

Version 1.4
Installation

SILENTDOOR 
Open the doors to endless possibilities

Timber Doorsets

Install Guidelines

TIMBER DOOR

INSTALLATION

Timber

Steel

Glass

Security

SilentDoor Timber Acoustic & Fire Doors Installation Guide.

1. Reception, Inspection and Storage

To ensure the doors are in good condition and meet the specified design requirements at the time of installation, it is essential to inspect and handle them correctly upon delivery. Within the first 24 hours of receiving materials on site, the following checks should be carried out:

- **Verify packaging integrity:** Ensure all packages are correctly labelled, intact, and free from damage.
- **Inspect for transport damage:** Check for signs of mishandling such as dents, scratches, or breaks along corners, edges, or faces of the product.
- **Confirm labelling and documentation:** Cross-check delivery notes and labels to confirm that the correct door type, rating, and size have been supplied.
- **Storage conditions:** Store doors flat, off the ground, in a dry, well-ventilated environment. Protect from direct sunlight, rain, or extremes of temperature.



Proper inspection and storage will help prevent installation delays and ensure SilentDoor products maintain their performance characteristics.

1.1. Typical SilentDoor Packing



All SilentDoor doorsets are carefully wrapped, with every component packed separately for full protection. The image shown is of a one-off doorset: in this case, **hinges, frame corner biscuits and the sashlock are bagged and taped to the door frame packaging. Do not dispose of any packaging until you have removed these component packs — replacements will be chargeable.**

For **multiple doorsets, hinges, frame corner biscuits and sashlocks** are typically supplied **boxed**. Please check all cartons and packaging thoroughly on receipt to ensure no fittings are missed.

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2. Handling and Storage

To ensure SilentDoor products remain in optimal condition during site works and while multiple trades are active, appropriate handling and storage precautions must be observed.

Storage Instructions:

- Keep all packages **sealed and unopened** until required for installation.
- Protect the doors from climatic factors that may damage the timber, including:
 - Air currents
 - Direct sunlight
 - Water or high moisture exposure
- Store packages with a **minimum clearance of 0.5 m** from walls to allow ventilation.
- Stack packages **flat and level**, supported by at least four evenly spaced bearers (e.g., timber strips or pallets) to ensure uniform support and avoid warping.
- Maintain relative humidity in the storage area between **30% and 65%**.



By following these guidelines, the doors will remain stable, undamaged, and ready for installation when required.

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3. Conditions Prior to Installation

For successful installation and long-term performance of SilentDoor products, the following conditions must be met prior to fitting:

3.1 Work Conditions (Installation Time)

- All major construction works should be **completed before door installation**. In exceptional cases, installation may proceed before final wall finishes are applied, but walls must at least be prepared.
- The floor must be **fully installed** or, at minimum, its finished height and relevant levels clearly marked.

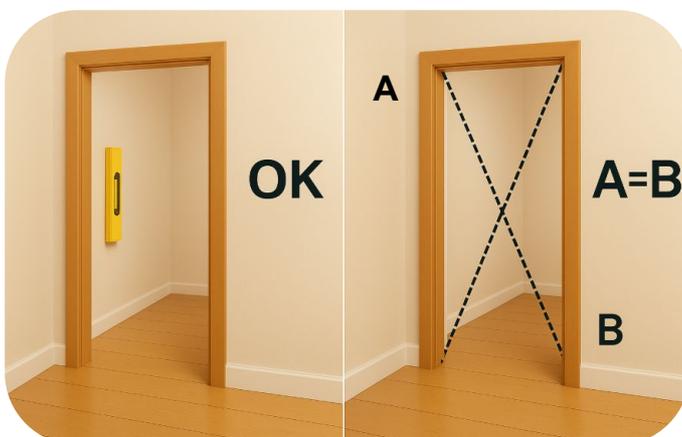
3.2 Local and Environmental Conditions

Humidity and Temperature

- Avoid installation during periods of **high relative humidity**.
- The following conditions should be maintained before and during installation:
 - **Wall moisture content:** Critical for veneered components, as excess moisture can transfer to the door and cause damage. Allow sufficient time for walls to fully set and dry.
 - **Door assembly components:** Ensure their moisture content is stabilised to closely match the intended conditions of use.
 - **Recommended maximum moisture values** (ref. UNE-EN 942:2007):
 - Relative humidity: **30%–65%**
 - Wall and ceiling humidity: **<2.5%**
 - Humidity in plasters and paints: **<5%**

3.3 Support Conditions (Sub-Frame)

- A **sub-frame** (usually timber) must be fitted between the wall and the door frame.
- The sub-frame provides alignment during construction, ensures accurate fitting, and allows the doorset to be assembled or disassembled without damage to surrounding finishes.
- The sub-frame must be **plumb (vertically true)** and **square (accurate right angles)** to guarantee correct installation.



