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## Safety instructions



**The instructions must be observed in order to ensure the product can be operated smoothly and safely and its properties can be fully realised.**

- The operator/user must have completely read and understood the instructions.
- The operator must ensure that the instructions are available to the user in a legible form.
- The operator must ensure that all safety measures are observed and complied with.
- The following safety and assembly instructions apply to the device and not to the accessories and drive.



### **CAUTION!**

**Failure to observe these can cause physical injury!**

→ Observe all safety instructions.

- Never install or take into operation devices which are damaged.
- Only use unmodified and compatible original parts.
- If the device is opened without permission or used in an improper manner, or if it is incorrectly installed or operated, there is a risk of injury to persons and damage to property.
- The device contains small parts which can be swallowed.

### **Transport**

- Should you receive the device in a damaged condition despite proper packaging, you must not put it into operation. Complain about any damage to the transport company immediately.

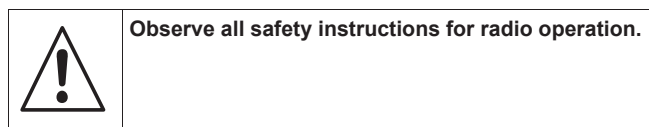
### **Installation**

- Observe the regulations during installation.

## Operation

- Use only in dry rooms.
- If one or more transmitters are used for controlling the system, its operating range must stay visible during operation.
- Keep control systems out of the reach of children and the disabled.
- Dispose of used batteries properly.

## Safety instructions for radio operation



Only use radio systems which are approved and can be operated without interference.

- Radio systems must not be operated in areas where there is an increased risk of interference (e.g. hospitals, airports).
- The remote control is only approved for devices and systems for which any malfunction of the transmitter or receiver would not result in a risk for persons, animals or property, or if such a risk is covered by other safety equipment.
- The operator has no protection whatsoever against interference by other telecommunication installations and local terminals (e.g. also from radio installations which are operated properly in the same frequency range).
- The range of the radio signal is limited by legislation and the structural conditions.

## Intended use

The SoloTel 2 is a single-channel transmitter. It can be used unidirectionally (compatible with the existing ProLine program) or bidirectionally. The handheld transmitter should only be used for controlling roller shutter, Venetian blinds and sun protection systems

which are fitted with elero-radio receivers. Other use, or use beyond this is not considered to be use for intended purpose.

The handheld transmitter is referred to as "device" in this manual.

## Exclusion of liability

elero GmbH assumes no liability for personal injuries, property damage and financial losses which arise from use other than mentioned above, modifications to the device, improper use and failure to observe the operating instructions. Liability for material defects is excluded in such cases.

## Scope of supply

SoloTel 2 (battery included in the device), wall bracket, 2 wall plugs, 2 screws.

## Technical Data

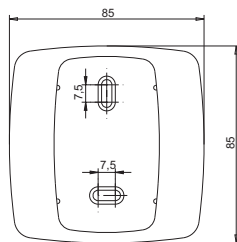
Name of device	SoloTel 2
Operating voltage	3 V DC
Battery type	1 x CR 2032
IP Code	IP 20
Temperature range	0 to +55 °C
Radio frequency	868 MHz frequency band
Dimensions in mm (wall bracket)	L 85 x W 85 x H 18
Weight in grams (including batteries).	45

There are different device names for the USA, Canada, Australia and some countries in South America.

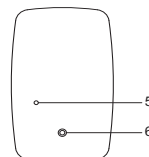
Radio frequency	915 MHz frequency band
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## Mounting of wall bracket

- The wall bracket must be fixed so that the drill holes do not touch any electrical cables.
- Before installing the unit in the required position, check that the transmitter and receiver are functioning perfectly.
- Attach the bracket to the wall with the wall plugs and screws provided.



## On the back of the device



5 Learn button P

## Explanation of functions

### Bidirectional radio system

A bidirectional radio system transmits radio signals to a radio receiver and enables feedback from the radio receiver to the transmitter. The radio signal can be sent directly to the target receiver. If this is not possible then the radio signal is forwarded via other bidirectional participants until the signal reaches the target receiver. The target receiver carries out the command and sends a confirmation back to the transmitter.

Bidirectional radio operation is only possible if all participants are bidirectional. Otherwise, the system is only unidirectional.

### Unidirectional radio system

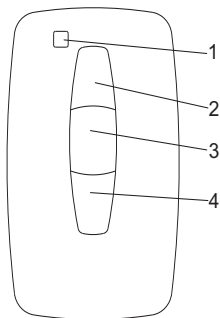
A unidirectional radio system transmits radio signals to radio receivers. However, in contrast to the bidirectional radio system, the radio receivers cannot send back a reply to the transmitter. The transmission of radio signals from radio receiver to radio receiver is also not possible.

