

Commissioning and Maintenance Guide

Vingcard Novel

Vingcard Classic 6470

Vingcard Signature 6470

With Vostio

vingcard
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1. Introduction

This document describes the following:

- commissioning
- maintenance (including cleaning recommendations)
- LED signals

For installation of the lock, see the applicable document on [1]:

- *Installation manual Vingcard Novel mortise lock - Retrofit not included*
- *Installation manual Vingcard Novel mortise lock - Retrofit installation*
- *Installation manual Vingcard Novel tubular latch lock*
- *Installation manual Vingcard Novel tubular deadbolt lock*
- *Installation manual Vingcard Classic 6470*
- *Installation manual Vingcard Signature 6470*

1.1 Network interface

The following network interface is available:

- Online interface via Zigbee radio

The interface supports the following services:

- Delivery of events from lock to Vostio
- Issuing of commands and configuration from Vostio to lock

This interface is disabled when the lock is in the factory default state, i.e. before commissioning. For all models, the following applies:

- The Zigbee interface can be enabled when the lock is commissioned

1.2 Prerequisites

See prerequisites for the Vostio system in [2]. Note however that the kit *USB Adapter 2009 with cables* which is described in [2] is not applicable for the lock models mentioned in this manual. For these models, see more information about service cable in [section 3.2](#).

- Make sure to have the latest version of Vostio Service Tool from [Google Play](#) installed.
- Make sure not to have Visionline Mobile Service Tool installed on the same Android phone.
- For information about the below items, see knowledge article *Vostio compatibility*:
 - Supported browsers for Vostio Web Portal
 - Android phone models for which Vostio Service Tool is tested and approved
 - Note:** Vostio Service Tool may work on other Android phones as well, with the general requirements:
 - The phone has one of the three latest major Android versions.
 - USB On-The-Go is enabled on the phone.
 - Supported RFID cards/tags
 - Lock models and RCC versions

If mobile keys are applicable, the following is required:

- License for mobile keys
- Lock firmware v1.4.1 or higher
- Vostio Service Tool v2.7.6 or higher

[1] <https://my.vingcard.com>

[2] *Setup and user guide Vostio*

1.3 Product Security Center

We provide security information, e.g. best practices and advisories for our products and services, at [Product Security Center](#). In case of any vulnerabilities impacting our products or services, we publish advisories in accordance with our responsible disclosure policy.

1.4 Operations available without sign-in



Some Vostio Service Tool operations are available before sign-in; click the three-dot menu in Figure 1 to view the operations. For more information about network test, see the document *Network test (connectivity validation) in Vostio Service Tool*.

Figure 1

1.5 App settings

When you have signed in to Vostio Service Tool (see step 2 in [2.1](#)), choose **Settings** at the bottom of the app screen and then **Help** under **Support**. Under **Tutorial**, choose the **Settings** section to read more information about app settings (e.g. theme and automated lock operations).

2. Perform commissioning

When the locks have been mounted and connected according to the applicable installation manual, commissioning of each lock with the door in an open position should be performed by the app *Vostio Service Tool* installed on an Android phone specified according to [1].

2.1 Configure locks

The property overview (Figure 3) in Vostio Service Tool briefs you on what needs to be done and on what floors etc, but the actual update is done on the **Connected device** page. Follow steps 1-8 below.

1. Set up each lock as a door in Vostio. Each door belongs to a Vostio door template deciding which parameters that should apply for the door; see [2].
2. *Figure 2*: Sign in to Vostio Service Tool with the credentials you have been provided (requires that you are a *Vostio Service Tool* user in the system). If SSO login is applicable at your site, instead click 'Sign in with single sign-on'.
3. *Figure 3*: Choose **Property** at the bottom of the screen. An overview of what doors and encoders that need attention due to new lock configuration, low battery etc, is displayed. By clicking the applicable section, a detailed list will be shown.

[1] Knowledge article *Vostio compatibility*

[2] https://docs.vostio.assaabloy.com/doors_page_tutorial/index.html

4.If clicking **New lock config available** in the Figure 3 screen, a list of doors for which a new configuration is available will be shown. Doors for which there is also a new firmware available are marked out to the right in that list.

