here first. If you need more detailed information, you can look it up in this manual.

About Magniprint II+ and Your System

Many different printers will work with your 8-bit Atari, and each printer is a little different. Magniprint II+ comes with all the information it needs to work with most printers. You may have to change the settings so it will work with your system.

Once you have set the printer and spacing controls to work

with your system, Magniprint II+ will automatically set those controls every time you boot the disk. If you switch printers, you can change the settings.

Step 1. - Loading the Program

First, boot the Magniprint II+ Master Disk. Turn on your drive, monitor, interface, and printer. If you are using a 400 or 800, remove the BASIC cartridge. If you are using an XL or XE, press and hold the OPTION key. Turn on the computer. It may take a little time to load completely.

When it's loaded, you'll see a menu with two choices at the top, Magniprint II+ or Print All, a list of conversion options, and a printer option and a spacing option at the bottom (see pg 15).

Step 2. - Printer Settings

Look at the printer option at the bottom of the screen, by the prompt "Y)Printer=". If the name of your printer appears here, then you're all set and ready to load a picture. If the name there isn't your printer, then you need to change the printer settings.

Remove the Magniprint II+ disk, and remove the write protect tab. Put the disk back in the drive, and press 'Y'. The disk will spin, and a different printer name will appear by the prompt "Y)Printer=". Keep pressing 'Y' until you find your printer's name, or the name of a printer that is completely compatible with your printer.

NOTE: Gemini NP-10 printers work better with the EPSON/STAR setting than with the Gemini setting.

When the disk is set for your printer, replace the write protect tab immediately. This way you won't risk damaging your disk.

Step 3. - Directory of Picture Files

You can use almost any picture with Magniprint II+. Some pictures can be loaded directly into Magniprint II+, others need to be converted into Magniprint II+ format first. There's some sample pictures on the back of the disk, already in Magniprint II+ format. We'll load and print a few of those before we begin converting pictures from other programs.

First, with the Main Menu on the screen, press '1' for Magniprint II+. The disk will spin, and the Magniprint II+ print routines will load. When it's finished, the prompt "Enter Filename" will appear. Now you can load in any picture (as long as it's in Magniprint II+ or a Magniprint II+ compatible format).

Take the Master Disk out of the drive, turn it over, and put it back in. Press RETURN. The disk will spin, and you'll see a directory of the sample pictures, some alternate character sets, and three BASIC subroutines.

About the Sample Files

The files SCSAVE.LST, SAVE012.LST, and GRDRAW.BAS are not picture files. These are BASIC subroutines for you to use with your own programs. They allow you to convert BASIC picture screens and BASIC text screens into Magniprint II+ format, and to use Magniprint II+ format pictures in your own BASIC programs. Complete instructions on how to use these routines is in Chapter 7, Printing Pictures Drawn in BASIC. For now, though, just ignore them.

There's also several files called CHAR#.SET. These are some sample alternate character sets. You can use them when you add text to your pictures. We'll do that in a little bit, but first we'll load and print some pictures.

Step 4. - Loading Pictures

The sample pictures are in different graphics modes. The first one we'll experiment with is the graphics mode 8 picture. To load it, type PICGR8*.*. The disk will spin, and the picture, a geometric design, will appear on the screen.

Step 5. - Printing Pictures

To make a Quick Print of the picture, press START. You'll get a small printout of the design. It should look like the design on the screen. Although a Quick Print is more like a rough draft than a final copy, the picture should be fairly good quality, and in proportion. If the picture appears squashed, you may need to adjust the spacing for your printer. Before we do that, though, let's make a few more printouts.

Press OPTION. This time, you'll get a Quick Print in inverse, like a photographic negative. The black areas will be printed as white, the white areas as black.

Now we'll make a normal printout. Press 'N', then '1'. 'N' means Normal printout, or up and down the page. The top of the screen will be at the top of your paper. '1' is the size. Press START. Your printer will start to print.

This time the picture will be about 1/2 page size, depending upon your particular printer. Sizes can vary from printer to printer. This printout will have more detail than the Quick Prints did. It should appear in proper proportions. If the printout still looks squashed, then you need to change your spacing.

Before we experiment with spacing, though, we'll print one more picture. Press 'N' again, for Normal. Press '2'. Now press OPTION.

When your printer is finished, you'll have a full page size printout of the picture, but this time it will be in inverse. When you want a normal printout, press START, when you want inverse, press OPTION.

Step 6. - The Space Bar Menu

Press the Space Bar. The picture will vanish, and in its place you'll see a menu. This menu lets you load or save pictures, touch up or add text to a picture, print in enhanced mode or poster sizes, and change the spacing. It also tells you what graphics mode your picture is currently in. We'll change the spacing first.

SPACING

Press 'C'. You'll see a mini-menu. It will show you the current spacing, and whether Expanded mode is On or Off. A spacing of 2 is normal for most printers. Some newer printers need Expanded mode to print properly.

Press 'E'. This turns Expanded mode on. Press the Space Bar to return to the Space Bar menu.

Now we'll print the picture again in Expanded mode. Press the Space Bar to return to the picture.

This time, we'll print the picture sideways. Press 'S' for Sideways printout. Now press a larger number, like '5' or '6'. Four cursors will appear on the screen. The picture inside the cursors is what will fit on a single page. You can move the cursors around the screen with a joystick.

Press START (or OPTION, if you prefer an inverse printout). Note the way the spacing has changed.

If your first printouts looked normal, this one will appear distorted. You should change the spacing back to normal before experimenting with the other effects. Do this by pressing the Space Bar. When the Space Bar menu appears, press 'C'. When the Spacing mini-menu appears, press 'E' to turn Expanded mode off. Press the Space Bar again, to return to the Space Bar menu.

If your first printouts appeared squashed, this one should look normal. Your printer uses a newer spacing technique, and you'll have to use Expanded mode to get good printouts. For now, just leave Magniprint II+ set in Expanded mode, and go to the Space Bar menu by pressing the Space Bar. At the end of this tutorial, we'll show you how to set your Magniprint II+ disk so it will automatically go to Expanded mode whenever you load the program.

ENHANCED PRINTING & POSTER PRINTING

The Space Bar menu has options for enhanced printing and poster printing.

Enhanced mode may or may not have an effect on your printer. On some printers, Enhanced mode will produce a darker printout, but it will take longer to print. Other printers always print graphics in enhanced mode. If you'd like to try Enhanced mode, press 'E'. Now the menu will say "ENHANCED PRINTING ON". Press the Space Bar to return to your picture, and press 'N' (or 'S'), then '1', then START (or OPTION).

Look at the printout. If it looks the same as the others, then your printer automatically prints all graphics in Enhanced mode. Go back to the Space Bar menu, turn it off, and forget it.

If the printout looks darker than the others, your printer accepts enhanced mode. You'll probably want to turn it off for now. When you need an exceptionally good, dark printout, you can turn it back on.

Pressing 'P' will give you the Poster Printing Menu. The poster sizes are A, B, and C. A is the smallest, C is the largest. The actual finished sizes will vary, depending on your printer. If you've got some time, try printing the smallest size poster. Don't try the larger sizes right now, unless you've got lots of extra ribbons, paper, and time!

TEXT

Now we'll try adding some text to the picture. Press 'X'. Magniprint II+ will ask if you want to use an alternate character set. For now, just press 'N' for NO.

The picture will appear on the screen, with a cursor at the top. You can move the cursor sideways with the joystick. Press the joystick trigger to move it up and down.

Now try typing whatever you want. One word of warning - the letters on the screen erase the picture underneath. Once it's gone, you can't get it back.

You can change the color of the letters by pressing the TAB key.

