



Version 1.0
Installation



Rw Steel

Installation Guidelines .

SilentDoor Steel Acoustic, Security & Fire Doorsets
Covering SilentDoor Rw Steel



Made-to-measure, pre-hung steel doorsets combining acoustic performance, fire protection and a durable pre-painted finish. Supplied as a complete assembly for efficient installation and a clean, coordinated appearance.



Tested
Performance



Acoustic &
Fire Rated



Simple
Installation



Site Checks &
photo records

Quality

| Performance

| Reliability

GUIDE NAVIGATION

Contents / page directory.

A page-by-page guide to installation, use and maintenance.

Planning & preparation

- 03. Introduction
- 04. Design considerations
- 05. Delivery & inspection
- 06. Storage & handling
- 07. Timber support frame
- 08. Walls: 40 & 45dB
- 09. Walls: 50 & 55dB

Lobby & installation

- 10. Two-door acoustic lobby
- 11. Lobby walls & junctions
- 12. Frame preparation
- 13. Hanging, fixing & sealing
- 14. Door stops
- 15. Stops: taller leaves
- 16. Important precautions
- 17. Cylinder replacement

Aftercare & reference

- 18. Maintenance
- 19. Warranty & aftercare
- 20. Q&A: frame alignment
- 21. Q&A: locks
- 22. Contact & assistance
- 23. Serial-number locations
- 24–25. Notes / sketches
- 26. Contact summary

Introduction.

Designers. Installers. Users.

Quality and correct installation.

Thank you for choosing a SilentDoor Rw Steel doorset. To ensure people's safety, the security of the premises and optimum doorset operation, the instructions on the following pages must be followed.

Qualified professionals.

Installation and maintenance must be carried out exclusively by qualified professionals. Please retain this manual for future reference.

Document information.

Read this guide alongside the technical information supplied with your doorset. Specifications and installation requirements may vary by configuration. Contact SilentDoor if you need clarification.

About the illustrations.

Illustrations show general installation principles. Steel doorsets have a 15mm threshold. Follow the stated dimensions and the technical documentation supplied with your SilentDoor Rw Steel doorset.

02 / BEFORE SPECIFYING

Design considerations.

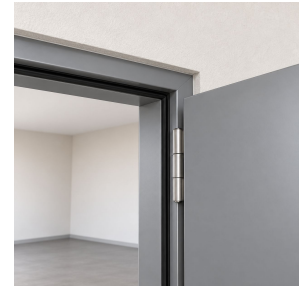
1. Exposure to sunlight.

Metal doors exposed to direct sunlight heat up and expand. This can cause significant distortion and faults in mechanical or electric locks. Dark-coloured doors on south-facing façades are particularly affected. Shelter them from direct sunlight with a canopy or by recessing them into the façade.



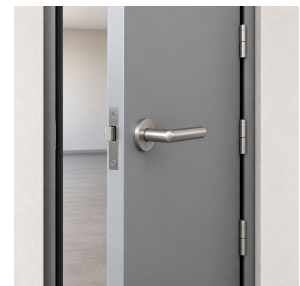
2. Removing the leaf.

The leaf must be removable from its hinges for maintenance. Allow at least 25mm of clear space above the leaf.



3. Hardware clearance.

Where the leaf opens against a wall at 90°, check that there is enough space for the closer body, handle and other equipment.



4. Decorative facings.

For added metal, timber, stone or other facings, contact SilentDoor to check compatibility with the doorset's classifications and its capacity to carry the added weight. On fire doors in particular, added facings or other alterations invalidate the classification report and may cause partial or complete loss of performance.



5. Two-door lobbies.

In an enclosed space between two doors, air pressure can significantly slow or obstruct closing. Provide a pressure-relief valve to prevent overpressure between the doors.



03 / ON DELIVERY

Delivery & inspection.

1. Unloading.

Doorsets arrive on pallets or in individual packaging. For double-leaf doors, the frame is wrapped separately. Unload carefully using a forklift or other suitable handling equipment. Check the number of packages against the labelling.



