CHAPTER 4

ADDRESS SELECTION

The AOB2-P card requires eight consecutive address locations in I/O space. The starting, or base address, can be selected anywhere within an I/O address range 000-3FF hex, providing that the address does not overlap with other functions. (Generally speaking, you will not use base addresses below 200 hex) If in doubt refer to Table 1 below for a list of standard address assignments.

TABLE 1.

Hex Range	Usage
000-00F	DMA Chip 8237A-5
020-021	Interrupt 8259A
040-043	Timer 8253-5
060-063	PPI 8255A-5
080-083	DMA Page Register
0AX	NMI Mask Register
0CX	Reserved
0EX	Reserved
100-1FF	Not Usable
200-20F	Game Control
210-217	Expansion Unit
220-24F	Reserved
278-27F	Reserved
2F0-2F7	Reserved
2F8-2FF	Asynchronous Communication (secondary)
300-31F	Prototype Card
320-32F	Fixed Disk
378-37F	Printer
380-38C**	SDLC Communications
380-389**	Binary Synchronous Comm. (secondary)
3A0-3A9	Binary Synchronous Comm. (primary)
3B0-3BF	IBM Monochrome Display/Printer
3C0-3CF	Reserved
3D0-3DF	Color/Graphics
3E0-3E7	Reserved
3F0-3F7	Diskette
3F8-3FF	Asynchronous Communication (primary)

** These options can not be used together - addresses overlap

The AOB2-P base address bits A3 through A9 are set by DIP switch S1. The AOB2-PSET program provided on diskette with your card includes an interactive base-address selection program. The computer monitor presents a pictorial display of the DIP switch and, when you enter your desired hex base address, the display changes to show proper switch settings for that address.

To understand how this works, consider the following. In order to select the base address, convert the desired address to binary form. Then **for each "1" of binary address set the corresponding DIP switch to OFF, and for each "0" of binary address set the corresponding switch to ON.**

Here's an example showing how to program the base address to hex 300:

1. Convert hex 300 to binary
   300 (hex) = 11 0000 0000 (binary)

2. Set the Address Selection DIP Switches

   The AOB2-P card occupies eight bytes of I/O address space. Address lines A3 through A9 are used to select the base address via DIP switches marked with the same names. Address lines A0, A1, and A2 are used to address registers at the digital-to-analog converters and there are no DIP switches for these three lines.

Address	1	1	0	0	0	0	0	0	0	0
witch	A9	A8	A7	A6	A5	A4	A3		NONE	
Setting	OFF	OFF	ON	ON	ON	ON	ON		NONE	

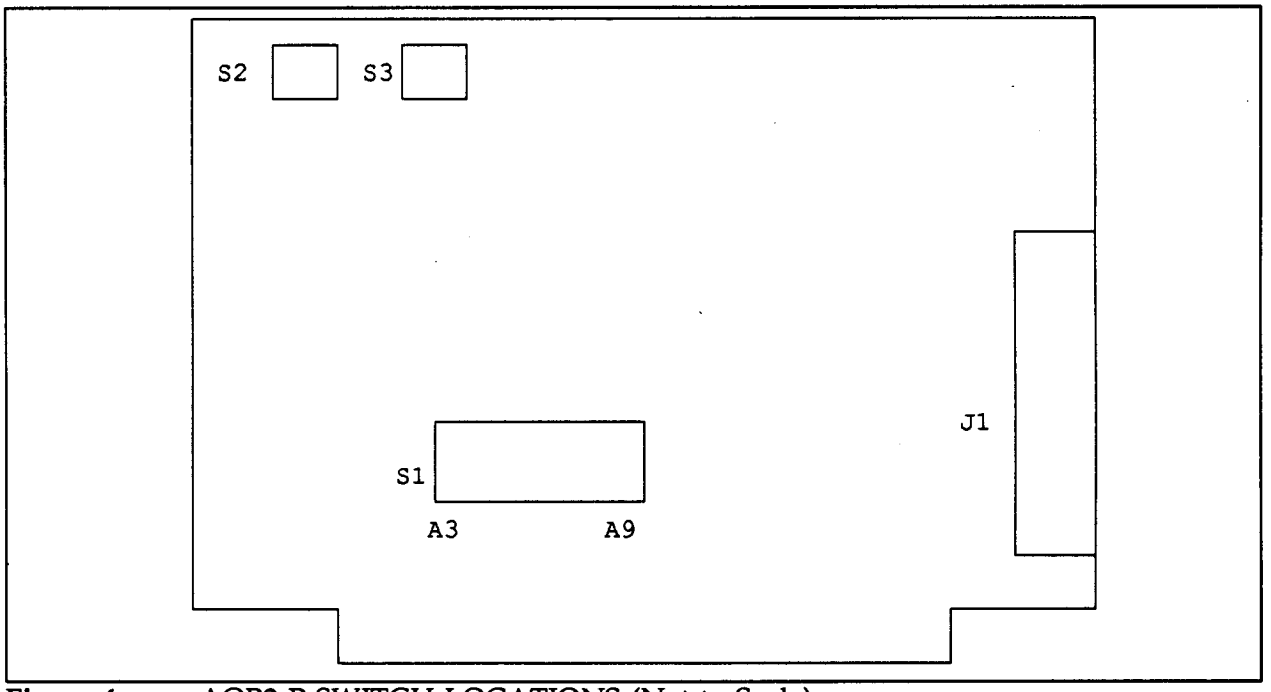

Figure 4 AOB2-P SWITCH LOCATIONS (Not to Scale)