## **ASSEMBLY INSTRUCTIONS**



# **DRIVE** SIEGENIA access control

systems

Transponder keypad fingerprint scanner

Window systems

Door systems

Comfort systems

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#### 1 Introduction

Please read these instructions carefully before you begin the assembly work. Follow the notes in Chapter 2 "Safety", in order to prevent personal injury or functional disorders.

These instructions are an integral part of the SIEGENIA access control system (SIEGENIA acs) transponder, keypad and fingerprint scanner and must be accessible to the specialist personnel at all times.

#### 1.1 Manufacturer and Service

KFV Karl Fliether GmbH & Co. KG A company of the SIEGENIA GROUP Siemensstraße 10 42551 Velbert Tel.: +49 2051 278-0 Fax: +49 2051 278-167

E-mail: info@kfv.de

Please contact your contractual partner in case of complaints or service requirement.

#### **1.2** Target group of this documentation

This documentation is intended for use by specialists only. All work described in this document is to be performed only by experienced professionals with training and practice in the assembly, as well as the commissioning and maintenance of electromechanical components.

All work on a 230 V AC mains power supply may only be performed by a qualified electrician.

#### 1.3 Intended use

- The SIEGENIA access control systems (SIEGENIA acs) fingerprint scanner, keypad and transponder in combination with the KFV multi-point locks AS 2600 GENIUS 2.2, GENIUS PANIC 2.2 and AS 3500/3600 A-opener 2.2 enable authorised door opening.
- The SIEGENIA access control system may only be used in conjunction with KFV products and accessories.
- All assembly and electrical installation work must be carried out according to these instructions.
- The SIEGENIA access control system may only be used when they are in a technically sound condition.

#### 1.4 Improper use

- The SIEGENIA access control system must not be used in doors for wet rooms or rooms in which the air contains aggressive or corrosive components.
- The SIEGENIA access control system must not be tampered with and/or modified.
- Repair of the SIEGENIA access control system is not permissible. If the SIEGENIA access control system is damaged, it must be repaired by KFV or by a service agent authorised by KFV.

#### 1.5 Maintenance and service notes

Never use cleaning agents that are aggressive or contain solvents. This could damage the surfaces of the components.

#### **1.6** Installation conditions and requirements

Local building laws and regulations must be observed before and during installation.

#### 1.7 Dimensions

All measurements are given in mm.

#### 1.8 Symbols used

The following icons are used in this document:

	General warning symbol
•	Useful information or advice

The following symbols for the LEDs are used in this document:

0	LED off
	LED lights up
-``.	LED flashes
	LED flashes alternatively in the indi- cated colours

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#### 1.9 Other types of indicators

Below is a list of symbols used in these instructions and their meanings:

- Items of text following this marker are found in lists.
  - Items of text following this marker are found in subordinate lists.
- Items of text with this marking in front of them are instructions that must be followed in the specified order.

#### **Cross reference**

() A cross reference in the flow text is enclosed by brackets.

#### 1.10 Applicable documents

For the installation of the SIEGENIA access control system, it is essential to observe all assembly and operating instructions that are enclosed with other (optional) components.

#### 1.11 Appropriate disposal



Electrical devices should not be disposed of as household waste. Bring the device, accessories and packaging to an environmentally-friendly recycling facility.

#### 2 Safety

- All work on the 230 V AC mains power supply must be carried out in compliance with the current German VDE regulations (e.g., VDE 0100) and any relevant country-specific requirements.
- All-pole safety isolation should be used when routing the network connection cable on-site.
- Any modifications to the SIEGENIA access control system are prohibited.
- Wiring the unit incorrectly can irreparably damage its electronic components.

#### 2.1 Structure of the warning notes

The warning notes in these instructions

- when observed, provide protection against potential personal injury and material damage,
- classify the level of danger by the signal word,
- designate the danger of personal injury via the hazard sign,
- define the type and source of danger,
- show measures to prevent hazards and prohibit specific behaviour.

The warning notes are set up according to the following principle:

#### A SIGNAL WORD

#### Type and source of danger

Explanation of the type and source of danger

• Measures for the prevention of the danger

The hazard sign designates warning notices that warn of personal injury.

The type and source of the hazard defines the cause of the hazard. The potential consequences of non-observation of warning notices are e.g. danger to life due to electric shock.

