

## ***Step Two: Setting the Drive Jumpers***

All Piranha AP4200 drives have at least two jumper blocks, J4 and J8. In addition, some revisions have a third jumper, J5.

- J4 is located next to the internal LED, behind the factory-installed faceplate. J4 controls LED options and provides a connection for an external activity LED.
- J5, if present, is located next to J4. It provides an alternative connection for an external activity LED.
- J8 is located next to the 4D-pin connector. J8 defines information about the number and type of hard drives installed in the system.

The Piranha drive is supplied factory configured for the most common systems.

If you need to change the standard Piranha settings for use in your system, use jumper shunts, which are available from your dealer.

### ***Removing the Factory Faceplate***

To access the J4 and J5 jumpers, you must remove the factory-installed faceplate. The faceplate is held on the drive by a hook on the top and two spring-fit retaining pins that engage holes in the drive base assembly.

To remove the faceplate, place the disk drive, faceplate side up, on an antistatic surface, such as the antistatic bag.

Insert a ball point pen or similar tool in the retaining holes and gently press each pin to disengage

it from the mounting hole. Then lift the faceplate straight up to free the hook on the top surface of the drive.

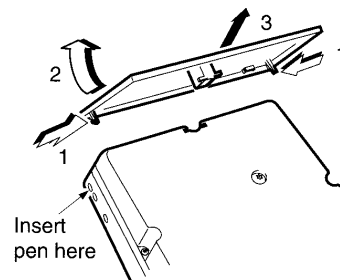


Figure 1. Removing the Factory Faceplate

## J4 Jumpers

The J4 jumper pins determine the color of the Piranha's internal LED and provide a connection for an external activity LED to the drive. Figure 2 illustrates all J4 jumper settings.

- To configure the internal LED as green, place a jumper shunt over J4 pins 1 and 2. This is the standard factory setting, and the drive is supplied with a jumper shunt on these pins.
- To configure the internal LED as red, move the jumper shunt from pins 1 and 2 to pins 3 and 4.
- To install an external activity LED from the system, connect

the positive lead (anode) of the LED to pin 5 and the negative lead (cathode) to pin 6.

If you are using the WD 5.25 Kit, refer to the instructions in the Kit.

- Some Piranha models include two additional pins, 7 and 8, on the J4 jumper block. These pins are reserved and should remain unjumpered.

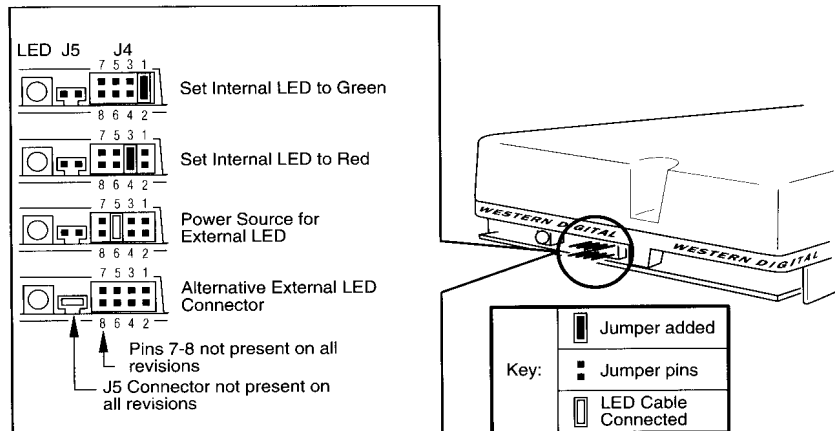


Figure 2. J4, J5 Jumper Settings

### ***J5 Jumper***

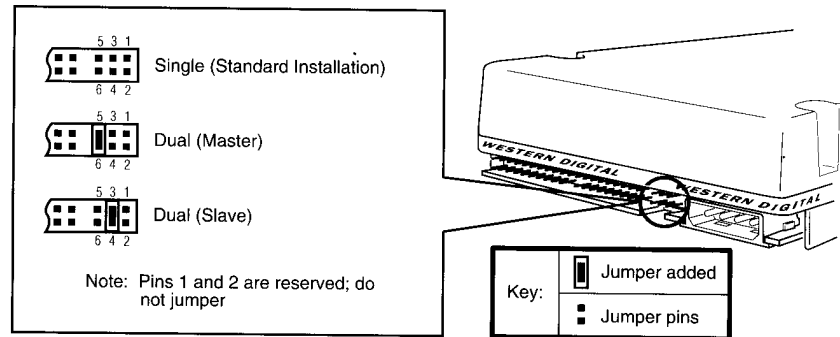
The J5 jumper, if present, is an alternative connector for an external activity LED. J5 is a two-pin 2mm connector

### ***J8 Jumpers***

The Piranha drive is factory-set for single drive installation. If you are installing it as the only intelligent drive in your system, you do not need to install any jumper shunts. Jumper shunts are needed in dual drive installations to designate which drive is the master and which is the slave. Refer to Figure 2 for an illustration of all J8 jumper settings.

- To designate the Piranha drive as the master, place a jumper shunt on pins 5-6.

- To designate the Piranha drive as the slave, place a jumper shunt on pins 3-4.
- Jumper pins 1 and 2 are reserved and should remain unjumped.



***Figure 3. J8 Jumper Settings***

*Preparing the Piranha  
Drive for Use*

The hard drive is ready to set up and is defect-free. The drive must be highlevel formatted so it can accept files. This section of the Installation Guide provides the basics for preparing your drive. You need to consult your operating system documentation for complete information on preparing your drive for use with your operating system

Your computer operating system provides an initial set up utility, which you access with a series of keystrokes at start up, or run from floppy diskettes. The system set up procedures vary from system to system, but each set up procedure allows you to tell the system what type of hardware you are using. Follow the setup instructions in your system manual.

*Selecting Your  
Drive Tables*

One step in the setup procedure asks you to specify the type of drive used in your system. There is no standard drive type for the Piranha drive. You may select any drive type listed in your set up utility with 1024 or fewer cylinders and 414,540 or fewer sectors, the number of sectors available on the Piranha drive.

Cyls	Hds	SPT	Sectors/ Drive
987	12	35	414,540
987	10	42	414,540
882	10	47	414,540
735	12	47	414,540
658	14	45	414,540

*Note: The Piranha drive has been low-level formatted at the factory. Do not low-level format the drive.*

To calculate the number of sectors a drive type provides, multiply the number of cylinders by the number of heads by the number of sectors on each track. For example, 987 x 12 x 35 =414,540. The examples in Table 1 show how several different drive types yield the same number of sectors.

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<b>General</b>	212.24 MBytes
Formatted Capacity	40-pin PC/AT
Interface	Rotary Voice Coil
Actuator Type	4
Number of Disks	8
Data Surfaces	8
Physical Heads	1280
Physical Cylinders	1,578TPI
Average Track Density	165,888 bytes
Formatted Cylinder Capacity	512
Bytes per Sector	414,540
User Sectors per Drive*	(8x41)-4=324
User Sectors per Cylinder	41
Physical Sectors per Track	Embedded Sector Servo
Servo Type	2,7 RLL
Recording Method	56,136 BPI
Recording Density	23,716 FCI
Flux Density	56-bit
ECC	Automatic Head Parking
Head Park	Cylinders 987
Suggested Logical Parameters	Heads 12
	Sectors/Track: 35

\* Maximum. Do not exceed this value when specifying the number of cylinders, heads, and sectors per track.