IDE Jumper Settings
and Locations

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).

IDE Jumper Settings and Locations

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.

IDE Jumper Settings and Locations

| Drive Size: | 340 MB | Model: | CP3361 |

Conner Drive
Assembly Number 123785

Default Setting

C/D E3 E2 E1
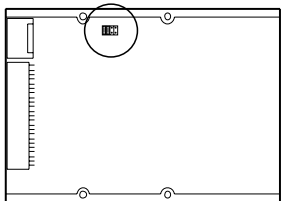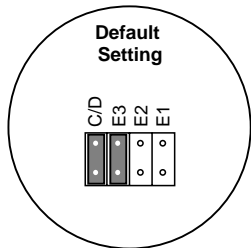
IDE Settings

Configuration	E1	E2	E3	C/D
Drive is Device 0 to non-ATA compatible drive	○	○	▮	▮
Drive is Device 1 to non-ATA compatible drive	○	○	▮	○
Delayed spin option for IDA	▮	○	▮	▮

Key ○ Jumper NOT Installed
▮ Jumper Installed

| Drive Size: | 420 MB | Model: | Trailblazer |

Quantum Drive
Assembly Number 214122
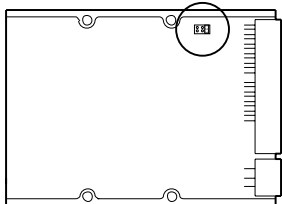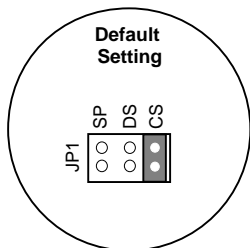
Default Setting

JP1 SP DS CS

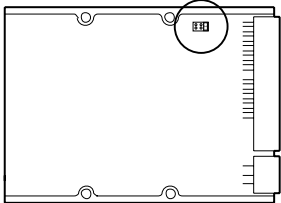Jumper Setting
for Cable Select

Key ○ Jumper NOT Installed
▮ Jumper Installed

IDE Jumper Settings and Locations

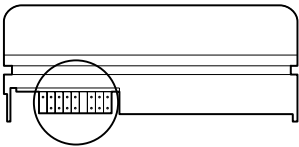| Drive Size:	420 MB	Model:	WDC AC2420H

Western Digital Drive
Assembly Number 189588
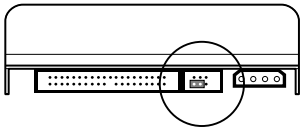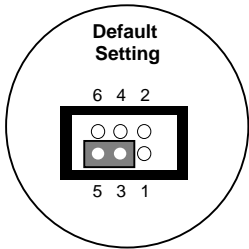
Default Setting

6 4 2

5 3 1

Jumper Setting for Cable Select

IDE Settings

Configuration	1-2	3-4	5-6
Single drive configuration			
Device 0 configuration			▮
Device 1 configuration		▮	
Cable select configuration	▮		
Spare Jumper		▬	

Key ⸬ Jumper NOT Installed

▬▮ Jumper Installed

IDE Jumper Settings and Locations

Drive Size:	540 MB	Model:	Fireball

Quantum Drive
Assembly Number 200346

Default Setting

JP1 SP DS CS
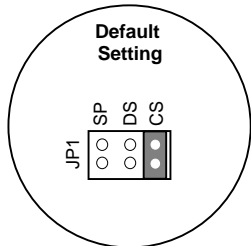
Jumper Setting
for Cable Select

Key
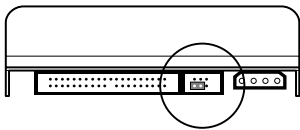○ Jumper NOT Installed
▪ Jumper Installed
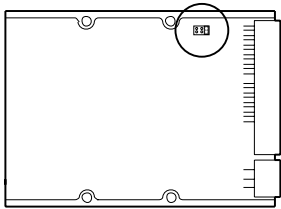
Drive Size:	540 MB	Model:	FIREBALL 540

Quantum Drive
Assembly Number 200346

Default Setting

PK TE A0 A1 A2
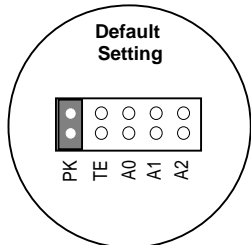
Jumper Setting
for Cable Select
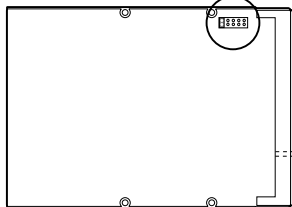
SCSI ID Settings