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3.4 Surface Levelling

Accurate levelling and alignment of both the floor and surrounding walls are essential for a successful installation.

- The **floor must be level** to provide a stable and even base for the doorset.
- The **walls must be plumb** (vertically straight) and correctly aligned to ensure the frame sits square and true.



Proper surface preparation minimises installation issues, ensures smooth operation of the door, and contributes to long-term performance.

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4. Planning the Installation

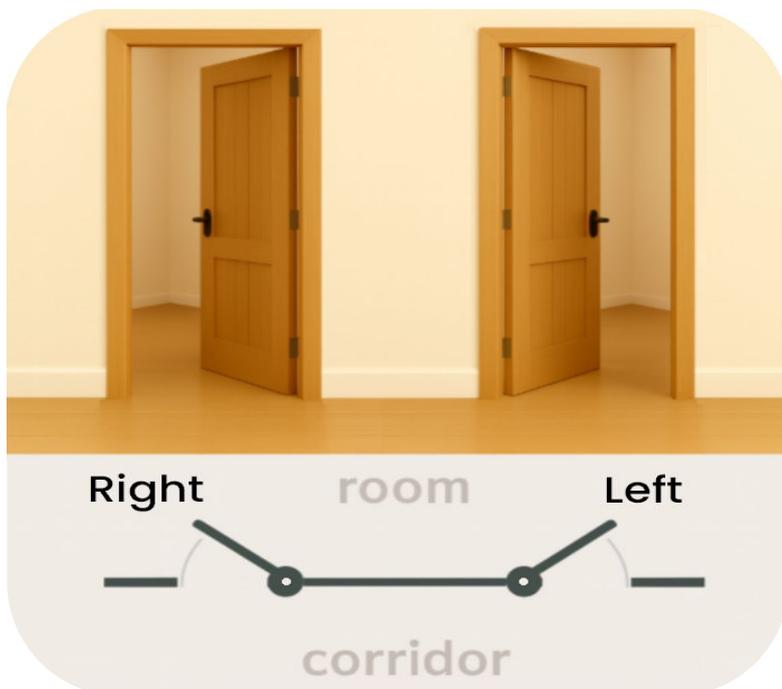
Thorough planning prior to installation is essential to ensure accuracy, efficiency, and long-term performance of the doorset. Careful preparation helps establish realistic timelines, organise processes, and reduce unforeseen issues.

4.1 Site Element Distribution

- Review the project's technical documentation to confirm installation details.
- Keep products in their **protective packaging** until ready for installation at their final location.
- Ensure sufficient space is available for safe handling and assembly.

4.2 Determining Door Opening Direction

- Confirm the door opening direction as specified in the technical documentation.
- The opening direction is determined while standing **outside the room**:
 - **Left-hand opening** – hinges on the left, door opens towards you.
 - **Right-hand opening** – hinges on the right, door opens towards you.
- Verify all doors against the drawings to avoid installation errors.



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4.3 Sub-Frame Compatibility

- Check the internal dimensions of the sub-frame (hollow) to confirm they are compatible with the doorset being installed.
- Ensure the sub-frame provides sufficient clearance and correct alignment to receive the door assembly without forcing.



4.4 Clearance Planning

For smooth operation and correct sealing, clearances between the door leaf and frame must fall within the following ranges:

- **Top clearance:** 2–5 mm
- **Bottom clearance (door to floor):** max. 3 mm
- **Side clearance:** 2–5 mm

Maintaining these tolerances is critical to ensure both acoustic and fire performance are achieved.

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5. Placement Process

5.1 General Overview

Once product conformity has been verified and the installation fully planned, the placement process can proceed in three stages:

1. **Unpacking and inspection**
2. **Installation of the doorset**
3. **Final inspection and commissioning**

⚠ Note: Certain components, such as hardware, glazing, and seals, must not be modified or altered. For fire-rated (FD) doors, no cutting is permitted. Additional hardware requiring machining (e.g. peepholes) must not be installed on RF doors without manufacturer approval.

5.2 Tools and Installation Materials

Typical tools and materials required for installation include:

- Rubber hammer, screwdriver, drill, level, stapler, compressor
- Tape measure, square, chisel
- Miter saw, sander, clamps, white glue
- Polyurethane foam (fire-retardant grade for RF doors)

⚠ Important: When unpacking, do not use cutting tools that could damage the product.

