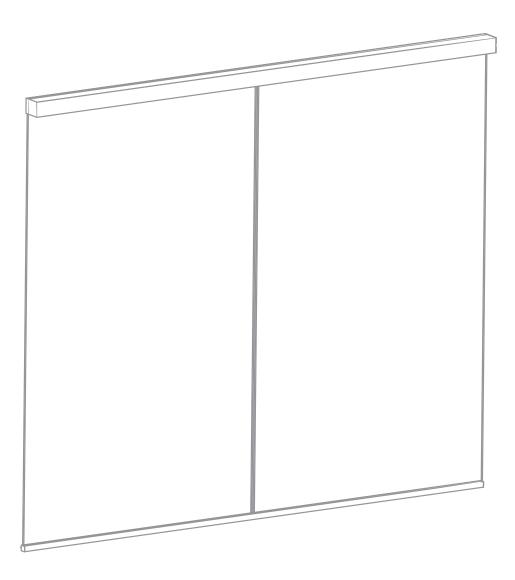
dormakaba 🚧

MUTO Premium XL120

Recessed mount with Dormotion and Self-close (Glass door)

Installation Manual



936039 - 11/2023 Original document

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1 Technical specifications

1.1 Overview

These instructions are for installation of MUTO Premium XL 120 Self-Closing panels for the following mounting and style versions:

1. Recessed mount

1.1.1 General information

- dormakaba requires use of tempered laminated or tempered monolithic glass.
- dormakaba glass hardware is not suitable for harsh environment; for example, applications where chemicals (e.g. chlorine) are used such as indoor swimming pools, saunas, or salt-water pools.
- Never move sliding panels faster than walking speed and always stop the door manually before it reaches end position.
- Do not slide doors with excessive force. Ensure proper installation of limiting stop to prevent door from opening too far.

1.1.2 Intended use

- For sliding doors in dry indoor areas only.
- For manual slow opening and closing only.

1.1.3 Glass requirements/fittings/mounting

- The substructure/wall must be able to bear permanent loads, be level (max. tolerance: 1/16" [2] per 39" [1m]).
- Fasteners must be sufficiently dimensioned for the substructure/wall and weight of the door.
- When adjusting glass components, always stick to the required clearance for the respective hardware. Adjust clearance so glass does not come in contact with any hard surfaces such as glass, metal or concrete.
- Do not use excessive force when installing the glass (avoid over tightening screws.)

1.1.4 **Requirements for glass panel**

- dormakaba requires use of fully tempered glass, which complies with ASTM C 1036 and ASTM C 1048. Secondary heat soaking processes are recommended but not required. This applies to both tempered monolithic and tempered laminated glass.
- Clamping area must be flat and uncoated (no self-cleaning coating!)
- Never use glass with conchoidal fractures and/or damaged edges.

1.1.5 Safety instructions

- Installation requires two people.
- Always wear protective clothing.
- Only properly qualified and specially trained staff are authorized to mount dormakaba glass hardware.
- Due to crushing hazards and possible injury caused by breakage of glass during mounting, corresponding protective clothing (especially gloves and protective goggles) is required.
- Never clamp metal fitting hardware directly to glass surface.

1.1.6 Symbols used - Safety/Installation



CAUTION

Mounting components must meet the requirements of substructure/wall and door weight. Please read the technical information for fittings.



WARNING

Risk of breaking glass. When installing the door, support the door panel with a block of wood or similar object.

1 | •

TIPS AND RECOMMENDATIONS

Information note

CLOSING EDGE OF DOOR

1.1.7 Maintenance, care, repair

- Immediately replace damaged parts.
- Always use original dormakaba parts.
- Clean clamping area with alcohol-based standard commercial cleaning agent before mounting the glass hardware.
- Use a damp cloth for occasional cleaning.
- Always use silicone and oil-free cleaners (e.g. acetone).
- Check glass hardware at regular intervals for proper positioning, smooth operation and correct adjustment.
- High traffic door systems require inspection by properly qualified staff (specialized companies or installation firms.)

1.1.8 Disposal

Disposal in accordance with local, state and national regulations.

1.2 Specification - technical data

| | | Single door | Double door |
|------------------|---------------------------|-------------------|---------------------------|
| | | XL120 | XL120 |
| Ceiling mount | Door leaf weight lbs [kg] | ≤264lbs [≤120] | 2 x ≤264lbs [2 x ≤120] |

1.3 Tempered laminate glass (TLG) and adhesive specifications

| Required parts for laminate glass with MUTO System (not included) | Part Number | Quantity | Usage recommendation |
|---|--|--------------|--------------------------------------|
| 3M™ Scotch-Weld™ Urethane Adhesive, DP 605 NS | 934.800 | 1 tube | 1 tube per 4 roller carriers |
| 3M [™] Scotch-Weld [™] EPX [™] Plus II Applicator with 1:1 Plunger ² | 934.801 | 1 applicator | 1:1 plunger with 934.800 adhesive |
| 3M [™] Scotch-Weld [™] EPX [™] Plus II Mixing Square Nozzle, 5.3mm ³ | 934.805 | Pk of 4 | 4 nozzles per 1 tube of adhesive |
| MUTO TLG gasket set | 807.640 | 1 set | |
| Handling time frame | Function | | Time |
| Working life <i>(time between application and clamping of carrie</i> | | | 5 minutes @ 75°F |
| | Handling strength Full cure time (normal door usage not recommended until full cure time as been met) | | 20 minutes @ 73°F or more |
| | | | 48 hours @ 73°F or more |

NOTE: Door glass should not be installed until the full cure time as been reached (see chart above).

1.1 Clean clamping area with alcohol-based standard commercial cleaning agent before mounting the glass hardware.

Important safety-related information for the mounting and use of dormakaba glass hardware.

- 1.2 Never clamp metal fitting hardware directly to glass surface.
- 1.3 Never use clamping products on surfaces with self-cleaning coatings.

1.4 Tools required

| Star Star | 6 mm Ratching/ combo (optional) | Metric hex key set | |
|-----------|---------------------------------------|-----------------------|---|
| | M4 long bit | Tape measure | Flat head screw driver |
| | M4 short bit | Drill | 5/16 drill bit (for floor guide installation) |