Description	A0	A1	A2	TE	PK
SCSI Address 0	▪	○	○	○	○
SCSI Address 1	○	▪	○	○	○
SCSI Address 2	○	○	▪	○	○
Enable Active Termination	○	○	○	▪	○
No Function	○	○	○	○	▪

Key
○ Jumper NOT Installed
▪ Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **630 MB**   **Model:** **Trailblazer**

Quantum Drive
Assembly Number 214125
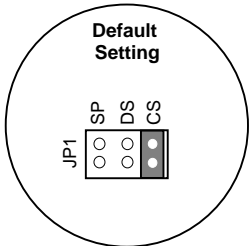
**Default
Setting**

JP1   SP   DS   CS

Jumper Setting
for Cable Select

Key   Jumper NOT Installed
Jumper Installed

Drive Size: **630 MB**   **Model:**
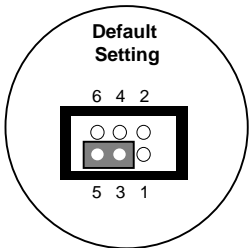
Conner Drive
Assembly Number 213933
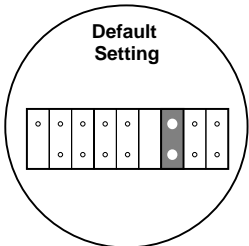
**Default
Setting**

Jumper Setting
for Cable Select

Key   Jumper NOT Installed
Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **630 MB** **Model:** **STURGEON 2**

Western Digital Drive
Assembly Number 214121

Default Setting
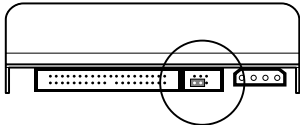
6 4 2
○ ○ ○
● ● ○
5 3 1

Jumper Setting for Cable Select

IDE Settings

Configuration	1-2	3-4	5-6
Single drive configuration	○○	○○	○○
Device 0 configuration	○○	○○	▮
Device 1 configuration	○○	▮	○○
Cable select configuration	▮	○○	○○
Spare Jumper	○○	▭	○○

Key ○ Jumper NOT Installed
●▬ ▮ Jumper Installed

Drive Size: **630 MB** **Model:** **FIREBALL 2**

Quantum Drive
Assembly Number 185049
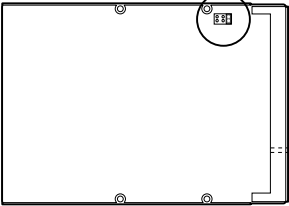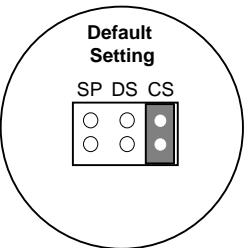
Default Setting

SP DS CS
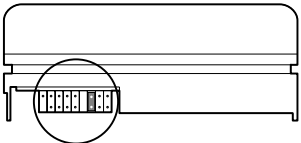○   ○   ●
○   ○   ●

Jumper Setting for Cable Select

Key ○ Jumper NOT Installed
●▬ ▮ Jumper Installed

IDE Jumper Settings and Locations

**Drive Size:** **630 MB**   **Model:** **ST3630A**

Segate Drive
Assembly Number 185352

Default Setting

```
 2   4   6   8
 ○   ○   ▓   ○
 ○   ○   ▓   ○
 1   3   5   7
```
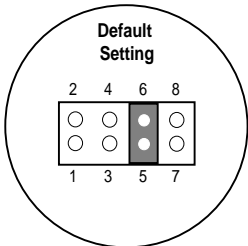
Jumper Setting
for Cable Select
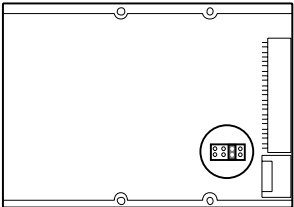
IDE Settings

