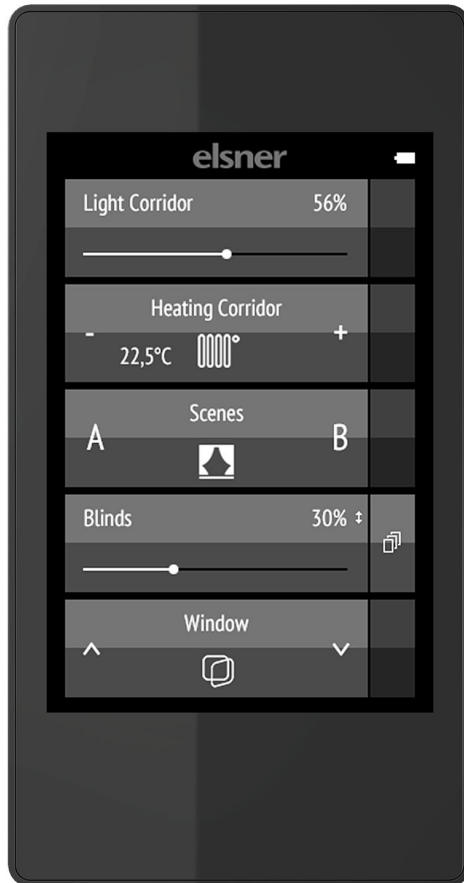




# Remo KNX

## Remote Control

Item number 70747





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Installation, inspection, commissioning and troubleshooting of the device must only be carried out by a competent electrician.

This manual is amended periodically and will be brought into line with new software releases. The change status (software version and date) can be found in the contents footer. If you have a device with a later software version, please check **www.elsner-elektronik.de** in the menu area "Service" to find out whether a more up-to-date version of the manual is available.

## Clarification of signs used in this manual



Safety advice.



Safety advice for working on electrical connections, components, etc.

### **DANGER!**

... indicates an immediately hazardous situation which will lead to death or severe injuries if it is not avoided.

### **WARNING!**

... indicates a potentially hazardous situation which may lead to death or severe injuries if it is not avoided.

### **CAUTION!**

... indicates a potentially hazardous situation which may lead to trivial or minor injuries if it is not avoided.



**ATTENTION!** ... indicates a situation which may lead to damage to property if it is not avoided.

### ETS

In the ETS tables, the parameter default settings are marked by underlining.



---

# 1. Description

---

The colour touchscreen of **Remote Control Remo KNX RF** can be used to manually to control bus participants in the KNX system. **Remo KNX RF** uses the KNX RF S standard. The possible functions are

- Switch
- Dimm
- Move the drives of awnings, shutters, blinds or windows
- Change the temperature (for heating/cooling)
- Change RGBW light colour
- Change light colour temperature
- Call and save scenes
- Operate media equipment
- Indicate bus values (e.g. status, sensor values).

The channels are set in the ETS. However, they can be individually sorted and named on the display.

### **Functions:**

- Operation via the touch display
- Lithium battery, chargeable via a USB-2.0 Micro-B charger (Charger No 10155 as an optional accessory). Battery level status and a warning at <20% battery charge can be sent via the bus
- 32 channels, wireless standard KNX RF, S-Mode
- The touch buttons can be named individually, directly on the device or in the ETS
- The display sequence can be changed directly on the device
- Setting functions on the display can be locked (and unlocked) via the application and the bus

Configuration is made using the KNX software ETS 5. The **product file** can be downloaded from the ETS online catalogue and the Elsner Elektronik website on **www.elsner-elektro-nik.de** in the "Service" menu.

If communication with wired KNX devices (KNX TP) is necessary, a media coupler that connects KNX RF and KNX TP is needed (e.g. KNX RF LC-TP No 70710).



### **ATTENTION!**

**Radio transmission takes place on a non-exclusive transmission path!**

The device is not suitable for applications in the field of safety engineering, e.g. emergency stop, emergency call.

---



**Moisture is harmful to the electronic components of the remote control. You must therefore:**

- **Not leave it in the rain**
  - **Not leave it outside overnight**
  - **Protect it from frost**
-

## 1.1. Deliverables

---

- Wireless remote control with integrated battery
- USB cable 0.5 m (USB-A plug to USB-B micro plug)

## 1.2. Technical specifications

---

Housing	Plastic
Colour	black
Protection category	IP 40
Dimensions	approx. 64 x 122 x 11 (B x H x T, mm)
Display	colour TFT, capacitive, dimmable, resolution 320 x 480 Pixel
Weight	approx. 100 g
Ambient temperature	operating 0...50 °C, storage -10...+60 °C
Ambient humidity	max. 95 % RH, avoid condensation
Operating voltage	integrated battery 3.8 V DC
Wireless frequency	868.2 MHz
Channels	32
Data output	KNX RF (S-Mode)
BCU Type	own micro controller
PEI Type	0
Group addresses	max. 512
Assignments	max. 1024
Communication objects	417

The product is compliant with the provisions of EC guidelines.

## 1.3. Notes on wireless equipment

---

When planning facilities with devices that communicate via radio, adequate radio reception must be guaranteed. The range will be limited by legal regulation and structural circumstances. Avoid sources of interference and obstacles between receiver and transmitter, that could disturb the wireless communication. Those would be for example:

- Walls and ceilings (especially concrete and solar protection glazing).
- Metal surfaces next to the wireless participants (e. g. aluminium construction of a conservatory).
- Other wireless devices and powerful local transmitters (e.g. wireless headphones), which transmit on the same frequency. Please maintain a minimum distance of 30 cm between wireless transmitters for that reason.



## 2. First use/set-up

---

### 2.1. Loading the battery, transport block

---



First, charge the integrated battery of the remote control with a standard commercial USB charging device (USB 2.0 Micro B connector). Charging will reset the transport block that is active on delivery. The remote control can be used only once it is connected to the power supply via the charging cable.

If necessary, the transport block can be reactivated within the *System* menu (see manual, chapter *System*).

The charge level of the battery and a warning if the level is under 20% can be sent via the bus. Battery charge level and low-battery warning (bus notification). See manual, *System* chapter.

The battery of the device cannot be removed or replaced. When disposing of the device, observe the guidelines for disposing of devices with an integrated battery.

### 2.2. Protective film

---

Remove the protective film from the display.

### 2.3. Set-up procedure

---

1. Required: Configuration of the channels in the ETS (version 5 and later).  
See manual, chapter *Setting the channels in the ETS*.
2. Required: Programming the device  
See manual, chapter *Programming the remote control*.
3. Optional: Change the names and the channel sequence in the *wireless channel configuration* menu.  
See manual, chapter *Wireless channel configuration*.



