

IDE DEFINITIONS

Master/Slave Relationship. A master/slave relationship exists when there are two hard drives connected to a single port. In this situation, one drive must be designated as the master, or primary, drive and the other as the slave, or secondary, drive. This designation is necessary because both drives cannot work simultaneously.

Delay Spin. The Delay Spin method is used when a system has multiple drives. Delay Spin reduces high-power surge levels when the computer is started.

Conner Mode. Compaq Computer Corporation has used IDE hard drives that conform to two different master/slave implementations: Conner mode and ATA compatible mode. These two modes are incompatible with one another; therefore, Compaq recommends that both drives, master and slave, must be either ATA compatible or Conner mode for reliable operation.

ATA Mode. ATA mode is a standard that most hard drives are now supporting. Conner mode master/slave was implemented prior to the ATA standard. All current production Compaq IDE drives conform to the ATA master/slave implementation. Some IDE drives supplied by Compaq are jumper-configurable for either Conner or ATA master-slave mode. ATA compatible drives use the DASP- signal to determine that a slave is present, and the PDIAG- signal to indicate the slave is ready. Some ATA compatible drives provide a jumper option to tell the master that a slave is present, and to ignore the DASP- and PDIAG- signals. These cases are documented as (master with non-ATA compatible slave present).

CABLE-SELECT TECHNOLOGY

Some computers use cable-select technology for identifying IDE hard drive device 0 (master) and device 1 (slave), depending on where they are connected on the cable-select cable. The configuration jumpers on both hard drives are set the same. The jumpers are preset for cable-select installation.

Cable-select comparable hard drives and IDE cables are backward compatible with computers that do not support cable select. When a cable-select hard drive is used in a non-cable select computer, the drive jumpers must be reconfigured.

SOFT DRIVE TYPE

Some computers support an automatic soft-drive type mechanism where the system ROM and Computer Setup provide support for IDE hard drives that are not supported in the hard drive parameter table. Computer Setup will automatically build a soft-drive type when it finds that a hard drive is not in the hard drive parameter table. You can also change or add a soft-drive type with Computer Setup.

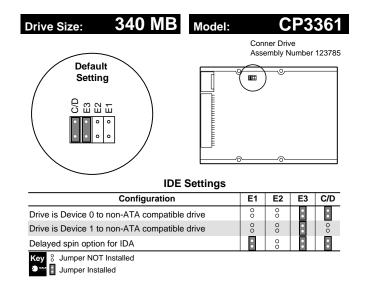
The hard drive parameter information is stored in NV-RAM. The system ROM's POST copies the hard drive parameters into the hard drive parameter table in the shadow RAM copy of the system ROM. After POST, the soft-drive type appears as a hard drive type. The soft-drive types are assigned to hard drive types as shown in the following table.

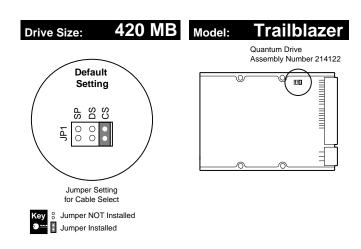
SOFT-DRIVE TYPE ASSIGNMENTS

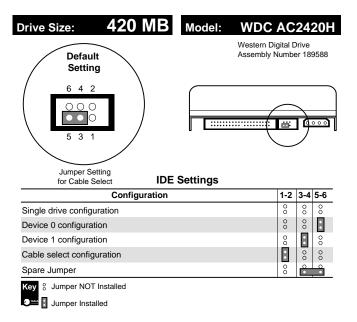
Controller	Drive	Hard Drive Type
Primary	0	65
Primary	1	66
Secondary	0	68
Secondary	1	15

For hard drives larger than 528 MB, the system automatically translates the hard drive parameters for MS-DOS by logically halving the number of cylinders and doubling the number of heads. This allows MS-DOS to access hard drives larger than 528 MB. If you are using an operating system other than MS-DOS, you must use the Compaq Diagnostics Diskette to set up the hard drive parameter without translation.