Under measures, actions are listed that must be carried out for the prevention of hazards or which are prohibited for the prevention of a hazard.

#### 2.2 Warning notes used

#### \Lambda DANGER

The signal word "Danger" designates an immediately threatening danger. If this hazard is not prevented, it could lead to death or severe injuries.

#### 

The signal word "Warning" designates a potential hazard. If this hazard is not prevented, it could lead to death or severe injuries.

#### 

The signal word "Caution" designates a potentially hazardous situation. If this hazardous situation is not prevented, it could lead to minor or moderate injuries.

#### NOTICE

The signal word "Note" defines actions for the prevention of material damage. The observation of these notes prevents damage to the components.



Information, advice etc.

This symbol indicates special features and designates facts that require increased attention.

#### 2.3 Warning notes

#### 🛕 WARNING

#### Risk of fatal injury from electric shock and short circuit

Incorrect connection of the SIEGENIA access control systems

- All-pole safety isolation should be used when routing the network connection cable on-site.
- All work on the 230 V AC mains power supply must be carried out in compliance with the current German VDE regulations (e.g., VDE 0100) and any relevant country-specific requirements.



If energy-carrying cables are routed in parallel to data cables (ISDN, DSL, etc.), this could lead to interference e.g. in the speed of the data transmission.

#### 3 Installation conditions and requirements

The following requirements and conditions must be observed before and during installation:

- Observe the specified positions and sizes for all milling and drilling dimensions within the defined tolerances.
- Install the access control system in accordance with these assembly instructions.
- Use the fixing material included in the delivery supplied for assembly.
- Remove any splinters from routed pockets after milling.



## 4 Technical specification

Name	Data
Supply voltage (with function)	9 V DC to 30 V DC
Power consumption	
Transponder	5.4 W
Keypad	3.24 W
Fingerprint scanner	2.52 W
Protection class	Ш
	Installation in door sash: IP54 front side
Protection type	Installation in surface-mounted casing: IP54 front side
Operating temperature range	-25° C to +70° C
Communication via cable	2 x SI-BUS (115k Baud half-duplex / 120 Ω termination)
Communication per app	WIFI (2.4 GHz / 802.11b/g/n/e/i)
Keyless communication	Bluetooth (V4.2 BR/EDR and BLE)
Transponder communication	Supports the following RFID tags: - mifare desfire EV1 - mifare desfire EV2 - NFC (Near Field Communication)
Encryption	AES 128 Bit
Lighting	6 x RGB LED (multi-coloured)
Brightness	controllable: - automatically via light sensor - manually

#### 5 Functions

#### 5.1 Dimensions, connections and operating elements



Item	Name
1	Connection sockets for SI-BUS connection
2	Fixing for installation in timber, PVC and aluminium doors using screws and clamps
3	Control element: transponder, keypad, fingerprint scanner

#### 5.2 Modes of operation

#### 5.2.1 Access control system with KFV drive

The access control system communicate digitally via the SI-BUS log with the electromechanical drive of the KFV multi-point lock. The drive (A-opener 2.2, GENIUS 2.2, GENIUS PANIC 2.2) takes over the master functions and the access control system are operated in slave mode.

Up to ten slave components (max. 3 access control systems and 7 SI-BUS IO modules/smart) can be integrated into a BUS system. Je nach Montagevariante (siehe Kapitel 6.1) muss das SI-BUS-System an der letzten Slave-Komponente oder am Netzteil mit dem Terminierungsstecker oder Terminierungskabel terminiert werden.

#### 5.2.2 Access control system with SI-BUS IO module on third party systems

In connection with the SI-BUS IO module, the access control system can be used in third-party systems (e. g. garage door drives, E-opener etc.).

The access control system communicate digitally via the SI-BUS log with the SI-BUS IO module. The SI-BUS IO module takes over the master function. Up to three access control systems can be operated in a BUS system. The last slave components must be terminated via a termination plug or termination cable.

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#### 5.3 Termination

The last components in the SI-BUS system must be terminated. See chapter "Modes of operation".





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#### Termination with plug

For the termination of the SI-BUS system, insert the JST termination plug [1] included in the delivery into a free SI-Bus socket.

#### **Termination with cable**

For the termination of the SI-BUS system, insert the the cable from the top-hat rail power supply with the plug [1] into a free SI-Bus socket of the access control system.

