


```

|
|
|
|
|
|
|
|
|
|
++LED
++
|
+-----+
|*X F J2
|XX A
|XX C
|XX E
|XX
|XX1
|6-5 J8
|| |
|2-1
|XX J1
|XX Power

```

```

                J2                J8        J1
+39-----1++5-3-1+-+-----+
|o o o o o o o o o o o o o o o o| |o o o| |0 0 0 0|
|o o o o o o o o o o o o o o o o| |o o o| |1 2 3 4|
---+40-----2++6-4-2+++-----+
                | | | +5V
                | | +- GND
                | +--- GND
                +----- +12V

```

(Pin 20 keyed)

Jumpers

WESTERN WD93028/93048/95028/95048/-A INSTALLATION GUIDE

Jumper Setting

=====

Single and Dual (Master/Slave) Installations

The installation procedures describe a single or dual installation. An intelligent drive is compatible with other intelligent drives that support a master/slave configuration. ST-506 hard drives using a standard AT controller are NOT compatible.

If you are installing an intelligent drive and a WDAT adapter board in an IBM PC AT that currently has an original Conner CP342 or CP3022 drive, you will discover that these drives are incompatible. Only one drive can be functional, depending upon the jumper configuration of the WDAT adapter board. This restriction does not apply to AT compatible systems.

J8 Master/Slave Configuration

Verify that the jumper shunts on the drive's J8 jumper block are properly installed to match your configuration choices.

Single installation:

```
Only
+5-3-1+ If this is your first and ONLY intelligent drive in your
|o o o| system their should NO JUMPERS installed on J8.
|o o o|
+6-4-2+
```

Dual installation:

```
Master      Slave
+5-3-1+     +5-3-1+ if you are installing two intelligent drives
|X o o|     |o X o| you must designate one of them as the
|X o o|     |o X o| primary or "master" and the other as the
+6-4-2+     +6-4-2+ secondary or "slave". Jumper your Western
                Digital intelligent drive accordingly: A
                jumper on pins 3-4 designates an intelligent
                drive as a slave; a jumper on pins 5-6
                designates an intelligent drive as a master.
```

Installation with a pre-existing Conner CP342 or CP3022 drive:

```
+5-3-1+ Configure the Western Digital drive as the slave. Install
|o X X| jumpers on the drive's J8 jumper block as shown. The Conner
|o X X| drive should be configured as the master.
+6-4-2+
```

Install

WESTERN WD93028/93048/95028/95048/-A/AD INSTALLATION GUIDE

Notes on Installation

=====

Gather Supplies

If your computer's motherboard has a 40-pin connector for installa-

tion of a hard disk drive, you will need the following items:

- Your Western Digital Drive:

Capacity	3.5 inch	5.25 inch
20 MB	WD93028-A	WD95028-A
40 MB	WD93048-A	WD95048-A

- One 40-pin interface cable (12 inches maximum length)

- This installation Guide

- Optional mounting frame, bezel and LED

If there is not a 40-pin connector on the motherboard, your drive will additionally require:

- An adapter card such as those available from Western Digital:
 - WDAT-140 (provides connector for one hard drive)

- WDAT-240 (provides a connector for both a hard drive and a floppy drive)

- WDAT-440 (provides a hard drive connector, one floppy drive connector, two serial ports, and one parallel port).

Other standard 40-pin adapter cards may also be compatible with your drive.

Interface Connector: 2x20 pin right angle .1" Berg stick (pin 20 keyed)

Cable Type: 40-conductor mass terminated flat ribbon

Cable Length: 12 inches maximum

Power Connector: 4 Pin MOLEX P/N 15-24-4041

Mating Connector: AMP 1-480424-0 (Body)
AMP 60619-4 (Pins)

Interface Wire Gage: 18 AWG

Features

WESTERN WD93028/93048/95028/95048/-A/AD INSTALLATION MANUAL

Product Description

Western Digital's WD93028-A and WD93048-A are intelligent drive products for the IBM PC/AT and compatibles. Their architectures integrate an ST-412/ST-506 compatible hard drive assembly with a controller on a single printed circuit board that is mounted on the disk drive chassis. The integration of disk drive and controller increases reliability and performance by eliminating redundant circuitry. Models WD93028-A and WD93048-A offer 20 megabytes and 40 megabytes of storage, respectively, in a 3.5 inch form factor. These drives are also available in a 5.25 inch frame (WD95028-a and WD95048-A).

With your new Western Digital drive you'll enjoy these benefits of hard disk storage:

The convenience of booting from a hard disk drive.

The ability to easily store numerous files and programs and work with large documents or data bases.

Product Feature

- PC/AT compatible design based on Western Digital's WD42C22A Host Interface and Disk controller

- Data separator and write precompensation logic designed for optimal media compatibility

- 16-Bit, bi-directional command/data bus
- Data transfer rate of 7.75 Mbits per second (RLL encoding)
- Error detection/correction
- Automatic retries on all read/write operations
- Extensive self-test capability
- 3:1 interleave for increased data throughput
- Supports any logical drive type of equal or less capacity

System Requirements

You can use your drive in an IBM PC/AT or compatible system that has Disk Operating System (DOS) version 3.0 or later. Consult your Western Digital representative/dealer if you need information about other operating systems.

Low-level Format

Your Western Digital drive has been preformatted at the factory. However, if you should need to reformat your drive, Western Digital provides a format utility, WDFMT, that allows you to perform a low-level format of the drive. Disk verification, surface analysis, and bad track entry routines are also included in this utility. You may use an equivalent formatting program, if it formats 27 sectors. Do not use IBM's Advanced Diagnostic to perform a low-level format as it can only format 17 sectors per track.

Tips and Troubleshooting

It is becomes necessary to move your cimputer system, park the heads first. Parking the drive heads move the heads to a safe, non-data landing zone (zone 862). This helps protect the media and the heads from accidental damage due to vibration, moving or shipping. Consult

your DOS manual. If your version of DOS does not provide a head parking command, there are a number of utility programs that can provide this feature. Western Digital offers a park routine called PARKIDE.

If your drive is not performing properly, first check your physical installation. Check for reserved cables, an overloaded system power supply, incorrect drive selection, etc.

