Latham's
STEEL DOORS AUSTRALIA

Fitting Instructions

BEFORE REMOVING YOUR EXISTING DOOR AND BEGINNING INSTALLATION PLEASE READ THROUGH THESE INSTRUCTIONS

PLEASE NOTE: OUR DOORS ARE HANDED FROM THE EXPOSED HINGE SIDE. BOTH POSSIBLE OPENING SIDES ARE PRINTED ON THE PACKAGING FOR EASE OF REFERENCE.

Contents

We pride ourselves on our excellent customer service, please don't hesitate to get in touch if you have any questions or issues.

Section 1: Equipment / Tools Required

- Masonry drill for drilling fixing holes
- Cordless drill
- Tape measure
- Spirit level
- Disc grinder for cutting down over panels, rain drips, drop bars or side panels where applicable
- Hack saw for cutting down security trim
- Pencil or marker pen
- Mastic or similar sealant

Masonry fixing kit contains:

- Fixings and washers
- SDS drill bit
- T-bar fixing tool
- Fitting shims
- Grommets and dog bolt caps

Also available for fixing into wood or metal. These instructions are set out for fixing into masonry.

Discount any information regarding drilling and fixing if you're fixing into wood or metal & use the alternative fixings provided.

Please note: we have accompanying installation videos on our YouTube channel. QR codes are provided on the relevant pages or visit lathamssteeldoors.com.au

Contact us:

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Guarantee

Latham's Security Doorsets (Australia) PTY is confident of the quality of its products and offers a 12 month guarantee.

This guarantee statement is in addition to and in no way prejudices your statutory rights. The guarantee is valid within the territories of the Member States of the European Union and the European Free Trade Area.

If a Latham's product becomes defective due to faulty materials or workmanship within 12 months from the date of purchase, Latham's guarantees to replace defective parts, or replace such products unless:

- The product has been subjected to misuse or neglect
- The product hasn't been serviced, as per the O&M Manual
- The product has sustained damage through foreign objects, substances or accidents
- The product has been adapted, changed or modified

Section 2: Getting Started

2.1 Safety First

General

WARNING: Failure to follow instructions listed below may result in injury and damage of products. For advice on the safety and suitability of this product, please contact us.

Fitting Latham's products should be done by a competent person who has read and understood these instructions.

Work Area

Keep work area clean and well lit. Keep children, animals and bystanders away from the work area. When using power tools do not operate them in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.

Personal Safety

Anyone with either a temporary or permanent disability should seek expert advice before commencing work. Many of our products are heavy, in some cases, upwards of 100kgs.

Only physically able bodies should attempt to lift the goods, in line with manual handling (max 25kg per person). Utilise lifting and moving equipment where possible e.g. forklift, trolley, to avoid as much manual lifting as possible.

Use relevant safety equipment and PPE. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

Power Tool Use

Do not force the power tool. Use the correct power tool for your application.

Disconnect the plug from the power source before making any adjustments, accessory changes, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

Store idle power tools out of the reach of children. Do not allow persons unfamiliar with power tools or these instructions to operate them. Power tools are dangerous in the hands of untrained users.

Use the power tools, accessories and tool bits etc., in accordance with the manufacturer's instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.

Use of power tools for operations different from those intended could result in a hazardous situation.

Protecting the Environment

Separate collection of used products and packaging allows materials to be recycled and used again. The re-use of recycled materials helps prevent environmental pollution and reduces the demand for raw materials.

2.2 Initial Checks (Pre-Installation)

Before removing your existing door and frame, you must do the following:

- Check the package is complete (check contents against the delivery note).
- **Remove all packaging and inspect for damages. If damaged, do not install the door and contact us immediately. We cannot replace a fitted/used door.**
- Check the door frame supplied fits into the opening, if you have ordered side panels, over panels and/or security trim, factor these into your measurements.
- Open the door to to test the locking mechanism by inserting the spindle and turning with a loose handle. Insert a piece of softwood or polystyrene underneath the hinge side of the door to allow the bottom shoot bolts to extend freely. **(DOES NOT APPLY TO FIRE EXIT DOORS).**
- The work area should be free from debris and the operator should beware of any obstructions.
- Check it is safe to drill around the opening (electrical cables, gas pipes etc).
- Have all the necessary tools in place and check they are fully functional and there are no signs of damage.

Section 3: How to install Security Doors

3.1 Security Doors

Please note: See Section 6 on how to fit infill panels prior to your door installation if applicable

Step 1: Remove existing door and frame. Make sure your aperture is even and keep uneven surfaces to a minimum by chiselling out anything left prominent e.g. plaster. This will help to keep the use of packers to a minimum.

Step 2: Using the spindle and a loose handle, open the door leaf. Fit the cylinder to allow for testing of the locking mechanism. See step 3.2 to install an upgraded sashlock before the cylinder if applicable.

Step 3: Fitting the Euro Cylinder

Step 3.1: Looking at the latching side of the door, locate the sash lock, the main lock in the centre (as pictured).

Step 3.2: Insert a key into the cylinder and turn slightly, centring the 'rotating cam' in the centre.

Step 3.3: Insert the cylinder into the door and screw into place using the hole as illustrated in the picture to the right.

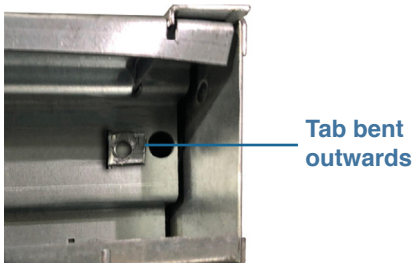
Note: The longer side of the euro cylinder should always be at the pull side of the door (exposed hinge side)

***IMPORTANT* DO NOT TEST THE LOCK** until the door leaf is propped up to prevent the bottom shoot bolts from hitting the ground. We recommend inserting a piece of softwood or polystyrene underneath the hinge side to ensure there is a clear gap under the door to allow for the bottom shoot bolts to extend freely.

Test the lock by turning the key in 2 full rotations, then unlock the door ready for the next step.

Step 4: Stand the door set up vertically and open the door to at least 90 degrees by using the key to retract the latch. Unscrew the hinges and move the door leaf aside with help of another, as the door leaf is heavy. Store it safely, stood up vertically, using packaging to prevent any damage.

