

Hand-held transmitter wave S 425

black 5WG3 425-7AB21
silver 5WG3 425-7AB71

Product and Applications Description

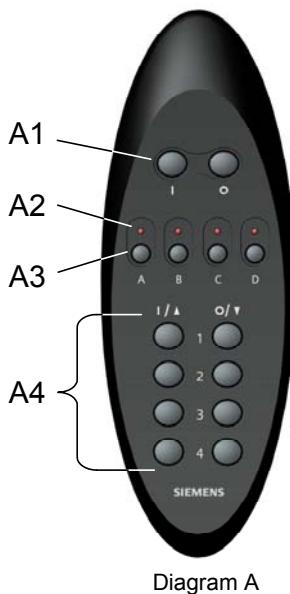


Diagram A

The hand-held transmitter wave S 425 is a radio transmitter for the wireless operation of 16 different room functions which must be triggered via 4 push button pairs and 4 selector buttons. A separate central push button pair for a central function is also available for a simplified operation. The hand-held transmitter wave S 425 can be parameterised for the following functions: switching, dimming, shutter control and scenes.

The transmitter is supplied with power via two alkaline batteries (LR03/AAA; 1.5V) that are provided with the device.

The linking of the hand-held transmitter wave to other radio-controlled components is carried out, without any additional means, via 4 DIP switches which are accessible in the battery compartment on the back of the device (Easy mode Push Button: EP).

The hand-held transmitter wave has two different operating modes:

Normal function

- Switching of switch inserts that are linked via radio
- Switching and dimming of dimmer inserts that are linked via radio
- Operation of shutter control inserts that are linked via radio
- Recalling of scenes
- Storing of scenes

Special function

- Establishing connections to other radio-controlled components
- Deleting connections to other radio-controlled components
- Selection of the standard level
- Displaying that the battery is low
- Cyclical reporting of the battery status to a control unit

OperationOperation of the channel button pairs:

Four of the channels 1 to 16 can be operated each time, whereby a level is preselected via a level selector button (A3 in Diagram A) and the function is then triggered via channel button pairs 1 to 4 (A4 in Diagram A).

Level selector button A: Channels 1 to 4

Level selector button B: Channels 5 to 8

Level selector button C: Channels 9 to 12

Level selector button D: Channels 13 to 16

After functions has been triggered via the channel button pair (1, 2, 3, 4), the preselected level remains active for approx. 5 seconds. The device then reverts to the standard level.

Level A is set as the default at the factory. Is no level LED (A2 in Diagram A) turned on, the standard level is active. The four functions of the standard level can then be triggered directly via channel pairs 1 to 4, without pressing a level selector button beforehand. It is also possible to define another level as the standard level.

Defining the standard level:

Action: Press one of the level selector buttons (A, B, C or D) for at least 10 seconds.

Display: The level LED lights up, starts to flash rapidly after approx. 10 seconds (approx. 3 times) and is then extinguished after 3 sec.

The preselected level is defined as the standard level.

Operation of the central push button pair:

Via the separate central push button pair (A1 in Diagram A), the programmed function can be triggered directly, without pressing a level selector button beforehand. The level LEDs B and C are lighting up.

Triggering functions:

The exact functionality during operation can be set according to the controlled device when linking via radio: switching, dimming, shutter control or scene functions.

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The triggering of a function (sending of a radio telegram) is indicated by the LED of the selected level which flashes briefly.

Switching (operation of a channel button or a central button for less than 0.4s):

LEFT I / ▲ ON (when connected with a dimmer, the device switches on with a stored memory value)
RIGHT 0 / ▼ OFF

Dimming (operation of a channel button or a central button for more than 0.4s):

LEFT I / ▲ Dim BRIGHTER to max. brightness
RIGHT 0 / ▼ Dim DARKER to min. brightness

Shutter STEP command (operation of a channel button or a central button for less than 0.4s):

LEFT I / ▲ STOP/louvres OPEN
RIGHT 0 / ▼ STOP/louvres CLOSED

Shutter UP/DOWN command (operation of a channel button or central button for more than 0.4s):

LEFT I / ▲ UP movement command
RIGHT 0 / ▼ DOWN movement command

Scene function:

The preset states of the lighting (ON or OFF or any brightness value) and the shutters (UP or DOWN) can be stored in a scene and set via a push button action.

Up to 16 scenes can be stored and recalled with the hand-held transmitter wave:

Level A:

Channel button 1; left: Scene 1; right: Scene 2
Channel button 2; left: Scene 3; right: Scene 4
Channel button 3; left: Scene 5; right: Scene 6
Channel button 4; left: Scene 7; right: Scene 8

Level B:

Channel button 1; left: Scene 9; right: Scene 10
Channel button 2; left: Scene 11; right: Scene 12
Channel button 3; left: Scene 13; right: Scene 14

Central button; left: Scene 15; right: Scene 16

Before saving a scene, each switch, dimming and shutter control insert (actuator) that is connected via radio must be set to the required state:

- Switch: ON or OFF
- Dimmer: Required brightness value
- Shutter: TOP or BOTTOM

When storing a scene, each connected actuator saves its current status under the scene number that has been addressed.

