MUNDUS Premium and Comfort
PT20, PT22, and PT10
Top and Bottom Patch fittings

Installation instructions
942001 – 10-2017
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1 Technical specifications

1.1 Overview

These instructions are for installation of the PT10, PT20, PT22 Top and Bottom Patch Fittings for the following mounting and style versions:

1. Glass mounting

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.
- Do not swing doors with excessive force. Install limiting stop to prevent door from opening too far.

1.1.2 Intended use
- For pivoting doors in indoor or covered areas only.
- For manual slowly 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 elements, 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
- Heat-soaked thermally tempered safety 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.
- Never use clamping products on surfaces with self-cleaning coatings.

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 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.)
- Function of fittings is recommended to be inspected every 500,000 movements by a specialist.

1.1.8 Disposal

Disposal in accordance with local, state and national regulations.
1.2 Door dimensions

* NOTE: Pivot point adjustable 2-3/16" - 2-3/4" [55-70]*

* NOTE: PT22 pivot point standard at 2-3/4" [70] based on RTS.
1.3 Glass thickness/pivot point angle specifications

**NOTICE**

Observe the opening angle of the door. The opening angle for your installation, according to glass thickness, pivot point and patch fitting for overpanel and sidelite PT40, can be found in the table. Use a door stop to avoid damages to the patch fittings and door.

<table>
<thead>
<tr>
<th>Pivot point [mm]</th>
<th>2-9/16&quot; [65]</th>
<th>2-3/4&quot; [70]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; [12]</td>
<td>147°</td>
<td>149°</td>
</tr>
<tr>
<td>5/8&quot; [16]</td>
<td>144°</td>
<td>147°</td>
</tr>
<tr>
<td>3/4&quot; [19]</td>
<td>141°</td>
<td>144°</td>
</tr>
<tr>
<td>7/8&quot; [22]</td>
<td>139°</td>
<td>141°</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Glass thickness [mm]</th>
<th>Comfort</th>
<th>Premium</th>
<th>Premium</th>
<th>Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/16&quot; - 1/2&quot; [8-12]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9/16&quot; [12-15]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/8&quot; - 3/4&quot; [15-19]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13/16&quot; - 7/8&quot; [19-22]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

approx. max. 140°

approx. max. 144°

approx. max. 147°
1.4  Tempered laminate glass (TLG) and adhesive specifications

<table>
<thead>
<tr>
<th>Required parts for laminate glass with MUNDUS System (not included)</th>
<th>Color</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>off white</td>
<td>934.800</td>
<td>1 tube</td>
<td>1 tube per 10 fittings</td>
</tr>
<tr>
<td>3M™ Scotch-Weld™ EPX™ Plus II Applicator with 1:1 Plunger (^2)</td>
<td></td>
<td>934.801</td>
<td>1 applicator</td>
<td></td>
</tr>
<tr>
<td>3M™ Scotch-Weld™ EPX™ Plus II Mixing Square Nozzle, 5.3mm (^3)</td>
<td>gold</td>
<td>934.802</td>
<td>1 tip nozzle</td>
<td>1 nozzle per 2 fittings</td>
</tr>
<tr>
<td>MUNDUS gasket for TLG</td>
<td></td>
<td>842.821 842.825</td>
<td>1 set</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Handling time frame</th>
<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>
<td></td>
</tr>
<tr>
<td>Handling strength</td>
<td>20 minutes @ 73°F or more</td>
<td></td>
</tr>
<tr>
<td>Full cure time (time until glass may be completely installed into door)</td>
<td>48 hours @ 73°F or more</td>
<td></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 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

Fig. 1  Overall exploded view of entire system

- 2.1 Covers
- 2.2 Patch plates
- 2.3 Gaskets (standard or TLG)
- 2.4 Insert (glass thickness dependent)
- 2.5 Spacer and set screws
- 2.6 Fastener (3x included)
- 2.7 Glass grommet (2x included)
- 2.8 Sleeve nut (2x included)

## 2.2 Prepare for installation

Fig. 2

- 2.2.1 Loosen fasteners.
  - Use a 4mm hex key.
- 2.2.2 Loosen fasteners.
  - Use a 3mm hex key.

