

**MonoTel 2 867/868/915 MHz**  
**28205.0001, 28206.0001**  
**28207.0001, 28205.0901**  
**28206.0901, 28207.0901**

**e l e r o**



**(EN) Operatins instructions (translation)**

181220001\_EN\_1013

# IMPORTANT



Transmitter is preset for bidirectional operation!

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## Safety instructions



**Observance of these instructions is a precondition for safe and fault-free operation and for the product performing as intended.**

- 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 installation instructions relate to the device and not to its accessories or the drive.



### CAUTION!

**Failure to observe these instructions may lead to injury.**

→ Observe all safety instructions.

- Never install or use damaged products.
- Only use unmodified and compatible original parts.
- There is a risk of personal injury and damage if the device is opened without permission, used improperly, installed incorrectly or operated incorrectly.
- The device contains small parts which can be swallowed.

### Transport

- The device may not be used should you have received the device damaged, despite proper packaging. Complain about any damage to the transport company immediately.

### Installation

- Observe all regulations for installation.

## Operation

- Use only in dry rooms.
- It must be possible to observe the equipment while it is in operation if the equipment is controlled by one or more transmitters.
- Keep control systems out of the reach of children and the disabled.
- Dispose of used batteries properly.

## Safety instructions for radio operation



**Observe all 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).
- Remote control is permitted only for devices and equipment for which a malfunction of the transmitter or receiver does not give rise to a hazard to persons, animals or objects or where this safety 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 MonoTel 2 is a single-channel transmitter. It may be used unidirectionally (compatibly with the old ProLine range) or bidirectionally. The hand-held transmitter may only be used for

the control of roller shutters, blinds and shades that are equipped with elero radio receivers. Other uses or use going beyond this is considered to be contrary to the intended use.

The handheld transmitter is referred to in these instructions as the “device”.

## Exclusion of liability

elero GmbH accepts no liability whatsoever for personal injury or damage caused by uses other than those listed above, modifications to the device, incorrect use, failure to observe the instructions. Liability for material defects is excluded in such cases.

## Scope of delivery

MonoTel 2 (batteries included in the device), wall bracket, 2 wall plugs, 2 screws.

## Technical data

Name of unit	MonoTel 2
Operating voltage	3 V DC
Battery type	2 x LR06 (AA mignon)
IP Code	IP 20
Temperature range	0 to +50 °C
Radio frequency	867/868 MHz frequency band
Dimensions in mm (hand-held transmitter)	L 120 x W 51 x H 26
Weight in grams (including battery)	120

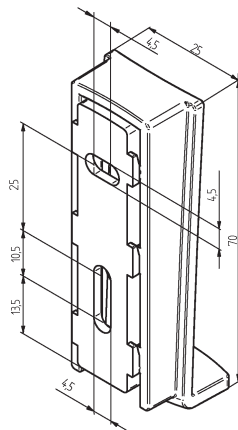
In a deviation, the following applies for the USA, Canada, Australia and some nations in South America:

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

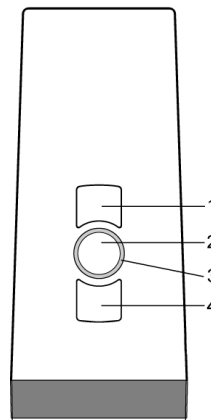
- Make sure that the holes are not drilled into electric cables when fitting the wall bracket.
- Before installing the unit in the required position, check that the transmitter and receiver are functioning perfectly.
- Attach the bracket to the wall with the wall plugs and screws provided.

The top part of the wall bracket can be moved.



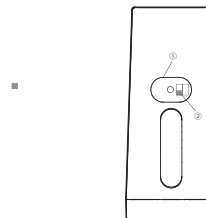
## Device explanation

### Front side of the device



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

### Rear of the device



- 5 Learn button **P**

Only for experts:

- 6 DIP switch 1
- 7 DIP switch 2

# 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, unlike in a bidirectional radio system, the radio receiver cannot send any message back 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.

### 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 status display (LED ring around the STOP button) lighting up. The various colours of the status display mean:

Status display	Meaning
Flashing orange	Channel (transmitter) not programmed in any receiver
Flashing orange rapidly	Channel (transmitter) in bidirectional programming mode. Operation of already programmed receivers is not possible. Every 3 seconds in group programming mode (also without pressing a button)
Orange then green	Channel (transmitter) is operating bidirectionally and receiver has received the signal
Orange then flashing red	Channel (transmitter) is operating bidirectionally and one of the receivers has not received the signal
Red then green	Channel (transmitter) is operating bidirectionally and receiver has received the signal, batteries weak
Red then flashing red	Channel (transmitter) is operating bidirectionally and one of the receivers has not received the signal, batteries weak
Green	Channel (transmitter) is operating unidirectionally: Transmit signal is being sent
Green with repeat, then red (unidirectional)	Channel (transmitter) is deleted
Alternating orange and green (or red), then red (bidirectional)	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. No more functions are executed and there is no display if the voltage drops below 2 V.

## 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 has been deleted** or is in the correct mode according to the status display. Stand in front of the blind to be programmed while the programming.

1. With electrical receivers which have already been installed, switch the circuit breaker off and on again after a few seconds.  
The receiver is now in programming mode for about 5 minutes.
2. Press the programming button **P** on the rear of the device briefly (approximately 1 second) until the status display lights up briefly. The blind moves up and down for approx. two minutes, showing that the receiver is in programming mode.
3. Press the **UP** button as soon as the blind starts moving in Open direction (within 1 second at the most). The status display lights briefly.  
The curtain stops briefly, travels further, stops and then travels in the downwards direction.
4. Immediately (no more than 1 second) the curtain starts moving downwards, press the **DOWN** button. The status display lights up briefly. The blind stops. The transmitter channel is programmed.