2. Inspection.

Check the condition of all packages on arrival, particularly dents, impacts and scratches that may have damaged the goods. Also check the underside of the pallet for forklift damage. Refuse seriously damaged packages and return them to the sender.



3. Signing the delivery receipt.

Date and sign the carrier's delivery receipt when the goods arrive. Where necessary, record precise reservations identifying any defects.



Acceptable reservations.	Unacceptable reservations.
Missing packages.	Subject to unpacking.
Impacts / scratched paint on identified doors.	Defective packaging.
Damaged handles / glazing.	In poor condition (not precise enough)

Confirm reservations to the carrier within 48 hours by registered letter with acknowledgement of receipt.

Damage or non-conformity.

Check every doorset on delivery. Report damage or non-conformity to SilentDoor immediately and do not install affected doorsets. Retain the packaging, photographs and delivery records to support your enquiry.

04 / BEFORE INSTALLATION

Storage & handling.

1. Storage.

Take every precaution when storing doorsets on site or in the workshop before installation, to preserve their quality and prevent damage. Handle packages carefully. Do not stack anything on the pallets. Store away from sunlight and moisture.



2. Handling.

Provide all equipment needed for unloading and installing the doorsets, taking account of their weight. Particularly heavy leaves have threaded provisions on their top edge for screw-in lifting eyes.



3. An important precaution.

Never carry a leaf by its lever handle. This can misalign the handle with the lock and cause operating faults.

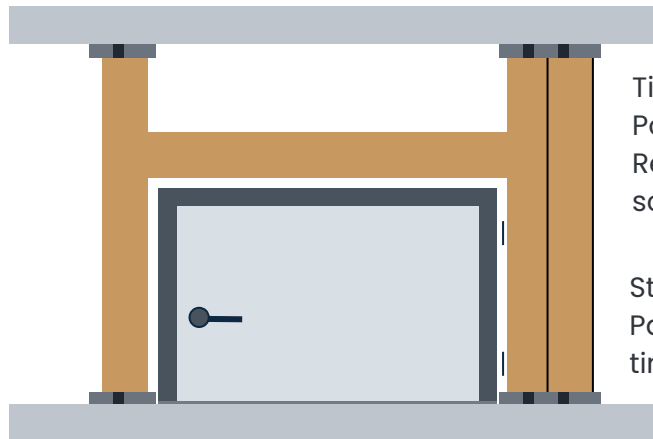


PARTITION OPENINGS / STRUCTURAL SUPPORT

Timber support frame.

Structural soffit
Bolted restraint with
designed movement
allowance.

Bolted base
brackets, structural
floor.



Timber cross-member.
Posts continue to the soffit.
Recommended double post
scenario on hinge side.

Steel doorset fixed first.
Partition then encloses the
timber support.

Elevation principle only – not a fixing schedule

1. Install the timber ‘rugby-post’ frame.

Full-height posts run from structural floor to structural soffit, joined by a cross-member above the door opening. Bolt suitable brackets to the structural substrates, allow for soffit movement.

2. Fit and check the doorset.

Fix the steel frame into the timber support using approved packers and fixings. Fit or retain the pre-hung leaf, then check plumb, square, clearances, closing and seal contact.

3. Close the partition around it.

Build the full-height partition and board around the support after the doorset is fixed and checked. Complete the specified cavity insulation and continuous perimeter seals.

Project-specific structural detail.

Engineer to specify timber grade, sections, joints and anchors for the leaf weight and operating loads. Confirm fire and acoustic compatibility.

WALL BUILD-UPS / TESTED SYSTEM EXAMPLES

Walls for 40 & 45dB doors.

40dB doorset → example wall Rw 51dB.

British Gypsum A206308 (EN) • 124mm overall

One 15mm Gyproc SoundBloc F board to each face of 92 S 50 C-studs at 600mm centres. Use 100mm Isover Modular Roll in the cavity, as specified by the system manufacturer. Published maximum height: 4000mm.

45dB doorset → example wall Rw 58dB.

