

User Manual



Manually operated Pivot doors

Manually operated Pivot doors

User manual for manually operated Pivot doors.



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Information

By purchasing a Sky-Frame Pivot door, you have chosen a door with outstanding quality. Congratulations on this decision, and we hope that you enjoy this product.

A Pivot door is a special component which has many advantages. Whenever you operate it you will be amazed at how easy it is to move the heavy door.

For design reasons a danger area is unavoidable, particularly in the rear area of the hinge, to which attention must always be paid.

In order to ensure that you can enjoy your door for a long time, please read this user manual carefully and have the door maintained by your Sky-Frame partner at regular intervals.

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Manually operated Pivot doors General information

1. General information

1.1 Information concerning this manual



This manual describes how to use the Pivot door safely and efficiently. The manual is a constituent of the door and must be accessible and in close proximity to the door at all times.

The instructions must be read carefully!

The basic prerequisite for safe operation is compliance with all specified safety instructions and instructions in this manual. The illustrations in this manual are intended to provide a basic understanding and may differ from the actual situation.

1.2 Explanation of symbols

Safety instructions:

The safety instructions in this manual are marked with symbols. The safety instructions are preceded by signal words that indicate the level of danger. Adhering to the safety instructions and taking careful action will help to avoid accidents, injuries and damage to property.



WARNING! (Danger to life and limb)

These symbols indicate a potentially dangerous situation which, if not avoided, can result in death or serious injury.



CAUTION! (Risk of fault)

This combination of symbol and signal word indicates a potentially dangerous situation that could lead to minor injuries if it is not avoided.



NOTE:

This symbol highlights useful tips, recommendations and information for efficient and fault-free operation.

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1.3 Symbols in this manual

The following symbols and highlighting are used in this manual to mark action instructions, result descriptions, lists, references and other elements:

1. Marks step-by-step action instructions.

→ Marks a status or an automatic sequence resulting from an action step.

• Marks lists and list entries with no fixed order.

[→ Page No.] References to chapters in this manual.

1.4 Liability restriction

All information and notes in this manual have been put together taking the applicable standards and regulations, the state of technology, our knowledge and our many years of experience into consideration.

The manufacturer does not accept liability for damage caused by:

- Failure to follow the instructions in the manual
- Failure to use the equipment for its correct purpose
- Making technical modifications
- Using non-approved spare parts

The actual scope of delivery may differ from the information in this manual in the event of customised versions, the use of additional ordering options or because of technical changes.

The obligations agreed in the delivery agreement, the manufacturer his general business terms and conditions and delivery conditions, and the legal regulations that were applicable when the agreement was signed are applicable.

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1.5 Warranty conditions

The warranty conditions are included in the manufacturer's general business terms and conditions.

1.6 Customer service

If you have questions about your Sky-Frame product please contact your official Sky-Frame partner.

Our employees are also always interested in receiving new information and experiences resulting from the use of the equipment that may be useful for improving our products.

2. Safety



This section provides an overview of all important safety aspects for providing the user with the best possible protection and for ensuring that operation is safe and problem-free.

Failure to observe the action instructions and safety instructions in this manual can lead to considerable danger.

Risk analysis:

The risk analysis that was filled in and signed in advance when the order was placed serves as confirmation that the content and the dangers have been explained to the customer, who accepts all responsibility for the day-to-day use of the Pivot door.

Residual risk:

All users of a door must be generally aware of the danger zone at the secondary closing edge of every hinged door. It cannot be influenced by the manufacturer, and protection is often structurally and functionally technically impossible.



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Manually operated Pivot doors Safety

2.1 Use for correct purpose

The Pivot door is exclusively designed and constructed for the use for correct purpose that is described in this document.

The Pivot door is exclusively intended for installation in a wall opening, and is intended to provide light, ventilation and access.

Sky-Frame Pivot is not suitable for use in rescue routes, for fire protection doors (fire protection / smoke control doors) and may not be used in public areas.

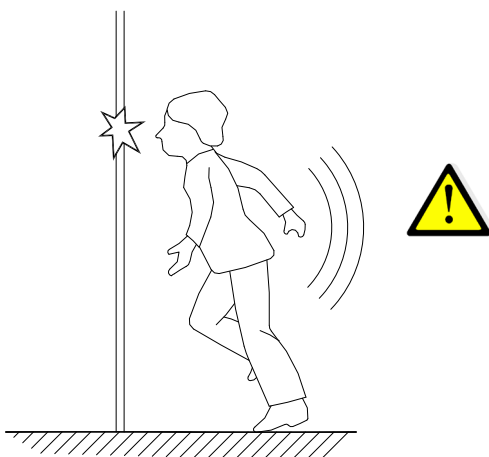
Correct purpose of use also includes complying with all of the specifications in this manual. Any other use is considered to be incorrect.

