

SysChk/NR and SysChk/HD

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1. Why and when does the message "SysChk/NR" appear?

Every HDD has several reserved sectors. Many applications use these sectors as their permanent code area, or temporary data area, or swap area. These applications include Boot Magic, System Commander, Ghost, all of HDD recovery software and many others and some viruses.

For HddGuarder™, it requires four FREE sectors among the reserved sectors. If the amount of FREE sectors that include 512 bytes of ZERO is less than four, HddGuarder™ will issue the message "SysChk/NR" shown as figure 1 and cannot be installed. "SysChk/NR" means "Please take a system check because of no room (room is not enough)".

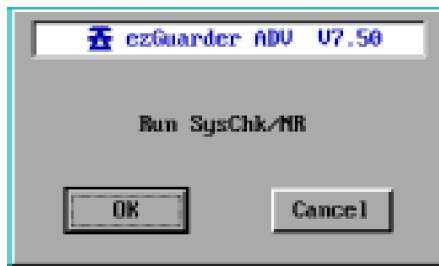


Figure 1

2. More about "SysChk/NR"

(1) How about One NEW Computer

We have experienced several times, the user was very surprised that the message "SysChk/NR" actually appeared after the card was plugged in one NEW computer.

Our viewpoint is that the reserved sectors are filled with garbage data because the HDD is cloned from an OLD HDD by Ghost or diskcopy, or the garbage data is written by HDD low-level format program.

(2) No the mentioned programs used

We have also experienced several times, the users affirmed that no the mentioned programs, such as Boot Magic, were used before, but the message "SysChk/NR" actually appeared after the card was plugged in the computer.

Our viewpoint is also that the reserved sectors are filled with garbage data because any of Windows applications and games may write the reserved sectors and leave the garbage data there.

3. How to cancel the message "SysChk/NR"?

For safety reason, HddGuarder™ DO NOT clear the garbage data in the reserved sectors automatically by itself, and have user to settle it manually.

For security reason, we DO NOT issue the application SysChk.EXE.

(1) SysClear.EXE

Download SysClear.EXE from <http://www.hddguarder.com>, run it under PURE DOS rather than Windows DOS.

(2) WinClear.EXE

Download WinClear.EXE from <http://www.hddguarder.com>, run it under Windows. If OS is NT/2000/XP/2003, kindly please you login as administrator.

4. SysClear.EXE Guide

SysClear.EXE can clear all the reserved sectors on HDD.

```
SysClr for Instant System Recovery Card Version 1.6
Copyright (C) SysClr 1996-Aug 3, 2003. All rights reserved.

SysClr      [R]  clear 62 sectors from 1 through 62 excluding MBR
SysClr all  [R]  clear 63 sectors from 0 through 62 including MBR
SysClr mbr  [R]  clear MBR sector. MBR is the sector 0
SysClr code [R]  equivalent to <FDISK /MBR>
SysClr part [R]  clear partition info in MBR before re-FDISK
SysClr n    [R]  clear the sector n, n=[1, 62]
SysClr n:c  [R]  clear c sectors from the sector n, n+c=[2, 63]

Without the parameter R, SysClr clears the definite sector(s) and
backups 63 sectors from 0 through 62 including MBR into SysClr.BIN

With the parameter R, SysClr recovers the definite sector(s) from
the backup file SysClr.BIN

SysClr.BIN is existed. Overwrite it (Y/N)? _
```

Figure 2

< For safety reason, SysClear.EXE will generate a backup file SysClear.BIN that can be restored onto the reserved sectors if PC cannot work well after running SysClear.EXE.

< The most easy command is

```
" SysClear
  SysClear r
```

The most safe command is

```
SysClear n: 4
SysClear n: 4 r
```

n is between 1 and 59. The numeral 4 means that HddGuarder™ requires four FREE sectors.

When you are about to re-FDISK, you can use the following commands to clear MBR and/or all the reserved sectors.

```
SysClear all
```

- SysClear mbr
- " SysClear part
- < When you want to clear one reserved sector ONLY, please use the following commands.
- " SysClear n
- " SysClear n: 1
- " n is between 1 and 62.

5. WinClear.EXE Guide

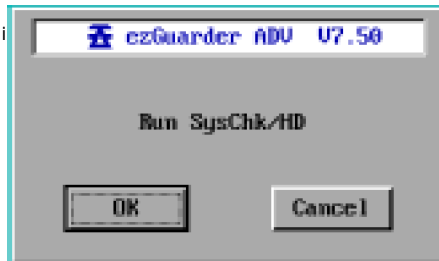


Figure 3

Because HddGuarder™ requires maximum four FREE sectors, so the "Sectors" MUST be less than or equal to four. If the "Sectors" is the value of 0, it means that the FREE sectors are enough for HddGuarder™ and it is not necessary to take a cleaning. The "Begin Sector" is the first sector to be cleaned.

6. Why and when does the message "SysChk/HD" appear?

At the first we should state that this



shown as figure 4.

Figure 4

For safety reason, HddGuarder™ gets HDD parameters in three ways.

- By INT 13H API.
- From INT 46H.
- From HDD partitions.

And then HddGuarder™ checks the identity of the three sorts of parameters. If the amount of HDD heads per cylinder is different, HddGuarder™ will issue the message "SysChk/HD".

The causes resulting in this problem may be

- < HDD partitions are not standard format to Microsoft FDISK.
- < The HDD access mode in CMOS setup is not matched with HDD.

7. How to cancel the message "SysChk/HD"?

We cannot tell you one way to solve this problem easily, you maybe have to re-FDISK the HDD. But we recommend

At the first, "SysClear all".

At the second, check CMOS setup. For <504MB HDD, the access mode is CHS. For <8GB, the access mode is NEW CHS or LBA. For >8GB, the access mode MUST be LBA. In new BIOS versions, the access mode is AUTO. DO NOT set the access mode as

"LARGE", because some BIOS say that it is fit in with UNIX, but it is unuseful actually.

< FDISK, FORMAT, and then install OS.

8. More about "SysChk/HD"

In 2001, I encountered that one HDD recovery card of another brand detect a 16GB HDD as 504MB, it could be install but COULD NOT work well. On the same computer, HddGuarder™ issued the message "SysChk/HD" and could not be installed. After we did by the above steps, both HDD recovery cards could work well.

We are very proud that our HddGuarder™ can detect the abnormality but other brands cannot.