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TOSHIBA STORAGE DEVICE DIVISION

2.5" HDD INSTALLATION NOTES

MK8032GAX, MK6032GAX, MK4032GAX Series

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GENERAL DESCRIPTION

Toshiba's 9.5mm series of 2.5" Hard Disk Drives is comprised of fast, high-capacity drives which comply with ATA-6 standards. Toshiba recommends that these drives be installed by a qualified technician. Additional installation hardware may be required depending on how and or where the drive is being installed.

Specifications	**MK8032GAX**	**MK6032GAX**	**MK4032GAX**
	HDD2D15	HDD2D14	HDD2D10
Formatted Capacity	80.026GB	60.012GB	40.008GB
Height	9.5mm	9.5mm	9.5mm
# of Disks (platters)	2	2	1
# of Data Heads	4	3	2

FUNCTIONAL SPECIFICATION

Logical Drive Parameters	**MK8032GAX**	**MK6032GAX**	**MK4032GAX**
	HDD2D15	HDD2D14	HDD2D10
# of Cylinders (user)	60,480	60,480	60,480
Bytes per Sector	512	512	512
LBA Sectors	156,301,488	117,210,240	78,140,160
Buffer Size (KBYTES)	8,192	8,192	8,192
Rotation Speed (±.1%)	5400	5400	5400
Transfer Rate	215 –	215 –	215 –
Internal (MBITS/sec.)	422	422	422
# of Cylinders (logical)	16,383	16,383	16,383
# of Heads	16	16	16
# of sec./Track	63	63	63
PIO/Ultra DMA (MBITS/sec.)	16.6/100	16.6/100	16.6/100
Seek Time (MSEC.)			
Average	12	12	12
Track-to-track	2	2	2
Maximum	22	22	22

UNPACKING PROCEDURE

Visually inspect the shipping container prior to unpacking for any signs of damage to the container or its contents (the carrier is responsible for any damage incurred during shipment). The drive is a precision device and even a small drop onto any surface can cause damage. Prior to opening the anti-static bag, it is recommended that the user ground themself with a ground strap or by touching the PC chassis or other metal object. Remove the drive from the anti-static bag and check it for damage. Place the drive on the anti-static bag while configuring jumpers to avoid any electrostatic discharge. Save the shipping container and packing material for possible use later.

DRIVE CONFIGURATION

Toshiba's 2.5" hard disk drives can be configured as either master or slave units. Master configuration is used for all single drive applications, and master or slave configuration (only one of each per port) is used for two drive applications. Use the information in the following table before setting M/S drive.

Master configuration is obtained by setting jumpers B, C & D open (no jumper). Slave configuration is obtained by setting jumpers C-D. When B-D jumper is installed, the drive is configured as cable select. If pin 28 = Low, the drive is master. If pin 28 = High, the drive is slave.

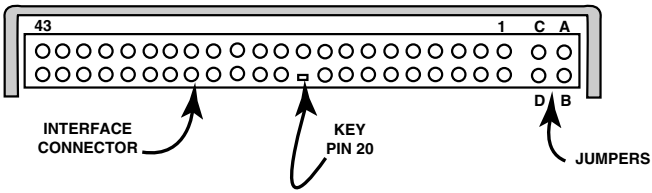


FIGURE 1 – 2.5" HDD JUMPER LOCATIONS

JUMPER	P28	DRIVE
No Jumper	-	Master Drive
C-D Jumper	-	Slave Drive
B-D Jumper	LOW	Master Drive
B-D Jumper	HIGH	Slave Drive
A-B Jumper	-	Slave Drive/
A-C Jumper	-	Prohibit



FIGURE 2 – MOUNTING HOLE LOCATIONS

INSTALLATION INSTRUCTIONS

Note: Toshiba's 2.5" HDDs are primarily used in notebook devices. Installation into a notebook varies depending on the system manufacturer. Toshiba's 2.5" drives that are installed into a desktop PC require a 3.5" installation kit.

1. Determine mounting configuration (can be mounted in either a horizontal or vertical orientation).
2. Configure drive for system application.
3. Install the I/F cable to the system's 44 pin connector port or adapter board (if required). Ensure Pin 1 is oriented correctly. (Pin 1 on the cable is usually identified by a red or blue stripe.)
4. Refer to applicable manuals for software installation instructions.

CABLING INFORMATION

DRIVE INTERFACE SIGNALS			
PIN	**SIGNAL**	**PIN**	**SIGNAL**
1	-RESET	2	GROUND
3	DD 7	4	DD 8
5	DD 6	6	DD 9
7	DD 5	8	DD 10
9	DD 4	10	DD 11
11	DD 3	12	DD 12
13	DD 2	14	DD 13
15	DD 1	16	DD 14
17	DD 0	18	DD 15
19	GROUND	20	KEY
21	DMARQ	22	GROUND
23	-DIOW STOP	24	GROUND
25	-DIOR -DMARDY HSTROBE	26	GROUND
27	IORDY -DMARDY -DSTROBE	28	CSEL
29	-DMACK	30	GROUND
31	INTRQ	32	- IOCS16
33	DA1	34	- PDIAG
35	DA0	36	DA 2
37	- CS0	38	- CS1
39	- DASP	40	GROUND
41	+5V (LOGIC)	42	+5V (MOTOR)
43	GROUND	44	RESERVED

Note: Symbol (–) in front of signal indicates negative logic.

TECHNICAL SUPPORT

Should you require technical support, contact your computer distributor. If your distributor is unable to answer your questions, have them call Toshiba Storage Device Division Technical Support, on your behalf.

TOSHIBA - STORAGE DEVICE DIVISON TECHNICAL SUPPORT
PHONE: 510/651-6798 FAX: 510/623-9893
EMAIL: sdd_techhelp@pcs-sj.com

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