For double doors: Double doors are supplied with a knockdown frame that will require assembly before following the above instructions. Simply lay 4 pieces of the frame flat on the ground and locate then flatten the tabs to secure the frame together. Ensure tabs are bent towards the outer edge of the frame and not towards the middle of the door as per the below image.



Once the double doorframe is together, it will be flexible. Only when it is fixed into the opening will it be rigid as it relies on the fixings to hold it square and plum.

Prefer to watch a tutorial?
Scan the QR code to view our security door installation video

Step 5: If wind out lugs have been purchased, insert them into your chosen fixing plates now (3 per side)

Step 6: Place the frame into the opening and using a spirit level, check that it's plumb and square. Use packers (provided in the fixing kit) under the frame/threshold meeting point, to prop the door up if not plumb horizontally.

Please note: If using wind out lugs, use the hex tool provided to tighten them into the opening.

Step 7: Using the fixing plate holes as guides, drill into the brickwork on the hinge side. Insert the fixings and place the packers over the bolts before tightening loosely; just until they start to 'bite'. Ensure you use the fitting shims provided to prevent the fixings from distorting the frame or moving the frame from its vertical position.

Step 8: Using a spirit level, re-check the door frame is fully plumb and square at the hinge side and tighten the fixings on the hinge side only. Fit the door leaf back onto the hinges and check that the clearance between the door and frame is equal all round by gently shutting it to. The door should close without needing to be forced.

If it doesn't shut easily, the frame will need adjusting. To adjust, loosen off the necessary fixing and make adjustments using wind out lugs and appropriate shims or packing, before retightening. If the door does not swing or shut correctly, the frame is not fitted square. It may just be a simple case of loosening the fixings, 'shunting' the frame and then retightening.

If your door is fitted with an adjustable strike plate (see image) you can adjust the latching position by turning the screw inside the lock box.

Turning the screw clockwise moves the latching position right, and anti-clockwise moves it left.

Re-open the door and turn your attention to the frame on the latching side. If the door can close easily, you can drill and fix this side into place using the same steps as the hinge side.

For double doors: follow the same instructions, but attach the passive door leaf first. Once this is fitted plumb, tighten the fixings on this side, then fit the active door leaf and square it up to the passive door and frame.

Step 9: Open the door and check that nothing is stopping the bottom shoot bolts from extending freely. Test the locking system by turning the key in two complete rotations. If all shoot bolts throw smoothly, close the door into the frame and repeat.

If the door locks and unlocks smoothly, the door frame has been fitted correctly. If the locking system seems to struggle, do not force the key. Make sure the shoot bolts line up with the holes provided in the frame and adjust using Step 5 if needs be.

A tip here is to identify the fouling part of the locking system i.e. the shoot bolts which are hitting the frame and not lining up with the receiving hole. You can do this by colouring in the shoot bolt ends with pencil, then closing the door and locking gently, so that the shoot bolt leaves a mark where it is hitting the frame. This will allow you to adjust the correct part of the frame. Alternatively, you can enlarge the hole by using a file.

Step 10: Install the door seal ensuring you stick the thick seal to the frame and thin seal to the door (see section 6.3.4). Then fit the dog bolt caps and grommets and carry out a final check to ensure the door latches correctly.

Your door installation is now complete. For on-going maintenance and servicing please refer to the O&M manual in section 7.

Section 3: How to install Security Doors

3.1 Security Doors / 3.2 Fitting a Security Sash Lock

Prefer to watch a tutorial?
Scan the QR code to view our security door upgrades install video

How to fit handles

Dependant on the handle type, the fitting instructions may differ slightly

Step 1 - Cylinder Covers: If the handle set comes with cylinder covers, install them first by slotting them onto the cylinder and screw them through the door, into each other.

For security purposes, ensure the screw heads are on the internal side of the door. Check the shaft of the key can reach the cylinder – if not, tighten more. Do not over tighten as this will make the lock stiff.

Step 2 - Prepare external handle: (the handle without the privacy thumb bolt). If the external handle has 2 female threads, you will need to install 2 small grub screws (provided) to leave you with 2 prominent male threads to which you fix the gold thread extensions on.

If the external handle has 2 male threads, simply fix the 2 gold thread extensions to them.

Step 3 - Install spindle: If the handle fixings contains springs, insert the first spring into the spindle cavity, followed by the spindle. If no springs are contained in the set, simply insert the spindle.

If your handle fixings contain an allen key, you may need to unscrew the grub screw (on the lever part of the handle) to allow the spindle to enter the handle cavity.

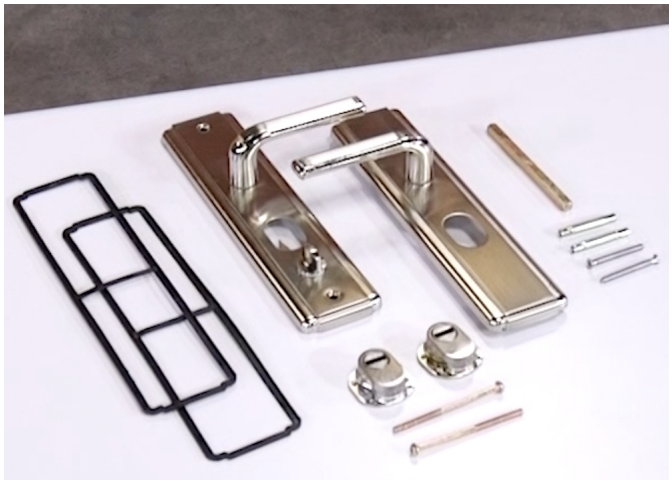
Step 4 - Gaskets: If your handle set contains plastic gaskets, position 1 over the external handle and locate the handle into place by putting the spindle through the centre of the lock.

If your handle set doesn't contain gaskets, you don't need them for your style of handle.

Step 5 - Install internal handle: As per steps 3 & 4, use the spring and/or gasket as mentioned. Pull the thumb turns attached spindle down, and make sure this is inserted through the relevant hole when aligning.

Align and screw into the external handle. Do not over-tighten, this will bow the steel door leaf skin and could jam the lock.

Step 6 - Secure spindle in place: If your handle fixings contain an allen key, you must now tighten the grub screws on to the spindle. We recommend doing this for added security and for smoother latch retraction.



