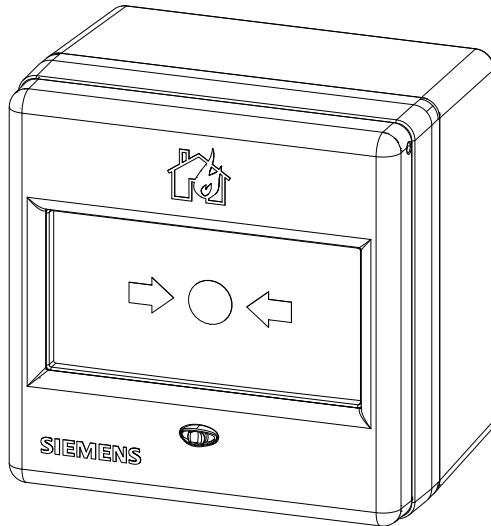# SIEMENS

FDM275, FDM275(F)

Radio manual call point

Technical Manual

Imprint

Technical specifications and availability subject to change without notice.

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Table of contents

1 About this document

Goal and purpose

This document contains all information on the radio manual call point FDM275.

Following the instructions consistently will ensure that the product can be used safely and without any problems.

Intended use

The radio manual call points FDM275 and FDM275(F) may only be used together with a radio gateway FDCW241 in a fire detection system FS20/FS720.

Target groups

The information in this document is intended for the following target groups:

Target group	Activity	Qualification
Product Manager	• Is responsible for information passing between the manufacturer and regional company. • Coordinates the flow of information between the individual groups of people involved in a project.	• Has obtained suitable specialist training for the function and for the products. • Has attended the training courses for Product Managers.
Project Manager	• Coordinates the deployment of all persons and resources involved in the project according to schedule. • Provides the information required to run the project.	• Has obtained suitable specialist training for the function and for the products. • Has attended the training courses for Project Managers.
Project engineer	• Sets parameters for product depending on specific national and/or customer requirements. • Checks operability and approves the product for commissioning at the place of installation. • Is responsible for troubleshooting.	• Has obtained suitable specialist training for the function and for the products. • Has attended the training courses for Product Engineer.
Installation personnel	• Assembles and installs the product components at the place of installation. • Carries out a function check following installation.	• Has received specialist training in the area of building installation technology or electrical installations.
Commissioning personnel	• Configures the product at the place of installation according to customer-specific requirements. • Checks the product operability and releases the product for use by the operator. • Searches for and corrects malfunctions.	• Has obtained suitable specialist training for the function and for the products. • Has attended the training courses for commissioning personnel.
Maintenance personnel	• Carries out all maintenance work. • Checks that the products are in perfect working order. • Searches for and corrects malfunctions.	• Has obtained suitable specialist training for the function and for the products.

Document identification

The document ID is structured as follows:

ID code	Examples
ID_ModificationIndex_Language_COUNTRY -- = multilingual or international	A6V10215123_a_de_DE A6V10215123_a_en_-- A6V10315123_a_--_--

Date format

The date format in the document corresponds to the recommendation of international standard ISO 8601 (format YYYY-MM-DD).

Conventions for text marking

Markups

Special markups are shown in this document as follows:

▷	Requirement for a behavior instruction
1. 2.	Behavior instruction with at least two operation sequences
–	Version, option, or detailed information for a behavior instruction
⇨	Intermediate result of a behavior instruction
⇨	End result of a behavior instruction
●	Numbered lists and behavior instructions with an operation sequence
[➜ X]	Reference to a page number
'Text'	Quotation, reproduced identically
<Key>	Identification of keys
>	Relation sign and for identification between steps in a sequence, e.g., 'Menu bar' > 'Help' > 'Help topics'
↑ Text	Identification of a glossary entry

Supplementary information and tips

i	The 'i' symbol identifies supplementary information and tips for an easier way of working.

i	FDM275 will now apply to both variants of the radio manual call point – FDM275 and FDM275(F).

1.1 Applicable documents

Document ID	Title
008331	List of compatibility (for 'Sinteso™' product line)
A6V10227631	Planning Radio fire detection system SWING
A6V10227639	Technical manual Radio gateway FDCW241
A6V10227643	User Guide SWING-Tool FXS2061
A6V10229261	List of compatibility (for 'Cerberus™ PRO' product line)
A6V10271323	Data sheet SWING Neural radio fire detector FDCW241, FDOOT271, FDM273, FDM275, FDM275(F)
A6V10367669	Open-Source Software (OSS) Licenses SWING
A6V10401114	Installation Radio manual call point FDM275, FDM275(F)

1.2 Download center

You can download various types of documents, such as data sheets, installation instructions, and license texts via the following Internet address:

https://siemens.com/bt/download

● Enter the document ID in the search field.

i	You will also find information about search variants and links to mobile applications (apps) for various systems on the home page.

1.3 Technical terms and abbreviations

Term	Explanation
AI	Alarm indicator
Battery empty	Fault message in the event of a battery failing completely
Battery low	Fault message in the event that the spare battery is activated
FDnet/C-NET	Addressed detector line
IAI	Internal alarm indicator
LED	Light-emitting diode

1.4 Revision history

The reference document's version applies to all languages into which the reference document is translated.

| | The first edition of a language version or a country variant may, for example, be version 'd' instead of 'a' if the reference document is already this version. |

The table below shows this document's revision history:

Version	Edition date	Brief description
g	2020-03-31	• 'Technical data' chapter: 'Radio: Transmitting power, frequency range, footnote' paragraph updated • Editorial changes
f	2018-11-19	• Editorial changes
e	2016-11-28	• Frequencies specified in 'Technical data' chapter
d	2016-09-30	Changes/additions in the following chapters: • Replacing the plastic insert with a glass insert • Editorial changes
c	2015-10-15	Changes/additions in the following chapters: • Compatibility FDnet/C-NET • Installation • Technical data
b	2015-04-01	• Editorial changes • Flashing behavior table added
a	2014-02-01	First edition

2 Safety

2.1 Safety notes

Comply with the following safety notes to protect life, limb, and property.

The safety notes in the document include the following elements:

- Symbol for hazard
- Signal word
- Type and source of hazard
- Consequences in the event the hazard occurs
- Measures or prohibitions to prevent the hazard

Symbol for hazard

⚠	This is the symbol for hazard. It warns you of **Risks of injury**. Comply with all measures designated by this symbol to prevent injury or death.

Additional hazard symbols

These symbols indicate general hazards, type of hazard, possible consequences, measures and prohibitions, a sample of which is displayed in the following table:

⚠ General hazard

⚠ Voltage/electrical shock

⚠ Battery

⚠EX Potentially explosive atmospheres

⚠ Laser light

⚠ Heat

Signal word

The signal word classifies the hazard as defined in the following table:

Signal word	Danger level
DANGER	'DANGER' identifies a dangerous situation, that **results directly in death or serious injuries**, if you do not avoid this situation.
WARNING	'WARNING' identifies a dangerous situation, that **can result in death or serious injuries**, if you do not avoid this situation.
CAUTION	'CAUTION' identifies a dangerous situation, that **can result in minor or moderate injuries**, if you do not avoid this situation.
Note	'*NOTE*' identifies a possible situation that may cause damage if not observed. '*NOTE*' does not reference possible injury.

Depiction of risk of injury

Notes on risk of injury is depicted as follows:

⚠	**⚠ WARNING**
	Type and source of hazard
	Consequences in the event the hazard occurs
	• Measures/prohibitions to prevent the hazard

DEPICTION for possible damage to property

Notes on possible damage to property is depicted as follows:

!	*NOTICE*
	Type and source of hazard
	Consequences in the event the hazard occurs
	• Measures/prohibitions to prevent the hazard

2.2 Safety regulations for the method of operation

National standards, regulations and legislation

Siemens products are developed and produced in compliance with the relevant European and international safety standards. Should additional national or local safety standards or legislation concerning the planning, mounting, installation, operation or disposal of the product apply at the place of operation, then these must also be taken into account together with the safety regulations in the product documentation.

Electrical installations

⚡	⚠ WARNING
	Electrical voltage
	Electric shock
	• Work on electrical installations may only be carried out by qualified electricians or by instructed persons working under the guidance and supervision of a qualified electrician, in accordance with the electrotechnical regulations.

- Wherever possible disconnect products from the power supply when carrying out commissioning, maintenance or repair work on them.
- Lock volt-free areas to prevent them being switched back on again by mistake.
- Label the connection terminals with external voltage using a 'DANGER External voltage' sign.
- Route mains connections to products separately and fuse them with their own, clearly marked fuse.
- Fit an easily accessible disconnecting device in accordance with IEC 60950-1 outside the installation.
- Produce earthing as stated in local safety regulations.

