DORMA

DORMA
INTERIOR

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DORMA PURE® FAMELESS PIVOTING
Glass Wall Systems

Installation instructions
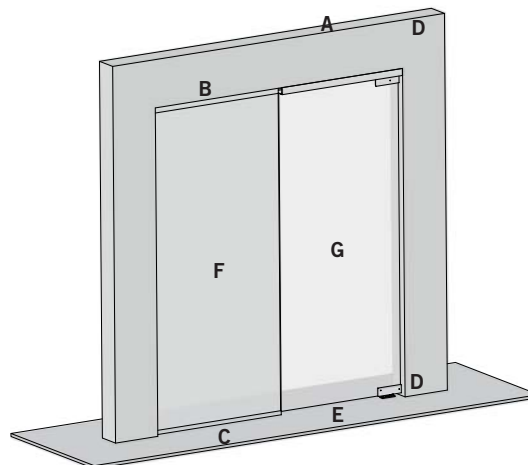For Framless Pivoting Door Systems

TABLE OF CONTENTS
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Overall view

PURE Pivot

A. Concealed overhead closer/top pivot

B. Sidelite top U-channel (1x1-3/4")

C. Sidelite bottom U-channel (1x1")

D. Patch fittings

E. Concealed floor closer/bottom pivot

F. Sidelite glass panel (FP - Fixed panel)

G. Pivot door panel

DORMA PURE® FRAMELESS PIVOTING

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Technical specifications

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

(Follow these instructions in addition to the mounting and operating instructions in order to avoid damage of product and damage to person or property.)

Important: This document is intended to inform users of safety-related information and the mounting and operation instructions.

General information

1. DORMA requires use of tempered laminate or monolithic glass.
2. DORMA 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.
3. Never move sliding panels faster than walking speed and always stop the door manually before it reaches end position.
4. Do not swing doors with excessive force. Install limiting stop to prevent door from opening too far.

Mounting

1. Only properly qualified and specially trained staff is authorized to mount DORMA glass hardware.
2. Never use glass with conchoidal fractures and/or damaged edges.
3. Due to crushing hazards and possible injury caused by breakage of glass during mounting, corresponding protective clothing (especially gloves and protective goggles) is required.

4. Clean clamping area with alcohol-based standard commercial cleaning agent before mounting the glass hardware.
5. Never clamp metal glass fitting hardware directly to glass surface.
6. Never use clamping roller carriers on self-cleaning coatings.
7. 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.
8. Do not use excessive force when installing the glass (avoid over tightening screws).

Maintenance

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). Immediately replace damaged glass elements (no glass flaking and/or conchoidal fractures)! Only use suitable cleaning and care products to clean the surfaces.

DORMA PURE® FRAMELESS PIVOTING

OPTION 1 - PURE Pivot System (with/without sidelite):
Concealed Overhead Closer (RTS88) and Floor Pivot (355.6)

Install concealed overhead closer (RTS88)
(consult DORMA for other options)
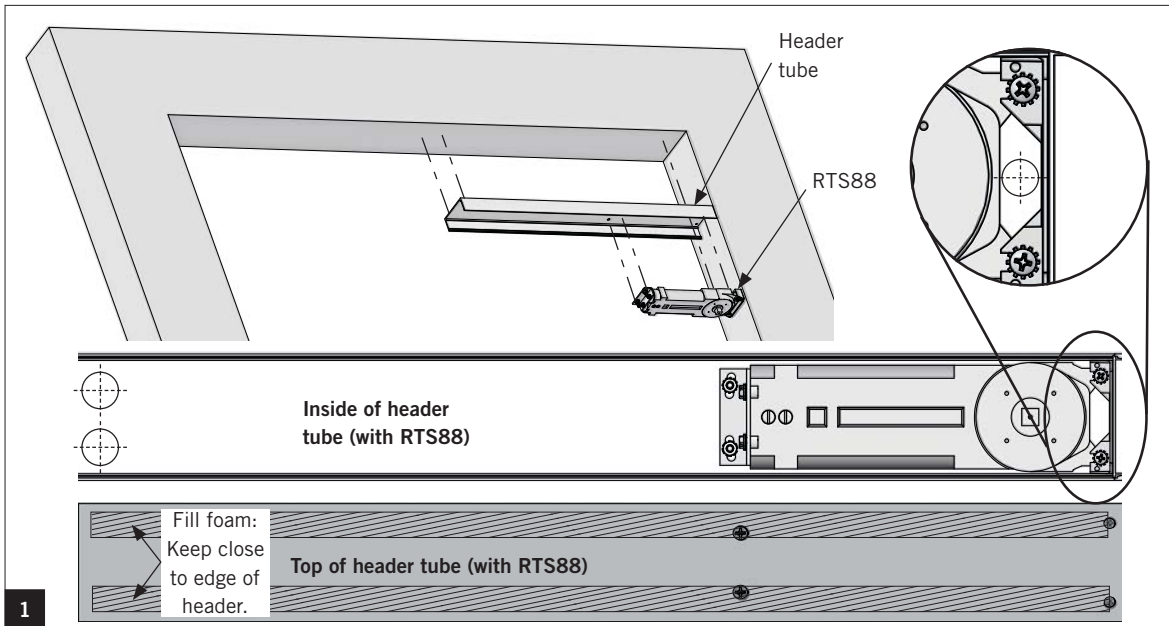
1.1 Remove cover and closer from RTS header tube and pre-drill holes for installation. See image for hole locations.

