FAKRO®

ARZ Z-Wave Roller Shutter User Manual

Contents

1. Safety standards

Please read carefully below instructions before installing the roller shutter in order to avoid electric shocks, injuries, etc.

When installing the electric roller shutter, it is essential to comply with the following rules:

● Firstly, after unpacking, make sure that the roller shutter does not show any signs of mechanical damage.

● Installation should be performed by a qualified person according to the producer's user manual.

● Before connecting the roller shutter, make sure that supply voltage matches the voltage specified on the roller shutter plate.

● Connect the roller shutter and check the operation one cycle of operation (wire cable - 12V DC).

● Plastic containers used for packing should be kept out of children's reach as they pose a potential threat.

● The roller shutter should be used only for its purpose. FAKRO is not responsible for any damage of the roller shutter resulting from improper use.

● Any actions related to cleaning, adjusting or disassembling of the electric roller shutter should be preceded by disconnecting the power supply.

● Do not use to cleaning solvent substances, water jet (do not dip in water).

● The roller shutter is designed for outside installation.

● In case of tough weather conditions (frost, snow) roller shutter control may be impossible.

2. Description

ARZ Z-Wave Roller Shutters are only for external installation with Fakro roof windows. They are compatible with Fakro wireless remote controls or other remote controls marked with the Z-Wave logo produced by other companies. re equipped with a two-way module of radio communication. Z-Wave uses 868,42 MHz radio waves. The ARZ Z-Wave Roller Shutter has two extremes:

– maximum extension (outskirt)
– completely rolled up (outskirt)
– current limiting protecting roller shutter against damage and user against accidental injury resulting from the contact with moving elements of roller shutter.

In order to use the appliance, it is essential to install it in accordance with the picture manual attached to its package. Programming should be done with any of the remote controls (e.g. ZWP15 remote control, ZWK keyboard or ZWG) available from Fakro or any remote control equipped with the Z-Wave logo produced by other companies - see points 3-8. *Figure 1* shows a general view of the ARZ Z-Wave roller shutter with a description of the buttons and indicators.

