



INSTALLATION INSTRUCTION

ExcluLouvre® Door 2 FR.

Single and Double Doorsets

DOCUMENT	VERSION	SUPERSEDES	DATE	STATUS
SUN-FRLD-FI-001	2.1.0	2.0.1	14 September 2026	Public

Handling and care

Sunray ExcluLouvre® can be delivered on a variety of different transportation options. Attention should be taken if being unloaded by forklift to ensure the forks are positioned correctly within the pallet. Position the pallet on even ground making sure there are no objects on the floor which could cause damage to the louvres.

- Do not place objects on top of the door.
- The doors must not be used as a table or seated bench whilst stored on a pallet.
- Take care not to damage the handles or anything that protrudes on the surface.
- Do not store in exposed places for long periods and protect from inclement weather.
- The protective covering on the door and frame is for protection against dust and finger-marks.
- Please be aware that these doorsets may be heavy and should be moved in accordance with manual handling regulations.

Storage

- Doorsets that are stored for long periods on pallets should be checked regularly to ensure the polystyrene packaging has not been crushed.
- Do not tack unprotected door leaves together.
- If storing upright, ensure the door and frame components are secure and there is no danger of them falling.
- Ensure they are stored well away from moving vehicles, for example forklift trucks and cranes, or where they are likely to be hit by foreign objects.
- Take care not to damage the door hardware.

Installation process

Sunray ExcluLouvre® Doors are manufactured individually to suit project specific requirements. Prior to assembly, check to ensure the unique door numbers marked on each door leaf and frame component match correctly. The identification numbers are stamped on a top hinge (male and female). Before removing the existing doorset, measure the structural opening to ensure the new doorset will fit within the reveals and the handing and ironmongery specification are correct.

Preparation and fitting within structural opening

Measure the structural opening in various locations to check the width, height, and depth dimensions match those advised as well as being level and square (diagram 1). Ensure the correct fasteners are selected to suit the opening structures and performance requirements.

- Steel structures: M10 x 30mm long hexagon head machine screws, nuts, and washers, or drill and tap.
- Masonry and concrete structures: M10 x 75mm long steel sleeve anchors. A 12mm diameter hole is required.



DIAGRAM 1

Stage 1 · Frame assembly

Once the correct items have been selected, unpackage the frame components and lay the protected frame on supporting blocks away from dust and debris. Check the ID numbers (diagram 2).

- Select one jamb and the head member and position together at right angles to each other.
- Insert an M10 x 30mm long machine screw through the hole in the top of the jamb and lug in head and secure, finger tight only, and repeat the process through the second hole. Lay the second jamb down on the floor adjacent to the other end of the head member and repeat as above.
- Fix the threshold to the framework via the lug and into the side framework (diagram 3).
- If the frame is too large, assemble within the opening by pinning the side post to the structure and bolt as above.
- Alternatively the frame can be supplied fully welded, dependent on size.

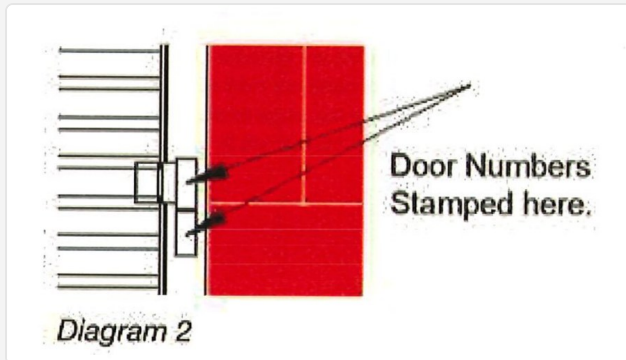


DIAGRAM 2

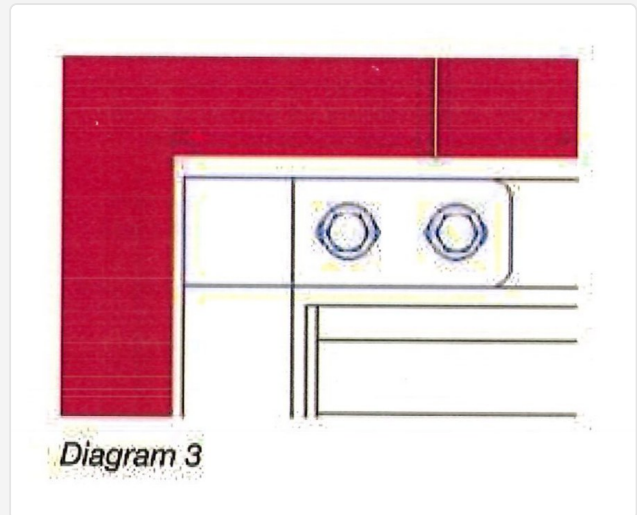


DIAGRAM 3

Stage 2 · Frame fitment

Once the frame has been assembled as per the instructions above, carefully lift into position within the opening.

