

## Multiface 128

2004 OCR'd by Wilko Schröter



### INTRODUCTION.

**MULTIFACE 128** is a true **MULTI**purpose inter**FACE** with:

- 1) Fully *universal* and *100% automatic* **BACK-UP** facility for *tape, microdrive, Discovery, Plus D or Disciple*
- 2) **8K RAM** extension - suitable for our **GENIE, LIFEGUARD**, or as a *buffer*, etc.
- 3) **MULTI TOOLKIT** to *study/modify/develop* programs, *POKE* infinite lives, etc.

### CONNECTING THE MULTIFACE.

The Spectrum **must** be switched **OFF** before attaching/removing the *Multiface 128*.

*MULTIFACE 128* plugs:

- a) on the **SPECTRUM** edge connector - for *tape* users
- b) on the **INTERFACE 1** edge connector - if used with *microdrives*
- c) **between** the **SPECTRUM** and **Plus D, DISCIPLE** or **DISCOVERY**

Check all connections carefully **before** switching the Spectrum **ON**, or else **serious damage may occur** and your **guarantee will be VOID**. A *proper attachment is vital* for the functioning of the *Multiface* - and a bad contact is the cause of 99% of all problems. If attaching/using the *M128* brings random coloured squares or other garbage on the screen, clean the edge connector with an ink eraser and re-connect the *Multiface 128*. If your system and the *Multiface* still should not work, switch the Spectrum **OFF**, remove any add-ons except the *Multiface*, re-read these instructions carefully and try again. Should you really not succeed, please telephone us on **01-200 8870** or write to us. Please do **NOT** return the *Multiface* until we ask you to do so. In such case, please use the original packaging, state your *name, address, phone* and describe the *problem* and the whole *equipment* used. Please read the **guarantee** conditions carefully as well.

### NOTES ON SPECTRUM CRASHES:

Very rarely, a Spectrum may have a substandard **Z80** and be unfit for the **Multiface**. The typical effects are:

- a) the first pressing of the **Multiface's** red button causes the Spectrum to reset/crash (as **NEW** or **reset**)
- b) further pressing of the red button has no effect whatsoever.

Your Spectrum may otherwise seem to be working perfectly, since only a few hardware devices, such as the *Multiface*, use one particular "line" (**NMI**), which you may have never needed before. The use of **NMI** is essential for the *Multiface* and if your Spectrum (or more precisely its **Z80**) is faulty, you can either have it replaced or repaired. We can carry out the repair ourselves at the cost of £14.95 - we will need your Spectrum (without the power supply), *Multiface* and a payment by cheque, PO, cash or card. If you prefer to have your Spectrum checked and/or repaired locally, please do ensure that the repair shop gets the **Multiface** as well, so that your whole set-up will be made to work properly. It is also good idea to try the **Multiface** on another Spectrum to help to establish that it is really **YOUR** Spectrum that is faulty.

## USING THE MULTIFACE.

Multiface 128 works on the **Spectrum 48/128/ + 2**. It can be used *any time in any mode*: It is immaterial what is inside the Spectrum at that moment or *how* or from *what source* (*tape, disk, cartridge*) it has been *loaded* (or *typed in*, etc.). *Multiface* does not save programs, but computer contents (**compressed RAM image**). Upon *returning* from the *M128* or upon *re-loading*, the programs *continue as if never frozen*. To use the *M128*:

- 1) *Push the red button* to activate the *Multiface* and obtain the **MAIN MENU**
- 2) *Select the required option* from the menu by pressing its relevant key - it is *always* shown in **inverse** and it is usually the *first letter*, such as **e** for **exit**).

The MAIN MENU options are:

**exit** - to abandon the *Multiface* and exit to BASIC (provided BASIC is present)

By using **exit**, you come out of the *Multiface* entirely. All efforts are made to preserve the current program in the Spectrum intact. The main condition is the existence of standard system variables - without these the Spectrum crashes. A successful **exit** gives you full access to the program (you may miss the **MULTI TOOLKIT**, though). To *restart* it, if needed, you must know the *starting line* or address. **Exit** is impossible in the 128K mode when the edit ROM is paged and Spectrum ROM is OFF; in such case it does not appear on the menu at all. All in all, you can only **exit** to BASIC if it exists - it is like jumping into a pool: a joy if it's full of water, a crash if there is none.

**return** - to continue the program

**save** - to proceed to the SAVE routines:

- a) **input** the name of the program  
up to **9** characters (or just press ENTER to input **RUN** automatically as a default)
- b) **save to: tape microdrive opus disciple** (use **d** for Plus D interface, too)  
You can save the entire **program** (including the screen) or the **screen** only. Programs are *compressed* to take the minimal room possible and to load faster. Screens saved on their own are *left intact* as standard Spectrum hi-res screens
- c) **format** microdrive cartridges more effectively, ideally to 100 + K.  
Cartridges are automatically named after the *programs* to be *saved*.

**tool** - to access the **MULTI TOOLKIT** routines

**quit** - to return to the main menu

ENTER - to **PEEK** and **scroll** through addresses or to **POKE**

SPACE - to allow you to type in a **new address**

**hex** - to toggle between **hexadecimal** and **decimal** display format

**reg** - to point to the **Z80 registers** as they were when the program was *frozen*.

They start from the *program counter* (PC-low, hi) and can also be changed.

**window** - to open a *window* with *full on-screen editing* using the cursor keys.

The *flashing window address* corresponds to the address in the *bottom edit line*.

The *window display* is by default in *hex*, but you can change it to

**text** - to see the 128 bytes in the *window* as **ASCII** text.

**select** - to inspect **RAM banks 0-7** on 128K Spectrums. Press **s** + the bank number

**print** - to dump screen to printer.

For printer interfaces using **COPY** command - **Multiprint**, ZX Lprint II, Kempston.