Section 3: How to install Security Doors

3.3 Certified Doors

Secured by Design
Official Police Security Initiative

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Certification Requirements

If you are installing a certified door, in order to maintain certification approval you should adhere to the following requirements for installation:

- Follow the guidelines laid out in the certification provided.
- All doors should be installed as supplied, and not modified in any way as this will invalidate the certification.
- Any hardware items, must be used as supplied when purchasing the doorset. This includes closing devices and edge seals.
- Ensure an even gap around the door is maintained.
- Mastics and silicone used should be suitable for the application and sufficiently fire rated if applicable.
- If fitting a fire rated door, please ensure 5 fixings are used on either side of the door, rather than the usual 3.

The use of third party accredited installers provides a means of ensuring that the installations have been conducted by knowledgeable contractors, to appropriate standards, thereby increasing the reliability of the anticipated performance of fire or security rating.

Fire Rated Doorsets

Supporting Construction

The door assemblies are approved to be installed into reinforced concrete, masonry or plasterboard clad steel stud partitions with a fire resistance at least equal to that of the doorset to be installed.

Any plasterboard partition shall have proven its ability to provide the required fire performance when incorporating a steel doorset of similar construction.

The steel studs surrounding the opening within the partition shall be lined with plasterboard or calcium silicate based board where 60 minutes fire performance or more is required.

Any gaps between the door frame and the supporting construction should be infilled with a fire stopping material, suitable for the application.

Installation

Frame jambs shall be fixed, to the supporting construction, at five positions either side using the fixing kit provided, or a rated equivalent.

Head members do not require fixing. For plasterboard wall assemblies, the doorset is to be installed using minimum No. 10 steel woodscrews. The screw length shall be suitable in order to maintain mechanical fixity of the doorset within the supporting structure.

Section 4: How to install Fire Exit Doors

4.1 Fire Exit Doors

Prefer to watch a tutorial?
Scan the QR code to view our fire exit door installation video

Please note: See Section 6 on how to fit infill panels prior to your door installation if applicable

Step 1: Remove existing door and frame. Make sure your aperture is even and keep uneven surfaces to a minimum by chiselling out anything left prominent e.g. plaster. This will help to keep the use of packers to a minimum.

Step 2: Stand the door set up vertically and open the door to at least 90 degrees by pushing down the push bar. Unscrew the hinges and move the door leaf aside with the help of another, as the door leaf is heavy. Store it safely, stood up vertically, using packaging to prevent any damage.

For double doors: Double doors are supplied with a knockdown frame that will require assembly before following the above instructions. See section 3.1 for instructions on fitting the frame together.

Step 3: If wind out lugs have been purchased, insert them into your chosen fixing plates now (3 per side).

Step 4: Place the frame into the opening and using a spirit level, check that it's plumb and square. Use packers (provided in the fixing kit) under the frame/threshold meeting point, to prop the door up if not plumb horizontally. If using wind out lugs, use the hex tool provided to tighten them into the opening.

Using the fixing plate holes as guides, drill into the brickwork on the hinge side. Insert the fixings and place the packers over the bolts before tightening loosely; just until they start to 'bite'.

Ensure you use the fitting shims provided to prevent the fixings from distorting the frame or moving the frame.
Please note: Do not fully tighten the fixings at this stage.

4.1: For 2 point panic doors only. Just to be sure, re-push the push bar and ensure the top shoot bolt is caught in the shoot bolt receiver. If you try shutting the door while the shoot bolts are extended, the door simply won't shut as the shoot bolts will hit the catch at the top and bottom.

4.2: Using a spirit level, re-check the door frame is fully plumb and square at the hinge side and tighten the fixings on the hinge side only. Place the door leaf back onto the hinges and check that the clearance between the door and frame is equal all round by gently shutting it to. The door should close without needing to be forced. If it doesn't shut easily, the frame will need adjusting. To adjust, loosen off the necessary fixing and make adjustments using appropriate shims or packing, before retightening. If the door does not swing or shut correctly, the frame is not fitted square. It may just be a simple case of loosening the fixings,'shunting' the frame and then retightening.

Re-open the door and turn your attention to the frame on the latching side. If the door can close easily, you can drill and fix this side into place using the same steps as the hinge side.

For double doors: follow the same instructions, but fit the passive door first. Pay attention to step 3.1 in section 3 – the passive leaf is fitted with a 2-point panic bar set. Once the passive door is fitted plumb, tighten the fixings on this side, then fit the active door and square it up to the passive door and frame.

Step 5: To be CE compliant, once the door is fitted, you must close the door and open it using the push bar numerous times to check that in the event of an emergency, the door will open without unnecessary force. You must also affix a 'push bar to open' sticker to the door and a 'fire exit keep clear' sticker to the external side.

Step 6: Install the door seal ensuring you stick the thick seal to the frame and thin seal to the door (see section 6.3.4). Then fit the dog bolt caps and grommets and carry out a final check to ensure the door latches correctly.

Your door installation is now complete. For on-going maintenance and servicing please refer to the O&M manual in section 7.

Section 4: How to install Fire Exit Doors

4.2 Fire Exit Door Outer Access Devices & Trouble Shooting

Prefer to watch a tutorial?
Scan the QR code to view our outer access device installation video

4.2 How to fit 302 / 322 Outer Access Devices

Please refer to the instruction manual provided with the Exidor 302 or 322 outer access devices.

How to fit Exidor 322 Outer Access Device with security cylinder

If you have purchased an Exidor 322 OAD with security cylinder upgrade, you will need to replace the existing cylinder with the high security version.

Simply remove the back plate, then remove the screw holding the cylinder in place and replace with the higher security alternative also supplied.

4.2 Fire Exit Door Trouble Shooting

The door won't close. 2 point fire exit doors and double fire exit doors (not the single point standard duty door)

First, check that the top shoot bolt is engaged in the 'trip' catch by pushing the push bar down. If it isn't engaged, it will be extended into the lock position and will hit the frame.

If the issue persists, check that the shoot bolts at the top and bottom of the door aren't hitting the frame, even though retracted. They are too long and need adjusting.

Unscrew the allen screw either above or below the push bar (as seen in the image) and wind the shoot bolt in or out, then replace the screw.

