

Sunray ExcluDoor® Security Range levels 1 to 6 Single and Double Doorsets

Installation instructions

Handling and care

Sunray ExcluDoor® doorsets 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 the doorset.

- 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 should only be stored flat on pallets on even ground and should be checked regularly to ensure the polystyrene packaging has not been crushed.
- Do not stack unprotected door leaves together.
- Ensure they are stored well away from moving vehicles e.g. forklift trucks, cranes or where they are likely to be hit by foreign objects.
- Take care not to damage the door hardware.

Structure checks to maintain ratings

Doorsets are to be fixed into the following materials in order that they achieve full integrity:

Security rating 1

Timber – Brickwork/concrete blockwork/steelwork.



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Security rating 2

Timber (hardwood) - Brickwork/concrete blockwork/steelwork.

Security rating 3

Brickwork/concrete blockwork/steelwork.

Security rating 4

Reinforced brickwork/blockwork, reinforced concrete or steelwork.

Security rating 5 & 6

Reinforced concrete or steelwork.

Fixing this doorset to Thermalite or similar lightweight blockwork will invalidate the security ratings.

Installation process

Sunray ExcluDoor® doorsets 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 located at the bottom of the door leaf in the cover strip, and on various parts of frame.

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.

Ensure the correct fasteners are selected to suit the opening structures and performance requirements.

Non-fire rated doorsets:

- Timber structures (SR1 & 2 only): M8 x 50mm long hexagon head coach screws.
- Steel structures: M10 x 30mm long hexagon head machine screws, nuts and washers.
- Masonry/concrete structures: M10 x 75mm long steel sleeve anchors. (12mm diameter hole required).

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Fire rated doorsets

For installations of fire resistant doorsets the surrounding structure should offer a fire resistance comparable with or greater than the fire rating of the door. **Fitting gaps should not exceed 10mm to each side of frame and above head member** (diagram 1).

- Masonry/concrete structures: M10 x 75mm long steel sleeve anchors. (M12mm Hole required).
- Steel structures: M10 x 30mm (length may vary) long hexagon head machine screws, nuts and washers.

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.

- Select one jamb and the head member and position together at right angles to each other.
- Insert a M8 x 20mm long machine screw through the hole in the top of the jamb and bracket in head secure with a M8 nut and washers. Finger tighten only and repeat process through second hole. Lay the second jamb down on the floor adjacent to other end of head member and repeat as above.
- To ensure correct alignment, once assembled, ensure the tabs in the head member sit correctly within slots in the tops of each jamb before tightening the 4 No. M8 machine screws and nuts with spanners or socket tools (diagram 2).
- Other frame option offered is a fully welded version, for security rated level 5 & 6 the frame can only be supplied as fully welded to meet certification.

Stage 2 – Frame fitment

Select appropriate door number furniture pack and check contents for accuracy and shortages.

- Once the frame has been assembled as detailed above, carefully lift into position within the opening.
- Position frame centrally within structural opening so frame to wall gaps are equal on both sides whilst ensuring frame is plumb and square. The frame location from external face of opening must also be checked to ensure this meets site requirements.

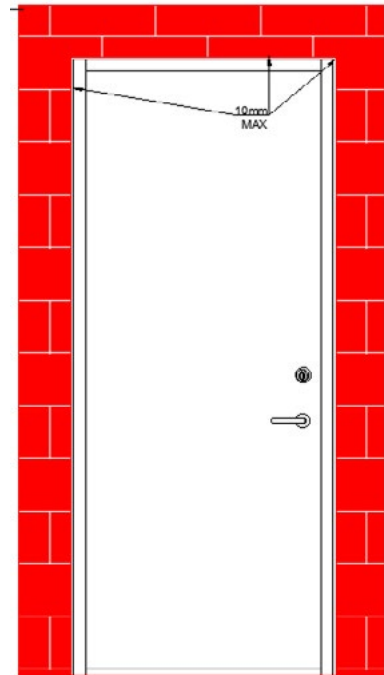


Diagram 1

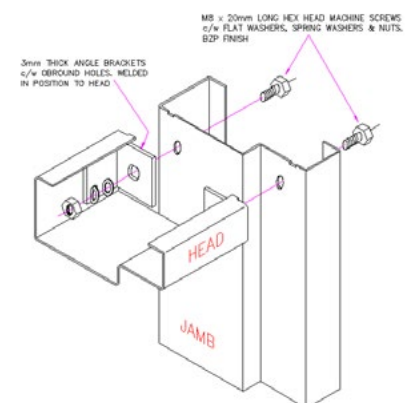


Diagram 2

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- Each frame fixing backplate is supplied with two fixing position options. Select one hole only in each backplate, which will achieve the most secure fixing anchorage on the SR 1 & 2 (diagram 3).
- Fixing options for SR 3,4,5 & 6 (diagram 4) .
- Drill structure with correct drill bit type and size and fix frame in place using packing shims and fasteners supplied.
- (Fix hinge jamb first on single doors if frame configuration allows).
- Once frame is in position, unpack and inspect door leaf, fit hinges to door leaf with machine screw fixings supplied and lift in to position adjacent to jamb.
- Align hinge preparations between door leaf and hinge jamb and secure hinges with remaining machine screws. Repeat process with additional leaf on double doorsets.
- Check doors open and shut correctly and adjust if required.