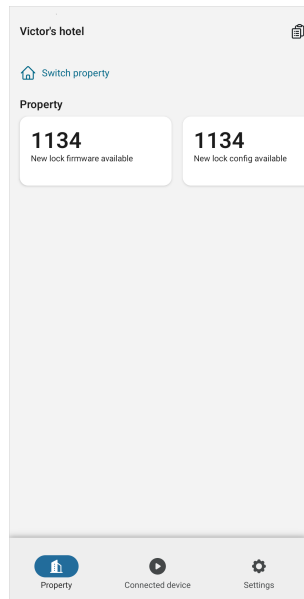
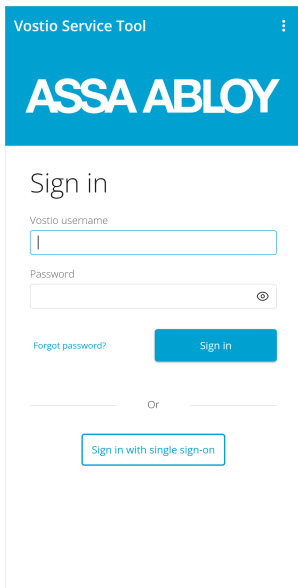


Figure 2 (left)

Figure 3 (right)

5.Go to the applicable floor where doors are to be updated. Make sure to keep each door open until a configuration check has been performed; see step 8 below.Click a door in the list mentioned in step 4; this will open the **Connected device** page. Connect the service cable to the Android phone first, then the other cable end to the service connector at the lock.

6.Choose **Settings** at the bottom of the app screen and then **Help** under **Support**. Under **How to**, choose the section **Update lock firmware and configuration** and follow the steps in that section.

7.If tamper messages are shown on the **Connected device** screen (only applicable for Vingcard Novel models), see [3.9](#) for details.

8.Perform the steps in 2.2 before closing the door.

2.2 Check configuration

1.Before closing the door, make sure that the lock is correctly configured and can be opened with a staff card with access to all doors.

2.Make sure that the door is locked when the door is closed.

3. Maintenance and troubleshooting

All parts that need lubrication are already lubricated by Vingcard, so there is no need for any further lubrication. The use of lubricants containing solvents or graphite will void the lock warranty.

3.1 Perform cleaning of locks

- Use a soft lint-free or microfiber cloth.
- The cloth may be lightly dampened with isopropyl/isopropanol alcohol or a mild cleaner and water (preferably distilled).
- Never use acidic or alkaline cleaners.
- Use of incorrect cleaners may result in damage to the surface.
- Be sure the cloth is only lightly dampened and not wet.
- Never apply cleaner directly to any surface.
- Wipe surfaces gently. If there is a directional surface texture, wipe in the same direction as the texture.
- Soak up any spilled or excess cleaner with an absorbent cloth immediately.

3.2 Perform service operations

Service operations (described in sections 3.2.1-3.2.3) are performed with the app *Vostio Service Tool* installed on an Android phone model defined according to [1]. Log in to *Vostio Service Tool* with the credentials you have been provided; this requires that you are set up as *Vostio Service Tool user* in the *Vostio* system. If SSO login is applicable at your site, instead click 'Sign in with single sign-on'.

A standard *USB-C to USB-C cable* can be used as service cable. For Vingcard Novel, it is however easier to use the service cable displayed in Figure 5 (can be purchased from Vingcard) due to the location of the service connector. See Figures 4 and 6-12 for details about where the service connector is located for different lock models.

Note: The service cable should be connected to the Android phone first, then the other cable end to the service connector.

Vingcard Novel mortise / Vingcard Novel tubular latch:



Figure 4 (left): For Vingcard Novel, the service connector is located on the back of the handle. A standard USB-C to USB-C cable can be used if it fits behind the handle, else use the cable in Figure 5.

Figure 5 (right): Cable USB 2.0, Spiral, C to angled C (Art.No. P001385884-001-001)

[1] Knowledge article *Vostio compatibility*

Vingcard Novel tubular deadbolt:



Figure 6

1. Use the tool displayed in Figure 6 to open the service cover on the outside escutcheon. Push the tool in and along the thumbturn and then lift away the service cover as shown in Figure 7-8.



