

## BraceWall®

### Bi-Parting Cavity Slider with SmartMount Installation Instructions

SofStop® (Not available with Twin SofStop)

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.

#### 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 leaf width x 4) + 10mm

#### 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.

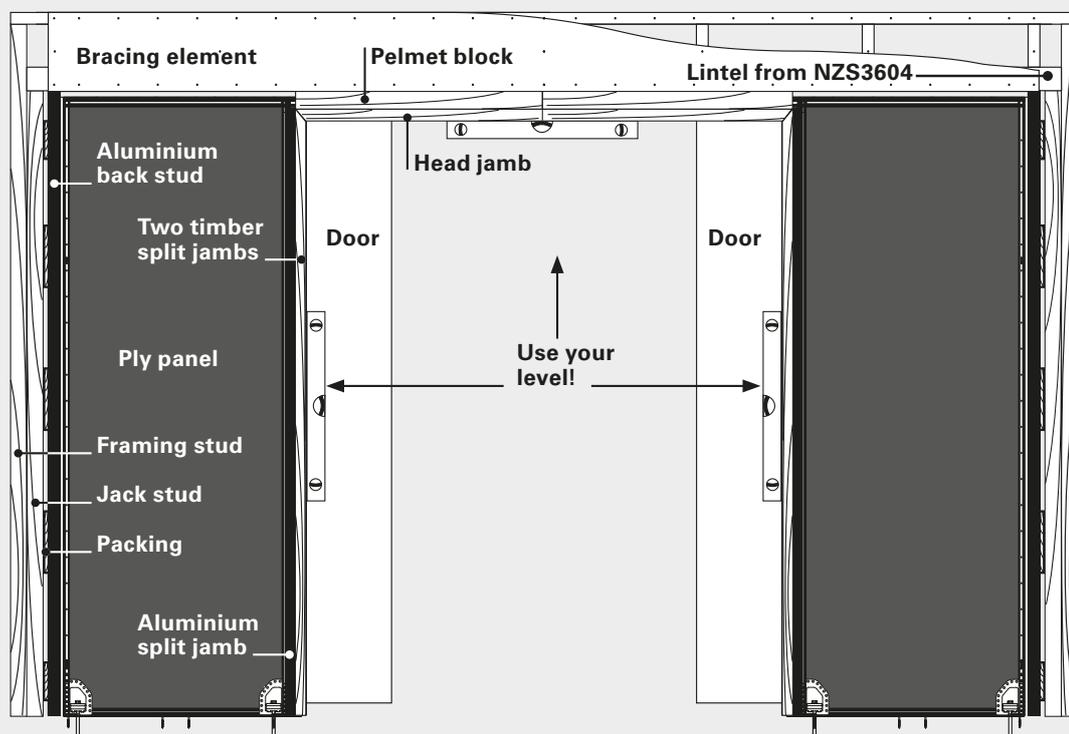
If you require **more** than 30mm clearance under the door: pack the cavity unit off the floor by the amount you need.

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.**



ZG00069 - 10.2023

## Preparation

### 1. Remove packaging and check components.

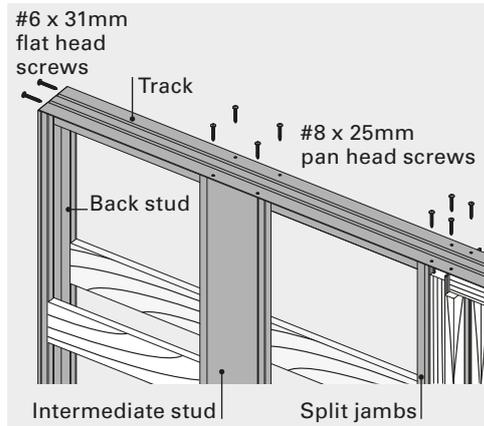
Position the cavity unit so the aluminium back stud is parallel with the floor and remove the transport support cleat (if fitted) from the bottom plate assembly. Check for any transportation damage. If anything looks damaged or out of specification or you are unsure, contact CS before beginning your install.

