Tech Info Library

Hard Disks: Head parking

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Disk parking or head parking is a feature considered essential by those who
concern themselves with the long term reliability normally associated with
a hard disk. Since a 'parked' head cannot 'land' on the data area, the disk
becomes more reliable in terms of data integrity. Assuming the head parks
in a non-data area, the disk is safer to use and move.

Apple 20 megabyte hard disks (Hard Disk 20 and SCSI HD20SC) don't have a
park function. There is no park track for head resting on these hard disks.

However, when the drive is not powered up, all hard disks have braking,
caused by the inertia of the head's stepper motor. If the heads don't
retract, their stepper motor's intertia has to "put the brakes on them"
to keep them in place. If the inertia of the stepper motor is great enough,
it's difficult to get the head to land or move during "normal" use and
movement. The internal SCSI drives on the Macintosh SE are rated for a shock
of 40G's, so the stepper motor inertia there must be relatively significant.

The upcoming HD40SC and HD80SC will have a park function; however, be advised
that this park function varies from vendor to vendor.

In other non-Apple hard disk configurations, a particular vendor's hard disk
may not park the head in a non-data zone or may have stepper motor inertia
that isn't great enough to provide adequate braking.

Apple's ProFile hard disk does have head parking. If the disk isn't accessed
for 2-3 seconds, the Apple Profile's heads park in a non-data area.

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