⚠	⚠ CAUTION
	Noncompliance with the following safety regulations
	Risk of injury to persons and damage to property
	• Compliance with the following regulations is required.

	• Specialist electrical engineering knowledge is required for installation.
	• Only an expert is permitted to carry out installation work.
	Incorrect installation can take safety devices out of operation unbeknown to a layperson.

Mounting, installation, commissioning and maintenance

- If you require tools such as a ladder, these must be safe and must be intended for the work in hand.
- When starting the fire control panel ensure that unstable conditions cannot arise.
- Ensure that all points listed in the 'Testing the product operability' section below are observed.
- You may only set controls to normal function when the product operability has been completely tested and the system has been handed over to the customer.

Testing the product operability

- Prevent the remote transmission from triggering erroneously.
- If testing building installations or activating devices from third-party companies, you must collaborate with the people appointed.
- The activation of fire control installations for test purposes must not cause injury to anyone or damage to the building installations. The following instructions must be observed:
  - Use the correct potential for activation; this is generally the potential of the building installation.
  - Only check controls up to the interface (relay with blocking option).
  - Make sure that only the controls to be tested are activated.
- Inform people before testing the alarm devices and allow for possible panic responses.
- Inform people about any noise or mist which may be produced.
- Before testing the remote transmission, inform the corresponding alarm and fault signal receiving stations.

Modifications to the system design and the products

Modifications to the system and to individual products may lead to faults, malfunctioning and safety risks. Written confirmation must be obtained from Siemens and the corresponding safety bodies for modifications or additions.

Modules and spare parts

- Components and spare parts must comply with the technical specifications defined by Siemens. Only use products specified or recommended by Siemens.
- Only use fuses with the specified fuse characteristics.
- Wrong battery types and improper battery changing lead to a risk of explosion. Only use the same battery type or an equivalent battery type recommended by Siemens.
- Batteries must be disposed of in an environmentally friendly manner. Observe national guidelines and regulations.

Disregard of the safety regulations

Before they are delivered, Siemens products are tested to ensure they function correctly when used properly. Siemens disclaims all liability for damage or injuries caused by the incorrect application of the instructions or the disregard of danger warnings contained in the documentation. This applies in particular to the following damage:

- Personal injuries or damage to property caused by improper use and incorrect application
- Personal injuries or damage to property caused by disregarding safety instructions in the documentation or on the product
- Personal injury or damage to property caused by poor maintenance or lack of maintenance

2.3 Standards and directives complied with

A list of the standards and directives complied with is available from your Siemens contact.

2.4 Release Notes

Limitations to the configuration or use of devices in a fire detection installation with a particular firmware version are possible.

⚠	⚠ **WARNING**
	Limited or non-existent fire detection
	Personal injury and damage to property in the event of a fire.
	● Read the 'Release Notes' before you plan and/or configure a fire detection installation.
	● Read the 'Release Notes' before you carry out a firmware update to a fire detection installation.

| ❗	*NOTICE*
	Incorrect planning and/or configuration
	Important standards and specifications are not satisfied.
	Fire detection installation is not accepted for commissioning.
	Additional expense resulting from necessary new planning and/or configuration.
	● Read the 'Release Notes' before you plan and/or configure a fire detection installation.
	● Read the 'Release Notes' before you carry out a firmware update to a fire detection installation.

3 Structure and function

3.1 Overview

The manual call point FDM275 is intended for use in areas of a building where a fire can be detected by people who can manually trigger an alarm.

The manual call point FDM275 consists of a back box, a switching unit, and a battery pack. The manual call point FDM275 has the following features:

● Manual call points with direct activation
  – Alarm activation by pressing the pressure point
● Radio communication with:
  – Radio gateway
  – Other radio devices
● Individual detector addressing
● Alarm indicator with status display (green and red):
  – Identifies alarm
  – Confirms contact with the radio network
  – Confirms detector test
● Battery operation
● Versions with resettable plastic or glass insert
● Surface mounting
● Key for resetting the alarm after alarm activation and for opening the housing
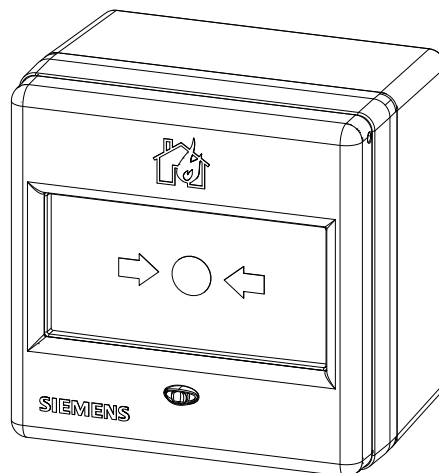
3.1.1 Scope of delivery

The radio manual call point FDM275 is supplied with a mounted plastic insert 'Neutral' FDMG295 and key FDMK295, and without a battery pack.

The following items must be ordered separately:

● Battery pack BAT3.6-10
● Glass insert 'Neutral'
● Plastic insert for 'France'
● Glass insert for 'France'

3.1.2 Details for ordering

Type	Order no.	Designation
FDM275	S54323-F105-A1	Radio manual call point with plastic insert 'Neutral' FDMP295
FDM275(F)	S54323-F105-A2	Radio manual call point with plastic insert for 'France'
BAT3.6-10	S54370-Z11-A1	Battery pack [➜ 22]
Accessories:		
FDMC295	A5Q00013440	Protective cover [➜ 23]
FDMG295	A5Q00013442	Glass insert 'Neutral' [➜ 23]
FDMG295-F	A5Q00013443	Glass insert for 'France' [➜ 23]
FDMP295	A5Q00013445	Plastic insert 'Neutral' [➜ 23]
FDMP295-F	A5Q00013446	Plastic insert for 'France' [➜ 23]
FDMK295	A5Q00013448	Key [➜ 24]

3.1.3 Product version ES

The product version ES provides the technical status of a device in terms of software and hardware. The product version is provided as a two-digit number.

You will find the details of your device's product version:

- On the packaging label
- On the product label or the type plate

Product version on the packaging label

Details of the product version can be found directly on the packaging label in the barcode:
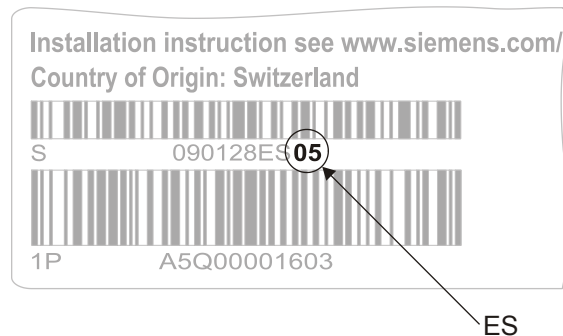

Figure 1: Example of a packaging label with details of the product version

Product version on the product label and the type plate

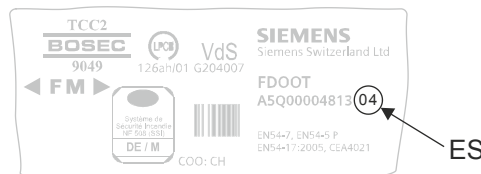Details of the product version can be found after the device order number:

Figure 2: Example of a product label with details of the product version

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Depending on the product and various approvals, the product labels may differ in terms of the information type and layout.

Look for your device's order number on the product label.

You will find the product version after the order number.

