

TB139 (Rev1) - Installing a Compact Flash Card

Overview

This Tech bulletin describes how to install a Compact Flash card and Compact Flash reader in your Centroid control. It also contains information on how to partition, format and setup your Compact Flash should you need to do so. It is desirable to use the Compact Flash because of its high resistance to vibration compared to a standard Hard Disk Drive.

Labeling

Every Compact Flash from Centroid has very important information, as listed below:

1. Type of DOS installed. (PC DOS or MS-DOS)
2. Motherboard compatibility. Compact Flash must be used on same type of motherboard for which has been set up. This is very important, as they are NOT cross compatible.
3. Version of CNC7 software installed.

If the Compact Flash is not setup correctly, or is not labeled, refer to section below "Partitioning the Compact Flash".

Installation:

1. Back up existing configuration files first!
 - 1. Insert a blank diskette into floppy drive.
 - 2. From CNC7 main menu, press F7 - Utility.
 - 3. Press F3 - Backup.
 - 4. Press F1 - Config. The configuration will be backed up
 - 5. By using F2 - CNC and F3 - ICN, your intercon and g-code files may also be backed up
2. To replace an existing Hard Drive with the Compact Flash, remove the old Hard Drive and install the Compact Flash reader in its place. The Compact Flash reader is connected just as any normal IDE Hard Drive.
3. A Compact Flash and a hard drive may be used together on a motherboard for more storage space.
 - 1. To continue using the Hard Drive, install the Compact Flash reader between the Hard Drive and the Floppy Drive on the mounting bracket.
 - 2. The Compact Flash drive should always be set up as the primary master and boot device.
 - 3. Conventional hard drives should be used for secondary storage only.
 - 4. You cannot use two Compact Flash readers on the same IDE cable.
4. Once the Compact Flash is installed, use the Auto Detect function in the BIOS to correctly set the drive geometry.
 - 1. At initial boot up, press Delete to enter CMOS settings screen.
 - 2. Enter the Standard Settings screen.
 - 3. Check that the IDE0 section is set to auto. If the Hard drive is to be connected, also check that

IDE1 is set to auto.

- 4. Press the ESC key one time to return to the main screen of CMOS settings.
- 5. Press F10 or use the arrow keys to select 'save settings and exit.'

5. Once booted into CNC7, restore the backed up configuration.

- 1. Insert diskette with configuration backup.
- 2. From CNC7 main menu, press F7 - Utility.
- 3. Press F4 - Restore.
- 4. Press F1 - Config. The configuration will be restored.
- 5. By using F2 - CNC and F3 - ICN, intercon and CNC files may also be restored.

Partitioning the Compact Flash

1. Create a DOS boot disk.

- 1. Insert a blank, formatted diskette into the control floppy drive.
- 2. From the main screen of CNC7, press Ctrl, Alt, and X to get to a dos prompt.
- 3. Type in SYS A:
- 4. Press Enter.

2. Setup the Compact Flash reader as a Slave drive.

- 1. Place Jumper on JP2 to set as slave.
- 2. Connect power and IDE cable.

3. Boot from floppy using the DOS boot disk in step 1.

- 1. Press Del to enter setup as the computer starts.
- 2. Go into advanced settings and set Floppy (May be listed as A:) as first boot device.
- 3. Save changes and reboot.

4. Partition the Compact Flash

- 1. Type FDISK at the prompt and press Enter
- 2. Select option 5 from main menu.
- 3. Select Compact Flash drive, which should be drive 2
- 4. From the main menu, select option 4 to view existing partitions. If no existing partitions, go to E.
 - i. Option 3 from the main menu will delete existing partitions.
 - ii. Restart if any partitions were deleted.
 - iii. When control has restarted, return to FDISK and select correct drive as stated above.
- 5. From the FDISK main menu select option 1 'Create a DOS Partition'
- 6. Select option 1 from the next menu 'Create Primary DOS Partition'.
- 7. Select 'Yes' to use entire drive space.
- 8. Exit FDISK and restart.

5. Format the Compact Flash by typing FORMAT D:

6. Copy contents of Existing hard drive to Compact flash

- 1. Type **C:** at the prompt and press **Enter**.
- 2. Type **SYS D:** at the prompt and press enter to transfer system files to the Compact Flash.
- 3. Type **XCOPY C: D: /S/E/V** to copy all the files on the C drive to the Compact Flash.

7. Turn off system and setup the Compact Flash as the Master drive (Remove Jumper on JP2).

- 1. Either remove old hard drive or setup as a slave drive.

8. Setup Compact Flash with an Active partition to be bootable.

- 1. Boot from the floppy drive again.
- 2. FDISK again.
- 3. Select option 2 'Make Partition Active' this will set the Compact Flash to be the Boot drive.
- 4. Remove the Boot Floppy, and restart the Control.

Enter BIOS settings and setup IDE0 or C: (depending on motherboard) as the first boot device.

Compact Flashcard Guidelines

Centroid recommends Compact Flash cards with Toshiba controller chips.

Example: Butterfly, Kingston, and Toshiba.

Only Type-1 cards will work in Centroid flashcard readers, Type-2 cards are not compatible.

Centroid flashcard readers will only work with cards up to 1G in capacity.

IBM Micro Drive cards are compatible with Centroid Flashcard readers.

Document History

Rev1 Created on **2002-03-19**