Configuration	1-2	3-4	5-6	7-8
Drive is Device 0; Device 1 is another ATA compatible drive or no Device 1 is present	○ ○	○ ○	○ ○	○ ○
The drive is Device 1 to an ATA-compatible Device 0	○ ○	○ ○	○ ○	▐
Drive is Device 0; Device 1 is present, but it is not ATA-compatible	○ ○	○ ○	▐	○ ○
Cable Select	○ ○	▐	○ ○	○ ○
Drive is Device 0; Device 1 is present, but it is not ATA-compatible	▐	○ ○	○ ○	○ ○

Key ○○ Jumper NOT Installed
      ▐ Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **720 MB** **Model:** **STURGEON 2**

Western Digital Drive
Assembly Number 214313
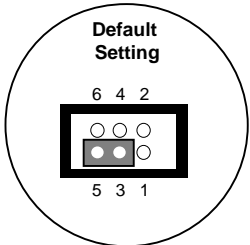
Default Setting

6 4 2

5 3 1

Jumper Setting
for Cable Select

IDE Settings

Configuration	1-2	3-4	5-6
Single drive configuration	○○	○○	○○
Device 0 configuration	○○	○○	▯
Device 1 configuration	○○	▯	○○
Cable select configuration	▯	○○	○○
Spare Jumper	○○	▭	▭

Key ○ Jumper NOT Installed

▯ Jumper Installed

Drive Size: **840 MB** **Model:** **Trailblazer**

Quantum Drive
Assembly Number 214124
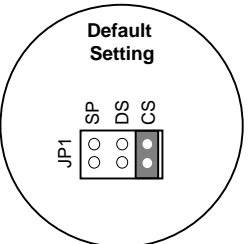
Default Setting

JP1 SP DS CS

Jumper Setting
for Cable Select
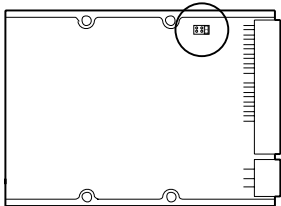
Key ○ Jumper NOT Installed

▯ Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **840 MB**   **Model:**
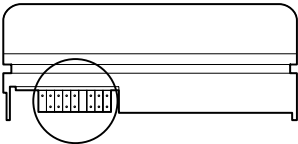
Conner Drive
Assembly Number 213932
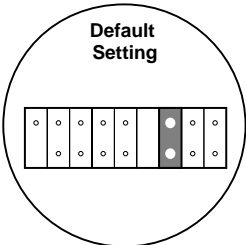
**Default
Setting**

Jumper Setting
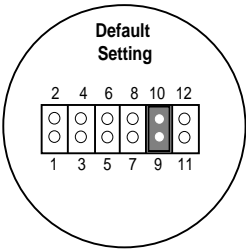for Cable Select

Key ⊙ Jumper NOT Installed
        ▯ Jumper Installed

Drive Size: **840 MB**   **Model:**   **STURGEON II**

Western Digital Drive
Assembly Number 214120
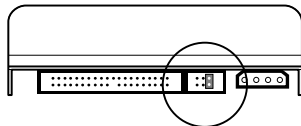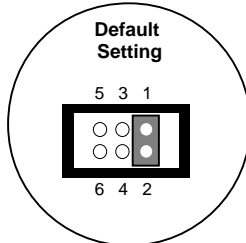
**Default
Setting**

5   3   1

6   4   2

Jumper Setting
for Cable Select

Key ⊙ Jumper NOT Installed
        ▯ Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **1.0 GB**

**Default
Setting**

J20   J21   J22   J23   J24

Jumper Setting
for Cable Select

Key   Jumper NOT Installed
Jumper Installed

Model: **71084AP**

Maxtor Drive
Assembly Number 214077

Drive Size: **1.05 GB**
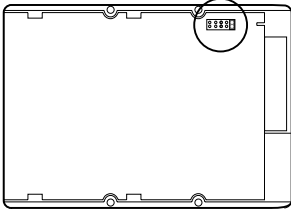
**Default
Setting**

Jumper Settings
for Cable Select

Key   Jumper NOT Installed
Jumper Installed

Model: **CFS1060A**

Conner Drive
Assembly Number 213935

IDE Jumper Settings and Locations

Drive Size: 1.05 GB   **Model: CFS1060A**

Conner Drive
Assembly Number 247414
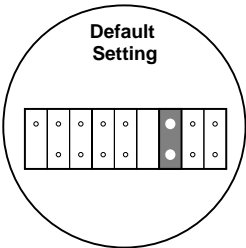
Default Setting