#### 6 Installation

#### 6.1 Installation options

The access control system are suitable for installation in the door leaf and for surface-mounted installation outside the door with optional surface-mounted casing. Either a A frame-integrated power supply or a top-hat rail power supply can be used to supply the power.

#### 6.1.1 Cable routing for access control system with frame-integrated power supply



#### 6.1.2 Cable routing for access control system with top-hat rail power supply





Item	Name
1	Electromechanical KFV drive (A-opener 2.2, GENIUS 2.2, GENIUS PANIC 2.2)
2	Cable transfer
3	Frame-integrated power supply
4	SIEGENIA access control system (transponder, keypad, fingerprint scanner); termination via JST plug
5	SIEGENIA access control system (transponder, keypad, fingerprint scanner); termination via cable
6	Top-hat rail power supply with termination for access control system

#### 6.1.3 Cable routing for access control system with SI-BUS IO module and top-hat rail power supply



Item	Name			
1	access control system (transponder, keypad, fingerprint scanner) on SI-BUS of the SI-BUS IO module			
2	Top-hat rail power supply; for 12-pin connection Terminal strip:			
		Top-hat rail power supply connection	SI-BUS IO module connection	
		V+	24V DC (+) In	
		V-	24V DC (-) In	
3	12-pin Connection terminal strip for connection of e.g. garage door drive, E-opener, revolving door drive: 1/2 = potential-free input contact 1 3/4 = potential-free input contact 2 5/6 = potential-free output contact 1 7/8 = potential-free output contact 2 9/10 = potential-free output contact 3 11 = 24 V DC (-) In 12 = 24 V DC (+) in			
4	SI-BUS IO module			
5	Termination			



#### 6.2 Installation steps



For installation of the SI-BUS IO module, refer to the corresponding assembly instructions!

#### 🛕 WARNING

#### Risk of fatal injury from electric shock

Exposed electrical components.

- Before installation, make sure that the connecting cables are voltage-free.
- All work on the 230 V AC mains power supply must be carried out in compliance with the current German VDE regulations (e.g., VDE 0100) and any relevant country-specific requirements.





#### 6.2.2 Routing the plug-and-play cable

Route the cables according to the installation option in the door or outside the door (see chapter 6.1).





#### 6.2.3 Plug-and-play cable routing with frame-integrated power supply

#### Connect KFV drive to access control system

 Insert the green PTR plug [1] of the adapter cable into the connection of the (A-opener/ GENIUS) drive with the marking "SI-BUS" (A to D).

## SI-BUS cable for access control system

Route the SI-BUS cables that lead to the access control system through the holes of the access control system millings in the door leaf or through the cable duct in the surface-mounted casing. The second cable for the surface-mounted casing must only be routed if more than one access control system are used.

#### For installation of access control system in door leaf





- Connect the plug [1] of the adapter cable with a SI-BUS socket from the access control system.
- Insert the plug [2] of the extension cable into the free SI-BUS socket of the access control system.
- Connect the plug [3] of the extension cable with the socket
   [4] of the cable transition [5] or beforehand with the socket of a further optional access control system.

- Insert the plug [1] of the adapter cable of the power supply into the socket [2] of the cable transition.
- Insert the green PTR plug [3] of the adapter cable into the connection "GENIUS/A-opener side" (0 to 3) of the power supply [4].





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- ▶ For termination of the system, insert the green PTR plug [1] of the adapter cable into the connection "optional side" (0 to 3) of the power supply [2].
- ▶ Insert the termination plug [3] into the socket [4] of the adapter cable of the power supply.



#### For installation of the access control system outside the door





- ► Connect the plug [1] of the adapter cable with the socket [2] of the extension cable.
- ▶ Insert the plug [3] of the extension cable into the socket [4] of the cable transition [5].





- Insert the plug [1] of the adapter cable of the power supply into the socket [2] of the cable transition.
- Insert the green PTR plug [3] of the adapter cable into the connection "GENIUS/A-opener side" (0 to 3) of the power supply [4].

- Insert the green PTR plug [1] of the adapter cable into the connection "optional side" (0 to 3) of the power supply [2].
  - Plug into the socket [3] of the adapter cable on the plug [4] of the extension cable and the plug [5] into a free socket [6] of the access control system.
  - For the termination of the system, insert the termination plug [7] into the second SI-BUS connection [6] or connect the SI-BUS connection beforehand to the socket of a further optional access control system.