2 Scotch-Weld[™] EPX[™] Plus II Applicator with 1:1 Plunger is a trademark of 3M.

3 Scotch-Weld™ EPX™ Plus II Mixing Square Nozzle is a trademark of 3M.

2 Installation instructions

2.1 Overall Fig. 1

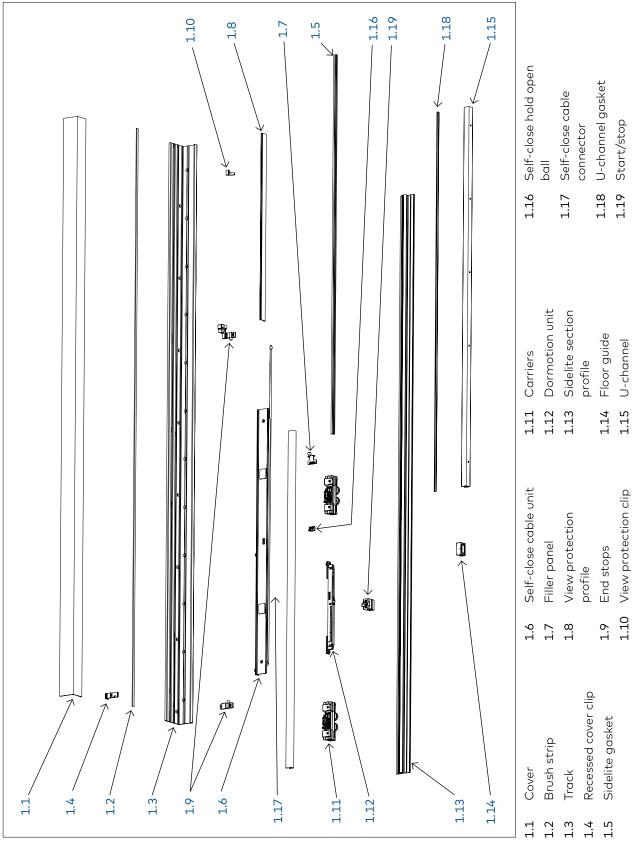
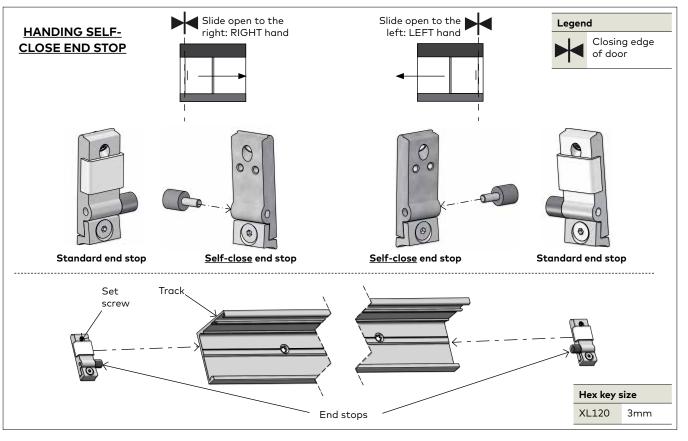


Fig. 2



Handing the [opening side] end stop:

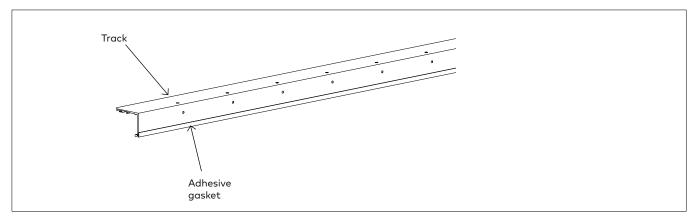
- 2.2.1 Determine closing edge of door.
- SELF-CLOSE END STOP WILL BE USED ON OPENING SIDE OF DOOR.
- 2.2.2 Hand self-close end stop by inserting bumper on appropriate side of end stop.

Install both end stops:

- 2.2.3 Slide self-close end stop into opening side of track.
- 2.2.4 Slide appropriate standard end stop into closing side of track.
- NOTE: Loosen bottom section of end stop for easier install.
- NOTE: Be sure set screw is flush with back of bumper.
- NOTE: Exact location/adjustments will be determined in Adjustment End Stop location..

2.3 Securing sidelite adhesive gasket to track

Fig. 3



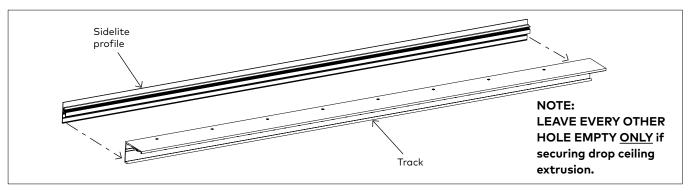
2.3.1 Ensure the track is cut to proper length.

NOTE: SEE DIMENSION INSTRUCTIONS ON PAGE 10.

- 2.3.2 Cut adhesive gasket equal to sidelite glass width.
- 2.3.3 Adhere gasket along bottom edge of back of track.

2.4 Securing sidelite section profile to track

Fig. 4



2.4.1 Align sidelite profile holes with track profile holes.

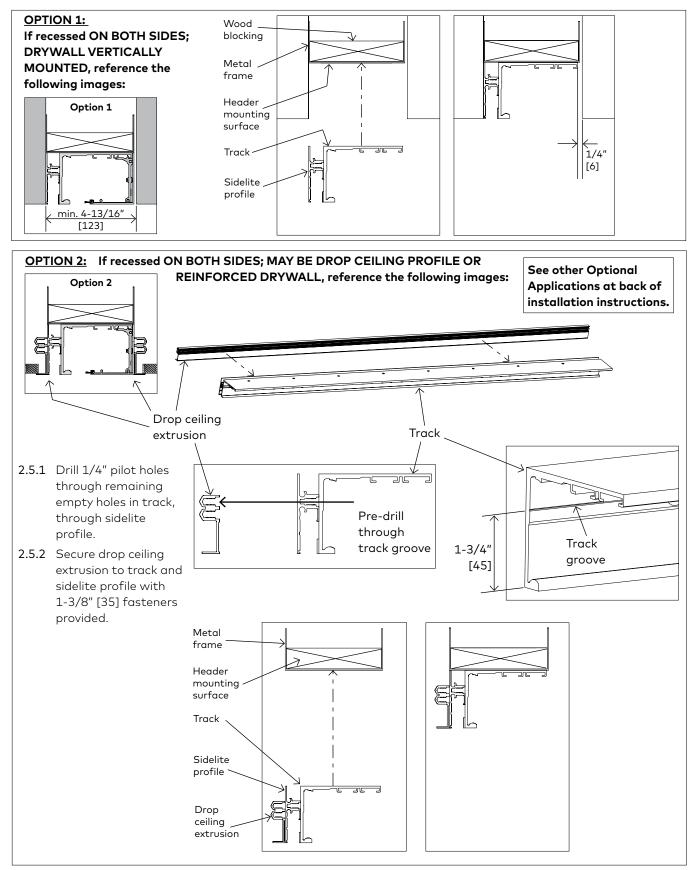
NOTE: Holes will be predrilled every 7-7/8" [200].

2.4.2 Secure with 9/16" [14] fasteners provided.

NOTE: Be sure fastener heads are flush with track to avoid rollers catching protruding fasteners.

2.5 Secure track and sidelite extrusion into ceiling (and drop ceiling extrusion, if supplied)

Fig. 5



2.6 Specifications for securing track to mounting surface

2.6.1 Ensure track is properly level and secure it to the header mounting surface per the appropriate measurements on the following page.

NOTE: SEE DIMENSION INSTRUCTIONS ON NEXT PAGE FOR REFERENCE.

