

Installation Instructions BEFORE YOU START:

Wall construction

The wall referred to in these instructions is ex 100mm x 50mm wooden framework. In reality this may mean a 94mm x 47mm or 90mm x 45mm 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 $\varnothing 10\text{mm}$ x 98mm long countersunk masonry anchors at 400mm centres. The lintel should be straight and level.

The jack studs should be straight and plumb.

Lintel/trimmer sizes.

CS Cavity Sliders are non-loadbearing. The lintel (or trimmer, ceiling joist or other structural component) directly above the track must span the full trim size opening width. Timber lintels sized from NZS3604 (NZ) / AS1684 (AU) are acceptable if the weight of the door is less than 75kg/m width of door. If heavier, specific design is required. Please consult your engineer.

ZG00210 - 11.2019

Trim size (hole in the wall framing):

Height: door leaf height + 200mm

Width: (door width x 2) + 30mm

Standard under door clearance.

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 this clearance is taken up by the floor covering (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 three options (*b & c must be **pre-ordered**):

- CS can supply seals which fit to the bottom of the door.
- * A door up to 15mm taller can be fitted.
- * The unit can be made up to 15mm shorter.

Contamination of the top track.

Never drill, nail or screw through the centre section of the track. The track running surface must be clean and free of any contamination or damage. The tyres on the carriage should not be chipped, dented or have swarf embedded in the tyre.

Please ensure you take extra care with the carriages to avoid any damage during the installation process.

Fixing cavity slider to the floor

Installing the cavity slider 100% plumb and level will **NOT** guarantee a correctly sliding door.

If the wall, lintel, floor and door are not all plumb, level and straight, the door may slide incorrectly into the pocket.

For this reason, the skirting block fixing (at the base of the pocket frame behind the split jambs) should only be secured once you have ensured the door is running parallel to the cavity pocket.

INSTALLATION.

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.

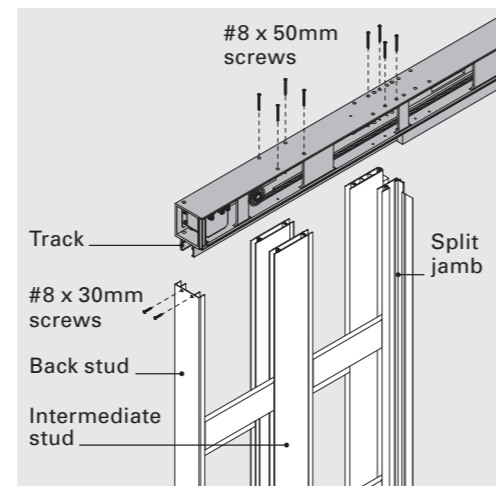
2. Fit the track (if not already fitted).

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

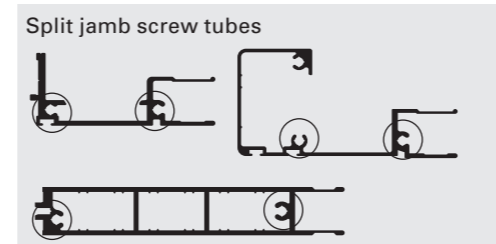
With the frame standing upright, fit the track. The notched end in the underside of the track must be at the closing jamb end of the track.

Fit the following screws using a long screw driver:

- to back stud: #8 x 30 self tappers (2)
- to split jamb: #8 x 50 self tappers (4)
- to intermediate stud: #8 x 50 self tappers (4)



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



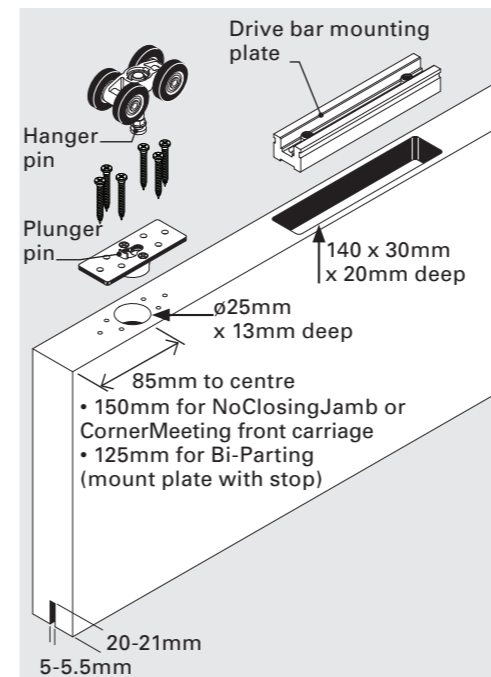
3. Prepare door (if not already fitted).

