dormakaba

MANET
Non-locking ladder pulls

Back-to-back and single-sided for glass doors

Installation Manual

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1 Technical specifications

1.1 Overview

These instructions are for installation of MANET Back-to-Back and Single-Sided Non-Locking Ladder Pulls for glass door 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 swing/slide doors with excessive force. Ensure proper installation of limiting stop to prevent door from opening too far.

1.1.2 Intended use

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

1.1.3 Door requirements/fittings/mounting

- When adjusting glass components, always adhere 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

- Always wear protective clothing.
- Only properly qualified and specially trained staff are authorized to mount dormakaba glass hardware.
- 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.

1.1.7 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 Installation tools

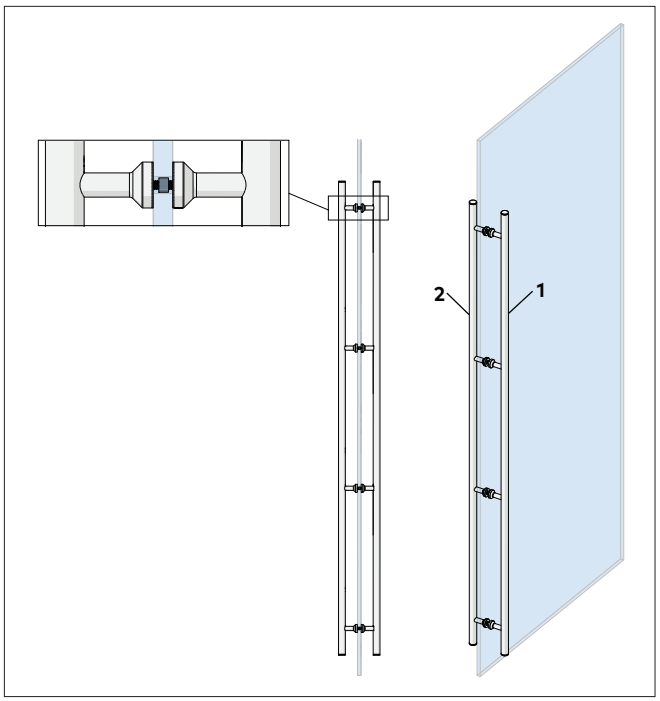
Table 1.2.1 Installation tools

	Installation tools
1	3/16" hex key
2	5 mm hex key
3	1/8" hex key

2 Product overview – MANET non-locking ladder pull handles

2.1 MANET back-to-back pull handles – glass door assemblies

Fig. 2.1.1 Back to back ladder pull



1	Pull handle, internal
2	Pull handle, external

2.2 MANET single pull handles – glass door assemblies

Fig. 2.2.1 GL clamp disc ladder pull

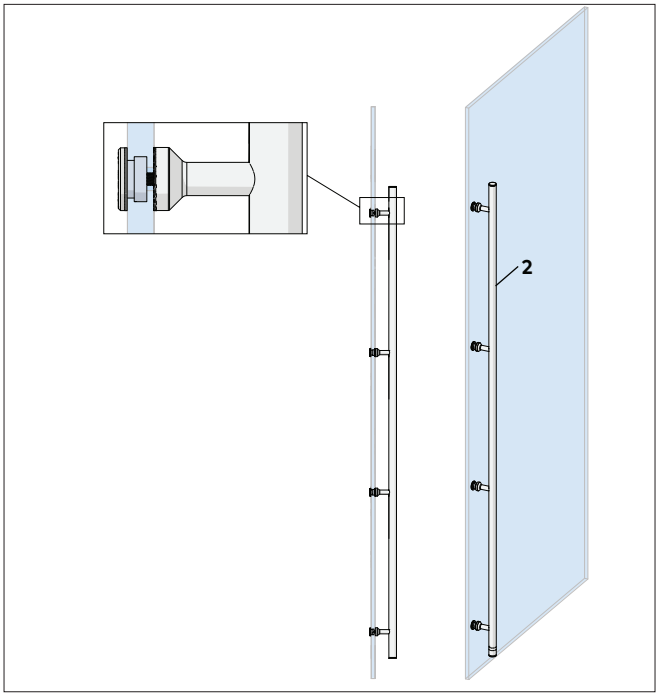
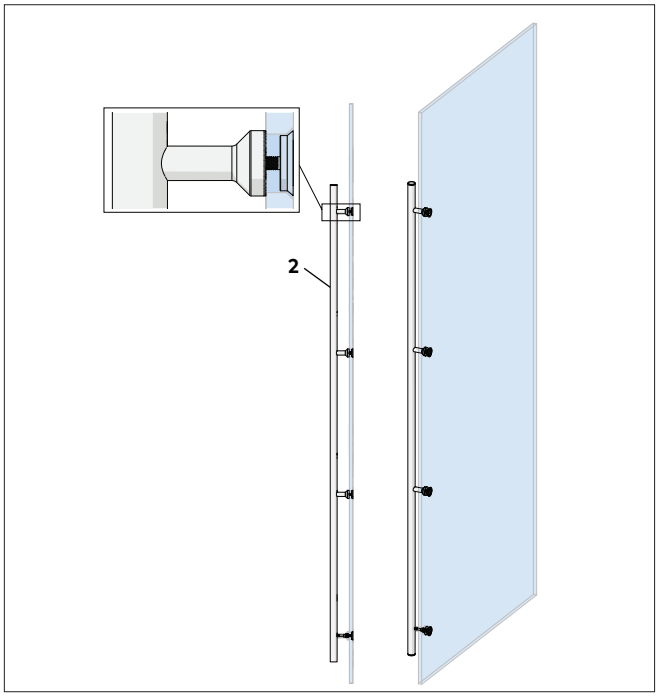


Fig. 2.2.2 GL CS countersunk ladder pull



2.3 MANET back-to-back pull handle assemblies

Table 2.3.1 MANET back-to-back pull handle hardware

	Description	13-3/4"	28-3/8"	48-13/16"	69-5/16"
1	MANET B2B GL pull handle, internal	279-205	279-206	279-207	279-208
2	MANET B2B GL pull handle, external	279-210	279-211	279-212	279-213
3	Anchor, threaded, M6 MANET	979-029			
4	Bushing, plastic, 5/8 - 3/4 GL	979-031			
5	Rod, threaded M6-1.0 x 1-3/4"	970-032			
6	Threaded Insert, 1/2-20 UNF, M6 x 1.0 NLLP	979-010			
7	Socket head cap screw, 1/4-20 x 1-5/8"	Factory assembled in standoffs	900-203		
8	Gasket, 1-3/16" OD		979-207		
9	Setscrew, 1/4-20 x 3/8"		900-202		