Claims of any kind for damage caused by incorrect use will not be entertained.

2.2 Basic dangers

In order to minimise health hazards and avoid dangerous situations, the safety instructions listed here and in the other chapters of this manual must be followed.

2.2.1 Transparent wall connection



WARNING!

Risk of injury from transparent wall connection!

A frameless, closed Pivot door may appear invisible and may be overlooked by persons. Walking into the closed door can cause serious injuries.

- In case of doubt, check that the Pivot door is open.
- An authorised person must point out the danger to unauthorised persons or persons (including children) who are at risk because of their physical, sensory or mental capabilities or due to lack of experience or awareness.

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Manually operated Pivot doors Operation

3. Operation

3.1 Operating safety instructions

The Pivot door has been manufactured taking the applicable standards and regulations, the state of technology, our knowledge and our many years of experience into consideration. However, injuries can still occur in the event of improper behaviour. Please observe the safety instructions explained in the following to avoid dangerous situations.

3.1.1 Moving components



WARNING!

Risk of injury from moving components when opening and closing the Pivot door!

Moving components can cause injuries when opening and closing the Pivot door.

- Before opening and closing the Pivot door, ensure that no persons are present in the door area.
- Do not reach into or handle moving components whilst the door is being opened and closed.
- Persons (including children) who are incapable of using the equipment safely because of their physical, sensory or mental capabilities or lack of experience or awareness may not use the equipment without supervision or instruction from a responsible person.

3.1.2 Incorrect operation



CAUTION!

Risk of injury from incorrect operation!

Incorrect operation can lead to serious injuries and considerable damage to property.

- Never bend, twist or subject the door leaf to additional stress.
- Do not place any objects in the door area between the door leaf and the frame.
- Never loosen or remove screws on the system.

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Manually operated Pivot doors Operation



3.2 Danger points

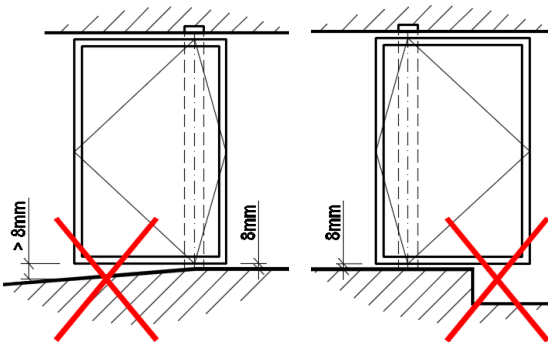
Hazard points of a Pivot door:



- 1 Trapping risk (ceiling)
- 2 Trapping risk (floor)
- 3 Pinching (main closing edge)
- 4 Pinching (secondary closing edge)
- 5 Impact and pinching risk between wall and door leaf

3.2.1 Trapping risk

Between the door leaf and the floor as well as the ceiling there is a gap of 8 mm = possible trapping point 1 + 2.



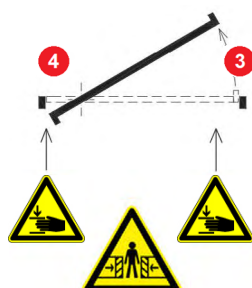
To minimise the trapping risk, please observe the following:

- the floor in the vicinity of the door leaf should be level (no sloping), and it should not enlarge the gap
- the floor may not have any holes / spaces / gaps that enlarge the gap
- there should not be any steps, thresholds or doormats in the vicinity of the door leaf

3.2.2 Pinching risk

Pivot doors may be dangerous unless used properly, and users have been trained in using them.

When the Pivot door is opened, there are two openings created:



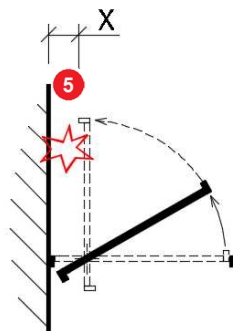
1. The main opening 3 which is created on one side of the axis of rotation (the larger side), and which is the intended passageway
2. A smaller side opening 4 on the other side of the axis of rotation



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Manually operated Pivot doors Operation

3.2.3 Door stop



A suitable door stop must be installed to prevent injury to people and pets, or damage to the door and its surroundings **5**.