#### **Assembly instructions**

Transponder, keypad, fingerprint scanner



#### 6.2.4 Plug-and-play cable routing with top-hat rail power supply

#### Connect KFV drive to access control system

 Insert the green PTR plug [1] of the adapter cable into the connection of the (A-opener/ GENIUS) drive with the marking "SI-BUS" (A to D).

## SI-BUS cable for access control system

Route the SI-BUS cables that lead to the access control system through the holes of the access control system millings or through the cable duct in the surface-mounted casing.

#### For installation of access control system in door leaf





- Connect the plug [1] of the adapter cable with a SI-BUS socket from the access control system.
- Insert the plug [2] of the extension cable into the free SI-BUS socket of the access control system.
- Connect the plug [3] of the extension cable with the socket
   [4] of the cable transition [5] or beforehand with the socket of a further optional access control system.

- Insert the plug [1] of the adapter cable of the power supply into the socket [2] of the cable transition.
- Lay the open end [3] of the adapter cable from the power supply on the top-hat rail power supply [4] as shown below:

Adapter cable	Power supply
White	(+V)
Brown	(-V)



A termination is hereby accomplished via the cable.





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#### For installation outside the door







- Connect the socket [1] of the adapter cable with the plug [2] of the extension cable.
- Connect the socket [3] of the extension cable with the plug [4] of the cable transition [5].

- Insert the plug [1] of the adapter cable into the socket [2] of the cable transition.
- Insert the plug [3] of the adapter cable into the SI-BUS connection
   [4] of the access control system.



- Insert the socket [1] of the adapter cable of the power supply into the free SI-BUS connection [2] of the access control system. Further access control system can be optionally connected via the SI-BUS connections [2].
- Lay the open end [3] of the adapter cable from the power supply on the top-hat rail power supply [4] as shown below:

Adapter cable	Power supply
White	(+V)
Brown	(-V)

A termination is hereby accomplished via the cable.

#### 6.3 Installation of the access control system in the door leaf





- Insert the SI-BUS plugs into the SI-BUS connections of the access control system.
- Position the access control system in the milled recess and fix the access control system in the door leaf with the aid of the existing screws and claws [1].
- ► Align the control element included in the delivery [2] to be flush.



Tighten the screws by hand. The protection class can only be fulfilled by a flush mounting of the control element.



# Drilling template for sur-2 [1] = 95,2 mm 6 3 [2] = 49,2 mm [3] = 16 mm [4] = 63,2 mm 5 [5] = 5,5 mm [6] = Ø 6,5 mm 1 4 5 6 it to the wall.

#### 6.4 Installation of access control system in surface-mounted casing (optional)



- ▶ Drill the holes for the surface-mounted casing and mount
- ► Insert the SI-BUS plugs into the SI-BUS connections of the access control system.

Only one SI-BUS cable is connected if a frame-integrated power supply is used. A termination plug is then plugged into the free SI-BUS connection on the access control system.



- Position the access control system in the surface-mounted casing and fix the access control system in the casing with the aid of the existing screws and claws [1].
- ► Align the control element included in the delivery [2] to be flush.



Tighten the screws by hand. The protection class can only be fulfilled by a flush mounting of the control element.

#### 7 Function test

After the door system has been connected to the power grid, the test function of the relevant access control system is activated for 30 minutes and deactivates itself automatically afterwards. The test function can be activated by a power reset (disconnection from power grid and renewed connection).

In case of requirement (e. g. following replacement of the motor unit) teach in the travel in the GENIUS and adjust the magnetic sensor (see operating instructions GENIUS 2.2A/B/PANIC).

Carry out the function test:

- ► Couple all access control system with the A-opener or the GENIUS (see chapter 7.3.4).
- ▶ Test the access control system.

#### 7.1 Button for menu navigation

On the A-opener, the menu navigation button is located under the sticker (see [1]) and on the GENIUS on the face-plate side (see [2]).



#### 7.2 General menu navigation



- Detailed information on operation of the menu on the A-opener 2.2/GENIUS 2.2 can be found in the corresponding operating instructions.
- To proceed to the menu for the A-opener, press the menu button briefly, or for the GENIUS, hold down the button for approx 8 seconds until the menu LED magenta lights up.
- An acoustic signal sounds as acknowledgement.





