

ACE-80 Eighty Column Display by Claus Buchholz

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ACE-80 is a software-generated eighty column display device for Atari computers. It uses the Atari's own video hardware to display eighty remarkably legible characters across the screen. A monochrome monitor provides the clearest display, but ACE-80 is usable with color monitors and quality B&W and color TVs. ACE-80 provides an economical alternative to eighty column boards, which are only available for the Atari 800.

ACE-80 automatically installs itself in the Atari operating system in place of the E: and S: devices, the normal forty column screen editor and display. It uses about 12K of RAM when active but gives up that RAM when other screen modes are in use. The cartridge itself does not displace any RAM.

ACE-80 comes in two versions. ACE-80XL is a left cartridge that works in all Atari computers with at least 48K RAM. It can work with BASIC if BASIC is built into the machine (600XL, 800XL and XE models). The right cartridge version, ACE-80, is only for the Atari 800. It allows BASIC to be used in the left slot.

When the computer powers up with ACE-80 installed, it immediately displays its title and waits for a key press. This gives you a chance to adjust the screen to your liking. The START and SELECT buttons, along with the SHIFT key, make the following adjustments:

START varies the brightness of the displayed characters.

SELECT varies the brightness of the background.

SHIFT-SELECT varies the background color. Use this to increase the readability on color displays.

SHIFT-START changes the cursor from flashing to steady or invisible.

When you've adjusted the display, press any key to boot the disk. The eighty column display remains active. It differs in minor ways from the normal screen editor. The maximum logical line length is eighty characters, so you cannot edit a line of more than eighty characters. To do so, you must return to the forty-column mode.

In BASIC, GRAPHICS 16 or OPEN #6,12,0,"S:" reverts to forty columns. To return to eighty columns, either GRAPHICS 0, OPEN #6,28,0,"S:" or OPEN #1,12,0,"E:" can be used.

All graphics commands work as usual in eighty column mode except the DRAWTO and fill commands. All editing and cursor control keys also operate, except clear tab and set tab. Tabs are permanently set at every eighth position. SETCOLOR and most POKES, such as cursor enable and left and right margins, work as well. All other graphics modes work normally.

ACE-80's cursor is only visible when the screen editor is waiting for a keypress. To enable the cursor at other times, use POKE 54286,192. Be sure to turn it off with POKE 54286,64 before doing any I/O with external devices such as the disk or printer.

ACE-80 is not disturbed by a RESET warmstart, but it disappears if the computer performs a coldstart without being turned off first. So, to coldstart or reboot the computer with ACE-80 active, turn it off for a few seconds and then turn it back on.

Some programs designed to work under forty columns may not operate in eighty. There are several possible sources of incompatibility. Programs that do not use the operating system for screen I/O or that use custom displays will not work. Some programs may have conflicting memory demands. ACE-80 uses the top 12.5K of RAM as well as a few bytes at the bottom of page one.

Some incompatible programs can be altered to work with ACE-80. Useful programs such as word processors really shine in eighty columns. Amiable will be providing fixes for several popular products. ACE-80 brings the Atari into a world of more powerful and professional applications.