Minimum width to prevent trapping of the:

- Head $X \geq 200 \text{ mm}$
- Body $X \geq 500 \text{ mm}$

There is a risk of injury to people and pets, for example through the trapping of body parts.

When operating the door, people and pets may not use the secondary opening as a passageway. The door user must ensure that no person, pet or items become trapped when the door is operated.

3.2.4 Weight

Sky-Frame Pivot can be built significantly larger and heavier than a conventional room door. The large dimensions mean that a moving door can generate large forces at the closing edges. These could cause damage and serious injury. Do not place any additional load on the door leaf.

3.2.5 Gusts of wind

Because of the heavy weight, a door that is moving can generate a considerable amount of force at the closing edges, which can lead to injuries and damage. This must be observed particularly in the event of uncontrolled movements (draughts, gusts of wind etc.).

For this reason, the door must not be left open without a mechanical securing mechanism (not included in scope of delivery). Risk of being locked out!

3.2.6 Range of users

Sky-Frame Pivot may not be used in public spaces, and may only be operated by persons who are aware of the risks and hazards. In the event of a change of ownership, this manual must be handed over to the new owner.

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Manually operated Pivot doors Operation

3.3 Operation

The operation of a manually operated Pivot door differs depending on the version.

3.3.1 Opening



Pivot door, single-leaf

Version 1: Opening via cylinder

The lock bolts are retracted directly via the cylinder using a key. The cylinder can be on the frame profile or the door leaf.

In order to open the door, insert the key into the cylinder and keep turning it until the latches have been retracted all the way. The door can then be opened using the pull handle.

When the Pivot door is being opened using the key, it must be ensured that pulling or pushing the door must take place using a pull handle or a lever handle. Otherwise there is a risk that fingers will be trapped between the blind frame of the door and the door leaf if only the key is used.

Version 2: Opening via lever handle

Opening takes place directly by operating the lever handle attached to the door leaf after unlocking the cylinder.

Version 3: Opening via electro-mechanical lock

An electro-mechanical lock is integrated in the frame profile. The door is unlocked electro-mechanically, and the latches are retracted by operating a control element such as a badge, fingerprint reader or code lock. The door can then be opened using the pull handle.

3.3.2 Closing

The closing procedure takes place in the reverse order.



WARNING!

Risk of injury from moving components

The door leaf must be monitored during the entire closing procedure so that no objects or persons are trapped.

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Manually operated Pivot doors Cleaning and care

3.3.3 Emergency release



Emergency release slot next to stop profile



Pivot doors with an electro-mechanical lock can be unlocked manually from the inside in emergencies so that they can be opened manually in the event of a power failure or a defective lock.

In order to do this, there is a slot in the door at a height of 66 cm above the floor between the frame and the stop profile. This makes it possible to mechanically unlock the lock by inserting a thin object and making an upwards movement, and therefore open the door.

NOTE:

The customer is advised to install an emergency power supply (UPS) with electro-mechanical locks.

4. Cleaning and care

The threshold and the frame profile beneath it should be cleaned at least twice per annum, depending on the amount of soiling.

Following maintenance work must be carried out annually:

- Frame profile cleaning
- Perform sill profile water test
- Checking of lock function and greasing of the latches
- Lubrication of the locks with Teflon spray
- Checking of the fastenings of the attachments (pull handle, lock, hinges etc.)
- Checking of the gap sizes
- Readjustment of the hinges if necessary

Your Sky-Frame partner will be happy to offer you a maintenance contract.

After no more than 3 years a system maintenance must be carried out by a sales partner which includes the following work:

- Check, clean and adjust the hinges
- Clean lock, grease latches
- Check and adjust retractable seals
- Check stop seals
- Checking of the operating elements (pull handle, lever handle)

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Manually operated Pivot doors Cleaning and care Glass

4.1 Glass



As part of the facade, glass is subject to natural soiling. In order to provide problem-free use, certain points must be adhered to during cleaning and care.

Normal soiling is not a problem for glass. Plenty of clean water should be used in order to avoid a scouring effect caused by dirt particles.

Suitable tools:

- Soft, clean sponges
- Leather / cloths
- Rubber wiper

The cleaning effect can be assisted by using cleaning agents that are as neutral as possible or normal commercial household glass cleaner.

If the soiling consists of grease or sealant residue, normal commercial solvents such as white spirit or isopropanol can be used for cleaning.

4.1.1 Non-permissible materials



Float:

TSG:



Of the chemical cleaning agents that are available, do NOT use alkaline solutions, acids or materials containing fluoride.