1.2 Apply fill foam if necessary.

1.3 Secure header using appropriate fasteners.

NOTE: Always ensure the proper fastener and adequate number of fixing points for your specific field conditions.

1.4 Secure closer inside header tube using included fasteners.

NOTE: Ensure closer is plumb and level.

NOTE: Secure mounting screws to header prior to securing it to overhead structure.

Install U-channel for sidelite glass (for sidelite option only)
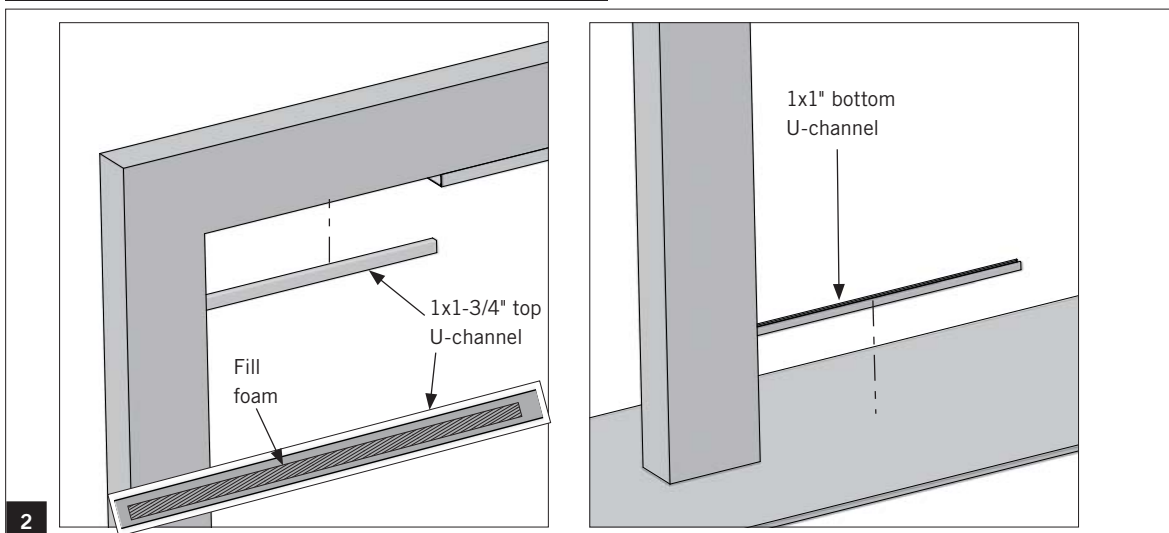
2.1 **If using tempered laminated glass:** remove one gasket.

2.2 Pre-drill u-channel if necessary.

2.3 Insert setting blocks into bottom U-channel.

2.4 Apply fill foam to top U-channel if necessary.

2.5 Properly secure U-channel to floor/ceiling mounting surfaces dependent upon application.

- Top: use 1x1-¾" U-channel
- Bottom: use 1x1" U-channel

DORMA PURE® FRAMELESS PIVOTING

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OPTION 1 - Concealed overhead closer & floor pivot

