

The CS BraceWall System has been designed to meet the requirements of the New Zealand Building Code and has been tested and analysed by BRANZ using the P21 method as per NZS 3604:2011 which is listed as an acceptable solution. The CS BraceWall meets all relevant provisions of the New Zealand Building Code, clause B1 'Structure' and B2 'Durability.' For further information see the BRANZ Appraisal and the Technical Literature.

This product is guaranteed to meet the standards of the New Zealand Building Code if installed in accordance with these instructions. Failure to do so will void the warranty and accreditation of the bracing rating.

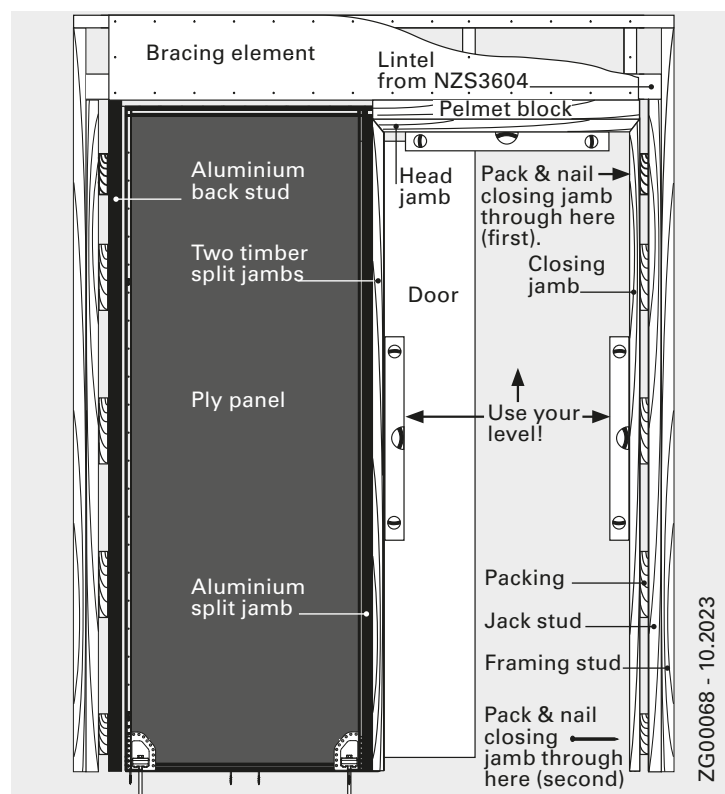


Before you Start

Fasteners

The quantity and type of fixings supplied with this unit is critical to the installation.

IMPORTANT: Do not leave out any fastenings during the installation process. If the instruction says 'use 50 nails' then you must use 50 nails. Failure to do so will void the warranty and accreditation of the bracing rating.



ZG00068 - 10.2023

Floor type

CS BraceWall units are designed to be fixed to timber or concrete floors. All fasteners required to fix these units into place are supplied with the unit and **MUST** be used in order to achieve the bracing ratings.

Timber floors require M12 x 180mm coach screws.

Concrete floors require M10 x 140mm screw bolts.

Ensure you use the correct fasteners for the floor type. The floor must be properly levelled below the cavity pocket before installing the unit. Grind down concrete if necessary.

Construction of the wall.

The wall referred to in these instructions is ex 100mm x 50mm wooden framework. Although not shown, the unit may also be fitted into other types of wall materials (steel stud, concrete, brick, etc.).

For concrete or masonry walls, fix a 100mm x 50mm timber jack stud into the opening on each side. Fix these in place with Ø10mm x 98mm long countersunk masonry anchors at 400mm centres.

The lintel should be straight and level. The jack studs should be straight and plumb to the lintel.

Lintel or trimmer sizes.

CS CavitySliders are non-loadbearing. The lintel (or trimmer, ceiling joist or structural component) directly above the track must span the full trim size opening width.

Timber lintels sized from NZS3604 are acceptable if the weight of the door leaf/leaves is less than 75kg/m total door width. If heavier, specific design is required. Please consult your engineer.

Trim size (hole in the wall framing)

(all CS BraceWall units including SofStop):

Height = door height + 84mm

Width = (door width x 2) + 30mm

Standard clearances under the door.

With the unit sitting hard on top of the concrete or timber floor, the clearance under the door leaf ranges between 22 - 30mm (adjustable). The majority of these standard clearances is taken up by the floor covering (e.g. carpet, tiles etc.).

Modified under door clearance.

If you require **more** than 30mm clearance under the door: pack the cavity unit off the floor by the amount you need. If you need **less** than 22mm clearance (e.g. polished timber floors) there are two options:

- CS can supply seals which fit to the bottom of the door.
- The unit can be made up to 15mm shorter at time of order.

