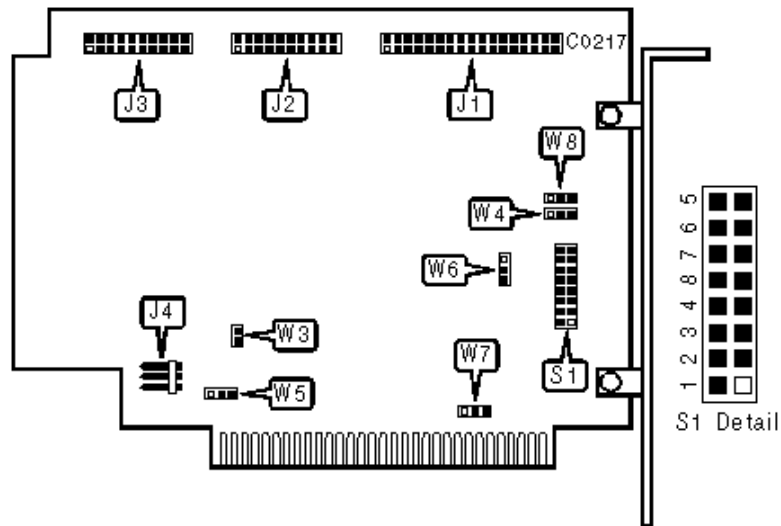# WESTERN DIGITAL CORPORATION
WD1002A-WX1

Data bus: 8-bit, PC/XT

Size: Full-length, full-height card

Hard drives supported: Two MFM ST506/412 drives

Floppy drives supported: None

Maximum heads/cyl.: 16 heads and 1024 cylinders

CONNECTIONS	
Function	**Location**
34-pin control cable connector-hard drive	J1
20-pin data cable connector-drive 0	J2
20-pin data cable connector-drive 1	J3

5-pin connector-DC power	J4

USER CONFIGURABLE SETTINGS

Function		Location	Setting
»	BIOS enabled	W3	closed
	BIOS disabled	W3	open
»	I/O port address 320h	W4	pins 2 & 3 closed
	I/O port address 324h	W4	pins 1 & 2 closed
»	BIOS ROM size 32K or 64K (hard-wired)	W5	pins 1 & 2 closed
	BIOS ROM size 16K	W5	pins 2 & 3 closed
»	8 head hard drive with RWC supported	W6	pins 2 & 3 closed
	16 head hard drive supported (head select 3)	W6	pins 1 & 2 closed
»	x Hard Drive Interrupt is IRQ5 (hard-wired)	W7	pins 1 & 2 closed
	Hard Drive Interrupt is IRQ2	W7	pins 2 & 3 closed

»	Single controller setting, primary controller	W8	pins 2 & 3 closed
	Dual controller setting, secondary controller	W8	pins 1 & 2 closed
»	Not used	S1/jumper 5	open
»	Not used	S1/jumper 6	open
»	*Hard Drive Interrupt is IRQ5	S1/jumper 7	open
	*Hard Drive Interrupt is IRQ2	S1/jumper 7	closed
	*XT mode enabled	S1/jumper 8	open
	*AT mode enabled	S1/jumper 8	closed

Note:* This controller can be purchased with several different BIOS revisions.

These jumpers are not applicable when used with some BIOS revisions.

BIOS REVISION "SUPER BIOS" DRIVE TYPE TABLE

	Drive 0	Drive 1							
#	S1/1	S1/2	S1/3	S1/4	Cap.	Hds	Cyls.	WP	RWC
0	closed	closed	closed	closed	21MB	4	612	450	450
1	open	closed	open	closed	10MB	4	306	0	153
2	closed	open	closed	open	10MB	2	615	450	450
3	open	open	open	open	21MB	4	615	450	450

BIOS REVISION "G" DRIVE TYPE TABLE

#	Drive 0	Drive 1						

#	S1/1	S1/2	S1/3	S1/4	Cap.	Hds.	Cyl.	WP	RWC
0	closed	closed	closed	closed	20MB	4	612	none	none
1	open	closed	open	closed	10MB	2	612	128	128
2	closed	open	closed	open	20MB	4	612	128	none
3	open	open	open	open	10MB	4	306	0	none

BIOS REVISION "H" DRIVE TYPE TABLE - S1

JUMPERS 3, 4, & 8 CONFIGURE DRIVE 0

JUMPERS 1, 2 & 7 CONFIGURE DRIVE 1

#	S1/1 & 3	S1/2 & 4	S1/7 & 8	Cap.	Hds	Cyl.	WP	RWC
0	closed	closed	closed	42MB	5	977	none	none
1	open	closed	closed	31MB	5	733	300	none
2	closed	open	closed	33MB	6	640	none	none
3	open	open	closed	62MB	8	1024	1024	1024

4	closed	closed	open	42MB	6	820	none	none
5	open	closed	open	10MB	2	612	128	128
6	closed	open	open	20MB	4	612	128	none
7	open	open	open	10MB	4	306	0	none

The Super BIOS revision includes the following features not found in other revisions: ability to format bad tracks, dual controller operation, automatic configuration, virtual drive operation, and PC/AT compatibility. This controller has a built-in low-level format program. To enter the program run the DEBUG utility supplied with DOS and at the prompt enter: G=C800:5. Two additional jumpers may be present, W1 & W2, and are reserved for factory use and must not be changed.