StarSign® Key Fob

User Manual

Giesecke+Devrient

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Setup and Enrollment

1. Unpack the StarSign Key Fob from your presentation box.

The box contains the following:

- StarSign Key Fob device
- USB type C cable
- Quick guide

2. Please familiarize yourself with the StarSign Key Fob LED light indications.
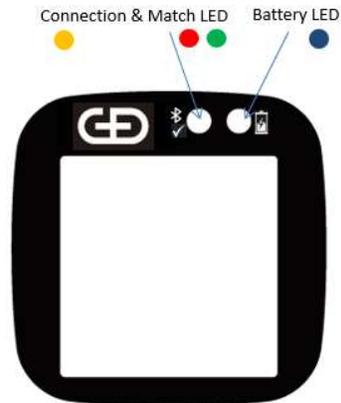
3. Charge the StarSign Key Fob using the USB cable provided (or any other USB type C cable) until the battery LED emits a constant blue light.
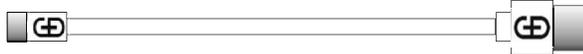
| ⚠ | **Please re-charge the StarSign key fob if the battery LED blinks blue fast.** |

4. Download and install the Enrolment Application from the App Store using your mobile device by scanning the QR code printed on the side of the packaging box.

5. Switch on the StarSign Key Fob by firmly pressing the button on the side for 3 seconds. The LED will blink yellow.
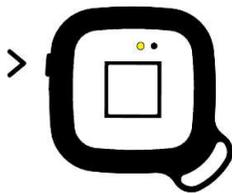
6. Please ensure that Bluetooth is enabled on your mobile device, then start the Enrolment Application on your mobile device. Wait until the StarSign Key Fob is in connectivity mode (LED shows a constant yellow light).

7. Identify and select the correct StarSign Key Fob that you wish to enroll from the list of available StarSign Key Fobs. The StarSign Key Fob can be identified by matching the device ID printed on its reverse side with the corresponding device ID in the list.

8. Enter the pairing code printed on the reverse side of the StarSign Key Fob in the connection menu. The check marks in the dialog can be ignored.

9. Once the StarSign Key Fob is connected the following screen will appear with more information about the StarSign Key Fob including any fingerprints that are already enrolled for the StarSign Key Fob. Press the blue button with the '+' symbol to enroll a new fingerprint.
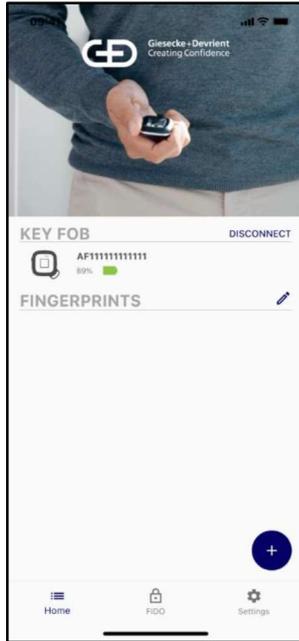
10. Before the fingerprint can be enrolled an Access Code needs to be entered. The default Access Code is 00000000.
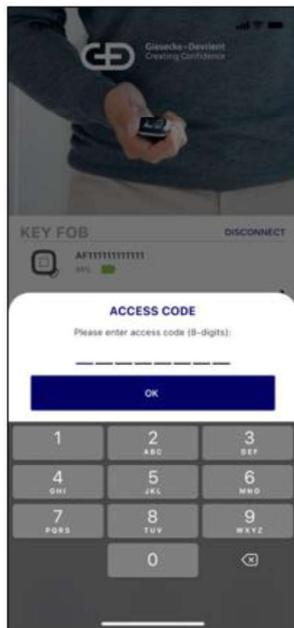
⚠️ **Please change the Access Code to an individual Access Code after the setup in the settings menu.**

11. After the Access Code has been entered, the enrolment of the fingerprint can be performed. The enrolment process is a step-by-step guide to the fingerprint capturing process.
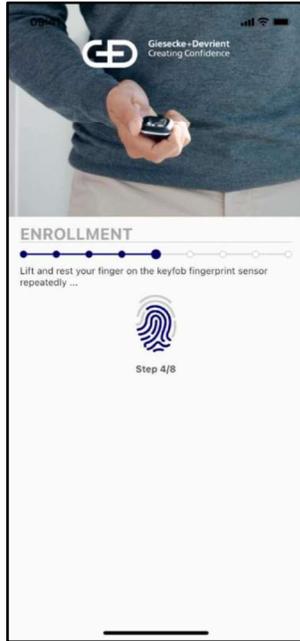
12. Once the fingerprint template is enrolled, you are notified that the fingerprint was successfully enrolled.
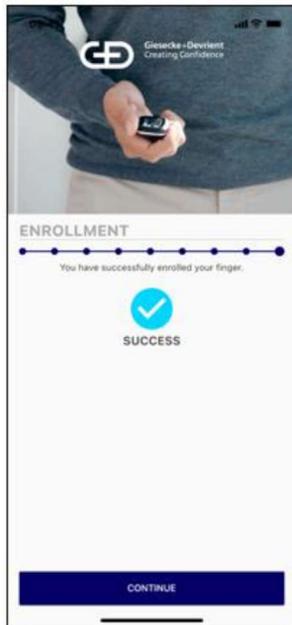
13. The newly enrolled fingerprint is captured in the list of enrolled fingerprints for the device. The StarSign Key Fob can now be used for FIDO registrations and any other transaction. Authorization is provided by using the enrolled fingerprint verification. The device will allow a maximum of 20 fingerprints to be enrolled. All enrolled fingerprints are listed in the Companion App and may be renamed by selecting the specific 'fingerprint x' from the list and then holding the selection until the option to rename the entry is available, upon which you can modify the entry.

