

RESOLUTION, SPEED, AND SILENCE

Superior Graphics and A Pseudo Disk for \$495.

That's right, silence! Because when you plug the Interactive Graphics Controller/Pseudo Disk into your H/Z89 or H/Z19-H8 system you not only get graphics that rival most 16 bit computers, you also get a high speed Pseudo Disk that does the work of another disk drive in your system, only much faster, and without all of that noise!

This upgrade stretches the horizons of your system into the future with High Resolution Graphics, Pseudo Disk Storage, 2 Trackball/Joystick Interfaces, and 2 Parallel Printer Ports, all for one very competitive price.

Copy your CP/M or HDOS files to the Pseudo Disk and cut execution times as much as 80% over mechanical drives with disk I/O intensive programs. Files are even retained when you cold boot, and HDOS users can sysgen it as the boot device!

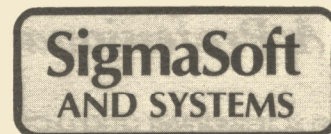
Take a good look at these features: • 3 pages of graphics, 640 by 250 pixels each • Mix text and graphics with independent scrolling • A remarkably easy-to-use high level driver that gives ANY language the power of fast graphics • Unmatched drawing speeds result from an advanced design which requires no handshaking or wait states • Use interlace mode and double the screen resolution to 640 by 500 pixels (requires Super19 or Ultra ROM) • Plug in up to 2 trackballs or joysticks for interactive applications (provisions for light pen) • 2 Centronics parallel printer ports with full support available • An alternate character set ROM socket to double the number of characters your screen can display (Script character set available) • Source codes available • European 50Hz compatible • Mounts professionally and easily into your H/Z89 or H/Z19-H8 and no existing features are sacrificed • 90 day limited warranty.



Call or write NOW so we can rush our complete information package to you!

COMPARE	Northwest Digital Graphics-Plus	Cleveland Codonics Imaginator	SigmaSoft and Systems
Normal Pixel Resolution	512 x 250	504 x 247	640 x 250
Interlaced Pixel Resolution	n/a	n/a	640 x 500
Graphics Memory Size	16k	16k	64k / 128k*
Number of Graphics Pages	1	1	3
Pseudo Disk Memory Size	n/a	n/a	64k / 128k* / 256k*
Super19/Ultra ROM Compatible	No	No	Yes
Vertical Graphics Scrolling	No	No	Yes
Type of Interface	Serial	Serial	Parallel
Independent Power Supply	No	No	Yes
Graphics Input Device Ports	n/a	n/a	2
Parallel Printer Ports	1*	n/a	2
Price/Performance Ratio	Good	Better	Best

*Option at additional charge.



"Support is the most important feature."

4488 Spring Valley #107, Dallas, TX 75234, (214) 392-1025

Copyright 1984 by SigmaSoft and Systems

The Interactive Graphics Controller is a trademark of SigmaSoft and Systems. H/Z89, H/Z19, and HDOS are trademarks of Heath Corp., Benton Harbor, MI. CP/M is a trademark of Digital Research, Inc., Pacific Grove, CA. Super19 is a trademark of Extended Technology Systems, Bensalem, PA. Ultra ROM is a trademark of Software Wizardry, St. Charles, MO. Codonics and Imaginator are trademarks of Cleveland Codonics, Inc., Cleveland, OH. Graphics-Plus is a trademark of Northwest Digital Systems, Seattle, WA.

A Powerful Graphics Development System

The Interactive Graphics Controller/Pseudo Disk turns your H/Z89 or H/Z19-H8 into a true graphics development system. Create, display, and print very detailed charts and graphs, scientific and engineering drawings, animated artistic visual presentations, and limitless educational applications, all without learning a whole new language.

You already know what the commands of the IG: (Interactive Graphics) driver do thanks to

their straightforward names, and using them is just as simple. Use IG: commands from any programming language you choose, just as easily as printing data to the screen.

Use the relative as well as absolute coordinates to instantly scale and move images at will. Draw new images while displaying another and then select them with the paging commands. Up to 3 separate pages (screens) can be stored at once for true animation effects.

The graphics Input and Cursor commands will make your software truly interactive, and the Print command will output any drawn image to your Epson or IDS printer.

The Interactive Graphics Device Driver Command Set

Dot	x,y	Draws dots.
Line	x1, y1, x2, y2	Draws lines in current style.
Box	x1, y1, x2, y2	Draws boxes in current style.
Circle	x, y, r	Draws circles in current style.
Arc	x, y, r, a1, a2	Draws arcs in current style.
Paint	x, y	Paints an outlined area in current style.
Style	pattern	Selects drawing pattern styles.
Display	page	Selects 1 of 3 video pages for display.
Draw	page	Selects 1 of 3 video pages for drawing.
Go	x, y	Positions relative coordinates.
Origin	x, y	Positions origin for absolute coordinates.
Mode	pixel, char	Selects pixel, character video mode, or both.
Erase	x1, y1, x2, y2	Erases any rectangular area with style.
Clear		Clears entire video memory.
Print	page	Outputs image to Epson or IDS printer.
Input	left/right	Inputs trackball/joystick directions.
Pen		Returns position of light pen.
Cursor	x, y	Positions graphic cursor.
Move	direction	Moves graphic cursor position relative.
Test	x, y	Tests for set pixel.
Get	x, y	Gets video image byte.
Put	x, y, image	Puts video image byte.
Array	x1, y1, x2, y2	Duplicates any video image byte array.

A Pseudo Disk to Save You Time

Stop waiting so long for compilers, assemblers, and virtual file text editors to perform their tasks. One simple command installs the PD: (Pseudo Disk) driver into your CP/M or HDOS system to store your files for instantaneous access. In fact, ANY program that leaves you waiting to read a mechanical disk, can instead read up to 64k (expandable to 256k) of those same files from the Pseudo Disk at electronic speeds. Compilation and assembly times are typically cut in half!

A Professional Installation

One screwdriver and a couple of hours is all that you need to complete the installation into your H/Z89. Clear, step by step instructions and illustrations lead you through the simple installation process. None of the ports or right side bus slots of your H/Z89 are used, and a special hinged mounting bracket lifts the board out of the way quickly when needed. One power cable must be soldered for installation into an H/Z19.

