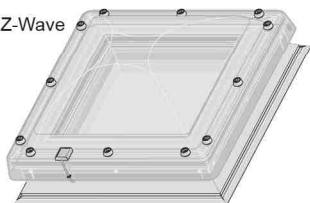


FLAT ROOF WINDOW

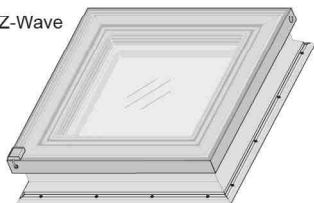


DEC Z-Wave DEF Z-Wave DEG Z-Wave DEZ Z-Wave

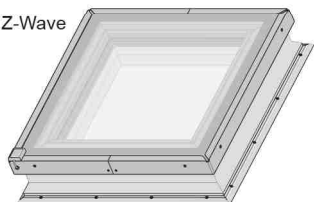
DEC Z-Wave



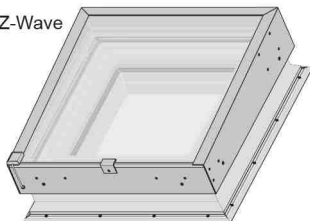
DEF Z-Wave



DEG Z-Wave



DEZ Z-Wave

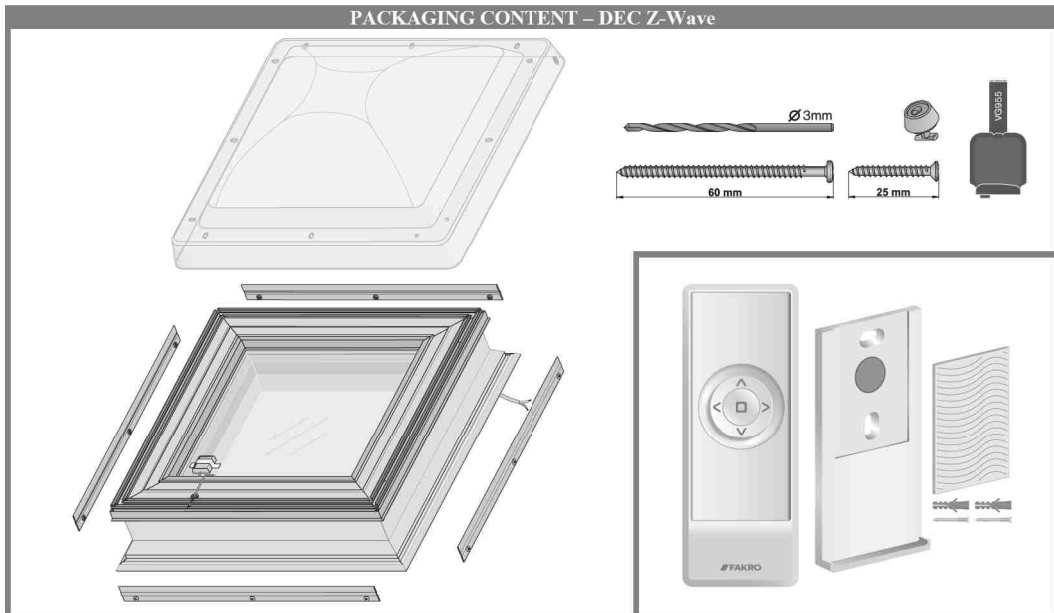


TRANSPORT	5
SAFETY RULES	5
POWER SUPPLY CONNECTION	6
CONTROL PANEL	6
CONTROL	7
PROGRAMMING	7
WARRANTY	8

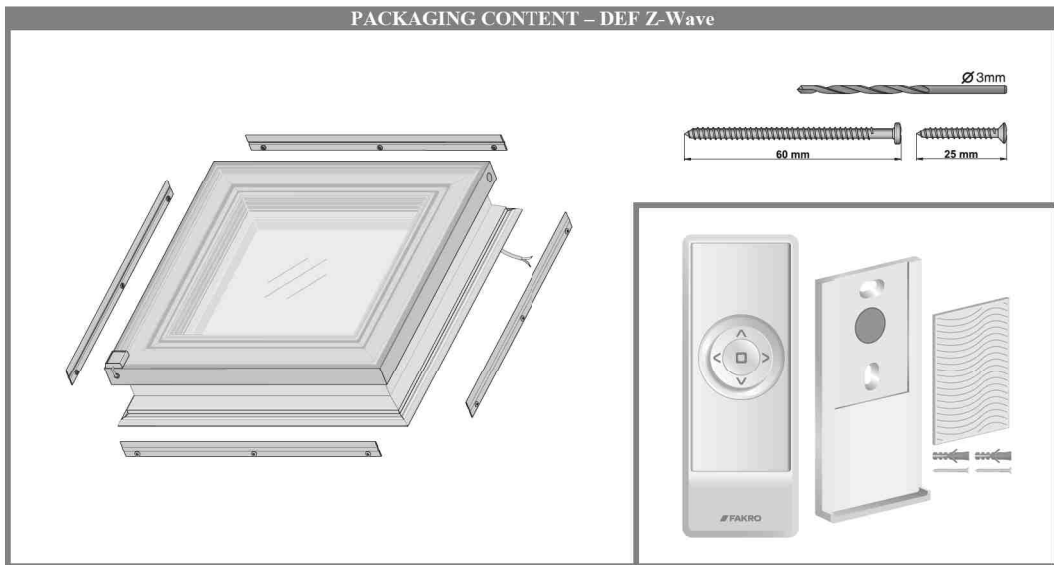


Dear Sir/Madam! Thank you for purchasing the product from FAKRO. We do hope that it will meet your expectations. To ensure appropriate functioning of the product, please peruse this User Manual.

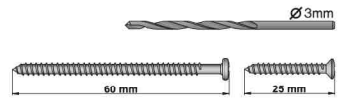
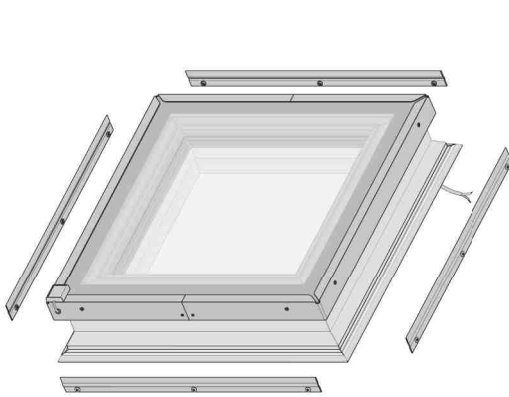
PACKAGING CONTENT – DEC Z-Wave



