

- ❖ *Bank switches:* Note that the soft switches for the bank-switched memory, described in the previous section, do not change when you switch to auxiliary RAM. In particular, if ROM is enabled in the bank-switched memory space before you switch to auxiliary memory, the ROM will still be enabled after you switch. Any time you switch the bank-switched section of auxiliary memory in and out, you must also make sure that the bank switches are set properly.

When you switch in the auxiliary RAM in the bank-switched space, you also switch the first two pages, from 0 to 511 (\$0000 through \$01FF). This part of memory contains page zero, which is used for important data and base addresses, and page one, which is the 65C02 stack. The stack and zero page are switched this way so that system software running in the bank-switched memory space can maintain its own stack and zero page while it manipulates the 48K address space (from \$0200 to \$BFFF) in either main memory or auxiliary memory.

Memory mode switching

Switching the 48K section of memory is performed by two soft switches: the switch named RAMRD selects main or auxiliary memory for reading, and the one named RAMWRT selects main or auxiliary memory for writing. As shown in Table 4-7, each switch has a pair of memory locations dedicated to it, one to select main memory, and the other to select auxiliary memory. Enabling the read and write functions independently makes it possible for a program whose instructions are being fetched from one memory space to store data into the other memory space.

Warning Do not use these switches without careful planning. Careless switching between main and auxiliary memories is almost certain to have catastrophic effects on the operation of the Apple IIe. For example, if you switch to auxiliary memory with no card in the slot, the program that is running will stop and you will have to reset the Apple IIe and start over.