### 2. Fit tracks (if not already fitted).

Check inside the tracks and clean out all dust and debris.

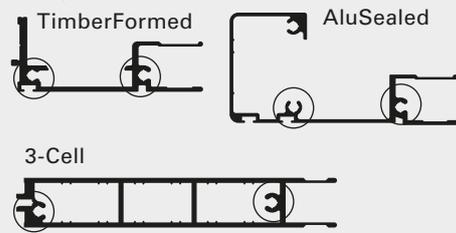
Remove all temporary frame packers marked "remove".

Slide the track into each 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

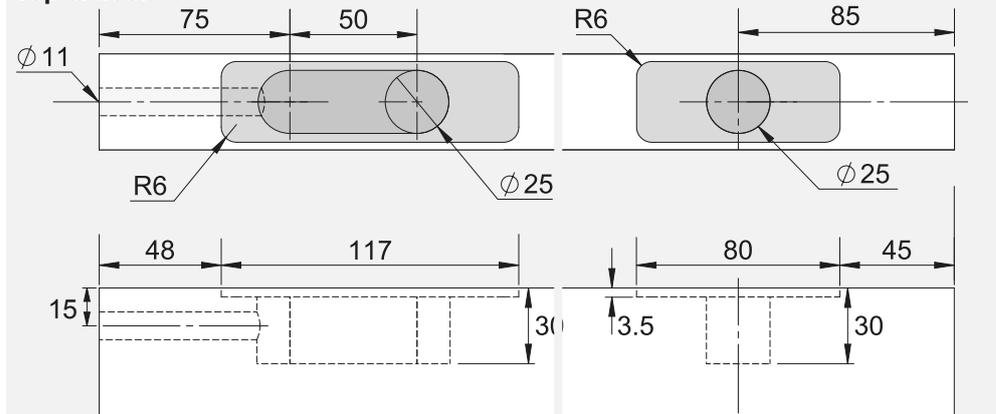


### 3. Prepare doors (if not already fitted).

#### a) Bottom of the doors:

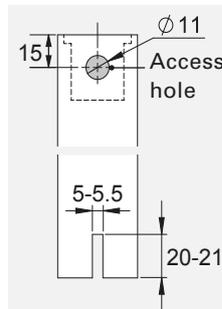
Cut a groove to the dimensions and tolerance shown. Make it central to the door thickness and absolutely straight.

#### Top of door



#### b) Top of the doors:

Prepare SmartMount plate holes to the size and depth as shown below. Make sure they are placed exactly in the centre of the door thickness. Do not over-machine the holes.



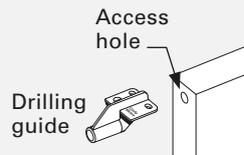
#### \*CornerMeeting Detail

Front SmartMount plate needs to be set back further. Refer to the additional installation instructions supplied.

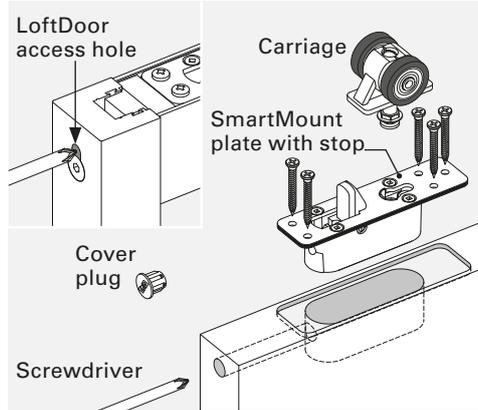
#### c) Front edge of the doors:

Drill Ø11mm access holes as shown. Make sure they are exactly in the centre of the door thickness, run straight and meet the SmartMount plate holes.

A drilling guide is available if required.



