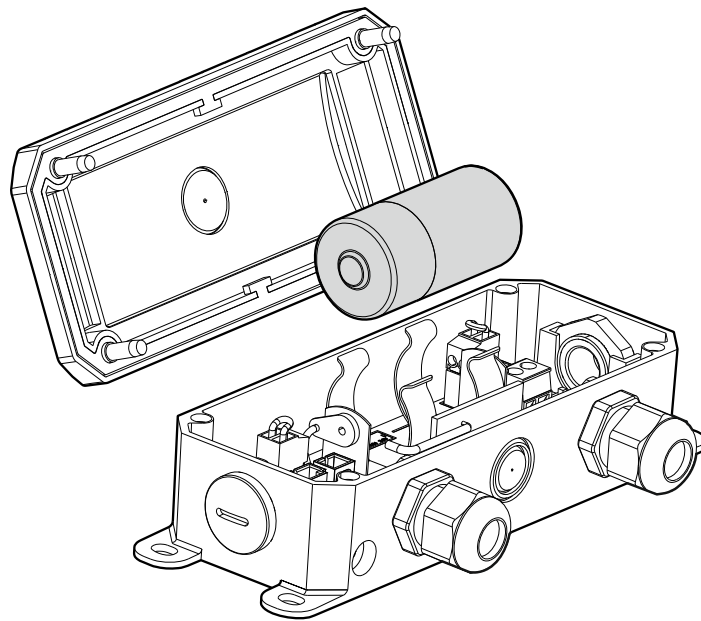




Installation Instructions

WSD door- module 2,4 GHz

Model: 30005154



-en-

51171746_00002_a - Status: 11/2019

Safety-relevant chapter

Explanation of symbols

The following symbols are used in these installation instructions:

⚠ DANGER

Safety note: Non-compliance will result in death or severe injury.

⚠ WARNING

Safety note: Non-compliance can result in death or severe injury.

⚠ CAUTION

Safety note: Non-compliance can result in injury.

NOTICE

Note: Non-compliance can result in material damage and impairment of product functionality.

i NOTE

Note: Points out useful additional information.

Target audience of these installation instructions

These installation instructions are geared towards qualified persons trained in the handling of door systems. Expert knowledge, relevant skills and practical experience are what set apart qualified persons. They are capable of safely carrying out the tasks involving installation, maintenance and modernisation according to the instructions.

Intended use

The WSD door-module is intended to connect a safety edge system to the TS971 door control. The WSD door-module is to be protected from rain, moisture and aggressive ambient conditions.

The WSD system is suitable for electrical (with 8k Ω end of line resistor), pneumatic (with 1k Ω end of line resistor) and optical safety edges.

Two slack-rope switches and one pass-door switch can be connected.

The WSD door-module has cross-fault monitoring.

Cross-fault monitoring: Electronic monitoring of a short circuit between two wires inside a cable by measuring the resistance.

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Installation

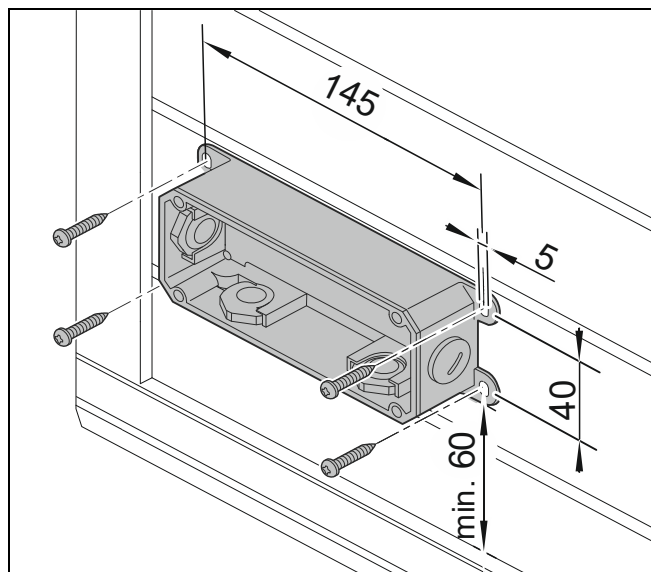
⚠ WARNING

Danger due to uncontrolled door movement.

- Carry out the following work only when the power supply is switched off.
- Lock the door to through traffic while working.