In the centre of the top of your door leaf, router out a 140 x 30mm x 20mm deep hole for the drive bar mounting plate. Screw the drive bar mounting plate into the routed hole with #8 x 45mm timber screws (supplied).

Drill two holes 85mm in from either edge of the top of your door leaf in the positions as marked.

Screw both mounting plates to the door with the mounting plates placed exactly in the centre of the door thickness.

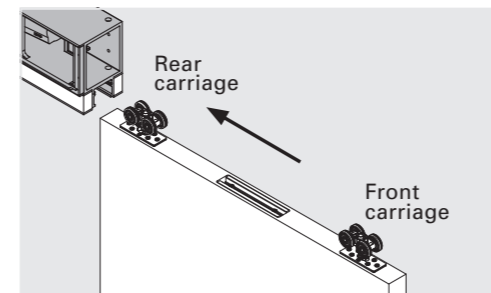
At the bottom of the door leaf cut a groove to the dimensions and tolerances shown. Make it central of the door thickness and absolutely straight.



4. Fit the door (if not already fitted).

Depress the plunger on the mounting plate using the carriage hanger pin and slide sideways until it snaps into locked position. Repeat for the other carriage.

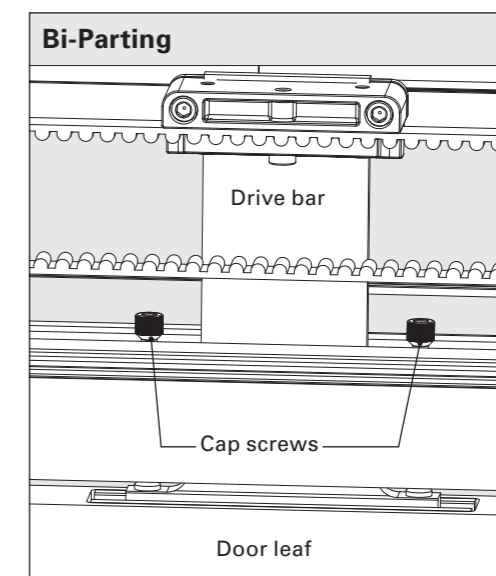
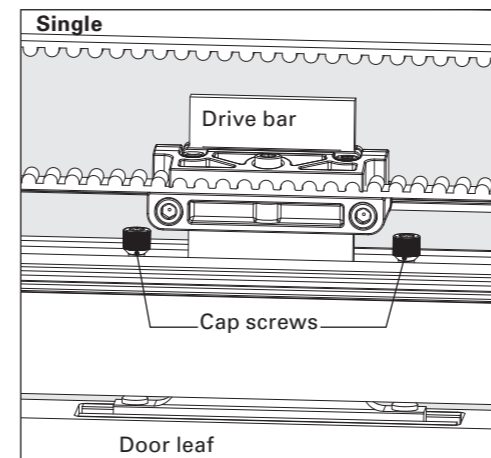
Slide door and carriages into track.



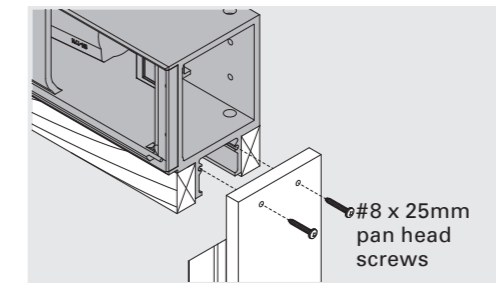
Connect the drive bar to the door using long custom shoulder cap screws.

The "F" should be facing towards you through the head.