Jumper Setting
for Cable Select

Key
○ Jumper NOT Installed
▪ Jumper Installed
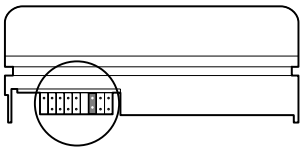
Drive Size: 1.08 GB   **Model: ST51080A**

Segate Drive
Assembly Number 173206

Default Setting

2 4 6 8 10 12
1 3 5 7 9 11

Jumper Setting
for Cable Select
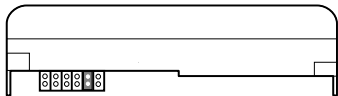
IDE Settings

Configuration	1-2	3-4	5-6	7-8	9-10	11-12
Drive is single drive, Device 0	○○	○○	○○	○○	○○	○○
Drive is Device 1, Device 0 is present	▪	▪	○○	○○	○○	○○
Drive is Device 0, Device 1 is present	○○	▪	▪	○○	○○	○○
Cable Select	○○	○○	○○	○○	▪	○○

Key
○ Jumper NOT Installed
▪ Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **1080 MB**

Model: **TEMPEST**

Quantum Drive
Assembly Number 243040
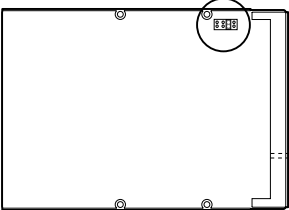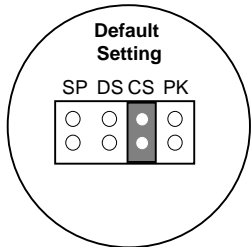
Default Setting
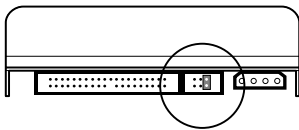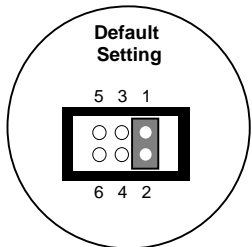
SP DS CS PK

Jumper Setting
for Cable Select

**Key**   Jumper NOT Installed
          Jumper Installed

Drive Size: **1080 MB**

Model: **STURGEON II**

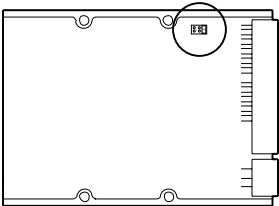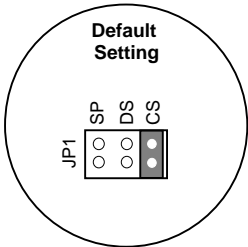Western Digital Drive
Assembly Number 243041

Default Setting

5   3   1

6   4   2

Jumper Setting
for Cable Select

Key   Jumper NOT Installed
          Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **1.08 GB** **Model:** **Fireball**
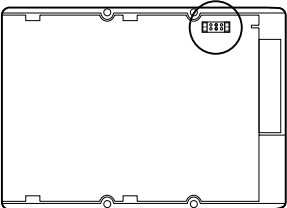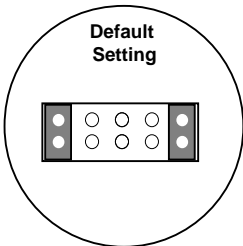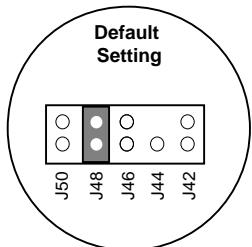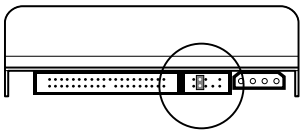
Quantum Drive
Assembly Number 214123

**Default
Setting**

JP1 SP DS CS

Jumper Setting
for Cable Select

Key Jumper NOT Installed
Jumper Installed

Drive Size: **1.08 GB** **Model:** **71080AP**

Maxtor Drive
Assembly Number 247414

**Default
Setting**

Jumper Setting
for Cable Select

Key Jumper NOT Installed
Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **1080 MB** **Model:** **GEN 8**

