

Setting up a Black Box Hard Drive System

Readme/Introduction: These instructions are designed to supplement the original Black Box instructions – not replace them. So have the CSS docs handy when setting up your drive. It is strongly suggested that you at least briefly read through the CSS docs before starting. Take particular note of underlined text. Take a moment to navigate through the various pages of the BB firmware menu to become a bit familiar with them. While I have checked these by setting up several drives, still no guarantees that you won't find a mistake.

Step 1. – From the Drive Configuration Page, enter the drive parameters on the Controller List Page.

- a) Both Unit# and Logical Unit Number (0) must be entered, but note that for embedded drives, the LUN does not apply since each unit has its own controller – LUN normally applies to legacy SCSI controller boards that could control two MFM drives.
- b) Heads will be 1-16 with 0 being 16.
- c) Cylinders as shown from the drive mfg. data (usually printed on the drive or card data).
- d) Step will normally be 7 with embedded drives.
- e) Sector Size is 512 with all modern embedded SCSI drives.
- f) Save the configuration data – written to Track 0, Sector 0.

Note: the drive geometry must be correct! If incorrect, it may make the partition start at an unexpected place (rather than partition 1A).

Step 2. – Go to the Port Statuses menu (from the main menu) and enter the starting sector of the Partition Map. This will normally be sector 2. Remember that the Partition Map is 15 sectors long, so that means that your first partition cannot start before sector 17 on the primary drive (i.e. the drive where the configuration data will be written).

Step 3. – Go to the Partition List Page (from the Drive Configuration menu) and Delete any unwanted partions –or- if this is a first time setup, Kill (erase) the entire list.

Step 4. – Go to the Drive Configuration Page from the main menu.

- a) Choose the first hard drive – normally D1. Press RETURN and enter the name you wish to give it. Choosing an abbreviation of the drive and the starting sector is a good idea to help identify it later. For instance the first partition might be "WD000017" for your Western Digital SCSI drive, where the first partition sector starts at sector 17.
- b) The ID will be supplied at the end of this entry by the Black Box firmware.
- c) The controller number is the drive/controller entry that you wish to use from the Controller List Page (Step 1).
- d) Starting Sector is the first sector of this partition. When using 512-byte sectors, the first partition sector must be an odd number. If you select an even number the BB firmware will "round up" to the next odd number.
- e) The sector length will be the number of sectors that you tell MyDos you are using. HINT: although you can select any valid length from 720 to 65535, it is very useful to make all large drives the same size. For instance, all my drives are 60,000 sectors in length – no need to try to remember or check varying lengths.
- f) Write Protection (Pro) can be selected Y/N. Normally on your primary drive

partition, you would normally NOT want write protecton unless using unknown software or perhaps while programming where there is a risk of accidentally formatting the drive. (Remember, the BB has a Write-Protect switch that can be toggled.)

g) Dns means Density. All large drives should be Double Density – 256-byte MyDos sectors. Note that the BB will automatically translate the 512-byte physical sectors into 256-byte logical sectors. At the current time, all Dos for the Atari (except SDX) only recognize 256-byte sectors.

h) After all the parameters have been entered, Write (W) the partition data to the the Partition List. NOTE: the BB will enter the partition number under ID and on the Partition List Page.

i) SAVE (S) the configuraton data.

Step 6. – The data is now saved and the drive is set up. Boot with MyDos by Exchanging D1: and D2: on the Drive Configuration page. Select the drive number you entered to the BB (typically 1); and select "O" to provide the drive parameters to MyDos. Select "I" to format the drive. Select "H" to write the MyDos system files. DONE!