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



#### e) Attach carriages.

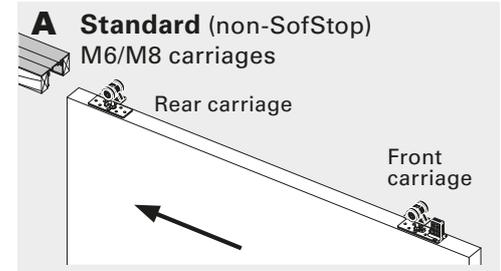
Line the rear carriage hanger pin up with the hole in the SmartMount plate. The magnet will draw the pin into the correct position and it will click into place. Repeat for the front carriage.

#### f) Lock the SmartMount plates.

Insert a screwdriver into the access hole. (This will push the stop down.) Turn the locking pin 90 degrees clockwise until you hear a click and it has locked into place. Check that the carriage is locked in place. Repeat for the other door. Insert cover plugs to cover access holes.

### 4. Fit doors (if not already fitted). Slide door and carriages into track (A or B).

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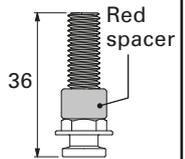
#### B SofStop® Single (Soft Close)

##### Check hanger pins.

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

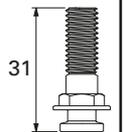
##### SmartMount with SofStop and 9-15mm Clearance

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

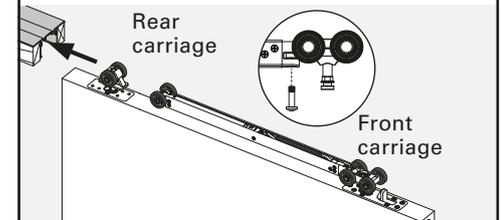


##### SmartMount with SofStop and 3-9mm Clearance

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



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



### 5. Place units into framed opening.

Connect the tracks together with the alignment pins provided. These are already fitted into the track screw tubes on one of the units.

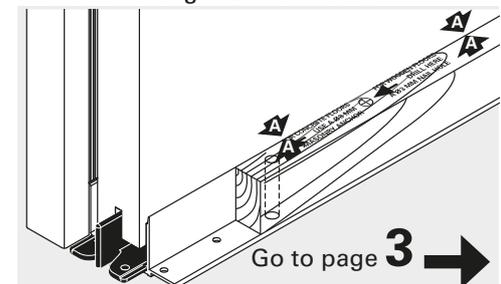
Plumb up the two split jambs. Use a level!

### 6. Set up the bottom plates.

Plumb-up the two timber split jambs using a level.

The doors 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.

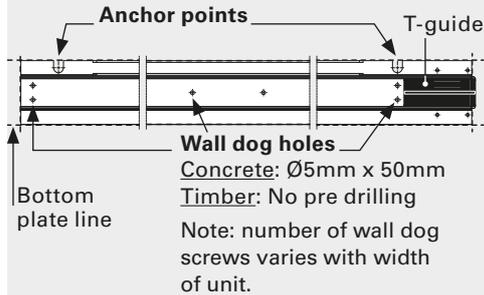


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6. The doors should now slide smoothly and butt neatly together when both doors are closed.

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

Use the correct anchor for your floor:  
**Concrete:** M10 x 140mm screw bolt  
**Timber:** M12 x 180mm coach screw



### 7. Mark bottom plate positions.

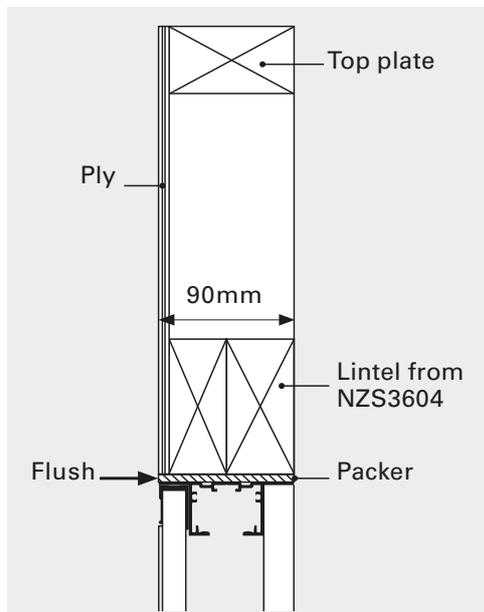
Draw a line (bottom plate line) on the floor along the edge of each cavity slider bottom plate for its entire length as shown.

