

SMART READER MANUAL

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SMART READER

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1. CONVENTIONS

1.1 PICTOGRAMS / PICTURES

The pictures or schematic representations used in this manual may vary in some of their details from the devices supplied.

1.2 USE OF TYPEFACES

Text in bold indicates instructions which must be followed at all costs. Failure to observe these instructions may result in damage for which SimonsVoss Technologies AG accepts no liability.

2. PRODUCT INFORMATION

2.1 OVERVIEW



TRA.NFC.MF1K.AP.xx

Near Field Communication reader, hereinafter referred to as Smart Reader, from SimonsVoss

A product of the SimonsVoss System 3060

2.2 DESCRIPTION OF FUNCTION

- The Smart Reader belongs to the SimonsVoss transponder product family. It reads data from a Mifare®* card and transmits this data to a SimonsVoss lock (cylinder, Smart Relay, furniture lock, control cabinet handle, shunt lock). The read data contains exactly the same information as a SimonsVoss transponder. If the card contains valid and authorised data for the relevant lock, the lock can be operated.
- The Smart Reader can be installed in proximity to any lock (typically 30 cm away from a locking cylinder or 50 cm away from a Smart Relay). This enables the lock to be operated with a Mifare card.
- The lock can still be programmed with a SimonsVoss programming device (SmartCD) or a SimonsVoss network. The card authorisations are treated in the same way as transponder data.
- All approvals for the door and/or lock are retained.
- The Smart Reader can be operated with a battery (up to 80,000 activations with one battery) or a power supply unit.

* Mifare is a registered trademark of NXP Semiconductors

2.3 DISPLAYS AND WARNING DEVICES

The only display on the Smart Reader is an LED in the centre of the front panel. This LED lights up in three colours (green, yellow and red) with different flashing sequences. The table below explains the meanings of these different signals.

Event	Flashing sequence	Comment
Successful initialisation after connecting to operating voltage or battery change	2 x orange	
Battery warning level 1	3 repetitions of 5 x orange	6 second delay
Battery warning level 2	6 repetitions of 5 x orange	10 second delay
Card communication on 13.56 MHz not OK	2 x red	Card not suitable for reader personalisation *
Card communication on 13.56 MHz OK, lock not answering	1 x green, 4 x red	
Card communication OK, opening protocol not OK (interference, critical range, incorrect locking system data)	1 x green, 1 x red	
Card communication OK, B field OK, locking system data OK, transponder not approved	1 x green	No opening!
Card communication via 13.56 MHz OK <u>and</u> opening protocol via B field OK	1 x green	Opening

* The passwords on the card and in the SmartReader are not compatible.

2.4 AVOIDING DAMAGE TO THE PRODUCT

Do not allow the Smart Reader to come into contact with acids or lyes. Avoid any mechanical pressure on the housing (by pressing or pushing the card against it).

Only use an appropriate tool for installation. To open the housing use a Torx screwdriver (TX6).

3. SAFETY

3.1 IMPORTANT SAFETY INFORMATION

- **The batteries used in this product may present a risk of fire or burns if misused. Do not charge or open the batteries. Do not heat them to over 100°C or burn them.**
- **In order to install a SimonsVoss Smart Reader you must be familiar with access control systems, door mechanics, door approvals, electronic assembly, and working with SimonsVoss software. For this reason, installation should only be undertaken by trained specialists.**
- SimonsVoss Technologies AG shall assume no liability for damage caused by incorrect installation.
- Access through a door may be denied if a Smart Reader is incorrectly installed. SimonsVoss AG shall assume no liability for the consequences of incorrect installation, such as denied access to injured persons or persons at risk, damage to property or any other form of damage.
- If putting the Smart Reader into storage for more than one week, remove the battery first.
- ESD (electrostatic discharge) guidelines must be observed when installing the Smart Reader. In particular, avoid touching the PCBs and the integrated circuits on them.
- **People with electronic medical implants (pacemakers, hearing aids etc.) must always maintain a distance of at least 30 cm between the implant and the Smart Reader. Specific instructions should be provided to this effect.**
- In the interests of safety, people with electronic implants should seek medical advice as to the potential hazards of RFID units.
- The superordinate locking levels used with SimonsVoss standard transponders are not available in conjunction with the Smart Reader.
- The validation function used with SimonsVoss standard transponders (issuing of time-based validities in the transponder) is not available in conjunction with Smart Readers.
- Modifications and technical enhancements may take place at any time.
- This documentation has been produced to the best of our knowledge, but we cannot guarantee that it is free of errors. We assume no liability in this regard.
- Should there be any variations in the content of other language versions of the documentation, the German original shall apply in the event of any doubt.