3.1.4 Power supply

The battery pack BAT3.6-10 supplies the radio devices with power. The battery pack consists of lithium batteries plus a battery cable and a battery connector.
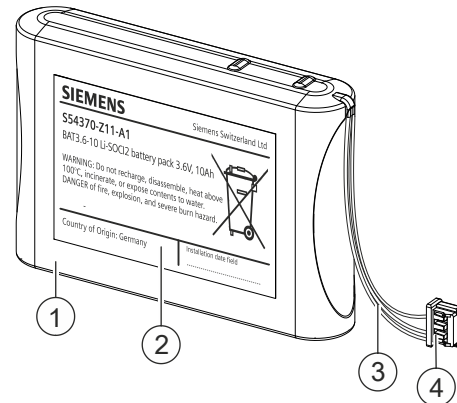

Figure 3: Battery pack BAT3.6-10

1 Battery pack consisting of:
  - 4 lithium batteries for normal operation
  - 1 lithium battery as a spare in the case of 'Battery low' operation

2 Label with area for filling in the commissioning date

3 Battery cable

4 Battery connector with protection against polarity reversal

- In normal operation: Can be used for the service life stated
- In 'Battery low' operation: subject to reduced operating life
- Connections cannot be reversed thanks to battery connector with protection against polarity reversal
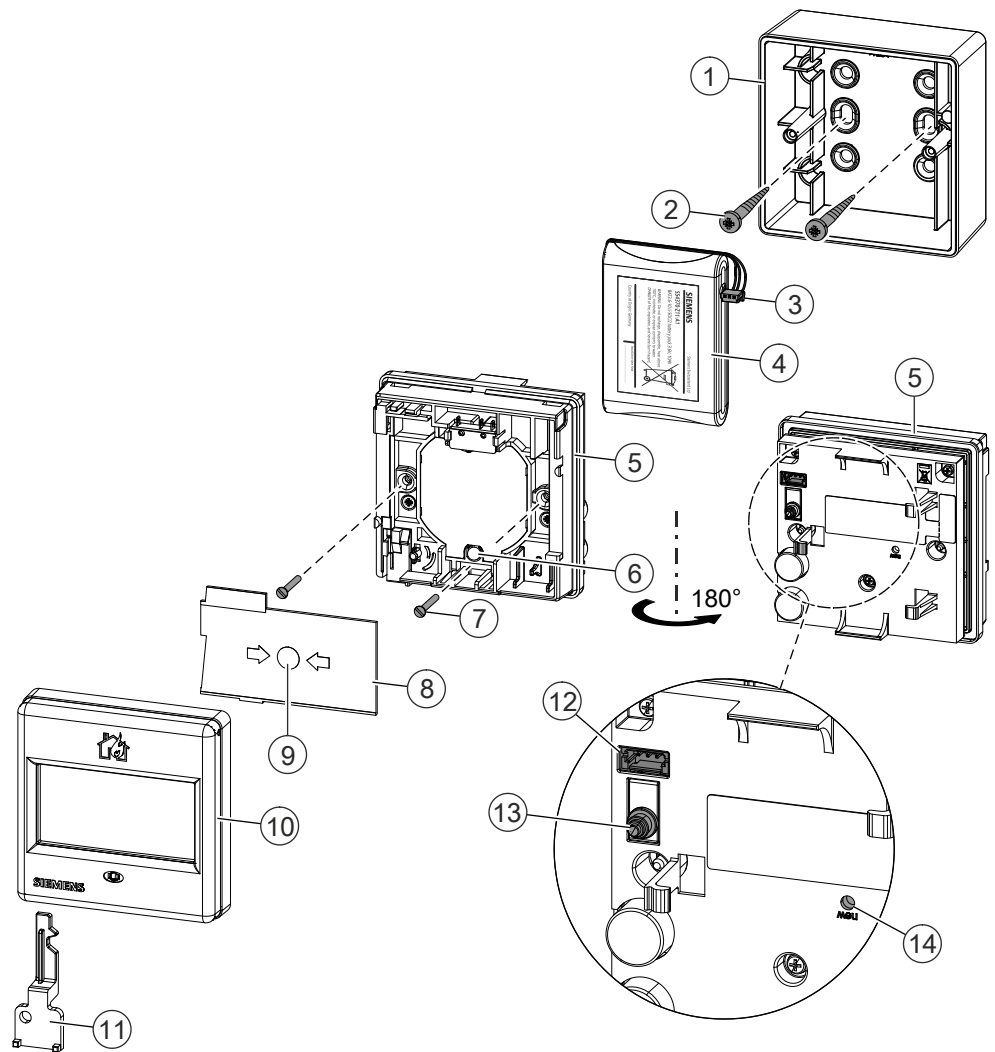
3.2 Setup

Figure 4: Radio manual call point FDM275

1 Back box	8 Plastic/glass insert
2 Screws for wall mounting[1]	9 Pressure point marking
3 Battery connector	10 Housing cover
4 Battery pack BAT3.6-10[1]	11 Key
5 Switching unit	12 Connection for battery connector
6 Internal alarm indicator	13 Housing switching contact
7 Screws for switching unit	14 'new' opening with button

[1] Not included in the scope of delivery

3.3 Function

3.3.1 Danger levels

The radio manual call point can transmit the following danger levels to the control panel:

Danger level	Meaning
0	Normal state, no danger
3	Alarm

The evaluation of the danger level and the resulting measures (e.g. activation of remote transmission) are configured on the control panel.

3.3.2 Internal alarm indicator

The internal alarm indicator's LED has two colors and shows the operating condition of the radio manual call point FDM275.
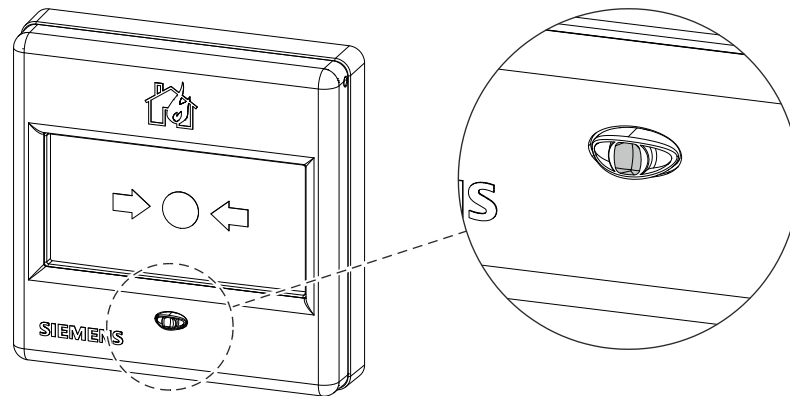

Figure 5: Internal alarm indicator

The table below describes the flashing behavior of the internal alarm indicator in the radio manual call point FDM275:

i	Several flashing patterns are available for normal operation. The flashing pattern is selected using the software 'FXS2002'.

Operating condition		Flashing mode	Graphic
Alarm		IAI flashes red once a second	
Alarm in test mode		IAI flashes green twice every four seconds and red every second in-between	
Fault	There is an error.	IAI flashes red four times every second	

Operating condition		Flashing mode	Graphic
Commissioning	The radio manual call point has not yet been logged on to a radio gateway And The radio manual call point is not mounted in the back box. And There is no contact with the radio network.	IAI flashes red once every two seconds	
	The radio manual call point has already been logged on to a radio gateway And The radio manual call point is not mounted in the back box. And There is no contact with the radio network.	IAI flashes green once every two seconds	
	The radio manual call point is mounted in the back box but has not been logged on to the radio network.	IAI flashes green twice every two seconds	
Normal	Configuration 1	IAI flashes green once every 30 seconds	
	Configuration 2	IAI off	
Test		IAI flashes green twice every four seconds	
New battery		IAI lights up once for five seconds	x1
Battery is flat		IAI off	

ℹ️ Several operating conditions may be indicated at the same time. This may lead to the flashing patterns overlapping one another. The red LED indicator has priority over the green LED indicator.

Flashing patterns with a higher frequency will overlap those with a lower frequency, which means that the latter may no longer be discernible.

ℹ️ Not all fire control panels support the flashing patterns described.

Please also observe the documentation for your fire detection system.

3.3.3 Test mode

A test mode can be set on the control panel to test the radio manual call points. When in test mode, alarms from the radio manual call points are not forwarded by the control panel.

3.3.4 Alarm activation

● Press the pressure point on the glass or plastic insert.

⇨ The plastic insert falls down or

⇨ The glass insert breaks.

⇨ The alarm is activated

After an alarm is activated, the manual call point must be reset to a state in which it is ready for operation.

3.3.5 Diagnosis levels

The radio manual call point monitors its operation largely autonomously.
The following diagnosis levels are derived from the different control measurements:

● Normal

● Replacement necessary

● Fault

When an error which impairs the radio manual call point's function occurs, a fault message is signaled. To correct the cause of the fault, additional information is available in the radio manual call point. This can be indicated with the FXS2061 SWING Tool. You will find more information in document A6V10227643. See chapter 'Applicable documents [➜ 7]'.

3.3.6 Degraded mode in the FDnet/C-NET

When the main processor of the fire control panel fails, the control panel works in degraded mode operation. Depending on the control panel type, the fire control panel can continue to perform the most important alarming and signaling functions in degraded mode operation.

- There are no restrictions on the function of the detector when it is in degraded mode operation.
- Degraded mode operation does not affect radio cell communication.
- A fault message is transmitted to the fire control panel via the radio gateway. The fire control panels support degraded mode operation in different ways. During planning, therefore, you must observe the information in the 'List of compatibility' document and the fire control panel documentation. See the chapter 'Applicable documents'.
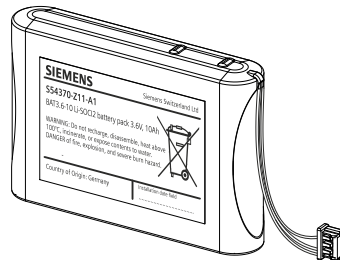
You will find more detailed information in the fire detection system documentation.