Section 5: How to install Shipping Container Doors and Windows

5.1 Shipping Container Doors

Prefer to watch a tutorial?
Scan the QR code to view our container door installation video

Step 1: First, position the goal post frame next to the container where you are going to fit your door. Measure the frame and mark the width on the container. Choose two points slightly in from where you marked the edges of the frame and grind the paint off.

Step 2: Weld the support plates onto the container. Position the frame and draw a chalk line around the perimeter, keeping the aperture size as small as possible leaving no more than a 2mm gap around the frame. You can now remove the frame and support plates (tap these off with a mallet).

Step 3: Once you are happy with the aperture, you can cut your hole with a grinder. Ensure you take appropriate safety precautions. We recommend towards the end of the cut, having someone support the loose sheet of metal so it can be pushed to fall away from you.

Step 4: Tidy up any rough edges, then position the frame ready for welding. Use tack welds to hold the frame in position.

Step 5: Weld the frame into the aperture using the following measurements:

- Full weld across the top fo the frame
- 100mm weld down each side of the frame
- 25-30mm stitch weld every 250-300mm for the remainder

Once this is done, dress any cuts in the corrugation if needed.

Step 6: You can now remove the support bar for the frame and smooth off any rough edges.

Step 7: Remove any weld spatter and swarf from the base ready to install the door.

Step 8: Once the frame is installed, position the sill between the goalposts underneath where the door will sit, and weld into position. To fit your door, position it in the goalpost frame on top of the sill, and use tack welds to hold the door in place. Use the spindle and handle to open the door at least 90 degrees, using the handle to retract the latch.

Step 9: Using tek screws to fit the door, drill pilot holes through the fixing points to start with and then screw them in, beginning with the hinge side, and then moving onto the latching side.

Step 10: When your door is fixed into position, close the door and test the locking mechanism is working smoothly by turning the key two full rotations and adjust the fixings at this stage, if required.

Step 11: Once the door is in place, fit the rain deflector above the door by positioning the top edge of the goalpost frame and mark the fixing holes. Pre-drill pilot holes for the rivet to fit into, and then using a riveter, fix into place. To finish joining the line between the frame and container, paint over it using a roller or paint brush.

How to fit the handle & seal

Step 1: Place the external handle and gasket into place and fit the spindle through the door, loosening the handle grub screw if required. Position the internal handle and gasket, lining up with the spindle and privacy lock, and screw the handles together.

Step 2: Next, install the thumbturn cylinder, rotating the cam to a central position, and fit the cylinder screw through the sashlock to test the locking mechanism. Test the key in the cylinder to ensure it locks, and tighten up the grub screws on the handles. You can then close the door and check the locking system engages correctly.

Step 3: Finally, fit the v-seal to the top and sides of the door frame, with the 'v' pointing away from you

Section 5: How to install Shipping Container Doors and Windows

5.2 Shipping Container Window Shutters

Prefer to watch a tutorial?
Scan the QR code to view our container door installation video

Step 1: First, mark where you are going to fit your window shutter and grind off two points directly underneath where you can fit the support plates

Step 2: Attach the support plates vertically using tack welds and position the window shutter frame where it will be fitted.

Step 3: Next, draw a chalk line around the frame, keeping the aperture size as small as possible, leaving no more than a 2mm gap around the frame.

Step 4: When complete, you can remove the frame and the support plates.

Step 5: With the aperture drawn, you can then cut your hole with a hand grinder, taking the appropriate safety precautions.

Step 6: We recommend someone supporting the loose sheet of metal so it can be pushed to fall away from you once the aperture is cut, and tidying up any rough edges.

Step 7: Once your aperture is cut, you can then position your frame ready to be welded into place. Use tack welds at the corners to hold it in position.

Step 8: You can then weld the frame into the aperture using the following measurements:

- Full weld across the top fo the frame
- 100mm weld down each side of the frame
- 25-30mm stitch weld every 250-300mm for the remainder

Once this is done, dress any cuts in the corrugation if needed.

Step 9: To install your window shutter, remove the leaves and position the frame in the opening. You can then weld it into place at the corners.

How to fit the Glazing Unit

Step 1: Now that your window shutter is fitted, you can now fit the glazing unit. To install, simply slide into the aperture and locate correctly. We also recommend running a line of silicone around the perimeter before fixing the glazing unit.

When in position, find the screw holes, and drilling pilot holes first, use pop rivets to fix the unit to the shutter. You can also use self-drilling screws if you prefer.

Step 2: You can now put the shutter door leaves back on their hinges.

Step 3: To finish joining the line between the frame and container, paint over it using a roller or paint brush.

Step 4: Once all the paint has dried you can then fully seal the door and window frames using an industrial silicone sealant.

Section 6: How to install

6.1 Doors Using Infill Panels

Prefer to watch a tutorial?
Scan the QR code to view our infill panel installation video

Infill Panels - General

Before installation, remove all packaging and inspect for damages. If damaged, do not install the panel and please contact us immediately.

Please be reminded that overhead panels come in standard lengths, which in many cases are too long and will need to be cut down to your required size.

It seems our stock door size wasn't perfectly suited to your aperture, so you have purchased side panels or an over panel to bridge the gap between the doorframe and wall or lintel above.

This is a far stronger alternative to using timber or any other form of packing. The side panels and over panels have a lip which clips onto the doorframe, so if you have purchased a 30mm over panel for example, this can be packed under to lift it up using timber or packers, gaining up to another 20mm in height (50mm overall), without jeopardising security.

Please note: For added thermal and acoustic values, put insulation inside of the panels before fitting, or fill with expanding foam afterwards.

How to fit expanding side panels

Our expanding side panels are supplied as a pair. Using the lugs provided you can expand the width of the side panel to suit aperture size.

Step 1: Screw the wind out lugs into your chosen fixing plates (3 per side).

Step 2: Slide the panels onto the sides of the doorframe and firmly push them onto the frame so they clip on fully. The side panels are now an extension of the frame.

Step 3: Place the doorframe and panels into the opening and screw out the wind out lugs until wide enough to fill the opening.

Step 4: You can now move onto fitting your door following the instructions provided. Please note, fixings are installed through the wind out lugs.

How to fit an over panel

Step 1: Measure the width of your doorframe and using a disc grinder or hacksaw, cut the panel down to length.

Step 2: Smooth off any sharp edges or burrs with a file.