Now try a different size of text. Hold down the CONTROL key, and press the TAB key. When you hear a tone, you can press one of the number keys 1, 2, 3, or 4. 4 is the largest text size, 1 is the smallest size (the size you were using).

Now we'll load an alternate character set. Press ESC. You'll see the filenames of the sample character sets on the disk. Type in the name of the set you'd like to try.

When you've finished writing on your picture, you can print it out, if you like.

Step 7. - Changing Printout Shades

You can choose which shades of grey you want to use to print your Graphics 7.5 (ANTIC E) pictures. If you have colored ribbons (see pg. 31), you can use this feature to make full color printouts.

First, we'll have to load a graphics mode 7.5 (ANTIC E) picture. Go to the Space Bar menu. Press 'L' for Load another picture. You'll get a directory of the sample pictures.

This time, type PICKO*.*. This is a picture of a little house. To change the printout shades, begin just as you would to print any other picture. Press 'N' (or 'S'), then '1' (or any size you like). Now press START.

The grey shades in the picture on the screen are the same shades the printer will use when it prints. There's four shades. Press the '1' key. Everything in the picture that is shade 1 will change. Press '1' a few more times. Each time you press '1', shade 1 will change. You can set shade 1 to white, black, or a shade of grey. You can change shades 2, 3, and 4 by pressing the '2', '3', or '4' keys.

When you've selected the grey shades you like, you can begin printing by pressing START.

Step 8 - Picture Conversion

Converting pictures from other programs is easy. You can save the converted pictures in Magniprint II+ or MicroIllustrator format. Some pictures, like Koala Pad or ComputerEyes Touch Tablet pictures, don't even need to be converted, they can be loaded directly into Magniprint II+. Typesetter, Print Shop, text screens, and pictures from BASIC programs are a bit trickier, but still easy to do.

A. Get the picture ready.

First, decide what picture you will convert. For the moment, use any kind of picture except the ones mentioned above (to convert these pictures, refer to the step by step instructions in the appropriate chapters). Before you do anything, put a copy of the picture file on a blank, formatted disk. Keep the original picture file in a safe place. Always convert a copy. Never put the original picture file on the disk you will be using for conversions, and never try to convert your only copy of a picture.

B. Load Magniprint II+, and choose your conversion option.

Now load the front side of your Magniprint II+ disk (for Graphics Magician pictures, load the back side). When the main menu comes up, press the conversion letter that corresponds to your picture. For example, to convert a Fun With Art picture, press 'D'.

C. Do the conversion.

The computer will ask for the name of the source file. Put the disk with the copy of your picture in drive 1 or 2. The source file is the file you want to convert. If you know the filename, type it in. Remember to type in the full name (including extenders), or type the first few letters, then *.* , and press RETURN. For example, if the

picture file name is PICTURE.MP, type PICTURE.MP, or PIC*.*. If you are loading from drive 2, don't forget to type D2: before the filename.

If you want to see a directory of files on the disk, press '1' (for drive 1) or '2' (for drive 2), and press RETURN. The directory will appear on the screen, along with the source file prompt.

Now enter the destination filename. This is the name that the converted picture will have. We recommend using a different name than your source file.

Press RETURN to save the picture in Magniprint II+. Hold the OPTION key when you press RETURN to save the picture in MicroIllustrator format.

The disk will spin, and the picture will appear on the screen. When the drive stops, your picture is converted, and ready to use with Magniprint II+.

D. Decide what you want to do next.

At this point you have three options. Press any key to run the conversion program again. Press any key, then press RETURN to get back to the Main menu. Press START to go directly to the Magniprint II+ printing routines.

Step 9 - Other Features

These are a few other features of Magniprint II+. Since you're now pretty familiar with the program, we've given just a brief description of each. Try them.

Saving Pictures. You can save a picture at any time. Go to the Space Bar menu, and press 'S'. Then put a disk with at least 66 free sectors in the drive. Enter the filename. Then press '1' to save it in Magniprint II+ format, or '2' to save it in Micro Illustrator compressed format (Graphics Mode 7.5 (ANTIC E) pictures only).

Changing Colors. When you are viewing a picture on the screen, you can change the colors by pressing SELECT. Each time you press SELECT, the colors will change, until you've rotated through all the colors. You can save a picture with the altered colors at any time.

Changing Graphics Modes. When you are viewing a picture on the screen, you can change it from one graphics mode to another by pressing ESC. If your picture is in Graphics 8, pressing ESC will change it to Graphics mode 9, then to Graphics mode 7.5 (ANTIC E), then back to 8.

Mirror Image. Press CONTROL and 'M' to get a Mirror Image of your picture. This feature is ideal for making T-Shirt transfers.

Touch Up. Touch Up mode lets you make minor changes to a picture. To enter Touch Up mode, go to the Space Bar menu, and press 'T'. You can draw by pressing the trigger. Press OPTION to make the cursor flash. Press 'E' to enter Erase mode, 'D' to return to Draw mode. Press RETURN to exit the Touch Up mode.

Larger Sizes. When you pick print sizes larger than 2, the entire picture screen won't fit on a single page. Four cursors will appear, outlining the section of the picture that will fit on a single page. You can move the cursors around the screen with the joystick. If the cursors are difficult to see, press TAB to change their color. Press the Atari key (the Inverse key on XLs and XEs) to toggle between coarse and fine cursor control. Press the joystick button to decrease or enlarge the area enclosed by the cursors.

Centering. Centering doesn't work on all printers. To center a picture, hold the 'C' key when you press START or OPTION. If something screws up when you try this, avoid this option.

Summary

Now you've had a chance to use most of Magniprint II+'s features. Remember, the Reference Card lists all the commands. For more details about any feature or command, look it up in this manual. If you still need to set Magniprint II+ to automatic Expanded spacing, read the next paragraph.

Setting Magniprint II+ to Automatic Expanded Spacing

If your printer requires Expanded spacing, you can set Magniprint II+ to automatically go into Expanded Spacing every time you boot the disk. If you switch printers, you can always reset your Magniprint II+ disk.

To set it for automatic Expanded spacing, first boot up Magniprint II+. Put the front side of the disk in the drive, press and hold OPTION (or remove BASIC), and turn the computer on.

When the Main Menu appears, look down at the bottom of the screen. Next to the "Y)Printer=" prompt you'll see "Z)= Spacing".

Remove the disk from the drive, and remove the write protect tab. Put the disk back in the drive.

Press 'Z'. When the Spacing Mini-Menu appears, press 'E' for Expanded Spacing. Remove the disk, and replace the write protect tab immediately. Now Magniprint II+ will automatically go into Expanded spacing whenever you load it.

Chapter 3

Loading Instructions

To load Magniprint II+, remove all cartridges and turn on your monitor, interface, printer, and disk drive. Insert the front of the Magniprint II+ disk into drive 1. If you are using an XL or XE, press and hold down the OPTION key. Turn on your computer. Magniprint II+ will load.

NOTE: XL and XE owners must hold down the OPTION key while turning on the computer.

After it has loaded, you'll see the Main menu. It looks like this:

- 1) Magniprint II+
- 2) Print All

---- CONVERSIONS ----

- A) Micro-Painter
 - B) Micro Illustrator* See note below
 - C) Paint
 - D) Fun With Art
 - E) B/Graph
 - F) Graphic Master
 - G) Super Sketch
 - H) Strip Poker
 - I) Movie Maker (Background)
 - J) Graphics Magician
 - K) Atari Graphics Light Pen
 - L) Print Shop
 - M) Syngraph
 - N) ComputerEyes
 - O) Typesetter Sketch Pad Icon
- Y) Printer= "Printer Brand Name" Z)= Spacing

Hit the appropriate letter or number for the option you want.