British Gypsum A206A198 (EN) • 122mm overall

Two 12.5mm Gyproc SoundBloc boards to each face of 70 AS 50 AcouStuds at 600mm centres. Fit 25mm Isover APR 1200 in the cavity. Published maximum height: 4000mm.

Use the complete specified system.

Follow the manufacturer's channels, screws, joints, perimeter seals and head details. These are metal-stud wall examples, the timber doorset support needs an agreed opening detail. Do not substitute ordinary studs or boards.

Selection basis.

Wall ratings are laboratory Rw values for the opaque wall. Door/wall area, sound spectrum and flanking paths determine the complete result.

WALL BUILD-UPS / TESTED SYSTEM EXAMPLES

Walls for 50 & 55dB doors.

50dB doorset → example wall Rw 60dB.

British Gypsum X606A013 (EN) • 203mm overall

Each face: inner 15mm Gyproc SoundBloc plus outer 12.5mm Rigidur H. Use 146 AS 50 AcouStuds at 600mm centres and 25mm Isover APR 1200 in the cavity. Published maximum height: 4000mm.

55dB doorset → example wall Rw 66dB.

British Gypsum A216026 (EN) • 225mm overall

Two independent 60 I 70 I-stud frames at 600mm centres. Fit two 15mm Gyproc SoundBloc F boards to the outside face of each frame, with 65mm Isover APR 1200 in the cavity as detailed. Published maximum height: 3900mm.

Protect the acoustic separation.

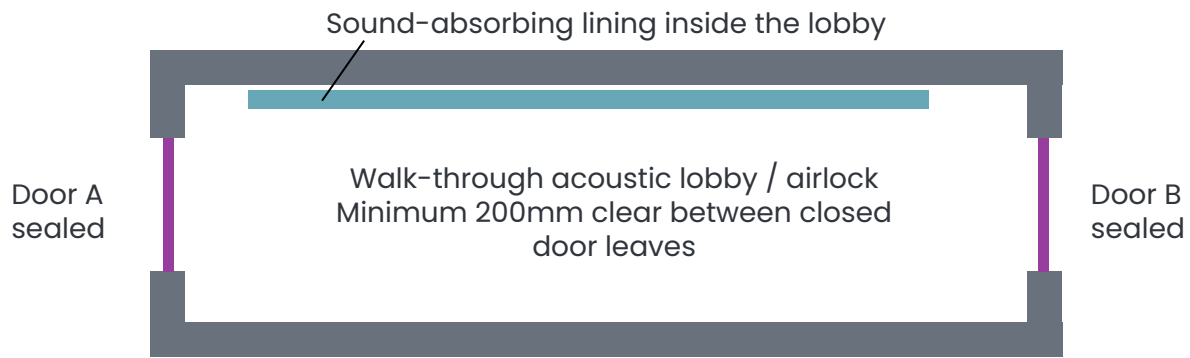
Use approved reveals and support junctions. Do not rigidly bridge independent wall frames with unapproved timber, board, services or fixings. Seal perimeters and penetrations continuously.

Design allowance, not a performance guarantee.

These examples place the wall roughly 10dB or more above the doorset. Confirm the required wall performance for the actual project.

62dB / COMPLETE-ASSEMBLY DESIGN TARGET

Two-door acoustic lobby.



Plan principle • doors shown closed • not to scale

Tested 62dB twin-door arrangement.

Provide a minimum 200mm clear separation between the two closed door leaves, forming the lobby/airlock. Match the tested configuration, including doorsets, seals and surrounding construction, to achieve the stated acoustic performance.

Doors, seals and absorption work together.

Select both doorset ratings from test evidence or a project acoustic assessment. Provide complete frame seals and effective threshold seals on both doors. Add suitable sound-absorbing wall and/or ceiling finishes within the lobby.

Both doors closed for the design performance.

Keep each leaf closing freely onto its seals. Assess any hold-open or control arrangement against the intended operation and escape requirements.

62dB is the complete-system target.

Door ratings are not additive. Confirm whether the project target is laboratory R_w or an on-site metric, then verify the complete arrangement.