### Initial operation

Press a button to switch on the handheld transmitter; the status display is illuminated.

## Device explanation

### Front of device



- 1 Status indicator
- 2 **UP** button
- 3 **STOP** button
- 4 **DOWN** button

## Note

**Do not press the P** button until the receivers are in programming mode. The channel for a radio system is decided during the programming. If the receivers are not in programming mode, the channel of the sender changes to the unidirectional mode. In order to restore the starting condition, press the **STOP** and **P**- buttons simultaneously for 6 seconds until the status display lights.

## Status display

A radio signal is indicated by the illumination of the status display (LED above the buttons). The different colours of the status display mean:

Status display	Meaning
Flashing orange	Channel (transmitter) not programmed in any receiver
Quick flashing orange	Channel (transmitter) in bidirectional programming mode. Operation of already programmed receivers not possible. Every 3 seconds in group programming mode (also without pressing a button)
Orange	Channel (transmitter) is operating bidirectionally: Transmit signal is being sent
Green	Channel (transmitter) is operating unidirectionally: Transmit signal is being sent
Orange or green flashes several times then red	Channel (transmitter) is deleted
Flashing red	Batteries weak

The transmitting power or the radio range will be reduced by the reduction in the performance of the battery. If the voltage drops below 2 V, functions are no longer executed and nothing is displayed.

## Group control unit

A group is understood to mean the control of several receivers at the same time. The selected group is controlled by a travel command.

Any number of receivers can be programmed and controlled in the channel.

## Programming the transmitter

### Requirement

The receiver is installed. **Check whether the channel is deleted** or in the correct mode according to the status display.  
Stand in front of the blind to be programmed for the programming.

1. With electrical receivers which have already been installed, switch the fuse off, and on again a few seconds later.  
The receiver is now in programming mode for about 5 minutes.
2. Press the programming button **P** on the back of the device briefly (approx. 1 second) until the status display lights for a short time. The blind moves up and down for approx. two minutes, showing that the receiver is in programming mode.
3. Press the **OPEN** button as soon as the blind starts moving in Open direction (within 1 second at the most). The status display lights briefly.  
The blind stops briefly, starts moving again, stops and then moves in the Down direction.
4. Immediately (within maximum 1 second) after starting down travel, press the **DOWN** button. The status display lights briefly. The blind stops. The transmitter channel is programmed.

### Note

If the blind does not stop, it must be programmed again.

A bidirectional programming process in the handheld transmitter can be cancelled by pressing the STOP button for 6 seconds.

## Programming additional transmitters

### Note

If **several receivers** are connected to the **same feed line**, then all are simultaneously in programming mode for approx. 5 minutes after switching on the mains power.

If the **P** button on the transmitter is now pressed, all the receivers start programming mode at the same time (up/down movements). Randomly different intervals between open / down movements cause the receivers to become offset against one another. The longer programming is delayed, the greater the offset will be.

The short up/down movements can be stopped by pressing the **STOP** button briefly on a transmitter which has already been programmed. The programming mode in the receiver is interrupted.

The transmitter can now be assigned without having to disconnect individual receivers. If the blind moves in the wrong direction, delete the transmitter and program it again.

(→ see Deletion of transmitter)

For programming additional transmitters to one receiver:

1. Press the **UP**, **DOWN** buttons and the programming button **P** (back of device) simultaneously (for 3 seconds) on a transmitter which has already been programmed to the receiver. The status display lights briefly. The receiver is now in programming mode. Press the programming button **P** on the transmitter to be programmed until the status display lights briefly. The receiver is now in programming mode (up/down movements).
2. Press the **OPEN** button as soon as the blind starts moving in Open direction (within 1 second at the most). The status display lights briefly. The blind stops briefly, starts moving again and then moves downwards.
3. Immediately (within maximum 1 second) after starting down travel, press the **DOWN** button. The status display lights briefly. The blind stops. The transmitter channel is programmed.

If more than 10 bidirectional receivers are being programmed in the channel at the same time, the transmitter channel in programming mode switches to group mode. The group mode is indicated by fast flashing with pauses.

Programming in group mode is completed after a 2-minute pause or pressing the **STOP** button for 6 seconds.

### Note

A jogging mode for Venetian blinds for quickly reaching receivers which are further away is not possible in a transmitter channel with more than 10 programmed receivers.