Installation on the door

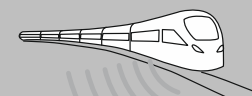
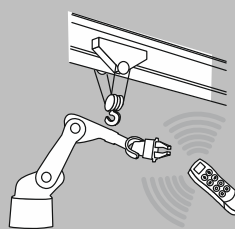
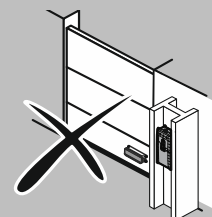
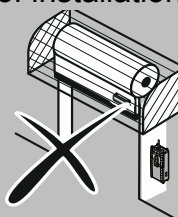
- Remove the cover from the door leaf box.
- Screw the door leaf box onto the door leaf.



NOTICE

Observe the following notes for selecting the place of installation:

- Mount the WSD door-module as close to the door control as possible.
- The WSD door-module should not be obscured by obstacles at stop and during movement (holes in the ground, crane runways, concrete or steel pillars, shelves, etc.)
- Radio systems may be affected by other radio systems or EMC radiation. In case of frequent interferences, changing the channel may help. Should interferences occur more frequently despite the channel change, the system must be replaced by a wired system.

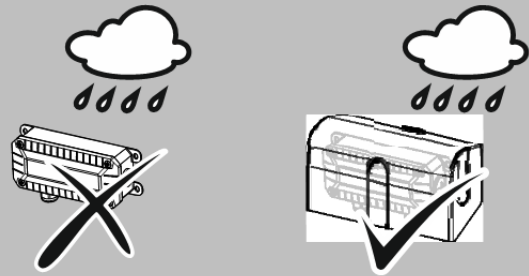


NOTICE

Damage due to moisture!

In humid areas, use the cover to protect the door leaf boxes.

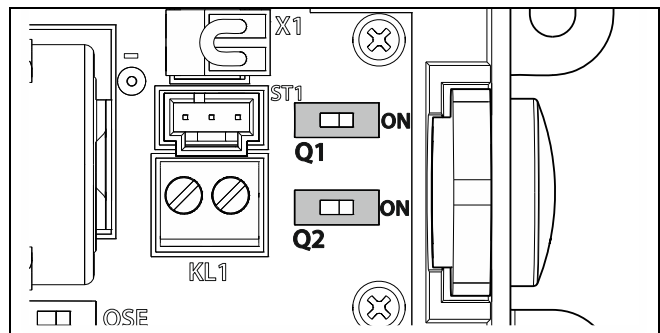
- Covers are available as accessories:
Part no.: 40017478.00001



Set switches Q1 and Q2

You will find the switches Q1/Q2 on the board. Q1/Q2 are used to switch the cross-fault monitoring (see page 2 for definition) of the slack-rope and pass-door switches.

Select the required setting from the following table.



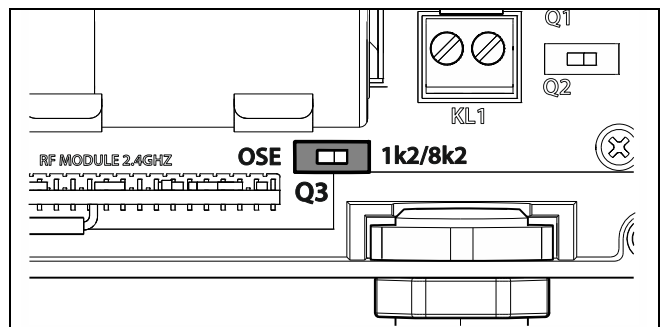
Slack-rope switch	Pass-door switch	Q1	Q2
2 switches with cross-fault monitoring	One switch with cross-fault monitoring	on	on
	One switch without cross-fault monitoring	on	off
	Without switch	on	off
2 switches without cross-fault monitoring	One switch with cross-fault monitoring	off	on
	One switch without cross-fault monitoring	off	off
	Without switch	off	off
Without switch	One switch with cross-fault monitoring	off	on
	One switch without cross-fault monitoring	off	off
	Without switch	off	off

Table: Set Q1 and Q2

Set switch Q3

Use switch Q3 to select the type of safety edge.

Safety edge type	Switch position
Optical	left
Pneumatic	right
Electrical	right



Laying the cables

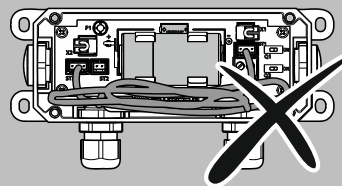
NOTICE Impairment of radio capacity!