62dB / SURROUNDING CONSTRUCTION (RECOMMENDATIONS)

Lobby walls & junctions.

High-performance wall example.

British Gypsum A326016B (A) (EN)

Published opaque-wall Rw 75dB • 550mm overall

Three 15mm Gyproc SoundBloc layers on the outside face of each of two 92 S 10 C-stud frames. Studs at 600mm centres, GAB3 acoustic braces at 3300mm centres; 100mm Isover Cladding Roll 40 in the cavity. Published maximum height: 4200mm.

Retain the full tested build-up.

The 550mm overall depth, cavity, specialist braces and complete manufacturer details are part of the wall specification. This is a candidate surrounding wall, not proof of a 62dB lobby rating.

Control the paths around the doors.

Continue the enclosure to the structural soffit. Detail wall heads, floor junctions, door supports and reveals to avoid acoustic bridges. Seal penetrations; assess ducts, ceilings, floor voids and other flanking paths. Coordinate absorptive finishes and fire requirements.

Confirm before construction.

Agree the complete lobby design and performance evidence with the acoustic designer and doorset/partition suppliers. Verify site performance where specified.

05 / INSTALLATION - FIRST STAGE

Frame preparation & fixing.

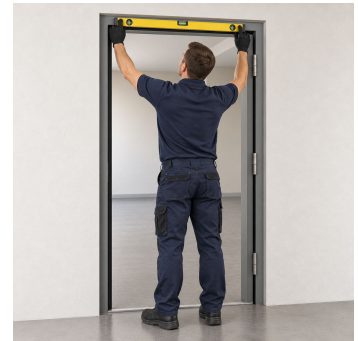
1. Choosing the fixings.

Choose the fixing method for the support: concrete wall, hollow concrete blocks, steel framing, dry lining or other construction. Fixings must suit the doorset weight. For fire doors or other classified performance, follow the fixing method in the technical sheet or doorset classification report.



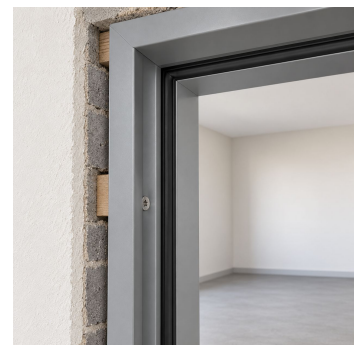
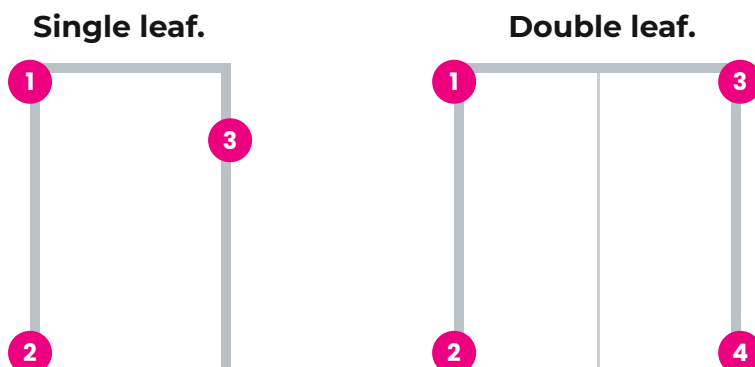
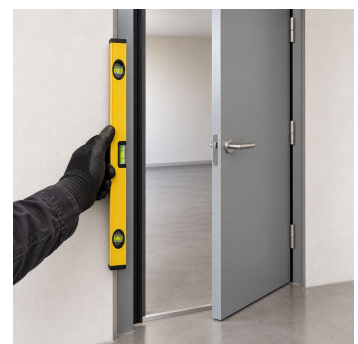
2. Positioning the frame.

If necessary, assemble the frame using the screws supplied for the corner sleeves. Position it in the opening without the leaves. The gap between frame and structure must be 1–5mm at every point around the perimeter. Check the head with a spirit level. If it is not level, pack beneath the lower jamb until it is horizontal.



