Muto Premium Recessed Mount
XL150/80 - Ceiling mount with DORMOTION with Sidelites

Installation instructions
936038 – 05-2018
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1 Technical specifications

1.1 Overview

These instructions are for installation of MUTO PREMIUM sliding door system XL150/80 for the following mounting and style versions:

1. Recessed mounting

1.1.1 General information
• dormakaba requires use of tempered monolithic or tempered laminated glass.
• dormakaba glass hardware is not suitable for application in rooms where chemicals (e.g. chlorine) are used 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. Install limiting stop to prevent door from opening too far.

1.1.2 Intended use
• For sliding door in dry indoor areas only
• For manual slowly opening and closing only

1.1.3 Glass requirements and fittings
• The substructure/wall must be able to bear permanent loads and 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.

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.

[TIPS AND RECOMMENDATIONS]
Information note

[CLOSING EDGE]

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, especially the track.
• Always use silicone - and oil-free cleaners (e.g. acetone).
• Check glass hardware at regular intervals for proper positioning and 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 Specifications - technical data

<table>
<thead>
<tr>
<th></th>
<th>Single door</th>
<th>Sidelites on both sides</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>XL150</td>
<td>XL80</td>
</tr>
<tr>
<td></td>
<td>XL150</td>
<td>XL80</td>
</tr>
<tr>
<td>Ceiling mount</td>
<td>Door leaf weight lbs [kg]</td>
<td>≤330 lbs [≤150]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≤176 lbs [≤80]</td>
</tr>
</tbody>
</table>

* Including weight of auxiliary hardware.

1.3 Tempered laminate glass (TLG) and adhesive specifications

<table>
<thead>
<tr>
<th>Required parts for laminate glass with MUTO System (not included)</th>
<th>Part Number</th>
<th>Quantity</th>
<th>Usage recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M™ Scotch-Weld™ Urethane Adhesive, DP 605 NS</td>
<td>934.800</td>
<td>1 tube</td>
<td>1 tube per 4 roller carriers</td>
</tr>
<tr>
<td>3M™ Scotch-Weld™ EPX™ Plus II Applicator with 1:1 Plunger ²</td>
<td>934.801</td>
<td>1 applicator</td>
<td>1:1 plunger with 934.800 adhesive</td>
</tr>
<tr>
<td>3M™ Scotch-Weld™ EPX™ Plus II Mixing Square Nozzle, 5.3mm ³</td>
<td>934.805</td>
<td>Pk of 4</td>
<td>4 nozzles per 1 tube of adhesive</td>
</tr>
<tr>
<td>MUTOAccessory set (Clamp carrier plate/gasket for TLG)</td>
<td>807.640</td>
<td>1 set</td>
<td></td>
</tr>
</tbody>
</table>

Handling time frame

<table>
<thead>
<tr>
<th>Function</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working life (time between application and clamping of carrier)</td>
<td>5 minutes @ 75°F</td>
</tr>
<tr>
<td>Handling strength</td>
<td>20 minutes @ 73°F or more</td>
</tr>
<tr>
<td>Full cure time (normal door usage not recommended until full cure time has been met)</td>
<td>48 hours @ 73°F or more</td>
</tr>
</tbody>
</table>

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.

1.2 Never clamp metal glass fitting hardware directly to glass surface.

1.3 Never use clamping products on surfaces with self-cleaning coatings.

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.
1.1 Drop ceiling extrusion (optional)  
1.2 Cover  
1.3 Brush strip  
1.4 Track  
1.5 End Cap  
1.6 Sidelite end cap  
1.7 Sidelite section profile  
1.8 Filler panel  
1.9 Roller carrier  
1.10 Recessed cover clips  
1.11 End stop  
1.12 Dormotion unit  
1.13 Start/stop guide  
1.14 Floor guide  
1.15 U-channel  
1.16 View protection clips  
1.17 View protection profile  
1.18 Sidelite glass gasket  
1.19 U-channel gasket  
1.20 U-channel end caps
2.2 Installing the end stops

Fig. 2 End stops

2.2.1 Slide end stops into each end of the track.  
NOTE: Loosen bottom section of end stop for easier install.  
NOTE: FOR XL150 end stops, be sure set screw is flush with back of end stops.  
NOTE: Exact location/adjustments will be determined in the Adjustment End Stop Location step.

