SCC Switch

Hans Otten, 2001

A Konami cartridge with SCC will start automatically the game after a reset.
If only the SCC function is wanted the starting of the game must be inhibited.
There is only a small modification necessary that adds a switch to choose between
- only SCC
- Start game with SCC as before

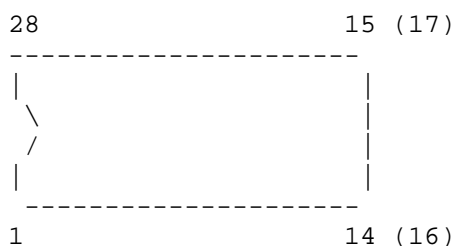So you have a cartridge with two functions! No need at all to remove the game, you can still play it!

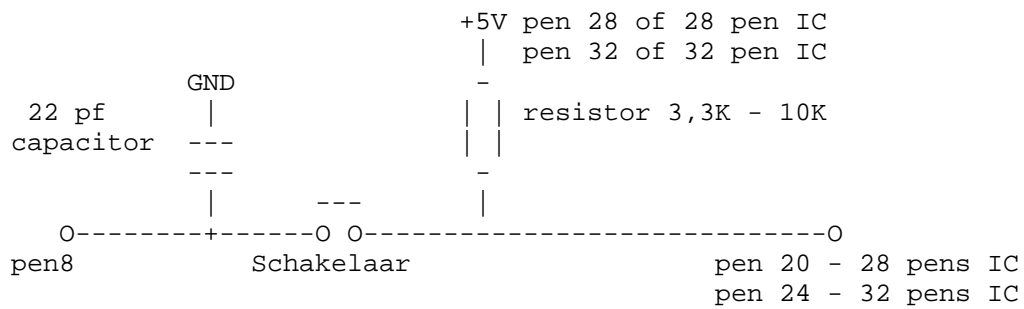If you have the (SD) Snatcher SCC+: it can be used without any modification.

Needed are:

- single pole witch, small model that can be fitted on the top of the cartridge
- resistor 3.3 to 10k ohm, 1/4 watt (small model)
- some isolated wire
- a soldering iron (15 W, small type, thin tip, take care!)
- any Konami cartridge that has the SCC logon on it

The modification is done as follows:

1. Open the cartridge. Alas this will damage the paper sticker!
2. Inspect the electronics. You will notice two chips: a large one and a small one.
3. Count the number of pins of the large chip: either 28 or 32.
4. Note the pin layout and numbering: pen 1 is located at the bottom of the chip where a mark can be seen:

```
 28                       15 (17)
 ---------------------
 |                      |
   \                    |
    /                   |
 |                      |
  -------------------
 1                        14 (16)
```

5. Locate pen 8, 20 (28 pens IC) or 24 (32 pen IC) of the large IC. Often a small capacitor (22 pf) is connected to this pen,

6. Cut the print connection to this pen (on the bottom of the PCB) and

7. Drill a hole in the cartridge housing (see photo) and insert the switch

8. Connect wires as in the next schematic. And add the resistor. Solder carefully, do not use too much soldering tin. Remove only a very small portion of the isolation of the wire, just enough to solder it to the PCB!

```
                                +5V pen 28 of 28 pen IC
                                 |  pen 32 of 32 pen IC
                 GND            -
   22 pf          |             | | resistor 3,3K - 10K
   capacitor     ---            | |
                 ---             -
                  |     ---      |
      O--------+------O O----------------------------O
   pen8            Schakelaar              pen 20 - 28 pens IC
                                           pen 24 - 32 pens IC
```

Also see the two photographs

9. Inspect your work: does the solder junction look clean? No short circuits made?
Check carefully! IT MAY damage your computer!

10. Put the cartridge together again.

11. Insert the cartridge in your MSX and then switch on the MSX. If the games starts:
mark the position of the switch as "Game". Mark the other side as "SCC".

12. Switch off the MSX and throw the switch in the other position. Switch on and
your MSX will start normally, as if no game cartridge is inserted. Now you can check
a program that uses the SCC!

If the MSX does not function as in step 11 or 12: you have made a mistake! Switch
off immmediately and check your connections!