3.3.7 Interface to service devices

The fire control panel or the FXS2061 SWING Tool software is used to read out the detector data.

3.4 Accessories

### 3.4.1 Battery pack BAT3.6-10

- For supplying radio devices and the radio gateway with power
- Lithium batteries
  - BAT3.6-10 LI-SOCl2 battery pack 3.6 V, 10 Ah
- Batteries with battery cable
- Connector system with protection against polarity reversal
- Inscription field for commissioning date
- Compatible with:
  - Radio gateway FDCW241
  - Radio manual call point FDM273
  - Radio manual call point FDM275
  - Radio manual call point FDM275(F)
  - Radio fire detector FDOOT271
- Order number: S54370-Z11-A1

3.4.2 MCL-USB (radio) adapter FDUZ227
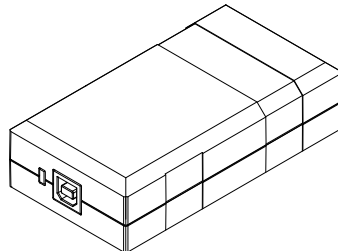
- For connecting FDnet/C-NET devices to a personal computer
- Signals can be transmitted to SWING radio devices via radio
- Interface converter for USB on MC link
- Compatible with:
  - Floor repeater terminal FT2010
  - Floor repeater display FT2011
  - Radio gateway FDCW221 and FDCW241
  - Detector exchanger and tester FDUD292
  - Intelligent detector tester FDUD293
  - Line tester FDUL221
  - Radio manual call point FDM27x
  - Radio fire detector FDOOT271
- You will find more information in document A6V10347735
- Order number: S54323-F106-A1
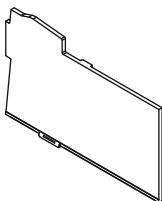
3.4.3 Protective cover FDMC295
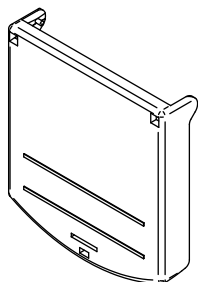
- For protection against unintended alarm activation
- Compatible with:
  - Manual call point FDM1101-Rx
  - Manual call point FDM1101A-Rx
  - Manual call point FDM225-Rx
  - Manual call point FDM226-Rx
  - Radio manual call point FDM275
- Order number: A5Q00013440

3.4.4 Glass inserts FDMG295-x
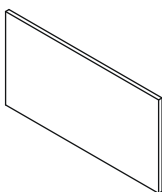
- For alarm activation and protection against soiling
- Available in country-specific designs
- Compatible with:
  - Manual call point FDM1101-Rx
  - Manual call point FDM1101A-Rx
  - Manual call point FDM225-Rx
  - Manual call point FDM226-Rx
  - Radio manual call point FDM275
- Order number for glass insert FDMG295, 'Neutral': A5Q00013442
- Order number for glass insert FDMG295-F, 'France': A5Q00013443

3.4.5 Plastic inserts FDMP295-x

- For alarm activation and protection against soiling
- Available in country-specific designs
- Compatible with:
  - Manual call point FDM1101-Rx
  - Manual call point FDM1101A-Rx
  - Manual call point FDM225-Rx
  - Manual call point FDM226-Rx
  - Radio manual call point FDM275
- Order number for plastic insert FDMP295, 'Neutral': A5Q00013445
- Order number for plastic insert FDMP295-F, 'France': A5Q00013446

3.4.6 Key FDMK295
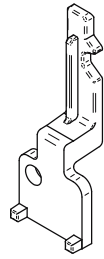
- For testing and resetting manual call points
- For removing the housing cover from the back box
- Compatible with:
  - Manual call point FDM1101-Rx
  - Manual call point FDM1101A-Rx
  - Manual call point FDM225-Rx
  - Manual call point FDM226-Rx
  - Radio manual call point FDM275
- Order number: A5Q00013448

4 Planning

The radio connection means that there is no need to wire the radio devices, such as the radio fire detector, radio manual call point, etc., in the usual way. Together with the radio gateway, the radio devices form a radio cell. The control panel treats this radio cell as a loop or a stub. It is used for the 'Sinteso' and 'Cerberus PRO' product lines.

In the 'Planning' document (A6V10227631), you will find detailed information about the components of the radio fire detection system as well as the necessary devices and device combinations.

You will find more information in the 'List of compatibility'.

4.1 Compatibility FDnet/C-NET

Compatible with control panels that support the FDnet/C-NET detector line.

Detector line	Control panel			
	FC20xx	FC72x	SIGMASYS	AlgoRex
FDnet	X From MP5	–	–	–
C-NET	–	X From IP5	–	–

X = compatible

– = not compatible

You will find detailed information in the 'List of compatibility'.

4.2 Fields of application

The radio manual call points are intended for use in places where a fire can be detected by people who can manually trigger an alarm.

4.3 Mounting site

The radio manual call points must be mounted in easily accessible places at a height of 0.9...1.6 m on an even surface.

> Observe the country-specific regulations for the exact mounting height!

4.4 Environmental influences

If the devices are used in industrial applications, consultation with the project manager is required, since plastics do not withstand certain environmental conditions.

The following factors must be taken into consideration:
- Chemicals
- Temperature
- Moisture

5 Mounting and installation

5.1 Mounting radio manual call point FDM275

i | Secure the radio manual call point FDM275 at a height of 0.9…1.6 m on an even surface. Observe the country-specific regulations for the exact mounting height!
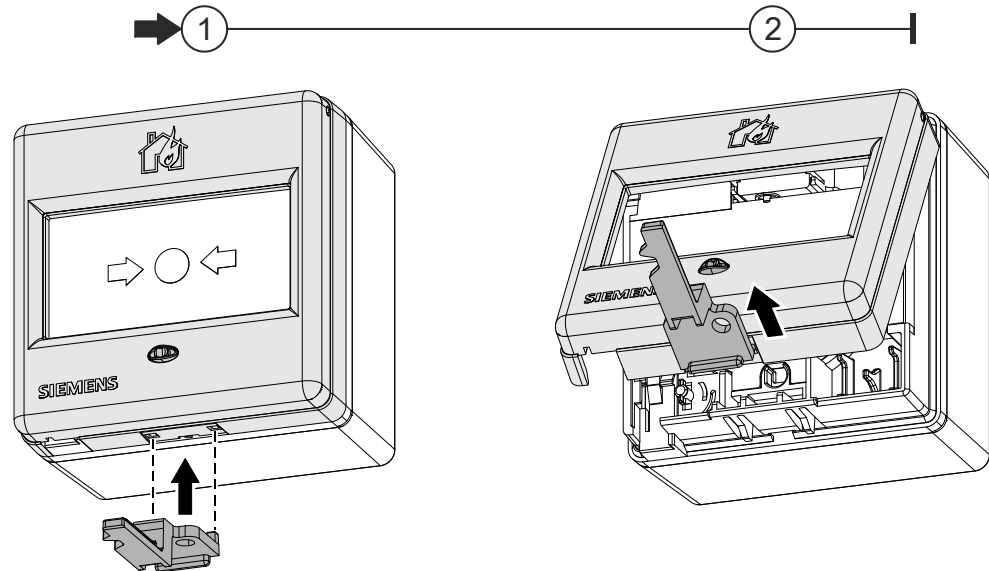

Figure 6: Opening the housing with the key FDMK295

▷   The position of radio manual call point FDM275 has been established.

▷   You have a tool and two screws (max. $\varnothing$ 4 mm) for securing purposes.

1.   Remove the housing cover with the key.

  –   Insert the key into the opening at the bottom of radio manual call point FDM275.
  –   Use the key to pull the housing cover forward and off the back box.

2.   **NOTICE! Keep the key in a safe place.**

3.   Remove the switching unit from the back box.

4.   For securing the back box, select two screw positions that are spaced far apart from one another. See also chapter 'Master gage for recesses [➜ 43]'.

5.   Screw the back box tightly in place.

  ⇨   The manual call point is now prepared for installation.