Display view during first set-up

## 3. Using the remote control

### 3.1. Automatic switch-off

The display of the remote control switches on when the device is moved (e.g. if the remote control is picked up) and switches off again after several seconds to save energy. The time until switch-off can be set in the *Display* menu (see Chapter 3.2. *Display*, page 8).

### 3.2. Display

The display shows all channels one after another. The sequence can be changed in the *Wireless channel configuration > Change channel order* menu (see manual, Chapter *Change channel order*). Keep in mind that access to these setting menus can be locked. Locking/unlocking can be done via the ETS application or the bus (communication object).

If more than five drives/devices are taught, the display uses several pages to show them. Use the **Up/down** arrow buttons to change page.

### 3.3. Operating drives and devices

#### 3.3.1. Control media

*e.g. music, film*



















With multiple-page views, the media control can be accessed via the small button at the top right of Page 1.




If the view has only one page, the media page can be opened via its own button.

The operating options available depend on the selection in the ETS. The following functions are available:

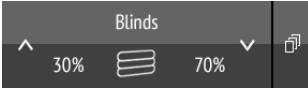
	Back to remote control view (Page 1)
ON	Switch device on
OFF	Switch device off
	Switch device on/off (combined view)
	Device is off (combined view)
	Device is on (combined view)
	Update
	Previous title
	Display title information, album, interpret
	Next title
	Previous playlist
	Playlist view
	Next playlist
	Repeat
	Play
	Pause
	Play/Pause (combined view)
	Shuffle (play the titles in random order)
	Higher
	Mute
	Lower

### 3.3.2. Moving drives (Up/Down)

*Shutter, blind, awning or window*

'Buttons' and 'sliders' can be activated as operating interfaces in the ETS. If multiple interfaces are active, you can switch between the views using the right area of the bar (side symbol .

### Buttons:



**Tap on the up or down arrow** to position the drive.


The reaction of the buttons to the short tap/longer holding, as well as the display of the position, depends on the settings in the ETS.

The position of the drive is shown in the button, left of the symbol, if the 'Feedback' setting was activated in the ETS. With shutters, the slat position can also be displayed (right side of the symbol).

### Sliders:

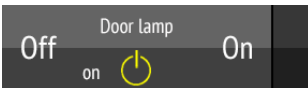


**Shift the point on the line to position the drive.** If 'feedback' is activated in the ETS, then the current curtain height will be displayed in %, and the position of the point on the line will correspond to the current curtain position as soon as feedback is received.

In case of shutters, a second slider can be activated in the ETS for the slat position (.

**ETS settings**, see manual, Chapter *Channel 1...8*, sections about *shutters*, *blinds*, *awnings* or *windows*.

### 3.3.3. Switching devices (on/off)




**Tapping the right side of the bar switches the device on. Tapping the left side of the bar switches the device off.** The buttons can be provided with a label, in the ETS, in the menu *Wireless channel configuration* > *On/Off text* (see manual, Chapter *Changing the On/Off Text*).

If the 'Feedback' setting is activated in the ETS, the status reported by the bus (text, on/yellow symbol or off/grey symbol) is displayed. Otherwise, there is no feedback for the status. The feedback text can be changed in the ETS in the menu *Wireless channel configuration* > *Feedback text* (see manual, Chapter *Changing the Feedback Text*).

**For ETS settings**, see manual, Chapter *Channel 1...8*, section *Switching*.

### 3.3.4. Dimming

---

'Buttons' and 'sliders' can be activated as operating interfaces in the ETS. If multiple interfaces are active, you can switch between the views using the right area of the bar (side symbol )

#### Buttons:



**A shorter tap on + switches on**, tapping on - **switches off**.

**A longer tap on + adjusts the light to a brighter setting**, holding -, **to a darker setting**. If you release the key, the brightness stops changing.

The time interval between short and long and other parameters are set in the ETS. If the 'Feedback' setting is activated in the ETS, the status reported by the bus (on/yellow symbol or off/grey symbol) is displayed. Otherwise, there is no feedback for the status.

The dimming percentage is shown in the button, left of the symbol, if the 'Feedback' setting was activated in the ETS.

#### Sliders:




**Shift the point on the line to dim the lights.** If 'feedback' is activated in the ETS, then the current brightness will be displayed in %, and the position of the point on the line will correspond to the current brightness as soon as feedback is received.

**For ETS settings**, see manual, Chapter *Channel 1...8*, section *Dimming*.

### 3.3.5. RGB(W) lights

---

To set individual light values for red, green, blue and white, use the buttons to switch the lights on/off, and three (RGB) or four (RGBW) sliders to adjust the colour.

These functions can all be placed on a single channel (i.e. one bar). In this case, you can switch between the functions using the right area of the bar (side symbol )

However, the functions can be distributed over multiple channels, so that switching and colour control can be carried out via multiple adjacent bars. The configuration takes place in the ETS.

#### **Sending settings to the lights:**

Depending on the settings, the changes on the RGBW sliders will be sent directly to the lights, or the settings will only be sent if you remain on the right button (on) longer.

### On/off buttons:



**Tapping the right side of the bar switches the device on. Tapping the left side of the bar switches the device off.** The buttons can be provided with a label, in the ETS, in the menu *Wireless channel configuration > On/Off text* (see manual, Chapter *Changing the On/Off Text*).

If the 'Feedback' setting is activated in the ETS, the status reported by the bus (text) is displayed. Otherwise, there is no feedback for the status. The feedback text can be changed in the ETS in the menu *Wireless channel configuration > Feedback text* (see manual, Chapter *Changing the Feedback Text*).

### Colour view:

The current colour setting is shown in a box on the bar; the representation on the display can deviate severely from the actual light colour.

RGB luminaire without feedback: 1 box

set RGB mixed value
------------------------

RGBW luminaire without feedback: 2 boxes

set RGB mixed value
set white value

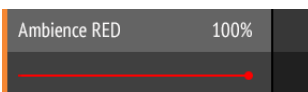
RGB luminaire with feedback: 2 boxes

RGB feedback value	set RGB mixed value
-----------------------	------------------------

RGBW luminaire with feedback: 4 boxes

RGB feedback value	set RGB mixed value
white feedback value	set white value

### Sliders:




**Shift the point on the line to change the light colour with the red, green, blue and white parameters.** The colour bar on the left shows the colour; the representation on the display can deviate severely from the actual light colour.