Do not route the cables over the antenna. This restricts the radio capacity and the battery service life is reduced! ❶

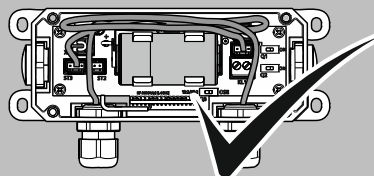
- Route excess cable over the battery. ❷

- Avoid excess cable length in the door leaf boxes by laying a loop in the profile. ❸

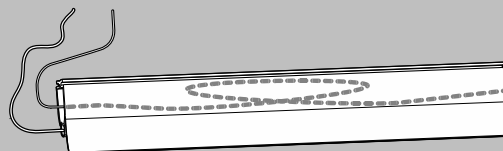
❶



❷



❸



System overview

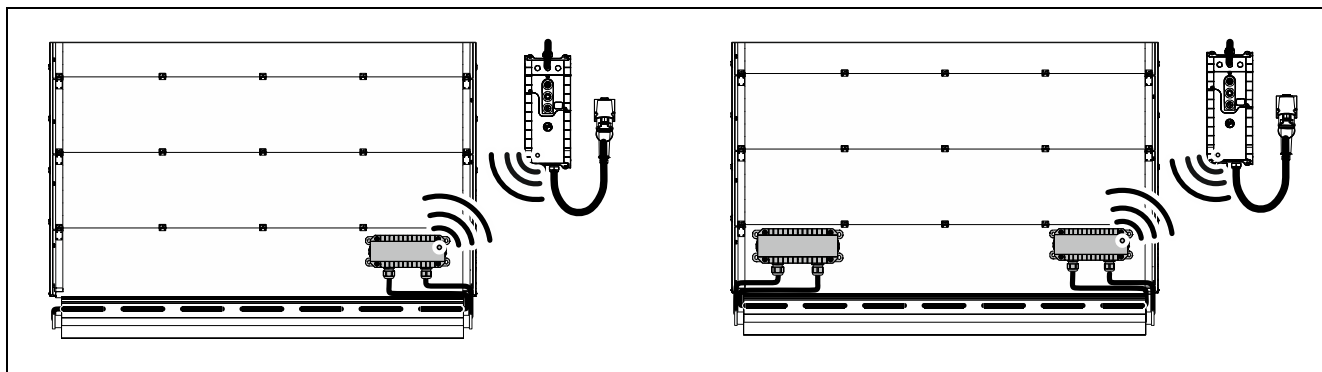
The available connection options are described below.

System 1

With one door leaf box.

System 2

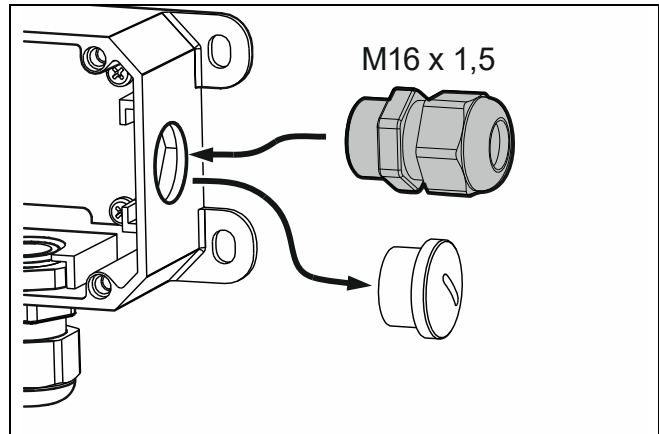
With 2 door leaf boxes, connected by one cable.



Insert cable glands

The WSD door-module is set up for connecting two slack-rope switches and one pass-door switch.