Fig. 2.3.1 MANET back to back pull handle hardware

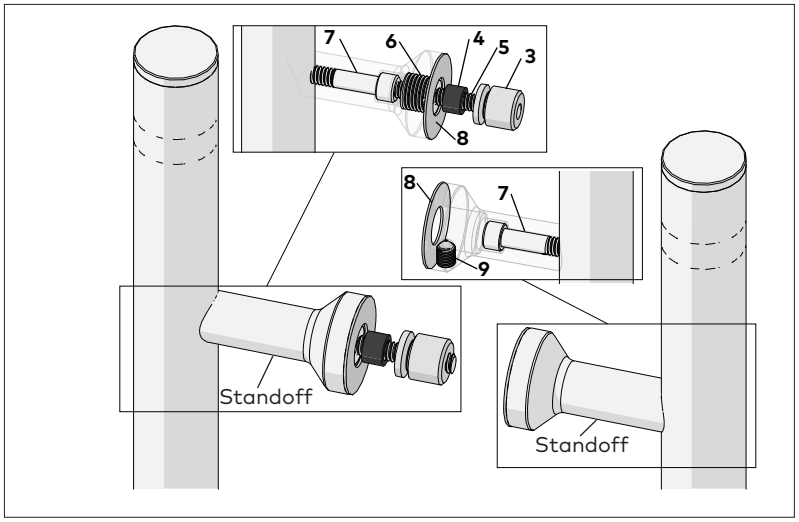


Fig. 2.3.2 13-3/4"

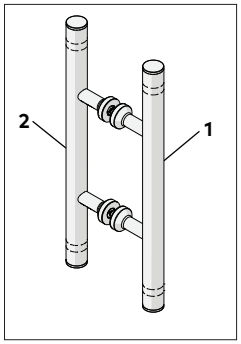


Fig. 2.3.3 28-3/8"

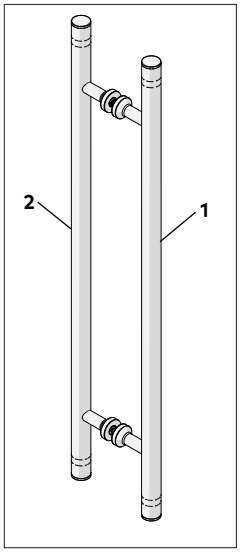


Fig. 2.3.4 48-13/16"

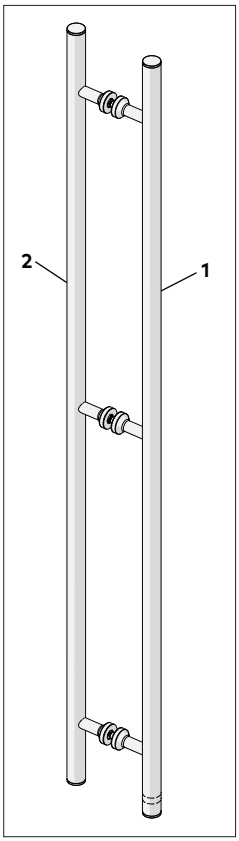
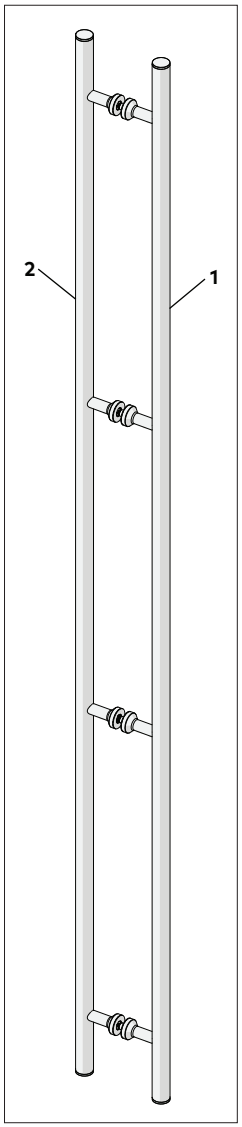


Fig. 2.3.4 69-5/16"



2.4 MANET single GL clamping disk pull handle assemblies

Table 2.4.1 MANET GL clamping disk assembly, 5/16" - 1/2" glass

2	Washer, Composite, Grey, 30 mm OD x 20.5 mm ID x 1 mm
3	Spacer, MANET, plastic, black, 21.5 mm OD x 18.5 mm ID x 6 mm
4	Clamping Disk, MANET
5	Socket head cap screw, M6-1.0
6	O-ring, clamping disk,MANET
7	Cover, clamping disk, MANET

Fig. 2.4.1 MANET GL clamping disk

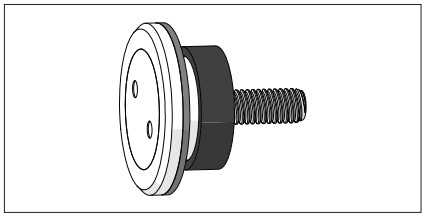


Fig. 2.4.2 MANET GL clamping disk assembly 5/16" - 1/2" glass hardware

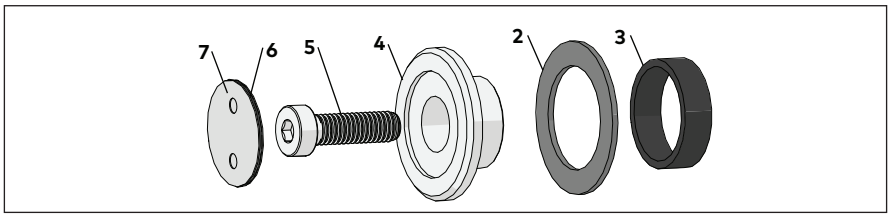


Table 2.4.2 MANET single GL clamping disk pull handle hardware

	Description	13-3/4"	28-3/8"	48-13/16"	69-5/16"
1	MANET B2B GL pull handle, EXT/INT	279-210	279-211	279-212	279-213
2	MANET clamping disk assembly, 5/16" - 1/2" glass	Factory assembled in standoff		821-288	
3	Threaded Insert, 1/2-20 UNF, M6 x 1.0 NLLP			979-010	
4	Socket head cap screw, 1/4-20 x 1-5/8"			900-203	
5	Gasket, 1-3/16" OD			979-207	

Fig. 2.4.3 13-3/4"