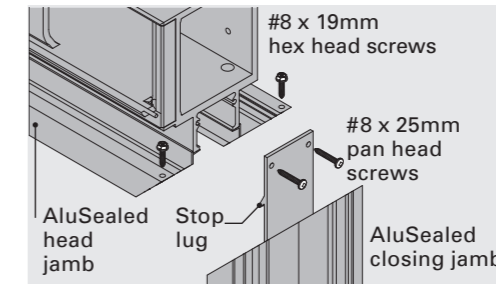
Connect the belt clamp to the drive bar with the connector bolt and T-nut.



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.



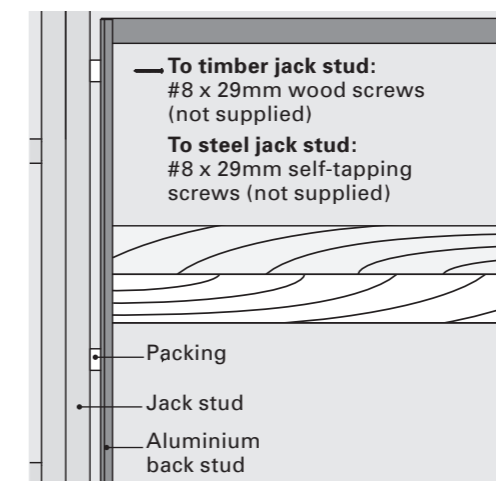
6. Place unit into framed opening.

Plumb up the two split jambs. **Use a level!**
Bi-Parting units: Join the tracks using the pins provided.

7. Fix the aluminium 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 through the pre-punched holes.



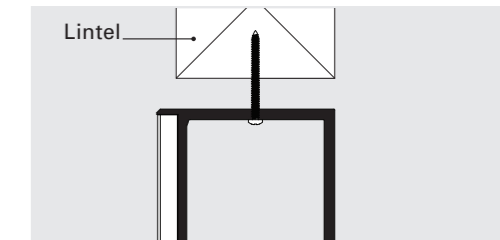
8. Level the track.

The track must be fitted level and straight.

Pack above the track where necessary.

Standard units do not require the track to be fixed to the lintel.

For Bi-parting or units with NoClosingJamb, fix through the pre-drilled hole in the top section of the track.



9. Fix the closing jamb (if supplied).

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!

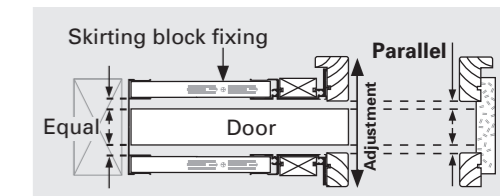
Fix between the top and bottom.

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

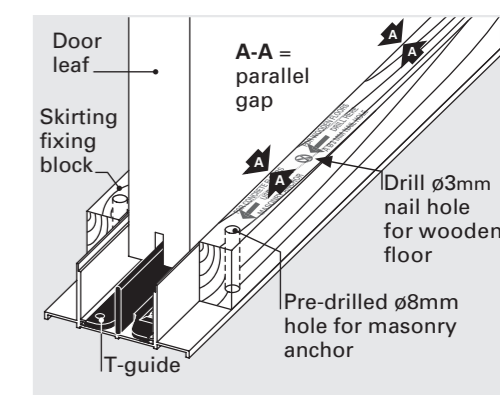
AluSealed units: Screw through pre-drilled holes in the centre of the closing jamb. Insert the aluminium plugs are supplied to cover the fixing holes. Put these in **only** when you are satisfied with the complete installation!

10. Fix the bottom plate assembly.

The door must slide parallel with the bottom plate assembly. If not, gently tap the front of the bottom plate to the left or right until it does.



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



10. Fix the bottom plate assembly to the floor:

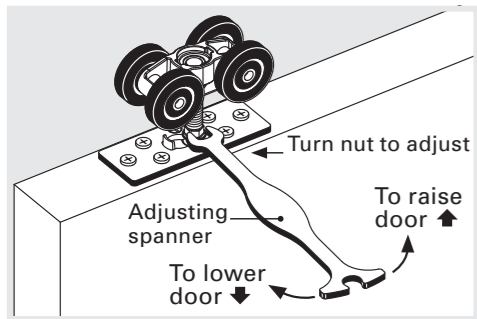
To **concrete** floors:
Use ø8mm x 90mm masonry anchors through the pre-drilled holes in the skirting fixing blocks of the bottom plate. (See the red stamped arrow on the timber).