NOTE:

OVERHEAD REINFORCEMENT:

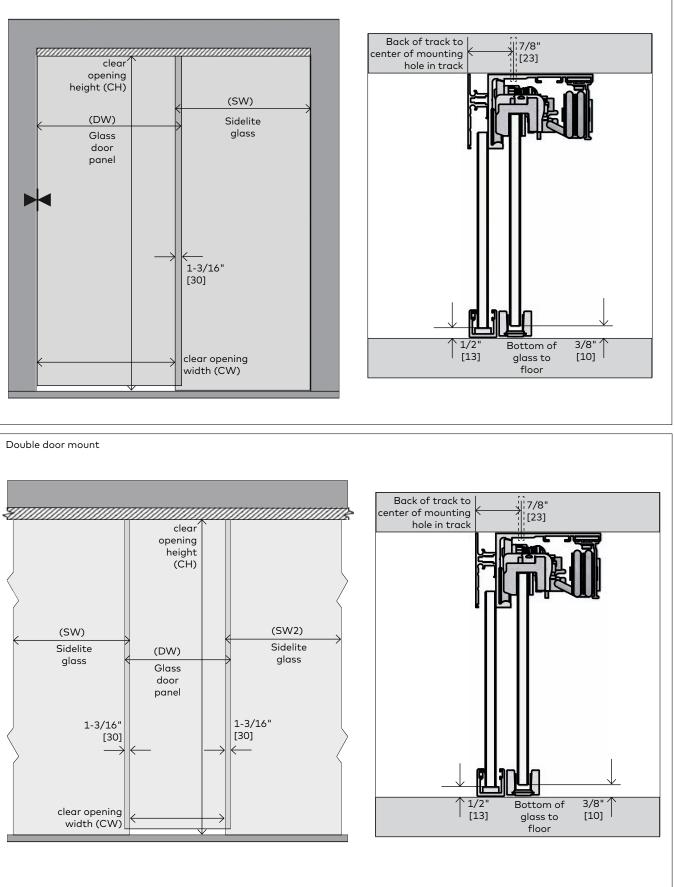
The overhead reinforcement must be a minimum of $\frac{1}{4}$ " [6] x 3" [76] steel angle, 16 gauge metal stud with wood blocking, or two pieces of 1 1/2" [38] thick wood blocking (double stacked), secured to studs or joists on a maximum 16" [406] centers for the length of the track. The overhead reinforcement may be flush on the overhead surface or on the interior of this surface. Track mounting screws must fully penetrate the steel angle, metal stud, or at a minimum of 2" [51] into wood blocking, utilizing the predrilled holes in the MUTO track.

Consult with a structural engineer to determine if reinforcement is adequate for your specific application or to meet specific codes in your location.

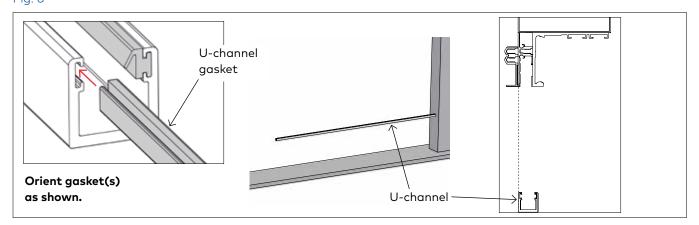
2.6.2 Use appropriate fasteners according to the following recommendations.

2.7 Door/wall dimensions

Single sidelite mount



2.8 Installing U-channel for sidelite

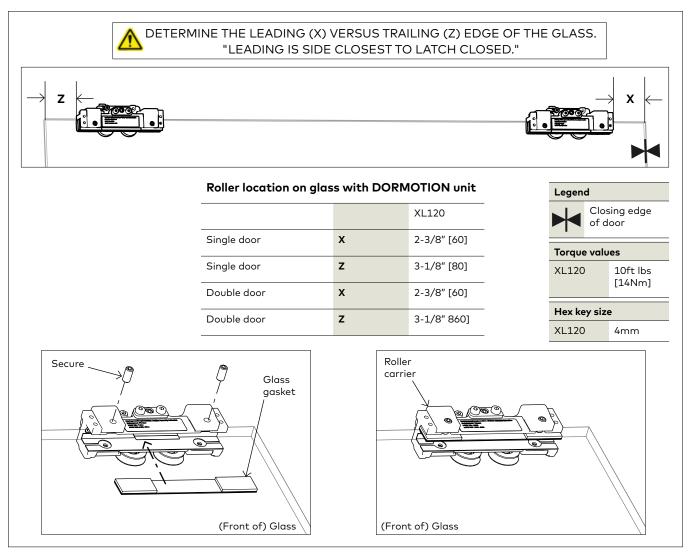


- 2.8.1 Install gaskets as shown. Trim to correct length.
- 2.8.2 Secure u-channel to floor using appropriate fasteners.

NOTE: Ensure u-channel is plumb and the back of the u-channel profile aligns with back of sidelite profile. NOTE: Gaskets are pre-installed.

2.9A Installing roller carriers: on monolithic glass ONLY

Fig. 7

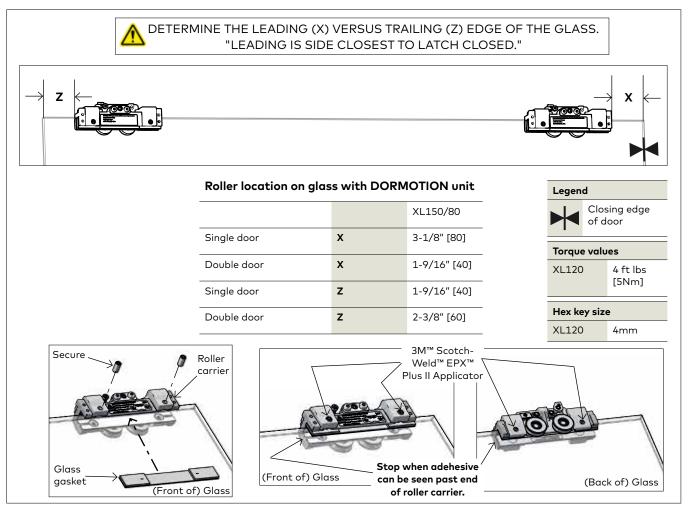


NOTE: FULLY CLEAN SURFACE OF GLASS WITH AN ALCOHOL-BASED MILD GLASS AND SURFACE CLEANER. ENSURE NO DEBRIS IS ON THE GASKET.

- 2.9A.1 Slide roller carriers onto glass.
- 2.9A.2 Slide glass gasket and metal shim between glass and roller carrier.
- 2.9A.3 Secure roller carriers to glass at 10 ft lbs (14 Nm).
- NOTE: Orient gasket with rubber side facing the glass.

2.9B Installing roller carriers: on tempered laminate glass ONLY

Fig. 8



∧ NOTE: THE RECOMMENDED ADHESIVE'S SET-UP TIME IS 20 MINUTES FOR THE DUO-PAK CARTRIDGES.