Perform this modification at your own risk. The author of this article is not
responsible for any damage caused by this modification!
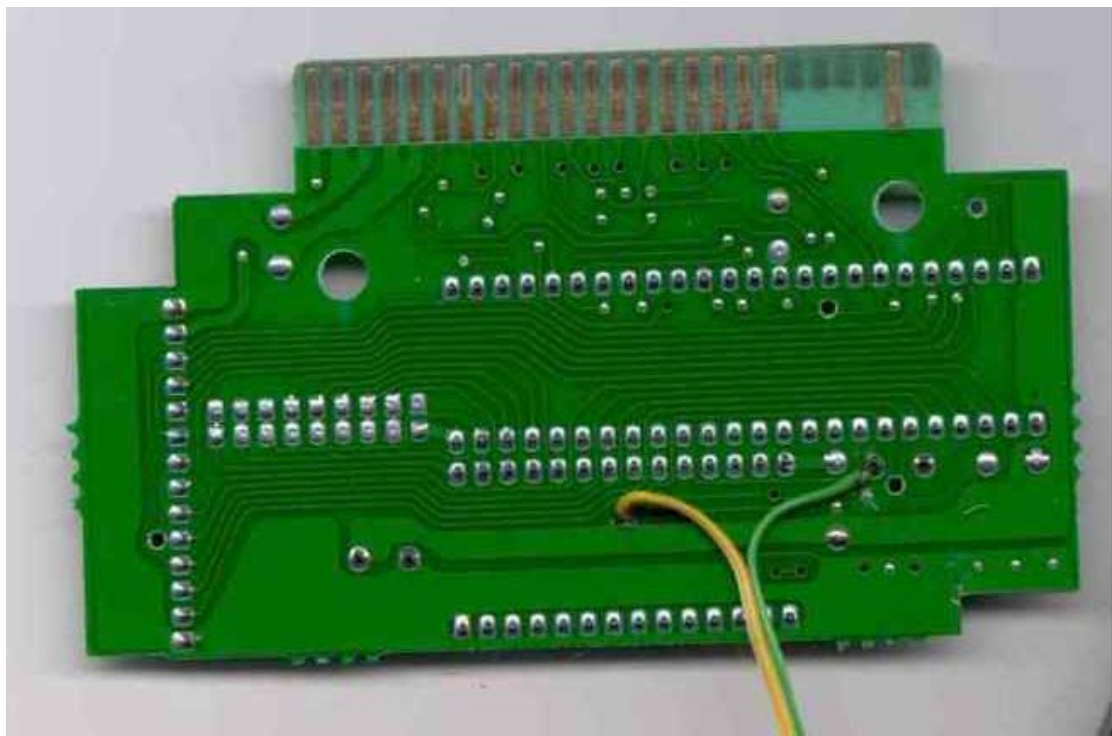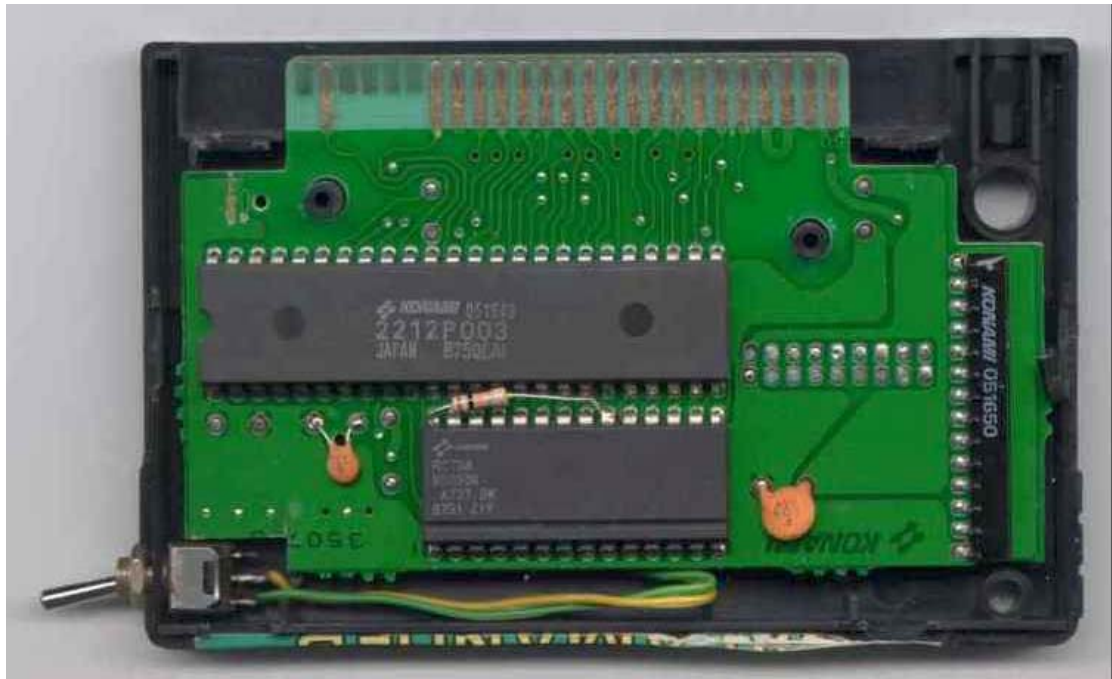
Photo's of the switch placed in Salamander Konami game