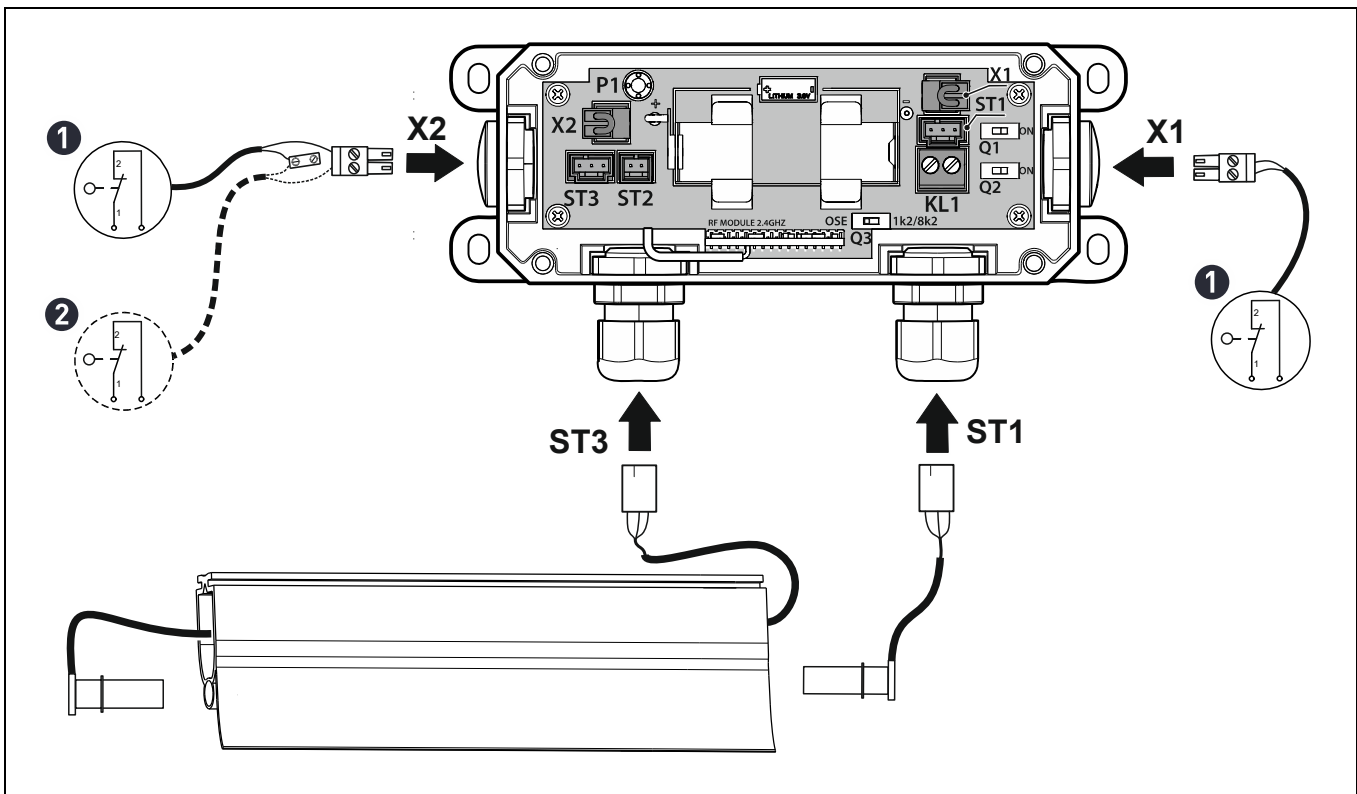
- If you want to install a pass-door or slack-rope switch, replace the side covers with M16 x 1.5 cable glands.



i NOTE

Please note that only switches with performance level c (PLc) comply with the current DIN EN 12453 standard.

