OPERATOR INTERFACE PRODUCTS
APPLICATION NOTE

Subject: Xycom 5000 with M-Systems Flash Disk   AN# 1048A
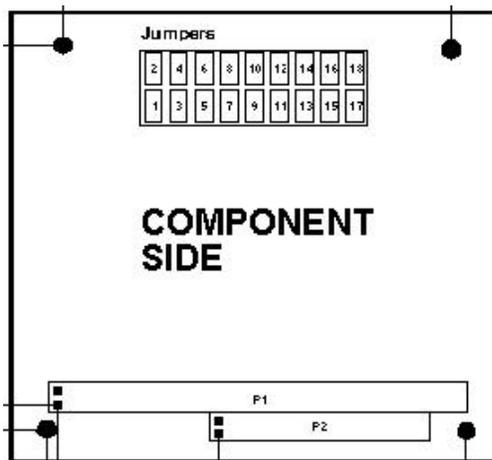Date: 10/18/96
Name: Scott A. Kortier

Description: Formatting an M-Systems PC/104 Flash Disk on Xycom 5000 to be bootable

For reasons of clarity, the Xycom 5100-ATA1 will be referred to as the "ATA1" and the M-Systems PC/104 Flash Disk will be referred to as the "flash disk".

Basic Idea: Install flash disk, install ATA1, boot from ATA1, format the flash disk, disable the ATA1 in the setup, remove ATA1, boot from flash disk.

Equipment Used: Xycom 5200, 5100-ATA1 (an ATA2 may be used), M-Systems PC/104 flash disk rev. B or rev. C. This should work with a Xycom 5100 but was not tested.

Known Problems: An ATA1 by SunDisk would not allow the flash disk to be recognized as D: after formatting. An ATA1 by IBM worked fine.

1. Set the jumpers on the flash disk (see below) and install into the PC/104 slot of the Xycom 5000. Pay special attention to the orientation of the connectors.
2. Copy the M-Systems utilities onto the ATA1, using a computer with both a 3.5" floppy and a PCMCIA slot, or use DOS Interlink. Suggestion - make a subdirectory C:\M-SYS on the PCMCIA.
3. Install the ATA1 in the 5200, boot from the ATA1. Make sure the BIOS setup is set for the ATA drive that you are using.
4. Run the M-Systems utility FDSETUP. If the board is a rev. C the utility should find the board and continue. If the board is a rev. B then the software will prompt you to "Choose Your Media". If the board is a rev. B select the option "PC-104-Flash Disk Rev B or older". The utility should respond: 1 FLASH DISKS FOUND.
5. Select the UTILITIES menu, then FORMAT the drive.
6. The utility will prompt you to "Optimize the Low-Level Format for use of compression..." Select NO. Then it will prompt you that all information on the flash disk will be lost, do you want to continue. Select YES. The will then prompt you to format as C: or as an additional drive. Choose Additional drive then OK. (I also left it as a size of 8192, even for the 4 meg disk).
7. Wait a few seconds for the program to format the flash disk. Hit any key to continue, when it prompts you.

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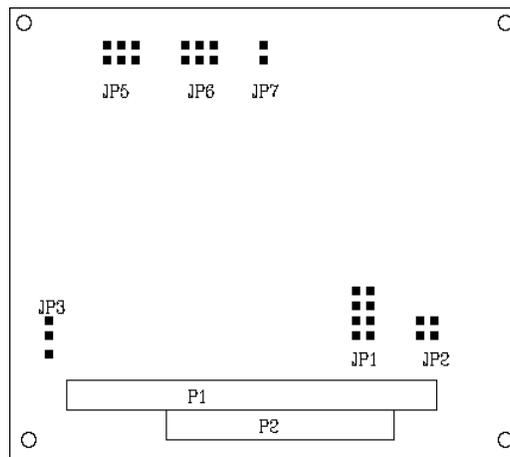
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8. When this is complete, select the UTILITIES menu again, then choose UPDATE, to update the Firmware. Select: AS AN ADDITIONAL DRIVE. Then OK. It should respond that it is done updating the BIOS Expansion.
9. Exit the FDSETUP program, by using ALT-Q.
10. Power the Xycom off, wait a few seconds then power the Xycom back on.
11. At the DOS prompt type "SYS D: " do not include the quotation marks.
12. The response should be SYSTEM TRANSFERRED.
13. At this point the M-Systems disk is bootable.
    Copy any files from the ATA1 disk that you may need, including the AUTOEXEC.BAT and CONFIG.SYS files. Be aware that while both disks are in the system, the ATA1 is the C: drive and the M-Systems disk is the D: drive.
14. Type CTRL-ALT-S to enter the 5000's BIOS setup menu. Disable the ATA1 by setting the FIXED DISK 0: TYPE to NONE. Save this setup by selecting F10.
1. Power the unit off, remove the ATA1 card, re-apply power. The unit should boot to the flash disk.

Rev C board: Jumper posts 1-4 not used, jumper posts 7-8 (Interleave 2), 9-10 (DC00-DE40),13-14 (PC-FD enabled), 15-16,17-18 (on board DC/DC), ev B board: Jumper JP1 4-8 (I/O port 330-33F), JP2 3-4 (D000-D7FF), JP3 2-3 (on board DC/DC), JP5 1-3 2-4 5-6 (interleave 2), JP6 1-3 2-4 5-6 (interleave 4), JP7 1-2 (enab.)