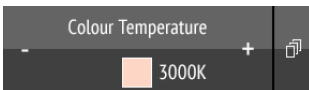
If 'feedback' is activated in the ETS, then the current brightness will be displayed in %, the position of the point on the line will correspond to the current brightness, and the colour bar will update as soon as feedback is received.

**For ETS settings,** see manual, Chapter *Channel 1...8*, section *RGBW*.

### 3.3.6. Lights with adjustable colour temperature

'Buttons' and 'sliders' can be activated as operating interfaces in the ETS. If multiple interfaces are active, you can switch between the views using the right area of the bar (side symbol )

#### Buttons:



**Holding + switches the device on;** holding - **switches the device off.**

**Tapping + makes the light colder;** tapping -, **warmer.**

The time interval between short and long and other parameters are set in the ETS. If the 'Feedback' setting is activated in the ETS, the colour temperature value reported by the bus (colour field red (warmer light), blue (colder light) and Kelvin value) is displayed. Otherwise, there is no feedback for the status.

#### Sliders:




**Shift the point on the line to change the colour temperature.** If 'feedback' is activated in the ETS, then the current colour temperature will be displayed in Kelvins (K), and the position of the point on the line will correspond to the current colour temperature as soon as feedback is received.

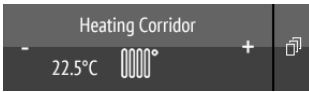
The colour bar on the right indicates the colour tendency towards warm or cold with red-dish, white or bluish colours.

**For ETS settings,** see manual, Chapter *Channel 1...8*, section *Colour temperature*.

### 3.3.7. Changing temperature

#### *Adjusting heating or cooling*

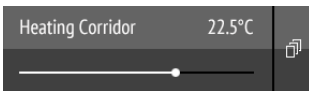
'Buttons' and 'sliders' can be activated as operating interfaces in the ETS. If multiple interfaces are active, you can switch between the views using the right area of the bar (side symbol )

**Buttons:**

**Tap+** to increase the target temperature.

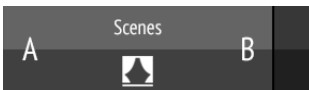
**Tap-** to reduce the target temperature.

The current target temperature is shown in the button, left of the symbol, if the 'Feedback' setting was activated in the ETS (always for temperature objects). The way the temperature change takes place is set in the ETS.

**Sliders:**

**Shift the point on the line to change the temperature.** If 'feedback' is activated in the ETS, then the current target temperature will be displayed in C° as soon as feedback is received.

**For ETS settings,** see manual, Chapter *Channel 1...8*, section *Temperature*.

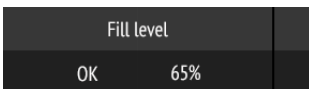
**3.3.8. Scenes**

Each scene button is used to control two scenes: The left button half for one, and the right button half for the other scene.

**Tap** a button half for a short time to **call the scene**.

**Holding it longer saves the scene** in the current state (e.g. movement position, dimming level etc.), provided this function was activated in the ETS.

**For ETS settings,** see manual, Chapter *Channel 1...8*, section *Scene*.

**3.3.9. Measured value view**

A bar can be used as a display area for values from the bus system. Actions not possible.

**For ETS settings,** see manual, Chapter *Channel 1...8*.



## 4. Care and maintenance

Please carefully clean the remote control with a damp cloth. Do not use detergent.

### 4.1. Troubleshooting

**Problem:** The display is off, the remote control does not react:

Cause	Procedure
Transport block active	Please connect the remote control to the power supply using a charging cable. This deactivates the lock.
Battery not charged	Please connect the remote control to the power supply using a charging cable to charge the battery. The charge status is shown with the battery symbol at the top right corner of the operation pages.

**Problem:** The display is on, the device/drive does not react to button presses:

Cause	Procedure
Wireless contact has been lost, transmitter is too far away from the receiver	Choose another location
No voltage to receiver unit or faulty receiver unit	Switch on the receiver unit (e.g. the control unit). Should wireless contact still not be established, please contact Customer Service

**Problem:** Menu cannot be accessed (the menu does not appear if the upper bar is swiped from the top downwards):

Cause	Procedure
Menu locked	Unlock the menu in the ETS application or via the corresponding communication object

## 5. Channel setting in the ETS

### 5.1. Transfer protocol

#### Abbreviations:

R Read

W Write

C Communication

T Transfer

U Update

No	Text	Function	Flags	DPT type	Size
1	System: Block settings (0: block,1: unblock)	Input	RWCT	[1.3] DPT_Enable	1 Bit
2	System: Low battery	Output	R-CT	[1.2] DPT_Bool	1 Bit
3	System: Battery charge [%]	Output	R-CT	[5.4] DPT_Percent_U8	1 Byte
<b>Media page</b> (Objects 10-32)					
10	Media: On/off	Output	--CT	[1.1] DPT_Switch	1 Bit
11	Media: Off	Output	--CT	[1.1] DPT_Switch	1 Bit
12	Media: On/off feedback	Input	-WCT	[1] 1.xxx	1 Bit
13	Media: Playback	Output	--CT	[1.1] DPT_Switch	1 Bit
14	Media: Pause	Output	--CT	[1.1] DPT_Switch	1 Bit
15	Media: Playback feedback	Input	-WCT	[1.1] DPT_Switch	1 Bit
16	Media: Increase/decrease volume	Output	--CT	[3] 3.xxx	4 Bit
17	Media: Volume [%] Feedback	Input	-WCT	[5.4] DPT_Percent_U8	1 Byte
18	Media: Volume [%]	Output	--CT	[5.1] DPT_Scaling	1 Byte
18	Media: Next title	Output	--CT	[1] 1.xxx	1 Bit
20	Media: Previous title	Output	--CT	[1] 1.xxx	1 Bit
21	Media: Current title	Input	-WCT	[16] 16.xxx	14 Bytes
22	Media: Current artist	Input	-WCT	[16] 16.xxx	14 Bytes
23	Media: Current album	Input	-WCT	[16] 16.xxx	14 Bytes
24	Media: Next playlist	Output	--CT	[1] 1.xxx	1 Bit
25	Media: Previous playlist	Output	--CT	[1] 1.xxx	1 Bit
26	Media: Current playlists	Input	-WCT	[16] 16.xxx	14 Bytes
27	Media: Shuffle	Output	--CT	[1.1] DPT_Switch	1 Bit
28	Media: Repeat	Output	--CT	[1.1] DPT_Switch	1 Bit
29	Media: Mute	Output	--CT	[1.1] DPT_Switch	1 Bit
30	Media: Shuffle feedback	Input	-WCT	[1] 1.xxx	1 Bit
31	Media: Repeat feedback	Input	-WCT	[1] 1.xxx	1 Bit