Stage 3 – Ironmongery fitment

The *Excludoor* range are supplied with the locking system already fitted to doorsets, door stays (non-fire rated products only) fixed as per manufactures instructions, overhead closer as required fitted in accordance with manufacturers instructions supplied.

- Once fitted, check opening and closing operation to ensure all items are functioning correctly and lock bolts, flush bolts, and barrel bolts (as appropriate) align within keeps.
- Once verified, tighten all frame and ironmongery fasteners and re-check door operation.
- Once the doorset has been installed satisfactorily, fit hole plugs and apply a bead of silicone sealant to all joints between frame and structural opening on both sides of frame. Mastic depth should be a minimum of 50% of joint width.
- For fire rated doorsets the following sealant must be used to meet Sunray certification: EVERBUILD TECNIC® FIRE SEALANT 400. www.everbuild.co.uk

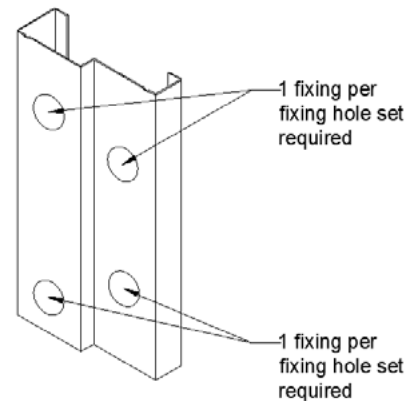


Diagram 3

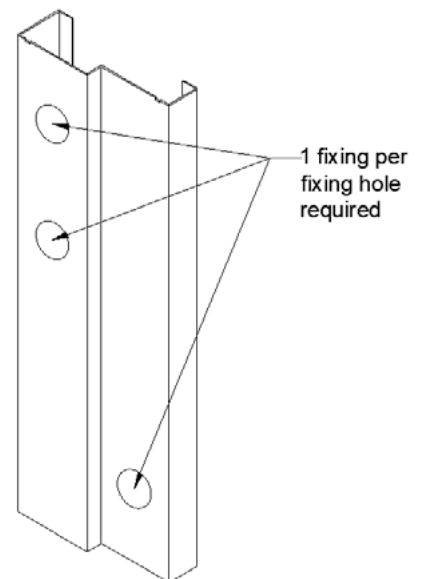


Diagram 4

Sunray ExcluDoor® Security Range levels 1 to 6 Single and Double Doorsets

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 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 ExcluDoor® doorsets* are fitted with low maintenance stainless steel ball bearing hinges. Check to ensure all fasteners are secure and tightened. Where necessary remove any accumulated deposits away with a solution of mild detergent applied with a soft damp cloth. Do not use abrasives or bleach as this may permanently damage the hinge surface. Re-lubricate knuckle bearing surfaces sparingly with a light machine oil such as Tri-Flow® Superior Lubricant, ideally in aerosol form. Remove excess residue with a lint free cloth.
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. Cylinders must not be lubricated using spray lubricants like WD-40®. 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 keyway 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.

N.B. All ironmongery must be checked regularly

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.

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Sunray ExcluDoor® troubleshooting

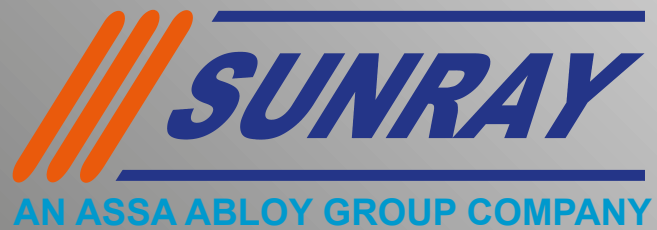
Problems	Possible cause	Corrective action
Leaf clashes with frame	Hinge screws loose	Ensure all hinge screws are tight and hinge seated correctly
	Frame not in square	Loosen fixing bolts and try to realign frame, then tighten
Handle not spring back	Internal lock obstruction	Realign internal locking and check receiver holes are clear of debris
Door not closing fully	Door closure set incorrectly	Following manufacturer's instructions and adjust the closure to allow doorset to close correctly
Locking bar dragging on floor	Lock not being engaged correctly	Ensure that the handle/panic bar is fully engaged before opening
Handle not opening doorset	Check to make sure lock is unlocked	Turn-key fully and depress handle at the same time
Door leaves not level in the centre	Frame not fitted level or square	Correct frame by realigning and shimming frame
Unable to lock the door	Internal locking obstruction	Realign internal locking and check receiver holes are clear of debris

Safety instructions

1. Keep 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.



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