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

### 8. Structural bracing element

(required for all non floor to ceiling CS BraceWall units.

Prior to removing the units 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. 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.

### 9. Prepare the floor.

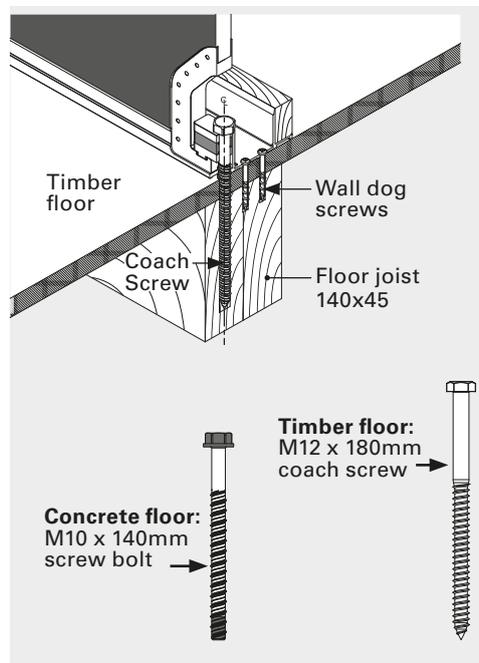
Remove the units from the opening then prepare for concrete or timber floor as follows:

#### Preparing concrete floor

(use M10 x 140mm screw bolts).  
**NOTE:** 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). **NOTE:** 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.

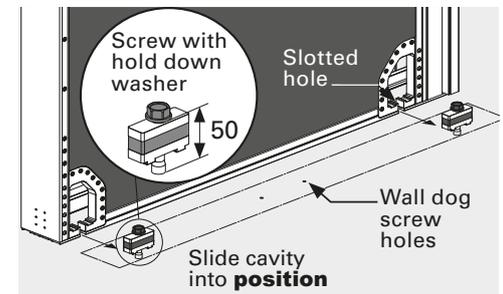
Fixing between the joist and the block shall be 3x end nails or 6x skew nails. The minimum joist size shall be 140x45mm on edge and moisture content of the joist must be less than 18%.

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.

### 10. Fix bottom plate assemblies.

**BEFORE** moving the cavity pockets into position, insert the 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 screw bolt and hold down washer assemblies and slide the cavity into position.

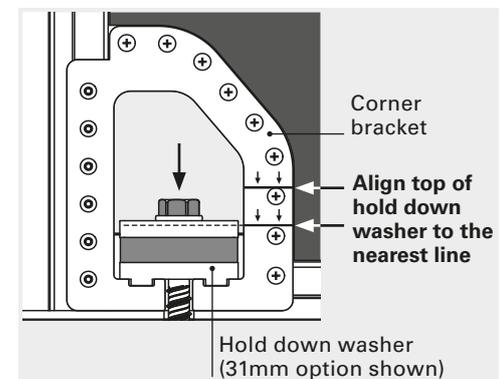
Tighten the screw bolts until the underside of the head is just touching the hold down washer.

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.

Repeat for the second unit.