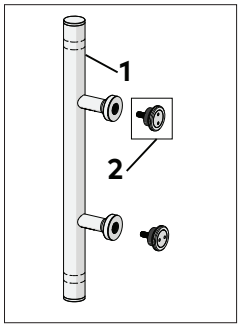


Fig. 2.4.4 28-3/8"

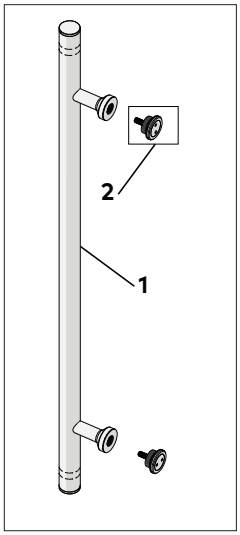


Fig. 2.4.5 48-13/16"

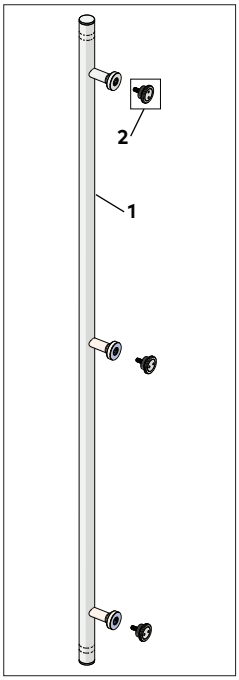


Fig. 2.4.6 69-5/16"

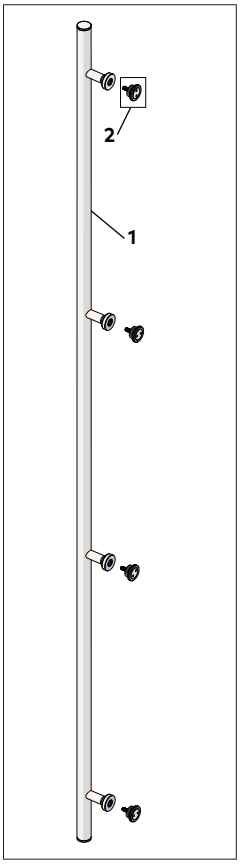
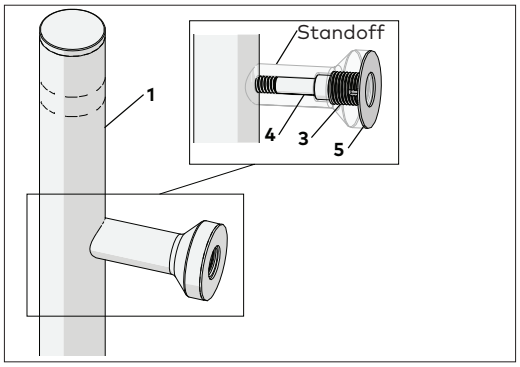


Fig. 2.4.7 MANET GL single pull handle hardware



2.5 MANET single GL CS countersunk disk pull handle assemblies

Table 2.5.1 MANET GL CS countersunk assembly, 5/16" - 1/2" glass

3	Gasket, MANET, countersunk, plastic, black
4	Countersunk disk, MANET
5	Socket head cap screw, low head, M6-1.0 x 20 mm
6	O-ring, countersunk disk,MANET
7	Cover, countersunk disk, MANET

Fig. 2.5.1 MANET GL CS assembly

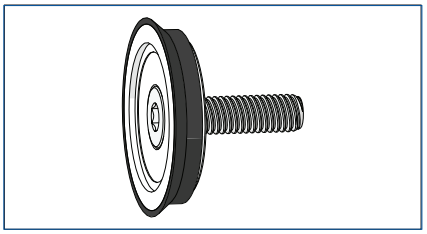


Fig. 2.5.2 MANET GL CS countersunk assembly 5/16" - 1/2" glass hardware

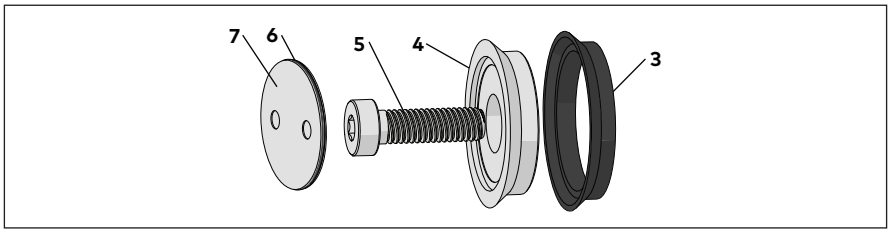


Table 2.5.2 MANET single GL CS countersunk disk pull handle hardware

	Description	13-3/4"	28-3/8"	48-13/16"	69-5/16"
1	MANET B2B GL pull handle, EXT/INT	279-210	279-211	279-212	279-213
2	MANET countersunk assembly	821-287			
3	Threaded Insert, 1/2-20 UNF, M6 x 1.0 NLLP	979-010			
4	Socket head cap screw, 1/4-20 x 1-5/8"	Factory assembled in standoff	900-203		
5	Gasket, 1-3/16" OD	979-207			

Fig. 2.5.3 13-3/4"

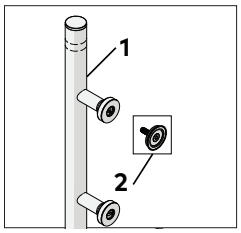


Fig. 2.5.4 28-3/8"

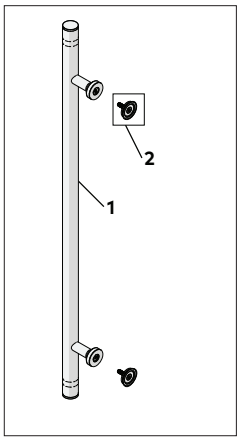


Fig. 2.5.5 48-13/16"

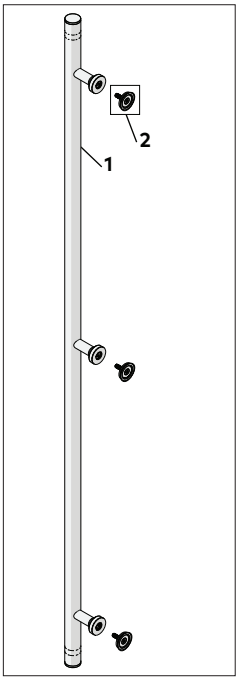


Fig. 2.5.6 69-5/16"