2.3 Securing gasket to track

Fig. 3 Sidelite gasket

2.3.1 Ensure the track is cut to proper length.  
NOTE: SEE DIMENSION INSTRUCTIONS ON PAGE 9.

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 Sidelite profile

2.4.1 Align sidelite profile holes with track profile holes.  
NOTE: Holes will be predrilled every 7-7/8” [200].  
NOTE: Be sure fastener heads are flush with track to avoid rollers catching protruding fasteners.  
NOTE: LEAVE EVERY OTHER HOLE EMPTY ONLY if securing drop ceiling extrusion.
2.5 Secure track and sidelite extrusion into ceiling (and drop ceiling extrusion, if supplied)

Fig. 5 Drop ceiling extrusion

**OPTION 1:**
If recessed ON BOTH SIDES; DRYWALL VERTICALLY MOUNTED, reference the following images:

2.5.1 Drill 1/4" pilot holes through remaining empty holes in track, through sidelite profile.

2.5.2 Secure drop ceiling extrusion to track and sidelite profile with 1-3/8" [35] fasteners provided.

**OPTION 2:**
If recessed ON BOTH SIDES; MAY BE DROP CEILING PROFILE OR REINFORCED DRYWALL, reference the following images:

See other Optional Applications at back of installation instructions.
2.6 Specifications for securing track to mounting surface

2.6.1 Ensure the 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 ¼” [6] x 3” [76] steel angle, 16 gauge metal stud, 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.

2.6.2 Use appropriate fasteners according to the following recommendations.

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.
2.7 Door/wall dimensions

Single sidelite mount

- Glass door panel
- Sidelite glass
- Clear opening width (CW)
- 1-3/16" [30]

Multiple sidelite mount

- Glass door panel
- Sidelite glass
- Clear opening width (CW)
- 1-3/16" [30]
2.8 Installing U-channel for sidelite

Fig. 6 U-channel

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.

2.9 Installing sidelite glass

Fig. 7 Sidelite glass

2.9.1 Place setting blocks into u-channel.
2.9.2 Spray inside of u-channel with glass cleaner.
2.9.3 Lift glass up and into sidelite profile.
2.9.4 Lower glass into u-channel.
2.9.5 Ensure there is 1/8" [3] gap between wall and edge of sidelite glass.
2.9.6 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.
2.10 Installing sidelite glass filler panel

Fig. 8 Sidelite filler panel

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

2.11 Installing sidelite glass gasket

Fig. 9 Sidelite gasket

2.11.1 Cut gasket to length.

2.11.2 Press gasket in between sidelite glass and sidelite profile.
2.12A Installing roller carriers: on monolithic glass ONLY

Fig. 10  Roller carriers

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**Warning:**

DETERMINE THE LEADING (X) VERSUS TRAILING (Z) EDGE OF THE GLASS.

"LEADING IS SIDE CLOSEST TO LATCH CLOSED."

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**Roller location on glass with DORMOTION unit**

<table>
<thead>
<tr>
<th></th>
<th>XL150/80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single door X</td>
<td>3-1/8&quot; [80]</td>
</tr>
<tr>
<td>Double door X</td>
<td>1-9/16&quot; [40]</td>
</tr>
<tr>
<td>Single door Z</td>
<td>1-9/16&quot; [40]</td>
</tr>
<tr>
<td>Double door Z</td>
<td>2-3/8&quot; [60]</td>
</tr>
</tbody>
</table>

**Legend**

- Closing edge of door
- Torque values

- XL150/80 10 ft lbs [14Nm]
- Hex key size

- XL150/80 4mm

---

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

**NOTE:** ENSURE ROLLER CARRIERS ARE FREE OF DEBRIS.

2.12A.1 Slide roller carriers onto glass.  
2.12A.2 Slide glass gasket and metal shim between glass and roller carrier.