No	Text	Function	Flags	DPT type	Size
32	Media: Mute feedback	Input	-WCT	[1] 1.xxx	1 Bit
<b>Channel 1</b> (Objects 35-46)					
35	Channel 1: Left display	Input	-WCT	Depending on setting	14 Bytes
36	Channel 1: 2 A	Input	-WCT	[5..10] DPT_Value_1_Ucount	1 Byte
37	Channel 1: 3 A	Input	-WCT	[5] 5.xxx	1 Byte
38	Channel 1: 4 A	Input	-WCT	[5] 5.xxx	1 Byte
39	Channel 1: 5 A	Input	-WCT	[5] 5.xxx	1 Byte
40	Channel 1: 6 A	Input	-WCT	[5] 5.xxx	1 Byte
41	Channel 1: Right display	Input	-WCT	Depending on setting	4 Bytes
42	Channel 1: 2 B	Input	-WCT	[5] 5.xxx	1 Byte
43	Channel 1: 3 B	Input	-WCT	[5] 5.xxx	1 Byte
44	Channel 1: 4 B	Input	-WCT	[5] 5.xxx	1 Byte
45	Channel 1: 5 B	Input	-WCT	[5] 5.xxx	1 Byte
46	Channel 1: 6 B	Input	-WCT	[5] 5.xxx	1 Byte
		<b>Channel 17</b> (Objects 227-238) see Channel 1			
<b>Channel 2</b> (Objects 47-58) see Channel 1		<b>Channel 18</b> (Objects 239-250) see Channel 1			
<b>Channel 3</b> (Objects 59-70) see Channel 1		<b>Channel 19</b> (Objects 251-262) see Channel 1			
<b>Channel 4</b> (Objects 71-82) see Channel 1		<b>Channel 20</b> (Objects 263-274) see Channel 1			
<b>Channel 5</b> (Objects 83-94) see Channel 1		<b>Channel 21</b> (Objects 275-286) see Channel 1			
<b>Channel 6</b> (Objects 95-106) see Channel 1		<b>Channel 22</b> (Objects 287-298) see Channel 1			
<b>Channel 7</b> (Objects 107-118) see Channel 1		<b>Channel 23</b> (Objects 299-310) see Channel 1			
<b>Channel 8</b> (Objects 119-130) see Channel 1		<b>Channel 24</b> (Objects 311-322) see Channel 1			
<b>Channel 9</b> (Objects 131-142) see Channel 1		<b>Channel 25</b> (Objects 323-334) see Channel 1			
<b>Channel 10</b> (Objects 143-154) see Channel 1		<b>Channel 26</b> (Objects 335-346) see Channel 1			
<b>Channel 11</b> (Objects 155-166) see Channel 1		<b>Channel 27</b> (Objects 347-358) see Channel 1			
<b>Channel 12</b> (Objects 167-178) see Channel 1		<b>Channel 28</b> (Objects 359-370) see Channel 1			
<b>Channel 13</b> (Objects 179-190) see Channel 1		<b>Channel 29</b> (Objects 371-382) see Channel 1			

No	Text	Function	Flags	DPT type	Size
<b>Channel 14</b>	(Objects 191-202) see Channel 1	<b>Channel 30</b>	(Objects 383-394) see Channel 1		
<b>Channel 15</b>	(Objects 203-214) see Channel 1	<b>Channel 31</b>	(Objects 395-406) see Channel 1		
<b>Channel 16</b>	(Objects 215-226) see Channel 1	<b>Channel 32</b>	(Objects 407-418) see Channel 1		

## 5.2. System

Set the menu block and battery information.

### System menu:

The system menu can be blocked/unblocked via Object 1. With the menu blocked, no adjustments (e.g. name, sequence) can be introduced in the device.

Block/unblock the system menu via a bit object	<u>No</u> • Yes
--	-----------------

### Battery:

Set if the battery charge or a notification of low battery charge (under 20%) should be transmitted via the bus. The information is sent on initialisation, i.e. when the display switches on (automatically when you take the device in your hand).

Send the bit object after initialisation if the battery charge is under 20%	<u>No</u> • Yes
Send the battery charge value after initialisation	<u>No</u> • Yes

## 5.3. Media page

Set up page for media control

Activate the media equipment page.





Use media equipment page	No • <u>Yes</u>
--------------------------	-----------------

Activate the necessary operating functions and operate the sent and feedback values.

### On/off:

Use play/pause	No • <u>Yes</u>
Use separate symbols	• <u>No</u> ON OFF • Yes   ○ ○
Sending for on	0 • <u>1</u>
Sending for off	<u>0</u> • 1
Return value for on	0 • <u>1</u>

**Play/pause**

Use play/pause	No • <u>Yes</u>
Use separate symbols	• <u>No</u>  • <u>Yes</u>   
Sending for on	0 • <u>1</u>
Sending for off	<u>0</u> • 1
Return value for playback	0 • <u>1</u>

**Title information:**

Display title information	No • <u>Yes</u>
---------------------------	-----------------

**Next/previous title:** ◀ ▶

Use next/previous title	No • <u>Yes</u>
Sending for next title	0 • <u>1</u>
Sending for previous title	<u>0</u> • 1

**Playlist:** ◀▶

Use playlist	No • <u>Yes</u>
Sending for next playlist	0 • <u>1</u>
Sending for previous playlist	<u>0</u> • 1

**Repeat:** ↺



Repeat use	No • <u>Yes</u>
Sending for activation	0 • <u>1</u>
Sending for deactivation	<u>0</u> • 1
Return value if active	0 • <u>1</u>

**Shuffle (random playback):** 🔀

Use shuffle	No • <u>Yes</u>
Sending for activation	0 • <u>1</u>
Sending for deactivation	<u>0</u> • 1
Return value if active	0 • <u>1</u>

**Mute:** 🔇

Use mute	No • <u>Yes</u>
Sending for activation	0 • <u>1</u>
Sending for deactivation	<u>0</u> • 1
Return value if active	0 • <u>1</u>

**Volume:**  

Use volume	No • <u>Yes</u>
Send volume as an absolute value	0 • <u>1</u>
Repetition of the volume command on long button press	<u>every 0.1 s...</u> • Every 2 s
Change volume by	100% • 50% • 25% • 12.50% • <u>6 %</u> • 3% • 1.50%

## 5.4. Channel activation

*Activate channels for use.*

Activate the channels you want to use. Channels that are not activated are not shown in the device.

