

Using the IBM 'Advanced Diagnostics for IBM AT' Disk to Low-Level Format a Hard Drive in an IBM 5170

- * *'Advanced Diagnostics for IBM AT'* disk, not *'Diagnostics for IBM AT'* disk.
- * The disk is actually labelled *'Advanced Diagnostics for IBM Personal Computer AT'*
- * The following was done with version 2.07 of the disk.
- * Assumption: Only one hard drive in the 5170.
- * Allow an hour.

1. On your 5170, boot from the disk.
2. Enter **0** [to select option 0 - SYSTEM CHECKOUT] (*Yes, they've put formatting under System Checkout !!!*)
3. Wait. It will take a minute or more for the next menu to appear.
4. Enter **Y** [the list is correct]
5. Enter **0** [to select option 0 - RUN TESTS ONE TIME]
6. Enter **17** [to select the Fixed Disk]
7. Enter **7,c** [to select option 7 - FORMAT MENU, and drive C:]

The default sector interleave of 3:1 is too conservative. A 2:1 interleave results in better performance.

8. Enter **4** [to select option 4 - CHANGE INTERLEAVE]
9. Enter **Y** [to confirm]
10. Enter **2** [to select an interleave of 2:1]
11. Press **ENTER** key [to acknowledge]

You are back at the Format menu.

You have a choice now of performing either an UNCONDITIONAL low-level format, or a CONDITIONAL one.

UNCONDITIONAL: You will be asked to enter the drive's defect track list (printed on the drive) and then formatting will begin. No test of the disk surface is done, and so afterwards, you should perform the SURFACE ANALYSIS option.

CONDITIONAL: This is the better option. It consists of three operations run consecutively: 1. scan for existing tracks marked as defective, 2. low-level format, 3. surface analysis

12. If you want to perform an unconditional format, enter **2,c** else if you want to do an conditional format, enter **1,c**

Note that when surface analysis is being performed, the final step in that is where defective tracks (track = cylinder/head combination) that were determined get marked/flagged as such on the drive, and sometimes it will appear during that marking step that the program has just stopped. It hasn't - be patient.

13. Boot the 5170 from a boot floppy and proceed to do the standard FDISK/FORMAT operations.