Connection diagram System 1: OSE

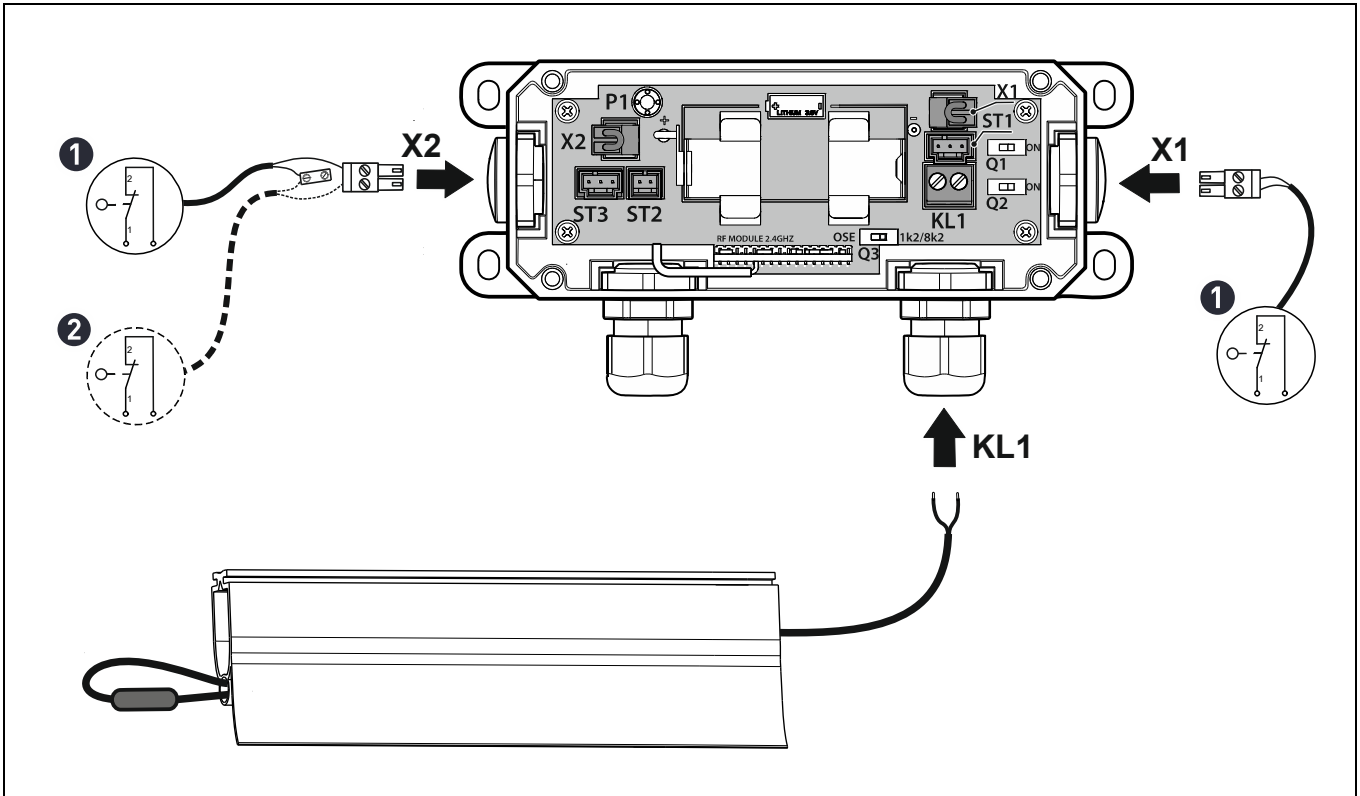


① Slack-rope switch ② Pass-door switch

i NOTE

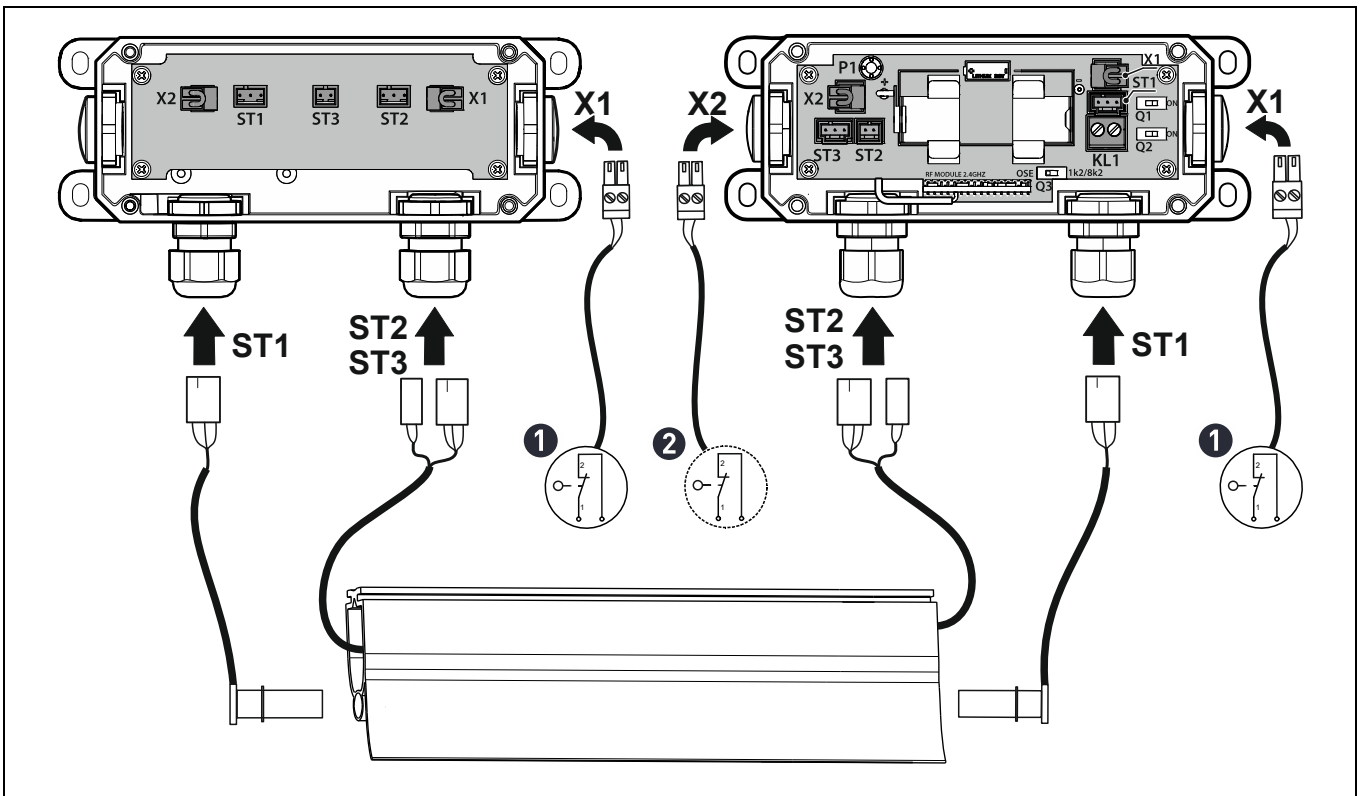
- Clamping range of the plug-in terminal for slack-rope and pass-door switches: 0.5 - 1.5mm².
- Stripping length of the single conductors: 6.5 - 7mm, provided with wire end ferrules.