1. Network status (LED)
2. Programming button
3. Motor working status (LED)
4. Manual operating button

Figure 1: ARZ Z-Wave roller shutter control unit

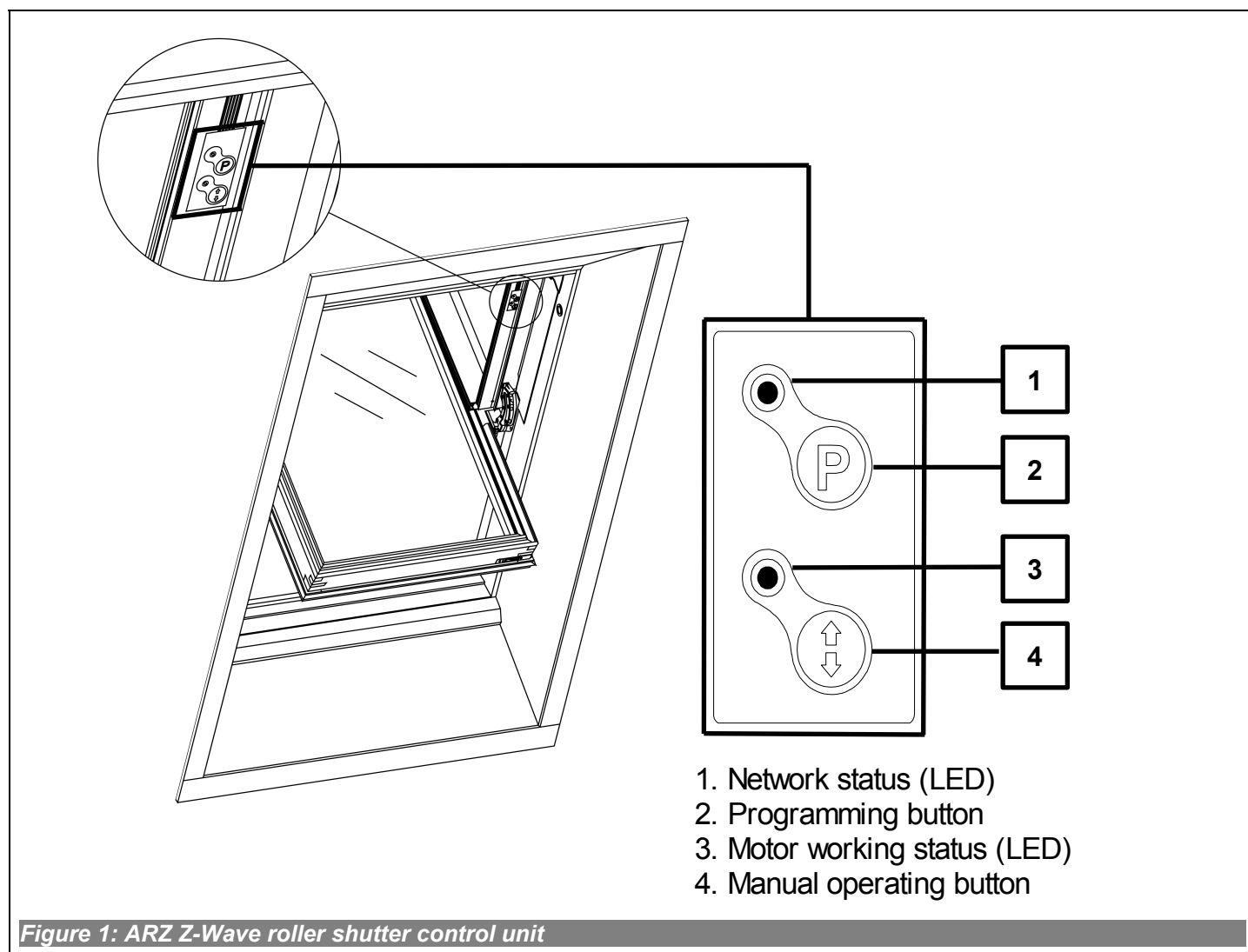*Figure 1* is presented an overall view of the available buttons and signaling, which is located in the upper right corner of the roller shutter.

