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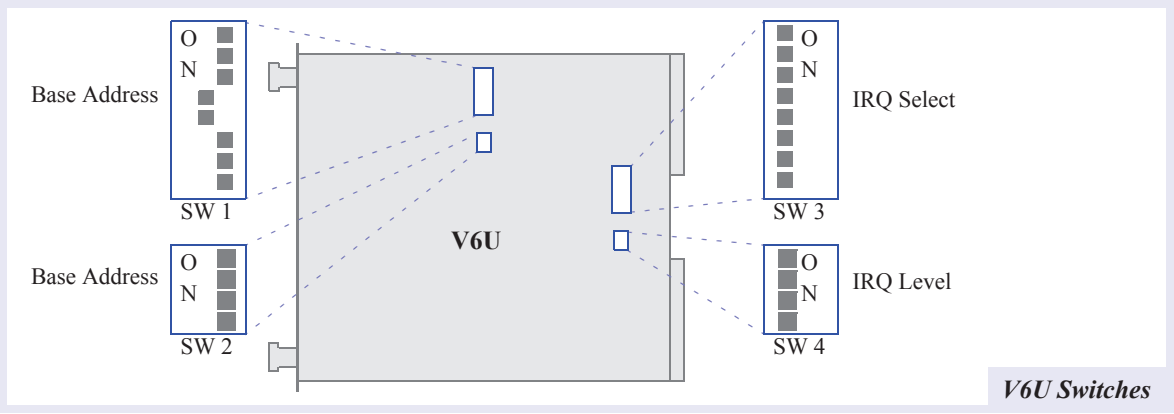
Find the *Danaher / Kollmorgen / Motion Engineering V6U/DSP* at our website: *Click HERE*

V6U

Locate Switches

The base I/O address switch is located in the upper center of the V6U controller and is labeled SW1. SW2 is not currently used and should remain at its default setting (all ON). The IRQ Select and Level switches (SW3 and SW4) are located in the right mid-section of the controller.

Figure 2-5 V6U Address and IRQ Switch Locations



Set Base I/O Address

Use the SW1 and SW2 dipswitches on each controller to set the base I/O address. There are 10 possible choices for the Base I/O Address: 0xFFF0220, 0xFFF0240, 0xFFFF0260, 0xFFFF0280, 0xFFFF02A0, 0xFFFF0300, 0xFFFF0320, 0xFFFF0340, 0xFFFF0360, or 0xFFFF0380.

After choosing a Base I/O Address, look at the next 2 tables to find the switch settings that will implement your desired Base I/O Address.

Table 2-9 Base Address Switch (0xFFFF0220 - 0xFFFF02A0)

Bus	*Switch*	*0xFFFF0220*	*0xFFFF0240*	*0xFFFF0260*	*0xFFFF280*	*0xFFFF02A0*
A15	SW2-3	on	on	on	on	on
A14	SW2-2	on	on	on	on	on
A13	SW2-1	on	on	on	on	on
A12	SW1-8	on	on	on	on	on
A11	SW1-7	on	on	on	on	on
A10	SW1-6	on	on	on	on	on
A9	SW1-5	OFF	OFF	OFF	OFF	OFF
A8	SW1-4	on	on	on	on	on
A7	SW1-3	on	on	on	OFF	OFF
A6	SW1-2	on	OFF	OFF	on	on
A5	SW1-1	OFF	on	OFF	on	OFF

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Table 2-10 Base Address Switch (0xFFFF0300 - 0xFFFF0380)

Bus	*Switch*	*0xFFFF0300*	*0xFFFF0320*	*0xFFFF0340*	*0xFFFF0360*	*0xFFFF0380*
A15	SW2-3	on	on	on	on	on
A14	SW2-2	on	on	on	on	on
A13	SW2-1	on	on	on	on	on
A12	SW1-8	on	on	on	on	on
A11	SW1-7	on	on	on	on	on
A10	SW1-6	on	on	on	on	on
A9	SW1-5	OFF	OFF	OFF	OFF	OFF
A8	SW1-4	OFF	OFF	OFF	OFF	OFF
A7	SW1-3	on	on	on	on	on
A6	SW1-2	on	on	OFF	OFF	on
A5	SW1-1	on	OFF	on	OFF	on

Default

The logic for the address switches are ON = low and OFF = high.

Communication between the host CPU and the DSP Series controller occurs through a memory window. The start of this memory window is set by the address switches SW1 and SW2. The DSP Series controllers use 6 addresses on the VME bus (see next table).

Table 2-11 Addresses on the VME bus

Address	*Description*	*Read/Write Size*
0xFFFF0300	Address Low	8 or 16-bit Write Only
0xFFFF0301	Address High	8-bit Write Only
0xFFFF0302	Data Low	8 or 16-bit Read/write
0xFFFF0303	Data High	8-bit Read/Write
0xFFFF0304	Set/Reset Flip-Flop	8 or 16-bit Write Only
0xFFFF0305	(Clear Reset) Flip-Flop	8-bit Write Only

Communication occurs in two steps.

