Muto Premium XL150
Muto Comfort L80
Ceiling mount less Dormotion

Installation instructions
936001 – 05-2018
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1 Technical specifications

1.1 Overview

These instructions are for installation of MUTO PREMIUM and COMFORT sliding door system XL150 / L80 for the following mounting and style versions:

1. Ceiling mount

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.

- 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.

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>Ceiling mount</th>
<th>Single Door</th>
<th>Double Door</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>XL150</td>
<td>L80</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>MUTO TLG gasket set</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 as 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).

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

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 product 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.
2 Installation instructions

2.1 Overall
2.2 Securing track to mounting surface

Fig. 1

2.2.1 Ensure the track is properly level and secure it to the ceiling per the appropriate measurements on the following page.

• NOTE: SEE DIMENSION INSTRUCTIONS ON NEXT PAGE FOR REFERENCE.

2.2.2 Use appropriate fasteners according to the following recommendations.

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.

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.
2.3 Door/wall dimensions

**Single door mount**

- clear opening height (CH)
- Glass door panel
- 1-3/16" [30]
- clear opening width (CW)

**Double door mount**

- clear opening height (CH)
- Glass door panel
- 1/4" [6]
- clear opening width (CW)

Back of track to center of mounting hole in track
- 7/8" [23]

Bottom of glass to floor
- 3/8" [10]
2.4 Installing hook set

2.4.1 With rollers facing away from the installer, determine which roller will be leading and which will be trailing.

2.4.2 Secure hook onto roller with open side facing away from the installer.

2.4.3 Secure hook using appropriate-size hex key.

2.5A Installing roller carriers: on monolithic glass ONLY

2.5A.1 Slide roller carriers onto glass.

2.5A.2 Slide glass gasket and metal shim between glass and roller carrier.

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

2.5A.3 Secure roller carriers to glass using appropriate-size hex key at 10 ft lbs [14 Nm].

NOTE: FULLY CLEAN SURFACE OF GLASS WITH AN ALCOHOL-BASED MILD GLASS AND SURFACE CLEANER. ENSURE GASKET IS FREE OF DEBRIS.

ENSURE ROLLER CARRIER WHEELS ARE FREE OF DEBRIS.
2.5B Installing roller carriers: on tempered laminate glass ONLY

Fig. 4

![Diagram of roller carriers installation]

<table>
<thead>
<tr>
<th>Torque values</th>
<th>Hex key size</th>
<th>Legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>XL150</td>
<td>XL150 4mm</td>
<td>Closing edge of door</td>
</tr>
<tr>
<td>L80</td>
<td>L80 2.5mm</td>
<td></td>
</tr>
</tbody>
</table>

2.5B.6. Dispense adhesive into vented set screws on both sides of carrier. Stop application when adhesive can be seen past edge of roller carrier.

WARNING: 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.

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.

ENSURE ROLLER CARRIER WHEELS ARE FREE OF DEBRIS.

2.5B.1. Slide carriers onto glass.
2.5B.2. Replace existing gasket with TLG gasket.
2.5B.3. Slide laminated glass gasket and metal shim between glass and roller carrier.

NOTE: Orient gasket with rubber side facing the glass.

2.5B.4. Replace existing set screws with vented set screws.
2.5B.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 to prevent mixing errors and ensure optimal hardening.
2.6 Disengaging the anti-jump

2.6.1 Disengage the anti-jump on roller carrier.

NOTE: Using the appropriate-size hex key, push anti-jump adjustment screw IN and turn COUNTER-CLOCKWISE 90° to disengage anti-jump.

2.7 Installing the end stops

2.7.1 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 “Adjustment End Stop Location” step.
2.8 Install glass/rollers in track

**Fig. 7**

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

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

2.8.1 Place glass on setting blocks on floor for stability.

2.8.2 Tip glass and rollers upward and rest rollers on track.

2.9 Install floor guide

**Fig. 8**

**ANTI-JUMP IS DISENGAGED!**

2.9.1 Align centerline of glass with centerline of floor guide.

2.9.2 Be sure the glass is plumb.

2.9.3 Mark appropriate floor guide measurements.

2.9.4 TEMPORARILY REMOVE GLASS AND ROLLERS FROM TRACK.

Pre-drill into mounting surface using a 5/16" drill bit.

2.9.5 Secure floor guide anchor with included fasteners.
2.10 Install floor guide: continued

Fig. 9

2.10.1 SET GLASS AND ROLLERS ONTO TRACK.
2.10.2 Slide floor guide over floor guide anchor and tighten with set screws.
2.10.3 Remove setting blocks.

NOTE: Be sure glass is centered in floor guide.
2.10.4 Adjust using set screws.

2.11 Engaging anti-jump

Fig. 10

2.11.1 Engage anti-jump on roller carrier.
2.11.2 Using appropriate-size hex key, push anti-jump adjustment screw IN and turn CLOCKWISE 90° to engage anti-jump.

Hex key size

<table>
<thead>
<tr>
<th></th>
<th>XL150</th>
<th>L80</th>
</tr>
</thead>
<tbody>
<tr>
<td>4mm</td>
<td></td>
<td>2.5mm</td>
</tr>
</tbody>
</table>

2.12 Adjustment door height

Fig. 11

2.12.1 Set height of glass door.
2.12.2 Loosen height adjustment locking screws of carrier.
2.12.3 Using appropriate-size hex key, turn height adjustment screw CLOCKWISE or COUNTER-CLOCKWISE to raise or lower glass.

NOTE: Be sure glass is level during this adjustment.
2.13 Adjustment end stop
location: LEADING end stop

End stop
Glass overlap on wall
max. 1-3/16” [30]

END STOP LOCATION:
LEADING EDGE

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

Door closed

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

<table>
<thead>
<tr>
<th>Hex key size</th>
<th>XL150</th>
<th>L80</th>
</tr>
</thead>
<tbody>
<tr>
<td>torque</td>
<td>3 ft lbs [4 Nm]</td>
<td>2 ft lbs [3 Nm]</td>
</tr>
</tbody>
</table>

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

Door pull

Adjustment end stop
location: TRAILING end stop

END STOP LOCATION:
TRAILING EDGE

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

Door opened

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

<table>
<thead>
<tr>
<th>Hex key size</th>
<th>XL150</th>
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<tbody>
<tr>
<td>torque</td>
<td>3 ft lbs [4 Nm]</td>
<td>2 ft lbs [3 Nm]</td>
</tr>
</tbody>
</table>

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

Door pull

*Verify with local jurisdiction.*
2.14 Cover clips

Fig. 14

2.14.1 Insert cover clips into track. (One clip per foot)

2.14.2 Insert perpendicular to track, and turn CLOCKWISE to snap into place.

2.15 Install brush profile

Fig. 15

2.15.1 Measure and cut brush to appropriate length.

2.15.2 Slide brush into cover.
2.16 Install view protection clips

Fig. 16

2.16.1 Slide door open until it meets the end stop.
2.16.2 Measure and cut view protection profile to fit into empty sliding portion of track - 3/16" [5].
2.16.3 Snap view protection clips onto inside of cover as shown.

2.16.4 Use minimum 1 clip per foot of profile. Exception: If profile is minimum of 1 foot in length, use 2 clips.
2.17 Install cover and view protection profile

2.17.1 Secure cover to clips and snap into place.

**NOTE:** Roll cover from the bottom upwards. Ensure the bottom of the cover is supported by the groove in the cover clip.

2.17.2 Tip view protection profile up into track and snap down into cover and onto track as shown.

2.18 Install end caps

2.18.1 Snap end caps onto track.