**NOTE:** Orient gasket with rubber side facing the glass.

2.12A.3 Secure roller carriers to glass at 10 ft lbs (14 Nm).
2.12B Installing roller carriers: on tempered laminate glass ONLY

Fig. 11 Roller carriers

**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.

**NOTE:** ENSURE ROLLER CARRIERS ARE FREE OF DEBRIS.

2.12B.1 Slide carriers onto glass.
2.12B.2 Replace existing gasket with TLG gasket.
2.12B.3 Slide laminated glass gasket and metal shim between glass and roller carrier.

**NOTE:** Orient gasket with rubber side facing the glass.

2.12B.4 Relace existing set screws with vented set screws.
2.12B.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.

2.12B.6 Dispense into vented set screws on both sides of carrier.

Stop application when adhesive can be seen past edge of roller carrier.

**DO NOT WIPE** 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.
2.13 Installing DORMOTION

Fig. 12 Dormotion unit

2.13.1 Slide DORMOTION dampener onto glass. **NOTE:** Oriented with triggers facing outward.

2.13.2 Dampener must be flush against leading roller carrier. **NOTE:** Leading carrier is on side of glass closest to latch.

2.13.3 Secure dampener to glass using appropriate-size hex key.

2.13.4 Engage triggers: push out towards end of DORMOTION unit.

2.14 Disengaging the anti-jump

Fig. 13 Anti-jump

2.14.1 Disengage the anti-jump on roller carrier. **NOTE:** Using optional ratchet and provided bit, push anti-jump adjustment screw IN and turn COUNTER-CLOCKWISE 90° to disengage anti-jump.
2.15 Install glass/rollers in track

**Fig. 14 Side view of door system**

_**ENSURE ROLLERS AND TRACK ARE FREE OF DEBRIS.**_

2.15.1 Place glass on setting blocks on floor for stability.
2.15.2 Lift glass and rollers up and rest rollers on track.

*If installing/hanging tempered laminated glass panels, ensure carrier adhesive has cured for 48 hours minimum. See Specifications section for more information regarding cure time.*

2.16 Install floor guide

**Fig. 15 Floor guide**

<table>
<thead>
<tr>
<th>XL150/80</th>
<th>X 13/16&quot; [20]</th>
</tr>
</thead>
</table>

**Fig. 14 Side view of door system**

**ANTI-JUMP IS DISENGAGED!**

2.16.1 Align centerline of glass with centerline of floor guide.
2.16.2 Be sure the glass is plumb.
2.16.3 Mark appropriate floor guide measurements.

2.16.4 TEMORARILY REMOVE GLASS AND ROLLERS FROM TRACK.
2.16.5 Pre-drill into mounting surface using a 5/16" drill bit.
2.16.6 Secure floor guide anchor with included fasteners.
2.17 Install floor guide: continued

**Fig. 16 Floor guide**

2.17.1 Set glass and rollers back onto track.
2.17.2 Slide floor guide over floor guide anchor and tighten with set screws.

2.17.3 Remove setting blocks. **NOTE:** Be sure glass is centered in floor guide.

2.17.4 Adjust using set screws.

2.18 Engaging anti-jump

**Fig. 17 Anti-jump**

2.18.1 Engage anti-jump on roller carrier. **NOTE:** Using the optional ratchet and provided bit, push anti-jump adjustment screw IN and turn CLOCKWISE 90° to engage anti-jump.

2.19 Adjustment door height

**Fig. 18 Door adjustment**

2.19.1 Set height of glass door.
2.19.2 Using the optional ratchet and provided bit, loosen height adjustment locking screws of carrier.

2.19.3 Using optional ratchet and provided bit, turn height adjustment screw CLOCKWISE or COUNTER-CLOCKWISE to raise or lower glass. **NOTE:** Be sure glass is level during this adjustment.
2.20 Adjustment end stop
location: LEADING end stop

**Set end stop location:**
2.20.1 Slide end stop to desired location on track. Bumper should touch edge of roller carrier.

**END STOP LOCATION:**
LEADING EDGE

- Bumper
- Edge of roller carrier
- Jamb edge
- Glass edge
- Door pull
- Door opened

**Hex key size**
XL150/80 3mm

**NOTE:** Bi-folding: Be sure there is a 1/4” [6] gap between the right and left hand sets.

**Secure**

---

**Adjustment end stop**
location: TRAILING end stop

**Set end stop location:**
2.20.1 Slide end stop to desired location on track. Bumper should touch edge of roller carrier.