Install sidelite glass panel (for sidelite option only)
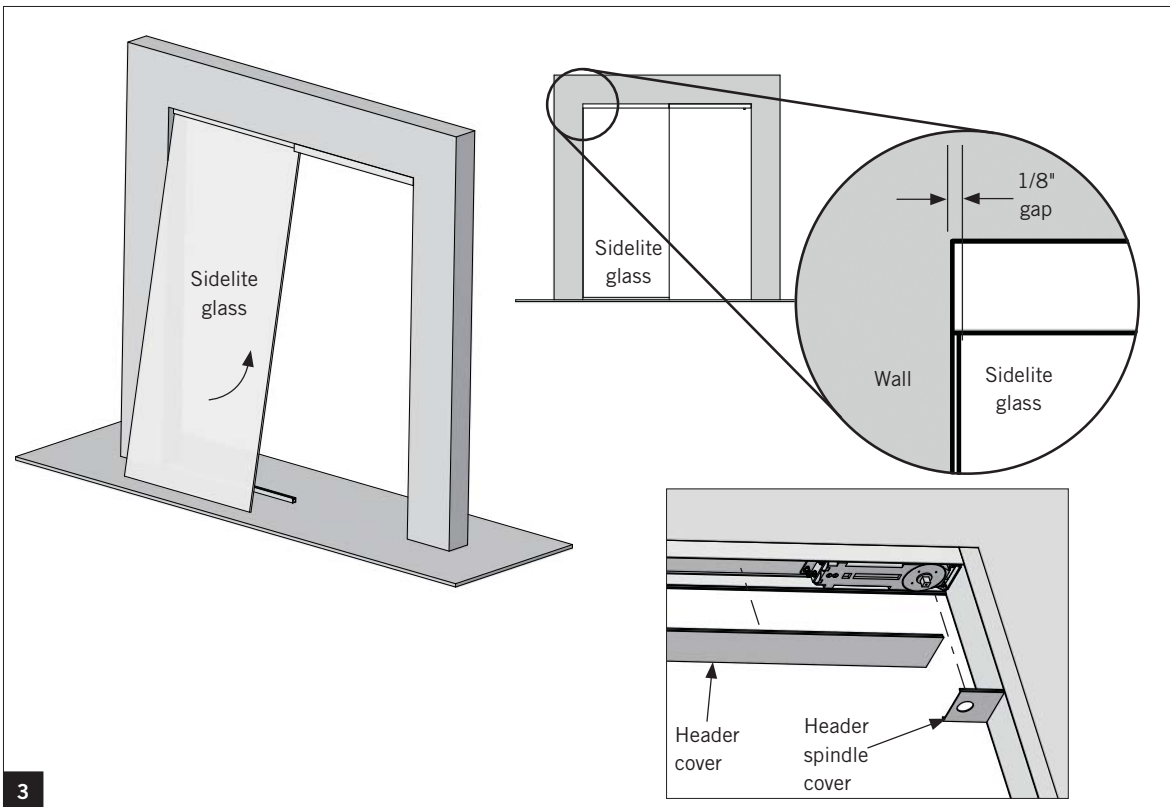
3.1 Spray inside of each u-channel with glass cleaner for ease of setting in glass panel.

3.2 Place shims inside u-channel.

3.3 Lift glass up and into u-channel.

NOTE: Ensure glass does not contact inside of channel.

3.4 Lower glass into bottom channel onto shims.

3.5 Ensure there is 1/8" [3mm] gap between wall and edge of sidelite glass.

3.6 **If using tempered laminated glass**, gently press glass panel against gasket and dispense silicone along full length of non-gasket side of U-channel.

3.7 Snap on header and spindle covers.

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Subject to change without notice

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DORMA PURE® FRAMELESS PIVOTING

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OPTION 1 - Concealed overhead closer & floor pivot