The ZWR radio communication module built into the ARZ Z-Wave roller shutter is placed under the right shutter casing cover– see *Figure 2*.
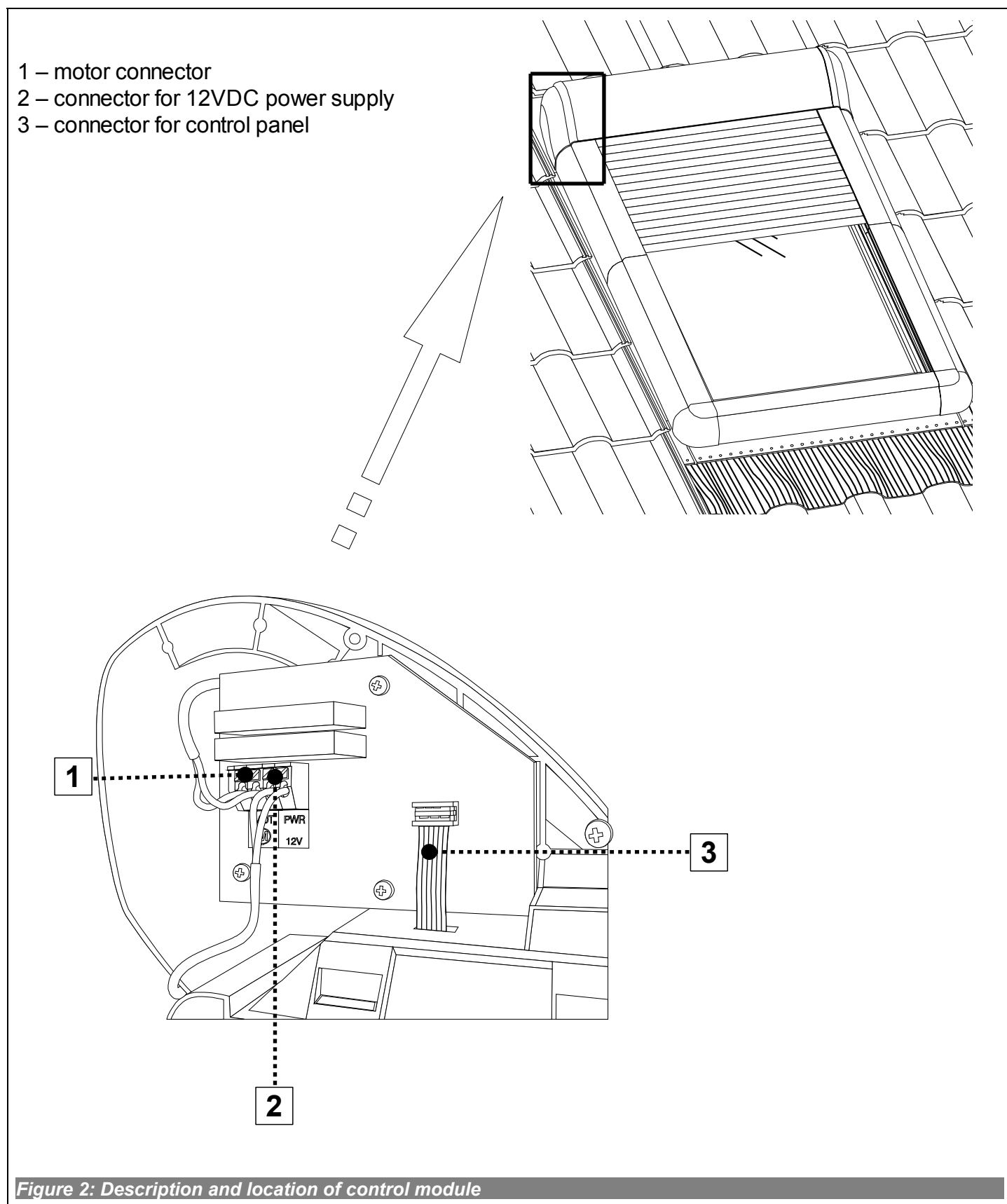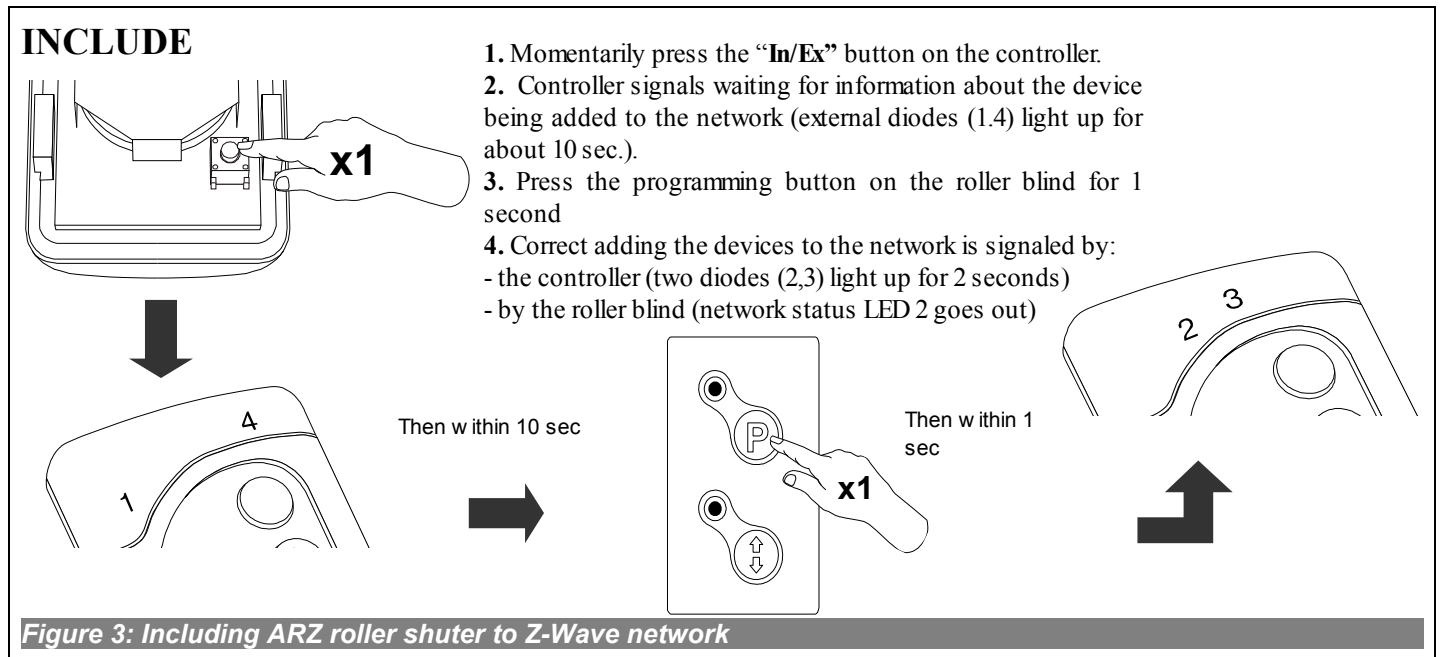
1 – motor connector
2 – connector for 12VDC power supply
3 – connector for control panel