Use channel 1...32	<u>No</u> • Yes
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## 5.5. Channel 1...8

*Configure channel labels and functions for each specific channel.*

### **Labels:**

**Labels** can be added to the channel for better overview in the ETS and the device.

The **label for objects** is placed in front of all the objects of this channel, making their assignment more recognisable in the ETS.

Channel labelling for objects	[Free text max. 20 characters]
-------------------------------	--------------------------------

With **Label for display**, the name that is shown on the display of the remote control can be set. On the display itself, however, a custom name can be set at any time, and the ETS name can be hidden (see *Wireless channel configuration > 7.2.1. Changing channel name, Seite 31*).

Channel labelling for display	[Free text max. 20 characters]
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### **Functions:**

First, choose whether the channel should be used for display or for input (remote control).

Type	Display • <u>Input</u>
------	------------------------

'Input' enables switching, dimming, drive control (shutters, blinds, awnings or windows), temperature or scene functions.

Function	<ul style="list-style-type: none"> <li>• <b>Switching</b></li> <li>• Dimming</li> <li>• RGB/RGBW</li> <li>• Colour temperature</li> <li>• Shutter</li> <li>• Blinds</li> <li>• Awning</li> <li>• Window</li> <li>• Temperature</li> <li>• Scene</li> </ul>
----------	--

### Display type:

If the channel is to be used to display information from the bus system, then choose the 'Display' type and set what should be displayed in the left and the right halves of the screen.

Type	Display
Right function	<ul style="list-style-type: none"> <li>• do not use</li> <li>• 1/0</li> <li>• 8-bit value 0...255</li> <li>• 8-bit value 0...100%</li> <li>• 8-bit value 0...360°</li> <li>• 16-bit value counter with sign</li> <li>• 16-bit value counter without sign</li> <li>• 16-bit floating point value</li> <li>• 32-bit value counter with sign</li> <li>• 32-bit value counter without sign</li> <li>• 32-bit floating point value</li> </ul>
Left function	as right function, additionally: <ul style="list-style-type: none"> <li>• 14 byte text</li> </ul>

### Input type – Switching:

If the channel should be used to switch a channel on and off (switching actuator), select 'Input' type and the 'Switching' function and determine if after completing a switching command, feedback should be sent to the remote control.

Type	<b>Input</b>
Function	<b>Switching</b>
Use feedback	<u>No</u> • Yes

Enter the label for the 'switched-on' and 'switched-off' states. The label can also be changed directly on the device.

Channel label for display on (right side)	[Free text max. 5 characters] <u>1</u>
Channel label for display off (left side)	[Free text max. 5 characters] <u>0</u>

### Input type – Dimming:

If the channel should be used to dim a light (dimming actuator), select 'Input' type and the 'Dimming' function and determine if after completing a dimming command, feedback should be sent to the remote control.

Type	<b>Input</b>
Function	<b>Dimmer</b>
Use feedback	<u>No</u> • Yes

Choose whether buttons should be used for dimming. **If you deactivate buttons, you must activate the slide bar below to enable dimming!**

Then set the time interval between switching and dimming for the buttons; if desired, set the repeat interval and the percentage value for long button press.

Use buttons	<u>No</u> • Yes
Time between switching and dimming (in 0.1 s)	1...50; <u>5</u>
Repetition of the dimming command	<u>No</u> • Yes
Repetition of the dimming command on long button actuation (if dimmer command is repeated)	every 0.1 s... • every 2 s; <u>every 0.5 s</u>
Dimming by (if dimmer command is repeated)	1.50% • 3% • <u>6%</u> • 12.50% • 25% • 50%

Activate the function if the lighting is to be dimmed via the slide bar. If the slide bar AND buttons are activated, the small area next to the bar can be used to switch between the operating functions. If none of the operating functions are active, the channel is not functional.

Use slide bar	<u>No</u> • Yes
---------------	-----------------

### Input type – RGB/RGBW:

If the channel is to be used to control a light with adjustable colours (RGB or RGBW), select the 'Input' type and the 'RGB/RGBW' function and set whether after completing an RGB command, feedback for the movement should be sent to the remote control.

Type	<b>Input</b>
Function	<b>RGB/RGBW</b>
Use RGB feedback	<u>No</u> • Yes

Choose whether buttons should be used for adjustment. **If you deactivate the buttons, you must activate at least one of the slide bars below to enable adjustments!**

Enter the label for the 'switched-on' and 'switched-off' states. The label can also be changed directly on the device.

Use buttons	<u>No</u> • Yes
Channel label for display on (right side)	[Free text max. 5 characters] <u>1</u>
Channel label for display off (left side)	[Free text max. 5 characters] <u>0</u>



Set the switch-off send behaviour for the buttons using the 3-byte object (RGB together) and the three or four 1-byte objects (R, G, B and W separately). Choose whether on/off feedback should be received via the bus. Set the time interval for the buttons between switching (tapping) and sending the RGB value (when holding the button longer).

The 3-byte object is to send the value 0 when switching off	<u>No</u> • Yes
The three/four/rgbw 1-byte objects are to send the value 0 when switching off	<u>No</u> • Yes
Use on/off feedback	<u>No</u> • Yes
Channel label in feedback on (only if there is feedback)	[Free text max. 5 characters] <u>1</u>
Channel label in feedback off (only if there is feedback)	[Free text max. 5 characters] <u>0</u>
Time between switching and sending the RGB value in increments of 0.1 sec	1...50; <u>5</u>

For every colour that has *no* slide bar assigned to it (see next section on settings), you can select any other channel to assign this colour to. Thus, it is possible to set the colours of an RGB light to different channels of the remote control, and to display the slider bars for red, green, blue and white one under another.

Red/green/white/blue proportion	<u>without</u> • Channel 1...32
---------------------------------	---------------------------------

Activate the functions if individual colours must be adjusted using a slide bar. If the slide bar or multiple slide bars AND buttons are activated, the small area next to the bar can be used to switch between the operating functions. If none of the operating functions are active, the channel is not functional.

Use red slide bar	<u>No</u> • <u>Yes</u>
Use green slide bar	<u>No</u> • <u>Yes</u>
Use blue slide bar	<u>No</u> • <u>Yes</u>
Use white slide bar	<u>No</u> • <u>Yes</u>

The new RGB(W) value set via the slide bar can be sent to the KNX bus by pressing and holding the button. The corresponding 1-byte objects are sent as soon as you release the slide bar.

### Input type – Colour temperature:

If the channel is to be used to control a light with adjustable colour temperature (warm white/cold white), select the 'Input' type and the 'Colour temperature' function.