3.1.1 The importance of the operating manual

- This operating manual forms part of the product.
- The operating manual must be retained and stored in a safe place for the duration of the product's service life.
- The operating manual must be passed on to any subsequent owner of the product.

3.1.2 In the event of an emergency

- Inform the administrator of the locking system.
- Tell the administrator what signal is being output by the LED.
- If necessary, replace the batteries (if you are authorised to do so)
- If necessary, the door (SimonsVoss lock) can also be opened with an authorised SimonsVoss transponder or an emergency opening can be effected with a programming device (SmartCD) or via a SimonsVoss network.

3.1.3 Who can use this product

In principle the Smart Reader is suitable for use by all persons. However, we recommend giving users brief training. Special safety information applies to people with electronic medical implants (see 3.1).

3.2 SAFETY LABELLING ON THE PRODUCT

The Smart Reader features the CE mark for use in Europe.

4. UNPACKING AND COMMISSIONING

4.1 UNPACKING

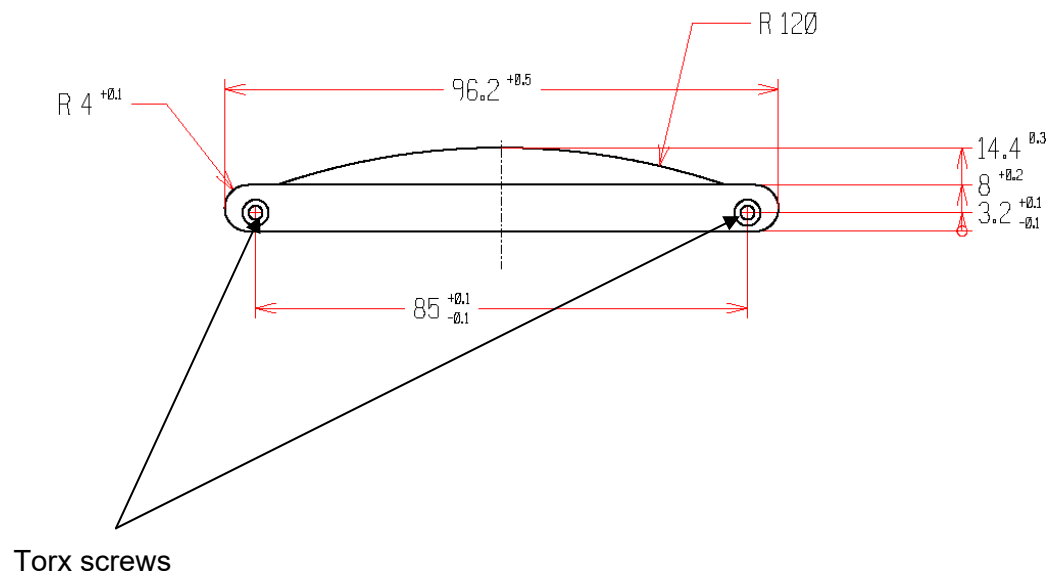
4.1.1 Check that the delivery is complete

- The Smart Reader
- Screws and wall plugs for attaching to the wall (with on-wall variants only)
- This operating manual
- Battery

4.2 COMMISSIONING

4.2.1 Procedure

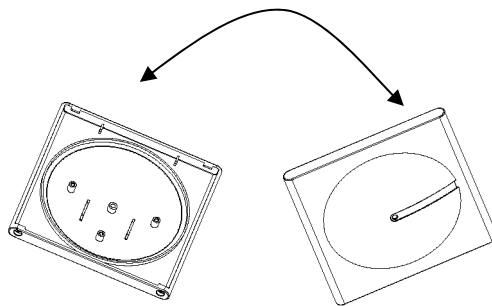
- Use the SimonsVoss software to create a master card and an authorised card to perform a function check. (*Please refer to the relevant chapter in the software manual.)
- Open the housing by unscrewing the Torx screws on the base of the housing.



* a card programming device CD.MIFARE must be connected to the computer via a free USB port. Card must be selected in the transponder properties.

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- Separate the top and bottom shells of the housing



- Place the battery in the battery recess (observing the correct polarity).
- Wait for about 10 seconds until the Smart Reader has initialised.
- Initialise the Smart Reader by holding a master card in front of the device. This will provide the Smart Reader with its passwords and its initialisation for a segment specified by the user / operator.
- Hold the Smart Reader in the desired installation position (ideally 105 cm above the floor and 30 cm away from the lock) and test the function **several times** using an authorised card.
- Drill the wall plug holes for mounting the Smart Reader on the wall. You can use the bottom shell as a template. Make sure the alignment is correct. Use a spirit level if necessary. The ideal position is 105 cm above the floor and 30 cm away from the lock.
- Attach the bottom shell to the wall using the screws provided.
- Screw the top shell back on to the bottom shell using the Torx screws (**Please use an appropriate tool to avoid damaging the housing**). Please ensure that the projections of the top shell engage cleanly in the recesses of the bottom shell.