See also
  ▤   Master gauge for recesses [➜ 43]

5.2 Installation
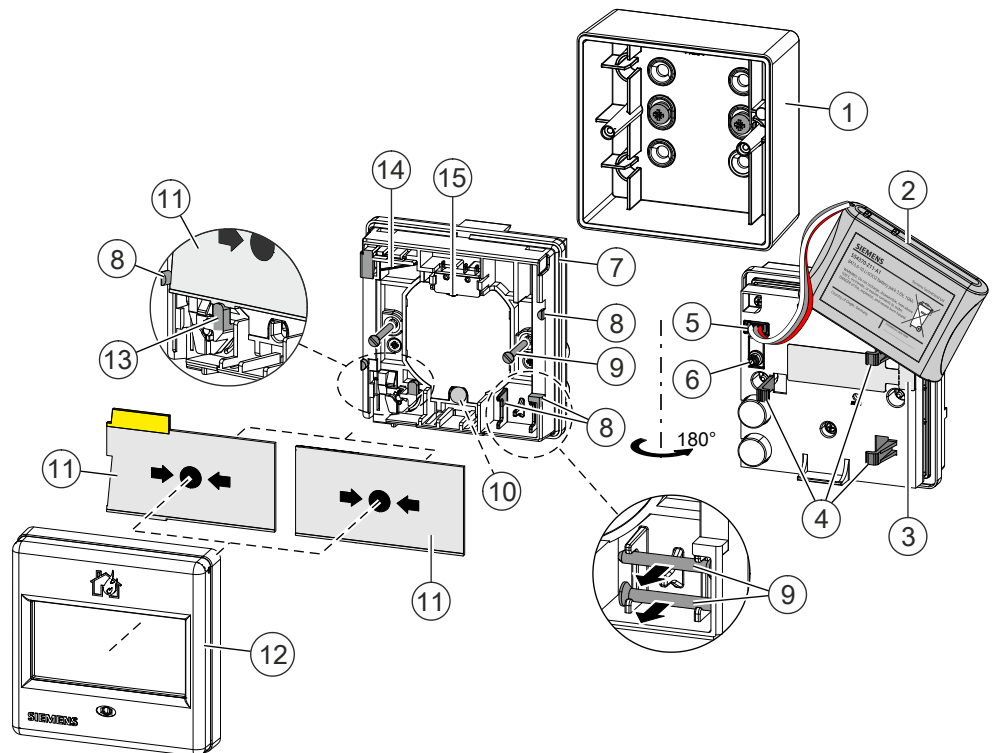
1 Back box	9 Screws for switching unit
2 Battery pack BAT3.6-10[1]	10 Internal alarm indicator
3 Type plate with adhesive label	11 Plastic/glass insert
4 Battery holders	12 Housing cover
5 Battery connector	13 Retainer
6 Housing switching contact	14 Spring
7 Switching unit	15 Triggering device
8 Stop	

[1] not included in the scope of delivery

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i The flashing behavior of the internal alarm indicator is described in document A6V10401120 in the 'Internal alarm indicator' chapter.

▷ The back box is fastened.

▷ You have a new, undamaged battery pack to hand.

▷ You have key FDMK295 and a Phillips screwdriver to hand.

▷ The radio gateway has been activated and switched to maintenance mode.

1. Remove the adhesive label with the serial number from the type plate (3) on the switching unit. Use the adhesive label to mark the position of the radio manual call point FDM275 on the device location plan.

2. Label the battery pack (2) with the current date.

3. If the switching unit (7) needs to be switched to 'factory setting'

    – Close the battery connector (5) and press the button in the 'new' opening with a slim pen or pencil for approx. five seconds.

    ⇨ The internal alarm indicator flashes red.

    ⇨ The radio manual call point FDM275 is set to the factory setting.

4. Insert the battery pack into the switching unit so that it snaps into place in the three battery holders (4).

5. Lay the connection cable according to the diagram and connect the battery connector (5).

    ⇨ The internal alarm indicator (10) lights up red.

    ⇨ After a further 10 seconds, the radio manual call point FDM275 signals that it is not installed in the housing, and the internal alarm indicator flashes every two seconds:

    – If it flashes red, this indicates the factory setting.

    – If it flashes green, this indicates that the radio manual call point FDM275 has already been logged on to a radio gateway.

    ⇨ If this does not happen, this means the battery pack is defective and must not be used.

6. Place the switching unit with the battery pack into the back box (1).

7. Remove the plastic/glass insert (11). Details on replacing the glass can also be found in the 'Replacing the plastic insert with a glass insert' chapter.

8. Screw the switching unit tightly to the back box (1) using the two screws supplied with the switching unit (9).

9. Place the glass/plastic insert (11) between the stops (8) and slide the plastic/glass insert against the triggering device (15), as shown in the diagram.

    ⇨ This pre-stresses the spring (14).

    ⇨ The internal alarm indicator flashes green and the radio manual call point FDM275 is logged on to the radio gateway.

    ⇨ If the process of logging on to the radio gateway is successful, the internal alarm indicator stops flashing.

10. If the logon process has not been successful after a long period of time, remove the switching unit from the back box and then re-insert it.

    ⇨ The search for the radio network starts again.

11. Install the housing cover on the back box.

    – Hook the top housing cover into the back box.

    – Snap the bottom housing cover into place in the back box.

⇨ Radio manual call point FDM275 is mounted and ready for commissioning.

⚠	**⚠ WARNING**
	Deactivating the manual call points prevents alarms from being forwarded.
	The alarm is not triggered.
	• Mark deactivated manual call points or those which are not fully functional with the notice 'NOT IN USE'!

OUT OF ORDER
AUSSER BETRIEB
HORS SERVICE
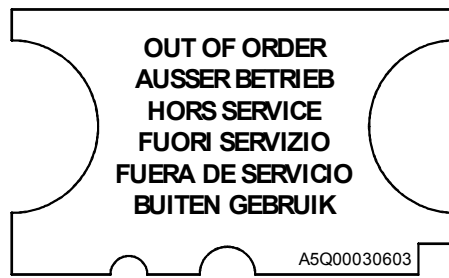FUORI SERVIZIO
FUERA DE SERVICIO
BUITEN GEBRUIK

A5Q00030603

Figure 7: 'Not in use' label

See also

- Internal alarm indicator [➜ 18]
- State of operational readiness after alarm activation [➜ 34]

5.3 Replacing the plastic insert with a glass insert

Proceed as follows to replace the plastic insert with a glass insert:

▷ The gateway detector line to which the radio manual call point FDM275 is logged on is switched off.

1. Remove the housing cover [➜ 26] with the key.

2. Remove the plastic insert (1) and dispose of it properly.

3. Place the glass insert (6) between the following points:

    – Retainer (5)
    – Left and right stops (4)
    – Spring (2)
    – Triggering device (3)
    ⇨ This pre-stresses the spring (2).

4. Install the housing cover on the back box.

    – Hook the top housing cover into the back box.
    – Snap the bottom housing cover into place in the back box.
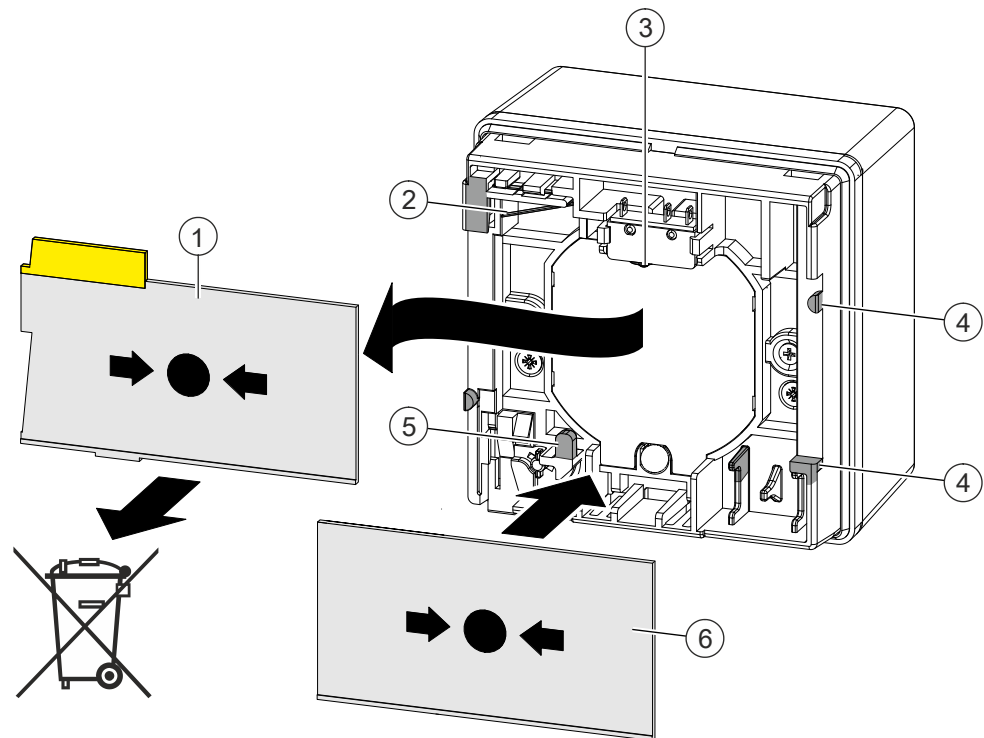
⇨ The plastic insert is replaced with a glass insert.