Install top (PT22) and bottom patch fittings (PT10)
(consult DORMA for other options)
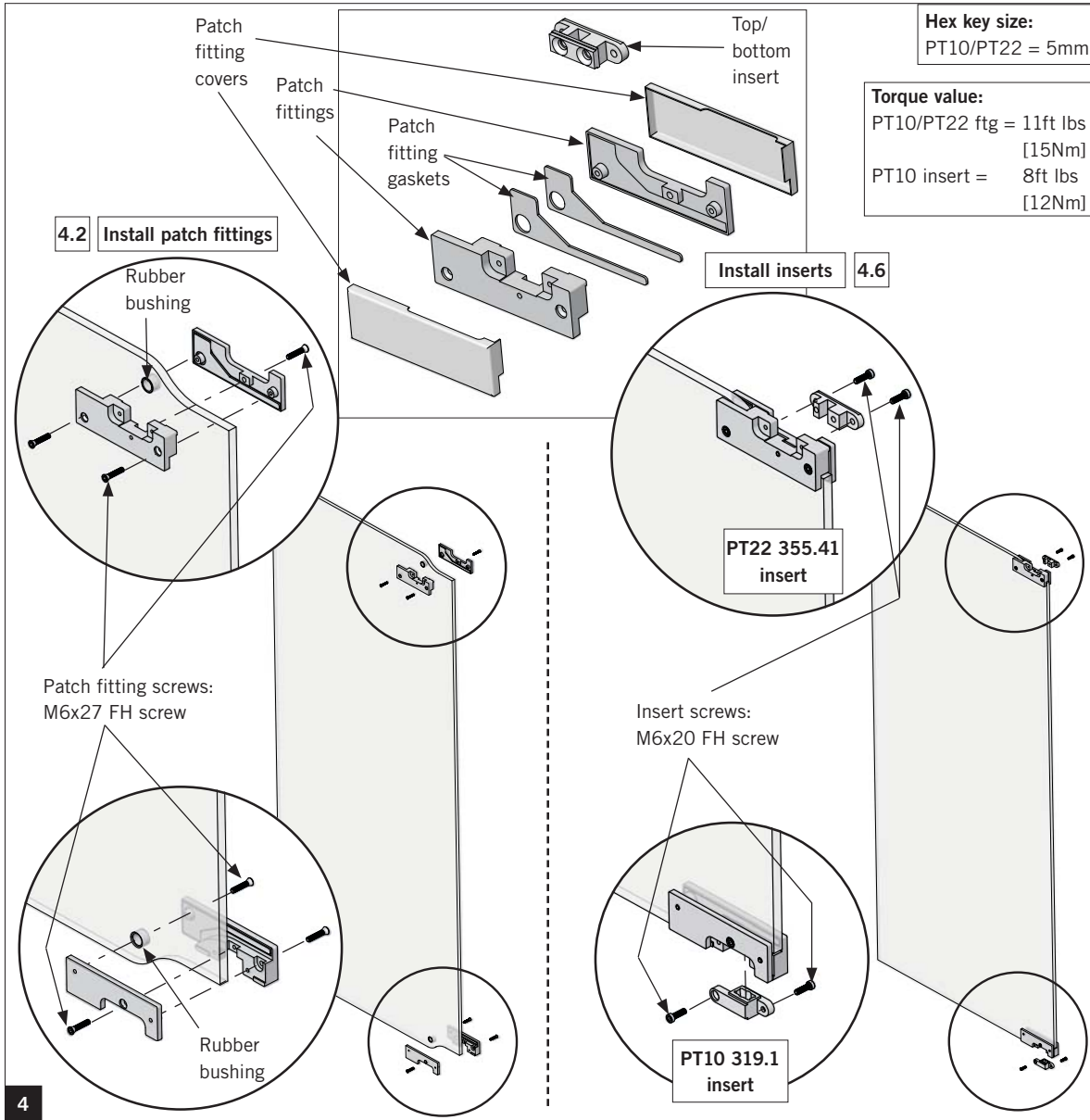
Patch fitting covers

Patch fittings

Patch fitting gaskets

Top/bottom insert

Hex key size:
PT10/PT22 = 5mm

Torque value:
PT10/PT22 ftg = 11ft lbs [15Nm]
PT10 insert = 8ft lbs [12Nm]

4.2 | **Install patch fittings**

Rubber bushing

Install inserts | **4.6**

PT22 355.41 insert

Patch fitting screws:
M6x27 FH screw

Insert screws:
M6x20 FH screw

Rubber bushing

PT10 319.1 insert

4

NOTE: Ensure center line of pivot is in correct location dependent upon application.

4.1 Completely separate patch fitting parts.
▪ Throw away spacer blocks.
▪ Remove backing tape from gaskets.

4.2 Secure gasket to inside of each patch fitting.
4.3 Place rubber bushing inside hole cut-out in glass panel.

Secure patch fittings:
4.4 Properly align and level patch fitting on door.
4.5 Secure with included fasteners through glass.
▪ **PT10/PT22 fittings:** Use a 5mm hex key and 11 ft lbs (15Nm) of force.