NOTE: USE 1:1 RATIO PLUNGER WITH THE 3M™ Scotch-Weld™ Urethane Adhesive.

NOTE: FULLY CLEAN SURFACE OF GLASS WITH AN ALCOHOL-BASED MILD GLASS AND SURFACE CLEANER. ENSURE NO DEBRIS IS ON THE GASKET.

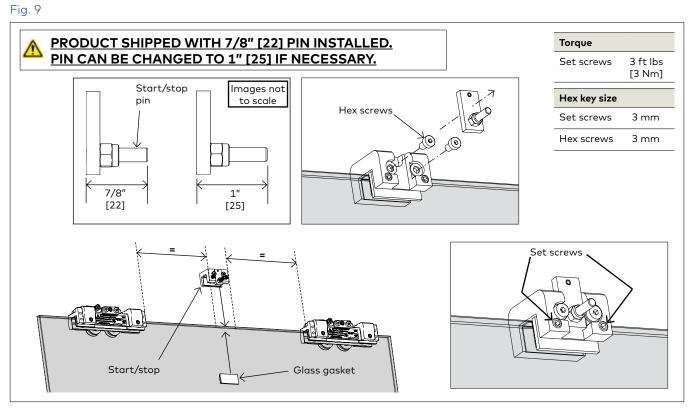
- 2.9B.1 Slide carriers onto glass.
- 2.9B.2 Replace existing gasket with TLG gasket.
- 2.9B.3 Slide laminated glass gasket and metal shim between glass and roller carrier.

NOTE: Orient gasket with rubber side facing the glass.

- 2.9B.4 Relace existing set screws with vented set screws.
- 2.9B.5 Tighten vented set screws at 4 ft lbs (5Nm).
- NOTE: Onto scrap material, first dispense approximately 12" of 3M[™] Scotch-Weld[™] Urethane Adhesive prior to application prevent mixing errors and ensure optimal hardening.

- 2.9B.6 Dispense into vented set screws on both sides of carrier.
- Stop application when adhesive can be seen past edge of roller carrier.
- <u>DO NOT WIPE</u> any excess adhesive from glass surface. Allow adhesive to dry and scrape off glass surface with a beveled-edge chisel or putty knife.
- NOTE: Keep glass flat during curing process.
- NOTE: See chart in Specifications section for appropriate curing time.

2.10 Installing DORMOTION start/stop



NOTE: Determine a pin length based upon how square and plumb the opening is.

- 2.10.1 If required, change pin in start/stop assembly.
- Remove hex screws.
- Remove existing pin and plate.
- Swap in appropriate pin and plate.
- Replace hex screws.

- 2.10.2 Slide start/stop onto glass.
- 2.10.3 Center equally between the carriers.
- 2.10.4 Slide glass gasket between start/stop and glass.

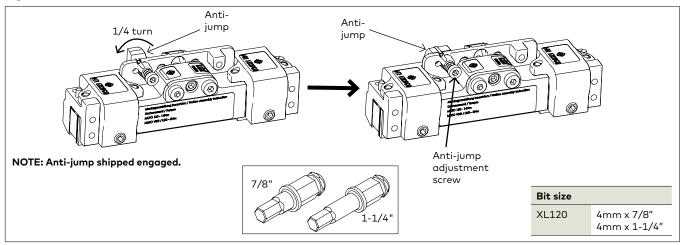
NOTE: Orient with gasket facing glass.

2.10.5 Secure start/stop via set screws.

2.11 Disengaging the anti-jump

Fig. 10

14

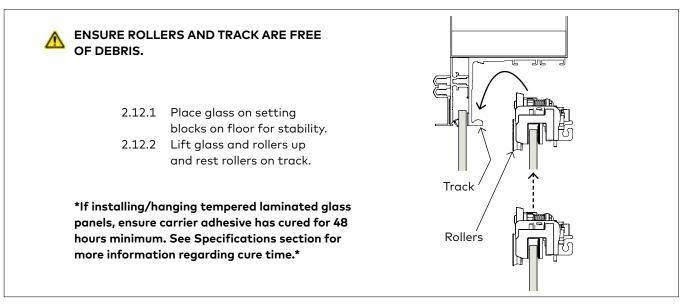


2.11.1 Disengage the anti-jump on roller carrier.

NOTE: Using optional ratchet and [one of the] provided bits, push anti-jump adjustment screw IN and turn **COUNTER-CLOCKWISE** 90° to **disengage** anti-jump.

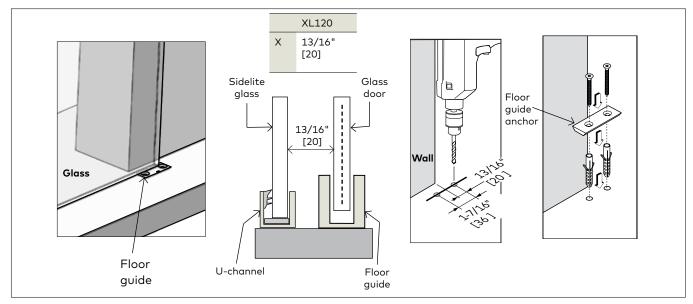
2.12 Install glass/rollers in track

Fig. 11



Install floor guide 2.13

Fig. 12



∕∖∖

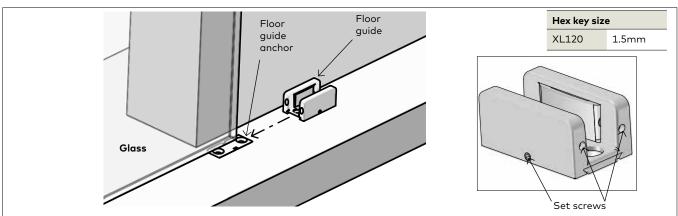
REMEMBER ANTI-JUMP IS DISENGAGED!

- 2.13.1 Align centerline of glass with centerline of floor guide.
- 2.13.2 Be sure the glass is plumb.

NOTE: Center of floor guide should be 13/16" [20] off the center of the wall.

- 2.13.3 Mark appropriate floor guide measurements.
- **TEMPORARILY REMOVE GLASS AND** 2.13.4 **ROLLERS FROM TRACK (TO ALLOW OR** DRILLING SPACE).
- 2.13.5 Pre-drill into mounting surface using a 5/16" drill bit.
- 2.13.6 Secure floor guide anchor with included fasteners.

2.14 Install floor guide: continued Fig. 13



2.14.3

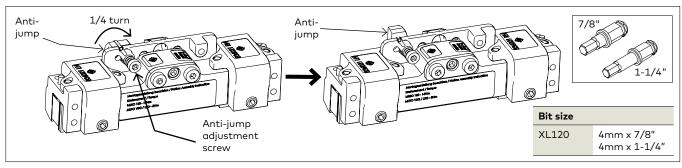
Remove setting blocks.

NOTE: Be sure glass is centered in floor guide.

- 2.14.1 Set glass and rollers onto track.
- 2.14.2 Slide floor guide over floor guide anchor and tighten with set screws.