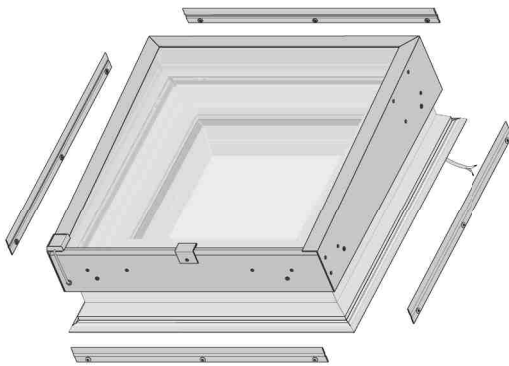
PACKAGING CONTENT – DEF Z-Wave



PACKAGING CONTENT – DEG Z-Wave



PACKAGING CONTENT – DEZ Z-Wave



WINDOW DESCRIPTION

The DEC/DEF/DEG/DEZ/DEZ Z-Wave roof window ensures a maximum comfort of living in the attic space under a flat roof. The window is factory equipped with one or two actuators with a chain outreach of 15cm and a rain sensor which automatically initiates the sash closing function when the first rain drops appear.

Depending on the version, it additionally has a plastic dome which improves thermal insulation performance and facilitates self-cleaning of the window (e.g. under the influence of rain). For all programming information, refer to included user manual of the ZRH12 remote control.