Step 3: Slide the panel onto the top of the doorframe and firmly push the panel onto the frame so it clips on fully. The over panel is now an extension of the frame.

Step 4: Place the doorframe and panel into the opening and see if the added height is enough to bridge the gap. If not, you can add packing between the doorframe and panel to increase the overall width (20mm max).

Step 5: You can run a line of silicone down either side of the frame where the lips clip over, to create a seal. You can also fix the panel and frame together using pop rivets or self tapping screws. This isn't necessary but adds further security and rigidity.

Step 6: You can now move onto fitting your door following the instructions provided.

Section 6: How to install

6.1 Doors Using Infill Panels

Prefer to watch a tutorial?
Scan the QR code to view our infill panel installation video

How to fit both over and side panels

With side and over panels both fitted, the side panels will need to be trimmed down to sit flush under the overhead panel.

Step 1: Measure the length of the side panels and remove 25mm to allow the overhead panel to sit flush when installed. Please note the side panels are handed so please ensure excess is removed from the correct end otherwise fitting holes will not align correctly.

Step 2: Smooth off any sharp edges or burrs with a file.

Step 3: Screw the wind out lugs into your chosen fixing plates (3 per side).

Step 4: Slide the side panels onto the sides of the doorframe and firmly push them onto the frame so they clip on fully. The side panels are now an extension of the frame. Make sure they're flush with the bottom of the frame.

Step 5: Place the doorframe and panels into the opening and see if the added width is enough to bridge the gap. If not, you can use the wind out lugs between the doorframe and panel to increase the overall width (20mm max either side).

Step 6: Now, fit the over panel. Measure the total width of the doorframe with side panels and cut the overhead panel down to the correct size using a disc grinder or hacksaw.

Step 7: Smooth off any sharp edges or burrs with a file.

Step 8: Slide the panel onto the top of the doorframe and firmly push the panel onto the frame so it clips on fully. The over panel is now also an extension of the frame.

Step 9: Place the doorframe and over panel into the opening and see if the added height is enough to bridge the gap. If not, you can add packing between the doorframe and the overhead panel to increase the overall height (20mm max).

Step 10: You can run a line of silicone down either side of the frame where the lips clip over, to create a seal. You can also fix the panel and frame together using pop rivets or self tapping screws. This isn't necessary but adds further security and rigidity.

Step 11: You can now move onto fitting your door following the instructions provided.

Section 6: How to install

6.2 Security Trim

Prefer to watch a tutorial?
Scan the QR code to view our security trim kit installation video

Before installation, remove all packaging and inspect for damages. If damaged, do not install the security trim and please contact us immediately.

Step 1: Once the door is fully fitted, measure the height of the whole opening. The security trim is 2100mm in length and can also cover an over panel up to 75mm on top of the 2020mm door frame.

Step 2: Cut 2 lengths of the security trim to the measurement from step 1.

Step 3: Measure the width of the whole opening width and cut the remaining length of trim to this length.

Step 4: If you have the equipment, cut a 45 degree angle into the tops of the side angle trim and both ends of the top angle trim to leave a seamless finish. If not, cut the top angle trim down to sit inside of the side angle trim, so there is no overlap.

Step 5: Use a file to smooth off any burrs or sharp edges.

Step 6: Away from the doorset, preferably on a bench, mark 4 equal points down the security trim, where you will be fixing the security trim to the doorframe. This must be on the longer 'lip' of the trim. The smaller lip is 15mm and the longer lip is 35mm. For the side pieces, you can use the one side as a template for the other side once the holes are drilled, to make the trim symmetrical once fitted.

Step 7: Drill a pilot hole through each pen mark using a narrow metal HSS drill bit and then enlarge using a 5mm steel HSS drill bit, enlarge the 4 pilot holes.

Step 8: Offer the security trim up to the doorframe and push it into the corner, so it's butted up against the wall and door frame.

Step 9: Use the drilled holes as a template to drill holes through the door frame – in line with the holes drilled in the security trim.

Step 10: Using the pop rivets provided and a pop rivet gun, secure the security trim into place. You can run a line of
silicone behind the security trim as an extra form of adhesion, for extra security.

Security Trim Kit

Security Trim:

- Hides fixing positions from attack
- Hides packers / shims
- Hides unlevel or large gaps
- Professional finish with a clean look
- Fast and easy to fit

Material: 1.5mm Steel
Finish: White Powder Coat
Fixings: 16 White Pop Rivets
2.5 lengths are supplied per kit

Security Trim Kit

No Security Trim:

- Exposed fixing positions - open to attack
- Exposed packers / shims
- Exposed unlevel or large gaps
- Exposed silicone line - messy

Section 6: How to install

6.3 Drop Bar Kits

Prefer to watch a tutorial?
Scan the QR code to view our drop bar kit installation video

Fitting to an inward opening door

Brackets should be fitted to the internal side of frame

Step 1: Using a spirit level, place the brackets one at a time approximately 55cm from the top of the doorframe and central of the frame (equal distances to either edge of the frame). Use a pen to make marks through the holes, to show where to drill.

For the bottom brackets measure a similar distance up from the bottom of the door.

Step 2: Using a 5mm steel HSS drill bit; drill the 4 holes for each bracket using the pen marks as guides. **ONLY DRILL THROUGH THE INNER SKIN OF STEEL OF THE DOOR FRAME**.

Step 3: Ensuring the bracket is the correct way up, using the tek screws provided to secure the bracket into place. You can put a 'blob' of silicone behind the bracket as an extra form of adhesion, for extra security.

Step 4: Continue with the remaining holes until the 4 brackets are secure to the door frame.

Step 5: The drop bars come in standard lengths to be cut down on site.

Using either a hacksaw or grinder, cut the bars down to the width of the doorframe (the external frame size). For example, if your doorset is 895mm x 2020mm, cut the bars down to 895mm.

Using a file, smooth off any burrs on the ends and insert the black end caps.

TIP: If the inner side of the frame is flush with the internal walls, you may want to leave the drop bars wider than the frame, securing the door using the walls.

Fitting to an outward opening door

Brackets should be fitted to the internal side of the door

Step 1: Using a spirit level, place the brackets approximately 50cm from the top of the door leaf and 10cm from either edge of the door leaf. Use a pen to make marks through the holes, to show where to drill.

For the bottom brackets measure a similar distance up from the bottom of the door.