- Position the frame centrally within the structural opening so gaps from the frame to the wall are equal on both sides, whilst ensuring the frame is plumb and square (diagram 4). The frame location from the external face of the opening must also be checked to ensure this meets site requirements, as drawing if issued.
- The frame can be fixed via 2 different methods. Lugs range from 1 to 4 slot lugs, or a through frame fixing. Only 1 fixing is required per lug and fitting into a cement joint must be avoided (diagram 5). Sunray also offer a through frame option which requires a fixing into every fixing point.
- Drill the structure with the correct drill bit type and size.
- Fix the hinge jamb first on single doors if the frame configuration allows. Insert the fixing, supplied by Sunray, into the frame and pack as required using metal shims, not supplied. Once the frame is in position, unpack and inspect the door leaf, and lift into position adjacent to the jamb.
- Lift the door leaf and then lower onto the hinges.
- Repeat the process with the additional leaf on double doorsets.
- Check the doors open and shut correctly and adjust if required.

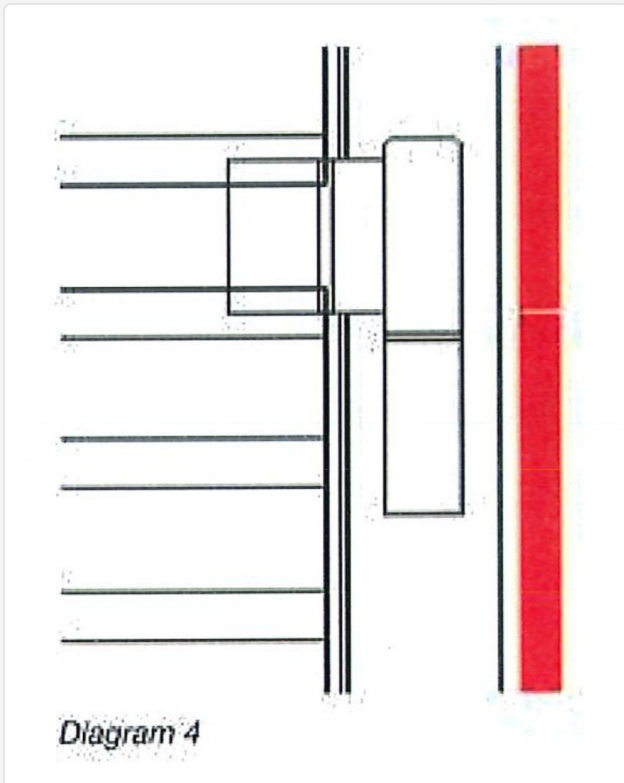


DIAGRAM 4

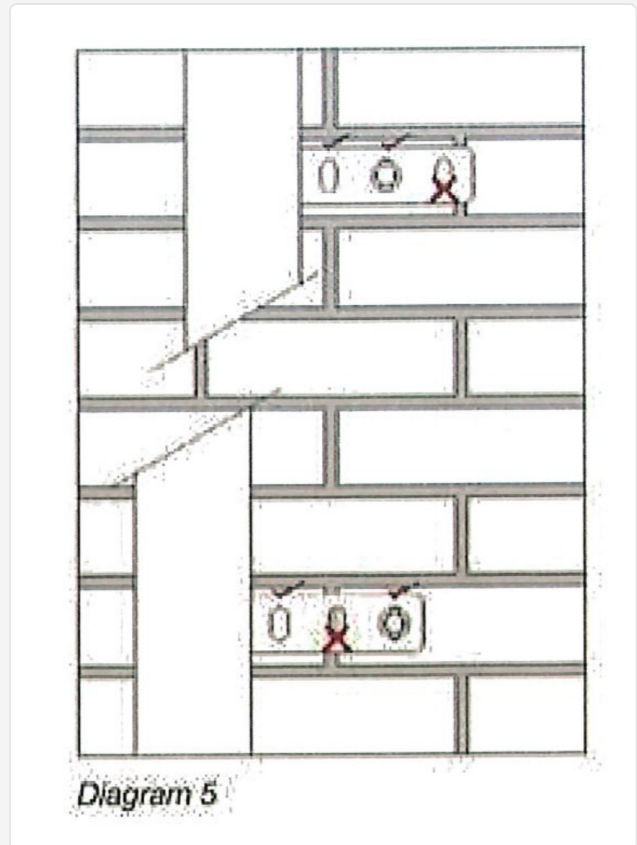


DIAGRAM 5

Stage 2 · Through frame fixing option

For security rating level 2: blockwork, brickwork and concrete blockwork.

Stage 3 · Fire block cassette

- Locate the fire block cassette for each door leaf.
- Apply a bead of mastic, supplied, into the frame.
- Insert the cassette into the frame.
- Hold in position, insert the bolts and tighten.

Stage 4 · Ironmongery fitment

Fit the lock, furniture and overhead closer as required in accordance with the manufacturer's instructions supplied (diagram 6).

