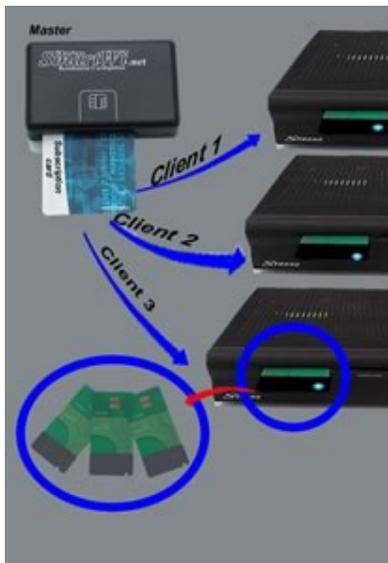


SmartWi

Users manual



Date: 2006-12-05
Version: 2.03
Firmware: 2.12 ->



SmartWi is indeed only intended for private residential sharing of a subscription card.

Please note that it's illegal to share a subscription with other parties outside the household.

Thank you for purchasing this SmartWi system, to meet your needs for watching pay-TV in more than one room.

Inside the package

Inside your SmartWi package you will find following items:

- 1 pcs. Short form users manual
- 1 pcs. Master box
- 3 pcs. Client cards
- 1 pcs. Power-supply, +5VDC/0.2A with a USB "B" plug

Prepare the SmartWi system



- Connect power to the Master box. Either via the enclosed power-supply or via a standard USB cable connected to your PC.
- Copy ATR from your subscription smartcard:
 - a. Insert the smart card into the Master box
 - b. Wait 5 seconds
 - c. Remove smart card again



Activate all your Client cards, one by one:

- Insert the Client card into the Master box.
- The green LED will go on.
- When the green LED flashes slowly (after 1 - 5 seconds), the Client card is ready.
- Take the Client card out within 20 seconds.

Normal operation

1. Insert your subscription smartcard into the Master box.
2. Start all Client cards

Hints

1. Start by testing if all your receivers are compatible with SmartWi, one by one. Place the Master box in the same room as the receiver, when you perform this test.
2. It is a good idea to place the Master box in the center of your house, so all receivers (Client cards) can be reached within a radius of 10 -15 meters.
3. On some receivers it is not possible to insert the Client card correct, due to the black plastic lid. You can then firmly remove the plastic lid, to make the Client work correct. You do not break the product guarantee, when removing the plastic lid.

Experts' information

Please note that from firmware version 2.12 and forward, the SmartWi system uses a new dynamic addressing system like DHCP for automatic generation of Client communication addresses.

If the Master box has been restarted, the dynamic address table is cleared and all Client cards must be restarted too.

Note: The old utility '**New IP**' for re-generating Client addresses is no longer necessary, as the Client addresses are obtained dynamically when they starts.

Adding a new Client card

If you at a later point buy an extra Client for your SmartWi system or replace a failing Client card, you must just follow the normal activation steps for the new card. Please make sure that the ATR has been transferred to the Master box, before you activate a new Client card.

Install Windows drivers

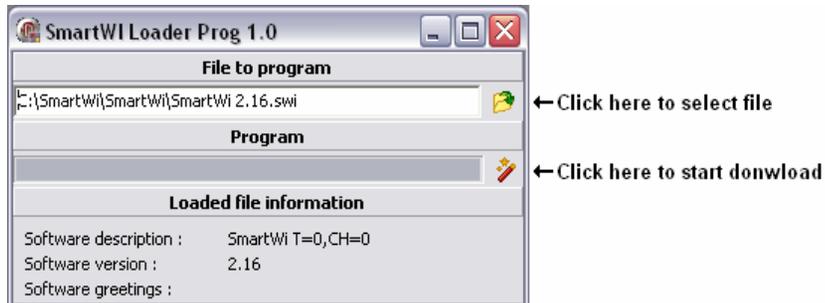
In order to use the different SmartWi PC programs, you must first install the Windows SmartWi USB driver.

- Download the Windows loader software for SmartWi Master box.
<http://www.smartwi.net/downloads.html>
- Unzip to: **c:\SmartWi** or **c:\Program Files\SmartWi**
- Connect the SmartWi Master box to one of the computers USB ports.
- Windows will now prompt for new hardware
- Manually guide windows to the path, where the smartwi.inf is located and install it.
- The Windows device manager now recognizes the SmartWi Master box as a "*Smart card reader*".

Now the USB driver is installed and ready to use for tools and firmware updates

SmartWi Loader

The **SmartWi Loader** is used for programming of the SmartWi Master box with new firmware or other SmartWi utilities and tools.



- Remove any smartcard or Client card from the Master box.
- Start the SmartWi Loader
- Click on the file select button and chose the firmware file to download
- Click on the wand button, to start the download
- When the download has finished, a box with the text '**SmartWi loaded with successes!!**' will be displayed.