Type	<b>Input</b>
Function	<b>Colour temperature</b>

Set the minimum and maximum adjustable colour temperature in Kelvin, as well as the increment value for temperature adjustment.

Minimum adjustable value in K	0...65535; <u>1,000</u>
Maximum adjustable value in K	0...65535; <u>10,000</u>
Increment for temperature adjustment in K	0...65535; <u>500</u>

Choose whether buttons should be used for adjustment. **If you deactivate buttons, you must activate the slide bar below to enable adjustments!** Set the time interval between switching (holding the button) and changing the temperature (tapping) for the buttons. Choose whether on/off feedback should be received via the bus.

Use buttons	<u>No</u> • Yes
Time between switching and temperature change in increments of 0.1 sec (long=switching)	1...50; 5
Use on/off feedback	<u>No</u> • Yes
Feedback label on (only if there is feedback)	[Free text max. 5 characters] <u>1</u>
Feedback label off (only if there is feedback)	[Free text max. 5 characters] <u>0</u>

Activate the function if the colour temperature is to be adjusted via the slide bar. If the slide bar AND buttons are activated, the small area next to the bar can be used to switch between the operating functions. If none of the operating functions are active, the channel is not functional.

Use slide bar	<u>No</u> • Yes
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### Input type – Shutter:

If the channel should be used to control a shutter, select 'Input' type and the 'Shutter' function and set whether, after completing a movement command, feedback for the movement and/or slat position should be sent to the remote control.

Type	<b>Input</b>
Function	<b>Shutter</b>
Use movement position feedback	<u>No</u> • Yes
Use slat position feedback	<u>No</u> • Yes

Choose whether buttons should be used for operation. **If you deactivate buttons, you must activate the slide bar below to enable operation!**

Set the control mode for the buttons and apply the corresponding settings. A description of the setting options for the individual control modes can be found in chapter 5.5.1. *Control modes for drive control*, Seite 28.

Use buttons	<u>No</u> • Yes
Control mode	<ul style="list-style-type: none"> <li>• <u>Standard</u></li> <li>• Standard inverted</li> <li>• Comfort mode</li> </ul>

Activate the movement position (shutter elevation) and/or slat position (angle) function if the shutter is to be adjusted via the slide bar. If the slide bar or both the slide bars AND buttons are activated, the small area next to the bar can be used to switch between the operating functions. If none of the operating functions are active, the channel is not functional.

Use movement position slide bar	<u>No</u> • Yes
Use a slider bar for slat position	<u>No</u> • Yes

### Input type – Blinds, awnings:

If the channel should be used to control a blind or an awning, select 'Input' type and the 'Blind' or 'Awning' function and set whether, after completing a movement command, feedback for the movement position should be sent to the remote control.

Type	<b>Input</b>
Function	<b>Blind OR Awning</b>
Use feedback	<u>No</u> • Yes

Choose whether buttons should be used for operation. **If you deactivate buttons, you must activate the slide bar below to enable operation!**

Set the control mode for the buttons and apply the corresponding settings. A description of the setting options for the individual control modes can be found in chapter 5.5.1. *Control modes for drive control*, Seite 28.

Use buttons	<u>No</u> • Yes
Control mode	<ul style="list-style-type: none"> <li>• <u>Standard</u></li> <li>• Standard inverted</li> <li>• Comfort mode</li> </ul>

Activate the function if shading is to be adjusted via the slide bar. If the slide bar AND buttons are activated, the small area next to the bar can be used to switch between the operating functions. If none of the operating functions are active, the channel is not functional.

Use movement position slide bar	<u>No</u> • Yes
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### Input type – Window:

If the channel should be used to control a window, select the 'Input' type and the 'Window' function and set whether, after completing a movement command, feedback for the movement position should be sent to the remote control.

Type	<b>Input</b>
Function	<b>Window</b>
Use feedback	<u>No</u> • Yes

Choose whether buttons should be used for operation. **If you deactivate buttons, you must activate the slide bar below to enable operation!**

Set the control mode for the buttons and apply the corresponding settings. A description of the setting options for the individual control modes can be found in chapter 5.5.1. *Control modes for drive control*, Seite 28.

Use buttons	<u>No</u> • Yes
Control mode	<ul style="list-style-type: none"> <li>• <u>Standard</u></li> <li>• Standard inverted</li> <li>• Comfort mode</li> </ul>

Activate the function if the window is to be adjusted via the slide bar. If the slide bar AND buttons are activated, the small area next to the bar can be used to switch between the operating functions. If none of the operating functions are active, the channel is not functional.

Use movement position slide bar	<u>No</u> • Yes
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### Input type – Temperature:

If the channel is to be used to adjust the target temperature in the room, select the 'Input' type and the 'Temperature' function. Activate the temperature feedback to receive up-to-date information from the bus.

Type	<b>Input</b>
Function	<b>Temperature</b>
Use feedback	<u>No</u> • Yes

Set the minimum and maximum adjustable temperature value as well as the increment value for temperature adjustment.

Minimum adjustable value in increments of 0.1 °C	-32768...32767; <u>160</u>
Maximum adjustable value in increments of 0.1 °C	-32768...32767; <u>260</u>
Increment (in 0.1 °C)	0...100; <u>5</u>

Choose whether buttons should be used for temperature adjustment. **If you deactivate buttons, you must activate the slide bar below to enable operation!**

Use buttons	<u>No</u> • Yes
-------------	-----------------

If the temperature feedback function and the buttons are active, select whether the adjustment should take place via a bit object or a temperature object.

In the case of temperature adjustment via a bit object, only a 0 or a 1 is sent/received. In the case of adjustment via a temperature object, the adjusted temperature value is sent/received.

Temperature change based on (only if the feedback is active)	<ul style="list-style-type: none"> <li>• <u>Bit object</u></li> <li>• Temperature object</li> </ul>
---	---

Activate the function if the temperature is to be adjusted via the slide bar. If the slide bar AND buttons are activated, the small area next to the bar can be used to switch between the operating functions. If none of the operating functions are active, the channel is not functional.

Use slide bar	<u>No</u> • Yes
---------------	-----------------

### Input type – Scene:

If the channel should be used to call (and save) scenes, choose the 'Input' type and the 'Scene' function. Each channel can control two scenes: one with the left button half, and one with the right button half.

For the scene control, a group address for scenes must be filed in the KNX system. The output object 'Channel X: scene A/B' of **Remo KNX RF** is linked to this group address. When calling or saving the scene, the scene number and, if applicable, the information 'saving' are sent via the object. With the help of the group address, it is forwarded to the scene inputs of the actuators linked with the address.