14. Fingerprint templates may be deleted by switching into edit mode by pressing the edit mode button on the right upper corner identified with a stylus icon.
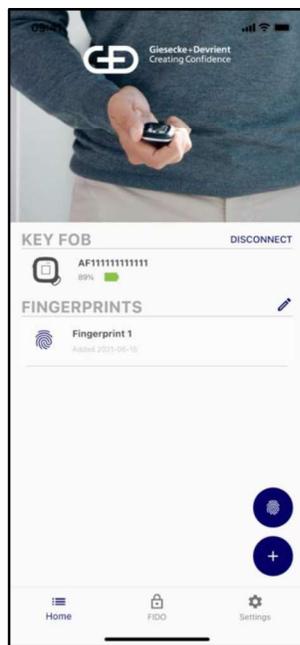
15. Ensure to disconnect your fob from the BLE connected devices when fingerprint enrolment is completed to conserve the StarSign Key Fob's battery and avoid a constant yellow LED light whenever you use the StarSign Key Fob and the connected mobile device is nearby.

16. The enrolment application can also be used for the deletion and creation of further fingerprint templates. For further fingerprint enrolments, please continue as described in step 6 for the first enrolment.

Usage

1. The device can be used via USB, BLE and NFC. For USB, just connect the device via USB cable to a host system (e.g. Windows PC). For NFC, press the power button briefly, for BLE, keep the button pressed for at least 3 seconds.
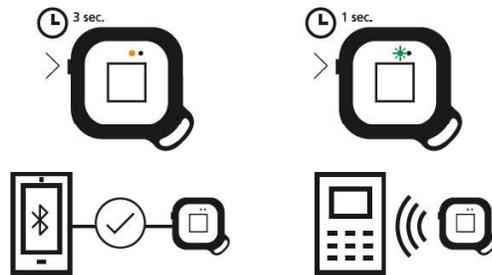
2. Before an NFC transaction can be performed, the device should blink green (ready for fingerprint match). Place an enrolled finger on the sensor and hold it there until the device shows a constant green light – this means it has successfully matched your fingerprint. Then simply tap the reverse side of the StarSign key fob against the NFC terminal to initiate the transaction (this will work like any contactless card) within 60 seconds, then the device switches off automatically. If the LED lights red, the fingerprint does not match the pre-enrolled fingerprint templates. In this case, try again.

3. In the BLE mode, the device blinks yellow. When the StarSign Key Fob is connected to your mobile via BLE it will maintain a constant yellow LED light while it is connected. Please follow the instructions of the application (e.g. website) to perform a transaction with BLE. For FIDO authentication, please register the StarSign Key Fob on a FIDO registration service (e.g. in the account of a website). After registration the StarSign Key Fob can be used for FIDO authentication (e.g. login to the website).

4. When the StarSign Key Fob is plugged into the USB cable, the device also automatically switches on BLE and the device is ready for USB- and BLE-based transactions in this status.

> ⚠ **If the finger mismatches 4 times, the StarSign Key Fob blocks and needs to be restarted with the power button by switching off and on again. In case of finger mismatches 50 times in a row (also after re-starts), the StarSign Key Fob is completely blocked and can be only reactivated after entering the access code.**

Management

1. The firmware can be updated via the Companion App in the settings menu.
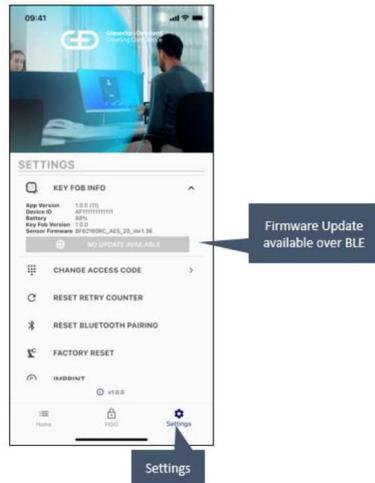
2. Registered FIDO keys that are stored on the StarSign Key Fob can be displayed in the settings menu.

