Appendix B. Sector Format

This document describes the sector format used for single-sided 3-1/2 inch diskettes; provision is made for eventual expansion to double-sided diskettes.

The current drive has a single read/write head located on the bottom of the drive at the back (the diagram below shows a side-view of a drive, the dotted line representing a diskette):

There are 80 tracks on the drive, numbered from track 0 (the outermost track) through track 79 (the innermost track). The single side is side 0: the top side, side 1, will be used on future double-sided disk drives.

The number of sectors per track varies from 12 on the outside tracks to 8 on the inside tracks as shown in the following table. Speed 1 represents a data transfer rate of 489.6 K bits/sec. Speed 2 is for 500 K bits/sec. The different speeds record the data at a fixed density and allow the diskettes to be interchanged.

Track	Speed Group	Group Sectors/Track		Speed	
0 - 15_	1	12	394	402	
16 - 31	2	11	429	438	
32 - 47	3	10	472	482	
48 - 63	4	9	52 5	5 36	
64 - 79	5	8	590	603	

This format is derived by limiting the sectors per track for the single-sided drive according to the smaller radius of the opposite-side track of the future double-sided drive. This format yields a total of 800 sectors or blocks. Block numbering goes from 0 to 799: block 0 is sector 0 on track 0 and block 799 is sector 7 on track 79 (sectors are numbered from 0). Future double-sided disks will have an additional 800 blocks on side 1; these blocks will be interleaved with side 0 blocks in a cylinder fashion (blocks 0-11 will be on side 0, track 0, blocks 12-23 will be on side 1, track 0, etc.).

Sectors are typically interleaved 2:1 because of the write recovery time. As an example, the sector sequencing for 2:1 interleave is:

speed group 1: 0-6-1-7-2-8-3-9-4-10-5-11 speed group 2: 0-6-1-7-2-8-3-9-4-10-5 speed group 3: 0-5-1-6-2-7-3-8-4-9 speed group 4: 0-5-1-6-2-7-3-8-4 speed group 5: 0-4-1-5-2-6-3-7

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