Figure 7



Figure 8

2. There is now access to the RCC and its USB-C service connector.



Figure 9

Vingcard Classic 6470:

1. Press the two wings on top of the cover (marked with arrows in Figure 10), and at the same time pull the cover according to Figure 11.



Figure 10 (left)



Figure 11 (right)

Vingcard Signature 6470:



1. Slide the cover to the right.

Figure 12

3.2.1 Perform read-out

1. Connect the service cable to the Android phone first, then the other cable end to the service connector at the lock.
2. Click the **Actions** button for a menu of operations; choose **Log**. If the setting **Automatic log readout** is enabled under **Settings** in Vostio Service Tool (default), a log will automatically be displayed after the lock information.

3.2.2 Reset lock

If there are problems with any lock functions after connecting/disconnecting components or after uploading firmware to the RCC, a reset of the lock can be performed.

1. Connect the service cable to the Android phone first, then the other cable end to the service connector at the lock.
2. Click the **Actions** button for a menu of operations; choose **Reset lock**.

3.2.3 Perform power open

If the power at a lock is too low so that the door cannot open when a card is presented at the lock, perform a power opening.


1. Connect the service cable to the Android phone first, then the other cable end to the service connector at the lock.
2. Click the **Actions** button for a menu of operations; choose **Power open**.

3.3 View action log

There is also an action log under the icon in the top right corner of Vostio Service Tool, covering operations for all device types. To see details for a specific lock information/ lock log/PMS Converter log/encoder log, click the item in the action log. A red dot at the action log icon indicates that something needs attention, e.g. that information has not been successfully uploaded to the cloud or that a lock from which information has been read has a low battery level. If the action log should be deleted, click the dustbin up to the right on the **Action log** page.

3.4 View power level warnings

When the power level in a lock is getting low, a LED signal will be shown when a staff key is presented at the lock. This is valid for batteries as well as for *lock power module* (the latter only applicable for Vingcard Novel mortise lock).

| | | |
|---|----------------------------------|---------|
| Power low, access granted; LED signal  | Power level (load) is 2.5V-3.07V | Table 1 |
| Power low, access denied; no LED signal | Power level (load) is below 2.5V | |

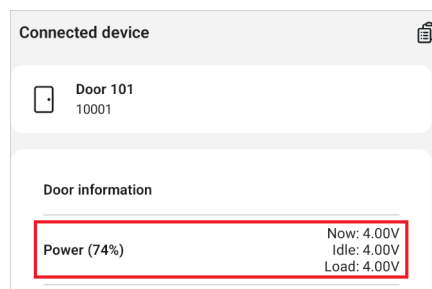


Figure 13

1. In Vostio Service Tool, click **Connected device** at the bottom of the screen; a **Door information** screen is shown.
2. At **Power**, the power levels 'Now', 'Idle' and 'Load' are shown; see example in Figure 13.

3.5 Replace batteries

At delivery, 3 pcs AA alkaline batteries are included. Estimated minimum lifetime for the batteries in a *Vingcard Classic 6470/Vingcard Signature 6470* is 5 years (offline locks). When replacing the batteries, make sure to use 3 pcs AA alkaline batteries of well-known brand and have them ready at hand when starting the battery replacement. The estimated lifetime applies under the conditions below:

- our recommended batteries are used (3 pcs AA alkaline batteries of well-known brand)
- the batteries have been stored and used in accordance with recommendations from the battery manufacturer

The *Reader and Communication Controller (RCC)* checks the battery voltage when a staff card is used. The check is performed when the lock motor is activated. If the battery voltage is below the acceptable, the RCC signals first signals with three short yellow blinks. The door will still unlock as long as the battery voltage is high enough to operate the lock motor; this gives a green blink after the yellow ones. Make sure to replace the batteries immediately when this battery warning is shown.

