

**METHOD FOR DETECTING ABNORMAL MAGNETIC HEAD FLY HEIGHT,
METHOD FOR DATA WRITING, AND HARD DISK DRIVE APPARATUS**

ABSTRACT

A method is provided for detecting an abnormal fly height of a magnetic head in a simple way, together with a data writing method using this detecting method, and a HDD apparatus for implementing these methods. When a write operation is initiated, the gain of a reproduced servo signal is determined by an automatic gain controller (AGC) (31) based on the head part (preamble) of the servo signal and the subsequent part of the servo signal is amplified. The gain from the AGC (31) held in a register in a channel controller (36) is compared with reference value to detect an abnormal fly height of the magnetic head (12).

Fig 4.