You can **POKE** address **8200** with the following values, if you wish to:

**113** to turn the **line feed ON** (CR plus LF, i. e. sending 13 plus 10)

**112** to turn the **line feed OFF** (CR only)

**17** to dump screen as text (**text copy**) with the **line feed on** (CR + LF)

**16** to dump screen as text (**text copy**) with the **line feed off** (CR only).

These pokes can be used on the above Interfaces in *EPSON default*.

**jump** - *not to return*, but **jump to another address**. Strictly for machine code users only!

Enter the address to jump at **8192/3 (low/hi)**. You can jump to Spectrum ROM/RAM AND to *M128 8K RAM*. As the *M128 RAM* overshadows the ZX ROM (8192-16383), address 8194 determines the paging status: if its is **0**, the *M128 RAM* remains paged, **1** pages out the *RAM* and any **other** value **disables** the jump command entirely.

You can jump from the main menu, and you can also pre-program *Multiface* to jump *directly* upon pressing the red button and by-pass *M128* operating system entirely. To program the "**direct jump**", **POKE 8192-3** with the **jump address** as usual, and then also **8195-7** with a special identification code word **RUN** (i. e. 82, 85, 87). Whenever you push the button now, you will *jump* to the predefined address and not even see the *M128* menu. To return from *your* program to the program you *stopped*, use **RST 0**. To revert back to the *Multiface* normal operation, press the *red button* and **BREAK** key simultaneously - this also *cancel*s the code word **RUN**.

In standard mode *Multiface* uses **8192-11144** as a buffer (**8192-13496** once you proceed to *SAVE*) and overwrites anything in there. Using *direct jump*, you have **8257-16338** available - plus all of Spectrum RAM to which you can also jump to.

**clear** - to clear the extra 64K *RAM bank* (in 128K mode only!)

You can *clear any time*, but it is only useful with 48K programs in 128K mode. However, you should save 48K programs in 48K mode anyway. Also, for obvious reasons, clearing the banks in 128K programs is not a good idea...

**PIRACY IS ILLEGAL!**

**MULTIFACE 128 is NOT designed to encourage piracy!**

Please note that you must not use it to copy, reproduce or infringe in anyway any copyright material without the clear permission of the copyright owner. ROMANTIC ROBOT neither condones nor authorises the use of Multiface for the reproduction of copyright material - to do so is illegal!

\*\*\*\*\*

## **GENERAL HINTS and TIPS.**

### **USING THE ON/OFF SWITCH.**

*Multiface 128* has a **software switch** to make it **(in)visible**, mainly to prevent possible clashes with other hardware/software.

As a rule, *M128* can **ALWAYS** be *activated*, irrespective if previously set **ON** or **OFF**. Upon powering up the Spectrum, the *Multiface 128* is automatically **OFF!** - thus loading a program **SAVED** previously by the *Multiface 128* will leave a partially corrupted screen. To switch the *M128 ON*, press the *red button*, which both activates **AND switches** it **ON**. Press **r** to **return** and the *M128* will *remain ON*. You can switch it **OFF** by pressing **o** when you are in the *M128 main menu* - **o** simply toggles between **ON/OFF** as shown.

### **USING THE EXTRA 8K RAM.**

*Multiface* has an *8K ROM* (containing its own software) and an *8K RAM* used as a buffer. You can use the *8K RAM* for your own m/code routines or for data, but **NOT** for BASIC. The *RAM* must be paged in **machine code** to be accessed: use **IN A,(191)** to **page IN** and **IN A,(63)** to **page OUT**. The *IN* and *OUT BASIC* commands can *not* be used here. The *8K RAM* overshadows the Spectrum ROM and thus anything contained in the *M128 RAM* cannot make any calls to the Spectrum ROM, as they both occupy the same area. *M128 RAM* routines should therefore be self contained, independent of Spectrum ROM. All in all, the use of the M128 RAM requires a good knowledge of m/c - or else forget it...

### **POKING INFINITE LIVES.**

To start with, please ensure that you are *not infringing copyright*. To **POKE**, say, **31000,0**: First *load* a program as usual. When it's loaded, *push* the *Multiface button* and select the tool by pressing **t**. When the toolkit menu appears, press **SPACE** and type **31000**. Once you type **5** digits (address is *always 5 digits* long), the cursor automatically moves to the value field (no need to press **ENTER**), so type **0** (value is *1-3 digits* long) and this time press **ENTER**. Finally press **q** to **quit** the toolkit and **r** to **return** to the program.

## **GUARANTEE.**

This guarantee is in addition to and does not affect any statutory or other rights of consumers or purchasers. **ROMANTIC ROBOT** guarantee that if within **6 months** of the date of purchase the **Multiface** proves to be defective by reason of faulty design, workmanship or materials, it will be repaired or replaced free of charge, provided that:

- 1) It has not been in any way misused, used with unsuitable equipment or subjected to deliberate, accidental or consequential damage
- 2) No unauthorized modifications, repairs or adjustments were made to the **Multiface**
- 3) A dated proof of purchase will be provided to confirm that the **Multiface** is still under guarantee; for units purchased directly from us, please supply the details of the original order instead

The purchaser's sole and exclusive remedy under this guarantee is for the **Multiface** repair or replacement. No other remedy, including but not limited to, incidental or consequential damage or loss of whatsoever nature shall be available to the purchaser.

<p><b>Designed and manufactured by ROMANTIC ROBOT UK Ltd. 54 Deanscroft Avenue, London NW9 8EN. Tel. 01-200 8870.</b></p>
---