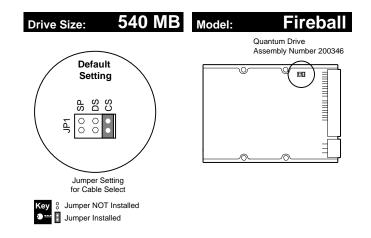
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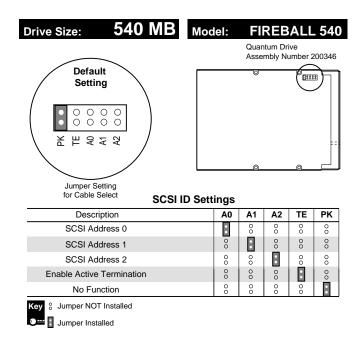


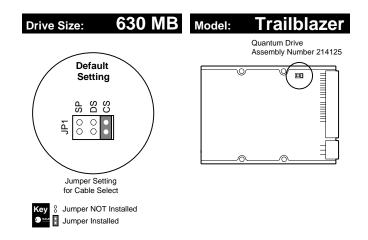


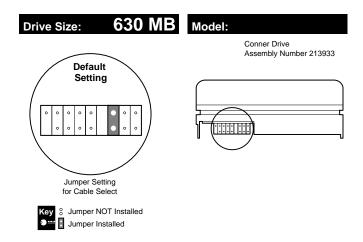


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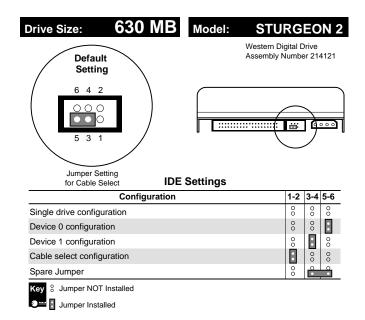


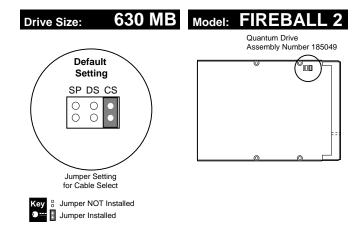


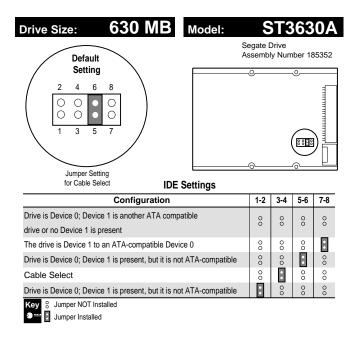




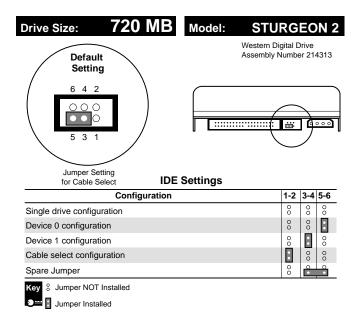
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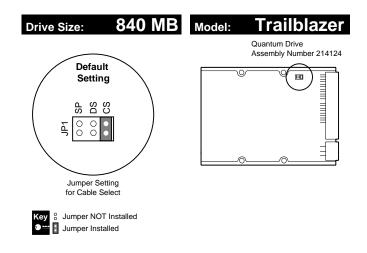


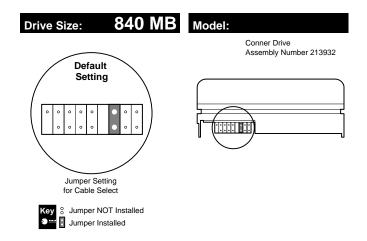


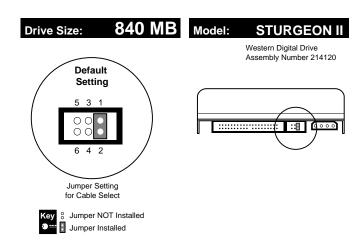


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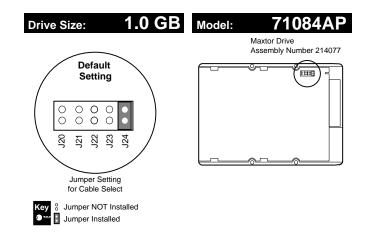


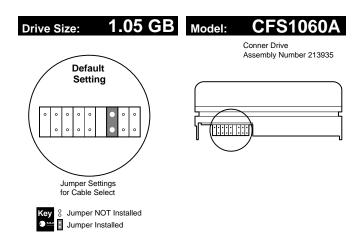


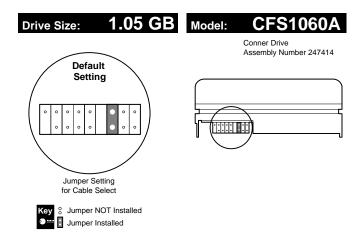


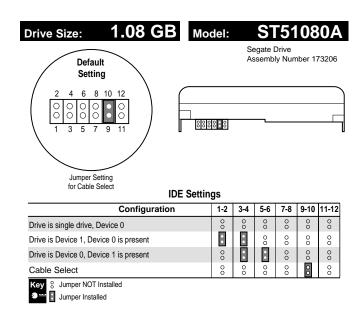


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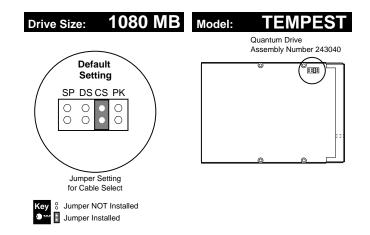


