## Modify NMS8245/00 from 14-pins Philips flopy drive to 34 pin Shugart bus

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English translation by HansO, 2003

The modification makes it possible to use standard PC floppy drives in the NMS8245/00



## Adaptor for NMS8254, VG8235, VY0010 and VY0011

Remove the connector on the grey/green flatcable on the diskdrive side. Cut every wire, strip it blank and solder it on the print (if you have it, otherwise get a connector). Carefully follow the numbering as shown in the first figure.

The 4-pin powersupply connector does not have to be changed into a 4-pin floppy disk drive power supply connector , but it looks better.



This figure shows how to add an extra power regulator IC, a type 7805 (5V, 1A) to prevent interference on screen while using the disk drive.

This can occur because modern floppy disk drivers only use +5V and not +12V and consume more power from the +5V than older drives.

On the plate that mounts the drive are notches with holes for the screws of the old drive, they have to be removed.



Fig. 3. This shows the plate, the rising parts are removed and the bend parts are hammered flat if necessary.



Fig. 4. To mount the drive two cutouts need to be made to allow access for the screws to hold the diskdrive.

Because the PC floppy diskdrive is wider there also has to be a piece of plastic removed from the back of the bottompart, use a saw for that.

Also remove a small nodge from the bottompart at the position where the front of the diskdrive rests to prevent flopies from being obstructed. Use a cuttor or sharp knife for this.

When all items are at their place we can test.

Shugart floppy Pin NMS8245 VG8235/00 VG8235/20 connector Gnd Open/Disk change/Ready Gnd In use/Open LF58 2 (b-connector) Gnd Drive select 3 Gnd Index Gnd Drive select 0 Gnd Drive select 1 Gnd Drive select 2 Gnd Motor on Gnd Direction Gnd Step Gnd Write data Gnd Write gate Gnd Track 00 Gnd Write protect Gnd Read data Gnd Side select LF65 13 (b-connector) Gnd Ready/Disk change/Open LF61 GND 

Connect a standard floppy drive (Shugart 34 pins connector) to 14 pins Philips connector as found in the VG8235/00, VG8235/20, NMS8245, VY0010 and VY0011

Many types of disk drives can be connected to a (Philips) MSX computer. Brands that have proved to be usefull are Teac, Mitshibishi, Samsung and Chinon.

Note the following (for the jumpers the drive has to be opened to have access to the jumpers))

- 1. The jumper or smd resistor 0 ohm or solder bridge must be set right for A (DS0) or B (DS1) drive. The default for PC diskdrives is DS1.
- 2. The function of pin 34 is 'Disk change' on a PC, this has to be changed to 'Ready' (RY or RDY), look for the jumper or solder bridge.
- 3. Optionaly the switch that detects a 1.44 MB floppy must be removed to prevent 'disk offline' messages when a HD floppy is used as 720 KB floppy without a covered HD hole.