

Re: [ANNOUNCEMENT] Wiki for discussing P35/IHC9(R)/SATA issues set up

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- *From:* "Aryeh M. Friedman" <[aryeh.friedman@xxxxxxxx](mailto:aryeh.friedman@xxxxxxxx)>
  - *Date:* Tue, 06 Nov 2007 05:17:06 -0500
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Jeremy Chadwick wrote:

On Tue, Nov 06, 2007 at 04:37:24AM -0500, Aryeh M. Friedman wrote:

yes btw due to god knows what reason the patch renumbered ad8 to ad6

That can be discussed in the future. ATA device numbering (that is to say, the X of an "adX" device) has always been a little odd in my experiences. Turning on or off a ATA interface (PATA or SATA) seems to adjust the numbering, regardless of ATA\_STATIC\_ID or not. It's likely that I do not understand what the kernel option does.

1) Have you verified that the SATA150-limiting jumper on your Seagate drive has been removed? SATA300 drives from Seagate come from the factory with that jumper connected, limiting the drive to SATA150.

I will check but:

1. I was unaware of this "feature"
2. I didn't see any jumpers when I installed it

The jumper is very tiny, usually gray, and on the back of the drive next to the SATA interface port. It's documented both on the drive itself, and in the product manual for the Barracuda 7200.10 --- see Section 3.2:

<http://www.seagate.com/staticfiles/support/disc/manuals/desktop/Barracuda%207200.10/100402371h.pdf>

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The default (SATA150) is chosen because of known issues with SATA300 on older nForce chipsets. Seagate chose to limit the drives to SATA150 via a jumper, so that they would work on all machines, regardless of buggy or incompatible chipsets.

See reply to Xi Lin but odd it was right where the manual said it was but when I built the machine I remember not seeing it and/or any mention of it in the manual (I was using the online manual so might be slightly diff then the shipped one)

2) Do you happen to be using a PATA-to-SATA adapter on the DVD drive?

It is native SATA (300)

3) If No to #2, are you sure that the ICH9 does SATA300 with ATAPI devices? Does the mainboard BIOS even support it for ATAPI?

Mobo has ATAPI I am not sure about the IHC issue though... will look it up and get back to you.

My motherboard also has SATA ATAPI support --- but my DVD drives are SATA150. I have never seen a SATA300 ATAPI drive. Now, that said --- I \*have\* seen Fujitsu hard disks which claimed to be SATA300 capable but weren't. It turned out to be false advertising; the SATA chip they used on their drives did not support SATA300, yet their product manual and ads said it did.

This may be the case with your DVD drive as well. I would not put it past a manufacturer to put incorrect information in their product specs.

OEM so no freaking idea

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Also, you do realise that having a SATA150 drive on your SATA bus does not mean that the entire bus runs at 150MB/sec, correct? It's not like SCSI. So there should be no performance hit having a single SATA150 drive on SATA controller also filled with SATA300 devices.

My mobo uses separate controllers for each SATA slot (I know you can chain them but I am using one per controller):

Note ata2 is PATA all the rest are SATA

ATA channel 2:

Master: ad4 <Maxtor 6Y200P0/YAR41BW0> ATA/ATAPI revision 7

Slave: ad5 <WDC WD2500JB-22REA0/20.00K20> ATA/ATAPI revision 7

ATA channel 3:

Master: ad6 <ST3500630AS/3.AAE> Serial ATA II

Slave: no device present

ATA channel 4:

Master: acd0 <TSSSTcorpCD/DVDW SH-S183L/SB01> Serial ATA v1.0

Slave: no device present

ATA channel 5:

Master: no device present

Slave: no device present

ATA channel 6:

Master: no device present

Slave: no device present

In the future, take proper time to thoroughly read about the hardware you purchase, or at a bare minimum, read the labels manufacturers put on their products. :-)

There was no label and as I said above I don't remember seeing any thing in the manual.

However: your PATA ports becoming unusable/disabled when you enable SATA in the BIOS could be either a BIOS bug (or "feature") or a FreeBSD bug. I would not put it past Gigabyte to have a BIOS bug (they are very well-known for having such, but are also pretty good about fixing such problems). Have you tried a BIOS upgrade on your P35 since you got it, or looked at the BIOS changelog?

It appears to be a FreeBSD issue because:

1. After Xi Lin's patch they are seen

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2. The boot manager and cmos boot order see and can boot from them

I do not have an ICH9 board to help confirm or deny -- I can purchase one if needed, and/or send it to Xin Li free of cost.

From what other people are saying I think it needs to be the p35/ihc9(r)

combo specifically.

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Aryeh M. Friedman  
Developer, not business, friendly  
<http://www.flosoft-systems.com>

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