



Remo KNX

Remote Control

Item number 70746



1. Description	3
1.0.1. Deliverables	3
1.1. Technical specifications	4
1.2. Notes on wireless equipment	4
2. First use/set-up	5
2.1. Loading the battery, transport block	5
2.2. Protective film	5
2.3. Set-up procedure	5
3. Using the remote control	6
3.1. Automatic switch-off	6
3.2. Display	6
3.3. Operating drives and devices	6
3.3.1. Moving drives (Up/Down)	6
3.3.2. Switching devices on/off	7
3.3.3. Dimming	7
3.3.4. Changing temperature	7
3.3.5. Scenes	8
4. Care and maintenance	8
4.1. Troubleshooting	8
5. Channel setting in the ETS	9
5.1. Transfer protocol	9
5.2. Channel activation	11
5.3. Channel 1...8	11
5.3.0.1. Switching:	12
5.3.0.2. Dimming:	12
5.3.0.3. Shutter:	12
5.3.0.4. Blinds, awnings:	13
5.3.0.5. Window:	13
5.3.0.6. Temperature:	14
5.3.1. Control modes for drive control	15
6. Remote control programming	16
7. Remote control set-up	17
7.1. Display	17
7.2. Wireless channel configuration	18
7.2.1. Changing channel name	18
7.2.2. Changing channel order	19
7.3. System	20



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 **Remo KNX RF remote control** 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

- Switching
- Dimming
- Moving the drives of awnings, shutters, blinds or windows
- Changing the temperature (for heating/cooling)
- Calling and saving scenes.

The channels are set in the ETS. However, they can always 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)
- 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

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**
-

1.0.1. Deliverables

- Wireless remote control with integrated battery

1.1. 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	384

The product is compliant with the provisions of EC guidelines.

1.2. 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 (868,2 MHz). 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*).

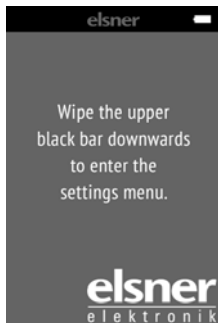
The battery of the device cannot be removed or replaced. When disposing of the device, observe the guidelines for disposing of devices with an integrated battery.

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 6).

3.2. Display

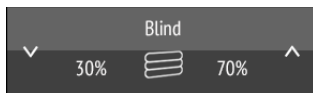
The display shows all channels one after another. The sequence can be changed in the *Wireless channel configuration > Change channel order* menu (see manual, Chapter *Change channel order*).

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. Moving drives (Up/Down)

Shutter, blind, awning or window



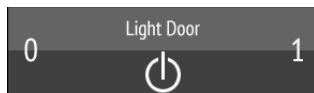
Tap on the **up or down arrow** to position the drive.

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).

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

3.3.2. Switching devices on/off

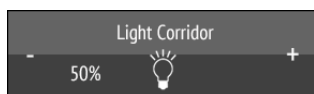


Tap1 to switch on. Tap0 to switch off.

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.

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

3.3.3. Dimming



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.

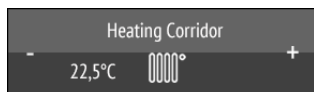
The time interval between short and long and other parameters are set in the ETS. If the 'Feedback' setting is activated in the ETS, the status reported by the bus (on/yellow symbol or off/grey symbol) is displayed. Otherwise, there is no feedback for the status.

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

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

3.3.4. Changing temperature

Adjusting heating or cooling

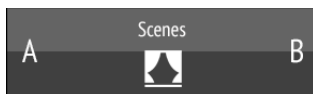


Tap+ to increase the target temperature.

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

3.3.5. 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*.

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

5. Channel setting in the ETS

5.1. Transfer protocol

Abbreviations:

R Read

W Write

C Communication

T Transfer

U Update

Communication object for channels 1 – 10 (K1–K10):

No K1	No K2	No K3	No K4	No K5	No K6	No K7	No K8	No K9	No K10	Text	Func- tion	Flags	Data Point Type (DPT)	Size
1	13	25	37	49	61	73	85	97	109	Channel: Switching	Output	CT	[1.1] DPT_Switch	1 Bit
2	14	26	38	50	62	74	86	98	110	Channel: Switching Feedback	Input	WCTU	[1.1] DPT_Switch	1 Bit
3	15	27	39	51	63	75	87	99	111	Channel: Dimming	Output	CT	[3.7] DPT_ Control_Dimming	4 Bit
4	16	28	40	52	64	76	88	100	112	Channel: Dimming Feedback Brightness	Input	WCTU	[5.1] DPT_Scaling	1 Byte
5	17	29	41	53	65	77	89	101	113	Channel: Long-time	Output	CT	[1.8] DPT_UpDown	1 Bit
6	18	30	42	54	66	78	90	102	114	Channel: Short-time	Output	CT	[1.10] DPT_Start	1 Bit
7	19	31	43	55	67	79	91	103	115	Channel: Position feed- back	Input	WCTU	[5.1] DPT_Scaling	1 Byte
8	20	32	44	56	68	80	92	104	116	Channel: Stat feedback	Input	WCTU	[5.1] DPT_Scaling	1 Byte
9	21	33	45	57	69	81	93	105	117	Channel: Scene A	Output	CT	[18.1] DPT_ SceneControl	1 Byte
10	22	34	46	58	70	82	94	106	118	Channel: Scene B	Output	CT	[18.1] DPT_ SceneControl	1 Byte
11	23	35	47	59	71	83	95	107	119	Channel: Temperature	Output	CT	[9.1] DTP_ Value_Temp	2 Bytes
12	24	36	48	60	72	84	96	108	120	Channel: Temperature feedback	Input	WCTU	[9.1] DTP_ Value_Temp	2 Bytes