Figure 8: Replacing the plastic insert with a glass insert

1	Plastic insert	4	Stop
2	Spring	5	Retainer
3	Triggering device	6	Glass insert

See also

▤ Mounting radio manual call point FDM275 [➜ 26]

5.4 Installing the protective cover

If a protective cover (accessories) is being used, proceed as described below:

▷ The radio manual call point has been installed and electrically connected. See the chapter 'Installation [➜ 27]'.

▷ A compatible protective cover is available. See the chapter 'Protective cover FDMC295 [➜ 23]'.

● Snap the protective cover FDMC295 (2) into place in the recesses in the housing cover (1) intended for this purpose. See also 'Protective cover FDMC295 [➜ 23]' chapter.

⇨ The protective cover is installed.
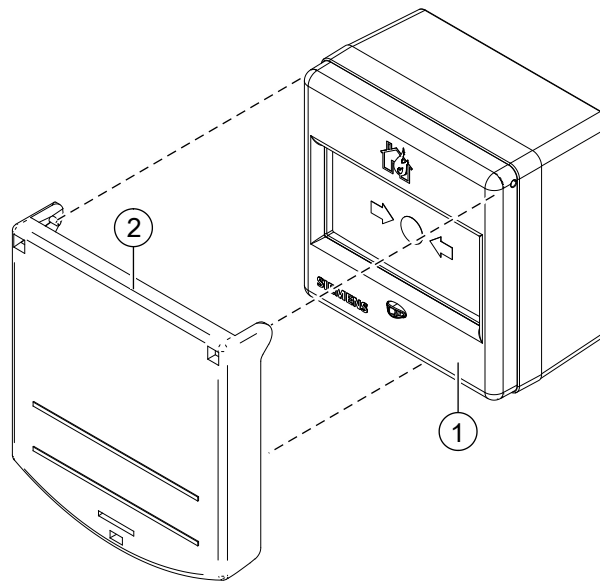

Figure 9: Installing the protective cover FDMC295

1 Radio manual call point FDM275   2 Protective cover

6 Commissioning

When the battery connector is connected, the radio manual call point FDM275 is activated.

i	Insert the battery packs into the devices at the location where they are going to be used just before commissioning the fire detection installation.

Once the switching unit is inserted into the housing, the radio manual call point FDM275 automatically looks for radio devices within range in the vicinity and automatically integrates itself into the radio network.

You will find the procedure for logging on and creating a radio cell in document A6V10227639.

You must fully commission a radio cell before establishing the connection to the FDnet/C-NET.

The device is commissioned via the control panel. The exact procedure is described in the control panel documentation.

Conduct a performance check once commissioning is complete.

See also the following documents for more information:

● Document A6V10227639
● Document A6V10227631

6.1 Performance check

▷ The radio manual call point FDM275 is installed and electrically connected.

1. Set the detector line to 'Test' on the control panel.

   ⇨ The internal alarm indicator flashes green with flashing pattern number 8 [➜ 18].

2. Insert the key into the housing from below, as shown in the diagram.

   ⇨ The glass insert or plastic insert falls down and activates the alarm actuator in the switching unit.
   ⇨ The alarm signal is transmitted.
   ⇨ The internal alarm indicator flashes green and red with flashing pattern number 6 and number 8 [➜ 18].

3. Pull off the key.

   ⇨ The glass insert or plastic insert is pushed back into its original position.
   ⇨ The manual call point is ready for operation again.

4. Set the detector line to 'Normal operation' on the control panel.

⇨ The internal alarm indicator stops flashing.

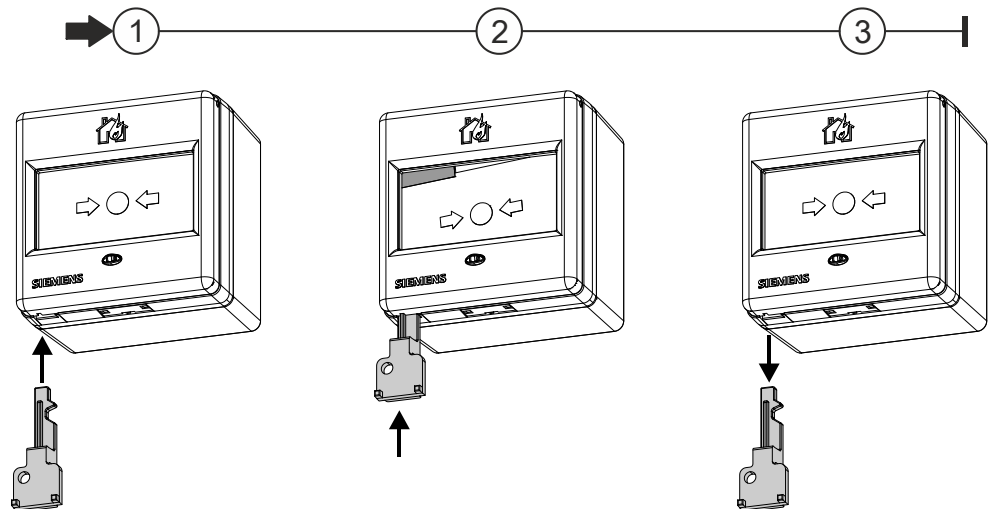⇨ The detector line is ready for operation again.

Figure 10: Function check of the manual call point FDM275 using the key

6.2 Localization and device testing

The manual call points have an internal alarm indicator [➜ 18]. This internal alarm indicator may also be activated from the control panel for localization and device testing. The table shows the LED indication for the different control panel commands.

Command	LED indication
Device test	Flashes green
Localization	Flashes red

7 Maintenance / Repair

7.1 State of operational readiness after alarm activation

Radio manual call point FDM275 with plastic insert

▷ The plastic insert has fallen down, the yellow marking is visible, and the internal alarm indicator flashes red [➜ 18].

1. Slide the key into the housing.

2. Pull the key out of the housing and push the plastic insert upward.

   ⇨ The internal alarm indicator stops flashing.
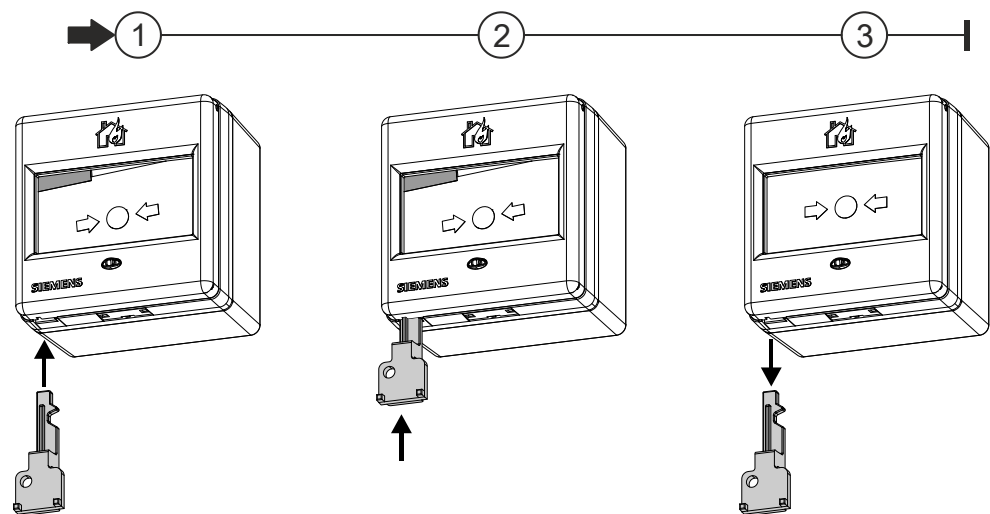
⇨ The radio manual call point FDM275 is ready for operation.

Figure 11: Establishing the state of operational readiness of the radio manual call point with plastic insert

Radio manual call point FDM275 with glass insert

The glass insert is covered by a foil. This foil holds the glass splinters together when the glass insert is pushed in, making it possible to remove the glass insert easily.

▷ The glass insert is broken and the internal alarm indicator flashes red with flashing pattern number 6 [➜ 18].

1. Remove the housing cover with the key.

   ⇨ The switching unit is accessible.

2. Completely remove the broken glass insert (1) and dispose of it properly.

3. Place the new glass insert (6) between the following points:

   – Retainer (5)
   – Left and right stops (4)
   – Spring (2)
   – Triggering device (3)
   ⇨ This pre-stresses the spring (2).

4. Install the housing cover on the back box.

   – Hook the top housing cover into the back box.