Secure patch fitting inserts:
4.6 Install inserts into patch fittings.
4.7 Secure insert with included fasteners, alternating while tightening.
▪ **PT22 insert**: Use a 5 mm hex key and 11 ft lbs (15Nm) of force. **DO NOT ATTACH BACKER PLATE YET.**
▪ **PT10 insert**: Use a 5 mm hex key and 8 ft lbs (12Nm) of force.

OPTION 1 - Concealed overhead closer & floor pivot

Install floor pivot (355.6)
(consult DORMA for other options)
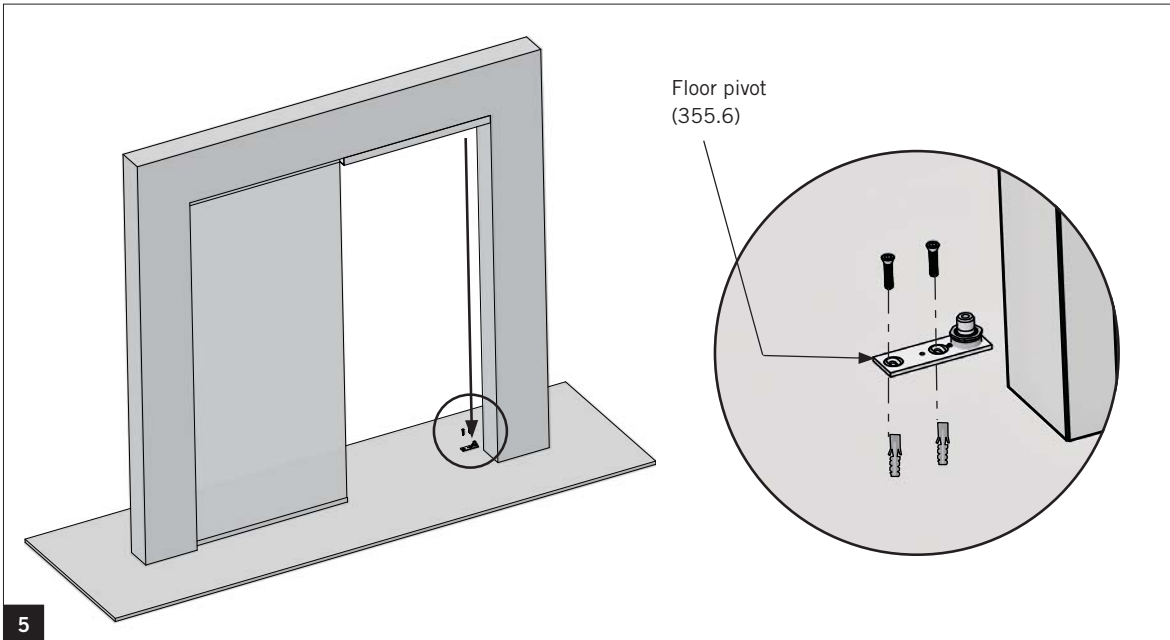
Floor pivot
(355.6)

5.1 Using a plumb bob or laser plumb, align the RTS spindle with the location of the floor pivot.

5.2 Bore a 1" [25mm] diameter hole 3/8" [10mm] deep.

5.3 Secure floor pivot to mounting surface using appropriate fasteners.

DORMA PURE® FRAMELESS PIVOTING
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OPTION 1 - Concealed overhead closer & floor pivot

Install glass door panel

Backer plate screws:
M8x27 FH screw

RTS88 Spindle RTS88 closer valves

PT22 355.41 insert backer plate

Floor pivot (355.6)

Floor pivot set screw

Top/Bottom patch fitting covers

Tools needed:
355.6 pivot = 15/16" wrench
355.6 pivot = 2mm hex key
Backer plate = 6mm hex key

Torque value:
PT22 backer plate =
15ft lbs [20Nm]