5.3 Inspection

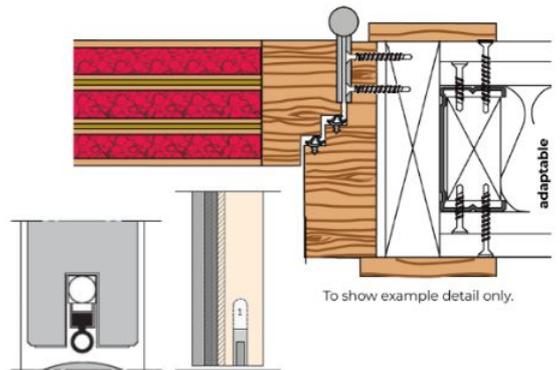
Before installation:

- Inspect both faces and all edges of the door.
- Check for defects such as curvature, warping, or impact damage.

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5.4 Door Placement Process

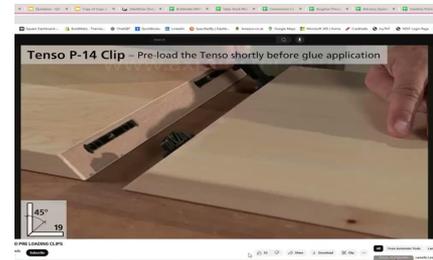
- Door components are typically supplied as a kit (machined leaf, frame, and associated hardware).
- Fire-resistant doorsets are supplied with pre-assembled leaves and frames (not loose).
- Always follow the manufacturer’s installation instructions precisely, taking into account:
 - Wall type (rigid or flexible substrate)
 - Door type (hinged or pivoting)
 - Any project-specific construction details



5.5 Frame Assembly and Gap Presentation

- Assemble the frame using screws or staples.
- Install hinges on both the frame and the door leaf.
- Position the doorset flush with the finished floor level.
- Secure temporarily using wedges to maintain alignment.

Video Link



5.6 Fixing Hidden Hardware

- If concealed upper closure hardware is required, install it at this stage on both the frame and the door.
- During installation, set hardware tension to a minimum.
- Carry out final adjustments after the doorset is fully installed.

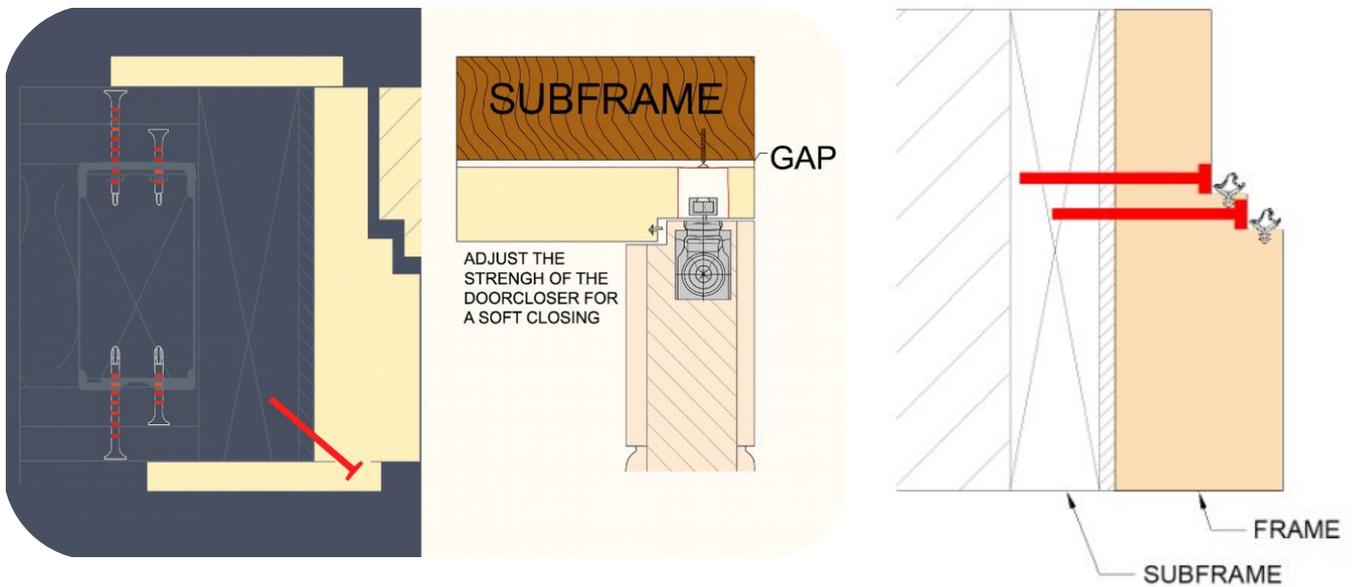
5.7 Basic Fixing of the Door Frame

- Begin installation with the **hinge side** of the frame, ensuring compliance with clearance requirements (see Section 4.4).
- Ensure the frame is level, plumb, and square.
- Secure the frame to the structural wall through the hinge mounting holes.
- For additional stability, fix through the architrave at a 45° angle using a nail gun.
- Alternatively, the door frame can also be fixed using **corrugated clips**, installed in accordance with the specified fixing scheme.

