

# Aprospand 'excellent' despite limits

## Aprospand-64

Apropos Technology

reviewed by Michael Quigley

An expansion board is required for the VIC-20 if you want to get serious about computing, especially as far as extra memory is concerned. The 64, on the other hand, has plenty of memory, so why would anyone need a board for that computer?

Most 64 cartridges are of the auto-start variety, which means that when they're not in use, they have to be unplugged from the computer. An expansion board provides an alternative solution to this problem, thereby lessening wear on both cartridges and the expansion port. As well, if you have more than one cartridge, a board not only allows you to switch them in and out with ease, but provides a place to keep them all organized. There are also a few companies making cartridges which run in conjunction with each other (for example, Cardco's Write Now!, Spell Now!, File Now!, etc. and an expansion board provides the only way of accessing them easily or all at once.

The Aprospand-64 from Apropos Technology provides a simple solution to all these needs. It offers four cartridge slots, each with a large, easily maneuvered on/off switch. The board is supplied with a fuse to prevent damage to your computer. There is also a reset switch of the momentary contact variety, which often relieves you of the tedium of turning your computer on and off. (It should be noted, however, that due to the 64's memory construction, the reset switch will not always eliminate material which is in the area usually reserved for cartridge programs.)

The board, as expected, plugs into the expansion port of your 64. The circuit board itself is sandwiched into a vinyl case which has been epoxied together. It is possible to split this case open if you want to make

some modifications to the board or remove it entirely if you want to install some legs on the board (these are not supplied).

There are some limitations on the use of the Aprospand-64. The major one is that the maximum power to all the cartridges used should not exceed 1/2 amp. One suggested example of this happening is with 80-column display cartridges which require extra power. If the computer is unable to provide the necessary power in this case, it is recommended that a separate power supply for the board be purchased.

The reset switch of the Aprospand-64 is used to directly connect pin C (reset) and A (GND) of the expansion connector. There are theories in some circles that extra resistance should be inserted in such a line to prevent damage to the computer. When I asked Apropos about this, the technician dismissed such theories as "hearsay" and said that they had never received any complaints about their boards. Still, the

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# ★ Aprospand 'excellent'

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rumors persist, just like the controversy over the 1541's "save and replace" command.

Another factor that should be noted is that there is slightly less than 7/16" clearance between the edge of each expansion slot and its accompanying switch. A member of my users' group informed me that there are a couple of cartridges for the 64 which might not be able to accommodate this tolerance.

These limitations aside, Aprospand-64 is excellent value for the money, priced somewhat lower than the competing Cardco board. There is no mention of any warranty or user support in the enclosed operating manual (a single sheet of paper), but the company has a 10-day guarantee of "satisfaction or your money refunded."