

Conditioning Mark 5 Disk Modules
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The stand-alone SSErase program can be used to condition a set of disks. There are two settable parameters:

- m sets the message level (range -1 to 3, default 1)
- c sets conditioning (0 for FALSE, 1 for TRUE, default is FALSE)

For example:

```
SSErase -m 0 -c 1
```

goes through the conditioning process on whatever disks it finds, up to 16 at a time in both banks. Conditioning amounts to a read-write cycle through the whole set of disks. With the message level set to 0, debug prints a progress report every minute. The progress report is the number of bytes per bus remaining to be read or written in the current read or write cycle.

The Mark5A or Mark5B control program must not be running; kill Mark5A (or Mark5B) before running SSErase.

Conditioning disks is recommended before recording, especially if they are to be recorded at 1024 Mb/s.

Typical conditioning times:

GB		minutes	average Mb/s	
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120		100	1H40M	317 Western Digital (40 MB/s)
2*120	100	1H40M	621	Western Digital (40 MB/s/drive)
3*120	100	1H40M	960	Western Digital (40 MB/s/drive)
4*120	103	1H43M	1243	W-D 4 Masters (39 MB/s/drive)
8*120=960	152	2H32M	1684	Western Digital
16*120		278	4H38M	1842 Western Digital
164.7	116	1H56M	377	Hi tachi (47 MB/s/drive)
8*164.7=1317	205	3H25M	1711	Hi tachi
185.2	140	2H20M	353	Hi tachi (40 MB/s/drive)
8*185.2=1482	231	3H41M	1711	Hi tachi (44 MB/s/drive)
16*185.2		430	7H10M	1838 Hi tachi
200		160	2H40M	333 Western Digital (42 MB/s/drive)
8*200=1600		260	4H20M	1641 Western Digital
16*200	465	7H45M	1835	Western Digital
250		173	2H53M	385 Hi tachi (48 MB/s/drive)
2*250=500		173	2H58M	768 Hi tachi 2 Masters (48 MB/s/drive)
4*250=1000		178	2H58M	1500 Estimated 4 Masters
8*250=2000		306	5H06M	1700 Hi tachi, Maxtor, WD
16*250	580	9H40M	1839	Hi tachi
300		197	3H17M	406 Maxtor (51 MB/s/drive)
2*300		197	3H17M	812 2 Masters (51 MB/s/drive)
4*300		207	3H27M	1547 4 Masters (48 MB/s/drive)
6*300		337	5H37M	1426 Master-Slave pairs
8*300=2400	370	6H10M	1730	Maxtor Maxline III
16*300	695	11H35M	1843	Maxtor Maxline III

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8*320=2560		385	6H25M	1775	Western Digital
16*320	742	12H22M	1840	Estimated	
8*400=3200		493	8H13M	1730	Estimated
16*400	925	15H25M	1844	Seagate	
8*500=4000		616	10H16M	1730	Estimated
16*500	1163	19H23M	1840	Estimated	
8*750=6000		924	15H24M	1730	Estimated
16*750	1744	29H04M	1840	Estimated	

These times are approximate for the typical case; but, if any of the disk drives in the module has a problem, times can be longer.

If conditioning takes longer than a few minutes more than the time listed above, then the slow drive or drives should be replaced before the 8-pack is used at 1024 Mb/s. The performance statistics reported by 'SSErase -c1' can be used to identify the slow drive or drives. A suspicious module should always be retested because disks might have been improved by the conditioning process. Note that a slow, but fully functional, 8-pack is OK to use at 128, 256, and 512 Mb/s.

See the "get_stats" and "start_stats" commands in the "Mark 5A Command Set Memo" <<http://web.haystack.mit.edu/mark5/command5a.pdf>> for an explanation of the meaning of the SSErase STATS: numbers. Note that SSErase does not report the <replaced-block-count>, which has no meaning when conditioning.