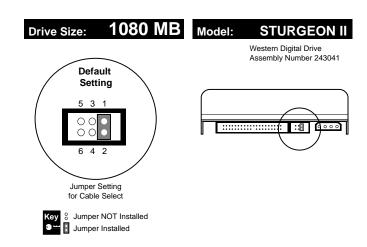


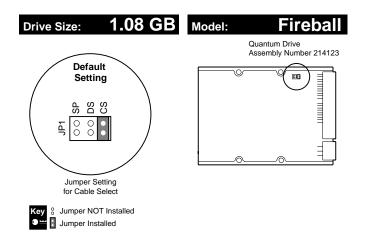


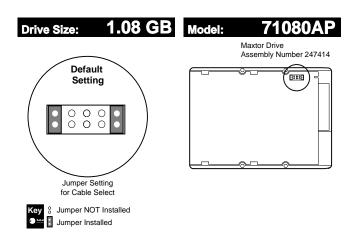


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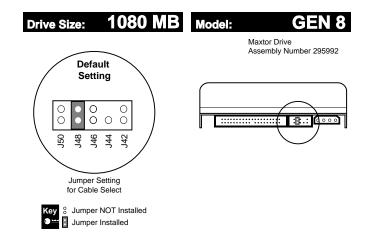


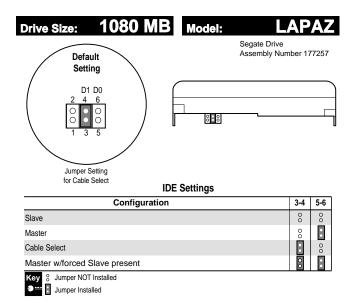


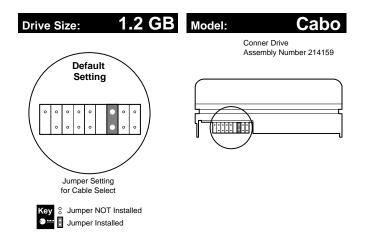


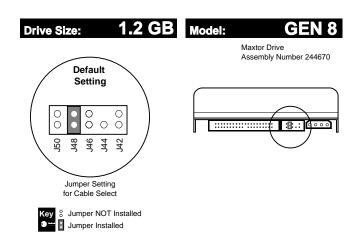


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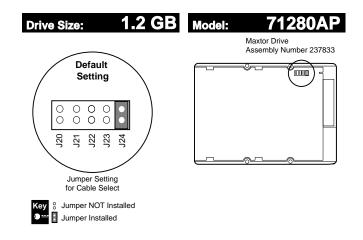


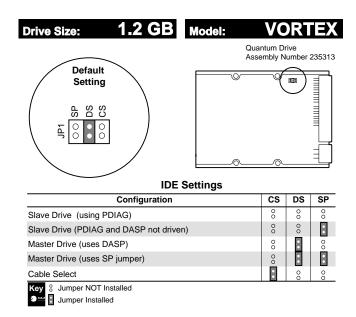


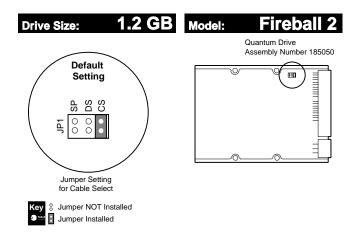


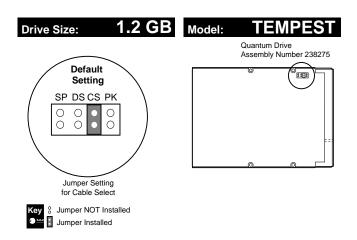


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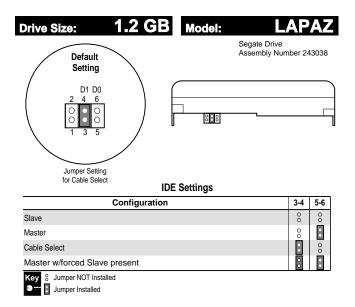