4.2.2 Checking measures / test procedures

* a card programming device CD.MIFARE must be connected to the computer via a free USB port. Card must be selected in the transponder properties.

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- Following successful installation and programming, the Smart Reader must read an authorised card from a distance of 1 cm - 6 cm and activate the lock.
- Check the function of the Smart Reader again several times using an authorised card. Always wait 5 seconds between individual tests. If the lock opens without problems each time, the installation was successful.
- Create authorised cards and distribute them to users. We recommend providing users with brief training.

* a card programming device CD.MIFARE must be connected to the computer via a free USB port. Card must be selected in the transponder properties.

5. OPERATING

5.1 SPECIAL SAFETY AND OPERATING INFORMATION

The Smart Reader is operated by simply holding an authorised badge in front of the device at a distance of 1 cm - 6 cm. It is then possible to activate a SimonsVoss lock. If the lock is being operated in pulse mode, it will be released for the duration of the pulse (typically several seconds). Once the pulse is deactivated the lock will be locked again (and can no longer be activated).

After opening a door, we recommend checking that the door has locked properly behind you.

5.2 SPECIAL TOOLS, EQUIPMENT

- A TX6 Torx screwdriver is required for installation.
- The Smart Reader is able to read Mifare badges of the Classic 1k, 2k and 4k types.
- Only use lithium SL-760/S 3.6V, 2.2Ah batteries supplied by SimonsVoss.

6. SERVICING

6.1 CLEANING THE PRODUCT

If it becomes dirty the Smart Reader can be wiped clean with a damp cloth (do not use solvents). Please do not allow the product to come into contact with abrasives or aggressive cleaning agents.

6.2 INSPECTION AND MAINTENANCE

The Smart Reader is maintenance-free and non-wearing.

The battery must be replaced after up to 80,000 activations. Batteries should be changed by trained specialists.

6.3 SPARE PARTS AND CONSUMABLES

Spare batteries should be obtained from SimonsVoss and must be of type lithium SL-760/S 3.6V, 2.2Ah.

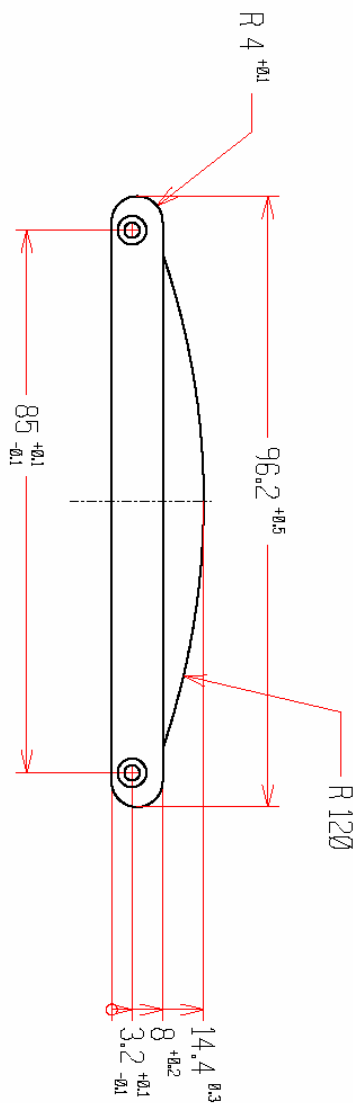
7. TECHNICAL DATA

- Model name, device type, area of use
- Operating conditions

Operating temperature range (battery): 6°C – 60°C

Operating temperature range (power supply unit): -10°C – 60°C

- Dimensions



8. DISPOSAL AND ENVIRONMENTAL PROTECTION

- The Smart Reader fulfils WEEE and RoHS requirements and can be disposed of as electronic waste in accordance with the German Electrical and Electronic Equipment Act.

9. ACCESSORIES

- External antenna WN.LN.ANTV for connection to all Smart Readers. This antenna can be fitted in doors where it is not possible to maintain a minimum distance from the lock (e.g. in the case of double doors).
- Communication cable WN.KAB.WIRED-BF for connecting to a Smart Relay SREL.ADV. This cable is used when the Smart Relay cannot be reached by radio.

(The external antenna or communication cable are connected to the same plug on the back of the Smart Reader, so only one external cable can be connected at any one time.)

- Separate power supply unit WN.POWER.SUPPLY.PPP for use with Smart Readers type .NT. Power supply units from third-party suppliers must support 7.5 – 24 VDC and 200 mA.
- **Important:** The housing of the Smart Reader does not provide strain relief for connected cables.