2.15 Engaging anti-jump

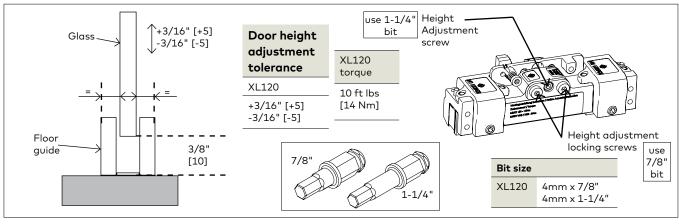
Fig. 14



2.15.1 Engage anti-jump on roller carrier.

NOTE: Using the optional ratchet and [one of the] provided bits, push anti-jump adjustment screw IN and turn **CLOCKWISE** 90° to **engage** anti-jump.

2.16 Adjustment door height Fig. 15

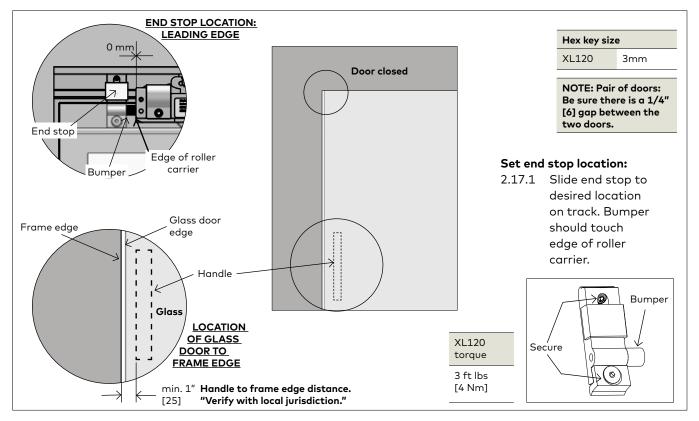


- 2.16.1 Set height of glass door.
- 2.16.2 Using the optional ratchet and [one of the] provided bits, loosen height adjustment locking screws of carrier.
- 2.16.3 Using optional ratchet and [one of the] provided bits, turn height adjustment screw **CLOCKWISE** or **COUNTER-CLOCKWISE** to raise or lower glass.

NOTE: Be sure glass is level during this adjustment.

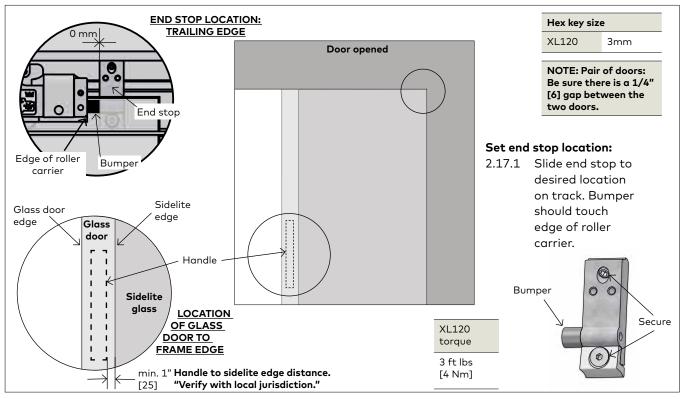
2.17 Adjustment end stop location: LEADING end stop



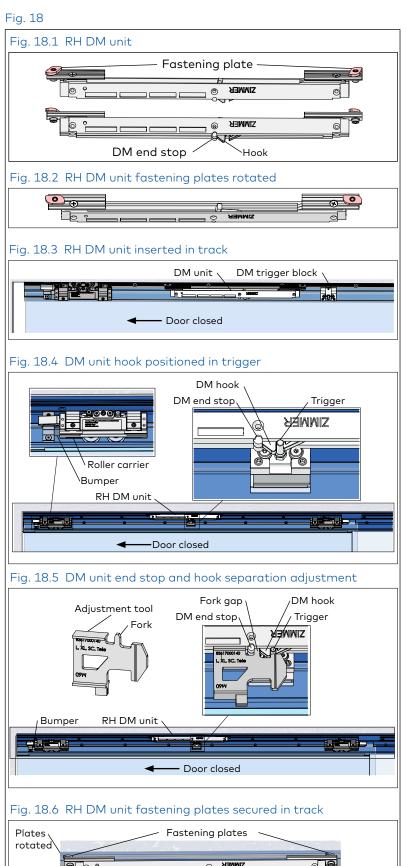


Adjustment end stop location: TRAILING end stop

Fig. 17



2.18 Install RH DORMOTION unit - door closed



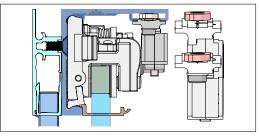
2.18.1 Rotate RH DM fastening plates.

- Using 4 mm hex key, loosen
- fastening plate hex screws.
- Rotate fastening plates until they are parallel to the DM unit (Fig. 18.2)
- Snug hex screws.

2.18.2 Move door to close position.

For installation of RH DM unit, door must be in the closed position against bumper.

Fig. 18.7 RH DM unit aligned in track



2.18.3 Align DM unit in track, engage DM hook in DM trigger.

- Align DM unit in track (Fig. 18.7).
- Slide DM unit over the DM trigger block until the DM hook engages the DM trigger (Fig. 18.4)

2.18.4 Use adjustment tool to set DM unit final position.

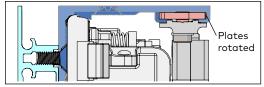
- Place adjustment tool flat against DM unit with fork between DM hook and DM end stop (Fig. 18.5).
- Slide DM unit over until hook and DM end stop are against the fork. This sets 5 mm gap (fork gap).
- **Trigger height:** Adjust so trigger sets on top of adjustment tool (Para. 2.20).

2.18.5 Secure the DM unit in position.

- NOTE: Insure door is fully closed against bumper before performing this step.
- Using 4 mm hex key, tighten DM unit fastening plate socket head cap screws . Fastening plates must engage the track (Fig. 18.6 and .8).

Torque Socket head cap screws 3 ft lbs [4 Nm]

Fig. 18.8 RH DM unit installed in track

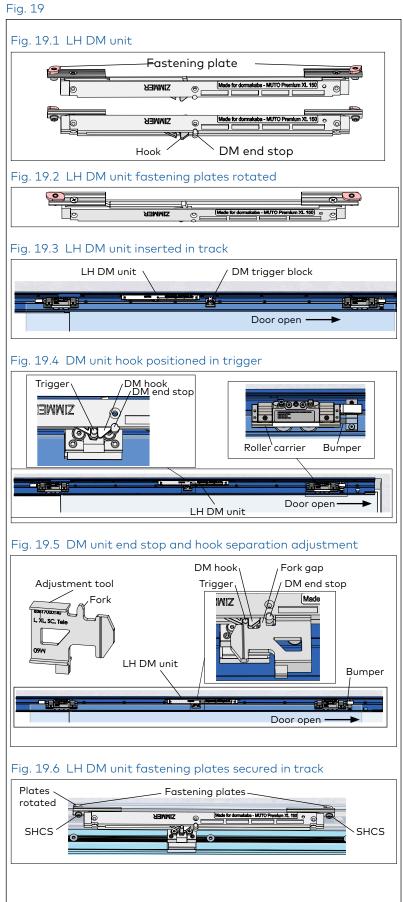


SHCS

18

SHCS

2.19 Install **optional** LH DORMOTION unit in opening cycle



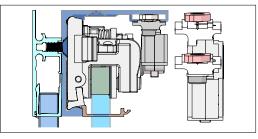
2.19.1 Rotate DM fastening plates.