Maxtor Drive
Assembly Number 295992

**Default
Setting**
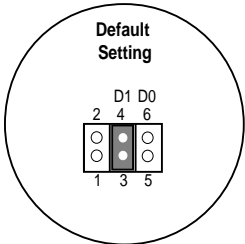
J50 J48 J46 J44 J42

Jumper Setting
for Cable Select

Key ○ Jumper NOT Installed
◐— ▮ Jumper Installed

Drive Size: **1080 MB** **Model:** **LAPAZ**

Segate Drive
Assembly Number 177257
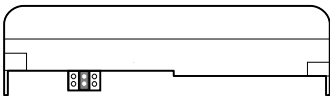
**Default
Setting**

D1 D0
2   4   6

1   3   5

Jumper Setting
for Cable Select

IDE Settings

Configuration	3-4	5-6
Slave	○○	○○
Master	○○	▮
Cable Select	▮	○○
Master w/forced Slave present	▮	▮

Key ○ Jumper NOT Installed
◐— ▮ Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **1.2 GB**   **Model:** **Cabo**

Conner Drive
Assembly Number 214159
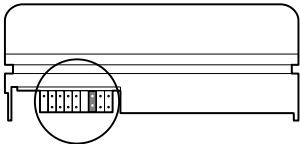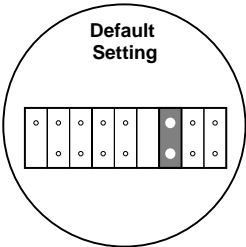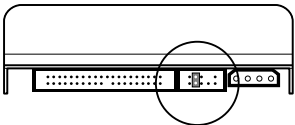
**Default
Setting**

Jumper Setting
for Cable Select

Key ⚬ Jumper NOT Installed
▪ Jumper Installed

Drive Size: **1.2 GB**   **Model:** **GEN 8**

Maxtor Drive
Assembly Number 244670
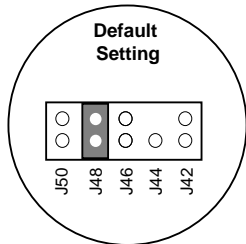
**Default
Setting**

J50 J48 J46 J44 J42

Jumper Setting
for Cable Select

Key ⚬ Jumper NOT Installed
▪ Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **1.2 GB**   **Model:** **71280AP**

Maxtor Drive
Assembly Number 237833

Default Setting

J20 J21 J22 J23 J24

Jumper Setting
for Cable Select

Key Jumper NOT Installed
Jumper Installed

Drive Size: **1.2 GB**   **Model:** **VORTEX**

Quantum Drive
Assembly Number 235313

Default Setting

JP1   SP DS CS

IDE Settings

Configuration	CS	DS	SP
Slave Drive (using PDIAG)	○	○	○
Slave Drive (PDIAG and DASP not driven)	○	○	▪
Master Drive (uses DASP)	○	▪	○
Master Drive (uses SP jumper)	○	▪	▪
Cable Select	▪	○	○

Key Jumper NOT Installed
Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **1.2 GB**   **Model:** **Fireball 2**

Quantum Drive
Assembly Number 185050

Default Setting

JP1   SP DS CS

Jumper Setting
for Cable Select
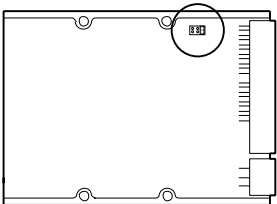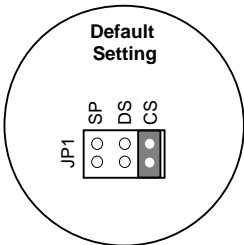
Key ○ Jumper NOT Installed
         ▪ Jumper Installed

Drive Size: **1.2 GB**   **Model:** **TEMPEST**

Quantum Drive
Assembly Number 238275
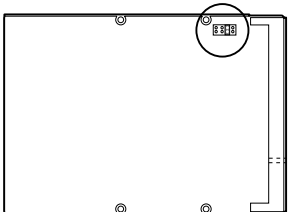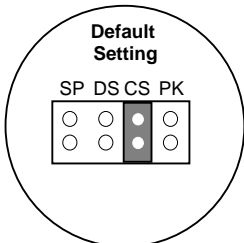
Default Setting

SP DS CS PK

Jumper Setting
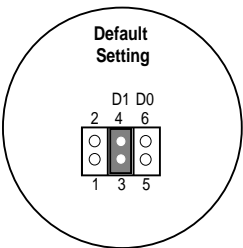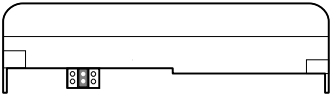for Cable Select