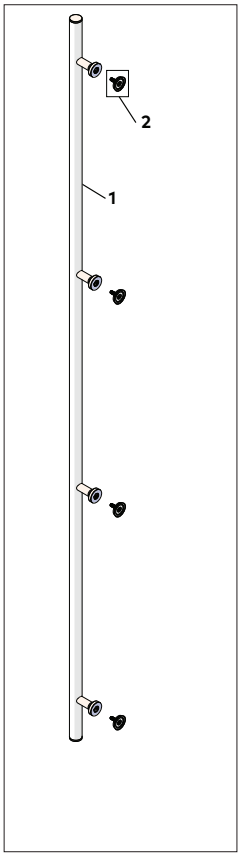
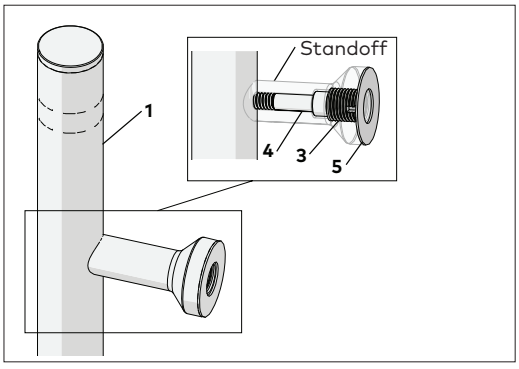


Fig. 2.5.7 MANET GL CS single pull handle hardware



3 Installation Instructions Glass Door – MANET back-to-back non-locking pulls

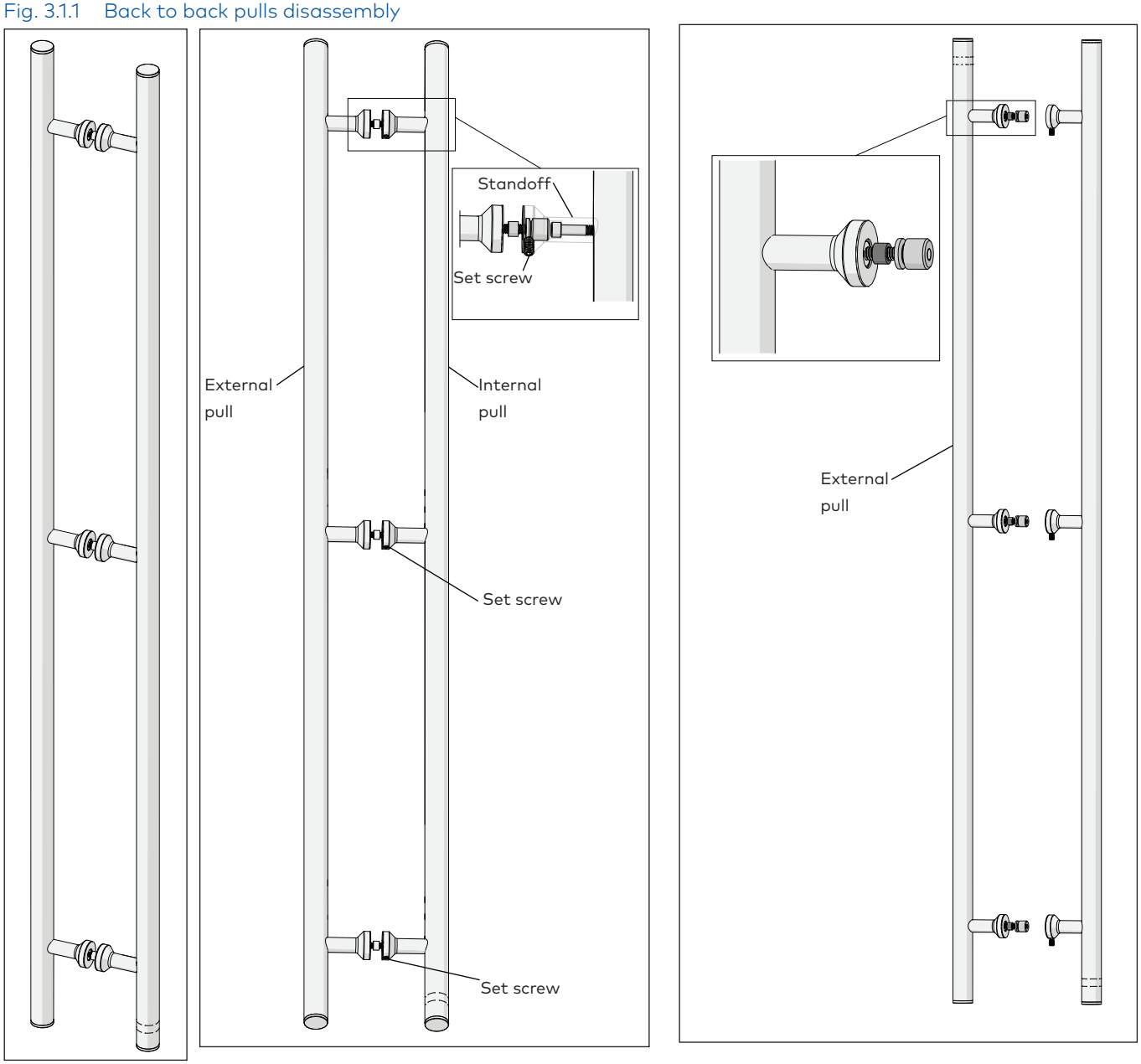
3.1 Disassemble pulls

NOTE: Pulls will come preassembled from factory with glass hardware for 5/16" [8] - 1/2" [12.7] glass.

3.1.1 Disassemble pulls on a flat surface.

1. Using a 1/8" hex key, loosen set screw in each internal pull standoff.
2. Pull external pull assembly away from internal pull assembly.

Fig. 3.1.1 Back to back pulls disassembly

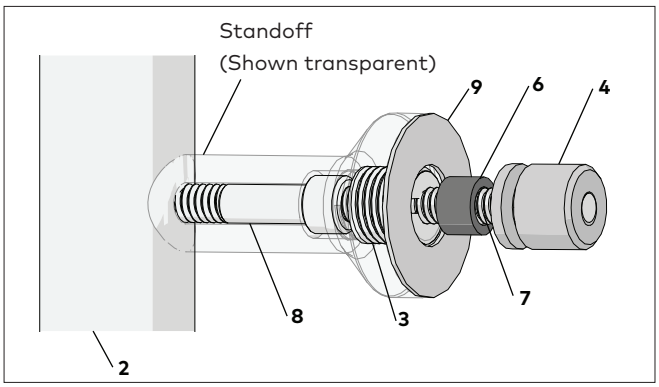


3.2 Pull assemblies for glass installation

Table 3.2.1 MANET back-to-back pull handle hardware

	Description	13-3/4"	28-3/8"	48-13/16"	69-5/16"
2	MANET B2B GL pull handle, external	279-210	279-211	279-212	279-213
3	Threaded Insert, 1/2-20 UNF, M6 x 1.0 NLLP	979-010			
4	Anchor, threaded, M6 MANET	979-029			
6	Bushing, plastic, 5/8 - 3/4 GL	979-031			
7	Rod, threaded M6-1.0 x 1-3/4"	970-032			
8	Socket head cap screw, 1/4-20 x 1-5/8"	900-203			
9	Gasket, 1-3/16" OD	979-207			