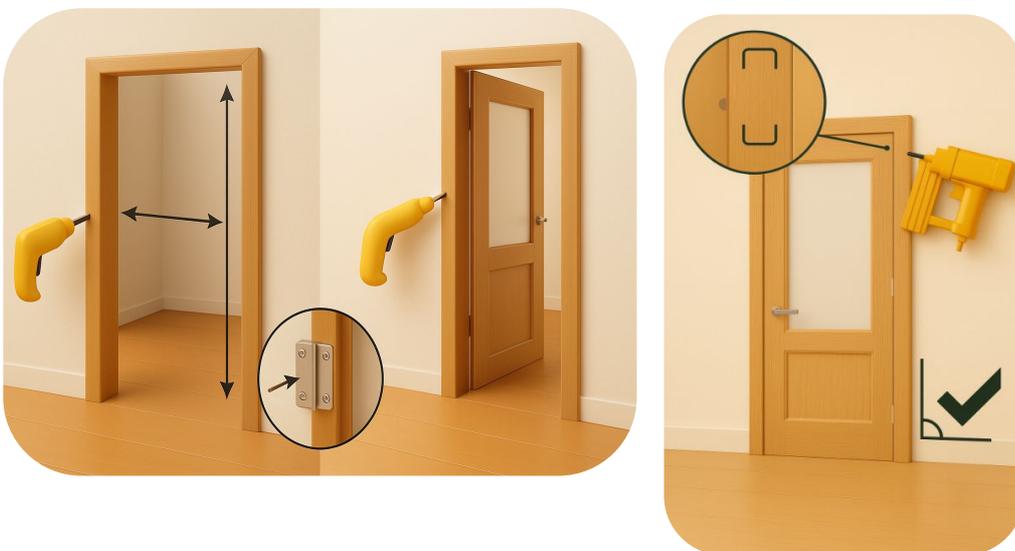
SilentDoor Timber Acoustic & Fire Doors Installation Guide.

5.7 Basic Fixing of the Door Frame

- Begin installation with the **hinge side** of the frame, ensuring compliance with clearance requirements (see Section 4.4).
- Ensure the frame is level, plumb, and square.
- Secure the frame to the structural wall through the hinge mounting holes.
- For additional stability, By carefully removing the rubber seals, **additional fix points** can be created so that the screws are installed at 90° to the frame/structural opening and then concealed again once the seals are refitted.
- Alternatively, for additional stability, fix through the architrave at a 45° angle using a nail gun.



The door frame can also be fixed using corrugated clips, following the specified scheme.



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5.8 Checking Squareness

After fully opening the door, check the alignment in all three axes (X, Y, and Z). The doorset must be positioned level, plumb, and square. If any discrepancies or misalignments are observed, adjust the frame and leaf until proper squareness is achieved.



5.9 Temporary Fixing of the Frame

Stabilise the frame by applying a **temporary fixation** using the central hinge screw. This provides initial stability before final fixing.



SilentDoor Timber Acoustic & Fire Doors Installation Guide - **Installer Compliance Check.**

5.10 Checking Level and Plumb

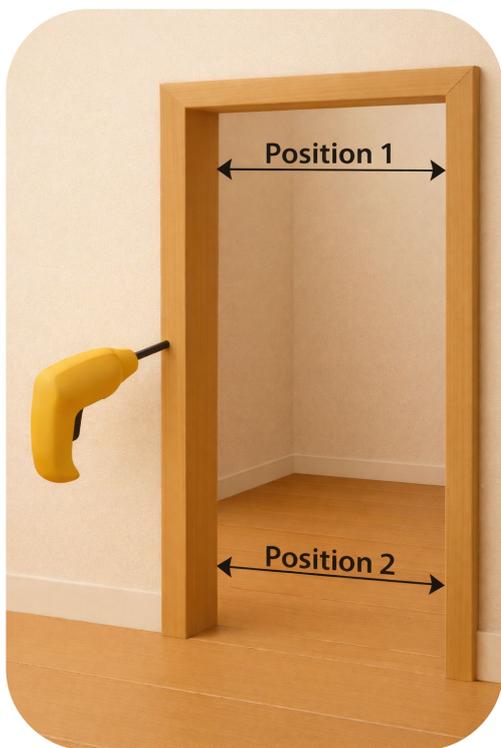
With a spirit level and set square, confirm alignment in all three axes, focusing in particular on the hinge side of the frame. Verify that the clearances between the frame and door leaf are uniform on all sides. Adjust as required to maintain level and plumb.

