How to make a third slot for NMS 8250 with the unused connector MY

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Have a look at the NMS8280 Service manual to understand the directions in this guide.

1. Remove the solder from the my connector and put hdd male connector in the empty sockets.
2. Solder wire from 2 -> 1 at jumper J107 (close to MY connector) A13 is connected to connector.
3. Solder the following wires at the 74LS245 just underneath the MY connector (if the keyboard connector is on top).

 2 - 18 (D0)
 3 - 17 (D1)
 4 - 16 (D2)
 5 - 15 (D3)
 6 - 14 (D4)
 7 - 13 (D5)
 8 - 12 (D6)
 9 - 11 (D7)

4. solder a wire from R175 right print spot (side of the main cartridge connector) to jumper J105 No 1
5. Solder a wire from R175 left print spot (side of the EPROMS) to MB connector pin 1 (Sound connector) this is for SOUNDIN.

The MY connector carries the following signals:

```
01    GND             02    D7
03    D6              04    D5
05    D4              06    D3
07    D2              08    D1
09    D0              10    GND
11    A13             12    A12
13    A11             14    A10
15    A9              16    A8
17    A7              18    A6
19    A5              20    A4
21    A3              22    A2
23    A1              24    A0
25    /RESET          26    /RD
27    /WR             28    /IORQ
29    SOUNDIN         30    GND
31    A15             32    A14
33    /M1             34    /INT
35    /SLTSL3.1       36    +5V
37    /CS2            38    /CS1
39    CLOCK           40    GND
```

6. Last step is to take a hdd flatcable, cut one connector and solder the cables to an edge connector with the signals to the correct pins.

MSX Cartridge connector layout：

```
                                         +---+
   1:/CS1          2:/CS2          1  |= =|  2
   3:/CS12         4:/SLTSL           |= =|
   5: RSV(N.C)     6:/RFSH            |= =|
   7:/WAIT         8:/INT             |= =|
   9:/M1          10:/BUSDIR          |= =|
  11:/IORQ        12:/MERQ            |= =|
  13:/WR          14:/RD             |= =|
  15:/RESET       16: RSV(N.C)        |= =|
  17: A 9         18: A15             |= =|
  19: A11         20: A10             |= =|
  21: A 7         22: A 6             |= =|
  23: A12         24: A 8             |= =|
  25: A14         26: A13             |= =|
  27: A 1         28: A 0             |= =|
  29: A 3         30: A 2             |= =|
  31: A 5         32: A 4             |= =|
  33: D 1         34: D 0             |= =|
  35: D 3         36: D 2             |= =|
  37: D 5         38: D 4             |= =|
  39: D 7         40: D 6             |= =|
  41: GND         42: CLOCK           |= =|
  43: GND         44: SW1             |= =|
  45: +5V         46: SW2             |= =|
  47: +5V         48: +12V            |= =|
  49: SOUNDIN     50: -12V        49  |= =| 50
                                         +---+
```

The following signals are not provided at the MY connector and are to be taken from the mainboard or the main cartridge connector.
/CS12
/RFSH
/BUSDIR do not connect (not necessary as the D0..7 are not buffered)
/MERQ
/WAIT
SW1
SW2
+12V Necessary for FM-PAC and others
-12V Necessary for FM-PAC and others