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

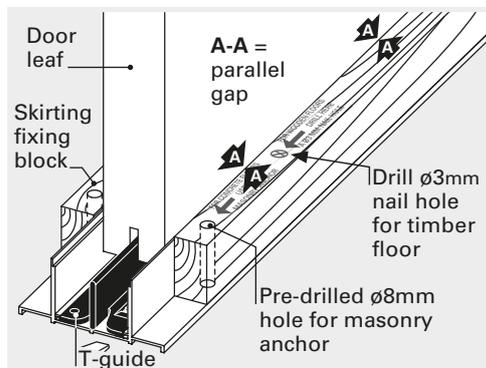


Tighten both screw bolts until the top of the hold down washer aligns with the **NEAREST** engraved line on the aluminium corner bracket. The hold down washer should only move approximately 2mm.

10. Fix the skirting fixing blocks to the floor as follows:

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).

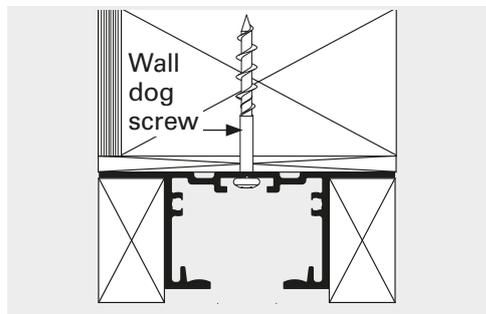
To **timber** floors: Pre-drill  $\varnothing 3\text{mm}$  hole and fix with  $\varnothing 3.15\text{mm}$  x 75mm nail in the centre of the skirting fixing block thickness. (See the red stamped  $\oplus$  on the timber).



**Concrete floor:**  $\varnothing 8$  x 90mm masonry anchor  
**Timber floor:**  $\varnothing 3.15$  x 75mm nail (not supplied)

### 11. Fix tracks to lintel.

Pack and screw the tracks to the lintel making sure they are 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 tracks. **Care must be taken not to contaminate the inside of the track or to use the incorrect screws.**



### 12. Fix the back studs.

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

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

**Timber studs:** use 8 gauge x 29mm wood screws.

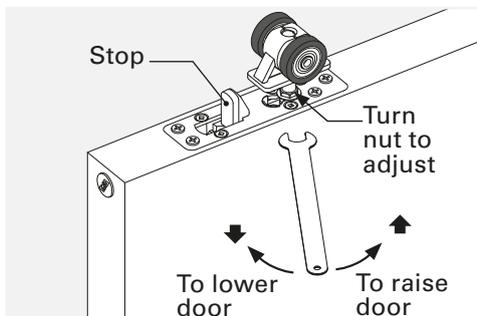
**Steel studs:** 8 gauge x 29mm self-tapping screws.

### 13. Adjust the doors.

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.

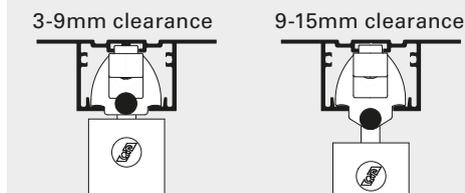
### 14. Fit the track stops.

The stop fitted to the mount plate is what contacts the track stop. Using a screwdriver, loosen the track stops, slide them into the track and push them towards the cavity pockets.

Gently slide each door towards the centre closed position (where the tracks meet) and then open again.

Lock the track stops in place and test that the doors finish where you need them to stop.

#### SmartMount track stops

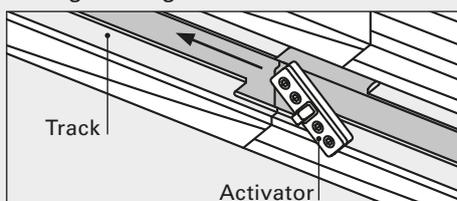


(Repeat steps for each door)

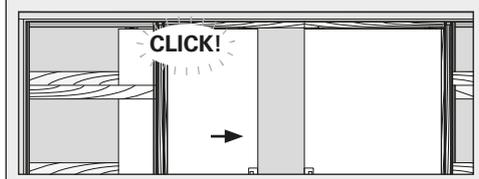
### 15. Set activator positions.

a) Open one door and insert the activator into the track. Slide it to about half way between the track joining point and the split jamb.

