

MHDD

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The publication of this document or its part anywhere is allowed only by permission given by me, Dmitry Postrigan. Usually I give permission anybody, but this does not mean that you don't have to ask me.

You can freely distribute only the original, non-modified package.

Please never post any email addresses taken from mhdd.com website and its mirrors.

Please **NEVER** post activation procedure anywhere! It was made to help everybody to read this doc.

1. A word from the author

I strongly recommend you to print this document.

The author of MHDD is Dmitry Postrigan. I will never answer questions about MHDD and using of MHDD by email. You can join discussions here: <http://mhddsoftware.com/forum/>

Use this software as is. No support, warranties, no answers, no solutions, no help will be given by me via email.

2. Operating System

MS-DOS v5.0 or higher.

3. Supported IDE controllers. Supported modes. Other requirements

MHDD works with all integrated IDE controllers such as already integrated in Intel, Via chipsets. These controllers using 0x1F0 (Primary) and 0x170 (Secondary) addresses. Slave drives are not supported since ver. 3.3.

Also MHDD works with some external IDE and SATA cards such as Promise, HPT and others.

MHDD works with drives in LBA28/48 modes.

DO NOT (!!!) run MHDD from the same IDE channel which you will use to diagnose drives! You will kill both devices on that channel! That is why, by default, MHDD does not work with Primary IDE as it usually uses to boot MSDOS, to run MHDD etc. To unblock Primary IDE please run mhdd once, then exit, then look into MHDD.CFG.

MHDD does not use BIOS/interrupts to access drives. It detects and works with devices directly. So MHDD does not "see" any partitions/viruses/etc on your drive, it works with ENTIRE surface even if the drive is not detected by BIOS.

Since version 3.9 MHDD can erase drives using BIOS functions to increase

speed. If you don't want to erase the drive using bios, just power off the drive while BIOS detects drives (during computer start up). Or, you can use switch /DISABLEBIOS to disable BIOS support for all drives.

Since version 3.1, MHDD could be run from CD-ROM or any other write-protected storage with some limitations.

4. How to work.

Most important registers:

BUSY - drive performs an operation
DREQ - drive requests data exchange (in/out)
ERR - Some kind of error occurred. See error registers:

AMNF - Address Mark Not Found;
TONF - Track 0 Not Found;
ABRT - Command Aborted (not recognized),
IDNF - Sector ID Not found;
UNCR - Uncorrectable ECC Error (usually it is bad block)

If you see PWD bit on, your drive is locked with ATA password. Use UNLOCK and DISPWD to disable password if you know the password.

If you see HPA bit on, your drive is cutted. To restore full size use NHPA command (Do not use on drives larger than 128 GB!)

Now you can press F1 to see full list of commands with descriptions and assigned hot keys. For example, you can type "scan" and press enter to begin the scan.

During the scan/read/copy:

- Usual gray boxes means OK blocks
- Green boxes usually means OK too
- Brown and Red boxes means that there is small delay; drive becomes unstable in that place.
- Question mark "?" means timeout, drive hanged. Usually you need to re-power drive when you see this. Also this drive is very unstable and probably will die very soon.

All symbols below boxes and question are errors (bad blocks)

- x means UNC error - usual bad block (software or hardware)
- S means Sector ID not found. Usually means firmware (defect lists/translator) damage
- A means Address Mark not found. Usually means problems with sector headers/format problems
- ! means command aborted. Serious problem with heads/system area, or scratches on the media

Another symbols appears rarely and means serious damage. By the way, to activate the program you need to compute the activation code. PC code multiply by 2 and add 1. Please do not post this anywhere! It was made to help everybody to read this doc!

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