### Note

Programming will have to be repeated if the curtain does not stop.

A bidirectional programming process in the hand-held transmitter can be cancelled by pressing the **STOP** button for 6 seconds.

## Programming additional transmitters

### Note

**Multiple receivers** connected to the **same supply** are all simultaneously ready for programming for approximately 5 minutes after connection to the mains.

If the **P** button is now pressed on the transmitter, all receivers start the programming mode simultaneously (ascents/descents). An offset is created between the receivers by randomly different pauses between the ascents/descents. The longer programming is delayed, the greater the offset will be.

The brief ascents/descents can be stopped by pressing the **STOP** button briefly on a transmitter that 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** and programming **P** (rear of the device) buttons simultaneously (for three seconds) on a transmitter that has already been programmed to the receiver. The status display lights up briefly. The receiver is now in programming mode.
2. Press the programming button **P** on the transmitter to be programmed until the status display lights briefly. The receiver is now in programming mode (ascents/descents).
3. Press the **UP** button immediately (within no more than 1 second) the curtain starts moving upwards. The status display lights briefly. The blind stops briefly, starts moving again and then moves downwards.
4. Immediately (no more than 1 second) the curtain starts moving downwards, press the **DOWN** button. The status display

1. lights up 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** and programming **P** (rear of the device) buttons simultaneously (for 3 seconds) on a transmitter that 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 (ascents/descents).
3. Press the **UP** button immediately (within no more than 1 second) the curtain starts moving upwards. The status display lights briefly. The blinds stop briefly, start moving again, stop and then move downwards.
4. Immediately (no more than 1 second) the curtain starts moving downwards, press the **DOWN** button. The status display lights up briefly. The blinds stop moving. The transmitter channel is programmed.

## Stopping programming mode (bidirectional) in the transmitter

Press the **STOP** button and hold for at least 6 seconds until the status display lights up 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 blind/awning)

Press the **DOWN** button briefly. The curtain descends to the lower end position/the awning extends fully.

### Approaching the lower end position (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 the upper end position (roller blind/awning)


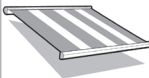


Press the **UP** button briefly. The blind approaches the upper end position/the awning retracts.

### Approaching the upper end position (blind)

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

Only press the **UP** 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 blind	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 upper end position.

1. Move the blind to the desired position with the **DOWN** button. Press and hold the **DOWN** button to do this.
2. Also press the **STOP** button. The blind stops. The status display lights briefly. The intermediate position is programmed.

## Programming the ventilation/turning 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 lower end position.

1. Move the blind in the UP direction using the **UP** button until the ventilation slots open, or the slats have turned. Keep the **UP** button pressed during the movement. Also press the **STOP** button. The blind stops. The status display lights briefly. The ventilation/turning position is programmed.

## Approaching the 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 up 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 is programmed, the curtain travels to the lower end position (not if Combio Pulse is in use).

## Approaching the ventilation/turning position

### Requirement

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

1. Press the **UP** button twice briefly. The status display lights briefly.
2. The blind travels to the save ventilation/turning position. If no ventilation/turning position is programmed, the blind travels to the upper end position (not if Combio Pulse is in use).

## Operation of the transmitter using Combio JA Pulse

A Combio 867/868/915 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 the intermediate position from the receiver

1. Press the **STOP** button and also the **DOWN** button.
2. Hold this button combination for approximately three seconds.  
The status display lights briefly.

### Deleting the ventilation/turning position from the receiver

1. Press both the **STOP** button and the **UP** button.
2. Hold this button combination for approximately three 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 rear 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 rear of the device) + **UP** button + **DOWN** button.
2. Hold this button combination for approximately six seconds.  
The status display lights orange/green 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.

## Settings for unidirectional operation

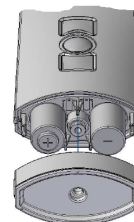
DIP switch 2 on the rear of the device, beneath the cover:  
switch up: OFF (bidirectional and unidirectional operation possible),  
switch down: ON (only bidirectional operation is possible, preset).  
DIP switch 1: OEM setting.

## Battery Replacement

### Note

Replace batteries only with batteries of the identical type.

1. Unscrew the underside of the device and open the housing.
2. Remove the batteries.
3. Insert the new batteries in the correct position.
4. Reassemble the device.



Dispose of used batteries properly.

Batteries can be removed easily from end user in accordance with battery directive 2013/56/EU.

## Cleaning

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

## Disposal

Dispose of the device in accordance with the relevant regulations when you no longer need it.

## Troubleshooting

Fault	Cause	Remedy
Drive not running, status display does not light up	1. Batteries are low 2. Batteries are incorrectly installed	1. Insert new batteries 2. Insert batteries correctly
Drive not running, status display flashes red or orange Unidirectional: Status display lights green	1. Receiver out of radio range 2. Receiver out of order or faulty 3. Receiver not yet programmed	1. Reduce distance to the receiver 2. Switch on or replace receiver 3. Program receiver
Drive runs 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
- Unusual events preceding fault
- Accompanying conditions
- Own suspicion

## EC Declaration of conformity

elero GmbH hereby declares that the MonoTel 2 complies with the fundamental requirements and other relevant provision of the EC directives 2014/53/EU. The complete declaration of conformity is located in the download area of our website [www.elero.com/en/downloads-service/](http://www.elero.com/en/downloads-service/) or can be requested at the address given.

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