Fig. 3.2.1 Interior pull standoff and hardware



NOTICE

Threaded rods.
Rod, threaded M6-1.0 x 1-3/4":
for 5/16" [8] - 1/2" [12.7] glass

NOTICE

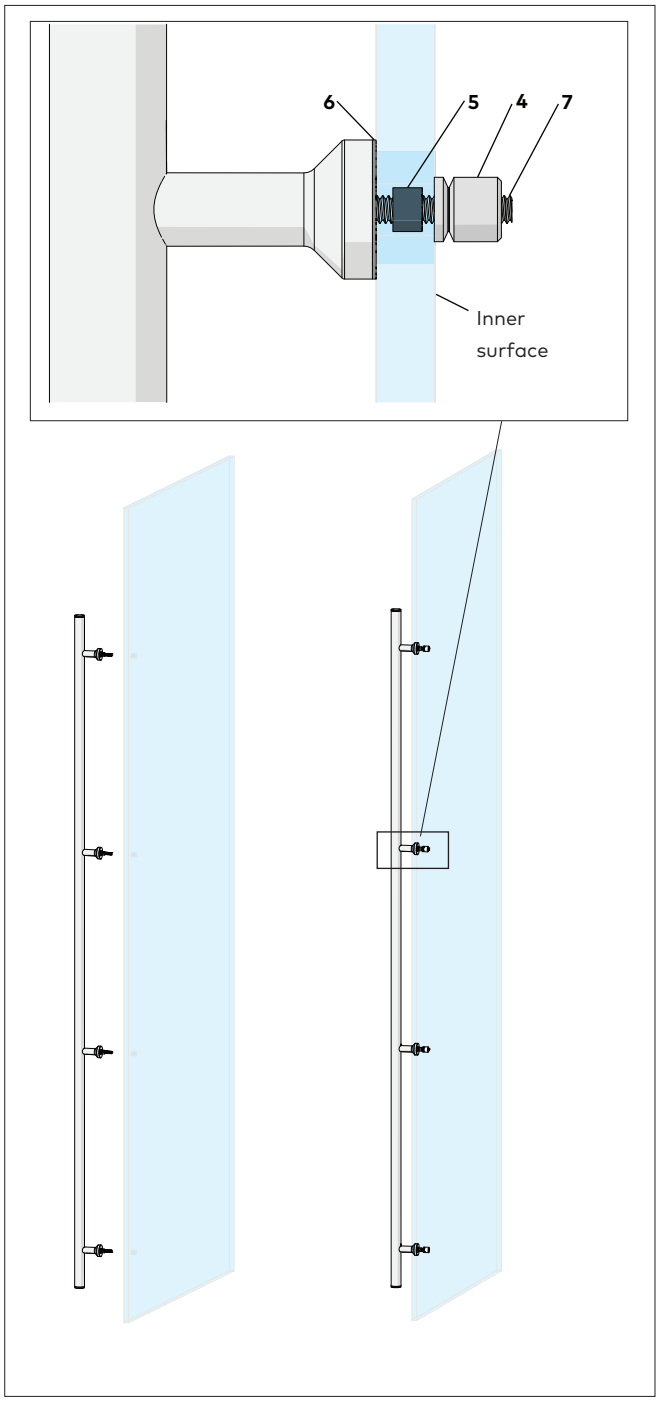
Pull hardware (Fig. 3.2.1) is factory assembled to the external pull handle.

3.3 Assemble external pull assembly to glass

Table 3.3.1 External pull hardware

3	Threaded Insert, 1/2-20 UNF, M6 x 1.0 NLLP
4	Anchor, threaded, M6-1.0 x 12.5 mm
5	Bushing, plastic, TG 138 5/8 - 3/4 GL
6	Gasket, 1-3/16" OD Permanently affixed to standoff at factory
7	Rod, threaded M6-1.0 x 1-3/4"
8	1/4-20 x 1-5/8" socket head cap screw

Fig. 3.3.1 Exterior pull standoff against glass



CAUTION

Use caution when handling glass.

CAUTION

Back to back ladder pull installation.
It is recommended that two installers assemble back to back ladder pulls to glass.

3.3.1 Place external pull assembly against glass.

1. Align external pull standoffs with holes in glass and insert threaded rods with anchors into holes in glass.
2. Move external pull assembly toward glass until standoff gaskets are flush with glass surface.

3.3.2 Align threaded anchors with glass surface.

1. Rotate each threaded anchor (4) until its inner surface is approximately flush with the glass surface (Fig. 3.3.1).

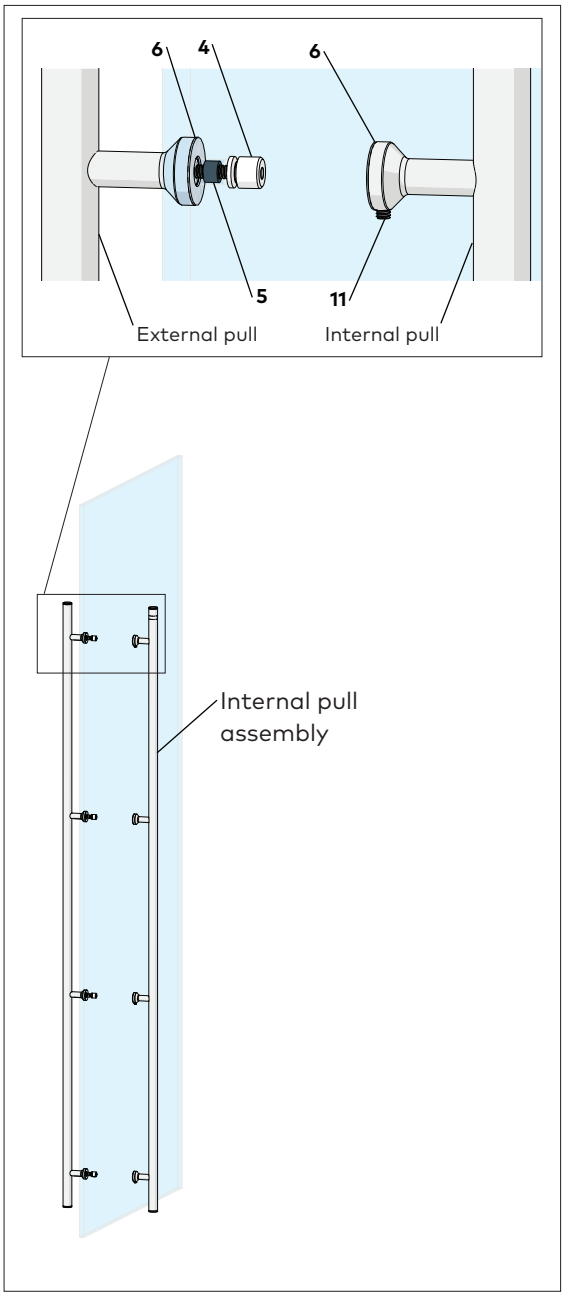
- This threaded anchor location will ensure that the setscrews in the interior pull handle standoffs are properly aligned with the threaded anchors (Para. 3.4).