Step 2: Using a 5mm steel HSS drill bit; drill the 6 holes for each bracket using the pen marks as guides. **ONLY DRILL THROUGH THE INNER SKIN OF STEEL OF THE DOOR**.

Step 3: Ensuring the bracket is the correct way up, using the tek screws provided to secure the bracket into place. You can put a 'blob' of silicone behind the bracket as an extra form of adhesion, for extra security.

Step 4: Continue with the remaining holes until the 4 brackets are secure to the door.

Step 5: The drop bars come in standard lengths to be cut down on site.

Using either a hacksaw or grinder, cut the bars down to the width of the doorframe (the external frame size). For example, if your doorset is 895mm x 2020mm, cut the bars down to 895mm.

Using a file, smooth off any burrs on the ends and insert the black end caps.

Section 6: How to install

6.4 Rain Deflectors

Prefer to watch a tutorial?
Scan the QR code to view our rain deflector installation video

Recommended for inward opening doors

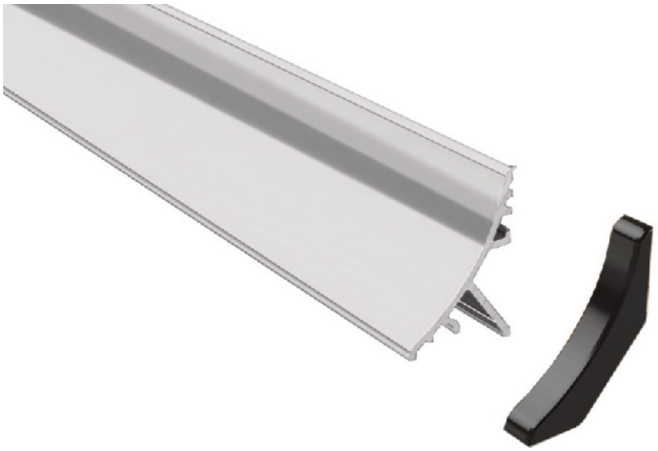
Step 1: With the door in a closed position, measure the width between the frame, and deduct 6mm (this allows for 1.5mm each end for the Edge Covers and a 3mm clearance requried on the catch side of the door leaf).

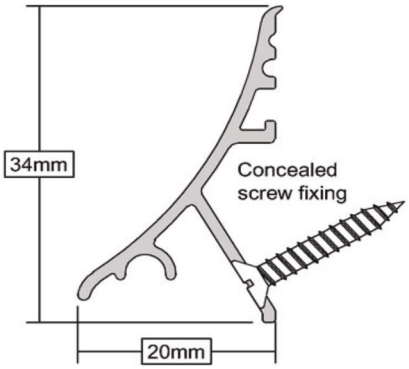
Step 2: Measuring 9mm from the threshold sill, position the rain deflector and mark the screw holes.

Step 3: Using a small HSS steel drill bit, drill through the pen marks to make pilot holes, then using a 5mm drill bit, enlarge the pilot holes ready for fitting.

Step 4: Apply sealant in the sealing grooves of the rain deflector and proceed to screw it to the door using self tapping screws. Tek screws can also be used if you prefer.

Step 5: Apply sealent to the Edge Covers and push them onto the ends to fit.





Section 7: Trouble Shooting

7.1 Security Door Trouble Shooting

Multi-point locking system - not correctly working or stiff

6.1.1. Check centre Sash Lock

Remove the sash lock (the main lock in the centre) following the instructions below:

Step 1: Remove the cylinder covers (unscrew the 2 screws).

Step 2: Remove the cylinder (unscrew the 1 screw, in line with the cylinder which goes through the sash lock - on the door latching side).

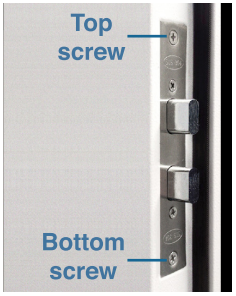
Step 3: Remove the sash lock (unscrew the 4 screws in the 4 corners only).

The sash lock has two hooks, 1 top and 1 bottom, which slot into 'eyes' in the internal rods. These are the moving parts that work the upper and lower shoot bolts. The bottom hook should be parallel with the top hook.

If it isn't, using pliers gently pull the hook back into position and refit the sash lock into the door. Ensure the hooks go through the 'eyes' in the rods when being refitted.

6.1.2 Check Side Locks

The side locks are the 2 sets of shoot bolts above and below the main sash lock. Remove these (1 screw top, 1 screw bottom) and ensure the 'hook' element of the shoot bolt is located into the 'eye' of the rod, and that it is the correct way round.



6.1.3 Check Top and Bottom Shoot Bolts

Check the top shoot bolts and bottom shoot bolts are located into the holes provided in the door. Ensure the plastic shoot bolt hole gaskets aren't obstructing the holes. They can simply be removed if needed.

6.1.4. Check the Cylinder is working correctly

Remove the cylinder (using the steps mentioned in section 3.2) and test the cylinder out of the door.

The key should turn the cam in the cylinder smoothly and without force.

6.1.5 Ensure bottom shoot bolts can extend freely

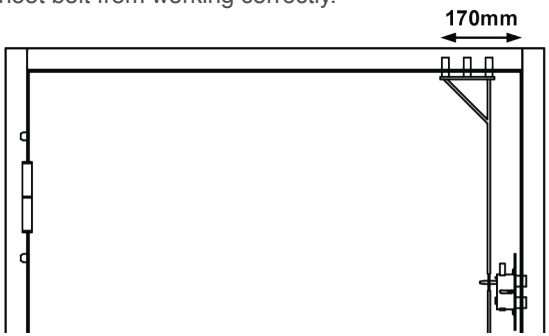
Open the door leaf and check that all shootbolts extend freely from the door leaf and into the door frame when closed.

Also, be sure to clear any debris from holes drilled through the threshold using a vacuum. If they haven't been drilled (as previously mentioned in the instructions), the sash lock may be damaged. This can be repaired, see 6.1.1.

6.1.6 Alarm contact sensor fitted to door

If you have an alarm contact fitted to your door, make sure the fixings aren't in line with the top shoot bolts. We recommend leaving 170mm.

The fixings could go through the shoot bolt mechanism, or stop the shoot bolt from working correctly.