Scene function: Save (operation of a channel button or central button for more than 3s):

Action: Save scene 1 to 16 (according to the button that has been pressed).
Display: The LED of the selected level flashes briefly after 3 seconds, is extinguished and then lights up again after approx. 1 second.

When recalling a scene, each connected actuator is set to the state that was stored under this scene number.

Scene function: Recall (operation of a channel button or central button for less than 0.4s):

Action: Recalling scene 1 to 16 (according to the button that has been pressed).
Display: The LED of the selected level flashes briefly.

Technical Specifications**Frequency band**

868 MHz (transmission is not susceptible to interference; frequency band reserved for system and security applications)

Range of radio control

approx. 100 m in free field applications

Power supply

via two alkaline batteries (LR03/AAA; 1.5V). The service life of the batteries is approx. 5 years depending on the frequency of use.

Mechanical data

- Housing: plastic
- Dimensions (L x W x D in mm): 154 x 55 x 24
- Weight: approx. 70 g
- Fire load: approx. 800 kJ

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- Protection type (in accordance with EN 60925): IP 40
- Device complies with EN 60950

EMC requirements

complies with EN 301489-1 and -3, EN 61000-4-2, EN 61000-4-3

Environmental conditions

- Climatic withstand capability: EN 50090-2-2
- Ambient operating temperature: - 5 ... + 45°C
- Storage temperature: - 25 ... + 70°C
- Relative humidity (not condensing): 5% to 93%

Certification

Complies with **KNX** - standard
radio frequency rf
easy mode push button **EP**

CE-norm

In accordance with the EMC guideline (residential buildings), low voltage guideline and the R&TTE regulations:



The CE declaration can be inspected at:

SIEMENS AG
Siemensstraße 10
93055 Regensburg

Installation Instructions**CAUTION:**

- The device may be used in dry interior rooms only.
- The transmission range can be restricted by structural conditions (e.g. reinforced concrete) or influenced by electrical/electronic sources of interference.
- A minimum distance of 1 m must be maintained between the transmitter and the relevant receivers.
- Although the radio transmission takes place in the reliable 868 MHz frequency band, disruptions to the radio transmission cannot be ruled out.
- Radio transmission is not suitable for security applications.

Location and Function of the Display and Operating Elements**Diagram A**

- A1 Separate central push button pair for a central function
- A2 Level LEDs for displaying the operating state, the active level an the transmitting of telegrams
- A3 Level selector buttons (A, B, C, D) for the multiple assignment of the channel button pairs
- A4 4 channel button pairs (1, 2, 3, 4) to trigger four functions each which have been preset via the level selector

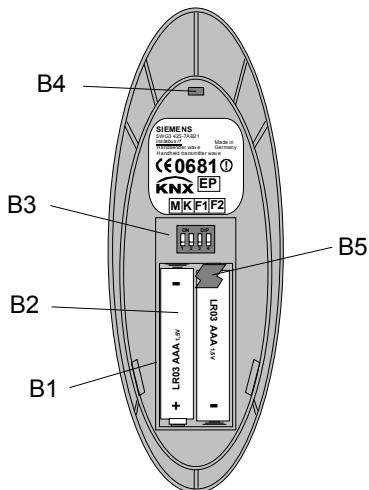


Diagram B

- B1 Battery compartment
- B2 Batteries
- B3 DIP switch for selecting the functions and for linking the hand-held transmitter via radio control
- B4 Lid locking
- B5 Insulating strips

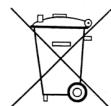
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Replacing the Battery and labelling

The level LEDs A and D flash briefly every 10 seconds to indicate that the battery needs to be replaced. To be able to replace the battery, the lid of the battery compartment on the rear of the device must be removed. The lid locking (B4 in Diagram B) at the top must be pressed downwards slightly and the lid of the battery compartment must be lifted. The lid can then be pulled upwards. Two marker tags are located under the lid of the battery compartment for labelling the programmed functions.

When replacing the batteries, the correct polarity must be observed.



The used batteries must be disposed of in accordance with the relevant regulations.

When closing the battery compartment, the marker tags must be inserted first and the lid should then slide into the catch at the bottom. The lid must then be snapped into place at the top by applying some slight pressure.

Commissioning

Note: To commission the hand-held transmitter, the insulating strips (B5 in Diagram B) that are inserted in the battery compartment must be removed.

The linking of the hand-held transmitter wave via radio control takes place via the four DIP switches that are located behind the battery compartment cover and via push button operations at the front of the device. The operating states are indicated by the level LEDs lighting up and flashing. The DIP switches that are labelled F1 and F2 must be used for setting the required function: switching, switching/dimming, shutter control or scene function. The DIP switch labelled K is used to switch the device to the special function "Connect" (teaching in). The switch labelled M is used to announce all channels of the hand-held transmitter to a control unit (for future applications).