The use of pointed, sharp metal objects (blades and knives) or scraping off with a glass scraper can cause surface damage and deep scratches, and is not permitted! Scratches may only become visible after a certain time with TSG due to its surface tension.

CAUTION!

NEVER use metal blades!

These can cause severe damage to TSG glass.

4.1.2 Important notes

The following points must be observed during glass cleaning:

- use normal commercial glass cleaning products
- rinse cloths as often as possible
- grains of dirt in cloths can scratch the glass
- do not use abrasive or scouring materials
- do not use alkalis (lyes)



Film "Cleaning and Care"
on sky-frame.com/manual

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Manually operated Pivot doors Cleaning and care Surface

4.2 Surface



Proper cleaning and care of the coated surfaces is required to keep the surface of the aluminium profiles clean and retain their shiny appearance for many years, and is therefore a prerequisite for the guarantee.

Cleaning instructions:

- Loose dust: Wipe off with a dry cotton cloth without using pressure, or remove with a sponge and water and then dry with a clean cloth
- Adhesive, paint, putty, tar: Carefully remove using a suitable solvent and a clean cotton cloth
- Cement, mortar, concrete, plaster: Remove immediately with a sponge or soft cloth before it dries. Wash off under flowing water and then dry with a clean cloth.
- Sealed surfaces: Rinse with plenty of water. Clean with neutral cleaning agent and a sponge. Do not use abrasive, mechanical cleaning! Rinse and dry.
- Soiling in general: Rinse with plenty of water. Clean with neutral cleaning agent and a sponge. Rinse and dry.

Recommendation:

- pH-neutral cleaning agent in diluted form



Cleaning interval: **at least once per annum***

Cleaning agent:

- NOT with high concentration of solvent
- NOT scouring / abrasive
- NOT alkaline (lyes)
- NOT acidic
- NOT containing chlorine

Elements installed in a particularly aggressive atmosphere (near the sea, industrial climate or the combination according to corrosivity categories C4 and C5 according to ISO 9223): **monthly***


*** or if urgently required**

(direct exposure to salt or chlorine water, also spray; sand; bird droppings; insects; pollen; autumn leaves...)

The following generally applies:

- Always wipe in the rolling or grinding direction.
- Only use gentle pressure when cleaning.
- Use distilled or mineral water for final rinse (avoids streaking).
- Remove with a squeegee and dry with a clean cotton cloth.
- Do not clean in direct sunlight or if the surface is very hot.



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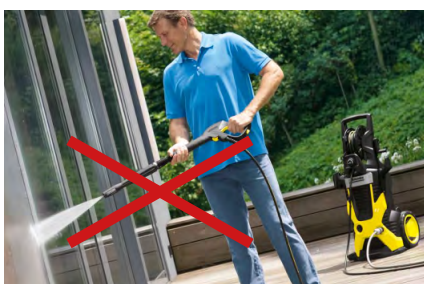
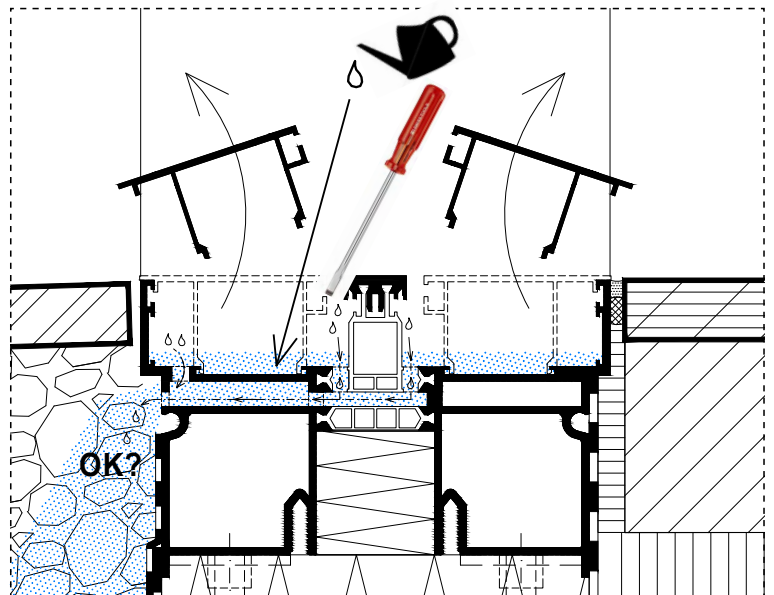
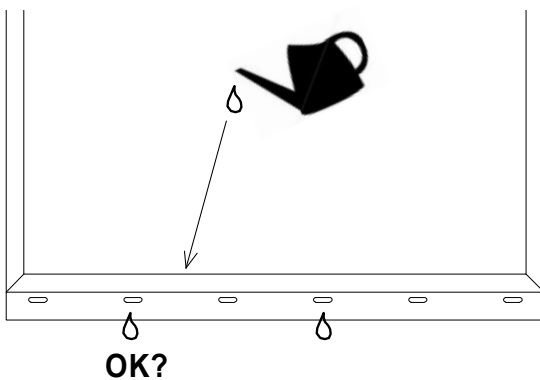
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Manually operated Pivot doors Cleaning and care Sill profile