3.4 Assemble internal pull assembly to glass

Table 3.4.1 External pull hardware

4	Anchor, threaded, M6-1.0 x 12.5 mm
5	Bushing, plastic, TG 138 5/8 - 3/4 GL
6	Gasket, 1-3/16" OD Permanently affixed to standoff at factory
11	1/4-20 x 3/8" setscrew, cone point, interior pull

Fig. 3.4.1 Internal pull in installation position



CAUTION

Use caution when handling glass.

3.4.1 Install internal pull assembly against glass.

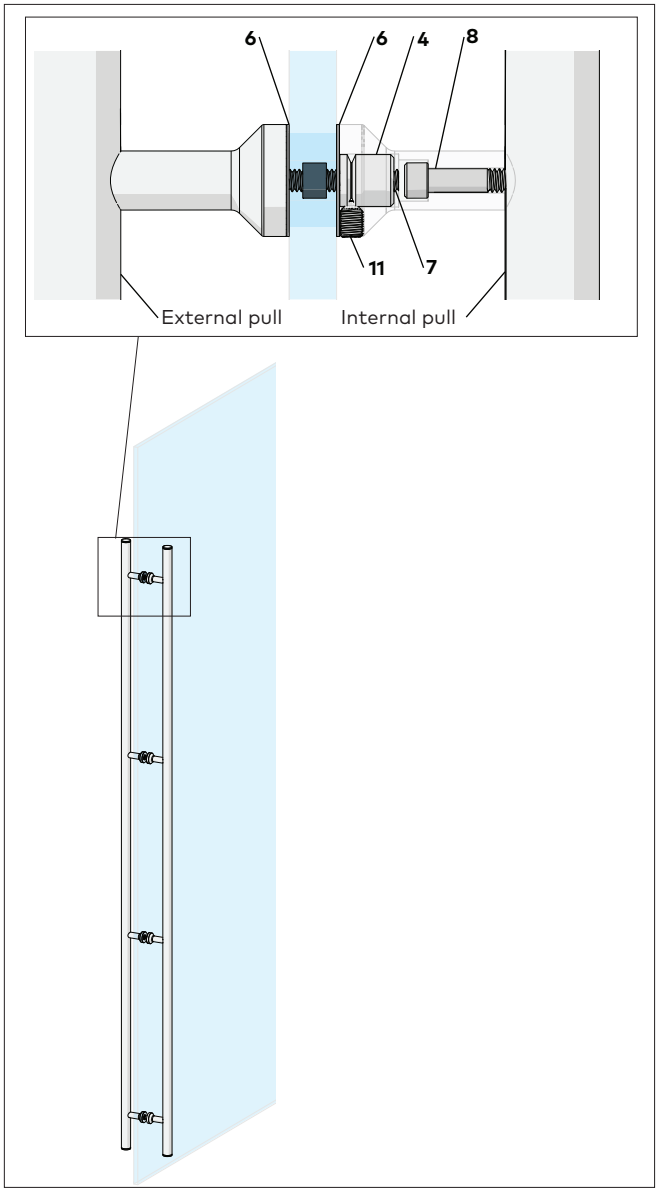
1. Align internal pull standoff gaskets (6) with external pull threaded anchors (4).
2. Move internal pull assembly toward glass until standoff gaskets are flush with glass surface.

3.4.2 Tighten set screw in each standoff.

1. Using 1/8" hex key, tighten set screws against threaded anchors.

- **Note that threaded anchor (4) must be positioned on threaded rod so that setscrew cone contacts tapered part of threaded anchor** (Fig. 3.4.2).

Fig. 3.4.2 Internal pull installed against glass



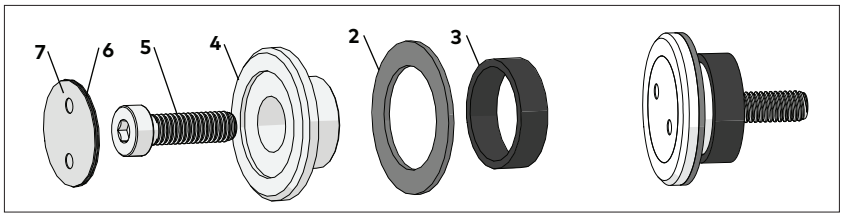
4 Installation Instructions Glass Door – MANET single GL clamp disk non-locking pull

4.1 Assemble MANET CL clamp disk

Table 4.1.1 MANET GL CS countersunk assembly, 5/16" - 1/2" glass

2	Washer, Composite, Grey, 30 mm OD x 20.5 mm ID x 1 mm
3	Spacer, MANET, plastic, black, 21.5 mm OD x 18.5 mm ID x 1 mm
4	Clamping disk, MANET
5	Socket head cap screw, 1/4-20 x 1-5/8"
6	O-ring, clamping disk, MANET
7	Cover, clamping disk, MANET

Fig. 4.1.1 MANET GL clamp disk hardware



4.1.1 Assemble MANET GL clamp disk hardware.

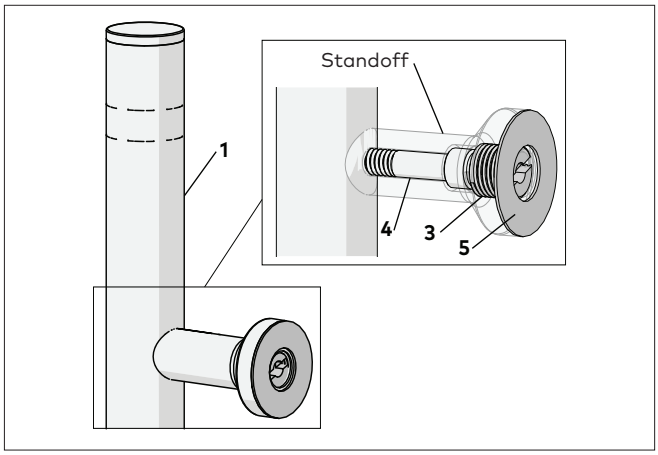
1. Assemble GL clamp disk hardware as shown in Fig. 4.1.1.
2. Repeat for each GL clamp disk assembly.