Once fitted, check the opening and closing operation to ensure all items are functioning correctly and that lock bolts, flush bolts, and barrel bolts, as appropriate, align within the keeps.

Once verified, tighten all frame and ironmongery fasteners and re-check door operation.

Once the doorset has been installed satisfactorily, apply a bead of silicone sealant to all joints between the frame and structural opening on the external side, or internal if required. Mastic depth should be a minimum of 50% of joint width.

Stage 5 · Sealing

- To all abutments, firstly insert Sika Sikaseal 414 backer rod, 15mm.
- Apply Sikasil 670 fire sealant to close all gaps, maximum size 10mm wide.

Operation, safety, maintenance and repair instructions

FAILURE TO COMPLY WITH THESE INSTRUCTIONS WILL INVALIDATE OUR WARRANTIES

Quarterly maintenance

1. The door leaf should be checked to ensure it opens freely without binding, is correctly aligned with the frame and is free from dents and scratches. Door openings should be kept clear of obstructions to ensure the opening and closing motion is not impeded. Check frame rigidity within the structural opening and tighten wall anchors if found necessary. Damage to powder coated finishes should be repaired immediately. Please contact Sunray Engineering Ltd for recommendations before embarking on damage rectification procedures.
2. Sunray ExcluLouvre® doorsets are fitted with low maintenance hinges with nylon bushes fitted to the female hinge to result in zero maintenance.
3. Check locks, latches, handles, panic hardware, overhead closers, door stays and any other ironmongery for loose fixings, smooth operation, and security. Re-tighten or lubricate if necessary.
4. If applicable, cylinders must not be lubricated using spray lubricants. Such fluids can attract dust and detritus that may hinder smooth operation. Cylinders should be maintained with a periodic application of proprietary powdered graphite into the key way and around the turn. This is available from most locksmiths. Repair of cylinders is a specialist task and should be referred to Sunray Engineering Limited during the first year and to a qualified locksmith thereafter.
5. Polyester powder coated doors and frames should be cleaned every three months using warm water and a mild household cleaning detergent such as washing up liquid. The washcloth should be wrung out and damp only so as not to soak the surface. Dry off with a soft clean cloth to avoid scratching the finish. This procedure will remove harmful deposits and help to maintain the finish. Liquid cleaning products, bleach or polishes containing solvents must not be used.
6. Fire blocks are to be regularly checked for damage and changed if necessary.

N.B. All ironmongery must be checked regularly.

Troubleshooting

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Doors do not fit in frame	Wrong door leaf selected	Check the ID numbers to ensure they are all the same numbers
Doors will not drop onto hinges	Male and/or female hinges bent	Re-align

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Doors will not close	Frame bowed	Shim frame to bring square
	Obstructions fouling closing area	Clear or remove objects
Door leaf or leaves will not shut to frame at top and/or bottom	Frame out of square	Correct by shimming as required
	Door bent in storage	Straighten or contact Sunray
Barrel bolts or locking bars not engaging fully	Hinges damaged	Re-align
	Debris fouling receiving holes	Clean out or re-drill holes
Door leaves not level in centre	Frame not level or square	Re-shim frame to correct frame alignment
	Frame not level or square	Correct by shimming
	Nylon spacer missing	Fit new nylon spacer
Panic furniture not operating correctly	External locking not fitted correctly	Remove and refit ensuring square drive fitted correctly
	Panic furniture fitted incorrectly	Refer to manufacturer's fitting instructions

All other queries refer to the manufacturer's troubleshooting guide.

Safety instructions

1. Keep the opening clear at all times.
2. Do not lean anything on doors or frame.
3. Do not operate a damaged or unsecured door. If the door is found to be damaged, do not use and place a warning notice stating 'Do not use'. Ensure a damaged door is checked by a qualified engineer before operating.
4. Open and close the door using only the handles fitted.

General maintenance

To ensure safe and reliable operation, regular inspection and maintenance is essential. Failure to comply with Sunray Engineering Limited's operation, safety, maintenance, and repair instructions will invalidate the product warranty. The manufacturer's warranty of one year is only valid if the above maintenance and professional installation has been carried out. For additional information please refer to our website.

Further information

For further information or questions about installation of this product, contact our installation team on 01233 656648.

Document control

VERSION	DATE	CHANGE	PREPARED BY
2.1.0	14 September 2026	Fire rated variant. Title and running headers updated, cover and header image replaced, through frame fixing option amended, new Stage 3 (fire block cassette) and Stage 5 (sealing) added, ironmongery renumbered to Stage 4, quarterly maintenance item 6 added.	Sunray Engineering
2.0.1	Previously issued	Superseded.	Sunray

This document supersedes version 2.0.1. For further information or questions about installation of this product, contact the installation team on 01233 656648.

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Sunray Engineering Limited · Unit 6 Kingsnorth Industrial Estate, Wotton Road, Ashford, Kent TN23 6LL · +44 (0)1233 639039 · sales@sunraydoors.co.uk · Part of ASSA ABLOY