3. First-stage frame fixing.

Install the first three or four fixing points in the numbered order below. Place packers between frame and structure at every fixing point so that tightening does not distort the frame. Keep the jambs aligned in the same vertical plane. The difference between the two diagonals must not exceed 2mm.



Sequence shown schematically. Use the specified fixing locations.

05 / INSTALLATION — COMPLETION

Hanging, fixing & sealing.

4. Hanging the leaf or leaves.

Before completing the frame fixings, hang the leaf or both leaves to check that gaps are even and the assembly is aligned. Leaves weighing more than approximately 100 kg have a threaded provision in the top edge for a lifting eye.

5. Completing the frame fixings.

Once gaps are even, install the remaining fixing points in the numbered order below. Open the leaves to 90° and check that the frame does not move. Finally, fix the threshold bar where fitted.

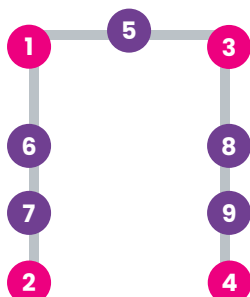
6. Sealing the frame.

Apply silicone sealant (AC95) continuously around the frame, on both internal and external faces, at its junction with the structure. Take particular care on acoustic doors to avoid leaks. Completely fill every gap over 3mm with sealant.

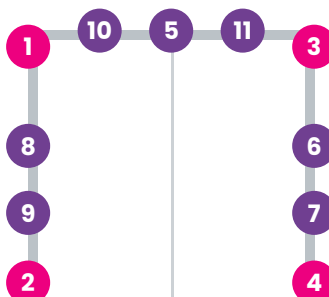
7. Cleaning, finishing and adjustment.

Vacuum swarf and dust through the fixing holes and lock-side strike openings so debris cannot settle on the lock bolts. Fit the supplied cover plugs where needed. Adjust the strikes and check locks and operating hardware. Set the closer's speed and final latch action in accordance with its instructions.

Single leaf.



Double leaf.



Magenta: initial fixings.
Purple: remaining sequence.

06 / AFTER INSTALLATION

Door stops.

1. Position of the contact point.

Position the stop's contact point on the leaf 50mm from the edge opposite the hinges. This prevents leaf distortion and marking of the steel skin.



50mm from the free edge

2. Leaves up to 2,500mm high.



Floor stop.

Recommended for leaves up to 2,200mm high.



Wall stop.

Up to 2,200mm high. The leaf must open unobstructed to 180°.



Mid-height stop.

On a metal post, for leaves up to 2,500mm high.

06 / AFTER INSTALLATION

Stops for taller leaves.

Leaves above 2,500mm high.



Two wall stops.

A pair of wall stops, fitted high and low, is recommended for leaves above 2,500mm high.

Upper and lower stops.

For leaves above 2,500mm high opening to 90°, use a floor stop and an upper stop on a metal angle support.

Precise alignment.

Upper and lower stops must align exactly. The metal angle support must suit the installation and is normally fabricated by the metalworker or installer.

06 / AFTER INSTALLATION

Important precautions.

Paint and seals.

Do not paint any part of the locks or operating hardware. Do not paint the seals.



Changes to the doorset.

Do not modify the doorset. In particular, never replace or modify the lock, closing system, hardware or other door equipment. Modifications invalidate the applicable warranty and the doorset classifications, and may endanger users.

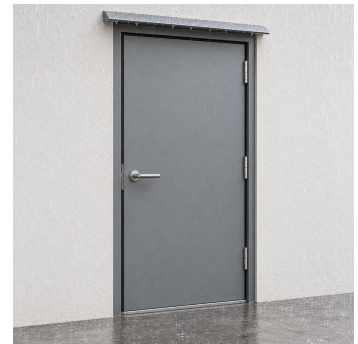
Protective film.

Do not expose the doorset's protective adhesive to sunlight. It may leave permanent marks.



Rainwater protection.

Where the doorset is flush with the outside face of the façade, fit a drip profile above it to divert water running down the façade approximately 50mm away from the doorset.



