



# SpringCard® CF USER MANUAL

## SmartCard Reader Module for Pocket PC with SIM connector



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[www.springcard.com](http://www.springcard.com)

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## Open reader part of the SpringCard® CF module



Remove the screws



Press on the two plastic strips



Then, slide the strips upwards to open the module

## SIM connector handling

First of all, you have to extract the module from the Pocket PC and to open the SpringCard® CF module. ( See chapters above )



Remove the printed circuit board holder



Take the PCB in your hand and rotate it to have the SIM connector towards you



Open the SIM connector and insert or remove the smartcard regarding locating notch



You can use a small screwdriver to pry



Close the connector and lock it

You can now, close the SpringCard® CF module, and insert it in your Pocket PC.



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## Introduction

The SpringCard® CF module have been created to allow access to T0 and T1 smartcards, in standard format with slot A or SIM format with slot B.

The SpringCard® CF module can be inserted in the Pocket PC listed below :

- iPAQ (Compaq / Hewlett-Packard Company)
- SX45 (Siemens AG)
- CASSIOPEIA (Casio, Inc.)

For any question about the SpringCard® CF module, or "APDU Exchange" demonstration software, you can report to the web site :

<http://www.springcard.com>.

## Insert SpringCard® CF module

Before inserting the SpringCard® CF module in a Pocket PC, you can refer to the section "SIM connector handling" below, if you have to insert a smartcard in the SIM connector of the module.



Hold the pocket PC in one hand and the SpringCard® module in the other hand



Align the SpringCard® module with the CompactFlash port



Slide the module, and strongly press it.

## Extract SpringCard® CF module



For SX45 pocket PC, press on the auto-extractor button with the pen.



For other Pocket PC, strongly hold the module and pull in the axis of the CompactFlash port

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## Mechanical adaption

Due to mechanical incompatibility between Siemens Pocket PC and other Pocket PC, the SpringCard® CF module can be modified while adding a SX45 brace mechanical adapter.



SpringCard® CF for standard Pocket PC CompactFlash port



Mechanical adaption brace



SpringCard® CF for SX45 CompactFlash port

To add or remove this brace you have to :

1. Extract the SpringCard® CF module from the Pocket PC (see chapter "Extract SpringCard® CF module" above)
2. Open the reader part of the SpringCard® CF module ( see chapter "Open reader part of the SpringCard® CF module" above)
3. Remove the PCB holder. ( see chapter "SIM connector handling" above)
4. Follow instructions on the next page :



Unlock the cable layer connector, and hold the cable layer between the inch and the index



Pull down carefully while holding the PCB in the other hand



Remove the screws

You can now add or remove the brace for mechanical adaption to SX45.



Extract the CompactFlash part from the brace



Remove the brace and put back the cable layer in the slot of the reader base



Apply the CompactFlash part on the reader base regarding the align stud

## Battery life

SpringCard® CF module don't have its own power source, it use main power of the Pocket PC. Battery life is reduce when the SpringCard® CF module is used.

There are two power modes for the SpringCard® CF module. Stanby mode and full power mode.

Battery life is also function of smartcard type used.

## Trouble shooting

- The Pocket PC do not switch on after module introduction !  
→ Extract the module, check battery.  
→ Extract the module, verify that the Pocket PC CompactFlash port pins are all rights and do not shortcut.
- Module do not slide correctly.  
→ Check introduction way, always put the module with reader part to the outside of the Pocket PC.
- SmartCard do not slide correctly.  
→ During smartcard insert phase, verify that the long side of the smartcard stay orthogonal to the module slot.
- With APDU Exchange software, « ATR » button do nothing.  
→ Check battery.  
→ Verify if the module is correctly inserted.  
→ Re-install APDU exchange software.

## Download SpringCard's software.

You can find other developpers' application on the SpringCard website : [www.springcard.com](http://www.springcard.com). You can download latest version of APDU Exchange demonstration software. Evaluate our solutions ! (medical card reader, access control, etc. )

## Developer Forum

On the Springcard website [www.springcard.com](http://www.springcard.com), you can share your point of view and experience of the SpringCard Module and of Smartcard software developpement ...

## FAQ : Frequent Asked Questions

Springcard website [www.springcard.com](http://www.springcard.com) contain a F.A.Q. regularly updated.

## APDU Exchange installation

An installation software is available on the SpringCard® web site to install APDU Exchange on your Pocket PC, report to the instruction of this wizard.

<http://www.springcard.com>

## APDU Exchange usage

Once APDU Exchange demo software is installed in your Pocket PC. You can exchange APDU commands with T=0 or T=1 smartcards.

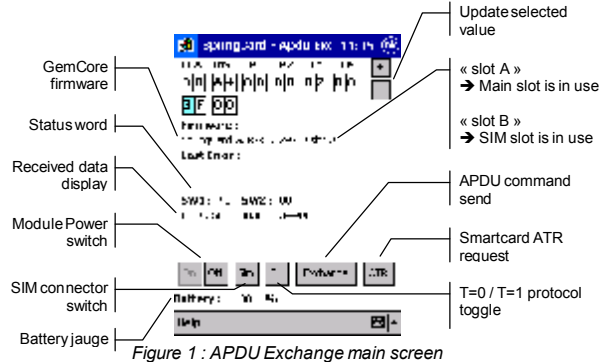


Figure 1 : APDU Exchange main screen

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