

# DIGITAL STORAGE DEVICE

**Device Name:** Floptical Drive

**Date Introduced:** 1988<sup>1</sup>

**Dates in Use:** 1989-1993

**Dimensions:** 3.5"²

**Variations and/or Identifying Features:** Available largely as external drives, but also as an internal drive.

**Common Manufacturers/Brands:** At its height, it was offered by several companies. Silicon Graphics "announced that a floptical drive [would] be its standard floppy drive for the next generation," while Hewlett Packard endorsed the floptical drive for their Apollo 9000 Series 700 workstations. As for Macs, floptical drives were available as external SCSI devices from PLI, Procom, Mass Microsystems, Applied Engineering, Liberty Systems and Iomega.<sup>3</sup> As of 1999, one of the most strongly recommended drives for use in the superfloppy category, particularly with floptical, was Imation's (formerly Iomega) LS120 SuperDisk, which has a 120MB capacity.<sup>4</sup>

**Associated Hardware:** Amiga SCSI controller; Large to small power plug adaptor; 3 ½" mounting kit (optional).<sup>5</sup> For Apple specifically, an Apple SCSI card rev. C, Apple High-Speed SCSI card, or RamFAST SCSI card are needed.<sup>6</sup>

**Associated Software:** Insite drive unlock utility (available on aminet); formatting software for hard drive; Workbench 1.3 minimum.<sup>7</sup> Again, for Apple II, one needs a RamFAST ROM, version 3.0.1e.<sup>8</sup>

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<sup>1</sup> A Sept. 12, 1988 Wall Street Journal article is the earliest source found announcing the expected release of the device "later in the year." However, true coverage of the floptical does not begin until 1989. Brenton J. Schlender, "Technology," Wall Street Journal, 12 Sep. 1988, 1.

<sup>2</sup> An online review describes the drive as "a 3.5 inch SCSI floppy drive," and remains the only type of dimensions I have been able to find, although logic dictates that the drive be larger than the disk itself. Insite Floptical Review. [www.cucug.org/amiga/amiinfo/reviews/InsiteFlopticl.txt](http://www.cucug.org/amiga/amiinfo/reviews/InsiteFlopticl.txt). Accessed 9/25/2004.

<sup>3</sup> Tom Negrino, "Flopticals Gain Acceptance," Macworld, 10, 4 (April 1993), 77. One article announced that floptical drives were "designed to plug in and play with IBM® PCs and compatibles, Apple Macintosh® and other computers supporting a small computer system interface." James Sciales, "Maxell Announces Availability of 21-Megabyte Floptical Disks," Business Wire, 10 Nov. 1992, sec 1, p.1

<sup>4</sup> Jim Forrester, "An Evaluation of Secondary Storage Options for the PC," <http://home.rochester.rr.com/jforrester/0602410.htm>. Accessed 10/3/2004. Additionally, Forrester likes it because it is backward compatible. While at the time of the writing, the SuperDisk was largely an external parallel interface, Gateway sold an internal drive for \$69.00 while the external from buycomp.com was \$149.99. Additionally, Panasonic, which acquired Imation at some point, also put out a LS-240 SuperDisk drive, with an increased capacity of 240MB. See, "Panasonic-LS-240 Superdisk drive review," [www.itreviews.co.uk/hardware/h309.htm](http://www.itreviews.co.uk/hardware/h309.htm)

<sup>5</sup> Insite Floptical Review. Based on a Commodore 2091

<sup>6</sup> Frank M. Lin, "Apple II & Flopticals Frequent Asked Questions (FAQ)," [www.uni-giessen.de/faq/archiv/apple2.floptical/msg00000.html](http://www.uni-giessen.de/faq/archiv/apple2.floptical/msg00000.html). Accessed 10/5/2004.

<sup>7</sup> Insite Floptical Review.

<sup>8</sup> "Apple II & Flopticals."

**Associated Media:** Floptical disk. Floptical drives were designed to read regular 3.5" floppy disks as well.

**Interface:** Primarily external, but some internal drives were manufactured and used.

**Primary Usage:** Store data, either on drive itself or on corresponding floptical disk, which, with a 21MB storage capacity, was a combination of optical and magnetic techniques.

**Risks:** Since it was only available from 1989 until 1993 (in what might be called its "pure form" when the floptical disk and drive were at their height)<sup>9</sup> when all manufacturing and development into both the floptical drive and disk ceased, it is considered an obsolete storage device.

**Condition Assessment:** An obsolete storage device, the floptical drive presents several problems. The first is acquiring a floptical drive, or conversely, an interface that a drive can be installed on.<sup>10</sup> The second is in maintaining the drive and installation. As it was never widely adopted, it is unlikely that there will be much need for continued maintenance. In this instance, utilizing a company that specializes in data retrieval/recovery might be the preferred method when seeking to retrieve any data.

**Conservation Issues:** Other than an example of early magneto-optical drive, there is little call for conserving the drive itself. Obviously, the most important conservation issue would be the data stored on the drive. If the data can be safely and completely recovered, a decision would then need to be made about storing the drive itself. However, if the installation can successfully be made, and is not difficult to maintain, then, as it can also read 3.5" regular floppy disks, a decision could also be made to keeping and utilizing the drive on an older machine to ensure data can be accessed in the future.

**Other Sources:**

"Definition of SuperDisk." [www.wordiq.com/definition/SuperDisk](http://www.wordiq.com/definition/SuperDisk). Accessed 10/3/2004.

Kief Morris, "Bernoulli Transportable," Web Developer's Journal Archive Section. [www.webdevelopersjournal.com/archive/bernoull.html](http://www.webdevelopersjournal.com/archive/bernoull.html). Accessed 10/3/2004.

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<sup>9</sup> Keeping in mind that there have been "SuperDisk" drives manufactured since then which are capable of reading floptical drives, but are not specifically designed for them. See footnote 4.

<sup>10</sup> The reviewer of the Insite Floptical Drive, describes several minor problems when installing the drive. Insite Floptical Review.