## Synchronous Programming Mode

For programming additional receivers to one transmitter at the same time:

1. Press the **DOWN** buttons and the programming button **P** (back of device) simultaneously (for 3 seconds) on a transmitter which has already been programmed to the receivers). The status display flashes. The receivers are now in programming mode.
2. For bidirectional operation only: press the programming button **P** on the transmitter to be programmed until the status display lights briefly. The receivers are now in programming mode (up/down movements).
3. Press the **OPEN** button as soon as the blind starts moving in Open direction (within 1 second at the most). The status display lights briefly. The blinds stop briefly, start moving again, stop and then move downwards.
4. Immediately (within maximum 1 second) after starting down travel, press the **DOWN** button. The status display lights briefly. The blinds stop moving. The transmitter channel is programmed.

## Stopping programming mode (bidirectional) in the transmitter

Press the **STOP** button for at least 6 seconds until the status display lights orange.

## Approaching end positions of roller shutter / awning / Venetian blind

### Requirement

The transmitter/transmitter channel is programmed. The end positions of the drive have been set.

### Approaching bottom end position (roller shutter/awning)

Press the **DOWN** button briefly. The blind moves to the bottom end position/the awning extends completely.

### Approaching the lower end position (Venetian blind)

Press the **DOWN** button until the status display lights briefly. The blind approaches the lower end position.

Only press the **DOWN** button briefly (jog mode) for Venetian blind drive, pulse mode for Combio JA Pulse), the blind approaches briefly and stops again.

### Approaching top end position (roller shutter/awning)

Press the **OPEN** button briefly. The blind approaches the upper end position/the awning retracts.

### Approaching the upper end position (Venetian blind)

Press the **OPEN** button until the status display lights briefly. The blind approaches the upper end position.

Only press the **OPEN** button briefly (jog mode) for Venetian blind drive, pulse mode for Combio JA Pulse), the blind approaches briefly and stops again.

## Intermediate positions of the blinds

	Roller shutter	Awning	Venetian blinds	Interior shading
Pos ▼	Intermediate position	Intermediate position	Intermediate position	Intermediate position 1
Pos ▲	Ventilation position	-- /fabric tensioning	Tilting position	Intermediate position 2

## Programming the intermediate position in the receiver

### Requirement

The transmitter/transmitter channel is programmed. The end positions of the drive have been set. The blind is in the top end position.

1. Move the blind to the required position using the **DOWN** button. In doing so, keep the **DOWN** button pressed.
2. Also press the **STOP**- button. The blind will stop. The status display lights briefly. The intermediate position is programmed.

## Programming the ventilation/tilting position in the receiver

### Requirement

The transmitter/transmitter channel is programmed. The end positions of the drive have been set. The blind is at its lower end position.

1. Use the **OPEN** button to move the blind in the OPEN direction until the ventilation gaps open or the slats are inverted. Keep the **OPEN** button pressed during the movement.

2. Also press the **STOP**- button. The blind will stop. The status display lights briefly.  
The ventilation position/tilting position is programmed.

### Approaching intermediate position

#### Requirement

The transmitter/transmitter channel is programmed. The blind is at its upper end position.

1. Press the **DOWN** button twice briefly. The status display lights briefly.
2. The blind travels to the stored intermediate position. In the case of Venetian blinds, the slats turn automatically after reaching the intermediate position if a tilting position has been programmed. If no intermediate position has been programmed, the blind moves to the bottom end position (not when using Combio JA Pulse).

### Approaching ventilation/tilting position

#### Requirement

The transmitter/transmitter channel is programmed. The blind is at its lower end position.

1. Press the **OPEN** button twice briefly. The status display lights briefly.
2. The blind travels to the stored ventilation / tilting position. If no ventilation/tilting position has been programmed, the blind moves to the top end position (not when using Combio JA Pulse).

## Operation of the transmitter using Combio JA Pulse

A Combio 868/915 JA Pulse can be used for the precise adjustment of the slats for Venetian blind drives.

The preset pulse time of Combio Pulse is cycled by pressing the **UP** or **DOWN** button.

The pulse time can be changed by the user. Keep the **STOP** and **UP** buttons on a programmed transmitter pressed for 6 seconds for this. The drive starts to move in small pulses. As soon as the blind has travelled the required distance, release the **UP** button, then release the **STOP** button. The new pulse time is saved. The new pulse time corresponds to the sum of all pulse times during the programming of the pulse time. The Combio JA Pulse ends the programming of the pulse time after 30 pulses.