Contamination of the top track.

Never drill through the centre section of the track. Make sure no dirt, grit or aluminium swarf gets into the track. This could impair the smooth running of the carriages. **Take extra care with the carriages to avoid any damage during the installation process.**

Preparation

1. Remove packaging and check components.

Position the cavity unit so the aluminium back stud is parallel with the floor and remove the transport support cleat (if fitted) from the bottom plate assembly.

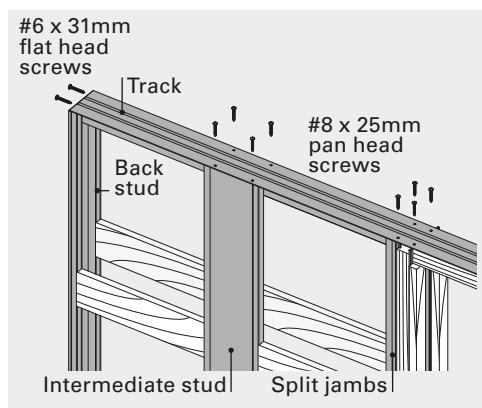
Check for any transportation damage. If anything looks damaged or out of specification or you are unsure, contact CS before beginning your install.

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2. Fit track (if not already fitted).

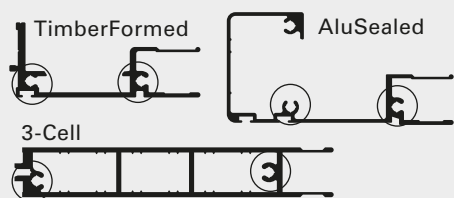
Check inside the track and clean out all dust and debris. Remove all temporary frame packers marked "remove".

Slide the track into the unit and fix to the aluminium split jambs, back stud and intermediate stud (if fitted).



Make sure that the track holes line up with the split jamb and intermediate stud screw tubes.

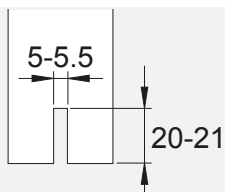
Split jamb screw tubes



3. Prepare door (if not already fitted).

a) Bottom of the door:

Cut a groove to the dimensions and tolerance shown. Make it central to the door thickness and absolutely straight.

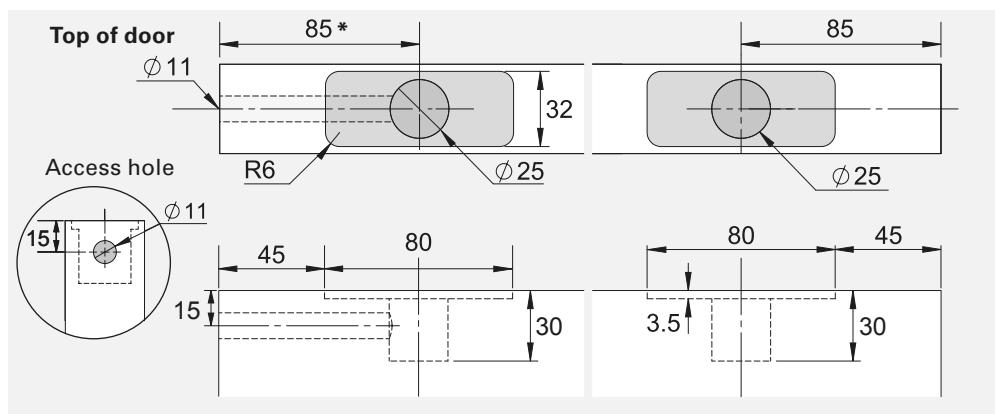


b) Top of the door:

Prepare mounting plate holes to the size and depth as shown. Make sure they are placed exactly in the centre of the door thickness.

Do not over-machine the holes.

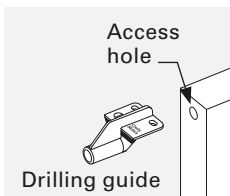
***NoClosingJamb:** Front mounting plate needs to be set back further. Refer to additional instructions.



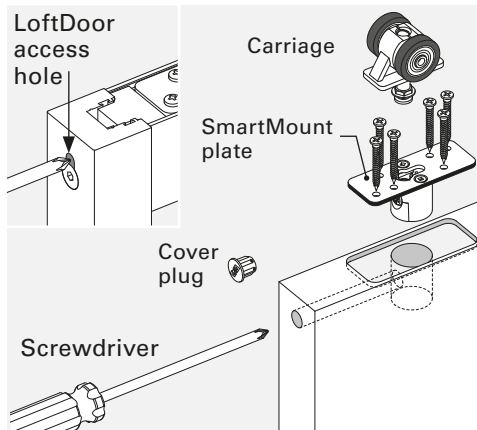
c) Front edge of the door:

Drill a Ø11mm access hole as shown. Make sure it is exactly in the centre of the door thickness, runs straight and meets the mounting plate hole.