4.2 Pull assembly for glass installation

Table 4.2.1 MANET single GL clamping disk pull handle hardware

	Description	13-3/4"	28-3/8"	48-13/16"	69-5/16"
1	MANET B2B GL pull handle, EXT/INT	279-210	279-211	279-212	279-213
3	Threaded Insert, 1/2-20 UNF, M6 x 1.0 NLLP	Factory assembled	979-010		
4	Socket head cap screw, 1/4-20 x 1-5/8"		900-203		
5	Gasket, 1-3/16" OD		979-207		

Fig. 4.2.1 Ext/Int pull standoff and hardware



NOTICE

Pull hardware (Fig. 4.2.1) is factory assembled to the ext/int pull handle standoffs.

4.3 Assemble pull assembly to glass

Table 4.3.1 MANET single GL clamping disk pull handle hardware

	Description		13-3/4"	28-3/8"	48-13/16"	69-5/16"
1	MANET B2B GL pull handle, EXT/INT		279-210	279-211	279-212	279-213
2	Socket head cap screw, 1/4-20 x 1-5/8"	Factory assembled	900-203			
3	Threaded Insert, 1/2-20 UNF, M6 x 1.0 NLLP		979-010			
4	Gasket, 1-3/16" OD Permanently affixed to standoff at factory.		979-207			

Fig. 4.3.1 External pull with MANET GL clamp disks

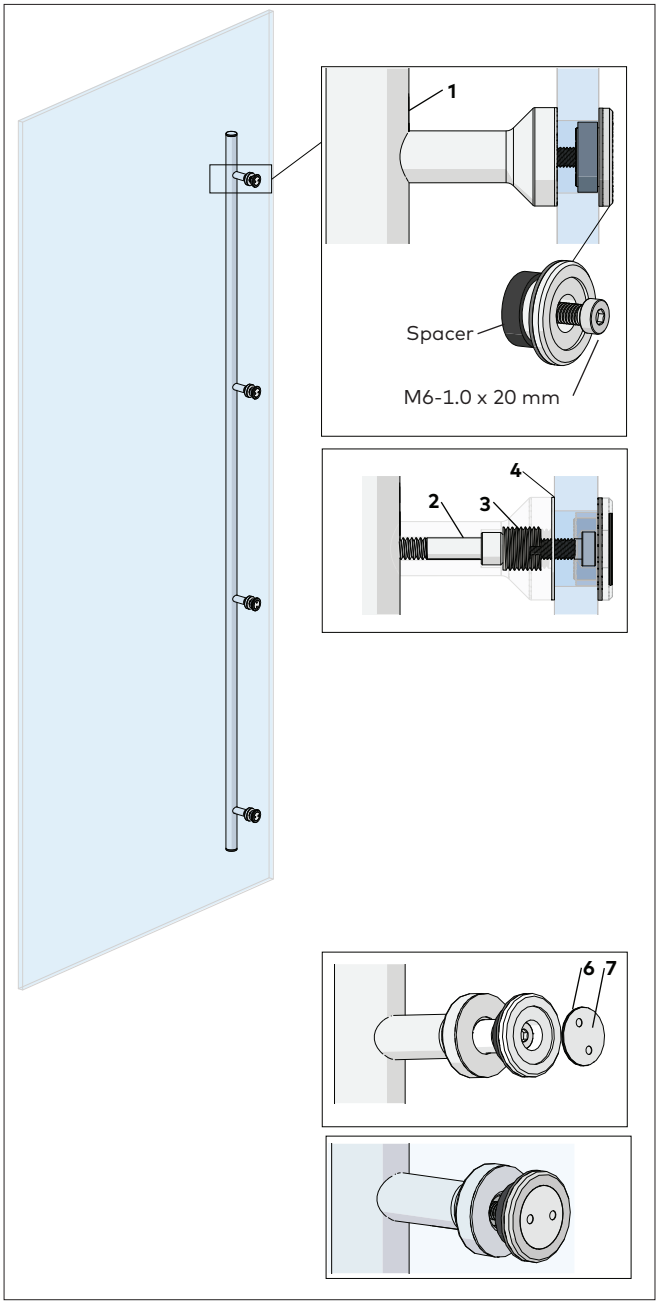


Table 4.3.2 MANET clamping disk cover and O-ring

6	O-ring, clamping disk, MANET
7	Cover, clamping disk, MANET

CAUTION

Use caution when handling glass.

4.3.1 Install ext/int pull assembly against glass.

1. Place ext/int pull assembly against glass.
2. Align pull standoffs with glass mounting holes.

4.3.2 Install MANET CL clamping disk assemblies.

1. Press first clamp disk assembly with spacer into glass mounting hole.
2. Using a 5 mm hex key, thread low head, M6-10 x 20 mm SHCS through MANET GL clamping disk into standoff threaded insert (3) and tighten.
3. Repeat steps for each MANET GL clamping disk.

