Muto Premium XL150
Muto Comfort L80
Synchro for Ceiling/Wall mounts Less Dormotion
(Glass door)

Installation instructions
936032 – 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 Synchro for the following mounting and style versions:

1. Ceiling and Wall 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>Door leaf weight lbs [kg]*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double Door</td>
<td>XL150</td>
</tr>
<tr>
<td></td>
<td>L80</td>
</tr>
<tr>
<td>XL150</td>
<td>2 x ≤330lbs (2 x ≤150)</td>
</tr>
<tr>
<td>L80</td>
<td>2 x &lt;176lbs (2 x ≤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</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</td>
<td>934.805</td>
<td>Pak 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>
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</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).

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 glass fitting hardware directly to glass surface.

1.3 Never use clamping product on surfaces with self-cleaning coatings.
2 Installation instructions

2.1 Overall

Fig. 1

1.1 Cable
1.2 Cable height guides
1.3 Wheels
1.4 Cable clamps
1.5 Cable locking clamps
2.2 Install synchro track wheels

Fig. 2

<table>
<thead>
<tr>
<th>Hex key size</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>XL150</td>
<td>4mm</td>
</tr>
<tr>
<td>L80</td>
<td>4mm</td>
</tr>
</tbody>
</table>

Legend

- Closing edge of door

2.2.1 Place wheels toward ends of track.

2.2.2 Move to correct position.

2.2.3 To engage plates, rotate inside track.

2.2.4 Tighten screws.

- Use 4mm hex key at 2.2 ft lbs [3Nm] of force.
2.3 Install cable height guides

2.3.1 Loosely secure cable height guides to ends of carriers. • Secure on side of carrier closest to closing edge of door.

<table>
<thead>
<tr>
<th>Hex key size</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>XL150</td>
<td>4mm</td>
</tr>
<tr>
<td>L80</td>
<td>4mm</td>
</tr>
</tbody>
</table>

Legend

- Closing edge of door
2.4 Install cable clamps

Fig. 4

2.4.1 Secure cable clamp pin and cable clamp pin guide into carrier as shown.

- Secure on side of carrier closest to closing edge of door.

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

2.5.1 Disassemble cable and tensioning spring parts.
2.5.2 Place felt grease/lubricant onto cable tensioning rod.
2.5.3 Thread rod through cable height guide as shown.
2.5.4 Secure spring to rod in the following order:
   - Nut - Flat washer - Spring - Flat washer - Guide
   - Use an 8mm wrench to tighten nut.
2.6 Thread cable

Fig. 6

2.6.1 Thread cable around wheels in direction as shown.

2.7 Install cable locking clamps

Fig. 7

2.7.1 Feed end of cable through other cable height guide.
2.7.2 Secure with two cable locking clamps.
2.7.3 Hold cable tight and tighten clamp with flat head screw driver.

**NOTE:** Ensure there is no slack in the cable.
2.8 Cable tension adjustment

Fig. 8

2.8.1 Adjust tension in cable.

2.8.2 Use 8mm wrench to rotate nut and compress or expand spring.

- Compress (CW) = more tension
- Expand (CCW) = less tension
- Minimum spring compression = 1" [26]
2.9  Door gap

Fig. 9

2.9.1 Ensure 1/4" [6] gap between the doors.

2.10 Secure cable to cable clamps

Fig. 10

2.10.1 Secure cable to rollers carriers.
2.10.2 Pinch cable between cable clamp pin guide and cable clamp pin plate.
2.10.3 Secure with nut.
2.11 Engaging anti-jump

2.11.1 Adjust cable height.
2.11.2 Loosen screws.
2.11.3 Raise or lower height guides to desired height.
2.11.4 Re-secure at 2.2 ft lbs [3Nm] of force.

2.12 Install cover

2.12.1 Place foam tape along inside edge of cover.