- Press the menu button briefly to change to level 1 in the menu items.
- Every press of a button is acknowledged by an acoustic signal.

- To select a level 1 menu, hold down the menu button on the relevant main menu for 3 seconds.
- An acoustic signal sounds as acknowledgement.
- The selected function in level 2 is indicated by colour alternating flashing.
- Press the menu button briefly to change the functions in level 2.
- Every press of a button is acknowledged by an acoustic signal.

- Hold down the button for 3 seconds to select a function.
- An acoustic signal sounds as acknowledgement.
- You will exit the menu and jump to the top level.
- The function is set



- 7.3 Coupling access control system with A-opener/GENIUS
- 7.3.1 Menu navigation of the A-opener



#### 7.3.2 Menu navigation of GENIUS A





#### **Assembly instructions**

#### Transponder, keypad, fingerprint scanner







- ► Hold down the menu button for approx 3 seconds until the LED flashes alternatively in bright
- An acoustic signal sounds as acknowledgement.

- ► Hold down the menu button again for approx 3 seconds to carry out the coupling.
- An acoustic signal on the drive sounds as acknowledgement.
- ► An intermittent acoustic signal (10x J) is audible on the access control system and green is
- The devices are coupled.

#### 7.3.5 Test the access control system

Carry out the following actions to test the access control system:

#### **Fingerprint scanner:**

Lay a finger on the sensor surface of the fingerprint scanner

#### Transponder:

Hold a compatible RFID tag in front of the sensor of the transponder

#### **Keypad:**

Enter an arbitrary numerical code via the keys of the keypad.

In case of proper installation and coupling, the GENIUS or A-opener carries out an opening procedure.

#### **Rectification of malfunctions** 8





#### 9 EU Declaration of Conformity with regard to CE marking

For our product SIEGENIA access control system, consisting of transponder, keypad and fingerprint scanner, we confirm that the general safety of the defined product, in accordance with Directive 2001/95/EC, is compliant with the general product safety and relevant protection requirements which are laid down in the Council Directives about electrical and electronic products.

The following listed test standards, which are harmonised in the relevant directives, have been employed for the evaluation:

- a) 2014/30/EU EMC Directive EN 61000-6-1:2007 EN 61000-6-3:2007+A1
- b) 2014/53/EU Radio Systems Directive RED
  RED Article 3.1(a): Safety EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013
  RED Articles 3.1(a): Health EN 62311:2008
  RED Articles 3.1(b): EMC EN 301 489-1 V2.2.0, EN 301 489-17 V3.2.0
  RED Article 3.2: Radio EN 300 328 V2.1.1
- c) 2011/65/EU RoHs

This declaration is responsible for the manufacturers / importers based in the European Union submitted by:

KFV Karl Fliether GmbH & Co. KG A company of the SIEGENIA GROUP Siemensstraße 10 42551 Velbert

Velbert, 2019-07-22

erkleitung

#### 10 Declaration of Conformity for UKCA Marking

For our product **SIEGENIA access control system**, consisting of **transponder**, **keypad** and **fingerprint scanner**, we confirm that the general safety of the defined product, in accordance with the General Product Safety Regulations, is compliant with the general product safety and relevant protection requirements which are laid down in the statutory instruments about electrical and electronic products.

The following listed test standards (designated standards) covered by the following statutory instruments have been employed for the evaluation:

- a) Electromagnetic Compatibility Regulations (2016)
  EN 61000-6-1:2007
  EN 61000-6-3:2007+A1
- b) The Radio Equipment Regulations (2017) RED Artikel 3.1(a): Safety EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 RED Artikel 3.1(a): Health EN 62311:2008 RED Artikel 3.1(b): EMC EN 301 489-1 V2.2.0, EN 301 489-17 V3.2.0 RED Artikel 3.2: Radio EN 300 328 V2.1.1
- c) Regulations: restriction of hazardous substances (RoHS- 2012)

For the manufacturer established in the European Union, this declaration is made in the UK under the responsibility of:

SIEGENIA-AUBI Ltd.

Richardson Way  $\cdot$  Cross Point

Coventry CV2 2TA

Coventry, 2021-05-10

Ryan Thompson (Business and Sales Manager UK Ltd)