To **timber** floors: Use ø3.15mm x 75mm nails on either side in the centre of the skirting fixing block thickness. (See the red stamped ⊕ on the timber). Pre-drill ø3mm holes for these nails.

11. Adjust the door.

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

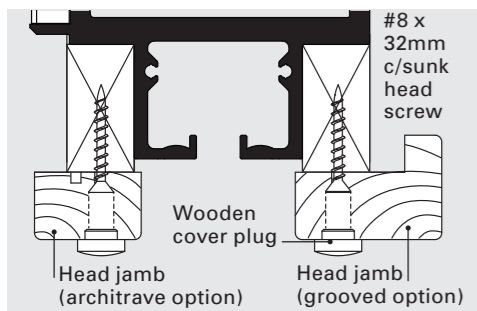
Note: The top of the hanger pin screws into a self-locking Nyloc type nut in the carriage. For the assembly to remain in its adjusted position over time the hanger pin must be screwed into the nylon locking portion of the nut by at least 3 full turns. (The thread gets harder to turn once it reaches the start of the nylon locking ring).



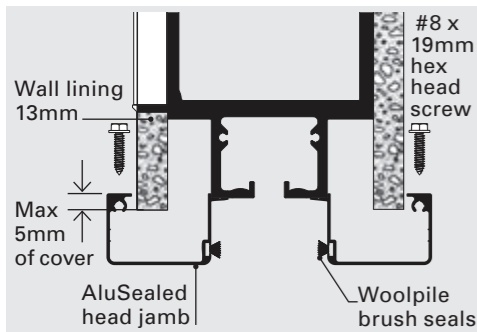
12. Fit the head jambs.

Before fitting head jambs, adjust the door for plumb and for the desired clearance under the door (Step 11).

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.



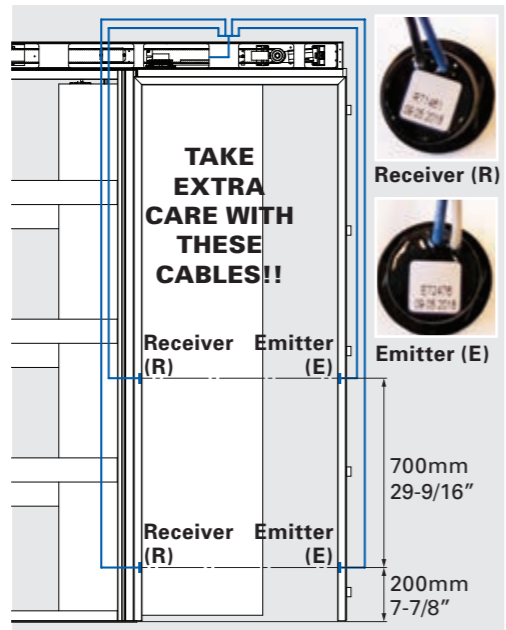
AluSealed: screw in place through both ends at the top of the head jambs.



If AluSealed head jambs bow away from the track once installed, they will require gluing to the underside of the track.

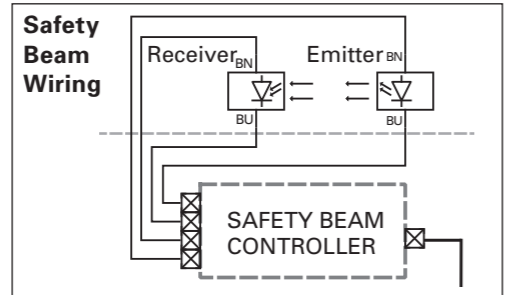
13. Installing safety beams

Mark two mounting positions. Recommended height is 200mm (7-7/8") and 900mm (35-7/16") above floor. Drill ø13mm (1/2") holes in each side of the door frame in the positions marked. Slide the heads and the cables into the vertical jambs. Connect wires (see below).



Given the highly responsive nature of the safety beams they can be quite sensitive to installation damage such as pinching, friction damage and breakage.