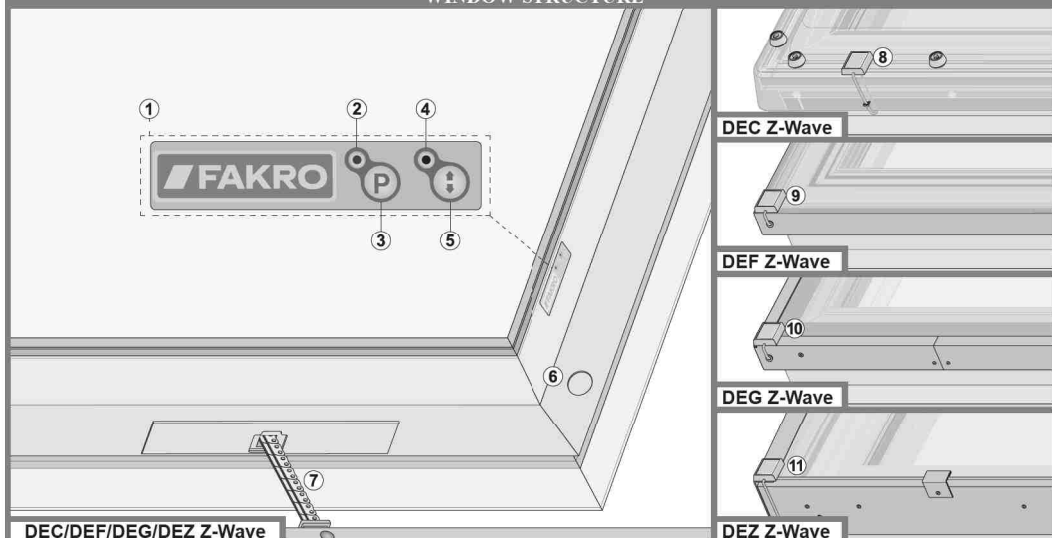


The ZRH12 remote control is factory-assigned to the DEC/DEF/DEG/DEZ/DEZ Z-Wave window. The window is assigned to the first group of the remote control by default. If the window has to be added to another Z-Wave network, it has to be removed from the current network in the first place.

TECHNICAL SPECIFICATION

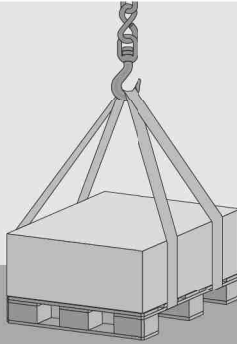
WINDOW		REMOTE CONTROL	Z-WAVE NETWORK
<p>Power supply: 100-240V AC</p> <p>Actuator rated force: 9W</p> <p>Working temperature: -10°C to +65°C</p> <p>Closing force: 300N</p> <p>Pushing force: 300N</p>	<p>Chain outreach: 150mm</p> <p>Chain extension speed: 4.5mm/s</p> <p>Limit switch: Overload when closing, Limit when opening</p>	<p>Power supply: 3V DC (2x1,5V AAA)</p> <p>Reach: Up to 20m in building</p> <p>Working temperature: 0°C – 40°C</p> <p>Dimensions: 125/48/16 mm</p>	<p>Radio protocol: Z-Wave</p> <p>Radio frequency: EU - 868,4 MHz; AS/NZ - 921,42 MHz; US/Canada - 908,4 MHz; RU - 869 MHz; KR - 919-923MHz; JP - 922-926MHz (depending on version).</p>

WINDOW STRUCTURE



<p>DEC/DEF/DEG/DEZ Z-Wave</p> <p>① Control panel</p> <p>② Z-Wave network status (LED 1)</p> <p>③ Programming button</p> <p>④ Actuator operation status (LED 2)</p> <p>⑤ Manual control button</p> <p>⑥ Place of internal accessory connection 15V DC</p>	<p>⑦ Actuator chain</p> <p>⑧ DEC Z-Wave – Rain sensor</p> <p>⑨ DEF Z-Wave – Rain sensor</p> <p>⑩ DEG Z-Wave – Rain sensor</p> <p>⑪ DEZ Z-Wave – Rain sensor</p>
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TRANSPORT



SAFETY RULES



CAUTION! Danger of crushing! When closing the window, the actuator exerts the force of 250N (app. 25 kg)!