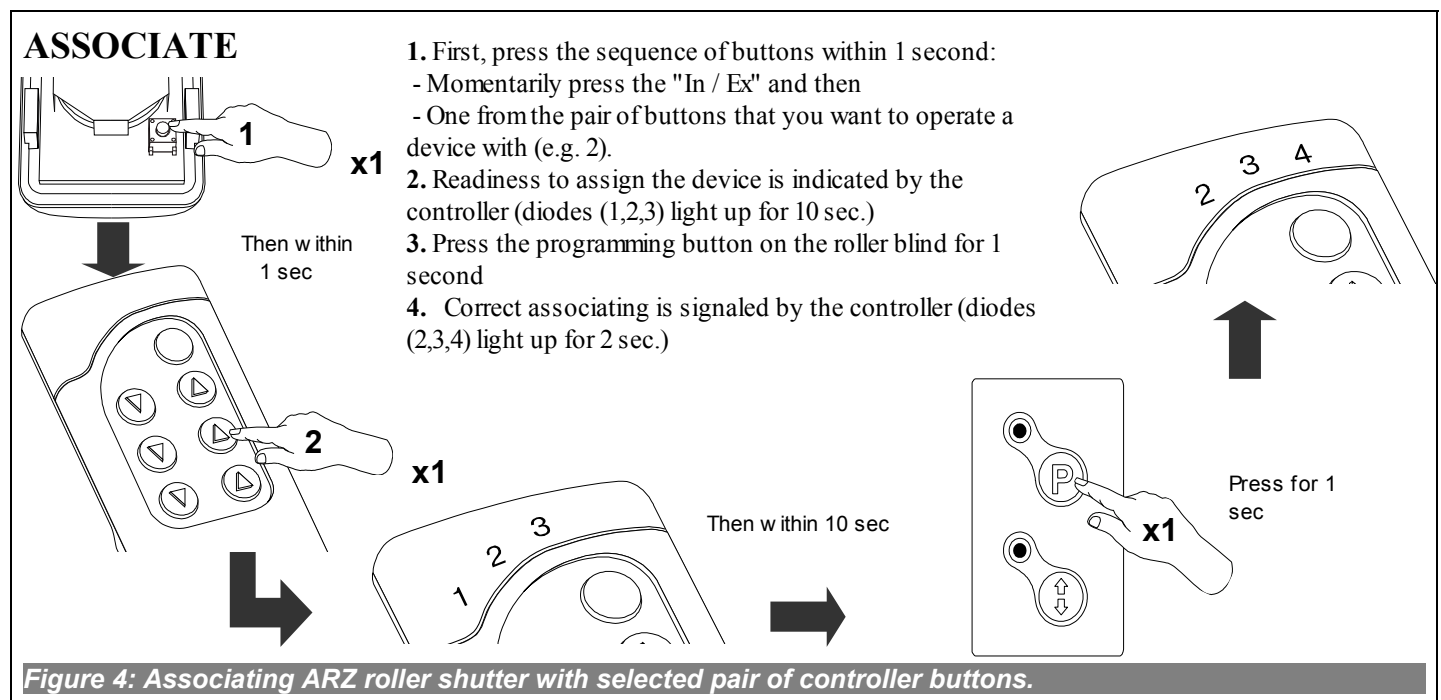*Figure 2: Description and location of control module*

