

Format of Altair Mini-Disk Floppy

This document serves as an addendum to “Appendix H, Disk Information” in the 1977 version of the Altair BASIC manual. Appendix H documents the disk layout for Altair BASIC on Altair’s 8 inch floppy drive. This addendum documents the differences between the 8 inch floppy content and the 5-1/4 inch Mini-Disk content.

The 8 inch floppy disk consists of 77 tracks of 32 sectors of 137 bytes. The Mini-Disk consists of 35 tracks of 16 sectors of 137 bytes.

For the 8 inch floppy, the first 6 tracks are always reserved for a bootable image of BASIC. This space is reserved even if the bootable image is not present. However, since the Mini-Disk holds so little data, two disk layouts are used. The first includes space for the bootable image of BASIC on the first 12 tracks leaving 22 tracks for user files and programs. The second disk format is a data only disk leaving 34 tracks for user files and programs.

When BASIC is started using a bootable Mini-Disk, a subsequent MOUNT command of the boot disk will fail with a “Disk I/O Error.” This is normal and is a documented bug/feature that effectively write-protects the boot disk.

Track Allocation (Bootable Mini-Disk):

<u>Tracks</u>	<u>Use</u>
0-11	Disk BASIC memory image
12-33	Space for files
34	Directory track

Track Allocation (Data Only Mini-Disk):

<u>Tracks</u>	<u>Use</u>
0-33	Space for files
34	Directory track

Sector Format (Tracks 0-11 on a Bootable Mini-Disk):

Same sector format as tracks 0-5 on the 8 inch floppy. Though not documented in the BASIC manual, these sectors are interleaved 2:1 for both the 8 inch and Mini-Disk floppies. To read these sectors in order, start with sector 0, read all even sectors, then move to sector 1 and read all odd sectors. Repeat this process for the next track.

Sector Format (Data Tracks and Directory Track):

Same sector format as 8 inch floppy except there is no skewing of the sector number.