Other channels:

Object No	Channel
121-132	11
133-144	12
145-156	13
157-168	14
169-180	15
181-192	16
193-204	17
205-216	18
217-228	19
229-240	20
241-252	21

Object No	Channel
253-264	22
265-276	23
277-288	24
289-300	25
301-312	26
313-324	27
325-336	28
337-348	29
349-360	30
361-372	31
373-384	32

5.2. 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
--------------------	-----------------

5.3. 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 18).

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

Functions:

The channel can be configured for switching, dimming, drive control (shutters, blinds, awnings or windows), temperature or scene functions.

Function	<ul style="list-style-type: none"> • <u>Switching</u> • Dimming • Shutter • Blinds • Awning • Window • Temperature • Scene
----------	--

Switching:

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

Function	Switching
Use feedback	<u>No</u> • Yes

Dimming:

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

Function	Dimmer
Use feedback	<u>No</u> • Yes

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

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%

Shutter:

If the channel should be used to control a shutter, select 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.

Function	Shutter
----------	----------------

Use movement position feedback	<u>No</u> • Yes
Use slat position feedback	<u>No</u> • Yes

Set the control mode and apply the appropriate settings. A description of the setting options for the individual control modes can be found in chapter 5.3.1. *Control modes for drive control*, Seite 15.

Control mode	<ul style="list-style-type: none"> • <u>Standard</u> • Standard inverted • Comfort mode
--------------	--

Blinds, awnings:

If the channel should be used to control a blind or an awning, select 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.

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

Set the control mode and apply the appropriate settings. A description of the setting options for the individual control modes can be found in chapter 5.3.1. *Control modes for drive control*, Seite 15.

Control mode	<ul style="list-style-type: none"> • <u>Standard</u> • Standard inverted • Comfort mode
--------------	--

Window:

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

Function	Window
Use feedback	<u>No</u> • Yes

Set the control mode and apply the appropriate settings. A description of the setting options for the individual control modes can be found in chapter 5.3.1. *Control modes for drive control*, Seite 15.

Control mode	<ul style="list-style-type: none"> • <u>Standard</u> • Standard inverted • Comfort mode
--------------	--

Temperature:

If the channel should be used to change the target temperature in the room, choose the 'Temperature' function and select whether the adjustment should take place via a bit object or a temperature object.

Function	Temperature
Temperature change based on	<ul style="list-style-type: none"> • <u>Bit object</u> • Temperature object

In case of temperature adjustment via a **bit object**, only a 0 or a 1 is sent to the bus. Determine whether, after completing the temperature change, feedback should be sent to the remote control.

Temperature change based on	Bit object
Use feedback	<u>No</u> • Yes

In case of temperature adjustment via a **temperature object** the adjusted target temperature value is sent. Set the size of the step for adjusting the value.

If it is required that the feedback value is set up in the ETS. Without a feedback value, no new target temperature value can be sent.

Temperature change based on	Temperature object
Increment (in 0.1 °C)	0...100; <u>5</u>

Scene:

If the channel should be used to call (and save) scenes, choose 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. With this group address, the output object 'Channel X: scene A/B' is linked to **Remo KNX RF**. When calling or saving the scene, the scene number and, if any, the information are 'saved' and sent via the object. With the help of the group address, the actuators linked with the address are sent to the scene inputs.

Number the scenes.

Function	Scene
Left/right button	
Scenario No	<u>0</u> ...63

Determine if the scene can only be called or also be saved. The scene can be saved by hold-

ing 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"> • <u>Activate</u> • Activate and save
Press key for longer than (in 01 s) --> Scene saving (If 'and save' was selected)	1...50; <u>30</u>

5.3.1. 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	Standard
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	Standard inverted
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:

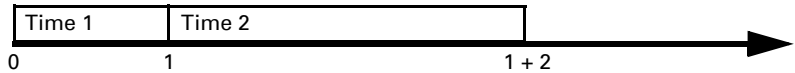
In comfort mode, short tapping, holding the button slightly longer and holding it for a long time trigger different reactions from the drive. The time intervals are configured individually.

