

# SMART Card (V1) for ZX Spectrum 48 by Phil Ruston [retroleum.co.uk](http://retroleum.co.uk)

## Quick Start Guide 03-10-2017

Download [www.retroleum.co.uk/smart.zip](http://www.retroleum.co.uk/smart.zip) for full documentation / latest files.

### VERY IMPORTANT:

- If your Spectrum's edge connector hasn't been used for a long time, it's a good idea to give it a clean top and bottom with some isopropyl alcohol on a cotton bud.
- As with any Spectrum interface, make sure the power supply is disconnected before attaching or removing the SMART Card - failure to do so will almost certainly damage the Spectrum and/or the interface. Press the interface home as far as it will go - it may be quite a tight fit. Do not connect it to the Spectrum if the alignment key in the edge connector is missing!
- To avoid flexing the edge connector contacts, power down before connecting anything to the SMART Card or changing its DIP switch settings.

### Usage:

The SMART Card has been set up to start from its game loader ROM. With the power off, insert a **FAT16 formatted** SD card containing your game snapshot (.sna) files. Power on and browse the card using a joystick with fire to select, or keys Q,A,O,P and Enter. To play another game press the reset button (left side) to reboot and return to the file menu. (If power cycling with the Spectrum power jack, please leave the computer off for at least 5 seconds so the memory is clear on reboot.) To enter pokes or save a snapshot, press the NMI button on the right (requires the snapload.v20 or later ROM – supplied pre-installed from September 2017) To go to the normal Spectrum BASIC ROM, press Caps Shift + Space (Break).

If you need to go to the ROM Manager (EG: To update the firmware) - hold the zero key whilst connecting the power or resetting. To use the DiagROM, set DIP Switch 3 to ON. See the full manual for details.

### Notes:

- Your SD Card **must be formatted to the FAT16 standard** (Windows sometimes refers to this just as "FAT") - FAT32, ex-FAT, NTFS etc will not work with the SMART Card. A known brand 4GB (max) card is recommended for compatibility – more info in the the full docs.
- The jumper marked "48 AB3" needs to be on the left two pins for normal use on a Spectrum 48 and Spectrum 128 (and grey +2). The card will not physically fit a Spectrum 128+2/3 without some form of adapter (unless the case is removed, EG: for diagnostics).
- The onboard joystick port is Kempston compatible. On SMART Card PCBs V1.05 onwards it is enabled / disabled with DIP Switch 4.
- For simplicity, the game loader is mainly aimed at loading ".sna" files. However, it can also load most ".tap" files when a patched Sinclair ROM is installed.
- For normal use, make sure DIP Switch 1 is set ON, DIP Switches 2 and 3 are OFF. In general only enable EEPROM writes (DIP Switch 2) if you want to update something on the SMART Card.
- The SMART Card was designed as a simple, standalone interface for the Spectrum 48 – it has not been tested in conjunction with other interfaces (IE: those with pass-through connectors). Also, the supplied software (snapshot loader etc) may not work on other Spectrum models.