Connection diagram System 1: 1k2 and 8k2



❶ Slack-rope switch ❷ Pass-door switch

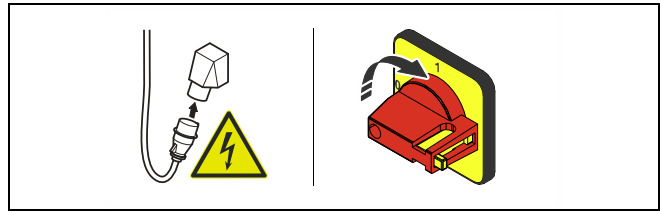
Connection diagram System 2: OSE



❶ Slack-rope switch ❷ Pass-door switch

Finish installation

- Fit the cover of the junction end box.
- Switch on the voltage.



i NOTE **Damage due to moisture**
Make sure that the screws and cable glands are tightened.

Insert battery

The WSD door-module is powered by a battery. The battery life depends on the safety edge system (optical, electrical), frequency of use and the size of the door, and is usually more than 1 year. Replace the batteries during the annual maintenance of the door system.

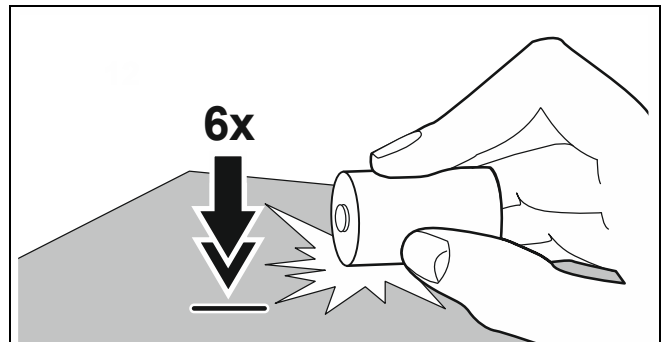
⚠ DANGER

- Do not attempt to charge the battery.
- Do not short-circuit the battery.
- Do not disassemble or deform the battery.
- Do not heat the battery. Store the battery in a cool and dry place.

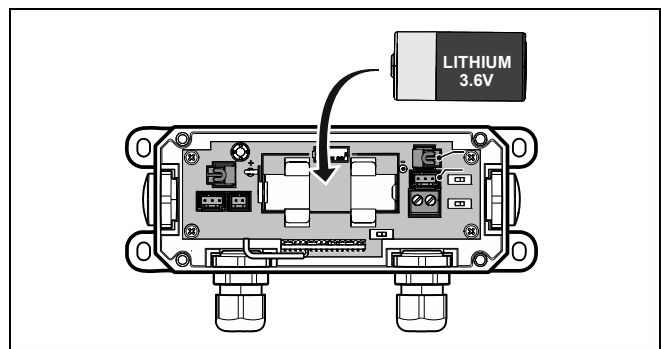
⚠ CAUTION

- Before inserting the battery, check the contact terminals of the WSD gate door-module.
- Only insert the batteries if they are clean and dry and not deformed.

- The battery must be depassivated before use. Tap the battery about 6 times on a hard level surface.