4.3.3 Install MANET GL clamping disk covers.

1. Press cover into MANET clamping disk.
2. Repeat for each MANET clamping disk.

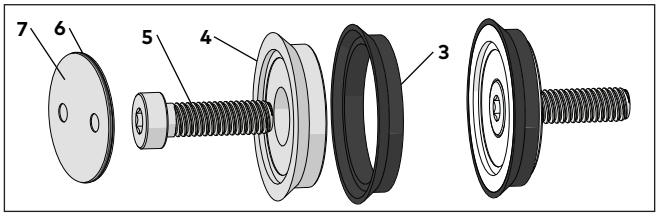
5 Installation Instructions Glass Door – MANET single GL CS countersunk disk non-locking pull

5.1 Assemble MANET CL CS countersunk disk

Table 5.1.1 MANET GL CS countersunk assembly, 5/16" - 1/2" glass

3	Gasket, MANET, countersunk, plastic, black
4	Countersunk disk, MANET
5	Socket head cap screw, 1/4-20 x 1-5/8"
6	O-ring, countersunk disk, MANET
7	Cover, countersunk disk, MANET

Fig. 5.1.1 MANET GL CS countersunk assembly 5/16" - 1/2" glass hardware



5.1.1 Assemble MANET GL CS countersunk disk hardware.

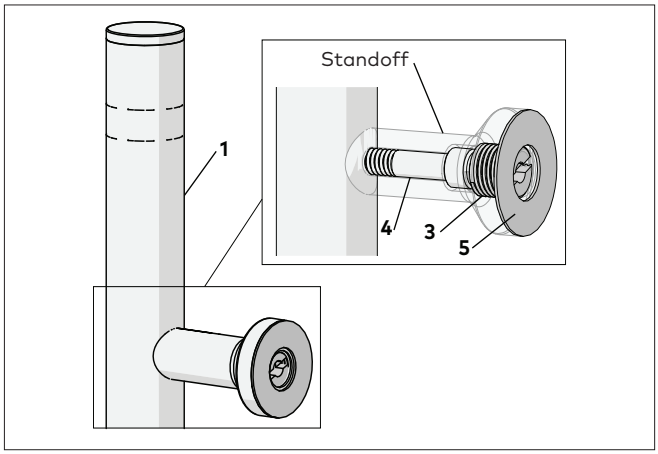
1. Assemble GL CS countersunk disk hardware as shown in Fig. 5.1.1.
2. Repeat for each GL CS countersunk disk assembly.

5.2 Pull assembly for glass installation

Table 5.2.1 MANET single GL CS countersunk disk pull handle hardware

	Description		13-3/4"	28-3/8"	48-13/16"	69-5/16"
1	MANET B2B GL pull handle, EXT/INT		279-210	279-211	279-212	279-213
3	Threaded Insert, 1/2-20 UNF, M6 x 1.0 NLLP	Factory assembled	979-010			
4	Socket head cap screw, M6-1.0 x 20 mm		900-203			
5	Gasket, 1-3/16" OD		979-207			

Fig. 5.2.1 Exterior pull standoff and hardware



NOTICE

Pull hardware (Fig. 5.2.1) is factory assembled to the ext/int pull handle standoffs.

5.3 Assemble pull assembly to glass

Table 5.3.1 MANET single GL CS countersunk disk pull handle hardware

	Description		13-3/4"	28-3/8"	48-13/16"	69-5/16"
1	MANET B2B GL pull handle, EXT/INT		279-210	279-211	279-212	279-213
2	Socket head cap screw, 1/4-20 x 1 5/8"	Factory assembled	900-203			
3	Threaded Insert, 1/2-20 UNF, M6 x 1.0 NLLP		979-010			
4	Gasket, 1-3/16" OD Permanently affixed to standoff at factory.		979-207			

Fig. 5.3.1 External pull with MANET GL CS countersunk disks

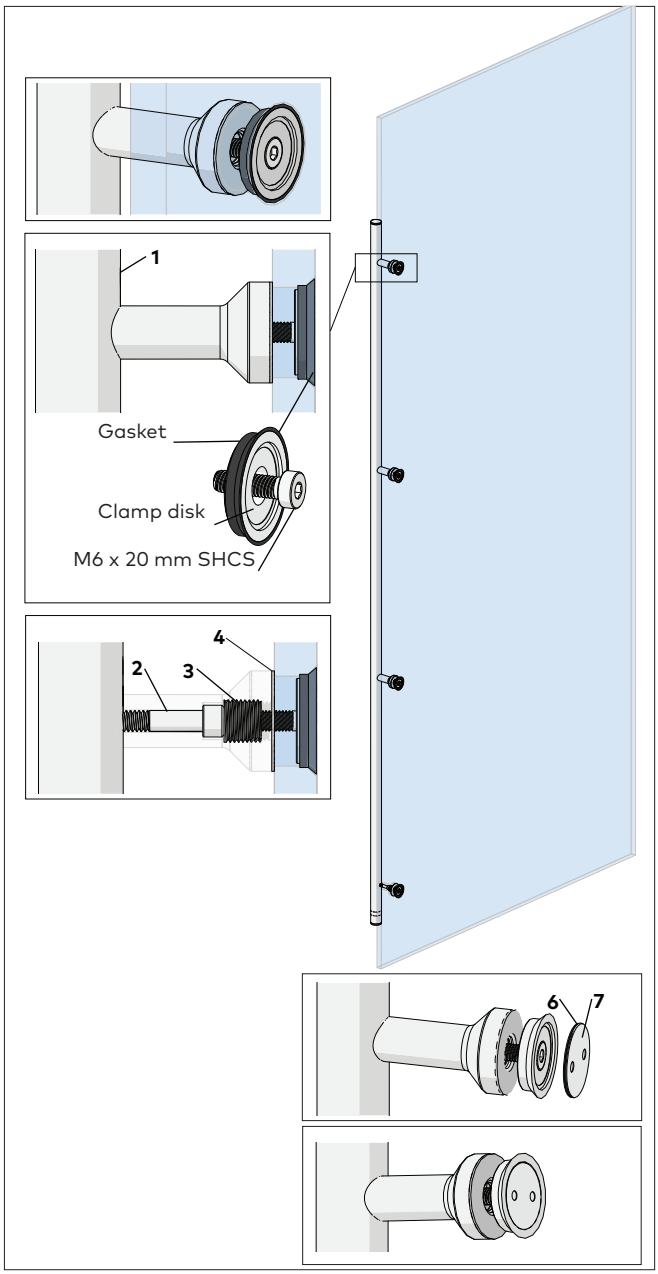


Table 5.3.2 MANET countersunk disk cover and O-ring

6	O-ring, countersunk disk, MANET
7	Cover, countersunk disk, MANET

CAUTION

Use caution when handling glass.

5.3.1 Install external pull assembly against glass.

1. Place ext/int pull assembly against glass.
2. Align pull standoffs with glass mounting holes.

5.3.2 Install MANET CL CS countersunk disk assemblies.

1. Press first countersunk disk assembly with gasket into glass mounting hole.
2. Using a 5 mm hex key, thread low head, M6 x 20 mm SHCS through MANET GL CS countersunk disk into standoff threaded insert (3) and tighten.
3. Repeat steps for each MANET GL CS countersunk disk.

5.3.3 Install MANET GL CS countersunk disk covers.

1. Press cover into MANET countersunk disk.
2. Repeat for each MANET countersunk disk.

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