3. Device programming – *INCLUDE & ASSOCIATE.*

For the device to communicate with the Z-Wave network, it is necessary to include it to the network and assign a specific number (Node ID). The device can be added to the network only if it is not already a part of another network. To add a device to another network, it is necessary to remove it first from the existing network or restore it to factory settings (see chapter 7), using any of the basic controllers. Readiness to be added to the network is indicated by the network status LED. If illuminated, the LED indicates that the device does not belong to any network.

1. Add the device (using the function **"INCLUDE"**) to a selected network. Standard procedure is illustrated in *Figure 3*.

INCLUDE

1. Momentarily press the "**In/Ex**" button on the controller.
2. Controller signals waiting for information about the device being added to the network (external diodes (1.4) light up for about 10 sec.).
3. Press the programming button on the roller blind for 1 second
4. Correct adding the devices to the network is signaled by:
- the controller (two diodes (2,3) light up for 2 seconds)
- by the roller blind (network status LED 2 goes out)

Then within 10 sec

Then within 1 sec

Figure 3: Including ARZ roller shuter to Z-Wave network

2. Associate the device with a selected pair of buttons (using *"ASSOCIATE"* function). Model procedure is presented in *Figure 4*.

ASSOCIATE

1. First, press the sequence of buttons within 1 second:
- Momentarily press the "In / Ex" and then
- One from the pair of buttons that you want to operate a device with (e.g. 2).
2. Readiness to assign the device is indicated by the controller (diodes (1,2,3) light up for 10 sec.)
3. Press the programming button on the roller blind for 1 second
4. Correct associating is signaled by the controller (diodes (2,3,4) light up for 2 sec.)

Then within 1 sec

Then within 10 sec

Press for 1 sec

Figure 4: Associating ARZ roller shutter with selected pair of controller buttons.

