

MEGAFLASHROM SCC+ SD

USER'S MANUAL

[DESCRIPTION]

MegaFlashROM SCC+ SD is a combo cartridge with a SD card reader and an improved MegaFlashROM SCC+.

Each device is located in a subslot, so the cartridge must be inserted in a primary slot. It will not work in a slot expander.

OPFXSD is the software you must use to operate the cartridge. You can find it in the "FLASH" section of:

www.msxcartridgeshop.com

[MINIMUM REQUIREMENTS]

- MSX computer with at least one free Slot
- 64K RAM (MSX-DOS) or 128K (MSX-DOS 2)

[FEATURES]

- 8192 KB (64 Mbits) flashROM memory
- Sound chips: SCC-I and PSG
- Mapper: ASC8, ASC16, Konami, Konami SCC, linear 48K/64K
- Compatible with MMC, SD and SDHC cards
- Two micro SD slots
- High transfer speed.
- Recovery mode: Let's you configure the cartridge easily.

[WORKING]

Insert the **MegaFlashROM SCC+ SD** cart in one slot while the computer is turned off.

Turn the computer on and Nextor (the disk operative system) will boot. If you need to reinstall the cartridge software check **INSTALATION** section.

Execute OPFXSD by selecting the ROM and needed options.

Once the ROM is stored the cartridge will behave as if it were the original one and won't be erased even if the computer is turned off.

ESC key or the one configured through **/T** option must be pressed while computer is booting to avoid the execution of the cart.

If it doesn't work, you can erase the cartridge using the recovery mode. Press **CURSOR UP** while booting.

RESET key can be hold on pressed for **5 seconds** to disable MegaFlashROM SCC+ temporarily if previous system would fail for any reason.

[PSG]

The PSG included in the cartridge is mapped to ports #10-#12.

Internal MSX PSG	MegaFlashROM PSG
Port #A0	Port #10
Port #A1	Port #11
Port #A2	Port #12

[OPTIONS]

/X	Executes the game stored in the cartridge. OPFX KLORE2.ROM /X <- Stores the ROM and executes it OPFX /X <- Executes whatever is stored in the cartridge
/E	Patches Konami ROMs to simulate that they are executed in an European computer OPFX USAS.ROM /E <- Shows the texts in English in a Japanese computer
/J	Patches the Konami ROMs to simulate that they are executed in a Japanese computer OPFX NEMESIS3.ROM /J <- Shows the texts in Japanese in an European computer
/8	Enables the R800 CPU when executing the ROM or turbo mode of Panasonic WX/WSX/FX models.
/Hxx	Changes the Frequency when executing the ROM. It won't have any effect if the game change it again during its execution. /H50 <- 50 Hz /H60 <- 60 Hz
/RCxx	Simulates a Konami cart inserted in another slot. OPFX NEMESIS2.ROM /RC743 <- Simulates Penguin Adventure
/Kx	Forces the execution of the ROM with a Konami mapper /K4 <- Konami /K5 <- Konami SCC
/Ax	Forces the execution of the ROM with a ASCII mapper /A8 <- ASC8 /A16 <- ASC16

/L	Indicates that the ROM has no mapper and works in #0000-#FFFF area as 48K or 64K roms.
/M	Manual mode. OPFXSD won't identify the ROM mapper automatically.
/C	Erases the ROM stored in MegaFlashROM SCC+. /C1 Fully erases the cartridge (MegaFlashROM and SD kernel)
/Sxx	Forces the slot where the cartridge is placed: /S1 = Slot 1 /S13 = Slot 1, subslot 3
/T[rc]	Fixes the key which will avoid the execution of the ROM stored in the cartridge. ESC acts in that way by default. To select the desired key it is necessary to select the file and column of the key matrix /T64 <- File 6, Column 4 = CODE /T82 <- File 8, Column 2 = INS [See keyboard matrices]
/N	Inverts the logic of the key that avoids the execution of the ROM (Pressed / Not pressed)
/O	Creates a MULTIROM with the games inside the MULTIROM.OPF file [See MULTIROM section]
/F	Executes the game by using a "soft reset".
/P	Patches a Konami ROM to use the PSG of the cartridge. So the sound balance of SCC and PSG is constant and perfect. /P1 Clone internal PSG using the external one.
/Dx	Loads a DSK (x=1 to 9)
/I	Installs cartridge's software [See INSTALATION]
/U	Disables subslots and set MegaFlashROM SCC+ as unique device available.

[KEYBOARD MATRICES]

International:

	7	6	5	4	3	2	1	0
0	7 &	6 ^	5 %	4 \$	3 #	2 @	1 !	0)
1	; :] }	[{	\	= +	- _	9 (8 *
2	B	A	DEAD	/ ?	. >	, <	` ~	' "
3	J	I	H	G	F	E	D	C
4	R	Q	P	O	N	M	L	K
5	Z	Y	X	W	V	U	T	S
6	F3	F2	F1	CODE	CAPS	GRAPH	CTRL	SHIFT
7	RET	SELECT	BS	STOP	TAB	ESC	F5	F4
8	→	↓	↑	←	DEL	INS	HOME	SPACE
9	NUM4	NUM3	NUM2	NUM1	NUM0	NUM/	NUM+	NUM*
10	NUM.	NUM,	NUM-	NUM9	NUM8	NUM7	NUM6	NUM5

Japanese:

	7	6	5	4	3	2	1	0
0	7 ' (grave)	6 &	5 %	4 \$	3 #	2 " (quotation)	1 !	0
1	; +	[{	@ ` (grave)	¥ (yen)	^ ~ (circumflex)	- =	9)	8 (
2	B	A	_ (underscore)	/ ?	. >	, <] }	: *
3	J	I	H	G	F	E	D	C
4	R	Q	P	O	N	M	L	K
5	Z	Y	X	W	V	U	T	S
6	F3	F2	F1	KANA	CAPS	GRAPH	CTRL	SHIFT
7	RET	SELECT	BS	STOP	TAB	ESC	F5	F4
8	→	↓	↑	←	DEL	INS	HOME	SPACE
9	NUM4	NUM3	NUM2	NUM1	NUM0	NUM/	NUM+	NUM*
10	NUM.	NUM,	NUM-	NUM9	NUM8	NUM7	NUM6	NUM5
11					NO		YES	

Azerty:

	7	6	5	4	3	2	1	0
0	7 è	6 §	5 (4 '	3 "	2 é	1 &	0 à
1	M	\$ *	^ ¨	< >	- _	°)	9 ç	8 !
2	B	Q	DEAD	= +	/ :	. ;	# £	Ù %
3	J	I	H	G	F	E	D	C
4	R	A	P	O	N	? ,	L	K
5	W	Y	X	Z	V	U	T	S
6	F3	F2	F1	CODE	CAPS	GRAPH	CTRL	SHIFT
7	RET	SELECT	BS	STOP	TAB	ESC	F5	F4
8	→	↓	↑	←	DEL	INS	HOME	SPACE
9	NUM4	NUM3	NUM2	NUM1	NUM0	NUM/	NUM+	NUM*
10	NUM.	NUM,	NUM-	NUM9	NUM8	NUM7	NUM6	NUM5

Keyboard matrices from UK and Spain are the same as the international one except these rows:

UK:

	7	6	5	4	3	2	1	0
2	B	A	£	/	.	,	`	'

Spanish:

	7	6	5	4	3	2	1	0
1	ñ Ñ] }	[{	\	= +	- _	9 (8 *
2	B	A	DEAD	/ ?	. >	, <	; :	' "

[INSTALLATION]

In case you need to reinstall the software, follow these steps.

OPFXSD nextor.rom /I:

Install SD kernel. Needed to use the SD interface.

Note: this process must be done using another storage device different from the SD reader in the cartridge. You can also use **RECOVERY** mode to install the kernel.

OPFXSD dskrom.rom /I1:

Installs the diskROM used to load DSKs. Needed to run DSKs.

OPFXSD romdisk.rom /ID:

Installs a ROM drive. The ROM drive enables you to put a diskimage into the flashrom. It will be mounted as an extra readonly drive. The ROM drive is always available (unless erased), even when not cards are inserted. It can be used to boot from or store files that you use regularly.

OPFXSD recovery.rom /I34:

Installs **RECOVERY** program.

Note: Update only when the cartridge maker tells you to do it.

[See RECOVERY]

[RECOVERY]

Recovery mode let's you to configure the cartridge in a easy way, without using other disk interfaces.

In order to enter the recovery menú, hold **CURSOR UP** while booting. The available options are:

F1: Erase MegaFlashROM.

This will erase the ROM stored in the MegaFlashROM SCC+. It is useful if the ROM is corrupted and can't be disabled by pressing ESC.

F2: Erase SD kernel

Erasing the SD kernel the SD reader will be disabled and the MSX will not identify it as a disk interface.

F3: Erase ROM disk

Erase the disk image installed as ROM disk.

F4: Install SD kernel

Let's you reinstall the SD kernel, so the SD interface will work again. You must format a SD card a copy in it KERNEL.DAT file.

F5: Show SD card information

Shows information about the card and its partitions. Pressing LEFT and RIGHT you can change SD card slot.

[DSK]

A DSK file is a disk image that contains the information of the sectors of a real disk.

It is possible to load and run up to 9 disk images of 720 KB. These files can be loaded and changed independently. It is not necessary to previously erase the former ones. Since the DSK are stored on flashROM memory, they will be read only.

In order to load a DSK you must use **/D** option, followed by the number of disk you want to select (from 1 to 9)

In example:

```
OPFXSD undead.dsk /D1
```

In games with several disks, you can change the disk by holding the desired number key when the disk is accessed (i.e.: after pressing space after a change disk dialog in a game)

Pressing number 0 the disk access will be redirected to the next disk interface, probably the floppy disk. In this way you can save game data.

Note: Remove any other external disk interfaces when loading DSKs.

[MULTIROM]

It is possible to put several games into the cartridge at the same time, as many as they fit in the cartridge's memory, up to 511. In order to create a multiROM, you need to make a MULTIROM.OPF file with the file names to load.

Each file name must be in a text line, adding at the end of the list the keyword **[END]**. In order to pause the loading process you can use **[PAUSE]**. Once this file is ready, you need to process the list using the option **/O**. The ROMs to load must be in the same path that OPFXSD and MUTIROM.OPF.

Example of MULTIROM.OPF content:

```
GALIOUS.ROM  
HERO.ROM  
PENGUIN.ROM  
KLORE2.ROM  
[END]
```

Command to make the multiROM: **OPFXSD /O**

After booting the cartridge a menu will be show with the games in the cartridge. Before running the game it is possible to change the video and CPU modes.

Controls:

Cursor keys / Joystick	Move
Space / Fire	Select
TAB / Fire 2	Enter / Exit configuration
ESC	Exit multiROM

[STAFF]

Hardware

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Software

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Armando Pérez (Ramones)
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Francis Álvarez (SaebaMSX)

Artwork

Nova706