A drilling guide is available if required.



d) Fix the SmartMount plates to the doors using the screws supplied.



e) Attach carriages.

Line the rear carriage hanger pin up with the hole in the SmartMount plate. The magnet will draw the pin into the correct position and it will click into place. Repeat for front carriage.

f) Lock front SmartMount plate.

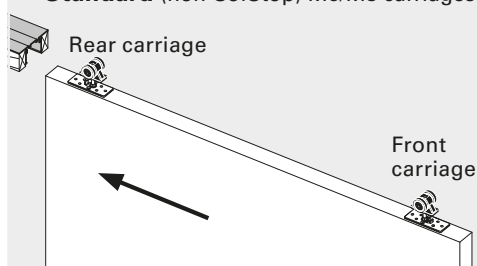
Insert a screwdriver into the access hole and turn the locking pin 90 degrees clockwise until you hear a click. Check that the carriage is locked in place. Insert the cover plug to cover the access hole.

4. Fit the Door (if not already fitted) A or B).

A Standard (non-SofStop)

Slide the door into the track.

A Standard (non-SofStop) M6/M8 carriages



B SofStop® Single (Soft Close)

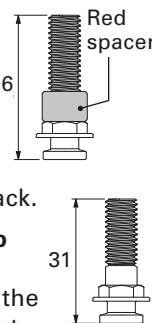
2

Check hanger pins.

Depending on the unit you have purchased, you may need to replace the hanger pin that connects the carriage to the mounting plate.

SmartMount with SofStop and 9-15mm Clearance

SmartMount hanger pins are supplied with a 36 red spacer to prevent it being wound up too far and interfering with the SofStop activator in the track.

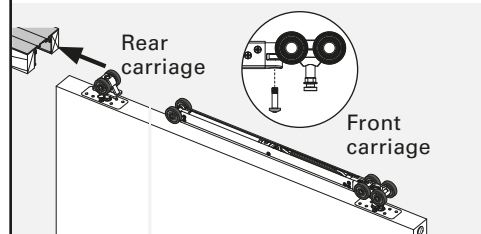


SmartMount with SofStop and 3-9mm Clearance

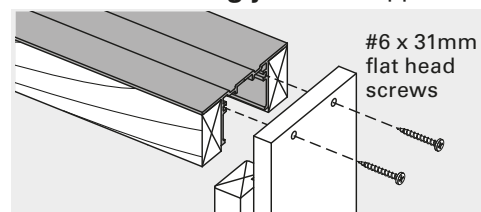
Replace the hanger pin on the front carriage with the short (31mm) pin supplied in the SofPack.

Attach the carriages to the mounting plates.

Attach SofStop cassette to front carriage with M5 pan head machine screw. Tighten with #2 Phillips screwdriver.

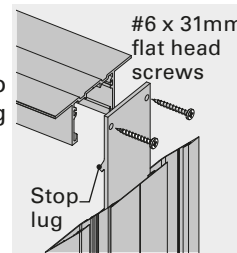


5. Fit the closing jamb (if supplied).



AluSealed units:

Ensure the closing jamb plate is fitted to the top of the closing jamb as shown with the stop lug towards the cavity pocket.



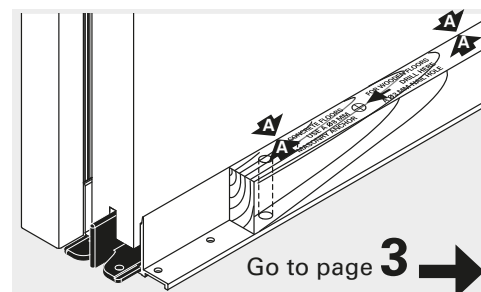
Installation

6. Place unit into framed opening.

Plumb up the two split jambs. Use a level!

7. Set up the bottom plate.

The door must slide parallel with the bottom plate assembly (see the 2 sets of black A-A arrows). If not, gently tap the front of the assembly to the left or right until it does.



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7. The door should now slide smoothly and fit into the recess in the closing jamb, leaving parallel gaps on either side between the door leaf and the closing jamb.

Temporarily fix the back stud to the timber jack stud so that the bottom plate holes can be marked.

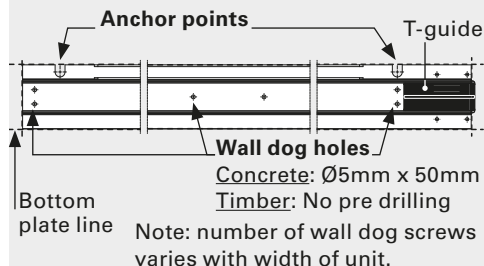
8. Mark bottom plate position.