**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.



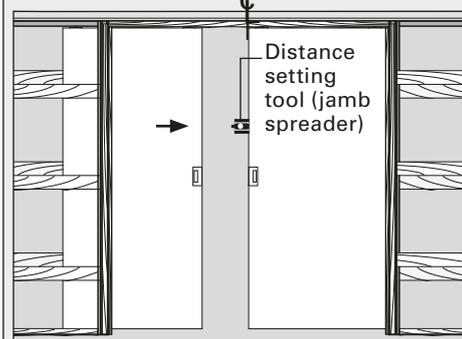
b) Gently close the door until the pickup mechanism goes past the activator. You will hear a click.



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

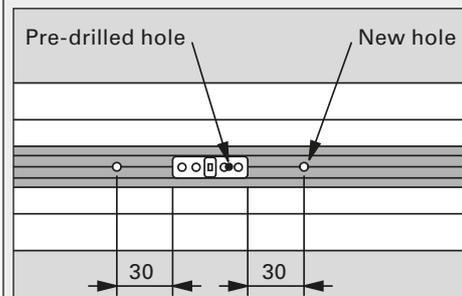
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d) Hold the distance setting tool against the other closed door. Gently close the door. The activator will slide along the track into the correct position.



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

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



f) Repeat for the second door.

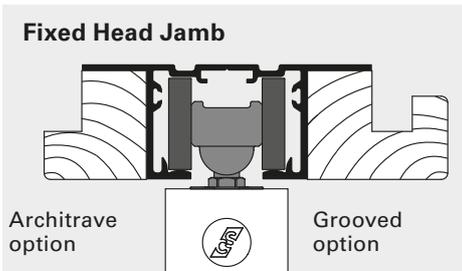
g) Reinsert any track screws removed during activator positioning.

**WARNING:** If the door soft closes, but does not come to a stand still on the track stop, you risk breaking the hook on the soft close mechanism. If you use the distance setting tool correctly this will be avoided.

### 16. Fit the head jambs (if required)

#### Fixed Jamb Option:

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



#### Removable Head Jamb Option:

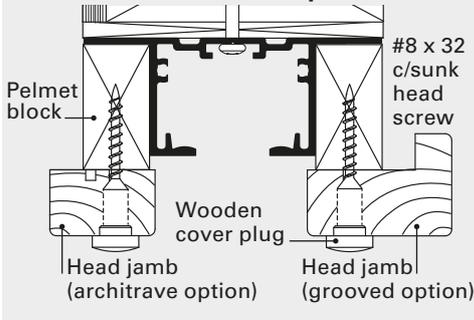
Before fitting head jambs, adjust the door for plumb and for the desired clearance under the door (**Step 13**).

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.

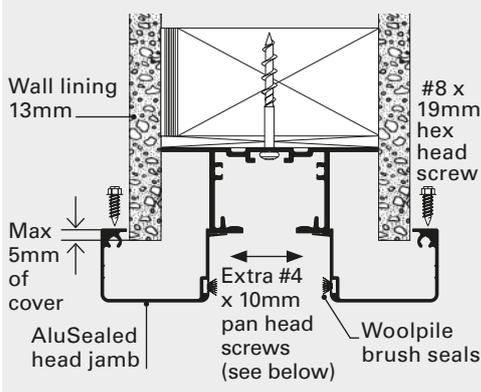


**Removable Head Jamb Option:**



**16. AluSealed Head Jamb Option:**

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

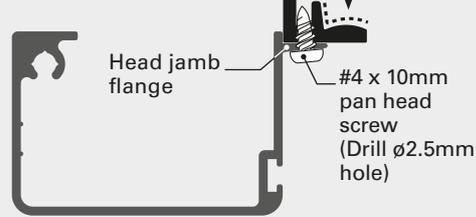


AluSealed head jambs longer than 1m require an extra screw to hold the centre of the jamb to the bottom of the track as shown below. Spot through the pre drilled hole in the flange with a  $\phi 2.5\text{mm}$  drill into the bottom of the track.

