

From jvs Thu Nov 7 17:10 CST 1996
Date: Wed, 6 Nov 1996 13:32:49 -0800 (PST)
From: Don Maslin <donm@cts.com>
To: Jack Strangio <jvs@camtech.net.au>
Subject: Re: Northstar disks
MIME-Version: 1.0

Oops!!!

> PS What do you know about connecting 5 inch floppy drives to a CPZ48000
> s-100 SBC ? I have one called Frankenstein, which runs CP/M on 8 inch
> floppies but I can't seem to get it to run with today's 5 inchers.

Jack, there are several things that need to be done on the SBC to make it run with 360k/5.25" drives. One of them is that it requires a new Monitor ROM for those drives. The others have to do with altering the wiring to conform to the 34 pin connection and changing the data rate from 500k down to 250k for the 5.25". This involves resetting jumper JA to 1-2 vice 2-3, installing a 22uf 16v tantulum capacitor to C1 on the FPB100 Floppy personality board with positive towards C1 marking. Also install a 47k ohm resistor in R1 on the FPB100. Also required is a 100pf mica capacitor in C4 on the CPZ48000. Finally, monitor pin 7 of U2 with an oscilloscope and adjust R9 on the CPZ48000 for a 2mhz clock.

The hardware stuff is reasonably straightforward. The Monitor ROM is a bummer!

What I would suggest that you try is to cobble up an adapter from the 8" 50 pin connection to the 34 pin 5.25" connection. With this, use 5.25" high density (1.2mb) drives and let Frankenstein believe that there are still 8 inchers connected. Presumably, you would need to start with just one in order to format, sysgen, and transfer files to the 5.25" disks.

There are a few caveats with this idea. You will have to play some games to provide a motor start signal to the 5's. You can leave them running all of the time, but since most do not have a head load solenoid disk wear could be a problem. Also, I am told that some of the 5.25" HD drives - likely newer ones - cannot handle single density recording such as is normally on 8" boot tracks.

Anyway, there you go. Probably more than you wanted to hear! I can provide the pinout information on 8" and 5.25" if you should need it.

From volta5!ozemail.com.au!nsw.nnrp.telstra.net!intgwlon.nntp.telstra.net!
 newsfeed.mathworks.com!nntp.flash.net!mercury.cts.com!thoth.cts.com!not-for-mail
 6 Dec 1999 19:45:36 GMT
 Path: volta5!ozemail.com.au!nsw.nnrp.telstra.net!intgwlon.nntp.telstra.net!
 newsfeed.mathworks.com!nntp.flash.net!mercury.cts.com!thoth.cts.com!not-for-mail
 From: Don Maslin <donm@cts.com>
 Newsgroups: comp.os.cpm
 Subject: Re: Copying software to 8inch disks?
 Date: 6 Dec 1999 19:45:36 GMT
 Organization: CTS Network Services
 Lines: 46
 Message-ID: <82h3p0\$d78\$1@thoth.cts.com>
 References: <82gl5g\$qhk\$1@q.seanet.com>
 X-Trace: thoth.cts.com 944509536 13544 205.163.0.7 (6 Dec 1999 19:45:36 GMT)
 X-Complaints-To: newsmaster@cts.com
 User-Agent: tin/pre-1.4-19990413 ("Endemoniada") (UNIX) (crash/3.2 (i386))

leucoplast <leucoplast@seanet.com> wrote:
 : How do you get software that you've downloaded from the internet, from your
 : PC to an 8 inch floppy?

: Is there a way to connect an 8 inch drive to an old MSdos based system? Or
 : is there a good intermediate computer that will use both 8 and 5.25 drives
 : that I could use to transfer software from my PC to the 8 inch disks.

Yes, there is. An old XT or clone is quite satisfactory. You will need to do some 'wire weaving' in making up the disk cable, and perhaps a bit of testing to find an FDC that will do 1.2mb floppies (the functional replacement for the 8") as well as single density, if that is a requirement on your 8" disks.

Following gives the relationship of the 34-pin and 50-pin connectors:

The following table is extracted from the CompatiCard manual:

Card Signal Name	34 Pin	37 Pin	Direction	50 Pin	8 Inch Drive Signal Name
Programmable	2	3	--->	2	Low Current
Index	8	6	<---	20	Index
Drive Select 1/3	12	8	--->	28	Drive Select 2
Motor Enable 1/3	16	10	--->	18	Head Load
Step Direction	18	11	--->	34	Direction Select
Step Pulse	20	12	--->	36	Step
Write Data	22	13	--->	38	Write Data
Write Enable	24	14	--->	40	Write Gate
Track 0	26	15	<---	42	Track 0
Write Protect	28	16	<---	44	Write Protect
Read Data	30	17	<---	46	Read Data
Select Head 1	32	18	--->	14	Side Select

Connect odd number pins of 34 pin connector to odds of 50 pin connector
 Connect pins 21/37 of the DB-37 to all the odd pins on 50 pin connector