For information on handling, the Inclusion and Association functions using products of another manufacturers, please read the documents of the respective manufacturer.
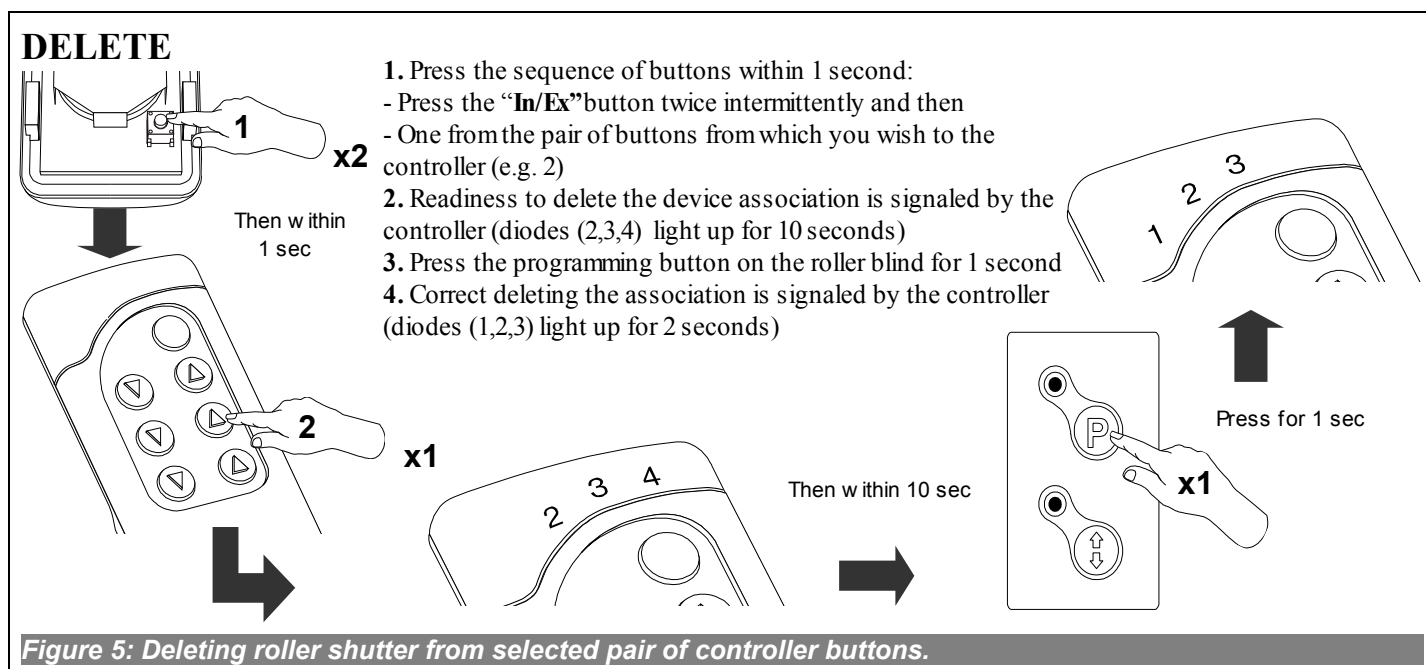
4. Device programming – *DELETE & EXCLUDE.*

In some cases (change of the place of installation, replacement of damaged equipment), it is necessary to remove the device from both the controller memory, (deleting association with the buttons - DELETE) as well as from the network (EXCLUDE) in order to prevent errors when command sending (to non-existent devices) and excessive energy drain from the batteries of portable controllers.
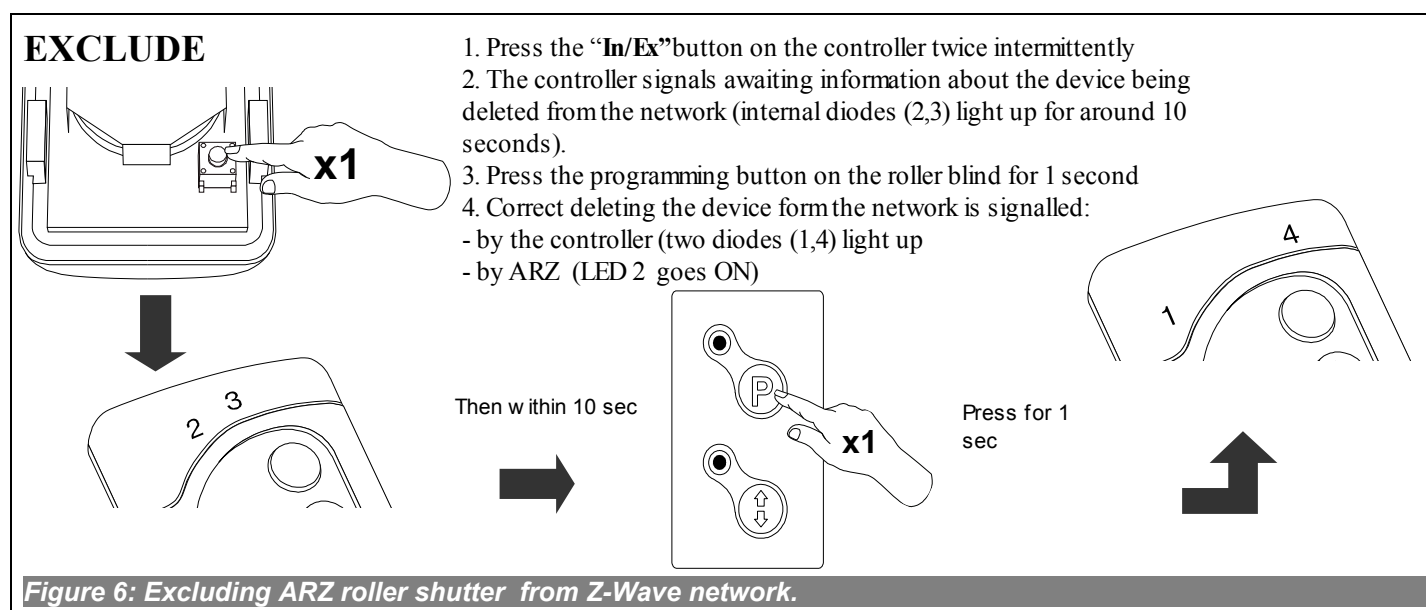
Do not remove devices from the network physically without first removing them from the memory of controllers by using the DELETE, and EXCLUDE functions, as it can lead to considerable delays in the operation of devices in the network and rapid wear on the batteries of portable controllers.

