

Table 6 below lists the default jumper settings for the WD1007V-SE2 which supports two 5.25 or 3.5-inch drives. The WD1007V-SE1 is a hard disk only version of the controller.

**TABLE 6. DEFAULT JUMPER SETTINGS**

	JUMPER		FUNCTION
W1	1-2	No Jumper	Cacheing Enabled
	3-4	No Jumper	4 Bytes ECC
	5-6	No Jumper	Translation Enabled
	7-8	No Jumper	Reserved
	9-10	No Jumper	SPT Determined by Drive Jumpers
	11-12	No Jumper	No Alternate Sector
W3	1-2	No Jumper	BIOS ROM Enabled
W5	1-2	No Jumper	Single Speed Floppy Drive
W6	1-2	No Jumper	Primary Floppy Address (3F2-3F7)
W7	1-2-3	Jumper 1-2	IRQ14 Enabled
W8	1-2-3	Jumper 2-3	BIOS Address is CC00:0000 to CC00:3FFF
W12	1-2	No Jumper	Primary Hard Disk Address (1 F0-1 F7)

**W1 Jumper Connection.** Jumper connections W1 1-2, 3-4, 5-6, 9-10, and 11-12 select the 80C188 firmware options as shown in Table 6 when no jumpers are installed. When jumpered, the following options are selected. *Note: If you are merely replacing a WD1007A controller with a WD1007V controller, and you do not wish to reformat your currently installed drive(s), you must emulate the 1007A mode by installing jumpers on W1 9-10 and W1 11-12.*

**W1 1-2:** When this jumper is installed, no cacheing occurs.

When no jumper is installed, cacheing is enabled. Cacheing increases overall system performance by reading ahead and buffering data sectors likely to be requested by the host on subsequent read commands.

**W1 3-4:** When this jumper is installed, Read Long and Write Long operations use the seven byte ECC mode.

When no jumper is installed, four byte ECC mode is selected. When using four byte ECC mode, three ECC bytes are temporarily saved until the next command or data transfer occurs.

**W1 5-6:** When this jumper is installed, no disk address translation occurs. The controller assumes that the logical values indicated by the Set Parameters command are the true physical values of the drive.

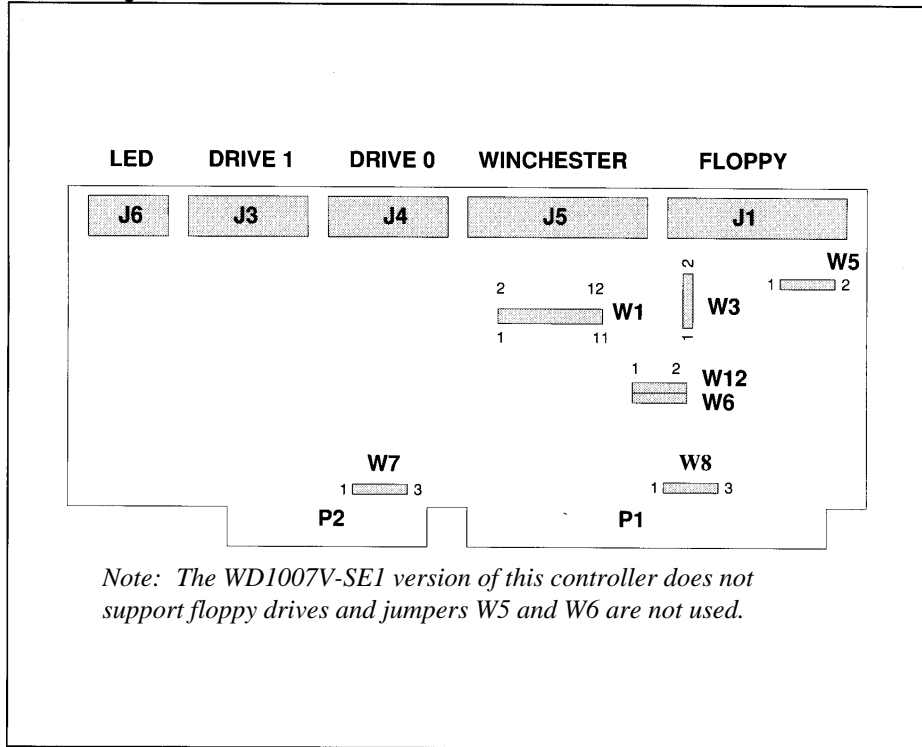
If no jumper is installed, logical-to-physical translation occurs. The generic translation algorithm converts any logical format to the physical format of the drive. However, the maximum logical parameters for the system BIOS INT 13 are 63 SPT 16 heads and 1024 cylinders.

**W1 7-8:** This jumper connection is reserved. No jumper should be installed

**W1 9-10:** Installing this jumper and issuing a Set Parameters command to the drive will set the drive to 35 SPT. This overrides the drive sector size switches. This jumper has no effect on drives having data transfer rates of 15 Mbits per second. Without a jumper, the controller uses the physical SPT value presented by the drive (as determined by the drive's jumper settings).

## WFDC Configuration

### WFDC Configuration



**FIGURE 2. CONTROLLER MODULE LAYOUT**

Figure 2 illustrates the general module jumper placement and approximate connector locations. The module dimensions are 13.12 by 4.2 inches and a mounting bracket is included. Jumper con-

figurations for the WFDC module appear in Table 6.

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**W1 11-12:** When a jumper is installed, an alternate sector per track is provided. The alternate sector is useful when deallocating media defects. Mapping out media defects is important if the operating system can accommodate only a certain number of errors.

**W3 Jumper Connection.** To disable the installed BIOS option, place a jumper on W3 1-2.

**W5 Jumper Connection.** The WD1007V-SE2 supports single speed floppy drives. When jumpered, dual-speed floppy drives are supported.

**W6 Jumper Connection.** To select the module's secondary address range of 372-377 for floppy drives, install a jumper on W6 1-2. The primary address ranges of 3F2-3F7 is selected when jumpers are not installed.

**W7 Jumper Connection.** The 1 007V-SE1 /SE2 offers the default interrupt request, IRQ1 4, which is selected by the factory installed jumper, W7 1-2. IRQ 15 may be selected by moving the

jumper on W7 1-2 to W7 2-3. Note that MS-DOS, OS/2 and most other operating systems work only with IRQ14. Some operating systems may work with IRQ15 if custom drivers are installed.

**W8 Jumper Connection.** W8 2-3 is jumpered to select the BIOS address range CC000 through CFFFF or, if expressed as a "segment:offset" address, 0000:0000 to C000:3FFF (CF00:0FFF). The overlay RAM occupies 256 bytes of the BIOS address range and is enabled following any memory write access to the address range. By removing the jumper from W8 2-3 and placing it on jumper W8 1-2, the BIOS address range can be changed to C8000 through CBFFF or, if expressed as a segment:offset address, C800:0000 to C800:3FFF (CB00:0FFF).

**W12 Jumper Connection.** To select the module's secondary address range for fixed drives (170-177), place a jumper on W12 1-2. The primary address range, 1 F0-1 F7. is selected when jumpers are not installed.