* Koala Pad and Atari Touch Tablet pictures **need no conversion.**

Chapter 4

Setting Magniprint II+ to Your System

PRINTER SELECTION

Before you begin printing pictures, you must set Magniprint II+ to work with your printer. Load the program. When the Main menu appears (see pg. 15), look down at the bottom of the screen. If your printer appears on the screen by the "Y)PRINTER=" prompt, Magniprint II+ is already set for your printer.

If you need to change printers, remove the disk from the drive, remove the write protect tab, and put the disk back in the drive. Press 'Y' until your printer brand appears on the screen. Remove the disk from the drive, and replace the write protect tab immediately. Now, whenever the Magniprint II+ disk is booted, it will automatically adjust itself to your printer.

Magniprint II+ will work with all Epson, Panasonic, Cito, Nec, Gemini, Star, Atari XMM801, or other compatible printers. If your printer's brand name is not listed, pick the printer which is compatible with your printer. Different printers behave differently, and you may need to experiment to find the correct settings for your printer. If the pictures don't print properly, try adjusting the spacing with the Expanded option, or try a different printer setting. For example, the Gemini 10X and SG-10 printers work best in the Gemini setting, but the newer NP-10 works best in the "Epson/Star" mode with the Expanded option on.

SPACING SELECTION

This option controls the vertical spacing of the dots on the printed picture. It can be used to compensate for your printers spacing techniques, or to create special effects, such as a squashed or stretched picture.

Some new printers (like the Star NP-10) use a different spacing mode than earlier printers. Pictures printed with normal spacing on these printers look squashed and out of proportion.

You can set Magniprint II+ to automatically adjust the spacing for your printer. To set it, load the front side of the Magniprint II+ disk. When the main menu appears (see pg. 15), remove the disk from the drive. Remove the write protect tab, and put the disk back in the drive. Press 'Z' to enter the Spacing mode. You'll see a mini menu listing the different spacings, numbered 1 - 9, and the current Expanded option setting.

Now press 'E' to turn the Expanded option on. Now the Expanded option will come on automatically each time you load your disk. Don't forget to replace the write protect tab!

Other Spacing Options

Using the spacing to create special effects can be tricky, so practice printing normal pictures first to familiarize yourself with the basic printing procedure.

Once you've had some experience printing pictures with normal spacing, you can use the other spacing options to achieve unique special effects.

There's two ways to set the spacing. The first way to do it is from the Magniprint II+ Main Menu. This is a "permanent" method. Every time the Magniprint II+ disk is booted, the program will automatically set the spacing as you specified. You must repeat this entire process to change the settings. Naturally, this method is best for adjusting the spacing for normal looking printouts on your printer, so you don't have to make changes every time you boot the disk.

To "permanently" adjust the spacing, follow the directions under Spacing Selection in this chapter. When you see the Spacing mini menu, you can enter a different spacing setting (1 - 9) by pressing the number key. 2 is normal for most printers. You can turn Expanded on and off by pressing 'E'.

For experimenting with special effects, you can adjust the spacing before you print. This method does not involve writing to the disk, so the changes will be gone when the disk is rebooted.

To change the spacing this way, first load in the picture you want to experiment with. Then press the Space Bar. When the Space Bar menu appears, press 'C' for Change spacing. The Spacing mini menu will appear.

Select the spacing you want by pressing a number key from 1 - 9. Spacing of 2 is normal spacing on most printers. Spacing of 2 in Expanded mode is normal on some newer printers. The 'E' key toggles in and out of Expanded mode. The higher the number, the larger the space between the printed lines in the picture. More spaces between lines results in a more distorted picture.

Printing pictures in Normal (up and down the page) with a higher spacing will stretch the picture vertically. Printing pictures Sideways with a higher spacing will stretch the picture horizontally. Try experimenting with different spacing and observing the effects.

Chapter 5

Printing With Magniprint II+

Loading & Printing Pictures

Loading Pictures

When you load Magniprint II+, the first thing you see is the Main menu. Press '1' to load the Magniprint II+ print routines. When it's finished loading, you'll see an Enter Filename prompt. Put the disk with your Magniprint II+ format pictures in the drive. There's several sample picture files on the back of the Magniprint II+ disk for you to experiment with.

Enter the picture's filename and press RETURN, or just press RETURN for a directory. Press '2' and RETURN to see the directory in drive 2.

IMPORTANT NOTE: - When you enter the picture filename, be sure to type any extenders, or use * for a wild card. If the filename is PICTURE.MP, then type PICTURE.MP or PIC*.*.

If you want to load from drive 2, don't forget to enter D2:.

Only pictures in Micro Illustrator (Koala Pad and Atari Touch Tablet) or Magniprint II+ formats can be loaded directly into Magniprint II+. If your picture is in a different format, you must convert it before you can load and print it. Chapter 6 discusses picture conversions.

The Sample Files

The files SCSAVE.LST, SAVE012.LST, and GRDRAW.BAS on the back of the Magniprint II+ disk are not pictures. They are BASIC subroutines to use with your own BASIC programs (see Chapter 7). The files CHAR#.SET are alternate character sets (see Adding Text, in the graphics mode for your picture).

The other files are sample picture files. Each picture is in a different graphics mode.

Printing Pictures

Each Atari graphics mode is different. Pictures in different graphics modes print differently. You can change from one graphics mode to another while you're viewing a picture by pressing ESC.

The Space Bar menu will tell you what graphics mode your picture is currently in. To get to the Space Bar menu, press the Space Bar while your picture is on the screen.

On some printers, Graphics mode 8 screens look better in inverse. Use Quick Print to see which looks best on your printer.

For most pictures, you can follow the Basic Printout Steps, described below. For more details or special effects, refer to the section on the graphics mode of your picture.

Basic Printout Steps

1. Start with the picture on the screen.

The print commands (except for posters) work only when you have the picture on the screen.

2. Press START or OPTION for a quick print.

You can make a quick print of any graphics mode (3 - 11, including 7.5 (E)) by pressing START. You can make a quick print in inverse by pressing OPTION.

3. Choose Normal or Sideways.

In most graphics modes, you can make a Normal printout (the top of the screen will be at the top of the page), by pressing 'N'. To print the picture Sideways, press 'S'.

4. Choose a size.

Now press a number from 1 to 8. Not all sizes work in all graphics modes. For more details, check the section on your graphics mode, below.

5. Choose normal or inverse shades.

Press START for normal shading, OPTION for inverse. The printout will begin.

6. Press ESC to abort the printout.

7. To print a poster, press the Space Bar, then 'P', then A, B, or C.

8. To do special effects, like adding text, etc., check the section below about the graphics mode of your picture.

Each graphics mode works differently. Look up the graphics mode of your picture in the next section of this chapter for specific details.

SIZES, TEXT & SPECIAL EFFECTS

Graphics Mode 7.5 (ANTIC E) & 8

On some printers, Graphics mode 8 pictures look best when printed in inverse. Use Quick Print to see whether normal or inverse looks better on your printer.

Most commercial graphics and drawing programs use either Graphics mode 8 or 7.5 (ANTIC E).

The sample picture file PICGR8.MP on the back of the Magniprint II+ disk is in Graphics mode 8. While viewing a Graphics mode 8 screen, you can use the following keyboard commands:

1. START - gives a quick print, or rough draft. This will give you an idea of how the picture will look before you spend a lot of time making a large printout.

2. OPTION - gives a quick print in inverse. Inverse is like a photographic negative, with black and white reversed.

If you hold down 'C' key while hitting START or OPTION, your picture will be centered. NOTE: Some printers may have trouble correctly centering a picture, so avoid this option if troubles occur.