- **Frame Squareness Check**

Install hardware on the door leaf, including hinges, handles, closers (upper and lower), and any additional specified fittings.

5.11 Final Fixing of the Frame & Compliance

Important: Please record the final dimensions for **Position 1** and **Position 2**. These measurements must be logged and returned to **SilentDoor** as part of the compliance requirements for doorset certification and warranty purposes. Return by email to support@silentdoor.co.uk



IMPORTANT - Compliance requirement (record and return measurements)

Project reference required (.....	
Position	Measured opening width (mm)
Position 1 (= top internal width)	
Position 2 (= bottom internal width)	

No dimensional tolerance is permitted (+0/-0). Recorded measurements must match the approved doorset specification; any discrepancy may impact certification and/or warranty.

Installer-recorded measurements form part of the doorset certification record. Any deviation from the approved specification or installation instructions may invalidate certification and/or warranty. SilentDoor accepts no liability for measurements recorded incorrectly or not returned.

PLEASE NOTE: Any variation in the recorded dimensions may affect certification and/or warranty validity.

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5.12 Installation of Hardware on the Door Leaf

Install hardware on the door leaf, including hinges, handles, closers (upper and lower), and any additional specified fittings.

⚠ If building works are ongoing, leave the **automatic lower drop seal fully retracted** to prevent accidental damage.

5.13 Sealing

Fill the gaps between frame and subframe using **polyurethane foam**. For fire-rated doors, ensure that **fire-rated foam** is used to maintain certified fire performance.

5.14 Fixing the Architrave

- Cut the architrave elements with the cut edge facing downward (to the floor). Position on the frame and mark joints.
- For extendable architraves, insert into the recess within the frame and adjust to fit the wall.
- For non-extendable architraves, fix using suitable adhesive. Apply white glue at miter joints for added strength and durability.



Video Link for Drop Seal.



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5.15 Hardware Check and Adjustments

Once installation is complete, carry out a full inspection to confirm that all hardware is fitted correctly and functioning smoothly. Pay particular attention to:

- Adjustment of the **drop-down seal**, ensuring the rubber closes evenly against the floor.
- Latch alignment and adjustment.
- Regulation of upper closing mechanisms (visible or concealed).

Hinge Adjustments – Concealed Hinges (Tectus TE 540 3D)

SilentDoor products are typically fitted with **Tectus concealed hinges by Simonswerk UK** (model TE 540 3D). This hinge system combines design with functionality, offering:

- A completely concealed appearance
- Load capacities up to 300 kg
- 180° opening angle
- Three-dimensional adjustability (height, side, and compression)
- Maintenance-free slide bearing technology

These characteristics make the TE 540 3D the preferred solution for high-performance acoustic and fire door applications.

Video Link



SilentDoor Timber Acoustic & Fire Doors Installation Guide.

6.0 Site guideline for painters (issue to the decorator)

Painting glazed acoustic doorsets – avoiding paint ingress at glazing beading

Scope: Painted finish to visible faces of glazing beads on acoustic/FD-rated doorsets with 44 mm glass.

Do not:

- Do **not** flood the glazing edge with paint; avoid heavy loading at bead/glass junctions and mitres.
- Do **not** introduce mastic/silicone at the glazing line unless **approved in writing** (risk to fire/acoustic performance).
- Do **not** remove beads/glass or disturb intumescent/acoustic seals.

Preparation:

1. Clean and de-dust beads and glass edges; ensure primer is sound.
2. Mask glass with **low-tack** tape 0.5–1.0 mm back from the bead/glass junction (so paint does not bridge into the pocket).
3. Lightly denib the primed bead; tack-rag.