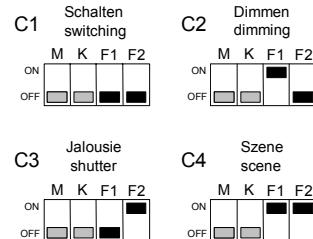


Diagram C

C1 Switching (switch function only)
 C2 Dimming (switching and dimming)
 C3 Shutter (shutter control function)
 C4 Scene (scene function)

Connection via radio:

Linking a hand-held transmitter wave to an actuator via radio (Diagram D).

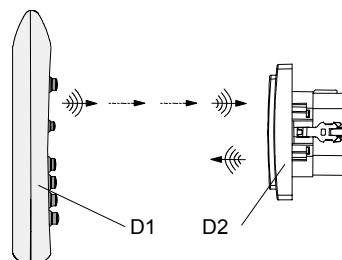


Diagram D

D1 Hand-held transmitter wave S 425
 D2 Radio-controlled actuator

1. Radio-controlled actuator: Switch to special function "Connect".

Refer to the operating instructions of the actuator.

2. Hand-held transmitter: Select function.

Action: Switch DIP switches F1 and F2 to the required function (Diagram C).

3. Hand-held transmitter: Switch to the special function "Connection via radio" with DIP switch K.

Action: Switch DIP switch K to the ON (top) position (E1 in Diagram E).

Display: All four level LEDs light up.

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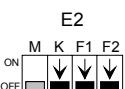
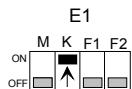
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Diagram E

4. Hand-held transmitter: Triggering the connection telegram for the channel that is to be programmed.

Action: Select the required level via a level selector button (also for the standard level).
 Display: Only the selected level LED lights up.
 Action: Press a channel button for the channel that is to be connected (left or right button). The hand-held transmitter sends a connection telegram.
 Display: The level LED flashes rapidly for approx. 3 seconds (approx. 3 times per second) and then slowly 3 times (approx. once per second). All four level LEDs then light up.

Note: The level selector buttons B and C should be pressed simultaneously for connecting the central push buttons. The connection telegram should then be triggered by pressing one of the central push buttons.

5. Hand-held transmitter: Reset the DIP switches

Action: Switch all the DIP switches to the OFF (bottom) position (E2 in Diagram E).
 Display: All the level LEDs are extinguished.

The connection of the selected hand-held transmitter channel to the actuator is hereby established.

If the DIP switches are not switched back to the OFF position after the connection, the hand-held transmitter remains in the special function "Connect" and further actuators can be linked via radio. To this, points 1, 2 (for another function) and 4 should be repeated.

If a channel of the hand-held transmitter is linked incorrectly with several inserts with different functions (switching, dimming, shutter control or scene function), the last set function remains active.

Note: Switch and dimmer inserts can be controlled together in groups. The common operation of lighting and shutter control functions is possible via scenes.

Linking a scene function via radio:

1. Actuator: Switch to special function "Connect".
2. Hand-held transmitter: Select the scene function via DIP switches F1 and F2 (C4 in Diagram C).
3. Hand-held transmitter: Set the special mode "Connect" with DIP switch K (E1 in Diagram E).
4. Hand-held transmitter: Trigger the connection telegram for the required channel (two scenes). (Press the level selector button followed by the required channel button).

If more push button pairs should be used, steps 1 and 4 have to be repeated.

Steps 1 and 4 should likewise be repeated for all other actuators that are involved in the scene function.

5. Hand-held transmitter: Switch all DIP switches back to the OFF position.

Note: Only channel buttons 1 to 4 on level A, channel buttons 1 to 3 on level B and the central push button pair may be used for scene functions.

When assigning scenes, it should be ensured that there is no unintentional overlap with other radio-controlled transmitters as these devices use the same scene numbers (scenes 1 to 4 of the hand-held transmitter are identical to scenes 1 to 4 of a wall-mounted transmitter).

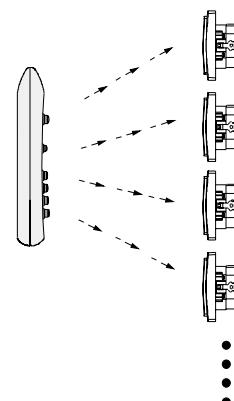


Diagram F

It is possible to operate an unlimited number of actuators remotely with a hand-held transmitter wave (Diagram F).

Deleting a connection:

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Notes

The deletion of a link is carried out by reconnecting the device via radio control.

Deletion of the connection between the hand-held transmitter and the actuator (Diagram D).

1. Actuator: Switch to special function "Connect".
2. Hand-held transmitter: Select the taught-in function via DIP switches F1 and F2.
3. Hand-held transmitter: Set the special mode "Connect" with DIP switch K.
4. Hand-held transmitter: Press the level selector button for the connection that is to be deleted followed by the channel button.
5. Hand-held transmitter: Switch the DIP switch back to the OFF position.

The connection of this hand-held transmitter channel to the actuator is thereby deleted.

General Notes

- The operating instructions should be handed over to the customer.
- Any faulty devices should be returned to the local SIEMENS office.
- If you have additional queries regarding the product, please contact our Technical Support department:



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www.siemens.de/automation/support-request