3. SELECT - rotates colors in the picture for dramatic effects. Pictures can be saved with the altered colors at any time (see item 7).

4. N then 1 to 8 - prints normal (vertical), or up and down the page. After pressing 'N', you MUST press a number from 1 to 8 to choose a print size. One (1) is the smallest and Eight (8) is the largest. Four cursors will appear on the screen, they outline the portion of the screen which can be printed on a single page. You can fit the entire screen on a page with the smaller sizes. As the print size increases, the picture will be magnified on the printer, and only a portion of it will fit on a single page (to print the whole picture in a larger size, use the Poster Printing Option). You can change your size selection at any time by hitting 'N' (or 'S', see item 5) and then another number from 1 to 8.

The TAB key changes the cursor color for easier visibility.

The four cursors can be moved around the screen with the joystick. You can decrease or enlarge the area enclosed by the cursors by pressing the joystick button. Hitting the ATARI key (the inverse key on XL and XE computers) toggles between coarse and fine cursor movement.

The RETURN key exits this mode and eliminates the cursors.

When you have chosen the desired print size and section of the picture, press START for normal shades (Graphics 8 & 7.5 (ANTIC E)) or OPTION for inverse (Graphics 8). Hold down the 'C' key as you press START or OPTION to center the picture.

If the picture is in Graphics 7.5 (ANTIC E), you can pick the shades of grey the picture will be printed in. See the section on Graphics mode 7.5 (ANTIC E) Shading for details.

If you want to abort the printout, hit the ESC key.

5. S then 1 to 8 - sets the printer for sideways printing. All instructions for normal printing (item 4) apply.

6. ESC key - changes the graphics mode. The Space Bar menu will always tell you what mode you are in. Sometimes a picture will look better in a different mode, so this feature is worth trying. While viewing a Graphics mode 8 screen, pressing ESC will change it to a Graphics 9 screen. Pressing ESC again will change it to a Graphics 7.5 (ANTIC E) screen, and pressing ESC again will change it back to a Graphics 8 screen.

You can print or save a screen in any graphics mode.

This feature gives many different effects. It's left to the individual to discover the many effects this feature will allow.

7. Control M - gives a Mirror Image of the picture. This is ideal for making T-Shirts. To make a T-Shirt, print your picture in Mirror Image with a special wax transfer ribbon (to get a iron-on ribbon, see pg. 30). Then iron the picture onto your T-Shirt, following the directions that came with your ribbon.

8. Control & Arrow Keys - allows vertical and horizontal scrolling. This lets you scroll around your picture.

9. Space Bar - brings up the Space Bar menu. This lets you use several other features of Magniprint II+. It like this:

L LOAD ANOTHER SCREEN
S SAVE CURRENT SCREEN
I TOUCH-UP SCREEN
X ADD TEXT
E ENHANCED PRINTING OFF
P POSTER PRINTING
C CHANGE LINE SPACING
SPACE BAR RETURN TO PICTURE

a) L: Lets you load another picture.

It erases the picture in memory, returns you to the disk directory screen.

NOTE: This option works only with pictures in Magniprint II+ or Micro Illustrator compressed formats. Picture files in other formats must be converted first (see Chapter 6).

b) S: Saves the current picture.

When you press 'S', Magniprint II+ will ask for the filename you want to call picture. Put a formatted disk with at least 66 free sectors in the drive, enter any legal Atari filename, and hit RETURN. Then press '1' to save the picture in Magniprint II+ format, or '2' to save it in Micro Illustrator compressed format (used by Koala Pad and Atari Touch Tablet).

Remember, only Graphics mode 7.5 (ANTIC E) pictures can be saved in Micro Illustrator compressed format, but you can always switch a picture to Graphics 7.5 (ANTIC E) before you save it. Saving pictures from other graphics modes in this format may produce strange results. If you choose this format, the suffix .PIC will be added to the filename.

You can use any picture with your Atari Touch Tablet or Koala Pad by converting it with Magniprint II+.

If you just hit RETURN without entering a filename, you'll be returned to the picture screen.

If you are using an Atari 130XE, you can save and load pictures to your ramdisk, "D8:". For more information about using your ramdisk, refer to your Atari owners manual.

c) I: allows you to touch-up a screen.

To touch-up the picture presently on the screen, move the cursor (the dot that appears at the top center of the screen) with the joystick to the spot you want to fix. The OPTION key will flash the cursor to make it easier to find. The ATARI or Inverse key speeds or slows the cursor's movement.

To draw, press the joystick button. To erase, press 'E'. To draw again, press 'D'.

When you are satisfied with the picture, press the Space Bar or the RETURN Key.

d) X: allows you to insert text.

When you press 'X', Magniprint II+ will ask if you want to load an alternate character set or use the standard Atari character set. To use the standard Atari character set, press 'N' for "NO". To load an alternate character set, press 'Y' for "YES". If you choose to use an alternate character set, the computer will ask for the filename. After you enter the filename, the picture will appear on the screen.

Magniprint II+ is compatible with the standard character set file format (9 sectors) used by many commercial programs and magazine type-in character set editors. Five alternate character sets (designated by "CHAR 1-5.SET") are included on the back side of the Magniprint II+ disk.

Move the cursor that appears at the top of the screen with the joystick. Press the joystick button to move the cursor vertically, a little bit at a time. When you press any key, the letter, number, or Atari graphics symbol will appear on the picture at the cursor location.

To change the color of the screen text, and resulting shade of printed text (Graphics modes 7.5 (ANTIC E) and 8) or

density (Graphics mode 9), hit the TAB key. The cursor color will also change. In Graphics 8, the cursor color will match the text color. In Graphics mode 7.5 (ANTIC E), the cursor color will not always match the text color. This happens because the screen colors are not user specified, but are the result of color artifacting.

To change the size of the text, hold down the CTRL key and hit the TAB key. Magniprint II+ will sound a tone. Then, pick the text size you want by pressing a number between 1 and 4. Size 1 is the smallest size, and size 4 is the largest. On Graphics mode 7.5 (ANTIC E) screens, the smallest text size may not always print clearly, or be legible on the screen.

You can switch back and forth between an alternate character sets and/or Atari's standard character set by hitting the ESC key. You can use as many different character sets on your picture as you like.

A word of warning - once a character is written on your picture, the picture beneath it is lost. Plan your work carefully. Save your work often during text addition. It may save you time and grief.

Press the RETURN key to exit the text mode.

e) E: turns enhanced printing ON or OFF.

This key will allow darker, but slower, printing on some printers. Other printers always print graphics in the enhanced mode, so this feature may not always have an effect.

f) P: allows you to print poster size.

Poster printing is one of the more exciting features of Magniprint II+. You can print posters several feet across on a standard printer, with standard paper.

There are three poster sizes, A is the smallest, C is the largest.

In Graphics modes 8 & 9, printing begins as soon as you select a size. To print in inverse, hold down the OPTION key while you make your size selection. In Graphics mode 7.5 (ANTIC E), you can choose the shades of grey you want your poster to be printed in. See the next section for instructions on selecting shades.

In poster printing, an extra blank sheet of paper will be automatically skipped at the appropriate times between portions of the picture. When printing is complete, cut through the blank sheets then paste, or tape, the strips together to form the whole picture.

You can pause the printing process by pressing 'P'. Pausing the printer allows the printheads to cool during long printing runs, especially when printing the largest size. Press any key to continue printing.

NOTE: The functions "L", "X", and "T" are also useable while viewing a picture.