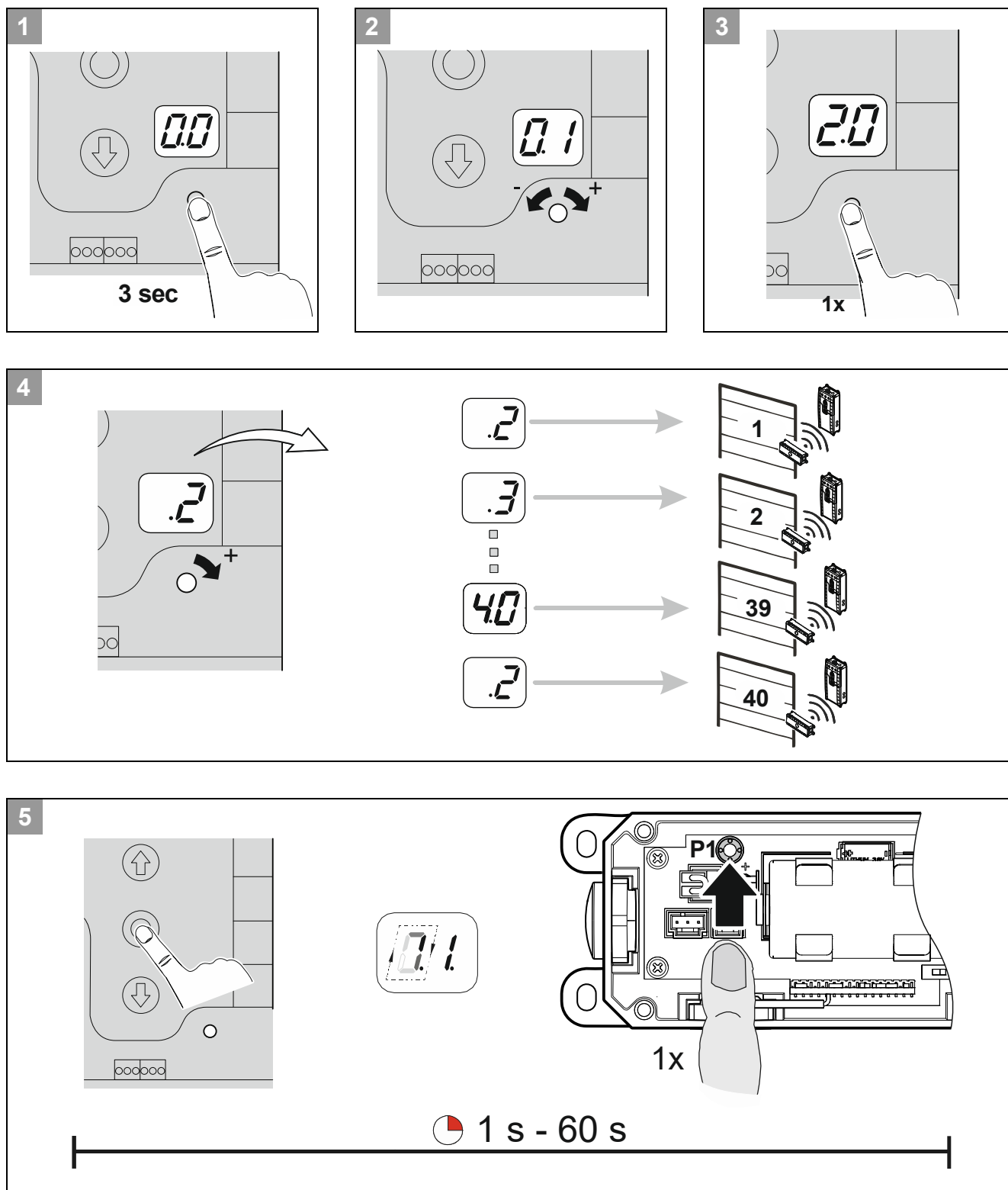


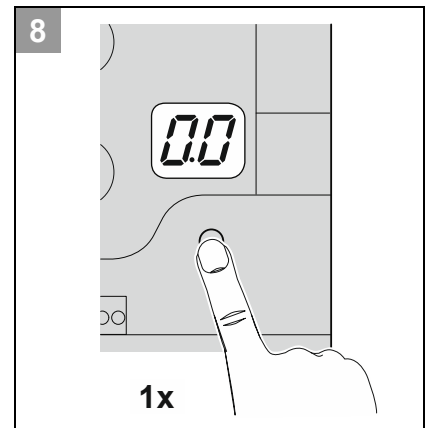
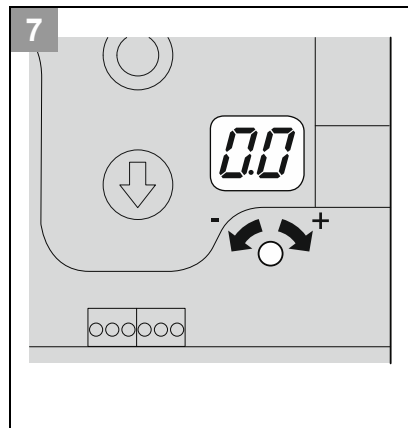
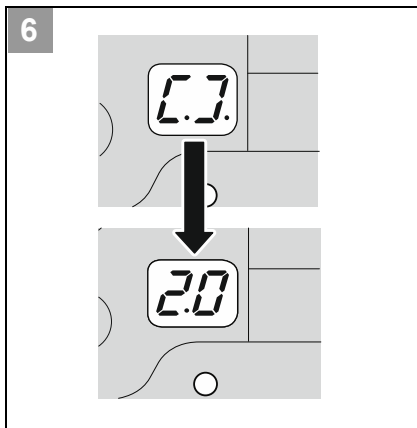
- Insert the battery.