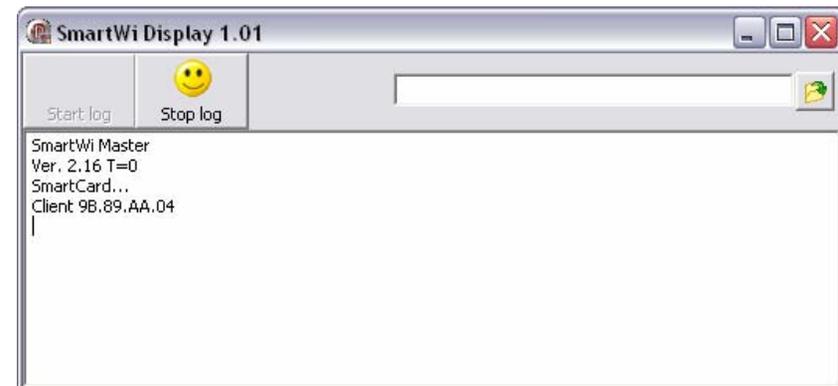
Please note that all the Client cards also must be upgraded, when a new firmware has been downloaded to the Master box. Update all your Client cards, one by one:

- Insert the Client card into the Master box.
- The green LED will go on.
- When the green LED flashes slowly (after 5 seconds), the Client card is upgraded and ready.
- Please remove the Client within 20 seconds.

SmartWi Display

The SmartWi Display is used to show text messages from the firmware inside the Master box.

- Connect SmartWi Master to the USB port, without any cards in the reader
- Wait for Windows to recognize the driver or approximately 20 seconds
- Start the SmartWi Display tool and select 'Start log'
- Insert your Client cards and observe the data



When you insert a Client, the text "**Client 9B.89.AA.04**" should be shown. The 8 digit number is the unique ID of your Client. This ID is used for the dynamic addressing of Client cards.

Note: All your Client cards must have a unique ID.

SmartWi Test

If you encounter any problems with your SmartWi system, it can always be a good idea to verify if the hardware is functioning properly.

The **SmartWi Test** utility will test if you're Master box and Client cards are working properly.

- Remove any card from your Master box
- Download **SmartWi Test**
- Start **SmartWi Display**
- Insert your Client cards into the Master box, one by one.

If your card is working correct, you will get following message:

```
Card inserted
Client detected
Wireless
ATR ok
Wireless
ATR ok
- - -
Card removed
```

If your card isn't working, you will get following message:

```
Card inserted
Card removed
```

Please note that the test firmware runs in a loop, and it will continue the testing until the cards has been removed.

SmartWi Timing test

This Timing test can be used to verify if your receiver supports the delayed answer, caused by a SmartWi multi-user environment.

When set-top-box (STB) displays a scrambled TV channel, it receives a new scrambling key every 10 seconds; this key is hold in an ECM package. This ECM package is sent from the STB to the smart-card, which then calculates the descrambling keys. On a Viaccess smartcard the key calculation takes about 0.2 - 0.3 seconds, while on a Conax card, it takes about 1.3 seconds. If there are connected 4 STB's to a Conax subscriptions card, it will then take about 5.2 seconds, before the last STB receives its correct keys.

I.e. a Samsung DSR 9500AY with its native firmware installed will only support a delay on 2.1 seconds. Used with Conax (1.3 sec. calculation time), the use of SmartWi will be unstable already with two SmartWi Client cards. Most receivers can handle a delay on more than 8 seconds.

This 'Timing test' will show how large a delay the tested STB can support.

1. Remove smartcard and power from Master
2. Connect the Master to the PC
3. Wait for Windows to recognize the Master
4. Download SmartWi timing test firmware
5. Start the SmartWi Display
6. Insert smartcard
7. Insert a Client into the STB you are testing.
8. The Master will display the test-delays in the Display

9. Check the 'Delay' (shown is milliseconds) in the 'Display window' when the picture on your tested receiver stops or gets unstable.

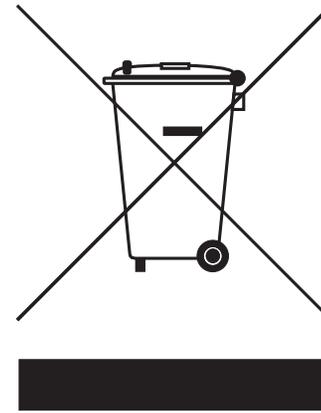
Notes:

You must use ONLY one Client at a time; when performing the timing test.

After you have made hardware or timing tests, you must restore the firmware to the normal version before using the system again.

Disposal instructions

Do not throw this electronic device into the trash when discarding. To minimize the pollution and ensure utmost protection of the global environment, please recycle.



EC-Declaration of Conformity

We, Manufacturer/Importer

**Eurocrypt Denmark
Aabenraavej 1
DK-6340 Krusau
Denmark**

We hereby certify and declare that the product under our responsibility,
that the following product

Wireless SmartWi

Are tested to and conform with the following harmonized European Standards:

Electrical Safety

EN 60950: 2000

RF

EN 300 220 -1 v.1.3.1
EN 300 220 -3 v.1.1.1

EMC

EN 301 489 -1 v.1.4.1
EN 301 489 -3 v.1.4.1

And therefore comply with the essential requirements and provisions of the Directive 1999/EC of the European Parliament of the council of 9 March 1999 on Radio Equipment and Telecommunications Terminal Equipment (R&TTE Directive) This equipment also comply with the requirements from ECM Directive 89/336/EEC and the Low Voltage Directive 73/23/EEC

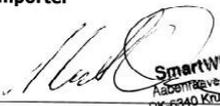
Manufacturer/Importer

Date 01.09.2005

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