**Ensure track running surface is not damaged:**

Hole must not be larger than 2.5mm

Don't hit the track flange or running surface of the track

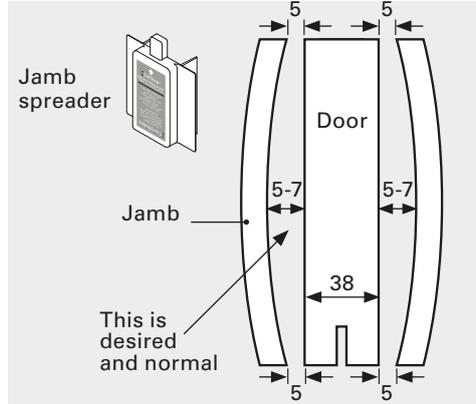


After installation but before lining, clean the full length of the inside running surface of the track with a soft rag. **TAPE UP THE TRACK** to ensure no dust or debris enter the track or SofStop mechanism during building works. Warranty does not cover damage arising from paint or debris in the track, wheels or mechanism.

17. 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.



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.

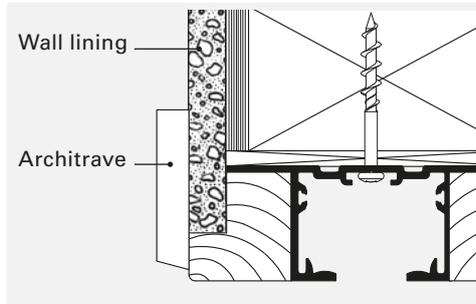
**AluSealed:** When fixing wall linings above the head jambs do not allow the linings to finish lower than 5mm below the top of the head jamb.

**18. 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.

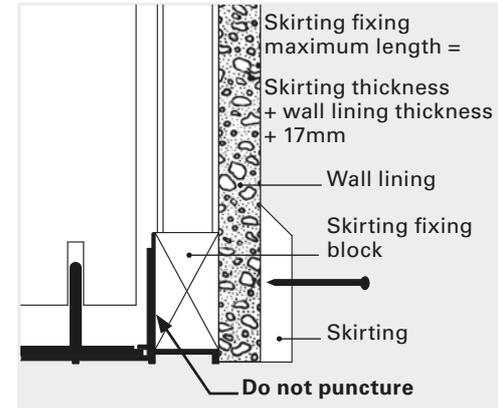


**Note (for removable head jambs):** Nail the horizontal architraves to the head jambs but **do not** nail them to the timber pelmet blocks above the head jamb.

**19. 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.**



20. Insert the track notch cover if required.

**21. Removing the Doors**

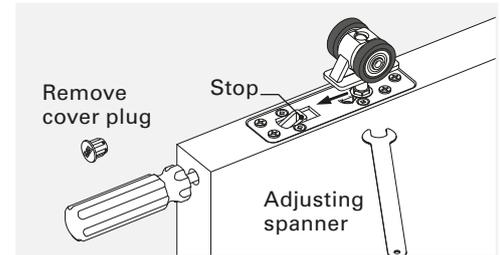
**Removable Head Jamb**

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.

**SmartMount/ Fixed Jamb Option:**

If your head jamb is fixed it does not need to be removed for access. Remove the cover plug and push a screwdriver into the door to lower the stop on the SmartMount plate.



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

Keep the screwdriver in place while using the spanner to slide the hanger pin sideways.

Swing the door slightly out of the track and remove the screwdriver.

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

Repeat for the rear SmartMount plate.

Slide the carriages towards the centre of the opening to remove.

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CS CAVITY SLIDERS® (O.D. 1986). NZ Patent No: 533838.

**Finishing**

**17. 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.