Draw a line (bottom plate line) on the floor along the edge of the cavity slider bottom plate for its entire length as shown.

Use the correct anchor for your floor:

Concrete: M10 x 140mm screw bolt

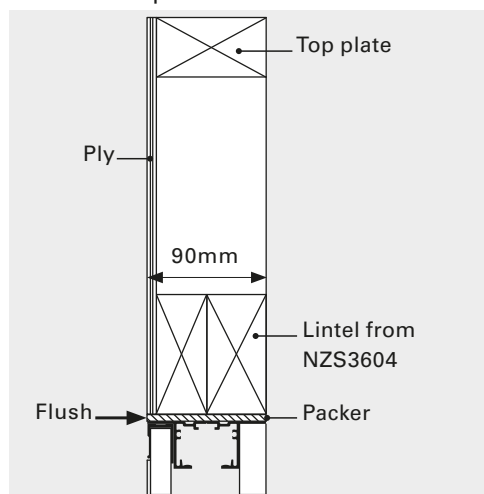
Timber: M12 x 180mm coach screw



Mark every pre-drilled hole in the bottom plate including the two holes for the screw bolts or coach screws.

9. Structural bracing element

(required for all non floor to ceiling units). Prior to removing the unit from the opening, measure the space above the track to the top plate and fabricate a bracing element. Allow 5mm clearance above the top of the track extrusion.



Structural element requirements:

Framing: Wall framing must comply with:

- NZBC B1 - Structure: AS1 Clause 3 Timber (NZS 3604:2011)
- NZBC B2 - Durability: AS1 Clause 3.2 Timber (NZS 3602)

Framing dimensions and height are as determined by the NZS 3604 stud and top plate tables for load bearing and non load bearing walls. SG8 stress grade minimum is required.

Panel: One layer of 7mm, 9mm or 12mm structural grade AS/NZS 2269 plywood (rated F8 or higher) fixed directly to framing. If part sheets are used, ensure nailing at required centres is carried out around the perimeter of each sheet or part sheet. A 2-3mm expansion gap should be left between sheets.

Fasteners: Fasten with 50 x 2.8mm galvanised nails.

9. Place fasteners no less than 7mm from sheet edges. Screws cannot be used. Power driven nails are suitable. Do not overdrive. Nails must be full round head.

Fasteners for H3.2 CCA treated ply:

Where fasteners are in contact with H3.2 CCA treated timber or plywood, fasteners shall be a minimum of hot dip galvanised.

Note: It is recommended that the total thickness of the framing and structural panel is the same as the wall cavity thickness to ensure the outside face of the structural panel and the cavity slider are flush.

Fastening centres: Fasteners are placed at 150mm centres around the perimeter of each sheet and 300mm centres to intermediate studs. Where more than one sheet forms the brace element, each sheet must be nailed off independently.

10. Prepare the floor.

Remove the unit from the opening then prepare for concrete or timber floor as follows:

Preparing concrete floor

(use M10 x 140mm screw bolts). Minimum concrete strength is 17.5 MPa. If a drilling template has been provided, align with the holes you have marked.

Drill 2x Ø10mm holes to a minimum depth of 96mm to fit the screw bolts. The minimum edge distance from the concrete slab to the centre of the screw bolt should be 59mm.

Drill Ø5mm holes at a minimum depth of 50mm to fit the wall dog screws.

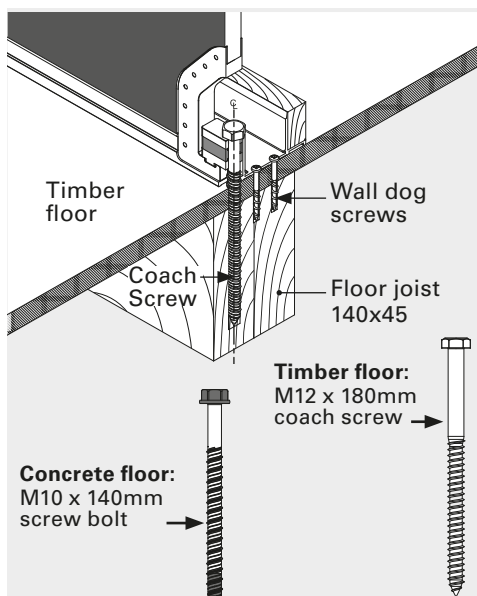
Preparing timber floor

(use M12 x 180mm coach screws). Minimum timber grade is SG8.

Ensure there is a joist for fixing the coach screw and wall dog screws. If not, block between the joists as shown.

Fixing between the joist and the block shall be 3x end nails or 6x skew nails.

