

NOTE:

The following discusses both the
WD1002-FOX and WD1002A-FOX

9.0 WD1002/A FOX BOARD

The term 'FOX Board' has at times been used to refer to the above prototype WD37C65 board. Although the FOX board was born as a direct result of the popularity of the prototype board, the two are not the same. The WD1002-FOX is built using the WD37C65 and is presently available. The next generation of the FOX board, the 1002A-FOX, utilizes the WD37C65A, and will be available in early 1988.

The WD1002/A FOX board is an IBM PC XT/AT Compatible Diskette/Tape Drive Controller board designed to interface up to four diskette or tape drives via two connectors; J1 (34-pin) or J1 (40-pin) for internal drives and J2 (37-pin) for external drives. An optional +5V and +12V power connector J3 is also available. The 40 pin internal connector J1 (with optional power) and J3 are only available in the WD1002A-FOX. All necessary drivers and receivers are included on the board, allowing direct connection to the drives. The design is based on the proprietary Western Digital WD37C65/A diskette/tape drive controller.

Controller interface with host computer is facilitated via an eight bit, bi-directional data bus and other I/O control signals.

Five versions of the board are available.

PLEASE NOTE THAT IN ALL VERSIONS OF THE WD1002-FOX THE BIOS (WHEN PRESENT) SHOULD BE DISABLED WHEN OPERATING IN AN AT AND ENABLED IN AN XT. IN THE WD1002A-FOX, THE BIOS (WHEN PRESENT) SHOULD BE ENABLED IN BOTH THE XT AND THE AT.

F001: no BIOS, no external connector J2, no power supply connector. Supports 2 internal drives only. WD1002-FOX, WD1002A-FOX versions.

PC/XT:

Internal drives:

-360Kb drive
-720Kb drive -not supported
-1.2MB drive -not supported
-1.44MB drive -not supported

PC/AT:

Internal drives: maximum 2 drives

-360Kb drive
-720Kb drive -requires DOS 3.2 or higher and setup.
-1.2MB drive -requires DOS 3.1 or higher and setup.
-1.44MB drive -CMOS parameters must be set up for drive type.
-requires DOS 3.3 and drive compatible BIOS.

External drives: no external drive supported.

In both PC/AT/XT F001 also supports internal tape drives.

F002: no BIOS, supports internal/external drive (J1/J2) and optional external power connector J3*.

WD1002-FOX, WD1002A-FOX versions.

PC/XT:

Internal drives: maximum 2 drives

-360Kb drive
-720Kb drive -not supported
-1.2MB drive -not supported
-1.44MB drive -not supported

External drives: maximum 2 drives

-360Kb drive
-720Kb drive -Required DOS 3.2 or higher and DRIVER.SYS in CONFIG.SYS
-1.2MB drive -not supported
-1.44MB drive -not supported

PC/AT:

Internal drives: maximum 2 drives

-360Kb drive
-720Kb drive -required DOS 3.2 or higher and setup.
-1.2MB drive -required DOS 3.1 or higher and setup.
-1.44MB drive -requires DOS 3.3, setup and drive compatible BIOS.

External drives: maximum 2 drives

-360Kb drives
-720Kb drives -required DOS 3.2 or higher, setup, DRIVER.SYS, and EXDSKIBIO.DRV.
-1.2MB drive -not supported
-1.44MB drive -not supported

F003: with BIOS, no J2 and J3,* supports 2 internal drives only. WD1002-FOX and WD1002A-FOX versions. BIOS would be disabled in the WD1002-FOX only (see notes at the end of this section).

PC/XT:

Internal drives: maximum 2 drives

-360Kb drive
-720Kb* drive -required DOS 3.2 or higher
-1.2MB drive -required DOS 3.1 or higher
-1.44MB* drive -required DOS 3.3

PC/AT:

Internal drives: maximum 2 drives

-360Kb drive
-720Kb* drive -requires DOS 3.2 or higher, setup.
-1.2MB drive -requires DOS 3.1 or higher, setup.
-1.44MB drive -requires DOS 3.3, setup and drive compatible BIOS.