Key ○ Jumper NOT Installed
         ▪ Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **1.2 GB** **Model:** **LAPAZ**

Segate Drive
Assembly Number 243038

Default Setting
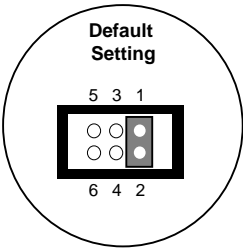
D1 D0
2 4 6
1 3 5

Jumper Setting
for Cable Select

IDE Settings

Configuration	3-4	5-6
Slave		
Master		
Cable Select		
Master w/forced Slave present		

Key Jumper NOT Installed
Jumper Installed

Drive Size: **1.2 GB** **Model:** **BANDIT**

Western Digital Drive
Assembly Number 237834
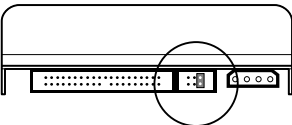
Default Setting

5 3 1
6 4 2
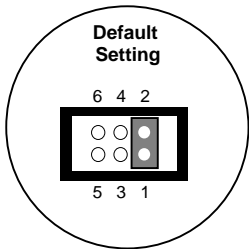
Jumper Setting
for Cable Select

Key Jumper NOT Installed
Jumper Installed

IDE Jumper Settings and Locations

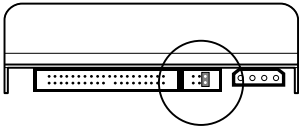**Drive Size:** **1.6 GB** **Model:** **AC31600**
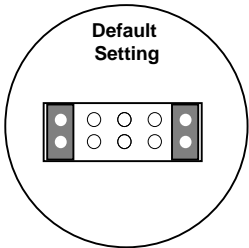
Western Digital Drive
Assembly Number 213988

Default Setting

6 4 2

5 3 1

Jumper Setting
for Cable Select

Key Jumper NOT Installed

Jumper Installed

Drive Size: **1.6 GB** **Model:** **71626AV**

Maxtor Drive
Assembly Number 214022

Default Setting

Jumper Setting
for Cable Select

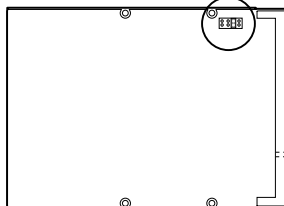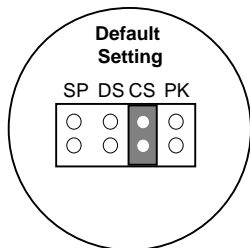**Key** Jumper NOT Installed
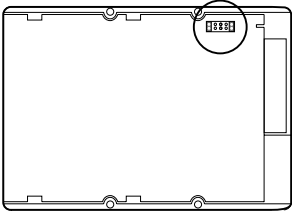
Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **1600 MB**   **Model:** **TEMPEST**

Quantum Drive
Assembly Number 247421

Default Setting
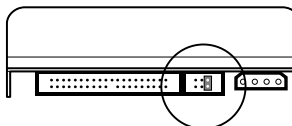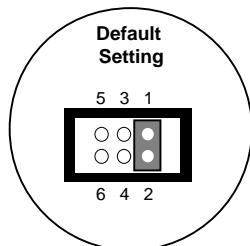
SP DS CS PK

Jumper Setting
for Cable Select

Key Jumper NOT Installed
         Jumper Installed

Drive Size: **1600 MB**   **Model:** **AC21600**

Western Digital Drive
Assembly Number 247576

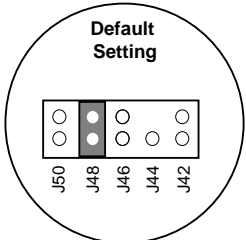**Default Setting**

5   3   1

6   4   2

Jumper Setting
for Cable Select

Key Jumper NOT Installed
         Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **1600 MB**   **Model:**   **GEN 8**

Maxtor Drive
Assembly Number 244656

**Default
Setting**

J50 J48 J46 J44 J42

Jumper Setting
for Cable Select

Key Jumper NOT Installed
        Jumper Installed
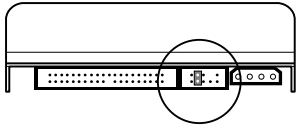
Drive Size: **1.62 GB**   **Model:**   **AC31600**