Number and labelling the scenes.

Type	<b>Input</b>
Function	<b>Scene</b>
Left/right button	
Scenario No	<u>0</u> ...63
Labels for the left/right scene	[Free text max. 5 characters] <u>A/B</u>

Determine if the scene can only be called or also be saved. The scene can be saved by holding the button for a longer time. If this function is activated, set the duration that the button must be held to recognise the save command.

Scenario function	<ul style="list-style-type: none"> <li>• <u>Activate</u></li> <li>• Activate and save</li> </ul>
Press key for longer than (in 01 s) --> Scene saving (If 'and save' was selected)	1...50; <u>30</u>

### 5.5.1. Control modes for drive control

If channels are used as switches to operate shades or windows, then various control modes can be set. Standard, Standard inverted and Comfort.

**Standard:**

Short tap to move the drive step-wise and to stop it. Hold it longer to move the drive to the end position. The time difference between 'short' and 'long' can be adjusted.

Control mode	<b>Standard</b>
Behaviour when a button is operated: short = stop/step; extended = up or down	
Time between short and long in 0.1 seconds	1...50; <u>10</u>

**Standard inverted:**

Short tap to move the drive to the end position. Hold it longer to move the drive step-wise and to stop it. The time difference between 'short' and 'long', as well as the repeat interval can be customised.

Control mode	<b>Standard inverted</b>
Behaviour when a button is operated: short = up or down, long = stop/step	
Time between short and long in 0.1 seconds	1...50; <u>10</u>
Repetition of the step command on long button actuation	every 0.1 s... • every 2 s; <u>every 0.5 s</u>

**Comfort mode:**

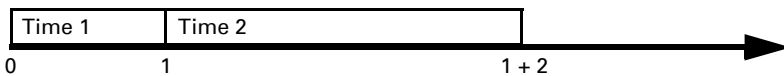
In comfort mode, short tapping, holding the button slightly longer and holding it for a long time trigger different reactions from the drive. The time intervals are configured individually.

**Short tap** (shorter than Time 1): The drive is positioned step-wise and stopped.

**Holding it slightly longer** (longer than Time 1, but shorter than Time 1+2): Drive running. Drive stops when the button is released.

**Long holding** (release after Time 1+2 runs out): Drive moves independently to the end position. The movement can be interrupted by a short tap.

Fig. 1  
Comfort mode time interval scheme



Time point 0:

Touching the button, beginning of Time 1

Release before Time 1 runs out:

Step (or stop if the drive is moving)

Time point 1:

End of Time 1, beginning of Time 2,  
Movement command

Release after Time 1 runs out  
but before Time 2 is expired:

Stop

Release after Time 1+2 runs out:

Movement to the end position

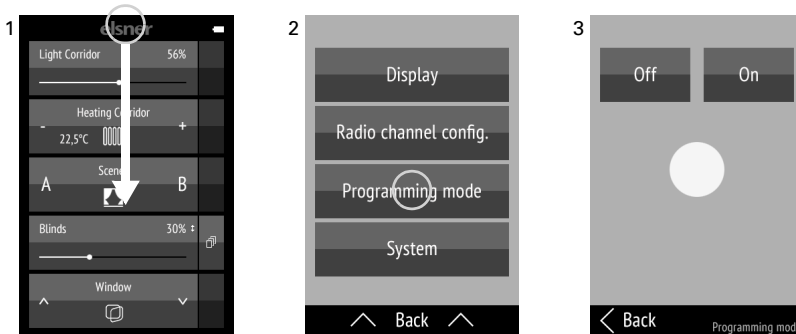
Control mode	Comfort mode
Behaviour when a button is operated: Push-button is pressed and released before expiry of Time 1 = stop/step held for longer than Time 1 = up or down released between Time 1 and 1 + 2 = stop released Time 1+2 = no more stop	
Time 1 (in 0.1 sec)	0 ... 50; <u>4</u>
Time 2 (in 0.1 sec)	0 ... <u>50</u>

## 6. Remote control programming

Addressing of the device at the bus.

Menu: Programming mode

The equipment is delivered with bus address 15.15.255. A different address can be programmed in the ETS by overwriting the address 15.15.255. For this purpose, the programming mode on the remote control must be activated.



(1) Swipe the screen from the top edge downwards to open the settings menu. Keep in mind that the menu can be blocked from opening (object block).

(2) Tap **Programming mode**.

(3) Switch the programming mode **On**. Start the programming in the ETS.

With the active programming mode, the menu item lights up red (similarly to programming LED on other devices), and the display remains on (automatic switch-off inactive).

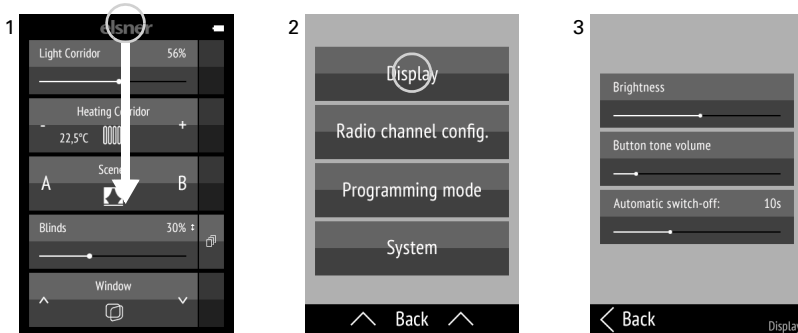
Tap **Back** at the bottom edge to return to the previous settings menu. Swipe from the bottom edge upwards to close the settings menu.

## 7. Remote control set-up

### 7.1. Display

*Custom adjustment of display brightness, key tone volume and automatic switch-off of the display (2–30 seconds).*

Menu: Display.



(1) Swipe the screen from the top edge downwards to open the settings menu. Keep in mind that the menu can be blocked from opening (object block).

(2) Tap **display**.

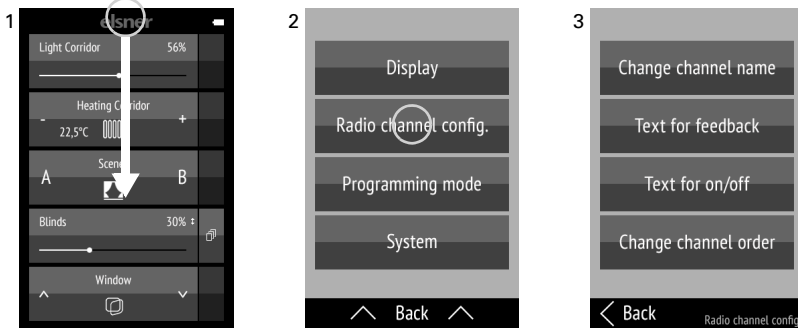
(3) Change the settings by moving the controls.