The minimum joist size shall be 140x45mm on edge and moisture content of the joist must be less than 18%.



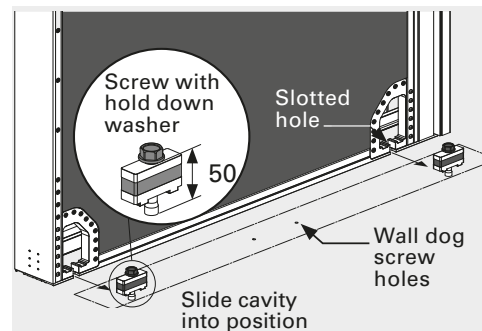
Drill 2x Ø9mm holes at 74mm depth on centreline of joist.

Note: No pre drilling is required for wall dog screws when fixing to a timber floor.

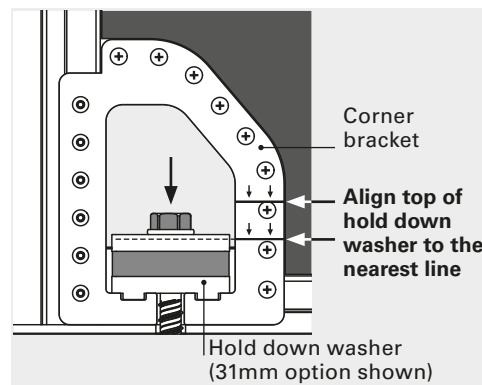
11. Fix bottom plate assembly.

BEFORE moving the cavity pocket into position insert the 2x screw bolts OR coach screws (with hold down washers attached into the pre-drilled holes, leaving approximately 50mm from the underside of the screw bolt head to the floor.

Align the slotted holes in the cavity bottom plate with the 2x screw bolt and hold down washer assemblies and slide the cavity into position.



Tighten the screw bolts until the underside of the head is just touching the hold down washer.



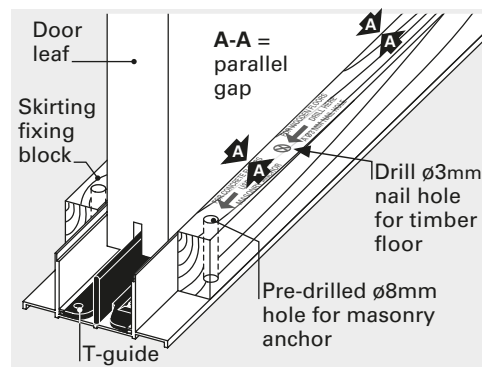
Using the wall dog screws, screw the bottom plate to the floor through the pre-drilled holes in the aluminium.

Screw through EVERY pre-drilled hole.

The hold down washer is supplied in two heights (31mm or 49mm depending on the size of your cavity sliding unit), and needs to be adjusted accordingly:

Tighten both screw bolts until the top of the hold down washer aligns with the NEAREST engraved line on the aluminium corner bracket. The hold down washer should only move approx. 2mm.

Fix the skirting fixing block to the floor:



Concrete floor: Ø8 x 90mm masonry anchor
Timber floor: Ø3.15 x 75mm nail (not supplied)

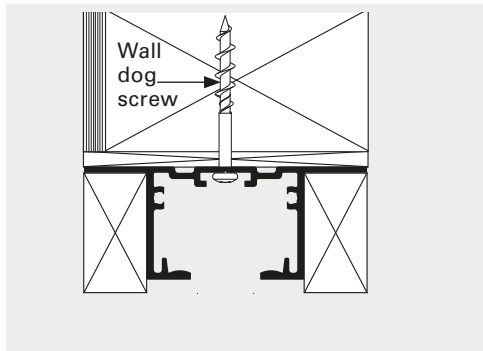
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11. To concrete floors: Fix with $\varnothing 8\text{mm}$ x 90mm masonry anchor through the pre-drilled hole in the skirting fixing block of the bottom plate. (See red stamped arrow on timber).

To **timber floors:** Pre-drill $\varnothing 3\text{mm}$ hole and fix with $\varnothing 3.15\text{mm}$ x 75mm nail in the centre of the skirting fixing block thickness. (See the red stamped \oplus on the timber).

12. Fix the track to the lintel.

Pack and screw the track to the lintel making sure it is level and straight. Use the wall dog screws supplied, making sure to fix through **EVERY** pre-drilled hole running up the centre of the inside of the track.



Care must be taken not to contaminate the inside of the track or to use the incorrect screws.