The order of execution of the function is also very important. First, perform the DELETE function and at the very end the function EXCLUDE.

1. Deletion of the association of the unit with a pair of buttons ("DELETE"). After performing the "DELETE" function, the device is still a part of the network until the "EXCLUDE" function is conducted.

DELETE

1. Press the sequence of buttons within 1 second:
- Press the "**In/Ex**" button twice intermittently and then
- One from the pair of buttons from which you wish to the controller (e.g. 2)
2. Readiness to delete the device association is signaled by the controller (diodes (2,3,4) light up for 10 seconds)
3. Press the programming button on the roller blind for 1 second
4. Correct deleting the association is signaled by the controller (diodes (1,2,3) light up for 2 seconds)

Then within 1 sec

x2

x1

Then within 10 sec

Press for 1 sec

x1

Figure 5: Deleting roller shutter from selected pair of controller buttons.

2. Removing a device (**"EXCLUDE"**) from the Z-Wave network. A device excluded from the network does not have any number (Node ID) and can be included into another network. This state is signalled on the roller shutter by the network status diode (LED No. 2) which is illuminated permanently. The device is no longer a part of the network.

EXCLUDE

1. Press the "**In/Ex**" button on the controller twice intermittently
2. The controller signals awaiting information about the device being deleted from the network (internal diodes (2,3) light up for around 10 seconds).
3. Press the programming button on the roller blind for 1 second
4. Correct deleting the device form the network is signalled:
- by the controller (two diodes (1,4) light up
- by ARZ (LED 2 goes ON)

x1

Then within 10 sec

x1

Press for 1 sec

Figure 6: Excluding ARZ roller shutter from Z-Wave network.

For information on handling, the Exclusion and Delete functions using products of another manufacturers, please read the documents of the respective manufacturer.

5. Cooperation between devices of different manufacturers in the Z-Wave network

Z-Wave allows you to integrate devices of different manufacturers which can work in different groups, lighting, heating, domestic automation, etc. Z-Wave devices operate as repeaters in the network which increases the range of radio communication. The more devices in the network, the more reliable and more resistant to interference performance of the devices in the network.

6. Adding ARZ Z-Wave roller shutter to the network operated by a controller of different manufacturer

Start the "INCLUDE" procedure by means of the controller of the existing network and then press the "Programming" button on the roller shutter, which you wish to add to the network.

Note: Information on how to initiate and conduct the "INCLUDE" and "ASSOCIATE" functions with the use of controllers refer to the instructions for these devices.

7. Reset (return to factory settings)

Sometimes it may be necessary to restore the roller shutter to factory settings and delete all information concerning the network in which it worked. To do this, it is necessary to use any basic controller (which can initiate INCLUDE, EXCLUDE). For the roller shutter the "RESET" function is synonymous with the "EXCLUDE" function.