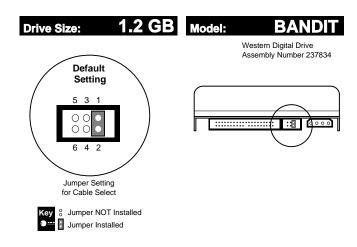


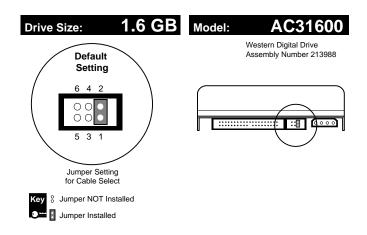


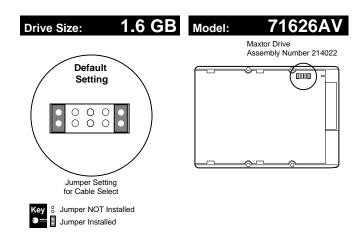


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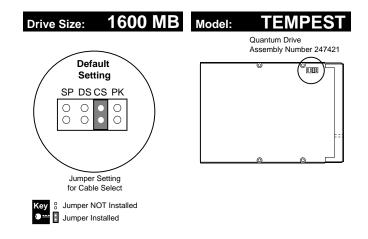


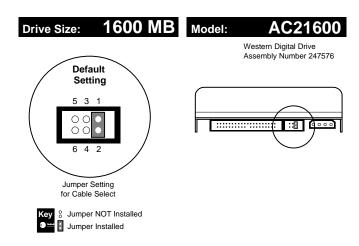


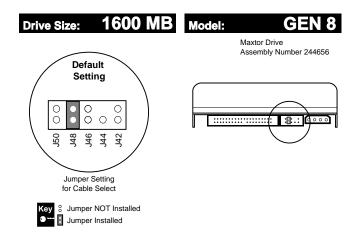


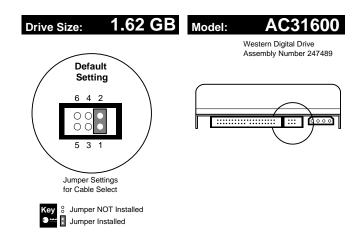


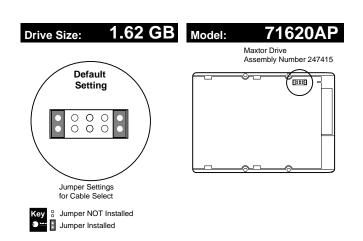
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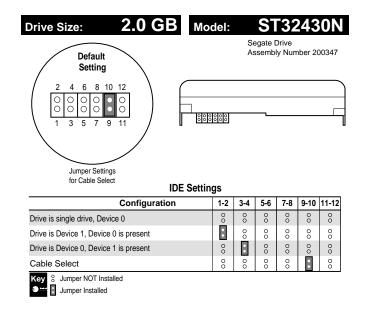


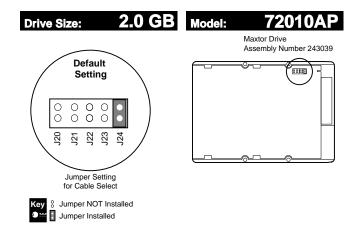


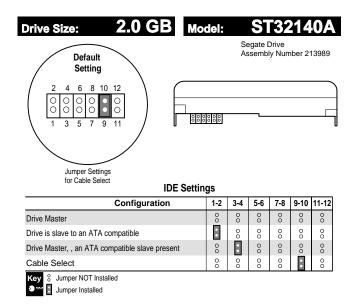


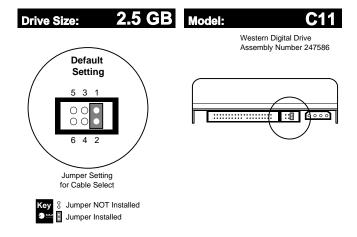


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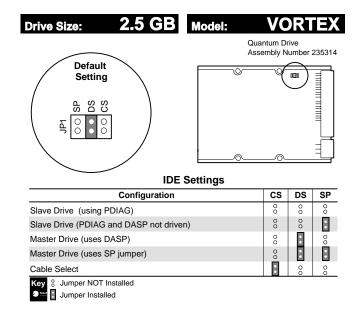


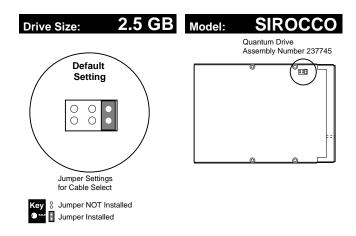


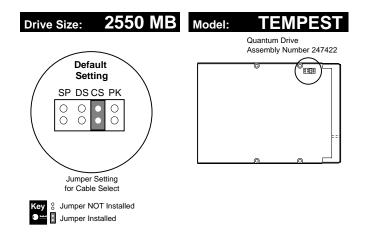


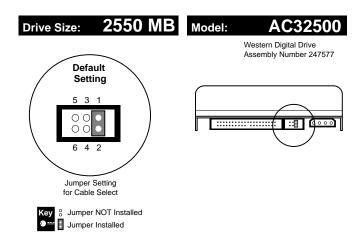


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