Graphics Mode 7.5 (ANTIC E) Shading

Graphics mode 7.5 (ANTIC E) screens are 4 color screens used by most commercial drawing and painting programs. Magniprint II+ can print Graphics 7.5 (ANTIC E) screens in four tone shading, and even lets you choose the shades you prefer.

All the features of Graphics mode 8 apply to Graphics mode 7.5 (ANTIC E). However, Magniprint II+ lets you choose which shades of grey you want to print with, so the printing commands 'N' and 'S' have one extra step.

To print a Graphics 7.5 (ANTIC E) picture, press 'N' or 'S', and choose the size. Then press START (normal shades) or OPTION (inverse shades). The picture will be displayed on the screen in the same shades of grey the printer will use. You can change the grey tone of each color register by using the 1, 2, 3, and 4 keys. Press START to print. To center the picture, press "C" and START.

To abort the printout, hit ESC. You'll be returned to your grey tone picture.

If you don't want grey scaling, switch the picture to a Graphics 8 screen before printing it.

NOTE: Older NEC/C.ITOH printers cannot print grey scales in the smallest print size. If you are using one of these printers and choose the smallest size, the picture will automatically be printed in Graphics 8.

NOTE: Graphics 7.5 (ANTIC E) is the graphics mode used by most commercial drawing and painting programs. Any picture can be converted to, and printed in, Graphics 7.5 (ANTIC E), but some screens look best in the mode in which they were originally created.

Color Printing

Color adds a dramatic touch to any picture. You can print any Graphics 7.5 (ANTIC E) screen in up to four different colors with Magniprint II+. To do this, you will need colored ribbons or colored carbon paper. It takes several passes to get a complete picture.

First, load the picture you want to print in color. When it's on the screen, put the first color ribbon in your printer, and position the paper at the top of the page. If you are using colored carbon paper, tape the carbon paper onto the printer paper with the carbon side against the paper. Load and position the paper, with the uncoated side of the carbon paper facing the printhead. Do not turn off the printer. You may want to use a pencil to make a small mark at the top of the page, or on the bottom of the previous page, to help you realign the paper on the next pass.

After the paper is loaded and positioned, you must set the grey shades. If you are printing in four different colors, set the first shade on the screen to the desired darkness, and the other three to white. Only one shade of grey and the parts of the picture drawn in that shade will be on the screen. These are the parts that will be printed in that color. Press START to begin printing.

When the printer has finished and the picture is back on the screen, you're ready to begin the next pass. Change the ribbon (or carbon) and reposition the paper. Don't turn the printer off. Be sure to position the paper EXACTLY where it began at the last pass. If the alignment is off, each color will start at a different spot on the page. Then, set the color you have already finished to white, and the next color to the desired shade. Leave the remaining two white. You should see different parts of the picture on the screen. Press START.

Repeat this procedure for the last two shades. If the printer is accidentally turned off at any time, reboot the Magniprint II+ disk before attempting to finish the printout.

It's also possible to print a picture with two different colors of dots intermixed on the same area of the picture. For example, let's say you want to print an apple with both red and green dots. First, set the apple on the screen to a light shade of grey, and print it with a green ribbon. When the printer is finished, set the same picture areas to a darker shade of grey, change the ribbon to red, and print it again. Each grey shade uses it's own dot pattern, so the different color dots will not overlay each other, instead, they will be mixed together.

This technique of adding color lends itself to an endless variety of special effects. You can create beautiful pictures simply by using a single colored ribbon and colored paper. Try printing a picture in four shades of blue on blue paper. Try using two shades of two colors, the same shade of four colors, or mix and match colors and shades on white or colored paper. For more unique effects, try deliberately misaligning the paper for each color, changing the spacing for each color, or combining misalignment with spacing options. Let your imagination be your guide!

You can get colored ribbons and paper and iron-on ribbons for T-Shirt transfers from your local computer store. If you don't see exactly what you want on the shelf, ask a salesperson if they can be special ordered. If you cannot obtain these supplies locally, you can get colored ribbons, paper, iron-on ribbons, and other supplies from:

Pixellite Computer Products
5221 Center St. Suite 205
Richmond, CA 94804
Outside California 1-800-643-0800
Inside California 1-800-237-3111
San Francisco Area 415-527-6400

Graphics Mode 9

Graphics mode 9 is a special GTIA mode which allows pictures to use up to 16 shades of one color. Magniprint II+ has the unique ability to print these pictures with all 16 levels of shading. This is accomplished by varying the density of the dots within the rectangular patterns printed on the paper.

All of the functions described in the Graphics mode 8 section work in Graphics mode 9, except for the changes below. You may want to load PICGR9.MP, the sample Graphics mode 9 picture on the back of the Magniprint II+ disk and experiment with these differences.

1. N then 1 - 5 - Normal printing works in sizes 1 through 5 only.

2. S then 1 - 4 - Sideways printing works in sizes 1 through 4 only.

3. I - The touch-up feature works a little differently than it did in Graphics mode 8. When you press 'T', a small rectangular cursor appears at the top of the screen. You can change the shade of the cursor by pressing OPTION or SELECT. Press the joystick button to draw in the same shade as the cursor.

4. X - You can use any of the 16 grey shades for text. Pressing the TAB key changes the text color. Keep pressing the TAB key to cycle through all 16 shades.

5. START or OPTION - These keys give you a quick print of your screen. Just press START for normal shades or OPTION for inverse. This feature won't give true shading, but it will give you a rough idea of how your picture will look.

Graphics Modes 10 & 11

These two graphics modes are special GTIA modes that have the same pixel size as Graphics mode 9, but multicolor displays.

After loading one of these screens (PICGR10.MP and PICGR11.MP

are the sample pictures on the back of the Magniprint II+ disk), you will find that you can't use the Space Bar menu. These are the commands you can use in Graphics mode 10 and 11:

SELECT - Rotates the colors.

CONTROL and 'M' - Creates a mirror image by reversing left and right.

ESC - Changes graphics modes. Press ESC turns these screens into psuedo-Graphics 9 screens. They can be printed with all the features of Graphics 9. Pressing ESC again will turn them into Graphics 8 screens, with all the features of Graphics mode 8.

'L' - Loads a new picture. Press 'L', and you'll see the familiar directory screen.

Graphics Modes 3 to 7

These graphics modes produce colored graphics pictures. Of course, you can't print colors, so Magniprint II+ will print all colors with black. It will print these modes in two sizes and allow normal or inverse printing.

To print in 1/2 page size in normal shades, press START. To print in inverse, press OPTION. Hold SELECT down while you press either START or OPTION to print in a full page size.

Press 'L' to load another picture.

Graphics Modes 0, 1, and 2.

Magniprint II+ allows you to print all three text modes, Graphics 0, 1, and 2, as a Graphics mode 7.5 (ANTIC E) or 8 screen. Graphics 0 screens (Atari's normal boot-up mode) are converted to Graphics 8 screens. The two color text modes, Graphics modes 1 and 2 are converted to Graphics 7.5 (ANTIC E)

screens, which allows the different colored characters to be printed in your choice of grey shades.

To print a Graphics mode 0, 1, or 2 screen, it must first be converted into Magniprint II+ format. Refer to Chapter 7, Printing Pictures Drawn in BASIC, for details.

NOTE: Be sure to use pure graphics modes, without text windows. Use modes 1+16 and 2+16, as the '+16' eliminates the small Graphics mode 0 window at the bottom.

Chapter 6

Picture Conversion

Printing Pictures from Other Programs

Many popular commercial programs allow you to easily draw pictures on your screen. The pictures can be converted into and saved in Magniprint II+ format, then printed with all of Magniprint II+'s exciting features. No other program prints screens from as many different programs as Magniprint II+.