Run the grey emitter cables to the safety beam heads on the closing jamb side. Run the black receiver cables to the safety beam heads on the split jamb side.



14. Power supply & drive system

The CS AutoCav system uses DC motor control to drive a toothed belt to which the door(s) are connected. The drive system is housed within the head section of the door installation. This allows for either in wall fitting (pocket door) or on wall mounting (surface slider).

The CS AutoCav requires a standard 10A General Power outlet. This powers a 110V with 24V tap Transformer housed within the head section of the track. The door controller uses this transformer to drive the motor and ancillary devices connected to the auto door. Battery back up is not included on these types of units.

14. Consideration of wiring of externally mounted activation devices is required prior to door installation.

15. Initial cycle test

Move door to centre of opening. Plug in 3 pin lead from power supply into a main plug to turn on power (you can run an extension cord if required). Controller will display "TEACH" on LED display.

Door will slowly fully open and pause (Door is learning open position).

Door will then return to the position it started in then slowly fully close and remain closed (Door is learning close position).

"TEACH" will disappear from LED display, putting controller into normal operation. Press switch or activation device.

Door will open fully, pause, then close fully. This completes the test proving that the door is functioning. Power down unit.

Ensure unit is wired up correctly as to current electrical standards by electrician.

16. Rough in wiring before lining walls

A CS Autocav unit will have a combination of the following cables, which will be clearly labelled and referenced on a wiring diagram provided.

The most common cables are individually explained below:

A. External activation (White 4 core security cable): Run this to where activation is desired to be positioned on the 'outside' or 'secure' side of the unit. May be identified by red sticker.

B. Internal activation (White 4 core security cable): Run this to where activation is desired to be positioned on the 'inside' or 'exit free' side of the unit. May be identified by green sticker.

C. Lock activation (White 2 core security cable): Run this to where activation of the motor mounted lock is desired to be positioned on either or both left and right side of the unit. May be identified by Blue sticker.

D. Custom activation (White 10 core security cable): Run this to where activation of the custom door functions is desired to be positioned on either or both left and right side of the unit. May be identified by orange sticker.

Cable only supplied upon request, check with your site's security or automation technician first, but typically running into the ceiling space is a safe bet to allow for future connection.

E. Power Supply Cable (Black with 3 Prong Plug end): Run this to the location a main plug to turn on power. Get electrician to remove plug end and wire in properly to the mains line as per electrical standards.

F. Power Supply Coms Cable (Grey Back 20 core): Cable is mounted inside the head section to connect power supply to the controller. This will be pre-fitted by CS.

G. Safety Beam Receiver Cables:
Emitter: Grey cable to head with white & black wire

Receiver: Black cable to head with white & black wire

16. H. Fire (2 Pin Molex Mini Female plug): This input is to use with building fire alarm system to hold door open in event of fire. Check with your site's fire alarm technician first, but to 2 core fire communication cable will need to be run to the auto unit and mounted to the plug end provided.

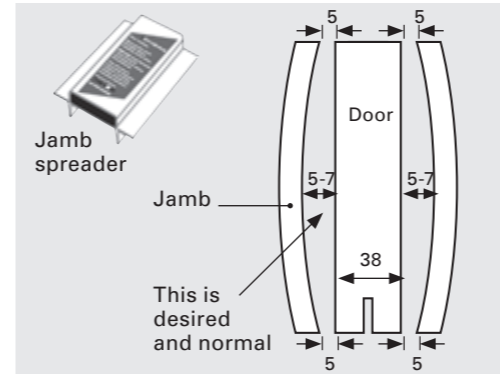
FINISHING THE INSTALL.

17. Fixing the wall linings.

Take care not to pinch or stretch any electrical wiring when lining.

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.

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.

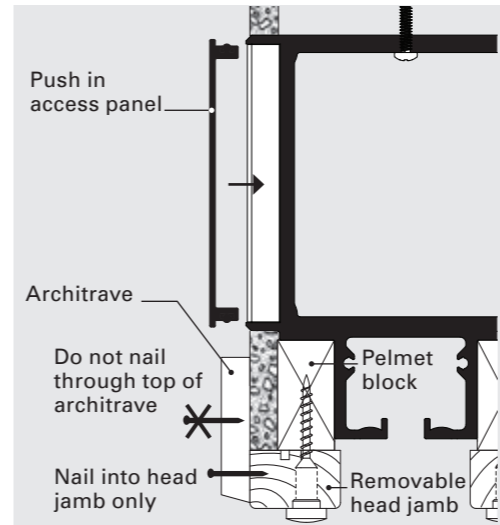
10mm linings: use **maximum 25mm** long drywall screws.