The settings menu allows you to also perform a factory reset. After the factory reset, the device reverts to the status as delivered from the manufacturer and all stored data (e.g. fingerprint templates, FIDO keys) are deleted.

Safety Instructions

Don't put the device on a fire.

Don't open the device. The Li-Ion battery is removable but should be kept in the device.

Avoid contact with moisture.

Avoid cold temperatures.

Don't leave the device on heated locations.

Avoid sources of heat.

Troubleshooting

Problem	Cause	What to do?
Fingerprint is not recognized	Finger structure is damaged and cannot be read.	Please make sure that the sensor surface is clean and dry. Try all of your enrolled fingerprints and position the finger ideally in the upright direction of the StarSign Key Fob. Press the fingertip firmly on the sensor until the LED lights up in green or red. In case of red, reposition the finger. After several retries re-start the device (switch off and on).
	Finger is not properly positioned on the sensor	
	The sensor surface is dirty or wet.	
Device is not switching on	Battery is empty	Please re-charge the device.
Device pairing lost.	The StarSign Key Fob was paired with too many smart-phones/PCs and old pairings were deleted in the StarSign Key Fob storage.	Please delete the pairing in your smartphone / PC system settings and trigger a new pairing with the Companion App.
Device not found via BLE.	The StarSign Key Fob is not in BLE mode	Please make sure that the switch-on button is pressed min. 3 seconds or plug in the StarSign Key Fob with the USB cable.
Device not found via BLE and the device is plugged in with the USB cable.	The device is in an idle mode after long term charging.	Restart the StarSign Key Fob by re-plugging the StarSign Key Fob with the USB cable.
Connection in the Companion App interrupted.	The StarSign Key Fob switches off automatically after 60 seconds inactivity to reduce power consumption.	Switch the device on again and re-connect the StarSign Key Fob.
If the StarSign Key Fob or the BLE pairing is reset via a smartphone, other paired smartphones cannot connect anymore.	Other paired smartphones cannot connect anymore because they keep the pairing information which was deleted on the StarSign Key Fob.	Delete the BLE pairing with the StarSign Key Fob on all the other smartphones and re-establish the pairing.
Device is not charging with the USB cable.	The device is in NFC mode (button was just pressed briefly)	Switch off the device and then plug in the device with the USB cable. The device is automatically switched on after plugging and is charged.

Disposal

The device corresponds to Directive 2012/19/EU on Waste Electrical and Electronic Equipment and must not be disposed of with general household garbage. The symbol of a crossed out garbage can indicates this.

Please dispose of this product via the return and collection systems in your region. You can also return waste electrical and electronic equipment free of charge to the retailer if its sales, storage and shipping area for electric and electronic equipment measures over 400 square meters. Food retailers which regularly sell electrical and electronic equipment must also take back waste equipment free of charge if their sales, storage and shipping area covers over 800 square meters. In this way, you are making a valuable contribution to the reuse, recycling and other types of utilization of waste electric and electronic equipment. You are preventing negative effects on the environment and human health that can be caused by waste electric and electronic equipment. In many countries local authorities provide special collection points for disposal of this kind of waste. As the user you are responsible for removing batteries from devices and deleting personal data before disposal in as far as this is technically possible.

Product Description

Preinstalled applications: FIDO U2F, FIDO2

Android and iOS companion apps: Fingerprint enrolment and deletion on StarSign key fob

Status LEDs: Connection status, battery status, verification status

Fingerprint sensor: User confirmation for transaction

Communication: USB, Bluetooth® 5, NFC (ISO 14443)

Power supply: 165 mAh Li-Ion battery, charging through USB type C

Battery duration: ~1 month if the device is in normal use

Size: 43x43x14.30 mm

Weight: 20g

Operating temperature: 0°C/+50°C

Storage temperature: -20°C / + 85°C and 80% humidity max.

Ingress protection: IP55

Housing color: black

Fingerprint sensor: 360° capacitive sensor 8x8 mm with color glossy black surface

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions: 1. This device may not cause interference. 2. This device must accept any interference, including interference that may cause undesired operation of the device.

Changes or modifications not expressly approved by G+D Mobile Security GmbH could void the user's authority to operate the equipment.
This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

Articles included in the product contain substances meeting the criteria set out in Article 57 REACH and which have been identified in accordance with Article 59(1) REACH in a concentration above 0.1 % (w/w):

• Pogo-pin containing lead (EC 231-100-4, CAS 7439-92-1)

• Battery containing 1,3-propanesultone (EC 214-317-9, CAS 1120-71-4).

We are not aware of any details indicating that the presence of the aforementioned substance would require additional risk management measures to allow a safe use of the articles.

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