13. Fix the closing jamb.

Plumb closing jamb. **Use a level!**

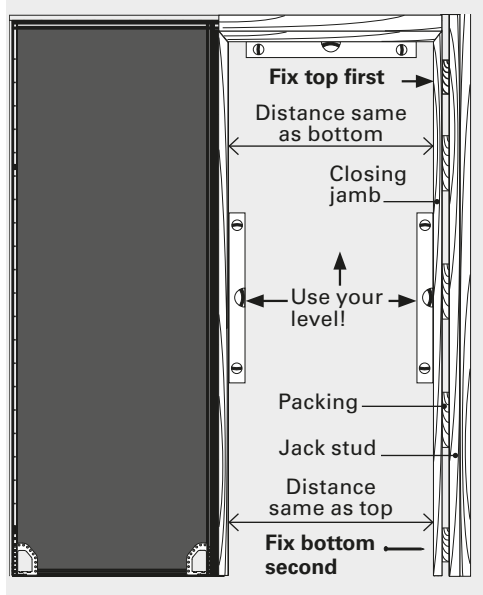
Pack and nail at 500mm centres to the jack stud through the recessed centre section of the closing jamb.

Fix the top of the closing jamb first, then the bottom of the closing jamb.

Ensure that the distance between the closing jamb and the split jamb are the same, both at the bottom and at the top. **The distance at the bottom must never be more than the distance at the top.** Measure this carefully!

Fix between the top and bottom.

Use a level to make sure that the closing jamb is straight and plumb in both directions.



13. AluSealed units: Screw through pre-drilled holes in the centre of the closing jamb. Aluminium plugs are supplied to cover the fixing holes. Put these in **only** when you are satisfied with the complete installation!

14. Fix the back stud.

While keeping the timber split jambs plumb, pack behind the aluminium back stud.

Screw the aluminium back stud including the packing to the jack stud ensuring you fix through **ALL** of the pre-punched holes

Timber studs: #8 x 29mm wood screws.

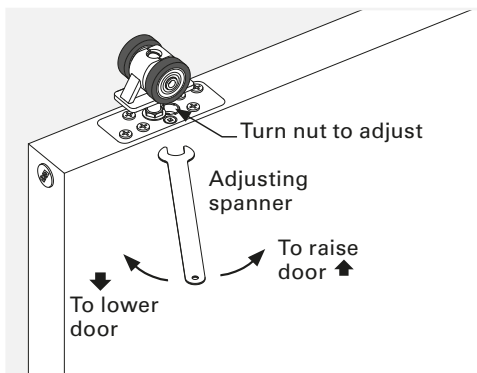
Steel studs: #8 x 29mm self-tapping screws.

15. Adjust the door.

Use the spanner supplied to adjust the door for height and plumb.

Note: The top of the hanger pin screws into a self-locking Nyloc type nut in the carriage. For the assembly to remain in its adjusted position over time the hanger pin must be screwed into the nylon locking portion of the nut by at least 3 full turns.

If the red spacer on the hanger pin hits the carriage you cannot wind it up any further.



For 3-9mm Clearance or Full-Height Detail (non-SofStop): remove the spacer. You can request a shorter or longer pin if required.

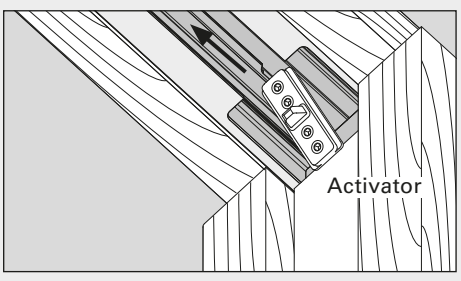
For SofStop: replace the pin with the shorter one supplied in the SofPack.



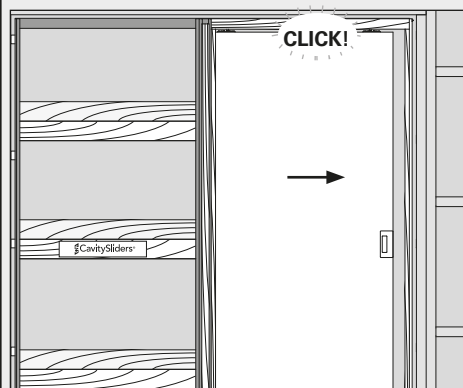
16. Set activator position.

a) Open the door and insert the activator into the track slot, sliding it into the approximate centre of the door opening.

NOTE: you will need to remove some screws to insert the activator. Ensure you reinsert the screws when the SofStop installation is complete. Tighten 2 grub screws.