Teach-in of WSD door-module

The following describes how to teach-in the WSD door-module on the door control. Also follow the instructions for the door control. Assign a different radio channel to each door. Note the channels in the door control housing to facilitate maintenance. Also observe the notes for selecting the channel on the following pages.

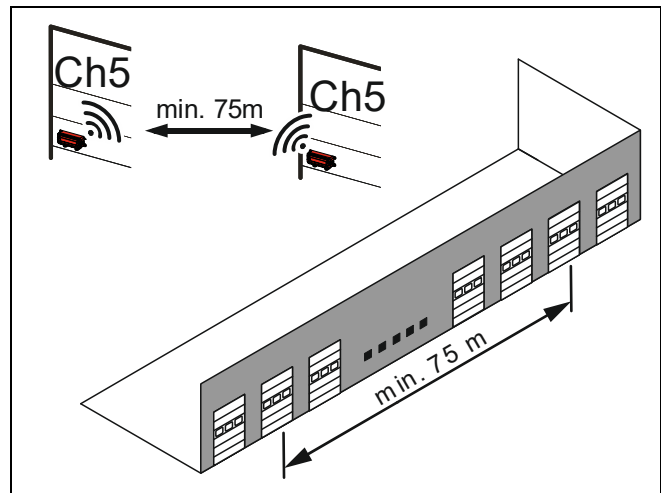




The WSD door-module is now taught-in.
Check the function of the safety edge system.

Selecting the channels

- From door 40, channels are assigned in duplicate. Duplicate radio channels must be as far apart as possible. Plan in advance and draw a hall plan.
- Consequently, if the channels are set incorrectly, the error 1.6 appears on the door control.



TS 971 > SW 1.8 = 39 channels
TS 971 < SW 1.8 = 20 channels

Also note the following frequency table:

Channel	Frequency MHz	Channel	Frequency MHz	Channel	Frequency MHz
2	2400	28	2426	15	2452
22	2402	9	2428	35	2454
3	2404	29	2430	16	2456
23	2406	10	2432	36	2458
4	2408	30	2434	17	2460
24	2410	11	2436	37	2462
5	2412	31	2438	18	2464
25	2414	12	2440	38	2466
6	2416	32	2442	19	2468
26	2418	13	2444	39	2470
7	2420	33	2446	20	2472
27	2422	14	2448	40	2474
8	2424	34	2450	21	2476

Table: Frequency overview

Disposing of old devices and batteries



Old devices and batteries marked with the adjacent symbol must not be disposed of with unsorted household waste.

Dispose of old devices and batteries appropriately in accordance with local regulations. Take old devices and batteries to the recycling and collection systems at your location. You can also return GfA products free of charge. Please apply enough postage to the package and mark it as "old devices".

i NOTE Lithium-metal battery!

The product contains an individually packed lithium-metal battery. According to the safety data sheet, the lithium content is less than 0.5 g. The batteries are protected against short circuit and must not come into contact with conductive metal.

TRANSPORTATION NOT RESTRICTED - NON-DANGEROUS GOODS.

(According to Special Provisions SP 188 ADR/RID/IMDG-Code.IATA Packing Instruction 968 Part I for lithium-metal batteries.)

- Handle the batteries with care.
- In case of damage the batteries must be disposed of properly.

Declaration of conformity

within the meaning of EMC Directive 2014/30/EU
within the meaning of RoHS Directive 2011/65/EU
within the meaning of RED Directive 2014/53/EU



GfA ELEKTROMATEN GmbH & Co. KG
Wiesenstraße 81 · 40549 Düsseldorf
Germany

Declaration of incorporation

within the meaning of Machinery Directive 2006/42/EC
for partly completed machinery, Appendix II Part B

We,
GfA ELEKTROMATEN GmbH & Co. KG
declare under our sole responsibility that the
following product complies with the above
directives and is only intended for installation in a
door system.

WSD door-module

Part no.: 30005154

Düsseldorf, 04.11.2019

Stephan Kleine
CEO

Signature

Standards applied:

EN 60335-2-103:2015

Household and similar electrical appliances -
Safety - Part 2-103: Particular requirements for
drives for gates, doors and windows

EN 61000-6-2:2005

Electromagnetic compatibility (EMC) Part 6-2
Generic standards – Immunity standard for
industrial environments

EN 61000-6-3:2007

Electromagnetic compatibility (EMC) Part 6-3
Generic standards – Emission standard for
residential, commercial and light-industrial
environments

EN 300328-2:2017

Wideband transmission systems - Data
transmission equipment operating in the 2,4 GHz
ISM band and using wide band modulation
techniques