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.

The access cover should sit flush with the wall lining.



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.

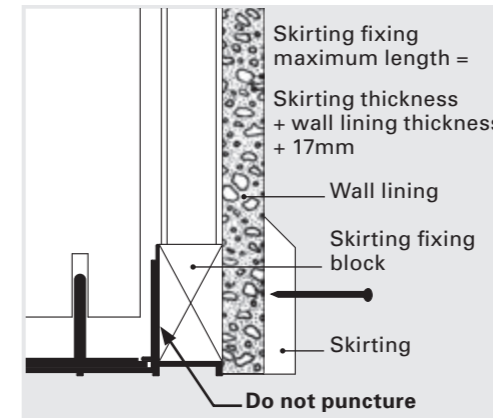
18. Nail the back of the architrave to the split jamb blocks using panel pins with a maximum length of the combined thickness of the architrave and wall linings plus 15mm.

Note (To ensure head jambs are removable): 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. Painting.

Don't paint over the safety beams!

The access cover door has been powder coated "Flat White". If you need to paint the access cover, remove it and Scotch Brite the powder coated finish before undercoating. Avoid paint build up on the edges of the door.

This is very important for a neat finish.

21. If you need to remove the door:

Remove 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.

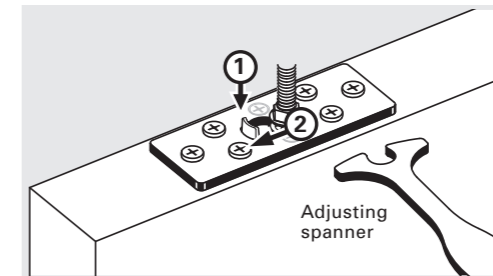
Disconnect the drive bar from the socket on top of the door.

Loosen the 2x front screws on the belt clamp. Lift the belt clamp off the drive bar. Remove the 2x cap screws.

Lift the drive bar up and out of the track through the access hole.

Fit the club end of the adjusting spanner over the hexagonal nut at the bottom of the hanger pin.

Use the extended part of the spanner to press down the plunger pin that protrudes up from the mounting plate.

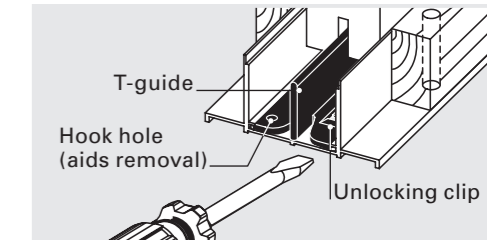


21. Once this plunger is fully depressed, slide the spanner sideways towards the plunger pin. The whole carriage (including the pin) will now disengage from the mounting plate.

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

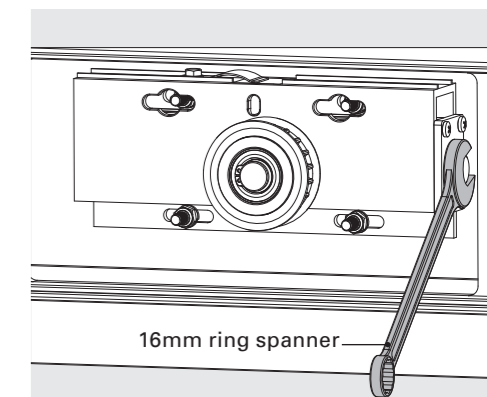
If you have trouble removing the door from the pocket: lift the unlocking clip and slide the black nylon T-guide backwards slightly.

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.



22. If you need to remove the belt:

Release the tension on the belt using a 16mm ring spanner on the tension bolt. Remove the belt. (Instructions supplied on tensioner.)



Operating instructions & support online:
csfordoors.co.nz/Technical/AutoCav-Support

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