Application:

1. Use a **fine sash/artist's brush** for the edge, keep paint film thin.
2. Lay off away from the glass line, **no pooling at mitres**.
3. Apply **two or three light coats** rather than one heavy coat, **respect recoat times**.
4. Before removing tape, **lightly score** along the paint edge with a sharp blade once touch-dry to prevent tear-out.
5. Additional painter note: the painter must use a small brush to paint very carefully the opposite beading, and not use too much paint, to prevent it from entering the interior part. He should have the knowledge to do it. Even if he manages to do it right, the client may still see the interior side of the beading (white primed) through thicker glass. If the client knows the colour we can supply the beading already painted.
6. Optional cosmetic mask: a thin veneer slip can be carefully inserted between the vision panel and the beading to mask minor bleed visible through the glass line. This is cosmetic only and must not disturb intumescent/acoustic components.

Colour-contrast advisory:

Where finish colour contrasts with white primer (e.g., dark greens/blacks), the inner return of the opposite bead may remain faintly visible through thick glass. **For a fully uniform sightline, specify factory or supplied pre-painted beads to match the finish colour.**

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7.0 Commissioning & Maintenance

6.1 Final Commissioning

- Operate the door several times to confirm smooth opening and closing.
- Verify that clearances are consistent and within specified tolerances.
- Check latch operation, drop seals, and closers for correct function.
- Confirm acoustic and fire seals are continuous, undamaged, and properly seated.
- Record installation checks for sign-off and client handover.

6.2 Cleaning and Protection

- Clean the door and frame surfaces with a soft cloth. Avoid abrasive cleaners or excessive water.
- Protect finished doors from damage during ongoing site works by using protective coverings (without adhesive tape directly on the surface).

6.3 Periodic Maintenance

- Inspect hinges, locks, seals, and closers at least every 6 months.
- Adjust hinges and closers if alignment shifts due to building settlement or use.
- Replace worn seals or damaged ironmongery with approved components only.
- For fire-rated doors, maintain records of inspections and keep the door free from any modifications that could invalidate certification.

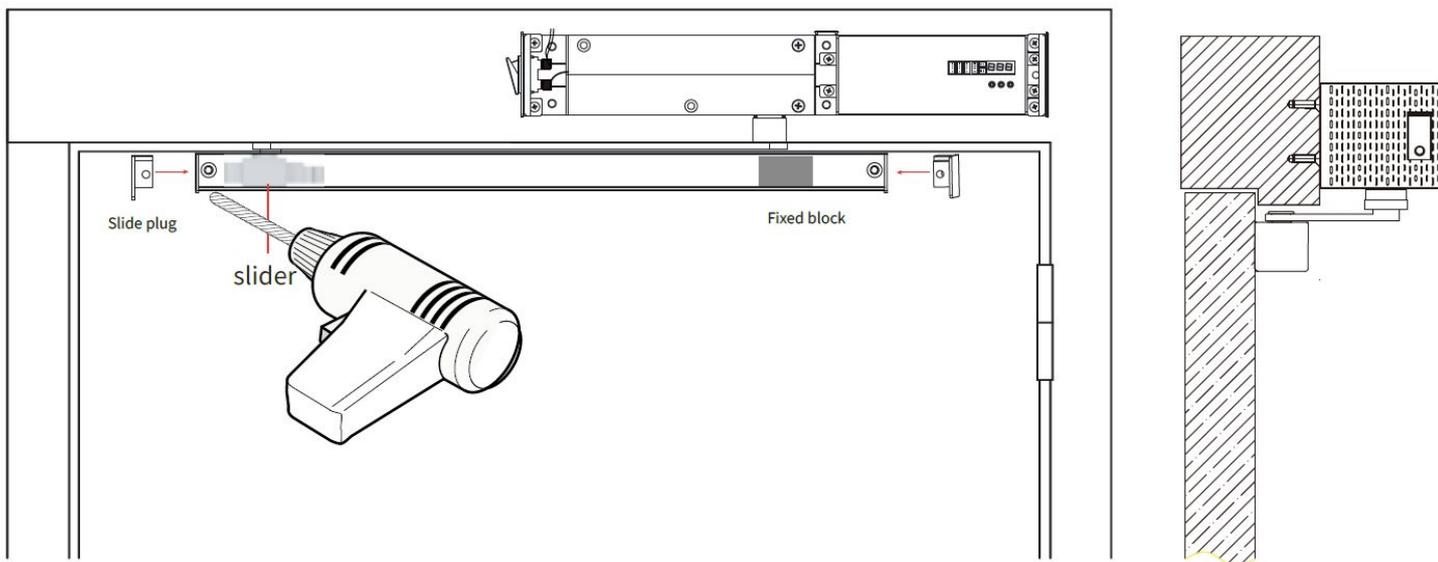
6.4 Warranty Conditions

- The warranty applies only if installation has been carried out in accordance with this guide.
- Alterations to door leaves (e.g. cutting, additional machining) or use of non-approved hardware may void the warranty.