## Deleting positions/deleting transmitters

### Deleting intermediate position in the receiver

1. Press both the **STOP** and **DOWN** buttons.
2. Hold down this button combination for approx. 3 seconds.  
The status display lights briefly.

### Deleting the ventilation position from the receiver

1. Press both the **STOP** button and the **OPEN** button.
2. Hold down this button combination for approx. 3 seconds.  
The status display lights briefly.

### Deleting the transmitter channel in the receiver

1. Press both the **STOP** button and the programming button **P** (on the back of the device).
2. Keep this button combination pressed for approx. 6 seconds until the status display lights orange briefly and then lights red. In unidirectional radio operation, the status display lights for 6 seconds: first green briefly twice and then red.  
The channel in the transmitter is also deleted.

### Deleting all the transmitters in the receiver

1. Press the **STOP** button and also the programming button **P** (on the back of the device) + **OPEN** button + **DOWN** button.
2. Hold down this button combination for approx. 6 seconds.  
The status display lights orange briefly twice, followed by red (bidirectional).



The channel in the transmitter is also deleted.  
 In unidirectional radio operation, the status display lights for 6 seconds: first green briefly twice and then red.

## Battery Replacement

### Note

Replace batteries only with batteries of the identical type.

1. Unscrew the screws on the rear side of the device and open the casing.
2. Remove the battery.
3. Insert the new battery in the correct position.
4. Put the device back together again.

Dispose of used batteries properly.



## Cleaning

Clean the device with a damp cloth. Do not use a detergent. This may attack the plastic.

## Disposal

After the end of its service life, dispose of the device in accordance with the applicable regulations.

## Troubleshooting

Fault	Cause	Remedy
Drive does not run, status display does not light	<ol style="list-style-type: none"> <li>1. Batteries are low</li> <li>2. Batteries are incorrectly installed</li> </ol>	<ol style="list-style-type: none"> <li>1. Insert new batteries</li> <li>2. Insert batteries correctly</li> </ol>

Fault	Cause	Remedy
Drive does not run, status display lights red or flashes orange Unidirectional: Status display lights green	<ol style="list-style-type: none"> <li>1. The receiver is outside the sending range.</li> <li>2. Receiver out of order or defective</li> <li>3. Receiver not yet programmed</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce distance to the receiver</li> <li>2. Switch on or exchange receiver</li> <li>3. Program receiver</li> </ol>
Drive operates in the wrong direction	Directions are incorrectly allocated	Delete transmitter and reprogram

## Repair

Please contact your dealer if you have any questions.

Please always provide the following information:

- Item number and name on the type plate
- Type of fault
- Previously occurring unusual events
- Accompanying conditions
- Own presumption

## EC Declaration of conformity

We hereby declare that the following mentioned product/s meet/s the standards of the European Community.

Product name: **ProLine 2**

- MemoTec2 (-868) all versions
- Invio2 (-867 / -868) all versions
- AstroTec2 (-867 / -868 / -915) all versions
- MonoTel2 (-867 / -868 / -915) all versions (Progreso1)
- LumeroTel2 (-867 / -868 / -915) all versions (Progreso1M)
- VarioTel2 (-867 / -868 / -915) all versions (Progreso5M)
- TempoTel2 (-867 / -868 / -915) all versions
- MultiTel2 (-867 / -868 / -915) all versions
- SoloTel2 (-867 / -868 / -915) all versions
- UniTec2 (-867 / -868 / -915) all versions

Description: Wall-mounted and hand-held radio transmitters for bidirectional and standard communication between transmitters and receivers to control roller shutters, awnings, venetian blinds and indoor shading systems

The conformity of the above mentioned products with the relevant health and safety requirements is taken into account by the following directives and standards:

- EMC Directive 2004/108/EC  
EN 61000-6-2:2005, EN 61000-6-3:2001  
EN 60730-1:2000, EN 60730-2-7:1991
- R&TTE Directives 1999/5/EC  
ETSI EN 301 489-3 V1.4.1  
ETSI EN 300 220-2 V2.1.2
- RoHS Directive 2002/95/EC

Beuren, 26.03.2012



Ralph Trost  
-CE Manager-, -Representative documentation -

## Address

elero GmbH  
Antriebstechnik  
Linsenhofer Straße 59-63  
72660 Beuren  
Deutschland / Germany  
Tel: +49 (0) 7025 13-01  
Fax: +49 (0) 7025 13-212  
info@elero.de  
**www.elero.com**

Please visit our website if  
you require a contact outside  
Germany.