4.3 Sill profile

To retain **good operating properties** and guarantee that **correct drainage** takes place over the long term, the sill profiles should be checked and cleaned if necessary:

1. Carefully lift the threshold profiles out of the frame profile (e.g. using a screwdriver). Take care not to scratch the surface when doing this.
2. Remove dry dirt and leaves using a vacuum cleaner (narrow nozzle).
3. Wipe the frame with a damp cloth.
4. Water test: Check that all drainage slots are clear [OK?].
5. Then the threshold profiles can be re-inserted and clipped in.



TIP:

Clean blocked drainage slots with a thin piece of wood or plastic and rinse with plenty of water in order to ensure that drainage takes place.



CAUTION!

DO NOT USE A HIGH-PRESSURE CLEANER!

High pressure can damage the seal of the sill profile.

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Manually operated Pivot doors Trouble-shooting

5. Trouble-shooting

The possible causes of faults and the work that is required to remedy them are described in the following chapter. Please contact specialist company in the event of faults that cannot be remedied using the following instructions.

5.1 Debugging the system

Door leaf cannot be moved:

- Object jammed between Pivot door and frame
→ remove object
- Door damaged → contact a specialist company

Door leaf can only be moved slowly:

- Heavy soiling in movement area
→ clean Pivot door and hinge

5.2 Incorrect repair



WARNING!

Risk of injury from incorrect repair!

Attempts to repair the system by an insufficiently qualified person can result in serious injuries and damage to property.

- Never dismantle the system.
- Never repair or modify the system yourself.

5.3 Spare parts



WARNING!

Risk of injury from using the wrong spare parts!

The use of wrong or defective spare parts or failing to install them correctly can put the user at risk and cause damage.

- Always have defective parts replaced by a specialist company.

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Manually operated Pivot doors Trouble-shooting

5.4 External condensation



The external glass is in a direct "radiation exchange" with the sky. Depending on the installation situation, this radiation exchange can now lead to considerable cooling of the external glass (particularly on clear nights).

If the temperature of the outer glass surface drops below the temperature of the adjacent outside air, this will result in the formation of condensation on the outer surface of the glass (even ice in certain cases).

This procedure is generally known in nature as dew or hoar frost formation.

Heating of the outer surface and the outside air (by the morning sun, for example) will cause the condensation to disappear again.

This phenomenon is not a malfunction, but is an **indication of the outstanding heat insulation** and the functionality of the insulating glass that is used.



The following generally applies to any insulating glass:

The lower the heat transmission (the smaller the U_g value or also: the better the insulating glass) the warmer the glass remains at the room side and therefore the colder the outside glass, which may become fogged.

Because of the improved insulation of triple-glazed units, condensation is more likely to form on the surface of the outer glass layer more frequently than with double-glazed units.

5.5 Internal condensation

The formation of dew on the room-side pane of glass is assisted if the air circulation is blocked (protruding soffits, curtains, unfavourable radiator arrangement, lack of ventilation) and the ambient air is too humid.

The ambient humidity must be adapted to the situation accordingly (dehumidifier, convector).

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Manually operated Pivot doors Dismantling and disposal

6. Dismantling and disposal

When the system reaches the end of its service life, it must be dismantled and disposed of in an environmentally friendly way.



WARNING!

Risk of fatal injury from incorrect dismantling!

Problems that occur during dismantling can lead to life-threatening situations or cause a considerable amount of damage.

- Only allow experts from the specialist company to dismantle the system.
- Do not dismantle the equipment or make local modifications yourself.

7. Further instructions

Available languages:



- German
- English
- French
- Italian
- Norwegian

Download: <https://www.sky-frame.com/manual>

Disclaimer:

All specifications are non-binding and must not be regarded as a guarantee.

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