Western Digital Drive
Assembly Number 247489

**Default
Setting**

6 4 2

5 3 1

Jumper Settings
for Cable Select

Key Jumper NOT Installed
        Jumper Installed
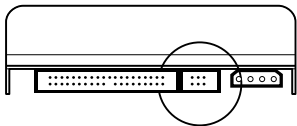
Drive Size: **1.62 GB**   **Model:**   **71620AP**

Maxtor Drive
Assembly Number 247415

**Default
Setting**

Jumper Settings
for Cable Select

Key Jumper NOT Installed
        Jumper Installed

IDE Jumper Settings and Locations

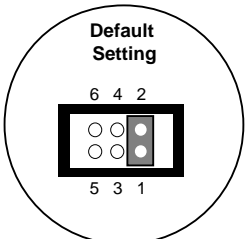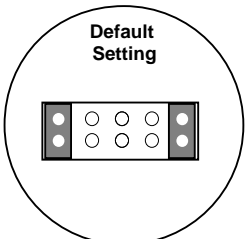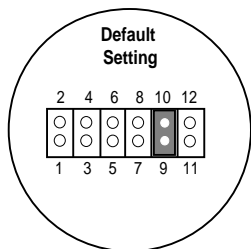**Drive Size:** **2.0 GB** **Model:** **ST32430N**
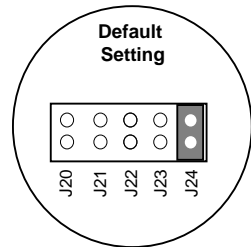
Segate Drive
Assembly Number 200347

**Default
Setting**

```
 2   4   6   8  10  12
 O   O   O   O  [ ] O
 O   O   O   O  [ ] O
 1   3   5   7   9  11
```

Jumper Settings
for Cable Select

IDE Settings

Configuration	1-2	3-4	5-6	7-8	9-10	11-12
Drive is single drive, Device 0	O O	O O	O O	O O	O O	O O
Drive is Device 1, Device 0 is present	▪	O O	O O	O O	O O	O O
Drive is Device 0, Device 1 is present	O O	▪	O O	O O	O O	O O
Cable Select	O O	O O	O O	O O	▪	O O

Key ᵒ Jumper NOT Installed
▪ Jumper Installed

Drive Size: **2.0 GB** **Model:** **72010AP**

Maxtor Drive
Assembly Number 243039

**Default
Setting**

```
 O   O   O   O  [ ]
 O   O   O   O  [ ]
J20  J21 J22 J23 J24
```

Jumper Setting
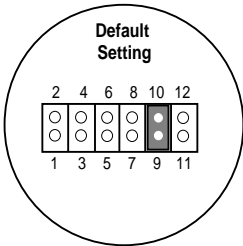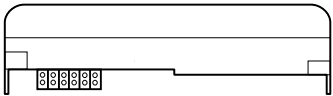for Cable Select

Key ᵒ Jumper NOT Installed
▪ Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **2.0 GB**   **Model:** **ST32140A**

Segate Drive
Assembly Number 213989

Default Setting

```
 2  4  6  8 10 12
 o  o  o  o  ▓  o
 o  o  o  o  ▓  o
 1  3  5  7  9 11
```

Jumper Settings
for Cable Select

IDE Settings

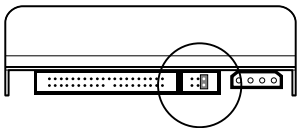| Configuration	1-2	3-4	5-6	7-8	9-10	11-12
Drive Master	o o	o o	o o	o o	o o	o o
Drive is slave to an ATA compatible	▓	o o	o o	o o	o o	o o
Drive Master, , an ATA compatible slave present	o o	▓	o o	o o	o o	o o
Cable Select	o o	o o	o o	o o	▓	o o

Key o Jumper NOT Installed
        ▓ Jumper Installed

Drive Size: **2.5 GB**   **Model:** **C11**

Western Digital Drive
Assembly Number 247586
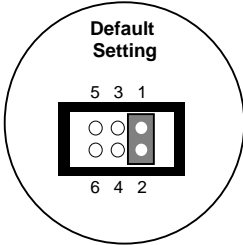
Default Setting

```
 5  3  1
 o  o  ▓
 o  o  ▓
 6  4  2
```

