

Table 2-10
Annunciator memory locations

Annunciator			Address	
No.	Pin*	State	Decimal	Hex
0	15	Off	49240 –16296	\$C058
		On	49241 –16295	\$C059
1	14	Off	49242 –16294	\$C05A
		On	49243 –16293	\$C05B
2	13	Off	49244 –16292	\$C05C
		On	49245 –16291	\$C05D
3	12	Off	49246 –16290	\$C05E
		On	49247 –16289	\$C05F

* Pin numbers given are for the 16-pin IC connector on the circuit board.

Strobe output

The strobe output is normally at +5 volts, but it drops to zero for about half a microsecond any time its dedicated memory location is accessed. You can use this signal to control functions such as data latching in external devices. If you use this signal, remember that memory is addressed twice by a write; if you need only a single pulse, use a read operation to activate the strobe. The memory location for the strobe signal is 49216 (hexadecimal \$C040 or complementary –16320).

Switch inputs

The three one-bit inputs can be connected to the output of another electronic device or to a pushbutton. When you read a byte from one of these locations, only the high-order bit—bit 7—is valid information; the rest of the byte is undefined. From machine language, you can do a Branch Plus or Branch Minus on the state of bit 7. From BASIC, you read the switch with a PEEK and compare the value with 128. If the value is 128 or greater, the switch is on.

The memory locations for these switches are 49249 through 49251 (hexadecimal \$C061 through \$C063, or complementary –16287 through –16285), as shown in Table 2-12. Switch 0 and switch 1 are permanently connected to the Open Apple and Solid Apple (or Option, on the extended keyboard IIe) keys on the keyboard; these are the ones normally connected to the buttons on the hand controls. Some software for the older models of the Apple II uses the third switch, switch 2, as a way of detecting the Shift key. This technique requires a hardware modification known as the single-wire Shift-key mod.