The screens produced by some programs are not true Graphics 8 screens, but use a special graphics mode, Graphics 7.5 (ANTIC E), with multi-color capabilities. Only Magniprint II+ will print excellent reproductions of these screens with 4 tone adjustable shading.

General Rules For Picture Conversion.

NOTE: Pictures drawn in Micro Illustrator format, such as Koala Pad, Atari Touch Tablet, Gibson Light Pen, or ComputerEyes pictures saved in graphics tablet format need no conversion. You can use these pictures with Magniprint II+ just as they are.

1. Prepare the picture files.

Put a copy of the picture files you want to convert on a blank, formatted disk. You can use DOS options 'C' or 'O', or the load and save routines from your graphics program. Leave plenty of space for the new picture files, at least 66 sectors per picture. Put the original filenames picture files away for safe keeping. Never put your original on the disk you'll be using during conversion, and never try to convert your original. If you always follow these two simple rules, you'll never lose your only copy of a picture.

2. Load Magniprint II+.

Follow the instructions in Chapter 3.

3. Choose the conversion option you need.

When the Magniprint II+ Main menu appears, press the letter corresponding to the conversion option you need. Check the following sections for specific details about the conversion you are using. Some conversions, such as Print Shop, have special requirements.

4. Enter the filenames.

When the prompt for the source or destination filename appears, type in the filename, then press RETURN. Enter a '1' to see the directory for drive 1, or a '2' for a directory of drive 2.

IMPORTANT NOTE: - Be sure you type any extenders, or just use * for a wild card. For example, if the filename is PICTURE.MP, type PICTURE.MP or PIC*.*. Also, if you're loading from drive 2, don't forget to enter D2:. Example - D2:GRMODE9.PIC

Enter the destination filename, and press RETURN. Magniprint II+ will convert the picture, and save it in Magniprint II+ format. To save the picture in Micro Illustrator format, hold down the OPTION key as you press RETURN.

After the picture is converted, it will appear on the screen, and Magniprint II+ will save it.

5. Decide what you want to do next.

When the drive has finished spinning, the transformation process is complete. You now have three choices. You can:

- A) Convert another picture from the same format. Press any key, and you will be back in the conversion program.

B) Go to the Magniprint II+ printing routines. Press START, and the program will jump right to the printing routines, with your transformed picture loaded and ready to print.

C) Return to the Main menu. Press any key to return to the conversion program, then press RETURN at the "Enter Source Filename" prompt. The Magniprint II+ Main menu will appear.

The Conversion Options

Some conversion options have special requirements. The following sections provide specific details about each conversion option.

Micro-Painter, Fun With Art, Super Sketch, Atari Graphics Light Pen, Strip Poker, and Movie Maker (background screens only).

These Graphics 7.5 (ANTIC E) pictures require 64 free sectors on the destination disk. To transform these files just follow the screen prompts.

NOTE: for Strip Poker. The picture files on the Strip Poker disk begin with "OP".

Koala Pad and Atari Touch Tablet (Micro Illustrator compressed format).

Koala Pad, Atari Touch Tablet, Gibson Light Pen, and other pictures drawn in Micro Illustrator format need no conversion.

You can use Option 'S' from the Space Bar Menu to save any Graphics 7.5 (ANTIC E) picture in Micro Illustrator format, and use it with a Koala Pad or Touch Tablet.

Paint.

The Paint conversion option shows the picture files in a normal directory on the disk. Some early versions of Paint use a hidden directory. To see these files, type a '1', then hold down the OPTION key and press RETURN at the same time. This will show you the picture files (if any) in the hidden directory.

Use Paint's load and save routines to put a copy of the picture file on a separate disk for conversion.

Paint requires 66 free sectors for the transformed file. The converted file will use a normal directory.

Print Shop.

When you choose this option, the computer will ask you to insert a disk with saved Print Shop picture files (Graphics 8). You cannot use the Print Shop Master Disk pictures, but you can use saved pictures, or pictures from the "Print Shop Graphics Library" disks.

Insert the disk with the saved picture files and hit RETURN. A picture file directory, with a file number and the type of picture (small or large) will be displayed. A "Small" picture is from Print Shop's Graphic Editor. A "Large" picture is a Screen Magic picture.

CTRL-1 will pause the scrolling, so you can read the filenames and numbers.

Enter the file number, NOT the filename.

Graphics Transformer, from Alpha Systems, will let you save pictures in Print Shop format. Graphics Transformer will take almost any graphics screen, such as a digitized ComputerEyes picture or a drawing from Koala Pad, and save it as a Print Shop or Typesetter icon, or in a number of other formats. Graphics Transformer lets you use your own pictures with Print Shop, in banners, signs, or greeting cards.

Graphics Magician.

The conversion routines for Graphics Magician are on the back of the Magniprint II+ disk. To use this option, turn off your computer, put the back side of the Magniprint II+ Master Disk in your drive, press and hold the OPTION key (or remove BASIC), and turn your computer on.

The program will start at the beginning of the Graphics Magician conversion routines, at the "Enter Source File" prompt. From this point on, the conversion routine proceeds as usual.

ComputerEyes

Pictures saved in ComputerEyes Touch Tablet format need no conversion, and can be loaded directly into Magniprint II+. Other ComputerEyes pictures need conversion.

Magniprint II+ will print your ComputerEyes pictures with 4 or 16 tone shading that looks better on paper than it does on your screen! After entering the source and destinations filenames, the computer will ask what type of ComputerEyes picture it is. If the picture is a normal, 4, or 8 level capture picture, press 'N'. If the picture is a high or low contrast capture picture, press 'C'. If it's a graphics 9 capture picture, press 'G'.

Typesetter Sketch Pad Icon.

Typesetter (Xlent Software) allows you to create a graphics and text layout in a size larger than a normal graphics screen. Since Typesetter layout pages are larger than a standard screen, they must be copied to the "Sketch Pad" mode of Typesetter before they can be converted into Magniprint II+ format.

First, using Typesetter, convert the area of the screen you will be working with to Sketch Pad mode. Follow the instructions in your Typesetter manual to copy the screen to Sketch Pad. Then save the resulting Sketch Pad screen to disk. Once again, follow the instructions provided in your Typesetter manual. The saved screen will be a 15 sector file. These 15 sector files are the only files that can be used with Magniprint II+.

Page Designer and Rubber Stamp (both from Xlent) graphics can also be used. Load them into Typesetter, following the instructions in the Typesetter manual, then proceed as above.

If you'd like to save other pictures as Typesetter icons, Alpha Systems offer a program called Graphics Transformer which will do this for you. It will convert your pictures from almost any graphics program into Typesetter, Print Shop, and a number of other formats, for you to use with your other printing and graphics programs.

Others.

PICTURES FROM OTHER DRAWING PROGRAMS

ANTIC magazine's Rembrant pictures can be used by saving them in MicroPainter or Koala Pad format, using Rembrant's finished utility mode.

Other graphics programs are also compatible with Magniprint II+. If the program you used to create the picture file is not listed above, check the documentation that came with your program. It may use a standard file format, such as Micro Illustrator, Touch Tablet, etc.. If it does, follow the conversion instructions for that kind of file. If not, try to load it directly into Magniprint II+. If that doesn't work, try the various conversion options until you find one that works with your file.

PICTURES DRAWN IN BASIC

Pictures created by a graphics program written in BASIC, or pictures from any program that lets you use the pictures in your own programs, can be converted to Magniprint II+ format. These pictures are captured directly from the screen as they are drawn or displayed, you don't need to save them to disk first. To

capture and covert these pictures and graphics screens, follow the instructions in the next chapter, "Printing Pictures Drawn with BASIC".