    –   Snap the bottom housing cover into place in the back box.

5. If necessary, check the function of the manual call point. See the chapter 'Performance check [➔ 32]'.

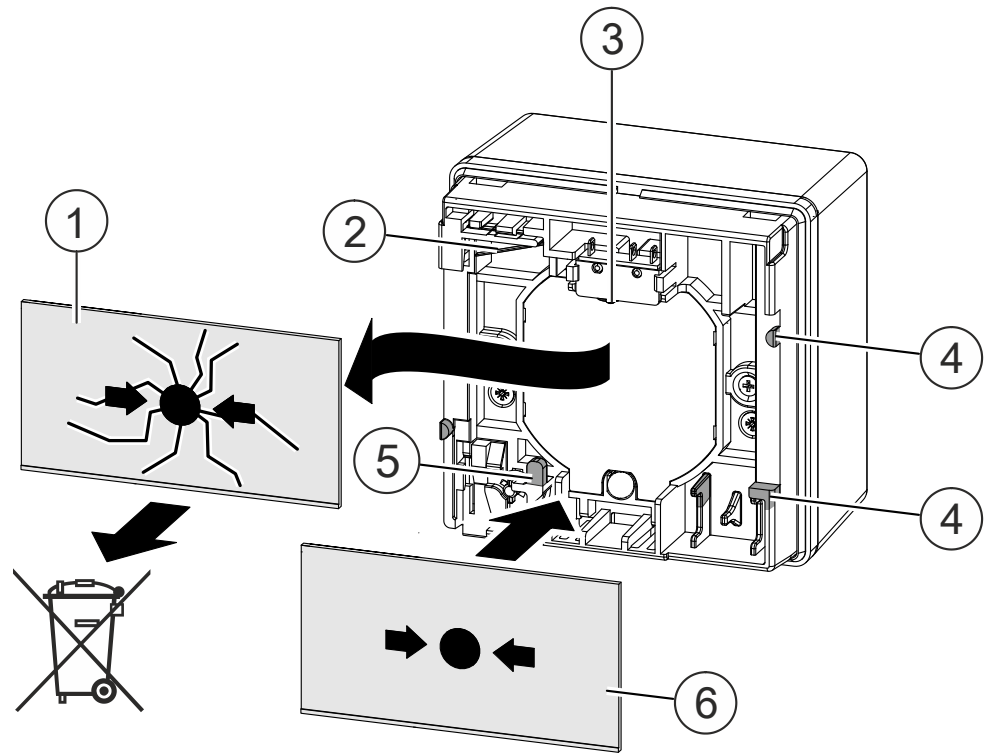⇨ The radio manual call point FDM275 is ready for operation.

Figure 12: Replacing the glass insert

1	Broken glass insert	4	Stop
2	Spring	5	Retainer
3	Triggering device	6	New glass insert

7.2 Establishing factory settings

All existing settings are deleted and reset to the factory settings. The radio manual call point FDM275 can only be integrated into a radio cell as a new device if it is set to its factory settings.
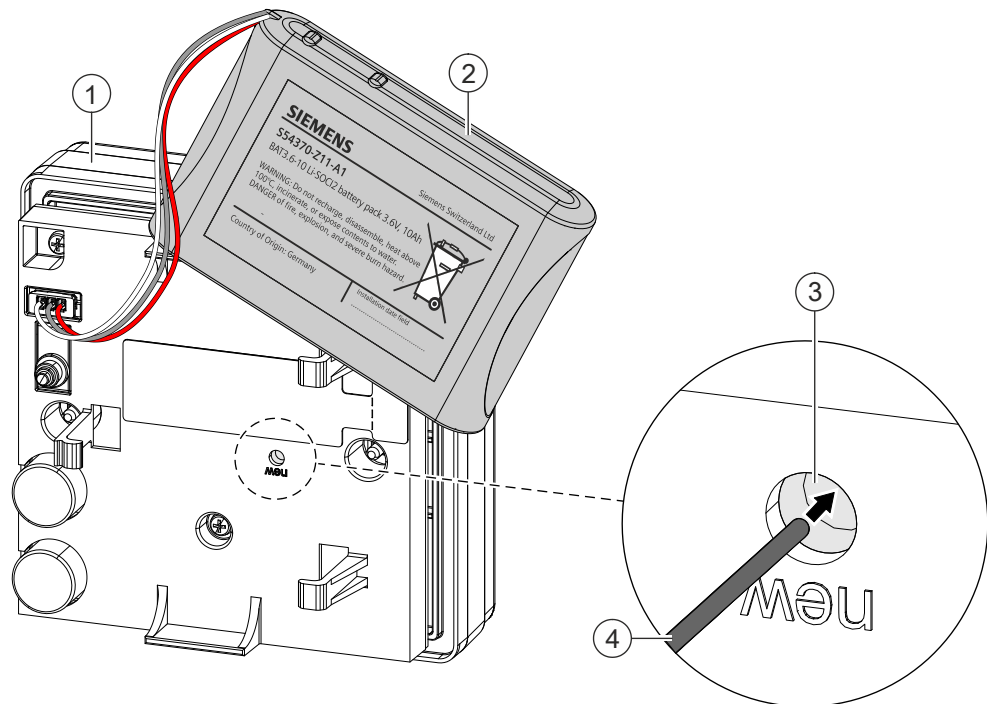

Figure 13: Establishing factory settings

1 Switching unit (rear view)	3 'new' opening with button
2 Battery pack BAT3.6-10	4 Pen or pencil

!	*NOTICE*
	Unintentional alarm activation
	Removing the glass or plastic insert triggers an alarm if the detector line is activated.
	• Switch off the detector line or switch it to maintenance mode.

▷ The battery pack is connected.

1. Remove the housing cover [➜ 26] with the key.

2. Remove the plastic/glass insert.

   ⇨ If the detector line is not switched off, the internal alarm indicator (6) flashes red (flashing pattern number 6 with an interval of 1 second [➜ 18]).

3. Unscrew the two screws and remove the switching unit (1) from the back box

   ⇨ The internal alarm indicator flashes green (flashing pattern number 3 with an interval of: 2 seconds [➜ 18]).

4. Remove the connected battery pack (2) from the holder.

5. Press the button in the 'new' opening (3) with a slim pen or pencil (4) for approx. five seconds.

   ⇨ The internal alarm indicator flashes red every 2 seconds.

⇨ The radio manual call point FDM275 is set to the factory setting (Installation [➜ 27]).

7.3 Basic principles for replacing the battery pack

⚠	**⚠ WARNING**
	Risk of explosion due to fire or short-circuit, even with a discharged battery pack
	Injury due to flying parts
	• Isolate the connections and attach the battery cable to the battery pack to avoid a short-circuit of the connection wires.
	• Prevent the battery pack from coming into contact with water.
	• Do not extinguish a burning battery pack with water.
	• Do not recharge the battery pack.
	• Do not damage or disassemble the battery pack.
	• Do not heat the battery pack to over 100°C.

	⚠ WARNING
	Disposal of damaged or leaking battery pack
	Lithium can cause skin burns and create toxic vapors.
	• Avoid direct skin contact.
	• Wear protective clothing, such as protective gloves and goggles.
	• Avoid breathing in the vapors. Ensure good ventilation.
	• Use a suitable means of transport to transport damaged batteries.

Always observe the following information:

- When the control panel issues the message 'Battery low', replace the battery pack.
- Use the control panel to identify the location of the radio device.
- Only use battery pack BAT3.6-10.
- The battery pack must be new and free from damage. The battery cable is attached to the battery pack with an adhesive label.
- Store, transport, and dispose of the battery pack in accordance with local regulations, guidelines, and laws.
- Label the battery pack with the commissioning date.

See also

7.4 Replacing the battery pack in the radio manual call point

!	**NOTICE**
	Unintentional alarm activation
	Removing the glass or plastic insert triggers an alarm if the detector line is activated.
	• Switch off the detector line or switch it to maintenance mode.