Glazing films.

Do not add adhesive film to glazing without first checking with the glazing manufacturer that it will not create a risk of thermal breakage.



Leaves open in rain.

Do not leave leaves open or ajar during rain. This helps prevent damage to locks and other equipment.

06 / AFTER INSTALLATION

Cylinder replacement.

Where a doorset is supplied with a construction cylinder for site use, replace it with the specified security cylinder at client handover.



1. Remove the side screw.

Unscrew the retaining screw in the lock case on the edge of the leaf.

2. Align the cam.

Turn the key approximately 10° in either direction to align the cam with the cylinder body.

3. Remove the cylinder.

Withdraw the cylinder gently. If it rubs, slightly loosen the handle-furniture screws.

4. Fit the new cylinder.

Repeat the steps above in reverse order.

Important.

Do not fit thumbturn cylinders to emergency locks or to electric or motorised locks.

07 / IN SERVICE

Maintenance.

1. Hardware and seals.

Once or twice a year, check that no object or new device obstructs the doorset on the leaf, frame or within the swing area. Open and close the leaf or leaves several times and check that bolts engage correctly, especially on fire doors.

Once a year, check locks, panic bars, closers and all operating components that could affect user safety. Check that seals are present and in good condition, including intumescent seals on fire doors.

2. Lubricating moving parts.

Lubricate hinges and lock bolts annually, or more often if necessary, with suitable silicone grease or oil applied by aerosol or pump. Rust removers and stripping products are not recommended. Lift the leaf off its hinges to lubricate the hinges.

3. Replacing faulty parts.

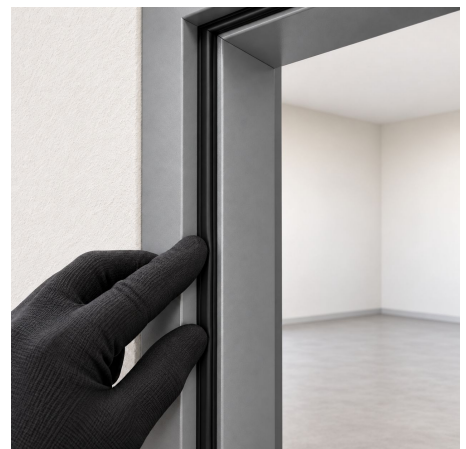
Systematically replace any worn or damaged part.

4. Cleaning.

Clean coated surfaces with liquid household soap, then rinse with clean water. Never use chemicals on coated surfaces or a pressure washer. Ask SilentDoor about cleaning stainless steel parts.

5. Regular use.

Operate every doorset at least monthly to prevent moving parts seizing, especially where exposed to the weather. A doorset left unused for a long period may deteriorate and lose normal operation, particularly at the lock and hinges.



Warranty & aftercare.

1. Scope.

Refer to the warranty and terms supplied with your SilentDoor order for the applicable coverage, duration and exclusions.

2. Conditions.

Use the doorset for its intended purpose and follow the maintenance guidance. Keep the serial number visible and retain your order and maintenance records.

3. Support.

For product support or a warranty enquiry, contact SilentDoor with the doorset serial number, order reference and a description of the issue.

4. Changes and damage.

Report damage promptly and provide photographs where possible. Consult SilentDoor before making alterations or fitting replacement hardware.

Unauthorised changes may affect the doorset's performance and the applicable warranty. Check your order terms for the conditions that apply.

5. Assessment.

SilentDoor can advise on the next steps after reviewing your enquiry. Any remedy is subject to the warranty and terms applicable to your order.

Your order documentation.

This page provides general aftercare guidance. Refer to your order documentation for the applicable warranty terms.

09 / FRAME AND ALIGNMENT

Questions & answers.

The leaves do not hang correctly in the frame. What should I do?

