

My serial cables are shown below:

Female = >pin#-----Pin#---- = Male

Standard PC cable:		Null Modem Cable for PC	
DB-9	DB-9	DB-9	DB-9
>1-----	1----	>1-----	4<----
>2-----	2----	>2-----	3<----
>3-----	3----	>3-----	2<----
>4-----	4----	>4-----	1<----
>5-----	5----	>5-----	5<----
>6-----	6----	>6-----	4<----
>7-----	7----	>7-----	8<----
>8-----	8----	>8-----	7<----
>9-----	9----	>9-----	9<----

Null-Modem for PC – DB-9 to DB-25

DB-9	DB-25
>1-----	8----
>2-----	3----
>3-----	2----
>4-----	20----
>5-----	7----
>6-----	6----
>7-----	4----
>8-----	5----
>9-----	22----

Heath Null-Modem Cable for H-89 to H-89

DB-25	DB-25
>1-----	1<----
>2-----	3<----
>3-----	2<----
>4-----	5<----
>5-----	4<----
>6-----	20<----
>7-----	7<----
>20-----	6<----

Serial Extension Cable – DB 25

DB25	DB25
---1-----	1<----
---2-----	2<----
\\ all lines straight through \\	
---24-----	24<----
---25-----	25<----

Some H8/H89 Configurations may not have all of the serial ports. For those who do not have a Modem Port (330Q), I have implemented the Set-Port option in ZMP to allow selecting either the standard modem port (330Q) as port "A" or the Serial Printer Port (340Q) as port "B". Either port may be set as the default port on startup. To swap ports, type Esc, L to open the line parameters menu and then select Option O to toggle to the other port. Set the default port in the configuration menu.

To use port 340Q with MAPLE, just run the modified version -- MAPLE340.ABS

To use the serial communication line on the Z67-IDE board, use the standard PC DB9 to DB9 connected to the 3 wire serial cable that connects to the Z67-IDE.

For PC to Heath communication using ZMP or MAPLE on the Heath using port 330Q, use the DB9 to DB25 connected to the Heath Null Modem Cable to the Modem port (330Q) on the Heath. (NOTE: H-8 user's may have to use a gender changer as well on the Heath end.)

To use Les Bird's H8D application, I use the PC DB9 to DB25 with a DB25 Extension Cable connected to the Serial Printer Port (340Q) on the Heath. This is also the cable set to use with the ZMP or MAPLE set to work with the Serial Printer Port 340Q.

For communication between two Heath computers, use the DB-25 null modem cable. You may need to use a gender changer if the plugs don't match the H-89 cable shown for use on port 330Q.

I have prepared *.H8D disks images for ZMP and MAPLE. They are all boot-able.

ZMP for CP/M boots CP/M 2.2.04 for both H-17 and H-37 disks. The H-17 access is configured for a single drive so that those having only one H-17 drive can swap disks during the transfer process. If you have multiple H-17 drives, you can reconfigure the boot disk to take advantage of your hardware. If you have H-37 disks, you can copy the software to a soft-sectored disk. The packages are:

ZMP2MP2.H8D -- H8/89/90, Z80 CPU, 2 MHz Clock, Max Z-modem rate = 2400 baud, port "A" (330Q) or port "B" (340Q) .

ZMP2MIP2.H8D -- H8/89/90, Z80 CPU, 2 MHz Clock, Interrupt driven I/O requiring Int-5 set on serial card for the modem port, max Z-modem rate = 4800 baud, port "A" (330Q), or port "B" (340Q).

ZMP4MP2.H8D -- H8/89/90, Z80 CPU, 4 MHz Clock, max Z-modem rate = 4800 baud, port "A" (330Q), or port "B" (340Q).

ZMP4MIP2.H8D -- H8/89/90, Z80 CPU, 4 MHz Clock, Interrupt driven I/O requiring Int-5 set on serial card for the modem port, max Z-modem rate = 9600 baud, port "A" (330Q), or port "B" (340Q).

If you can configure your serial port to use Interrupt Level 5 by setting the jumper pin on your serial card, you will get twice the communication speed by using the interrupt I/O packages. Use the package that best matches your hardware.

The MAPLE disk image contains the original version using port 330Q and a modified version MAPLE340 for use on port 340Q. You may use either port at 4800 baud when running HDOS at 2 MHz (9600 baud @ 4 MHz).

The Z67-IDE software will be packaged in a similar manner – Less than 90k of files per disk so that it will fit on a single-sided H-17 disk. If you have greater capacity drives, you may copy more than one package to a disk.

There are two sets of Z67-IDE software for CP/M – a set for H17 & Z67-IDE disks and a set for H37 & Z67-IDE disks. With each installation there is a read-me file containing instructions for installation. I have tested these on my H-89 and believe that it will work for you if you follow the procedure precisely. I recommend that you print these instructions and read them all the way through before beginning. I would also recommend using a high-lighter to make file names and key points easier to find during the install.

For HDOS, there are no special files required except the Z-67 PREP/PART UTILITIES Disk and the Drivers disk.

Norberto has done us a great service by developing the Z67-IDE system and making it available to us. Couple the Z67-IDE with ZCPR on CP/M or SuperSysMod2 on HDOS and you have a Heath that is fast and fun to use.

I am active on the Google-Groups SEBHC site and will be glad to answer questions for any having problems with communication between computers or getting the systems loaded.

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