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(54) Title: DISC DRIVE WITH PREAMPLIFIER FAULT DETECTION FOR DATA INTEGRITY

(57) Abstract

A read/write preamplifier circuit (200) is provided that includes a fault detecting circuit (112) that detects when two or more read/write preamplifiers (104, 106) are concurrently selected for communicating with their associated data heads and means for notifying the drive controller of that condition. In one embodiment, the means for notifying the drive controller that two or more preamplifiers are concurrently selected includes a data storage register that is readable by the drive controller and that has a fault flag which is set when two or more preamplifiers are concurrently selected. Also, in one embodiment, the fault detecting circuit includes a fault-detect transistor (104, 142) that drives a predetermined current if the preamplifier is elected. The collectors (144, 146) of the fault-detect transistors of each preamplifier are electronically coupled to each other and to a sensing circuit that senses if the fault-detect transistors of two or more preamplifiers are concurrently driving the predetermined current. In addition, a disc drive which includes such a preamplifier circuit is provided.