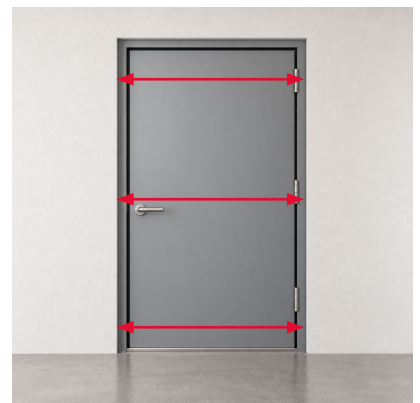
Check the serial numbers to confirm that each leaf belongs to its frame. See page 23 for serial-number locations.

Locks, strikes or electrical contacts are misaligned or rubbing. Why?

Check the frame diagonals. If necessary, loosen the fixings, align the frame using a plumb line or a spirit level longer than 1m, and refix it.

The lock bolts barely engage, or the lock faceplate hits the frame. Why?

Measure the internal frame width just below the head, at mid-height and at the threshold. All three measurements must be identical. If not, loosen the frame fixings and adjust the packing between the frame and the structure.



09 / LOCKS AND OPERATION

Questions & answers.

The multipoint lock is stiff and will not lock properly. Why?

Check the frame's alignment with the leaf. Even a few millimetres of misalignment, visible with the door slightly open, requires the frame jamb to be loosened, adjusted to the leaf and refixed. Perfect leaf-to-frame alignment is essential for the locks to work.



The multipoint lock works poorly or the key is hard to turn. Why?

Check that no fitting attached to the leaf obstructs the concealed rods, such as a doorstop keeper. Check that strike pockets are sufficiently deep and clean, especially the floor strike.



The lock is damaged and the deadbolt no longer works. Why?

For a double-leaf door, check whether the inactive leaf was operated while the active leaf was locked. Replace the faulty lock with a new one.



Other questions.

Record the doorset serial number (see page 23) and contact the appropriate support service using the details on page 22.

Contact & assistance.

Every enquiry starts with the serial number.

SilentDoor.

For product and project support:
www.silentdoor.co.uk

Product and warranty support.

Contact SilentDoor using the details on your order documentation or visit www.silentdoor.co.uk.

Information to include.

Always provide the serial number of the doorset concerned. See the appendix on page 23 for its location.

Keep the records together

Retain this guide, the supplied doorset documents and maintenance information for future reference.

11 / APPENDIX

Serial-number locations.

Single-leaf doorsets.

The number appears on the plate on the hinge edge of the leaf.

Double-leaf doorsets.

The number appears on the plates on the hinge edge of each leaf.



Identification plate.

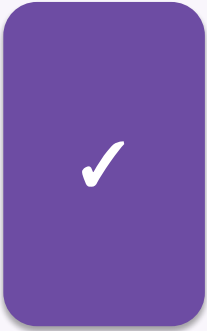
The plate identifies the serial number, type and date. Never remove it, paint it or cover it. Quote the serial number when contacting SilentDoor for support.

Serial number:

Serial number:

Final checks, handover & support.

Before sign-off, confirm the installation is complete, recorded and ready for handover.



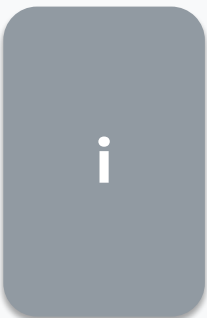
Final installation checks

- Door leaf opens, closes and latches correctly.
- Seals, threshold and drop seal operate correctly.
- Ironmongery is secure, aligned and fully functioning.
- Glazing, frame fixings and perimeter sealing are complete.
- Final gaps and adjustments have been recorded.



Handover information

- Provide O&M photos, installation records and relevant evidence.
- Include range-specific guidance for Rw Essentials or Rw Timber where applicable.
- Record any final hardware or seal adjustments made on site.
- Pass maintenance, decoration and aftercare guidance to the client.



Technical support

- Project-specific drawings, schedules and approved evidence take precedence over generic guidance.
- For current product information and installation guidance, visit [silentdoor.co.uk](https://www.silentdoor.co.uk).

Thank you for choosing SilentDoor.

For current technical guidance and project-specific support, visit www.silentdoor.co.uk