Section 7: Trouble Shooting

7.2 Handle Set & Concealed Shoot Bolt Trouble Shooting

Handle Set Trouble Shooting

7.2.1. Lever handle not retracting latch

If the handle is not retracting the latch, chances are, the spindle doesn't reach into either the internal or external handle (usually 1 handle will work if this is the case).

Either:
a) a longer spindle is needed
b) springs need inserting into the spindle cavity only if provided.
c) grub screws need tightening onto the spindle - applicable if an allen key is provided and there is grub screw functionality with handle set.

7.2.2. Privacy thumb bolt not engaging shoot bolt

The privacy thumb bolt 'turn' is at the bottom of the internal handle. This is not supposed to work the main locking system. This should shoot out a separate shoot bolt, totally separate from the main locking system (which is engaged by using the key).

If the privacy thumb bolt isn't engaging, remove the handle and ensure the 'hinged spindle' is locating into the correct part of the lock.

7.2.3. Cylinder cover issues

If you can see an oval gap around your cylinder, cylinder covers need installing. Check the handle packaging and install using the fixings provided before installing the handle.

The key will become stiff to turn if the cylinder covers are screwed together too tight. Do not over tighten.

Concealed Shoot Bolt Trouble Shooting

Concealed shoot bolts are not engaging (double door only) The passive door is locked using 2 concealed shoot bolts; 1 top & 1 bottom.

7.2.4. Check shoot bolt isn't bent

Remove the shoot bolt from the door (2 screws) and check the bolt is straight. They can be bent back into shape or replaced.

7.2.5. Check shoot bolt is the correct length

Each shoot bolt is on a thread making it adjustable after your door is fitted. Adjust the length accordingly, then tighten into position with the nut.

Section 7: Trouble Shooting

7.3 General Fitting Issues

7.3.1. The gap below the door, between the door and threshold seems too large

The gap under the door is designed to be between 5-8mm.

If the gap is larger on one side and uneven, the door frame hasn't been fitted horizontally plumb and adjustments need to be made. Loosen off the fixings on the side where the gap is the largest and lift this side of the frame up.

Put packers underneath to stop if falling back too low again, then retighten.

Alternatively you can do the opposite to the opposite side if possible, and lower the side where the gap is the smallest.

7.3.2. The door won't close flush

If when the door closes, it protrudes at the top, bottom, or either side, the frame needs adjusting.

If the door is not flush with the latching side, simply loosen off the fixings on the latching side, push the frame in the direction towards the door and re-tighten the fixings. The same applies to the hinge side, if this isn't sitting flush.

7.3.3. The door won't close

Typically, this happens when the frame is too tight in the opening. Loosen off the fixings, remove some of the fitting shims, and re-tighten the fixings until the door closes without force.

The door may not close if the door isn't fitted square, too. Ensure the gaps around the door, between the door and frame are all equal and adjust accordingly.

Please note, Double Doors will be supplied in a knockdown frame and will require some assembly.

7.3.4. Unsure how the seal fits to the door

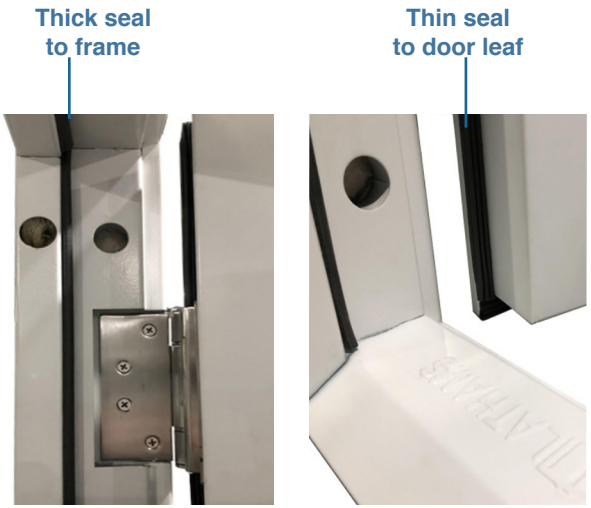
It is important to ensure the seal is fitted correctly to the door.

Included with your door set will be two sections of black seal, one thick and one thin.

Apply the thick seal to the door frame and the thin seal to the door leaf around the full perimeter of the anti-jemmy bar lip. Don't apply any to the threshold as the thin seal applied to the bottom of the door leaf will create a seal here.

If the application of the thin section on the bottom of the door doesn't generate a full seal, you can replace it with left over thicker seal.

See below images for further guidance:



Section 8: Operation & Maintenance Manual

General Maintenance For Steel Doors

There are a number of components that make up the door assemblies and each raise their own maintenance issues.

We would recommend that the doors and their associated hardware are maintained on a bi-monthly basis.

Detailed below are the guidelines for the care of door identified by component. It is important to remember that the full door assembly will not last as long as planned and function correctly if all of the components are not maintained correctly.

For example, it is wrong to check that a door blade is free of dents and opens but fail to check the panic hardware fitted to it works correctly. All of our doors are supplied with a manufacturer's warranty (please refer to terms and conditions for specific information). This will be considered null and void if the door is not properly maintained in accordance with this manual.

Doors

The door alignment should be checked at regular (2 monthly) intervals to ensure that the door and frame have not settled out of true.

The doors should be free of dents and scratches and they should open freely. Openings should be kept clear of obstructions (internally and externally) to ensure that the door operation is not impeded.

We recommend that daily visual checks are carried out to ensure that any damage to any part of the door is identified in a timely manner. Report issues to the responsible person to ensure action is taken to rectify any problems with may arise.

The locks and/or panic hardware should be checked to ensure smooth and correct operation and if necessary adjustments should be made to the settings.

If the ironmongery is inoperable for any reason then please contact us for assistance (please see individual sections on the following pages).

Hinges

Hinges must be fitted accurately to ensure the most efficient operation and all hinge pins should be in vertical alignment.

Hinges should be inspected periodically for wear that may inhibit the free movement of the door and also that may cause the door to drop. All screws should be checked for tightness.

Loosening of hinges is usually caused by poor alignment when fitting the door. Loose screws should be tightened and if possible, the problem should be eliminated by realigning the hinges or by replacing the screws with a more suitable type.

Hinges should be lubricated periodically with light machine oil. Whilst squeaking of hinges is a sign of lack of lubrication, if it occurs frequently then the pin misalignment should be investigated.