- Using 4 mm hex key, loosen fastening plate hex screws.
- Rotate fastening plates until they are parallel to the DM unit (Fig. 19.2)
- Snug hex screws.

2.19.2 Move door to open position.

For installation of LH DM unit, door must be in the open position against bumper.

Fig. 19.7 LH DM unit aligned in track



2.19.3 Align DM unit in track, engage DM hook in DM trigger.

- Align DM unit in track (Fig. 19.7).
- Slide DM unit over the DM trigger block until the DM hook engages the DM trigger (Fig. 19.4)

2.19.4 Set DM unit final position.

- Place adjustment tool flat against DM unit with fork between DM hook and DM end stop (Fig. 19.5). Slide DM unit over until hook and DM end stop are against the fork. This sets 5 mm gap (fork gap).
- **Trigger height:** Adjust so trigger sets on top of adjustment tool (Para. 2.20).

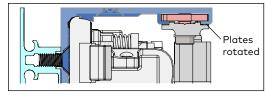
2.19.5 Secure the DM unit in position.

- NOTE: Insure door is fully open against bumper before performing this step.
- Using 4 mm hex key, tighten DM unit fastening plate socket head cap screws . Fastening plates must engage the track (Fig. 19.8).

Torque

Socket head cap screws 3 ft lbs [4 Nm]

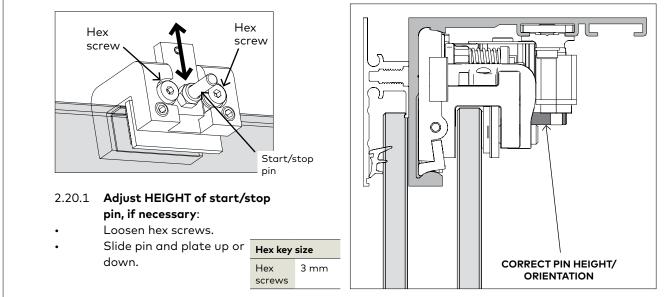
Fig. 19.8 LH DM unit installed in track



2.20 Adjust start/stop pin height (if necessary)



Aujust start/stop pin height (in hecessary)



Install self-close unit hold open clamp

Fig. 21

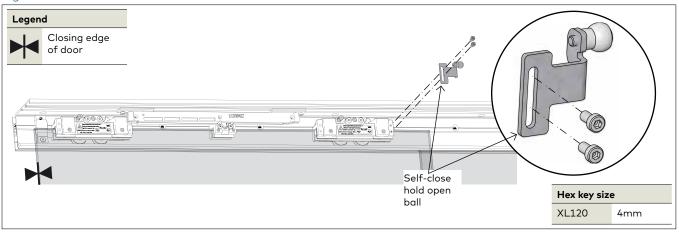
2.21.1 Secure self-close hold open clamp to the end stop furthest from latch [closing side].

Use two screws and tighten to 2.5 ft lbs (3Nm).

2.22 Install self-close unit hold open ball

Fig. 22

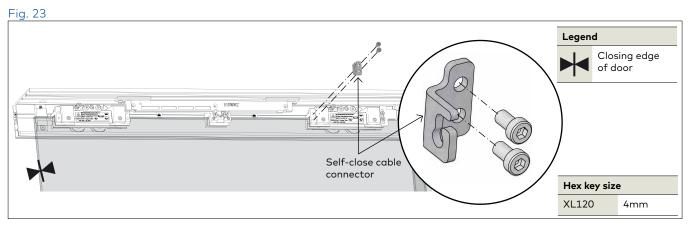
2.21



2.22.1 Secure self-close hold open ball to carrier • Use two scr furthest from latch [closing side].

Use two screws and tighten at 2.5 ft lbs [3Nm].

2.23 Install self-close unit cable connector

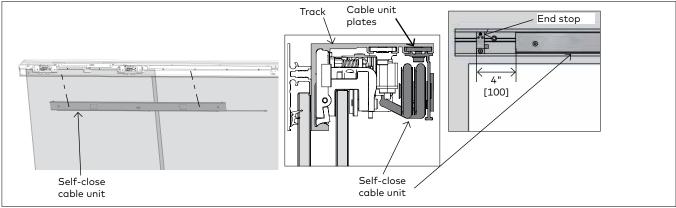


2.23.1 Secure self-close cable connector to opposite end of carrier, furthest from latch [closing side].

Use two screws and tighten at 2.5 ft lbs (3Nm).

2.24 Install self-close cable unit

Fig. 24



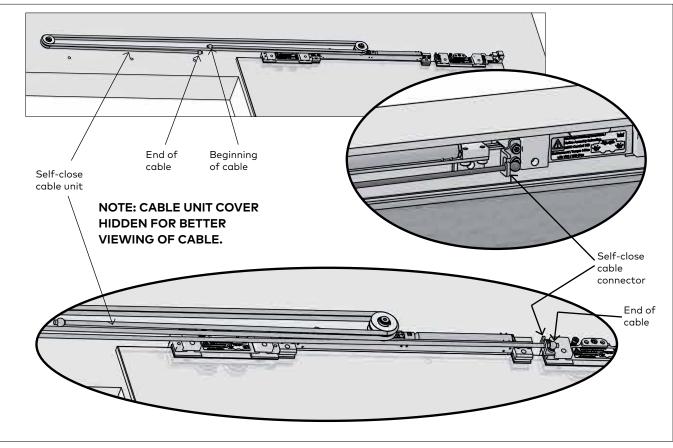
.

2.24.1 Secure self-close cable unit into first groove of MUTO track.

- Use three screws/plates and tighten at 3 ft lbs (4 Nm).
- 2.24.2 Rotate plates inside track channel to engage.