CAUTION! The window may close automatically (without warning) if it is connected to the control unit or rain sensor!



CAUTION! Danger of electric shock!

Please read carefully user manual before proceeding to the product operation in order to ensure its proper functioning!

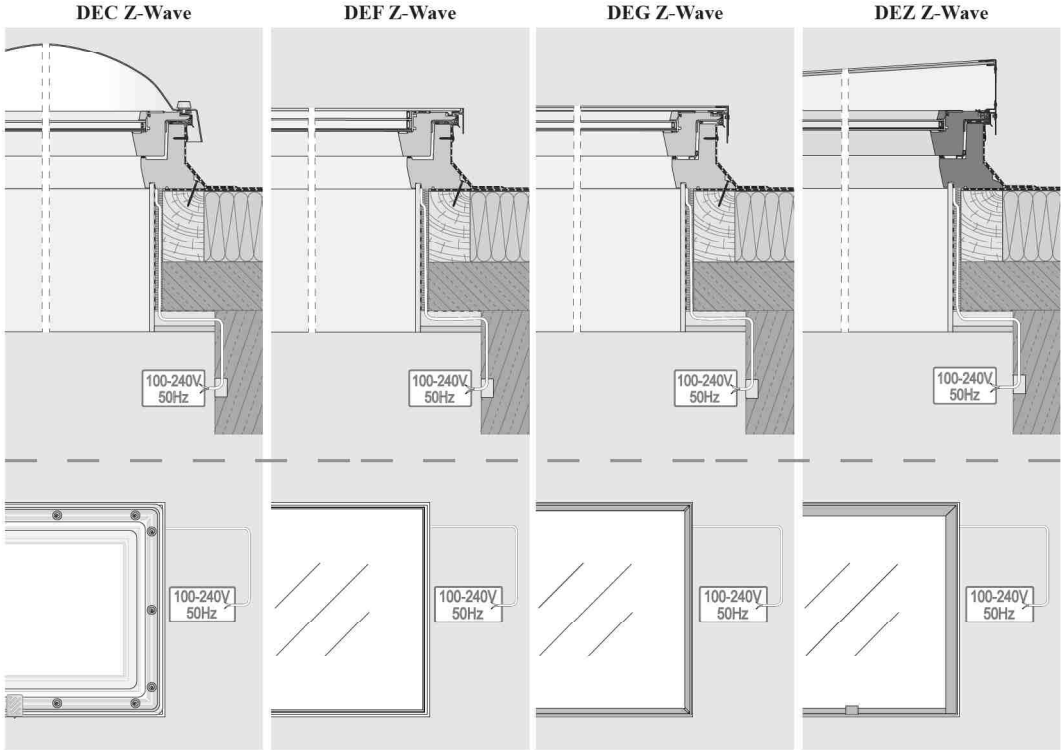
Please read carefully the instructions below before proceeding to the window installation so as to prevent electric shock, injury, etc.

When installing the DEC/DEF/DEG/DEZ Z-Wave window it is required to observe particularly the following recommendations:

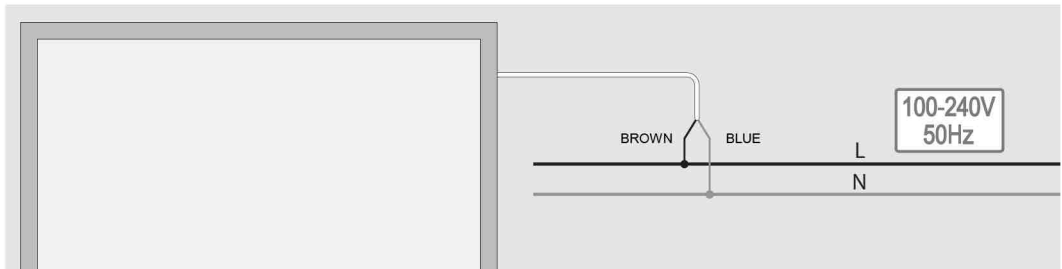
- Safety requirements should be particularly respected. The use of an electric mechanical actuator installed in order to operate the window creates a risk of injury. Although the mechanism of the actuator is equipped with an overload switch, forces present there are strong enough to cause physical injuries.
- If the DEC/DEF/DEG/DEZ Z-Wave window is easily accessible, e.g. the lower window edge is situated lower than 2.50m above the floor level, then special safety measures should be adopted so as to prevent health hazards.
- This equipment is not designed for use by people (including children) with limited physical, sensory or mental ability, or by people that do not have experience or knowledge of equipment, unless it is done under the supervision or according to the product original user manual provided by a person responsible for their safety. Do not allow children to play with the equipment.
- After unpacking, check the window elements for any signs of mechanical damage.
- Installation should be carried out in accordance with manufacturer's instructions by a qualified professional.
- Plastic containers used for packing should be stored out of children reach as they may be a potential source of danger.
- Do not allow children to play with controllers which should be stored out of their reach.
- The window should be used according to its intended design. FAKRO shall not be responsible for any consequences being the result of improper window use. Any unauthorised interference in the window structure is strictly forbidden.
- Any activities related to cleaning, adjustment or dismantling of the electric parts of the window should be preceded with disconnecting it from the power supply.
- Electric parts must not be washed using solvent-based substances or open stream of water (do not immerse in water).
- Any repairs of the window should be carried out by service authorised by the manufacturer. Repairs of the DEC/DEF/DEG/DEZ Z-Wave window should be carried out using only original parts.
- Electric wires supplying electricity to the power source must have an appropriate cross-section (2x1mm²). Permissible cable length for the above-mentioned section is 30m.
- Only original accessories should be used to ensure proper functioning
- Disassembly of the DEC/DEF/DEG/DEZ Z-Wave window must be done in reverse to the assembly. When dismantling the window, the same security measures should be taken as for installing windows.
- Disassembled windows should be disposed of in accordance with applicable regulations.
- The window must not be used as a fall protection point.

POWER SUPPLY CONNECTION

PLACE OF POWER CABLE OUTPUT



WIRING DIAGRAM



CONTROL PANEL

MOVEMENT SIGNALLING



Cause 1: Window reached extreme position.

Cause 2: Current consumed by the actuator is too low. In case of problems with operating please contact FAKRO Service Dept.



Cause: Current consumed by the actuator is too high. In case of problems with operating please contact FAKRO Service Dept.

Z-WAVE NETWORK STATUS SIGNALLING



Cause: The device has not been assigned to any Z-Wave network – remote control is not possible.



Cause 1: The device is assigned to the Z-Wave network – remote control is possible.

Cause 2: No power supply or no connection to the source of power supply.

CONTROL

MANUAL CONTROL



Control the window by pressing MANUAL CONTROL BUTTON.

i The button works in sequential mode: 1. Start, 2. Stop, 3. Start in the opposite direction, 4. Stop, 1. Start...

OPERATION USING THE ZRH12 REMOTE CONTROL



The DEC/DEF/DEG/DEZ window is factory-assigned to the first group of the ZRH12 remote control.



Control the window using UP / DOWN buttons.



Stop the action using STOP button.

i Only those groups to which devices have been assigned are active.

PROGRAMMING

The window is factory-assigned to the ZRH12 remote control. It is possible to add the window to any Z-Wave network. For programming information, refer to the controller's user manual which is intended to control the window.

WARRANTY

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

- Installation has been performed as per manufacturer recommendations.
- Seals remain intact and no authorised 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.

FAKRO Sp. z o.o.

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tel. +48 18 4440444, fax +48 18 4440333
www.fakro.com

Quality certificate:

Device

Model

Serial number

Seller

Address

Purchase date

Invoice No.

Signature (stamp) of person installing a device