3.5.1 Replace batteries in Vingcard Novel mortise lock

Tools needed:

- Torx T20/T20S screwdriver
- Small flat screwdriver

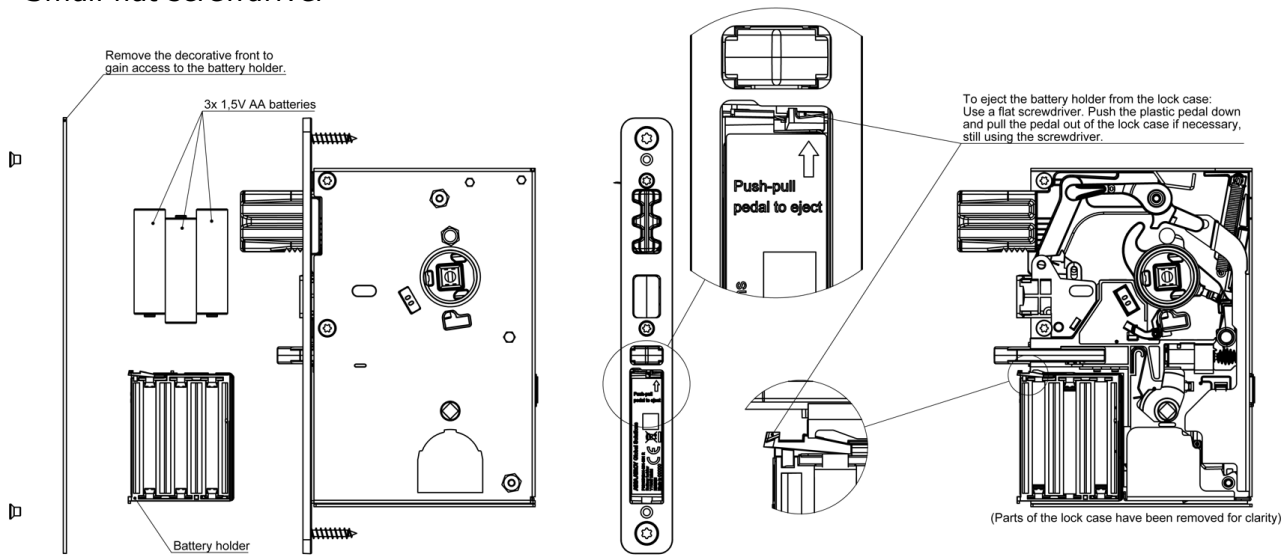


Figure 14

Important notes:

- After the battery replacement, the lock will beep one time and the main LED will blink green three times. This indicates that the communication between *Reader and Communication Controller (RCC)* in the handle and *Lock Case Controller (LCC)* in the lock case works.
- When the battery holder has been mounted back with fresh batteries: connect Vostio Service Tool to the lock and click **Connected device** at the bottom of the Vostio Service Tool screen to set the time in the lock.

3.5.2 Replace batteries in Vingcard Novel tubular latch lock

Tools needed:

- Torx T10 screwdriver

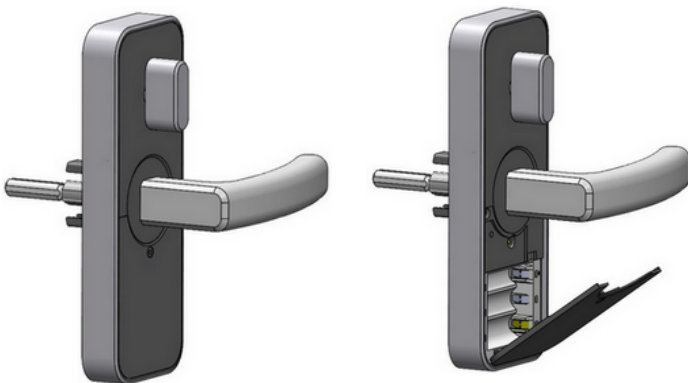


Figure 15 (left)

Figure 16 (right)

Important notes:

- After the battery replacement, the lock will beep one time and the main LED will blink green three times. This indicates that the communication between *Reader and Communication Controller (RCC)* in the handle and *Lock Case Controller (LCC)* in the lock case works.
- After the battery replacement: connect Vostio Service Tool to the lock and click **Connected device** at the bottom of the Vostio Service Tool screen to set the time in the lock.