External drives: no external drive supported

F004: with BIOS, external connector J2, and optional power supply connector J3*. Supports 4 drives. WD1002-FOX and WD1002A-FOX versions.

(*)WD1002A-FOX only.

PC/XT:

Internal drives: maximum 2 drives

- 360Kb drive
- 720Kb drive -requires DOS 3.2 or higher.
- 1.2MB* drive -requires DOS 3.1 or higher.
- 1.44MB* drive -requires DOS 3.3 or higher.

External drives: maximum 2 drives

- 360Kb drive
- 720Kb drive -requires DOS 3.2 or higher, driver.sys*.
- 1.2MB drive -not supported.
- 1.44MB drive -not supported.

PC/AT:

Internal drives: maximum of 2 drives

- 360Kb drive
- 720Kb drive -requires DOS 3.2 or higher, setup (WD1002-FOX only).
-requires 3.2 (WD1002A-FOX only).
- 1.2MB drive -requires DOS 3.1 or higher, setup (WD1002-FOX only).
-requires DOS 3.1 or higher, (WD1002A-FOX only).
- 1.44MB drive -requires DOS 3.3, setup, and drive compatible BIOS (WD1002-FOX only).
-requires DOS 3.3 (WD1002A-FOX only).

External drives: maximum 2 drives

- 360Kb drive
- 720Kb drive -requires DOS 3.2 or higher, setup, DRIVER.SYS, and EXDSKBIO.DRV (WD1002-FOX only).
-requires DOS 3.2 or higher (WD1002A-FOX only).
- 1.2MB drive -not supported.
- 1.44MB drive -not supported.

F005: No BIOS, supports 2 internal drives, 2 external drives, with J3 power connector and selectable DMA channel. WD1002A-FOX only.

PC/XT:

Internal drives: 2 internal drives

- 360Kb drive
- 720Kb drive -not supported
- 1.2MB drive -not supported
- 1.44MB drive -not supported

External drives: 2 external drives

- 360Kb drive
- 720Kb drive -requires DOS 3.2, DRIVER.SYS in CONFIG.SYS
- 1.2MB drive -not supported
- 1.44MB drive -not supported

PC/AT:

Internal drives: 2 internal drives

- 360Kb drive
- 720Kb drive -requires DOS 3.2 or higher and setup.
- 1.2MB drive -requires DOS 3.1 or higher and setup.
- 1.44MB drive -requires DOS 3.3, setup and drive compatible BIOS.

External drives: 2 internal drives

- 360Kb drive
- 720Kb drive -requires DOS 3.2 or higher, setup, DRIVER.SYS and EXDSKBIO.DRV.
- 1.2MB drive -not supported.
- 1.44MB drive -not supported.

***1002A-FOX only**

NOTES

1. J3 option is only available in the WD1002A-FOX.
2. 1.44MB drives are not supported by the BIOS of the WD1002-FOX. They are supported by the WD1002A-FOX BIOS.
3. "Drive compatible BIOS" means to imply a BIOS that recognizes the given drive type - in this case the 1.44MB drive. For example the IBM AT, 6 Mhz BIOS does not recognize the above drive and is therefore not compatible, while the IBM AT, 8 Mhz does recognize the drive and is therefore compatible.
4. "EXDSKBIO.DRV" is software provided by IBM with their 720Kb drives in order to provide compatibility to such drives when connected externally in an AT.
5. "Requires setup" refers to the fact that the system in question has to be configured to accept and recognize the drives that are present. An example would be setup done through the IBM advanced diagnostics.
6. WD1002-FOX limitation when BIOS is enabled (F002 and F004):
 - a. 1.2MB drives on internal drive only.
 - b. 720Kb drives on external drive only.
 - c. 1.44MB drives not supported.

WD1002A-FOX limitations when BIOS is enabled:

- a. 1.2MB drives on internal connector only.
- b. 1.44MB drives on internal connector only.