---

Hex key size

<table>
<thead>
<tr>
<th>Hex key size</th>
<th>4mm</th>
</tr>
</thead>
</table>

5/16" [8] glass = DISCARD set screws

<table>
<thead>
<tr>
<th>Hex key size</th>
<th>3mm</th>
</tr>
</thead>
</table>
2.3  Install gaskets

Fig. 3

**COMFORT PLATES AND GASKETS**

**PREMIUM PLATES AND GASKETS**

| Standard gasket | Tempered laminate glass (TLG) gasket |

**Comfort:**

2.3A.1  Gaskets are pre-secured to patch plates.

**NOTE:** Image shown exploded for viewing purpose only.

**Premium:**

2.3B.1  Fully separate plates.

2.3B.2  Install the TLG gaskets using the pre-adhered double-sided tape strip.


2.3B.3  Reassemble patch fitting and fasteners.

**NOTE:** Keep fasteners loose.

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2.4  Install fittings on glass

Fig. 4

2.4.1  Insert glass grommet.

2.4.2  Slide plates onto glass.

2.4.3  Secure fitting with included fasteners.

- Lightly tighten using a 4mm hex key.

**NOTE:** Use upper hole in plate.
2.5  Secure and set exact fitting location

Set fitting location

Level the fitting

Fig. 5

2.5.1  Use measurement tool to ensure patch fitting is properly aligned and level.
- Hand tighten using a 4mm hex key.

2.6  Plumb and level the fittings

Fig. 6

NOTE: Only tighten until screw makes contact with plate.

2.6.1  Use tool to ensure patch fitting is parallel with glass surface.
2.6.2  Lightly tighten fasteners.
- Use a 3mm hex key.

Legend (torque values)
monolithic glass/TLG
11ft lbs / 7.4ft lbs
[15Nm] / [10Nm]

9ft lbs / 7.4ft lbs
[12Nm] / [10Nm]

2.6.3  Fully tighten fasteners.
- Use a 4mm hex key and torque wrench at the appropriately listed torque value.
2.7 Setting the insert

Fig. 7

2.7.1 Set the insert to the proper measurement for your application.
- Lightly tighten using a 4mm hex key.

2.8 Apply adhesive: (For TLG applications, and glass panels over 118" [2997] high or 330lbs [150kg]. Contact dormakaba for more information.)

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.

NOTE: Onto scrap material, first dispense approximately 12" of 3M™ Scotch-Weld™ Urethane Adhesive prior to application prevent mixing errors and ensure optimal hardening.

2.8.1 Dispense into holes on both sides of fitting.

Stop application when adhesive can be seen past edge of fitting.

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.
2.9A  Option 1: Install door panel (WITH **PT20**)  

*Fig. 9*

- **2.9A.1** Thread set screw inward to remove plastic sleeve from PT20.
- **2.9A.2** Place on transom fitting spindle.
- **2.9A.3** Place bottom patch fitting onto floor pivot spindle. Tip glass panel and top patch fitting up onto transom patch fitting.
- **2.9A.4** Tip glass panel and top patch fitting up onto transom patch fitting.
- **2.9A.5** Thread set screws (in PT20 insert) outward to secure plastic sleeve.

2.9B  Option 2: Install door panel (WITH **PT22**)  

*Fig. 10*

- **2.9B.1** Place bottom patch fitting onto floor pivot spindle.
- **2.9B.2** Tip glass panel and top patch fitting up onto RTS spindle fitting.
- **2.9B.3** Secure glass panel with insert plate and screws.

---

**Hex key size**

<table>
<thead>
<tr>
<th>Option</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT20</td>
<td>2.5mm</td>
</tr>
<tr>
<td>PT22</td>
<td>4mm</td>
</tr>
</tbody>
</table>
2.10 Adjust door alignment

Fig. 11

NOTE: Ensure doors and patch fittings are level and plumb

2.11 Door adjustments

Fig. 12

NOTE: If required, the X-axis, Z-axis or zero position.

<table>
<thead>
<tr>
<th>Glass thickness</th>
<th>Tolerance</th>
<th>Tolerance</th>
<th>Glass thickness</th>
<th>Tolerance</th>
</tr>
</thead>
</table>

PT10 Comfort

2.11.1 Loosen screws to adjust.

Hex key size

4mm

PT10 Premium

2.11.1 Fully tighten fasteners.

Use a hex key and torque wrench at the appropriately listed torque value.

Hex key size

4mm

11ft lbs [15Nm]
2.12 Install covers

Fig. 13

2.12.1 Snap covers onto patch fittings.

2.12.2 To remove:
- Use the plastic prybar to gently remove the cover.