

See the section "Switching I/O Memory" in Chapter 6 for details.

If the Apple IIe has an 80-column text card and you want to use the 80-column display, you can activate the built-in firmware from BASIC by typing PR#3.

To activate the 80-column firmware from the Monitor, press 3, then Control-P. Notice that this is the same procedure you use to activate a card in expansion slot 3. Any card installed in the auxiliary slot takes precedence over a card installed in expansion slot 3.

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**Important**

Even though you activated the 80-column firmware by typing PR#3, you should never deactivate it by typing PR#0, because that just disconnects the firmware, leaving several soft switches still set for 80-column operation. Instead, press the sequence Escape-Q (see Table 3-6).

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SLOT3ROM is described in Chapter 6 in the section "Switching I/O Memory."

If there is no 80-column text card or other auxiliary memory card in your Apple IIe, you can still activate the 80-column firmware and use it with a 40-column display. First, set the SLOT3ROM soft switch located at \$C00A (49162). Then type PR#3 to transfer control to the firmware.

When the 80-column firmware is active without a card in the auxiliary slot, it does not work quite the same as it does with a card. The functions that clear the display (CLREOL, CLEOLZ, CLREOP, and HOME) work as if the firmware were inactive: they always clear to the current color. In addition, interrupts are supported only with a card installed in the auxiliary slot.

For more information about interrupts, see Chapter 6.

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**Warning**

If you do not have an interface card in either the auxiliary slot or slot 3, don't try to activate the firmware with PR#3. Typing PR#3 with no card installed transfers control to the empty connector, with unpredictable results.

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Programs activate the 80-column firmware by transferring control to address \$C300. If there is no card in the auxiliary slot, you must set the SLOT3ROM soft switch first. To deactivate the 80-column firmware from a program, write a Control-U character via subroutine COUT.