3.5.3 Replace batteries in Vingcard Novel tubular deadbolt lock

At delivery, 3 pcs AA alkaline batteries are included. Estimated minimum lifetime for the batteries in a *Vingcard Novel tubular deadbolt lock* is 5 years (offline locks). When replacing the batteries, make sure to use 3 pcs AA alkaline batteries from a well-known brand. The estimated lifetime applies under the conditions below:

- our recommended batteries are used (3 pcs AA alkaline batteries of well-known brand)
- the batteries have been stored and used in accordance with recommendations from the battery manufacturer

Tools needed:

- T10 screwdriver

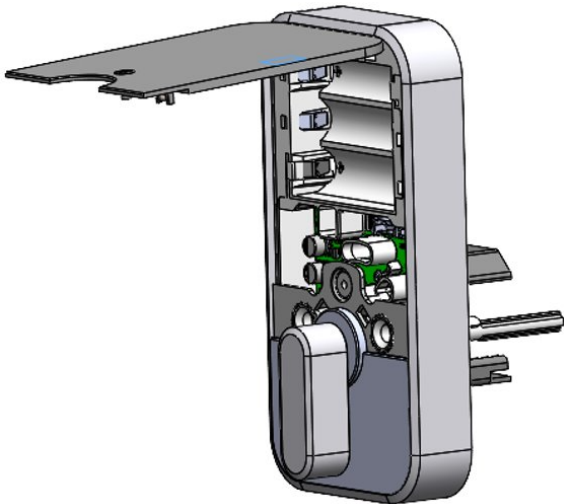


Figure 17

Important notes:

- After the battery replacement, the lock will beep and the LED will blink green three times. This indicates that the communication between handle and inside escutcheon works.
- After the battery replacement, connect Vostio Service Tool to the lock to set the time.

3.5.4 Replace batteries in Vingcard Classic 6470/Vingcard Signature 6470

2. Remove the battery holder (see the respective installation manual) and replace the old batteries which should be treated in accordance with local recycling regulations.
3. Reinstall the battery holder.
4. After the battery replacement, the lock will beep one time and the main LED will blink green three times. This indicates that the communication between *Reader and Communication Controller* (RCC) and *Lock Case Controller* (LCC) works.
5. Connect Vostio Service Tool to the lock and click **Connected device** at the bottom of the Vostio Service Tool screen to set the time in the lock.

3.6 Replace reader on configured lock

Prerequisites:

- Access credentials for logon to the current Vostio Service Tool
- Knowledge of the lock's *access ID* (room number)

For details on steps 1-2 below, see the applicable installation manual as listed in [chapter 1](#).

1. Demount and disconnect the reader from the lock case.
2. Mount and connect the new reader.
3. Sign in to Vostio Service Tool and connect the service cable to Android device first, then the other cable end to the service connector.
4. The **Connected device** page will be displayed. Depending on app settings (see [1.5](#)), firmware upgrade and/or log readout may be performed automatically. If the firmware upgrade is not automatic, perform it manually.
5. With the door open (i.e. out of frame), perform a reset from the **Actions** menu.
6. Reconfigure the lock to the same room as before.
7. Before closing the door, verify that the door can be opened with a valid card.
8. Make sure that the door is locked when the door is closed.

3.7 Replace faulty LCC (lock case controller)

Prerequisite:

- Access credentials for logon to the current Vostio Service Tool

For details on steps 1-4 below, see the applicable installation manual as listed in [chapter 1](#).

1. Demount and disconnect the reader from the LCC.
2. Demount the LCC.
3. Mount the new LCC.
4. Mount and connect the old reader.
5. Sign in to Vostio Service Tool and connect the service cable to Android device and service connector.
6. The **Connected device** page will be displayed. Depending on app settings (see [1.5](#)), firmware upgrade and/or log readout may be performed automatically. If the firmware upgrade is not automatic, perform it manually.
7. If **Automatic log readout** is not enabled under **Settings** (default is that it is enabled), read the log from the lock by selecting **Log** in the **Actions** menu.
8. With the door open (i.e. out of frame), perform a reset from the **Actions** menu.
9. Reconfigure the lock to the same room as before.
10. Before closing the door, verify that the door can be opened with a valid card.
11. Make sure that the door is locked when the door is closed.