Whether supplied in satin or polished finish, stainless steel should be dusted regularly, occasionally washed with warm soapy water and dried with a soft clean cloth. Avoid acid or chloride based cleaning products and abrasive materials. Greasing over all exposed stainless steel once cleaned is a necessity.

Nylon: Nylon is a non-porous material and the smooth surfaces of nylon products do not attract dust. Appearance can be maintained by wiping with a damp cloth which will restore the product to a pristine condition.

Stove Enamelled: These finishes should be wiped with a non-abrasive, soft cloth and a non-abrasive cleaner used.

Section 8: Operation & Maintenance Manual

Overhead Door Closers

Since all internal parts are completely immersed in oil there is little routine maintenance to be carried out. It does no harm in re-greasing all moving parts on the 2 monthly basis, just to ensure smooth operation. Overhead door closers should be inspected for oil leakage, tightness of fixings and correct operation. Light oil lubricant should be applied to exposed pivot points.

Ensure the door closes smoothly and firmly into the frame overcoming the latch and/or seals if fitted. If it does not, make sure the lock and hinges are correctly fitted and operating correctly before adjusting the closer.

To avoid slamming, the latch action should be adjusted. Where backcheck or delayed action functions are incorporate these should also be checked and adjusted. Similarly with adjustable power units the valve should be adjusted to take account of the size of door, variable air pressures and the ability of the user to operate the door.

It is recommended that door stops be fitted to all non-backcheck applications to prevent the door opening beyond the limit of the closer.

Ancillary Products

These should be checked to ensure that they are correctly fixed and do not interfere with the correct operation of other ironmongery or the door leaf.

Electro magnetic devices

Any electrical hold open device and its associated sensor or alarm should be checked once a week.

Locks and latches

The correct operation of a lock or latch, assuming correct fitting, is often affected by movement of the door or frame caused by climate conditions or wear on hinges.

The usual result is the inability of the latch and deadbolts to easily engage the striking plate or keep, requiring an adjustment to their position of the frame. The mortise should be checked to ensure that no debris has entered the lock case.

It is also important that the holes in the frame behind striking plates are deep enough and free from foreign matter to ensure unrestricted movement of bolt or bolts.

Lubricant should occasionally be applied to the side and striking face of latch bolts. Grease should not be applied to the internal lock mechanism, as this will attract dust.

Cylinders

Cylinders should not be lubricated with oil since this will attract dust, which can affect their smooth operation. They should be maintained with a periodic application of powdered graphite into the keyway.

Lever Handles

Backplate and Rose Fixings should be periodically checked for tightness and adjusted if found loose.

Badly fitted and maintained furniture can prevent the lock from operating correctly. Spindle grub screw fixings should also be checked and tightened.

Pull Handles

Pull handles should be inspected to ensure that bolt through fixings and/or screw fixings are tight. Loose pull handles can damage the door face and become unstable.

Emergency & Panic Exit Hardware

Regular inspection and maintenance is essential in the interests of safety. Attention must be given to ease of opening and closing with adjustments as necessary to compensate for any door or frame movement.

Section 8: Operation & Maintenance Manual

Floor sockets should be cleaned out to prevent foreign matter impending bolt movement.

Lubrication will be limited to the application of a little light machine oil to the pivots of the top tripper mechanism of panic bolts, to the saddles of panic bolts and to the bolt head of panic latches.

Outside access devices (OAD's) fitted to fire exit doors are designed to be used for limited access. They are not intended as the main access point for the door, and should not be used in this way to ensure the longevity and smooth operation of the OAD.

Steel Doors

The doors are normally provided in a powder coated finish, 2 pack paint finish or sometimes stainless steel. These can be cleaned as follows:

General dirt: the door can be washed down with a proprietary non-abrasive cleaning solution such as washing detergent diluted in hot water. The cloth should be wrung out so as not to soak the door or any furniture fitted to it.

Specific dirt or problems: This will depend upon the specific item on the door and no general information can be given in this document, specialist advice should be sort.

Damage to powder coat surface: Over time the powder coat surface may become scratched or dented. Should this occur we offer a touch-up paint pen that is RAL or BS colour matched to our doors. Please contact us to order if required.

Care of Finishes

Surface deposits such as dirt and dust are the main cause of corrosion in metal door furniture particularly when combined with moisture in a damp atmosphere.

In hardwearing environmental conditions near the coast or industrial areas acidic or alkaline deposits may build up and attack the surface finish.

It is very important that care is taken to maintain door furniture finishes since many finishes especially anodised, electro-plated, polished and lacquered surfaces are damaged by incorrect cleaning.

Frequent dusting using a soft dry cloth and occasional washing with warm soapy water, followed by a light application of good quality wax polish will provide a good foundation for preserving the appearance of most finishes.

Chemical sprays, cellulose based thinners and silicone based polishes should be avoided.

Ironmongery fitted externally will require greater attention due to increased exposure to atmospheric conditions.

It is strongly advised that solvents, metal polishes, or cleaners containing abrasive powders or abrasive cloths and pads should not be used for cleaning lacquered or electro-plated finishes.

Electro plated finishes: Electro-phoretic and plated finishes should be wiped clean with soapy water and a soft cloth and wiped dry.

Powder coating and 2 Pack paint finishes: Epoxy, polyester or polyurethane powder coating and 2 pack paint finishes should be cleaned with a soft cloth and household furniture polish. Under no circumstances must industrial solvents be used.

Section 8: Operation & Maintenance Manual

Refinishing and on-site repairs: If you are repainting your door, you must remove all hardware including hinges, locks and panic hardware then reinstall the hardware once the finish has cured.

Under no circumstances should you paint over hinges or door hardware.

Dents and dinks can be repaired using car body filler and a quality exterior weatherproof metal paint.

Nickel and Chrome: Door furniture with nickel and chrome finishes should be dusted regularly. They should be washed periodically with weak detergent solutions and rubbed occasionally with a cloth dampened in paraffin or light oil.

Disposal

The doors and their hardware are constructed from 95% metal and can be recycled. Their disposal does not pose any health or safety risks.

8.1 Maintenance / Repairs Log

Date:	
Completed by:	
Date:	
Completed by:	
Date:	
Completed by:	
Date:	
Completed by:	

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