2.25 Prepare self-close cable unit

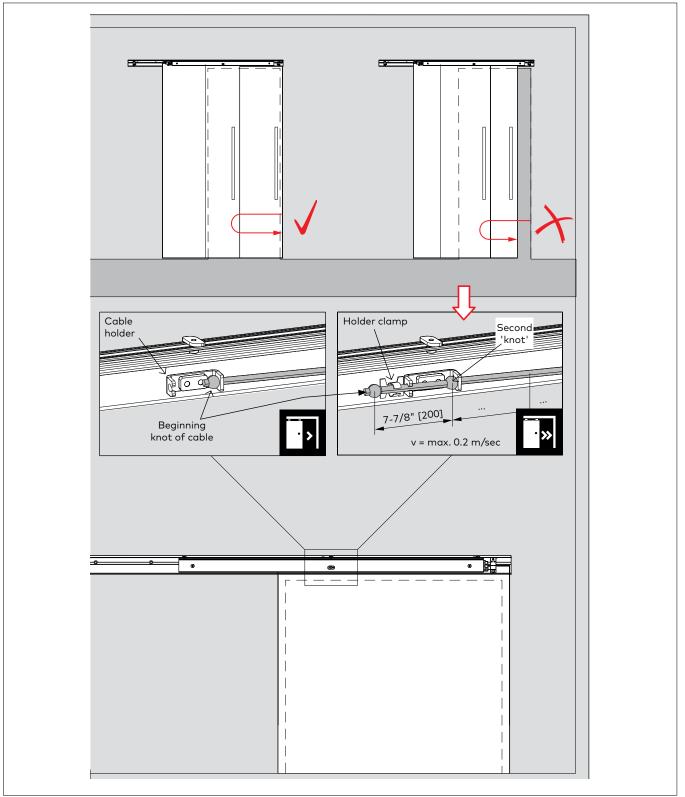
Fig. 25



- 2.25.1 Pull "end of cable" over to connect with cable connector.
- 2.25.2 Continue to pull cable through connector to either increase or decrease self-closing tension.

2.26 Adjust tension in self-close cable unit

Fig. 26



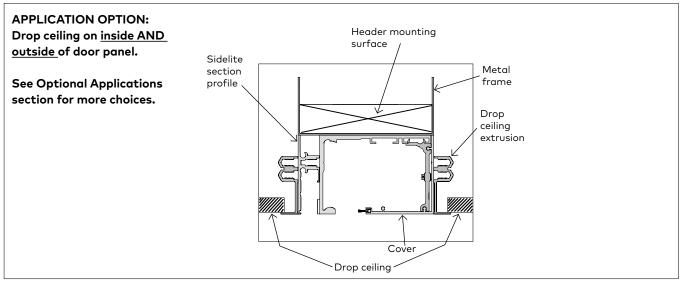
- 2.26.1 To adjust tension in cable unit cord if necessary, pull 'beginning knot of cable' through cable holder.
- 2.26.2 Secure another 'knot' and pull cable through holder as show in image above.

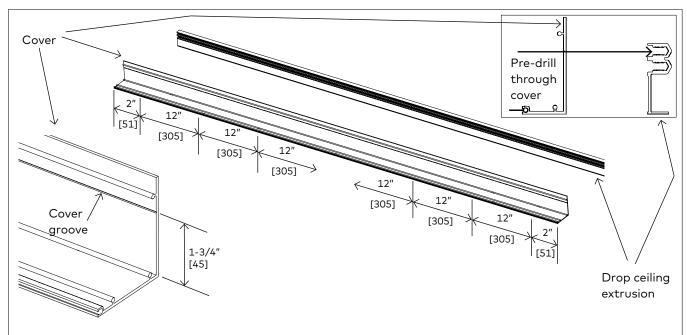
2.26.3 Secure beginning 'knot' in holder clamp.

NOTE: Be sure there is a 7-7/8" [200] gap between each new 'knot' in the cord.

2.27 Secure drop ceiling extrusion to cover

Fig. 27



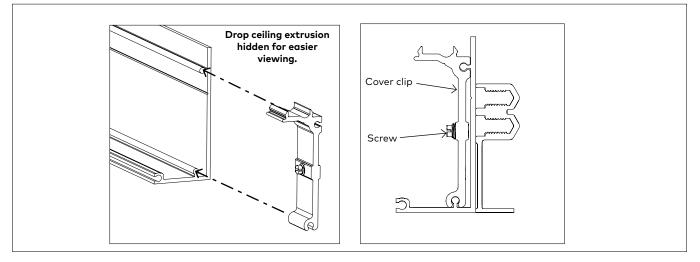


2.27.1 Pre-drill holes through cover groove into drop ceiling extrusion.

- **End holes**: approximately 2" [51] from end of cover
- All other holes: approximately 12" [305] apart

2.28 Install recessed mount cover clips

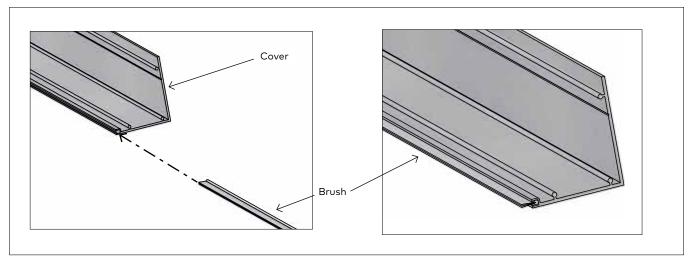
Fig. 28



- 2.28.1 Slide cover clips on from end of cover.
- 2.28.2 Tighten with screw. **Be sure not to damage cover.**
- NOTE: 1 clip per 2 feet of cover extrusion.

2.29 Install brush profile

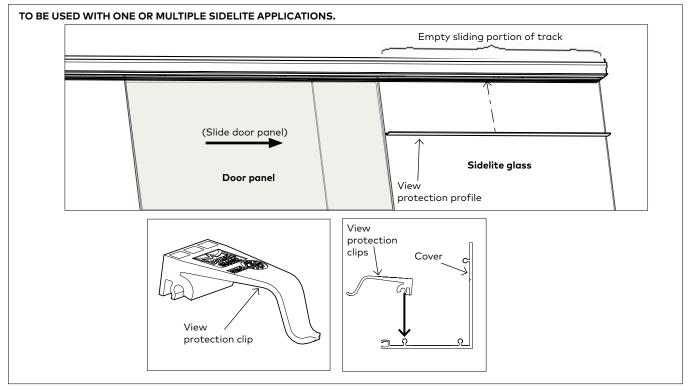
Fig. 29



- 2.29.1 Measure and cut brush to appropriate length.
- 2.29.2 Slide brush into cover.

2.30 Install view protection clips

Fig. 30



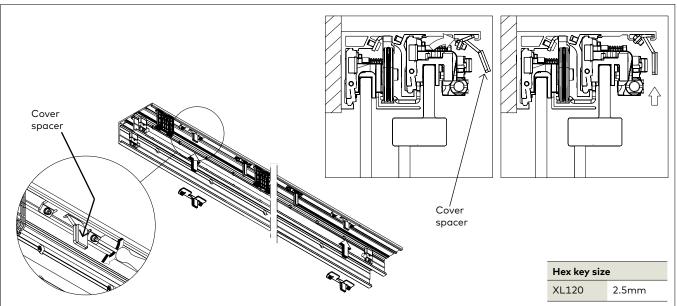
2.30.1 Measure and cut view protection profile to fit into empty sliding portion of track - 3/16" [5].
2.30.2 Snap view protection clips onto inside of cover as shown.