Note: Return to factory settings is signalled by the roller shutter, the status network is continuously on (LED 2 Figure 1)

8. Spacial function – ALL ON, ALL OFF

It is possible to define if the roller shutter is to respect the commands "Close all" or "Open all"

Note: For instructions on how to define respecting the function "Close all" and "Open all" refer to instructions for individual devices.

9. Manual operating

The „manual operating button" (see Figure 1, No. 4) makes it possible to operate the device's motor manually directly after connecting the power supply. The manual operating works in sequential mode, i.e.:

1. Pressing the button twice for the first time after connecting the power supply will unfold the roller shutter's armour.
2. Pressing the button twice for the second time will stop the roller shutter's armour.
3. Pressing the button twice for the third time will fold the roller shutter's armour.

10. Remote control

Note!!! Each command sent from the remote control to the roller shutter is preceded by a period of roller awakening. This period usually lasts about 0.3 s. In practice, this manifests in delayed reaction lasting for about 0.5 seconds.

When the shutters remote controlling, five commands can be used:

– **Close** – In ZWP, ZWK controllers is activated after a short (about 0.5sec.) pressing of the "close" button on the controller and causes the shutter launching into the closing direction until the motor reaches the end position that is completely closed roller shutters

– **Open** - In ZWP, ZWK controllers is activated after a short (about 0.5sec.) pressing of the "open" button on the controller and causes the roller shutter launching into the opening direction until the motor reaches the end position, that is completely opened roller shutter.

– **Start to close** - In ZWP, ZWK controllers is activated after longer (more than 0.5sec.) holding the "close" button and causes the roller shutter launching into the closing direction until releasing of the "close" button.

– **Start to open** - In ZWP, ZWK controllers are activated after longer (more than 0.5sec.) holding of the "open" button after the time of about 0.5 sec. launching the shuttersinto the opening direction until releasing of the "Open" button

– **Stop closing / opening** - The ZWP, ZWK series controllers is activated when releasing the "open" or "close" buttons with the previously induced command "Start to close" / "Start to open ". In practice, it means that in order to stop the shuttersat any position, it is necessary to press a specific button and hold it until it reaches the desired position, or launching the roller shutter in the desired direction by short pressing of the appropriate button and then stopping it by pressing of (longer> 0.5sec,) and then releasing of the same button.

11. Technical parameters

Technical parameters	
Parameter	*Motor ARZ Z-Wave*
Power voltage	12V DC
Rated current	1,4 A
Speed	23 r.p.m
Temperature of usage	(-10°C) do (65°C)
Power cable	2 x 0,75 mm^2
Weight	0,850 kg

12. Signaling description – LEDs

Motor working status (see Fig. 1)		*Network status (see Fig. 1)*	
Single LED flashing	Current consumed by the roller shutter's motor is too low	**LED on continuously**	The device has not been associated with any network, i.e. remote control of the device is not possible. This LED always comes on after connecting the power supply to a brand new motor. It is switched off the moment the device is added to a network with the use of "INCLUDE" function.
Triple LED flashing	Current consumed by the roller shutter's motor is too high. Check calibration of the motor. Description of limiters' adjustment is contained in the Installation Manual of the shutter under section "A".		

13. Warranty

The manufacturer guarantees correct device functioning. It also undertakes to repair or replace the device if its defects result from material or structural faults. The warranty period is 24 months from the purchase date, fulfilling the following conditions:

● Installation has been performed by an authorised individual, as per manufacturer recommendations.
● Seals remain intact and no unauthorised structural changes have been made.
● The device has been used in accordance with its intended use as per user manual.
● Damage is not a result of improperly made electrical system or atmospheric phenomena.
● The manufacturer is not liable for damage which occurred as a result of improper use or mechanical damage.

In case of failure, the device must be submitted for repair with a Warranty Card. Defects revealed within the warranty period will be removed free of charge no longer than 14 days after accepting the product for repair. Warranty and post-warranty repairs are performed by the manufacturer i.e. FAKRO PP. Sp. z o.o.

Quality Certificate:

Device

Model..
Serial Number..
Seller...
Address...
Date of Purchase...

....
Signature (stamp) of installing person