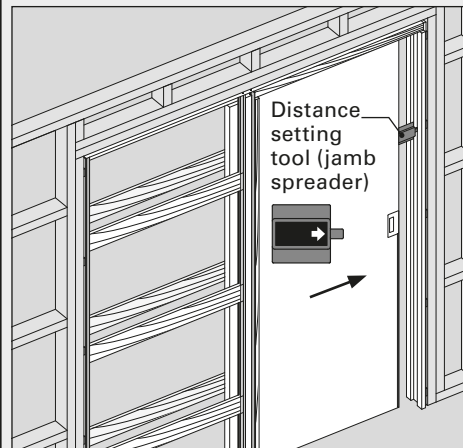


b) Gently close the door until the pickup mechanism goes past the activator. You will hear a click.



c) Open the door again and loosen the activator grub screws. The cassette is now charged.

d) Position the distance setting tool (jamb spreader) against the centre of the closing jamb or finished wall and gently close the door onto it. The activator will slide along the track into the correct position.

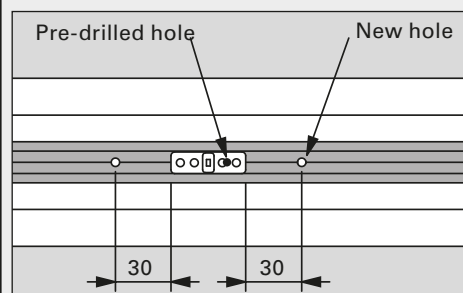


e) Without moving the activator, open the door and securely tighten all four grub screws.

WARNING: If the door soft closes, but does not come to a stand still on the closing jamb or track stop, you risk breaking the hook on the soft close mechanism.

If you use the distance setting tool correctly this will be avoided.

If the activator covers a pre drilled hole, you will need to drill another hole as close as possible. See below:



f) Reinsert any track screws removed during activator positioning.

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Finishing

17. Fit the head jambs (if required).

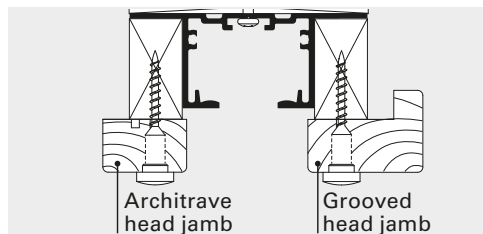
a) Fixed Head Jamb:

Head jamb is already in place and does not require fitting.

b) Removable Head Jamb Option:

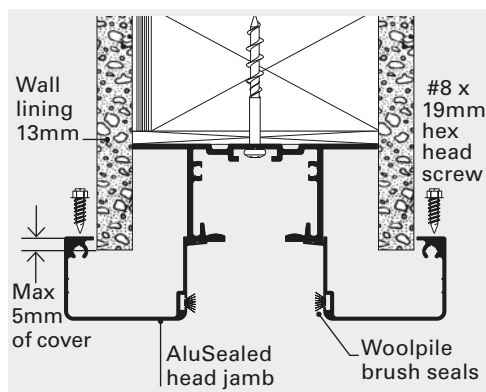
Before fitting head jambs, adjust the door for plumb and for the desired clearance under the door (**Step 15**).

Slide the head jamb into place between the vertical jambs. Flush up the joints, then screw into place. Gently tap wooden plugs to cover the screw heads.

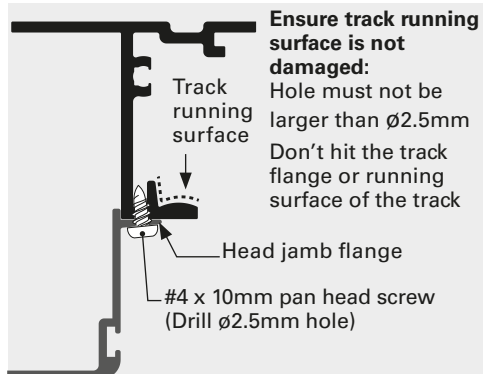


c) AluSealed Head Jamb Option:

Screw in place through both ends at the top of the head jambs.



AluSealed head jambs longer than 1m require an extra screw to hold the centre of the jamb to the bottom of the track as shown below. Spot through the pre drilled hole in the flange with a $\varnothing 2.5\text{mm}$ drill into the bottom of the track.



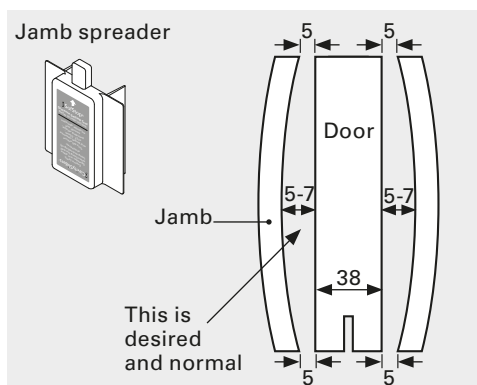
After installation but before lining, clean the full length of the inside running surface of the track with a soft rag, then **TAPE UP THE TRACK** to ensure no dust or debris enter the track during building works.