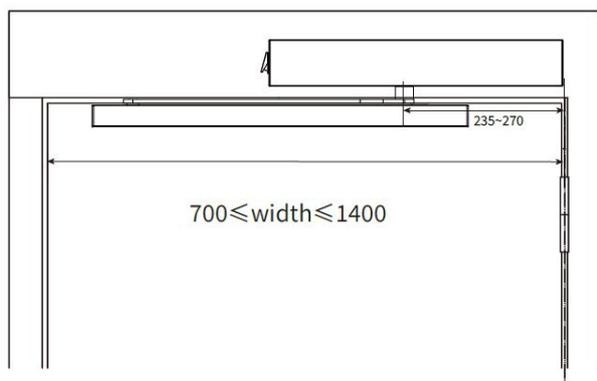
High performance, versatile, automated access.

Installation method for surface-mounted door operator

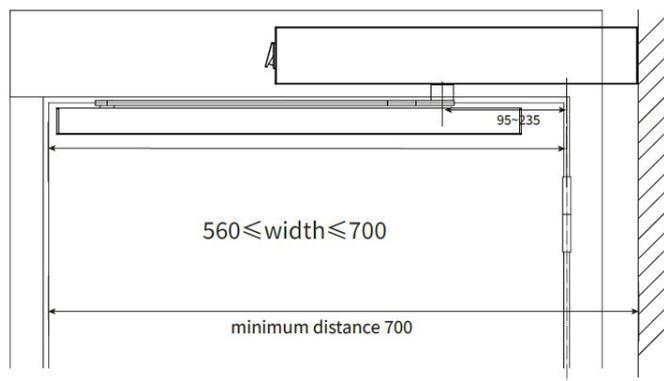
(please refer to the product manual for detailed installation dimensions and step-by-step instructions).