1. First, set the address by writing to 0xFFFF0300 and 0xFFFF0301 with either two 8-bit writes, or a 16-bit write. This “connects” the VME bus data lines to the specified location in the controller’s internal memory map.
2. Next, the data is read/write on addresses 0xFFFF0302 and 0xFFFF0303 with either two 8-bit read/writes or a 16-bit read/write.

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Set the Interrupts

The IRQ Select switch connects the V6U's interrupt circuitry to a particular IRQ line on the VME bus. To select a VME-bus IRQ line, turn ON the corresponding switch while leaving the other switches off.

For example, if IRQ3 is connected, SW3-3 must be ON while SW3-1, SW3-2, SW3-4, SW3-5, SW3-6, SW3-7, and SW3-8 must be OFF.

Table 2-12 IRQ Select Switch SW3

IRQ	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*	
None	off	off	off	off	off	off	off	off	*Default*
IRQ1	off	off	off	off	off	off	off	ON	
IRQ2	off	off	off	off	off	off	ON	off	
IRQ3	off	off	off	off	off	ON	off	off	
IRQ4	off	off	off	off	ON	off	off	off	
IRQ5	off	off	off	ON	off	off	off	off	
IRQ6	off	off	ON	off	off	off	off	off	
IRQ7	off	ON	off	off	off	off	off	off	

The IRQ Level switch configures the V6U's on-board logic to decode an interrupt acknowledgment from the host processor. The switch settings correspond to a binary representation of the particular IRQ line connected by the IRQ Select switch.

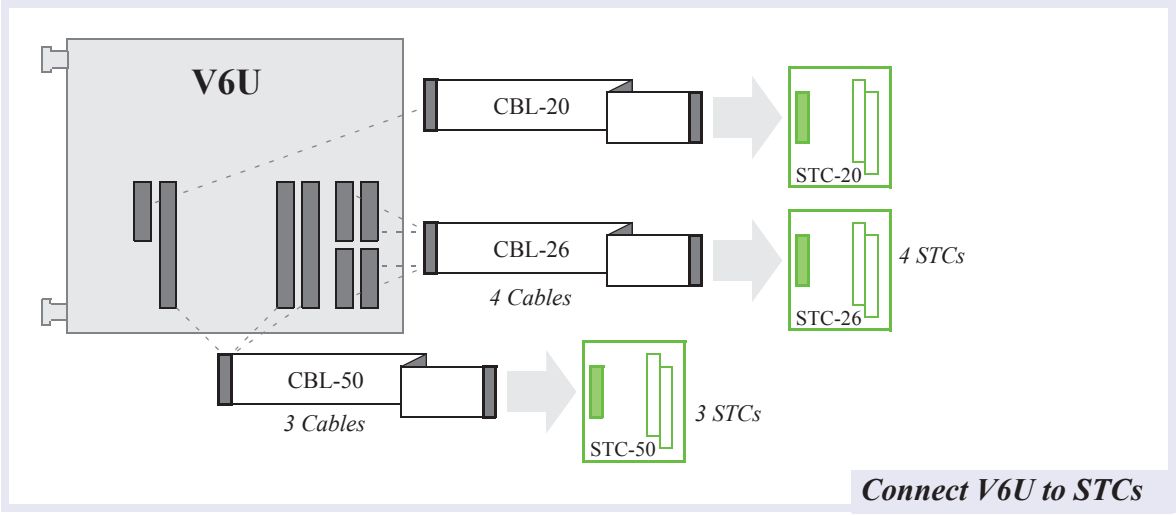
For example, if IRQ3 is selected, then SW4 should represent the decimal value 3. So, SW4-1 and SW4-2 must be ON. SW4-3 and SW4-4 must be OFF.

Table 2-13 IRQ Level Switch SW4

IRQ Level	*4*	*3*	*2*	*1*	
LEVEL 0	off	off	off	off	*Default*
LEVEL 1	off	off	off	ON	
LEVEL 2	off	off	ON	off	
LEVEL 3	off	off	ON	ON	
LEVEL 4	off	ON	off	off	
LEVEL 5	off	ON	off	ON	
LEVEL 6	off	ON	ON	off	
LEVEL 7	off	ON	ON	ON	

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Connect Cables/Insert Board



Connect V6U to STCs

To install the controller:

1. **Turn off the power** to the VME chassis.
2. Select an unused slot.
3. Install all required ribbon cables.
4. Insert the controller and press firmly until the board is seated in the backplane connector.
5. Fasten the mounting screws (for models that have mounting screws).
6. Proceed to Chapter 3 to test your I/O Address.

Motion Engineering, Inc.

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