18. Fixing the wall linings.

The cavity slider comes with the split jambs intentionally 'rounded out' to accommodate any slight bowing of the door leaf and to allow door hardware to clear the jambs.

18. The standard clearance is 5-7mm between door and split jamb using a 38mm door.

The supplied 'jamb spreader' should be inserted into the cavity slider opening prior to fixing wall linings and architraves.

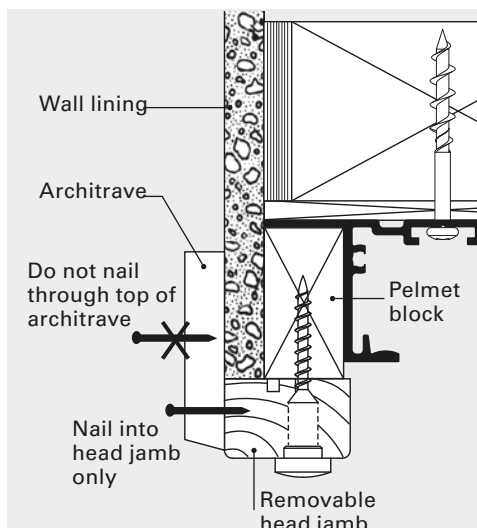


Wherever possible, linings should only be glued on. Use short drywall screws to hold linings in place until glue is dry.

10mm linings: use **maximum 25mm** long drywall screws.

13mm linings: use **maximum 28mm** long drywall screws.

Sealing the inside of plasterboard linings and mdf architraves is recommended.



AluSealed: When fixing wall linings above the head jambs do not allow the linings to finish lower than 5mm below the top of the head jamb.

19. Fitting architraves.

Nail the architraves to the four vertical jambs and the two horizontal head jambs.

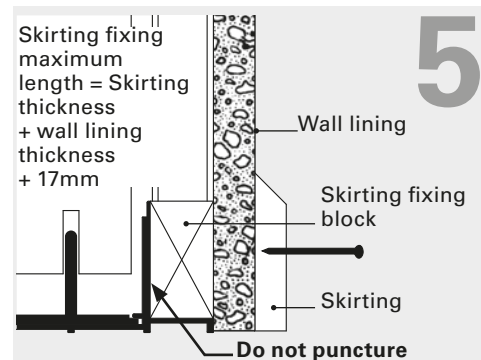
Use panel pins with a maximum length of 25mm plus the thickness of the architrave.

Nail the back of the architrave to the split jamb blocks using panel pins with a maximum length of the combined thickness of the architrave and wall linings plus 15mm.

20. Fitting skirting.

Make sure that you do not puncture the aluminium extrusion of the bottom plate assembly. Use panel pins to fix the skirting to the fixing block.

Do not hammer too hard against the bottom plate. This may damage the channel where the door slides.



21. Insert the track notch cover if required.

22. Removing the Door

a) Removable Head Jamb

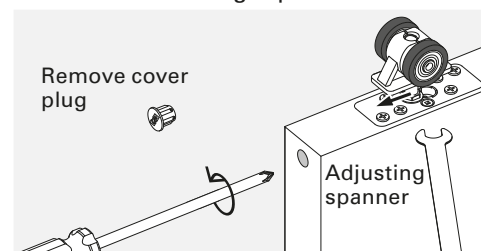
Begin by removing the architrave and head jamb from one side (if fitted).

Make a thin knife cut where any paint joins two components so as not to tear existing paint work.

b) SmartMount/ Fixed Jamb Option:

If your head jamb is fixed it does not need to be removed for access.

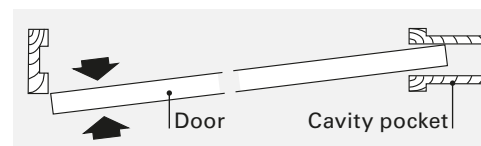
Use a screwdriver to turn the locking screw anti-clockwise one quarter turn and unlock the hanger pin.



Use the supplied spanner to slide the hanger pin sideways.

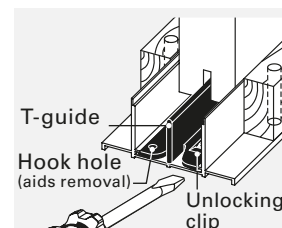
The whole carriage (including the hanger pin) will now disengage from the mounting plate.

It is not always easy to slide the spanner sideways. You may need to relieve the door's weight by using a pump wedge or putting a wedge between door and floor.



If you have trouble removing the door from the pocket: lift the unlocking clip and slide the black nylon T-guide backwards slightly.

If you need to remove the T-guide: lift the unlocking clip and pull the black nylon T-guide forward.



Use a hook to aid removal if required.

To remove the carriages: Slide them out of the notched end of the track.

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