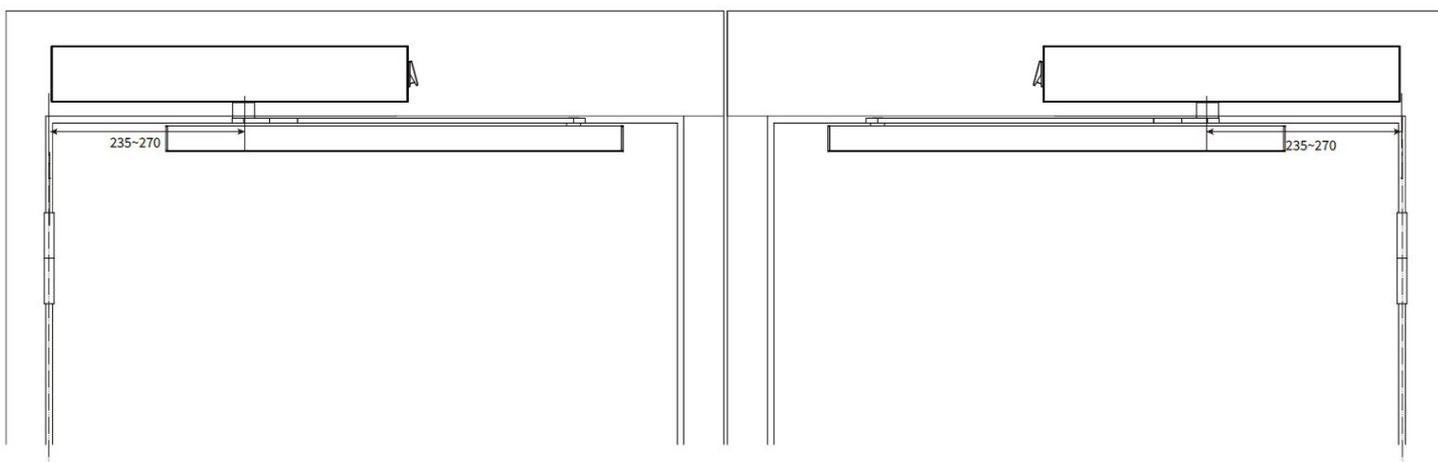
When the door width exceeds 700mm



When the door width is less than 700mm



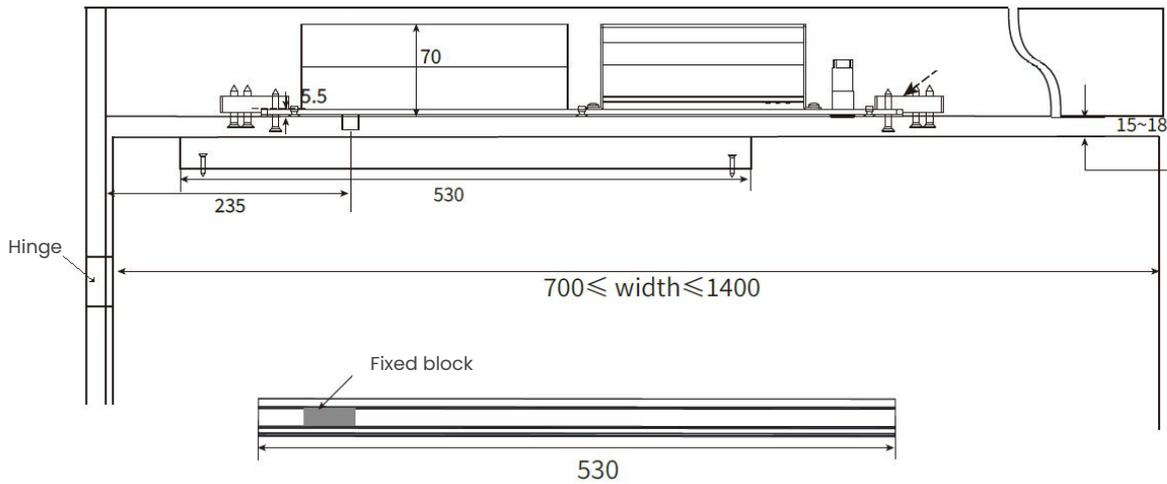
Surface mounted double door.



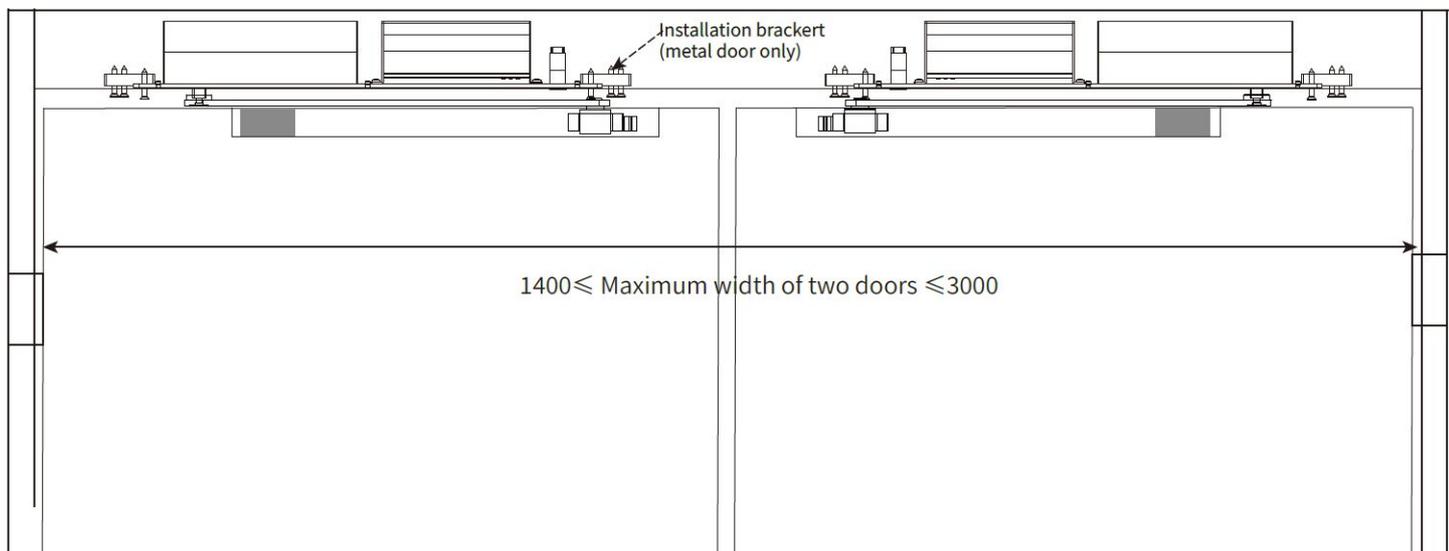
High performance, versatile, automated access.

Installation method for a concealed door operator

(please refer to the product manual for detailed installation dimensions and step-by-step instructions).



Note: Ensure that the support arm does not obstruct the door's movement during opening or closing.



External Equipment Overview

The external interface adopts a relay (dry contact) signal, enabling straightforward integration with access control systems, safety sensors, alarms, and other external equipment.



Access control systems



Electric locks



Microwave induction sensors



Contact-free inductive switches



Anti-collision sensors



Camera sensors