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



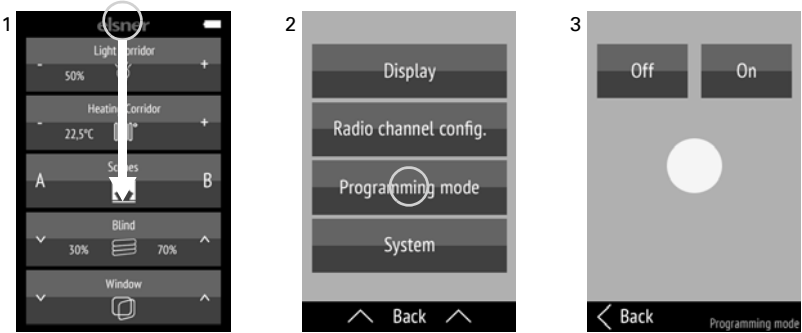
Time point 0:	Touching the button, beginning of Time 1
Release before Time 1 runs out:	Step (or stop if the drive is moving)
Time point 1:	End of Time 1, beginning of Time 2, Movement command
Release after Time 1 runs out but before Time 2 is expired:	Stop
Release after Time 1+2 runs out:	Movement to 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 15.15.250. A different address can be programmed in the ETS by overwriting the address 15.15.250. For this purpose, the programming mode on the remote control must be activated.



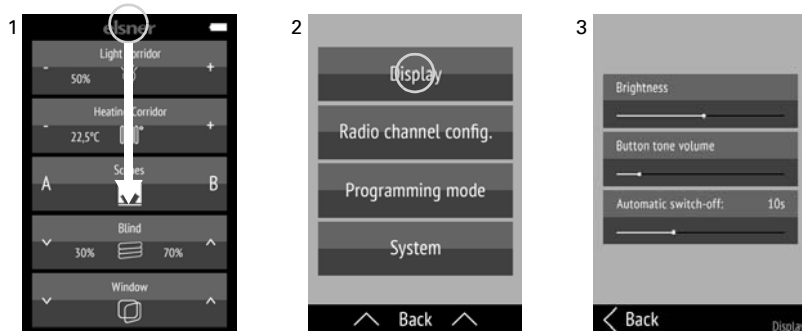
- (1) Swipe the screen from the top edge downwards to open the settings menu.
- (2) Tap **Programming mode**.
- (3) Switch the programming mode **On**. Start the programming in the ETS.
With the active programming mode, the menu item lights up red (similarly to programming LED on other devices), and 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*.

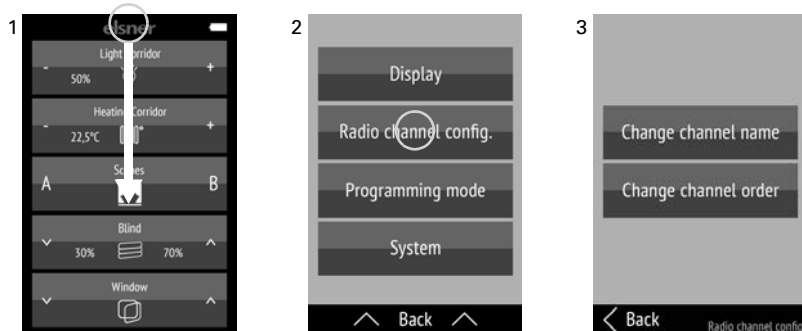


- (1) Swipe the screen from the top edge downwards to open the settings menu.
 - (2) Tap **display**.
 - (3) Change the settings by moving the controls.
- Tap **Back** at the bottom edge to return to the previous settings menu. Swipe from the bottom edge upwards to close the settings menu.

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,*

7.2.2. *Changing channel order,*

7.2.2. *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. 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.

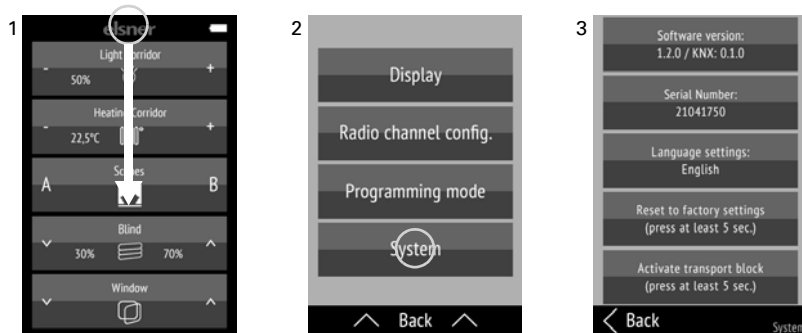
(6) As long as the channel/ group is selected, it can be shifted with the **Up** and **Down** arrows in the **Page** field at the top edge of the screen.

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.