- Do not interrupt the power supply for longer than 2 minutes.
- Do not interrupt the power supply to multiple radio devices simultaneously. Replace the battery pack for one radio device as described below before replacing the battery pack for the next radio device. This will prevent mix-ups and will ensure the devices can be reintegrated into the radio cell without any problems.
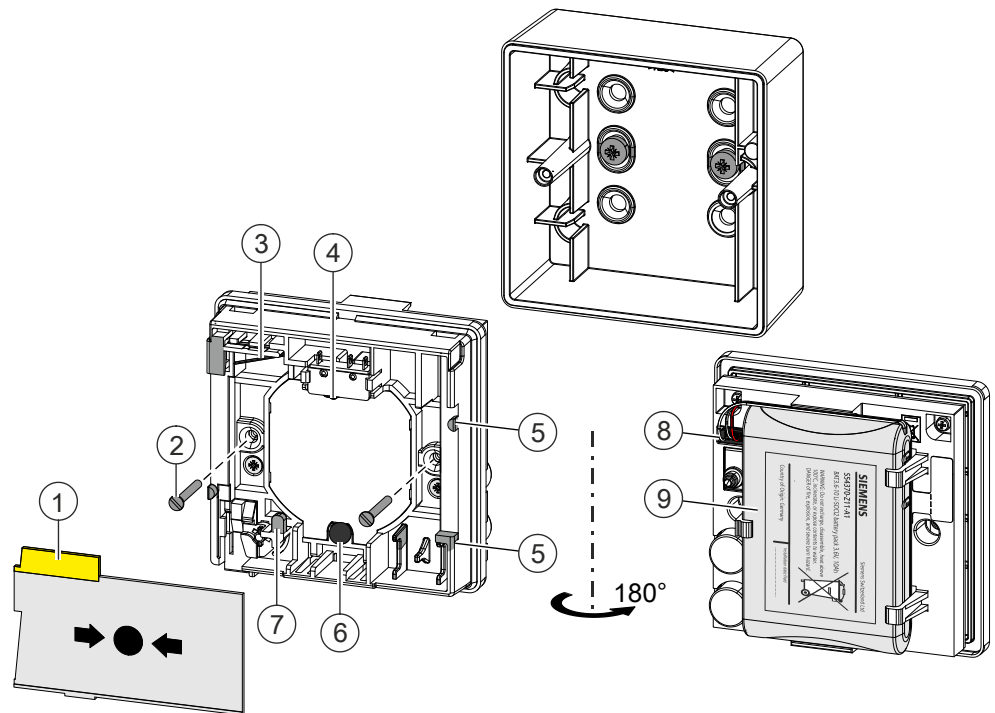

Figure 14: Replacing the battery pack

1	Plastic/glass insert	6	Internal alarm indicator
2	Screws	7	Retainer
3	Spring	8	Battery connector
4	Triggering device	9	Battery pack
5	Stop		

▷ You have a new, undamaged battery pack to hand.

▷ You have key FDMK295 and a Phillips screwdriver to hand.

▷ The detector line is switched off or in maintenance mode.

1. Remove the housing cover [➜ 26] with the key.

2. Remove the plastic/glass insert (1).

   ⇨ If the detector line is not switched off, the internal alarm indicator (6) flashes red (interval of: 1 second [➜ 18]).

3. Loosen the two screws (2).

4. Remove the switching unit (2) with the connected battery pack (9).

5. Wait until the internal alarm indicator (6) flashes green (flashing pattern number 3 with interval of 2 seconds [➜ 18]).

    ⇨ The radio manual call point is 'out of base'.

6. Remove the old battery pack (9).

    – Release the battery connector (8).
    – Dispose of the old battery pack.

7. Label the new battery pack with the current date.

8. Connect the battery connector (8).

    ⇨ The alarm indicator lights up red for 5 seconds.
    ⇨ After a further 10 seconds, the radio manual call point FDM275 signals that it is no longer installed in the housing and the alarm indicator flashes green (flashing pattern number 3 with interval of 2 seconds [➜ 18]).
    ⇨ If this does not happen, this means the battery pack is defective and must not be used.

9. Lay the connection cable according to the diagram and snap the battery pack in place in the three battery holders.

10. Insert the switching unit with the new battery pack into the back box and screw it tightly in place.

11. The internal alarm indicator flashes green (flashing pattern number 4) [➜ 18] and the radio manual call point FDM275 is logged on to the radio gateway.

12. Insert the glass or plastic insert.

    ⇨ If the process of logging on to the radio gateway is successful, the internal alarm indicator stops flashing.

13. If the logon process has not been successful after a long period of time, remove the switching unit from the back box and then re-insert it.

    ⇨ The search for the radio network starts again.

14. Install the housing cover on the back box.

    – Hook the top housing cover into the back box.
    – Snap the bottom housing cover into place in the back box.

⇨ The battery pack has now been replaced.

8 Specifications

8.1 Technical data

You will find information on approvals, CE marking, and the relevant EU directives for this device (these devices) in the following document(s); see 'Applicable documents' chapter:
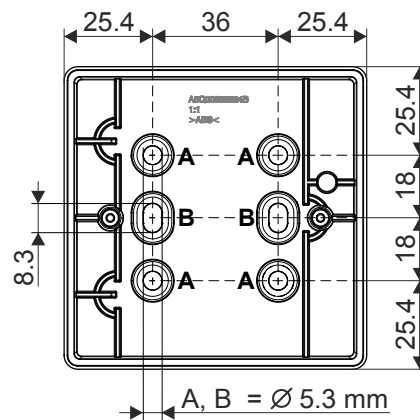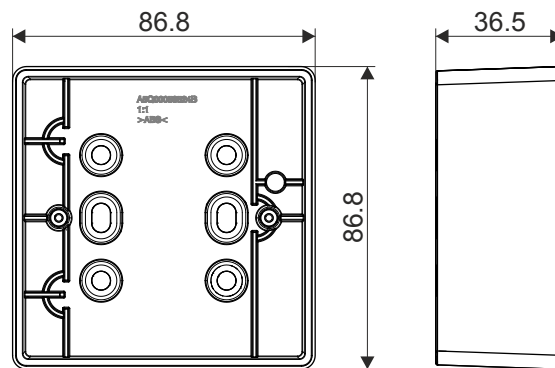
- Document A6V10271323

Device characteristics	Detector diagnosis	With FXS2061 SWING Tool or connected fire control panel
	Type of alarm activation	Type A (direct activation)

Radio	Sending/receiving aerials	Dual band aerial
	Frequency range	433.05…434.79 MHz in band 44b [1]
		868…870 MHz in band 48, 49, 50, 54, and 56b [1]
	Channel grid	50 kHz
	Number of channels	27 in 868 MHz band
		20 in 433 MHz band
	Transmitting power	≤10 mW ERP in band 44b and 49 [1]
		Type 10 (max. ≤25) mW ERP in band 48, 50, 54, and 56b [1]
	Range	See document A6V10227631

[1] COMMISSION IMPLEMENTING DECISION (EU) 2019/1345 of 2 August 2019 amending Decision 2006/771/EC updating harmonised technical conditions in the area of radio spectrum use for short-range devices (notified under document C(2019) 5660)

Battery	Lithium battery pack	BAT3.6-10 LI-SOCl2 battery pack 3.6 V, 10 Ah
	Battery service life	Dependent upon ambient conditions
		At least 3 years
	Service life 'Battery low'	>3 months
	Battery voltage monitored	Yes
	Weight	0.093 kg

Detector line	Radio connection to detector line via radio gateway	FDCW241
	Radio connection to PC via MCL-USB adapter	FDUZ227
	System compatibility	See 'List of compatibility'

Ambient conditions	Place of installation	Inside buildings/indoors
	Operating temperature	-10…+55 °C
	Storage temperature	-30…+75 °C
	Air humidity	≤95 % rel.
	Protection categories (IEC 60529):	IP24D
	Electromagnetic compatibility:	
	● 10 kHz…100 kHz	160 V/m
	● 100 kHz…2.5 GHz	30 V/m
Mechanical data	Weight:	0.216 kg
	Housing material	Red => Polycarbonate (PC)
		Black => Acrylonitrile butadiene styrene (ABS)
	Housing color	~RAL 3000 flame red
Standards	European standards	● EN 54-11
		● EN 54-25
		● EN 300220-2
		● EN 301489-3
		● EN 60950-1

See also

📄 Applicable documents [➜ 7]

8.2 Dimensions

8.3 Master gauge for recesses

A, B = Ø 5.3 mm

8.4 Environmental compatibility and disposal

This equipment is manufactured using materials and procedures which comply with current environmental protection standards as best as possible. More specifically, the following measures have been undertaken:

● Use of reusable materials
● Use of halogen-free plastics
● Electronic parts and synthetic materials can be separated

Larger plastic parts are labeled according to ISO 11469 and ISO 1043. The plastics can be separated and recycled on this basis.

Electronic parts and batteries must not be disposed of with domestic waste.

● Take electronic parts and batteries to local collection points or recycling centers.
● Contact local authorities for more information.
● Observe national requirements for disposing of electronic parts and batteries.

Glossary

Factory setting

Basic settings present at the time of delivery

Radio cell

Unit comprising all radio devices connected to the radio gateway

Radio device

Any device that the radio gateway monitors

Radio network

Within a radio cell, bidirectional radio connections are established between the radio devices. Together with the radio gateway connections, these create a radio network.

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