

# TEST

## Graphics in another dimension

**The C128 is in its normal configuration equipped with a chip, whose possibilities doesn't saw the light. This chip is the VDC8563, the Video-Display-Controller for the 80-char modus. If you think, this chip only exists for the display of 80-chars-text, then you're wrong as can be.**

The brothers Giger in Solothurn / Switzerland, owners of Combo AG, didn't only accept the meager information in the manual for this chip, but also expected the possibilities of the VIC in 40-columns-mode with the easy to use commands like GRAPHIC, DRAW, BOX, CIRCLE... But sadly these commands doesn't work on VDC. Though there are some programs that can do, the quality isn't as good, as could be.

So they did "Graphic Booster 128" (for DM 174.- / ~105.-US\$). It's an add-on-board with manual and software.

You only have to install the board without soldering at the cost of some time. Installing was way easier for C128, than for C128d. You had to read the 10-sides big install-manual twice and double-check installation. The guarantee of your C128 expired with opening the case. Then you careful had to remove the VDC chip and install the GB-board, with VDC installed on that new board. The metal-housing should've been bended away from board to avoid any short-circuit.

But now for the crazy news: Commodore had installed this board on new C128d computers innately! And Combo AG didn't know of that. Maybe someone had given Commodore some information about this board and they maybe used that without permission of Combo AG? Anyway, the C128d (since 1987) with the Datasette-Port on the left side of the computer has this 64kB memory upgrade installed for instant use with the software-only version of Graphic Booster. One thing is clear: Without the GB-software it is useless, until you write some own programs, but this is very hard to do.

After reassemble of your C128 you have now different new ways to use the VDC, after loading the "boot" file from disc. Now you see the different possible resolutions listed in [horizontal \* vertical]. Choose from

640\*360, 640\*720, 640\*600, 720\*700, 720\*600 and 750\*600 pixels.

These resolutions use the interlace, which means that the picture is build out of two half-resolved pictures, first the even, then the odd raster lines. Not all monitors can display that interlace, some begin to flicker or the picture moves over the screen. Adjust the vertical Sync and maybe the height to stop the moving. Some monitors won't work at all, so you cannot use the highest resolution. The Commodore Monitor 1901 should work well also with the higher/highest resolutions.

After you've chosen your resolution to work with, a short while nothing happens. This is because of the VDC-initializing procedure. But then you'll see your 40-columns-screen again and then it's up to you: Use the new commands and display/use up to 256 colors out from a palette of 3000. GRAPHIC 2,1 switches the screen to 640\*360, /720\*360 pixels and clears the screen. (In normal 40-columns-screen the command would have been GRAPHIC 1,1)

Also the COLOR-command is a bit different. The first parameter sets the background color (0-255), the second one the pixel color (0-15). (The pixel color will be automatically set to a readable contrast. Light background sets dark pixel color and vice versa) There's no border (like on the Amiga), so the entire screen can be used for your graphics.

You can save your work as whole screen with the slightly changed SSHAPE"(name)",8 (will result to 200 Block-file if highest resolution). GSHAPE"(name)",8 loads the picture from disc and shows it immediately.

Another difference shows the CHAR-command. You're now able to use big/small capitals with the use of the chosen resolution (not 40x24). A big plus is the use of two additional parameters for height & width (0-100) (like in Simon's Basic, but stock C128 doesn't haven't this option)

The developers in Switzerland added one more fine option: Scrolling in both directions for 8 lines each with the use of SYS-command.

The professional possibilities with "Graphic Booster 128" lets it use for programming, creating and designing professional graphics. We would recommend to use two monitors -left text, right graphic-. The resolutions are also usable under CP/M.

And if you happily own a Ram-Expander (1700/1750), you can design up to 8 screens in the highest resolution possible!

Even though "Graphic Booster 128" is just on the market, there are already two upgrades available. The first lets you use 256 out of 3000 colors and is available from Combo AG, Solothurn, the second is an adaptation of the "Starpainter 128" from Sybex-Verlag, Düsseldorf which is available for DM 99.- (~65US\$) There will be some other adaptations for GEOS and Giga-CAD.

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### Overview

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With "Graphic Booster", you now can use high resolution graphics at the ease of Basic, read text files with 43- or 50-columns without interlace, CAD, Desktop-Publishing... It's a fact that nobody ever tried to program the VDC with all its possibilities. The Combo AG told us that the VDC-chip company and Commodore gave no further information about this chip. But why? Which reason had Commodore to not give information about the VDC-chip? Should it be better for Amiga or didn't they know either? (it's a miracle, especially the new C128d had this feature built in...) (B.U.)

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