3.8 Charge super capacitor in lock power module (Novel mortise lock only)

There are two sources of power: frame power module (FPM) and USB.

Charging time via FPM, using the solar cell*

| | |
|-----------------------------------|------------------|
| Change capacitor from 0V to 3V: | About 40 minutes |
| Change capacitor from 0V to 4V: | About 60 minutes |
| Change capacitor from 0V to 4.8V: | About 90 minutes |

Note for charging via FPM: For the LPM to keep its charge level, the door must be in frame minimum 1 hour (not necessarily coherent) per 24 hours. If the door is not in frame at all, the LPM can handle 25 openings per day during 4 days before being completely discharged.

Charging time via USB connector, using power bank/phone/PC etc*

| | |
|-----------------------------------|------------------|
| Change capacitor from 0V to 3V: | About 30 seconds |
| Change capacitor from 0V to 4V: | About 50 seconds |
| Change capacitor from 0V to 4.6V: | About 80 seconds |

Note: At mounting, the lock power module does not have any charge. Once mounted, it will slowly charge via the frame power module, or more quickly via USB when the lock is commissioned according to [chapter 2](#). When the lock power module is charged enough to boot the system, a beep will be heard and the main LED will blink green three times followed by an orange blink. This indicates that the communication between handle and lock case works. If there is instead a beep and one red blink followed by one orange blink, the communication does not work.

3.9 Manage tamper alarms (Novel lock models only)

If the tamper switch has been activated, this will trigger a warning message on the **Door information** screen (reached via **Connected device**) in Vostio Service Tool. There will also be a tamper alarm in the log (choose **Log** in the **Actions menu**).

1. *Figure 18:* If the lower handle screw (*Vingcard Novel mortise lock*) or the decorative cover on the escutcheon (*Vingcard Novel tubular latch lock*) has not been fastened properly, this message is displayed on the **Door information** screen.

2. *Figure 19:* Adjust the installation and click **Connected device** at the bottom of the screen again; a message as in this picture will be shown. Click **Reset tamper mode**.

3. Normally a **Door information** screen without any error messages will be shown; the tamper scenario is solved.

4. In rare cases, a screen stating 'Failed to reset tamper mode' may be shown instead. In this scenario, click **OK** and adjust the installation; click **Connected device** at the bottom of the screen again. A message as in Figure 19 will be shown; click **Reset tamper mode** and make sure that a **Door information** screen without any error messages will be shown.

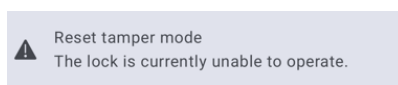
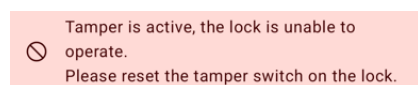












Figure 18 (left)
Figure 19 (right)

*) The lock starts up when the voltage exceeds 3.0V. Above 4.0V, the charging gets slower.

3.10 LED signals

User feedback is given by light; see LED signals below (at reset/battery connection/firmware upgrade, there is also a beep). For more information about power level warnings, see [3.4](#). Power level warnings are only shown when a staff card is presented at the lock.

| | |
|--|---|
|  | Access granted |
|  | Access denied (LED signal only shown if the invalid key is from the site) |
|  | Power level low, access granted |
|  | Deadbolt engaged |
|  | Service connector is connected to Vostio Service Tool |
|  | Function set (stand open or emergency open) |
|  | Function unset |
| Beep +  | Success signal after reset/battery mounting/firmware upgrade; communication between <i>Reader and Communication Controller (RCC)</i> and <i>Lock Case Controller (LCC)</i> works |
| Beep +  | Failure signal after reset/battery mounting/firmware upgrade; communication between <i>Reader and Communication Controller (RCC)</i> and <i>Lock Case Controller (LCC)</i> does not work (for <i>Vingcard Novel mortise lock</i> with lock power module, there is also an orange blink after the red blink) |
|  | Firmware upgrade is ongoing |

Revision history

| Revision | Date | Description | Author |
|-----------------|-------------------|-----------------------------------|---------------|
| 1 | April 28, 2025 | Minor adjustments | KG |
| 0 | March 10, 2025 | Initial release for certification | KG |

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