SCREENS IN TEXT MODES 0, 1, & 2

If you have a screen in Graphics modes 0, 1, or 2, you can covert it into a standard graphics screen, and use it with Magniprint II+. Just follow the instructions in Chapter 7.

Chapter 7

Printing Pictures Drawn in BASIC

If you have a BASIC program that produces a graphics or text screen, you can save that screen in Magniprint II+ format, and use it like a normal picture file. You can also use this process to convert pictures that are displayed by BASIC programs, or screens in text modes 0, 1, and 2. You can even use any picture in Magniprint II+ format in your own BASIC programs.

Pictures in Graphics Modes 3, 4, 5, 6, 7, 7.5 (E), 8, 9, 10, and 11

There are special subroutines on your Magniprint II+ disk that capture screens directly from BASIC programs as they are drawn. Use the routine called SCSAVE.LST with screens in the graphics modes listed above. Just ENTER SCSAVE.LST into your program, and it will save the picture for you.

Below are the step by step instructions for using SCSAVE.LST. After that is a simple tutorial for SCSAVE.LST. You may want follow the tutorial before you try saving pictures from your programs.

HOW TO CAPTURE PICTURES FROM BASIC PROGRAMS

1. Begin with the picture on the screen.

Load and run your screen generating program. Let the program run normally until the picture you want is completely drawn on the screen.

2. Find the place where SCSAVE.LST belongs.

To find the correct place in the program to put SCSAVE.LST, press the BREAK key after the picture is drawn. Note the line number where the program has stopped.

3. Adjust the program.

LIST the section of code containing the line where the program stopped in step 2. This line is probably within a timing loop or in a loop waiting for your input. In either case, remove the loop.

4. Set the graphics mode.

Put in the line:

```
GRMODE=X:GOTO 30000
```

Put it at the spot where you removed the loop. X is the graphics mode the picture was drawn in. Normally, adding 16 to Graphics modes 3 to 8 (eliminating the text window) will produce better results. For Graphics mode 7.5 (ANTIC E) pictures, use X=14.

5. ENTER SCSAVE.LST

Insert the back of the Magniprint II+ Master disk in your disk drive and type:

```
ENTER "D:SCSAVE.LST"
```

The subroutine will be added to your program. Just make sure your program doesn't use the line numbers 30000 to 30030.

6. Insert the destination disk.

Put a formatted disk that has at least 66 free sectors in your drive. Your new picture file will be stored here.

7. RUN the program.

Now type RUN. The program will begin as usual, but when your screen is completely drawn, it will stop and save the screen to disk. It will be saved as PICTURE.MP. You can change this name by changing the file name in line 30000 in SCSAVE.LST.

QUICK PICTURE CAPTURING TUTORIAL

As an example, the back of the Magniprint II+ disk has a BASIC program called GR9DRAW.BAS. This is a short program that draws some shapes in graphics mode 9.

First, load and run GR9DRAW.BAS from DOS, just as you would any other BASIC program. If you need more information about DOS, please refer to your DOS manual.

When the program has completed a shape you like, hit the BREAK key. Note the line number where the program stopped. You may want to LIST the program.

Replace line 80 with the line:
80 GRMODE=9:GOTO 30000

Now add SCSAVE.LST to the program. Type ENTER "D:SCSAVE.LST. You may want to LIST the program again, to see how it's changed.

Put a disk in drive 1 for the picture file. Type RUN.

The program will draw the shape, stop, and save it to disk, and call it PICTURE.MP. Now you can use PICTURE.MP with Magniprint II+, like any other picture file.

Graphics Modes 0, 1, & 2 (Text Modes).

Atari's three text modes can be converted to Magniprint II+ format, and printed with all Magniprint II+'s capabilities. These modes are even easier to convert than the other graphics modes! The special subroutine SAVE012.LST will capture and save them for you.

Begin by finding the appropriate place to insert the "GOTO 30000" line, as described in the previous section. Remember, your program cannot use line numbers 30000 to 30030. The value for

GRMODE will be assigned automatically, you need do nothing to that variable.

Place the back of the Magniprint II+ disk in drive 1 and type:
ENTER "D:SAVE012".LST"

This adds the subroutine SAVE012.LST to your program.

Now run your program. The text screen will be displayed, and saved to drive 1 as "PICTURE.MP" in Magniprint II+ format. You can change this name by changing the filename in line 30002.

Using Magniprint II+ Pictures in your BASIC Programs

You can use a Magniprint II+ picture in your BASIC program with the SCSAVE.LST routine. Your program cannot use the line number 30000 to 30030.

First, you must modify SCSAVE.LST. Go to line 30000, and set RW=4.

When you want to load a Magniprint II+ picture in your program, use the command GOTO 30000. The picture whose filename appears in line 30000 will be loaded. You can change the filename to any legal Atari filename.

Once the picture has loaded, you can continue on in your BASIC program, or hold the picture on the screen by removing the first "REM" in line 30008.

Chapter 8

Print All

Print All will print your programs or files exactly the same as they appear on your screen, including inverse and Atari graphics characters. Follow the steps below.

1. LIST (not SAVE) your program to disk.

To accomplish this, LOAD your program, then LIST it using another filename:

```
LIST "D:filename.LST"
```

2. Load Print All

Boot the Magniprint II+ Master disk. When you see the Main menu, select item 2, Print All.

3. Follow the screen prompts, beginning with the filename of your listed program.

Hit RETURN for a disk directory of drive 1. For a directory of drive 2, press 2 then RETURN.

4. Choose your options.

After entering the date (or just press RETURN), you'll see a menu. You can choose two different print sizes, the line spacing, the left border, the number of characters to print, and an alternate character set. Just follow the screen prompts.

Appendix A

Technical

Information

Magniprint II+ stores picture files in the following format:

1 byte Graphics Mode
9 bytes Color Registers 704-712

The display list information and actual picture data follow this data.

For B/Graph and Graphic Master, the graphics mode used is 24. For other programs, a 14 is used to trigger a graphics 7.5 (Antic mode E) screen.

For ComputerEyes pictures, a 1 is placed in the color register 704 to select the default ComputerEyes gray shades.

Appendix B

Problems

Magniprint II+ sends complicated signals to the printer to make it print the picture files. If something goes wrong and the picture will not print correctly, turn the printer off then on again, AND reboot your Magniprint II+ Master disk. Never turn the printer off without rebooting Magniprint II+, because the printer will have lost all its special codes.

Turning the printer off and on, and rebooting the Magniprint II+ disk ususally fixes most problems. If that doesn't work, look up the specific problem in the Troubleshooting outline.

Troubleshooting Outline

1. Improper printing.

There are several possibilities here.

A) Magniprint II+ is not set for your printer. Reboot the Magniprint II+ disk, and see which printer name is displayed by the prompt "Y)PRINTER=". If your printer name is not displayed, you must change it. Follow the instructions in Chapter 4, Printer Selection on page 18.

If the program is set for your printer, try using a different printer or spacing setting. Gemini NP-10 printers, for example, work best with the Epson setting, Exapanded spacing. Again, see Chapter 4, page 18 for instructions on changing the printer and spacing settings.

If your printer name doesn't appear on any setting, and your printer is not completely compatible with any of the names that do appear, Magniprint II+ will not

work with it. Magniprint II+ needs a printer that is able to understand all the special codes, and some printers, like Gorilla Bananas, just don't have that ability. Other printers cannot work with Magniprint for other reasons. Okimate printers will not work because they confuse picture data and instructions with control codes. This is caused by the Okimate's design, and cannot be changed.

B) You are using an early version of the APE-FACE interface, or another noncompatible interface. APE-FACE had problems with their early interfaces. They have offered to upgrade them with a working version, so contact them for assistance. To identify an early APE-FACE, see the note below.