**END STOP LOCATION:**
TRAILING EDGE

- Bumper
- Edge of roller carrier
- Jamb edge
- Glass edge
- Door pull
- Door opened

**Hex key size**
XL150/80 3mm

**NOTE:** Bi-folding: Be sure there is a 1/4” [6] gap between the right and left hand sets.

**Secure**

---

**Door pull to jamb distance.**
"Verify with local jurisdiction."

**XL150/80 torque**
3 ft lbs [4 Nm]
2.21 Changing out start/stop plate for recessed mount

2.21.1 Remove screws, flat washers, and feet from start/stop.

2.21.2 Disgard flat washers and feet.

2.21.3 Replace with included plate and locking washers.

• Orient in position as shown in image.

2.21.4 Resecure to start/stop with original screws. DO NOT FULLY TIGHTEN.

2.21.5 Insert set screws. Can be used for adjustment after installation.
2.22 Install DORMOTION start/stops

Fig. 22 Start/stop

2.14.1 Guide start/stop into track while holding the set screws.

2.14.2 Slide door all the way OPEN.

2.14.3 Carrier should touch end stop.

2.14.4 Slide start/stop into Dormotion unit trigger.

2.14.5 Tighten set screws first.

2.14.6 Fully tighten hex screws.

2.14.7 Carrier should touch end stop.

2.14.8 Slide start/stop into Dormotion unit trigger.

2.14.9 Tighten set screws first.

2.14.10 Fully tighten hex screws.
2.23 Secure drop ceiling extrusion to cover

Fig. 23 Drop ceiling extrusion

APPLICATION OPTION:
Drop ceiling on inside AND outside of door panel.

See Optional Applications section for more choices.

2.23.1 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
2.24 Install drop ceiling cover clips

Fig. 24 Drop ceiling extrsion cover clips

2.24.1 Slide cover clips on from end of cover.
2.24.2 Tighten with screw. Be sure not to damage cover.

NOTE: 1 clip per two feet of cover extrusion.

2.25 Install brush profile

Fig. 25 Brush profile for cover

2.25.1 Measure and cut brush to appropriate length.
2.25.2 Slide brush into cover.
2.26 Install view protection clips

Fig. 26 View protection clips

**TO BE USED WITH ONE OR MULTIPLE SIDE LITE APPLICATIONS.**

2.26.1 Measure and cut view protection profile to fit into empty sliding portion of track - 3/16" [5].

2.26.2 Snap view protection clips onto inside of cover as shown.

2.26.3 Use minimum 1 clip per foot of profile. Exception: If profile is minimum of 1 foot [305] in length, use 2 clips.

2.27 Cover spacers

Fig. 27 Cover spacers

2.27.1 Tip cover spacers into outermost edge of track.

2.27.2 Place one at each end of track as shown.

2.27.3 Tighten at 1 ft lbs [1Nm] or hand tighten.
2.28  Install cover and view protection profile

**Fig. 28  Cover and profile**

![Diagram showing cover and profile installation](image)

**2.28.1  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.

**2.28.2**  Once cover is in place, tip view protection profile up in between track and cover.

**2.28.3**  Snap down into cover and onto track as shown.

---

2.29  Install end caps

**Fig. 29  End caps**

![Diagram showing end caps installation](image)

**2.29.1**  Snap end caps onto end of track.
3 Optional applications

Fig. 30 Drop ceiling applications

Option 3 - Recessed both sides; drop ceiling profile one side/flush vertical drywall other side.

Option 4 - Recessed one side only; drop ceiling profile one side/vertical drywall above.

Option 5 - Recessed both sides; drop ceiling profile one side/reinforced drywall other side.

Option 6 - Recessed one side only; drop ceiling profile cover side/reinforced drywall above side lite profile.

Option 7 - Recessed one side only; drop ceiling profile one side/reinforced drywall above cover.

NOTE: Required blocked for proper securing of drywall not shown.