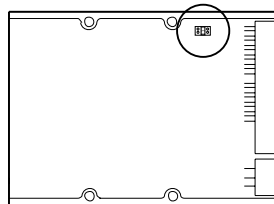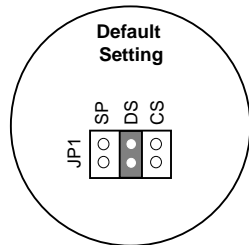Jumper Setting
for Cable Select

Key o Jumper NOT Installed
        ▓ Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **2.5 GB**   **Model:** **VORTEX**
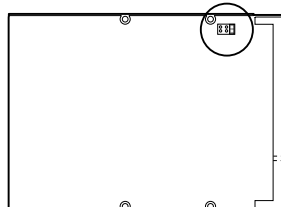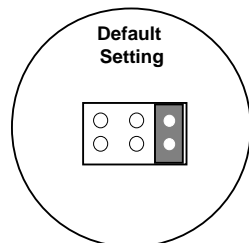
Quantum Drive
Assembly Number 235314

Default Setting

IDE Settings

Configuration	CS	DS	SP
Slave Drive (using PDIAG)	○	○	○
Slave Drive (PDIAG and DASP not driven)	○	○	▪
Master Drive (uses DASP)	○	▪	○
Master Drive (uses SP jumper)	○	▪	▪
Cable Select	▪	○	○

Key ○ Jumper NOT Installed
▪ Jumper Installed

Drive Size: **2.5 GB**   **Model:** **SIROCCO**
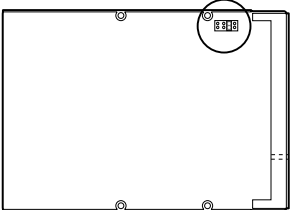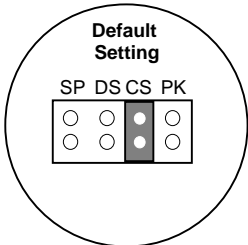
Quantum Drive
Assembly Number 237745

Default Setting

Jumper Settings
for Cable Select

Key ○ Jumper NOT Installed
▪ Jumper Installed

IDE Jumper Settings and Locations

Drive Size: **2550 MB**   **Model:** **TEMPEST**
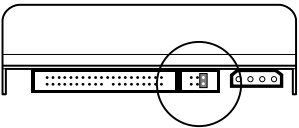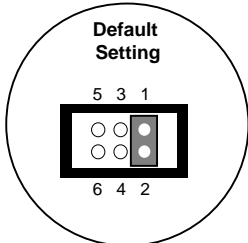
Quantum Drive
Assembly Number 247422

**Default
Setting**

SP DS CS PK

Jumper Setting
for Cable Select

Key ○ Jumper NOT Installed
         ▮ Jumper Installed

Drive Size: **2550 MB**   **Model:** **AC32500**

Western Digital Drive
Assembly Number 247577

**Default
Setting**

5 3 1

6 4 2

Jumper Setting
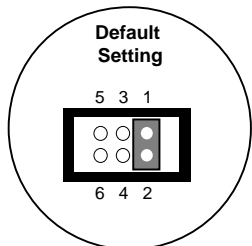for Cable Select

Key ○ Jumper NOT Installed
         ▮ Jumper Installed

IDE Jumper Settings and Locations

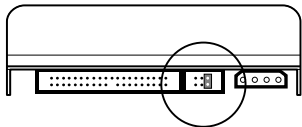**Drive Size:** **2550 MB** **Model:** **C12**

Western Digital Drive
Assembly Number 247587

Default Setting

5 3 1

6 4 2

Jumper Setting
for Cable Select

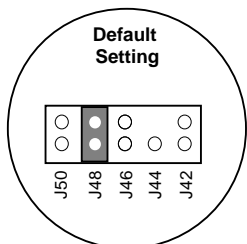**Key** Jumper NOT Installed
 Jumper Installed

Drive Size: **2550 MB** **Model:** **GEN 8**

Maxtor Drive
Assembly Number 244658

Default Setting

J50 J48 J46 J44 J42

Jumper Setting
for Cable Select

Key Jumper NOT Installed
 Jumper Installed