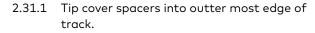
2.30.3 Use minimum 1 clip per foot of profile. Exception: If profile is minimum of 1 foot in length, use 2 clips.

2.31 Cover spacers

Fig. 31

26

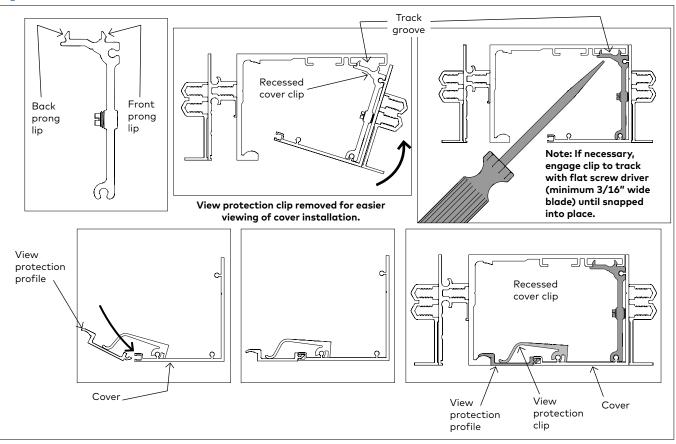




2.31.2 Place one at each end of track as shown.2.31.3 Tighten at at 1 ft lbs [1Nm] or hand tighten.

2.32 Install cover and view protection profile

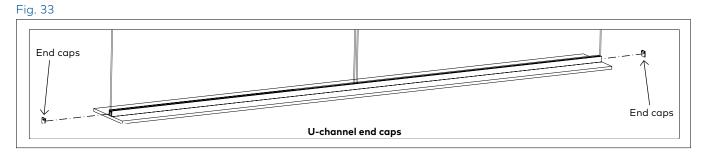




2.32.1 Install cover:

- Insert back prong lip of recessed cover clip into groove first.
- Rotate cover assembly up and then snap front prong lip of clip into track groove.
- 2.32.2 Once cover is in place, tip view protection profile up in between track and cover.
- 2.32.3 Snap down into cover and onto track as shown.

2.33 Install end caps



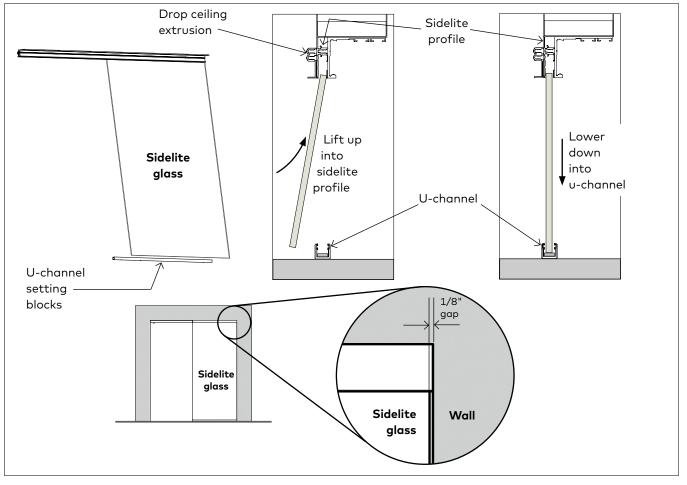
2.33.1 Snap end caps into cover.

2.33.2 Snap end caps into ends of sidelite profile.

2.33.3 Snap end caps into ends of u-channel.

2.34 Installing sidelite glass

Fig. 34

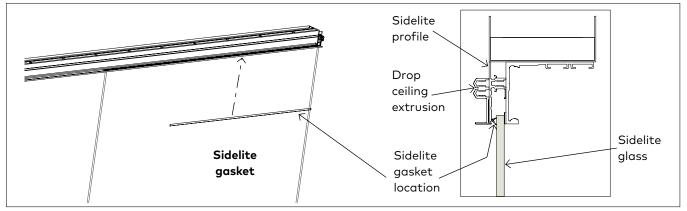


- 2.34.1 Place setting blocks into u-channel.
- 2.34.2 Spray inside of u-channel with glass cleaner.
- 2.34.3 Lift glass up and into sidelite profile.
- 2.34.4 Lower glass into u-channel.

- 2.34.5 Ensure there is 1/8" [3] gap between wall and edge of sidelite glass.
- 2.34.6 If using tempered laminated glass, gently press glass against u-channel gasket, and dispense silicone along full length of non-gasket side of u-channel.

2.35 Installing sidelite glass gasket



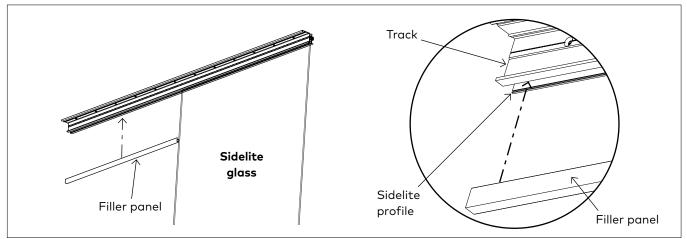


2.35.1 Cut gasket to length.

2.35.2 Press gasket in between sidelite glass and sidelite profile.

2.36 Installing sidelite glass filler panel

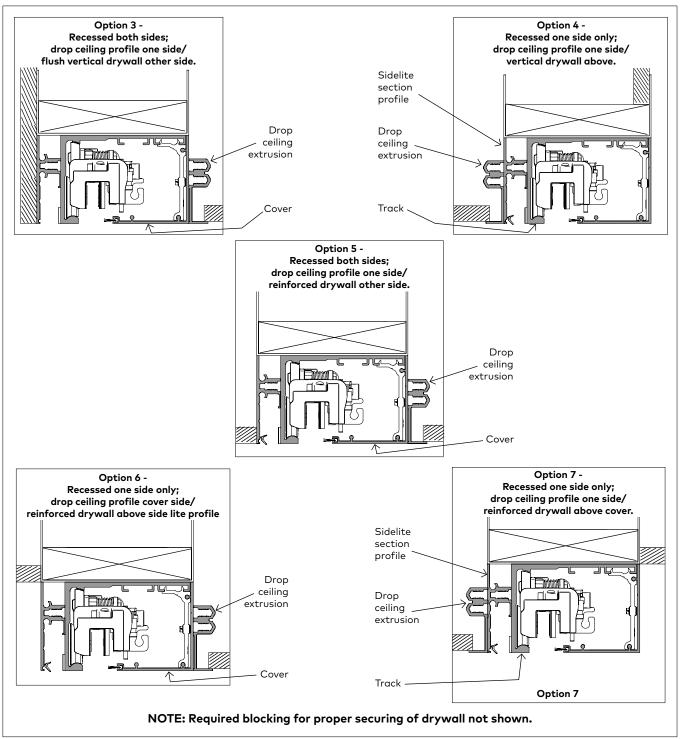
Fig.36



2.36.1 Fit filler panel between empty section of track and sidelite profile, on door side.

3 Optional applications

Fig.37



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