We have tested many interfaces and found very few compatibility problems. If the manufacturer indicates it is fully compatible with an 850, then it probably is. As a rule of thumb, if the interface uses the same kind of data cable as your disk drive, and can be plugged into, or at the end of, the "Daisy Chain" with your disk drives, it will work. If it plugs into the joystick ports, it will not work.

NOTE: If you have an APE-FACE, and need to tell which version you have, unfasten the four screws which hold the box together and look at the chips. If you find three chips, and one of them has NEC printed on it, you have the early model and should contact Digital Devices for an exchange.

C) You are using the centering option. Some printers won't center a picture properly. If you have problems, then avoid this option.

D) Your dip switches may be set incorrectly. check the settings, and adjust them according to your printer's manual.

E) The spacing is set incorrectly. If the picture looks squashed, stretched, or out of proportion, or if it seems to be printing on top of itself, you may need to set the Spacing option. See Chapter 4., page 18 to change the spacing.

F) Your printer, interface or computer may have a problem. Hardware problems can appear and vanish with no rhyme or reason. Make sure all the cables are firmly plugged in, and there are no loose connections. Make sure everything has a steady power supply.

Test your copy of Magniprint II+ on a friend's system to see if it works properly there. If it does, then test your printer, computer, and interface by using them with your friend's system to find the faulty unit.

2. Pictures you've loaded don't look right, or the screen is blank.

A) The picture is not in Magniprint II+ or a compatible format.

If you've just loaded the picture for the first time, then it probably isn't in a Magniprint II+ compatible format. Double check the instructions for general picture conversions and the specific instructions for that format, and try reconverting the original picture file.

B) The picture wasn't saved properly.

If you've loaded the picture before and it looked O.K., then it probably wasn't saved correctly. Only graphics mode 7.5 (Antic E) pictures can be saved in compressed Micro Illustrator format. If the picture file is damaged or messed up, you'll have to return to the original picture file and reconvert it.

3. Disk won't load or files are missing.

It is possible that your disk was damaged or erased in shipment. This is unlikely, but if you think that this has occurred, try loading the program on a friend's system. If it still won't load, then follow the warranty instructions for a free replacement.

4. If all else fails, call or write to Alpha Systems, and ask for the Technical Assistance Department.

Appendix C

Reference Card

START - Quick Print

OPTION - Quick print in inverse
(Hold down 'C' at same time to center)

SELECT - Color Rotation

N - Normal Printing

Type 'N' then a size

Graphics 8 & 7.5 (E): 1-8

Graphics 9: 1-4

Press START for normal or OPTION for inverse (not
Graphics E) to print

(Hold down C to center)

ESC aborts the print out.

TAB changes the cursor shade

RETURN exits this mode

S - Sideways Printing

Same as above

ESC - Converts Graphics 8, 7.5 (E), & 9 screens (when the
picture is displayed on the screen)

- Aborts the print out and returns to Magniprint II+
(when printing a picture)

CONTROL M - Mirror Image, turns picture backwards

CONTROL & ARROW KEYS - Scroll picture

SPACE BAR & L - Load A New Screen

SPACE BAR & T - Touch-Up

- OPTION - to flash cursor
- Joystick Trigger - to draw
- E - to enter erase mode
- D - return to draw mode
- RETURN - to exit Touch-Up mode

SPACE BAR & X - Insert Text

(Graphics modes 8 and 7.5)

- Joystick - to position cursor
- Joystick Trigger - fine vertical motion
- TAB - change cursor shades
- CTRL-TAB then 1, 2, 3, or 4 - Change text size
- RETURN - exit this mode

SPACE BAR & P - Poster Printing

Graphics 7.5 - Allows shade selection. After selection, press START to print

- Other Graphic Modes - START to print normally
- OPTION to print inverse

P - Pauses printing

SPACE BAR & C - Change spacing

Spacing 1-9

Spacing of 2 is normal on most printers

E - toggles in and out of EXPANDED mode. Spacing 2 in EXPANDED is normal on some newer printers

Space Bar - to exit

Also From Alpha Systems

Graphics Transformer - Use almost any graphic with almost any program. Use your ComputerEyes pictures in Print Shop, Strip Poker images with Koala Pad, or a Syngraph screen with Typesetter. **\$22.95**

ComputerEyes - Create digitized graphics 7.5 (E) or 8 screens from any VCR, video camera, etc. **\$119.95**

Graphics 9 - Captures ComputerEyes images in graphics 9 **\$12.00**

Chipmunk - Creates working, unprotected back-ups of your disk based programs **\$35.95**

Scanalyzer - Scan, analyze, & modify any program **\$29.95**

Impersonator - Cartridge back-up system **\$29.95**

Atari Software Protection Techniques & Advanced Protection Techniques - Complete 2 book & 2 disk set explains software protection in detail, including Custom formats, worms, on-line protection. Disks let you protect your own programs quickly & easily **\$39.95**

Hack Pack - Hacker's special, includes Chipmunk, Scanalyzer, Impersonator, Atari Software Protection Techniques, Advanced Protection Techniques, Disk Pack 1000, all software & hardware included **\$99.95**

Parrot II - Record digital sounds, play them on any Atari or use them in your own programs. Turn your Atari keyboard into a digital synthesizer **\$49.95**
PARROT DEMO DISK PRE-RECORDED SOUNDS
See what it can do .. **\$5.00** Extra sounds, recorded & ready to use .. **\$4.95**

Pop-N-Rocker New game with digital sounds or use your own sounds **\$24.95**

BASIC Turbocharger - Ready to use machine language routines for BASIC programs. A must for every BASIC programmer **\$24.95**

CALL OR WRITE for a catalog of exciting 8-bit & ST software

Alpha Systems 1012 Skyland Dr. Macedonia, OH 44056
(216)374-7469

LIMITED WARRANTY

Alpha Systems warrants the original purchaser of this computer software product that the recording medium on which the software programs are recorded will be free from defects in materials and workmanship for ninety days from the date of purchase. Defective media returned by the purchaser during that ninety day period will be replaced without charge, provided that the returned media have not been subjected to misuse, damage, or excessive wear.

Following the initial ninety day warranty period, defective media will be replaced for a replacement fee of \$6.50.

Defective media should be returned to:

ALPHA SYSTEMS
1012 SKYLAND DRIVE
MACEDONIA, OH. 44056

in protective packaging accompanied by: (1) a brief statement describing the defect; (2) a \$6.50 check or money order (if beyond the ninety day warranty period); (3) your return address; (4) the problem disk.

What is Not Covered by this Warranty

This warranty does not apply to the software programs themselves. the programs are provided "as is".

This warranty is in lieu of all other warranties, whether oral or written, express or implied. Any implied warranties, including imputed warranties of merchantability and fitness for a particular purpose, are limited in duration to ninety days from the date of purchase. Alpha Systems shall not be liable for incidental or consequential damage for breach of any express or implied warranty.

The provisions of the foregoing warranty are subject to the laws of the state in which the disk is purchased. Such laws may broaden the warranty protection available to the purchaser of the disk.

Tell Us What You Think

We at Alpha Systems are sincerely interested in bringing you the best possible products at the lowest possible prices. Please write us if you experience any difficulties with our products, or have any comments or ideas for improvements. We will do our best to make our products better meet your needs. When you write, please enclose the following: 1) Your name, address, and phone number. 2) Your comments, or a description of your problem. 3) A description of your system. 4) If you are reporting a problem, please also include a description of what you were doing when the problem occurred, any printouts or other output showing the problem if possible, and any suggestions you may have regarding the cause and solution.