Tap **Back** at the bottom edge to return to the previous settings menu. Swipe from the bottom edge upwards to close the settings menu.



## 7.2. Wireless channel configuration

Custom adjustment of channel name, channel type, channel order and groups.  
Menu: Wireless channel configuration.



(1) Swipe the screen from the top edge downwards to open the settings menu.

(2) Tap **Wireless channel configuration**.

(3) Tap the setting that you would like to adjust. Carry out the adjustments as shown later, in Chapters

7.2.1. Changing channel name,

7.2.4. Changing channel order,

7.2.4. Changing channel order and

Tap **Back** at the bottom edge to return to the previous settings menu. Swipe from the bottom edge upwards to close the settings menu.

A channel can only be deactivated in the ETS. The symbol is shown automatically appropriate to the function.

### 7.2.1. Changing channel name

Changing the designations of all channels and groups.

Menu: Wireless channel configuration > Change channel name.



(4) Tap the **Up** or **Down** arrow on the top **Page** field to change between the pages of the listing.

At the top part of each channel button, you can see the name specified in the ETS — below the name assigned to the device. The currently selected name is shown in green. On the right, you can see the channel number in brackets, and under it, the function symbol.

(5) Tap the channel or group that you would like to adjust.

(6) Change the name using the keyboard. If the box 'Use the name from ETS download' is checked, the name entered in the ETS will be used.

Tap **Cancel** to leave the name changing screen without saving. Tap **OK** to save and return to the channel name overview.

### 7.2.2. Text for feedback

*Modification of the feedback texts for switching functions.*

*Menu: Wireless channel configuration > Text for feedback.*



(4) Tap the **Up** or **Down** arrow on the top **Page** field to change between the pages of the listing as necessary.

The channels for which a feedback text is used are displayed. The channel names are shown in the middle of each channel bar. Depending on the function, the channel can be divided into a left and a right half of the bar with appropriate text. The text specified in the ETS is shown above, and the text specified on the device is shown under it. The currently selected text is shown in green.

(5) Tap on the text that you would like to modify.

(6) Change the text using the keyboard. If the box 'Use the name from ETS download' is checked, the text entered in the ETS will be used.

Tap **Cancel** to leave the name changing screen without saving. Tap **OK** to save and return to the channel name overview.

### 7.2.3. Text for on/off

Modification of the texts for switch-on/off

Menu: Wireless channel configuration > Text for on/off



(4) Tap the **Up** or **Down** arrow on the top **Page** field to change between the pages of the listing as necessary.

The channels for which a switch-on/off text is used are displayed. The channel names are shown in the middle of each channel bar. Depending on the function, the channel can be divided into a left and a right half of the bar with appropriate text. The text specified in the ETS is shown above, and the text specified on the device is shown under it. The currently selected text is shown in green.

(5) Tap on the text that you would like to modify.

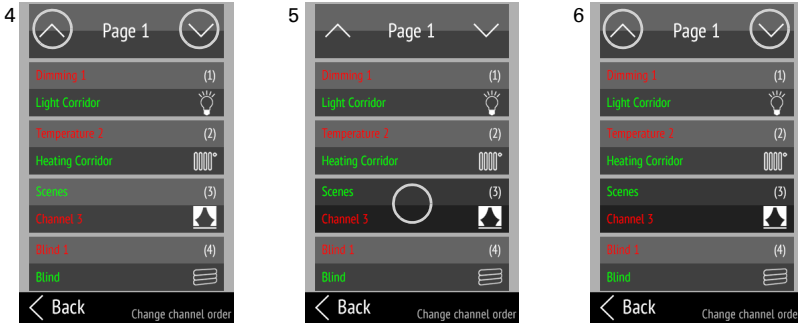
(6) Change the text using the keyboard. If the box 'Use the name from ETS download' is checked, the text entered in the ETS will be used.

Tap **Cancel** to leave the name changing screen without saving. Tap **OK** to save and return to the channel name overview.

### 7.2.4. Changing channel order

*Changing the display sequence of the channels.*

*Menu: Wireless channel configuration > Change channel order.*



(4) Tap the **Up** or **Down** arrow on the top **Page** field to change between the pages of the listing.

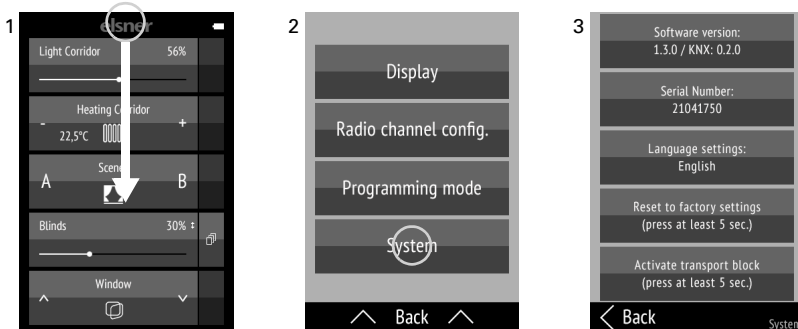
(5) Tap the channel or group that you would like to move.

(6) As long as the channel/ group is selected, it can be shifted with the **Up** and **Down** arrows in the **Page** field at the top edge of the screen.  
Tap on the channel/group again to confirm the position.

## 7.3. System

*Information about the software version and serial number; resetting the remote control to factory defaults and activating the transport block; setting the language.*

*Menu: System.*



(1) Swipe the screen from the top edge downwards to open the settings menu.

(2) Tap **System**.

(3) You can read the serial number and software version, and perform the following actions:

**Setting the language:**

Tap **Language settings** and select the desired language (German, English, French, Italian or Spanish).

**Factory defaults:****ATTENTION!**

- **Resetting to factory defaults deletes all custom settings!**  
Channel names are reset to the name specified in the ETS.
  - **The configurations introduced in the ETS are permanent!**  
Channels and their functions can only be deactivated in the ETS (Reprogramming).
- 

Hold down **Reset to factory defaults** for at least 5 seconds to delete the settings saved on the remote control.

**Transport block:**

Hold down **Activate transport block** for at least 5 seconds to prepare the remote control for transport. The transport block prevents the device from being activated when it is moved. To unblock, connect the remote control to the power supply using a charging cable.

Tap **Back** at the bottom edge to return to the previous settings menu. Swipe from the bottom edge upwards to close the settings menu.



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