6

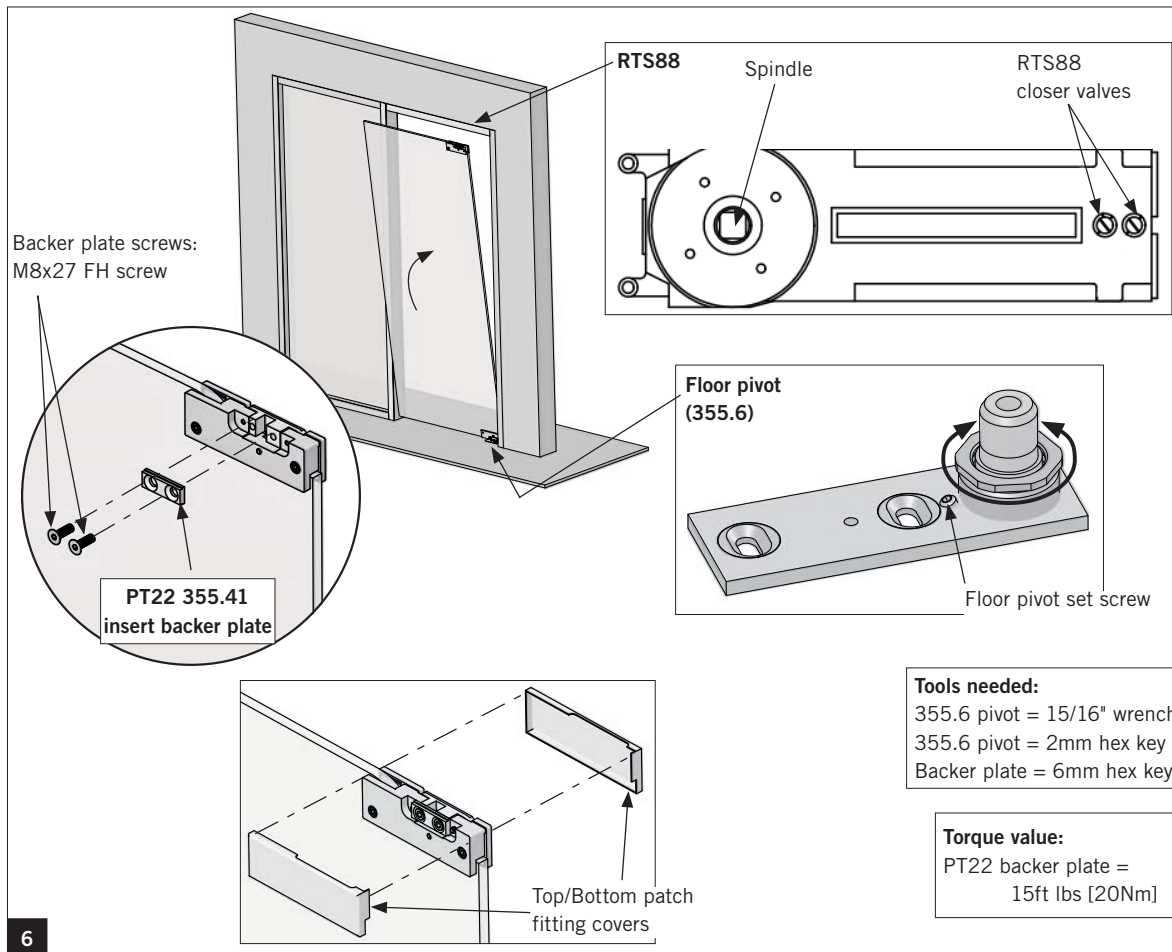**Install door onto 355.6 floor pivot:**

6.1 Place bottom patch fitting onto floor pivot spindle.

OPTION 1: Install door into concealed overhead closer (non-hold open):
(For ease of loading door.)

6.2 Close both valves on RTS88 closer.

6.3 Using a wrench, rotate spindle towards swing of the door (fully open) until it stops.

6.4 Tip glass up and onto header spindle.

NOTE: Ensure door is in proper orientation.

6.5 Secure PT22 (355.41) backer plate with provided fasteners, alternating while tightening.

▪ Use a 6mm hex key and 15 ft lbs [20Nm] force.

▪ Ensure backer plate is flush against spindle.

OPTION 2: Install door into concealed overhead closer (hold open):
(For ease of loading door.)

6.2 Close both valves on RTS88 closer.

6.3 Open door to preset hold open position.

6.4 Tip glass up and onto header spindle.

6.5 Secure PT22 insert (355.41) backer plate with provided fasteners, alternating while tightening.

▪ Use a 6mm hex key and 15 ft lbs [20Nm] force.

▪ Ensure backer plate is flush against spindle.

Adjust door height:

6.6 Adjust floor pivot spindle to adjust for door height.

▪ Spin adjustable floor pivot (355.6) spindle up or down until, using 15/16" wrench, until correct door height is met.

▪ Tighten set screw, using 2mm hex key, to secure spindle in position.
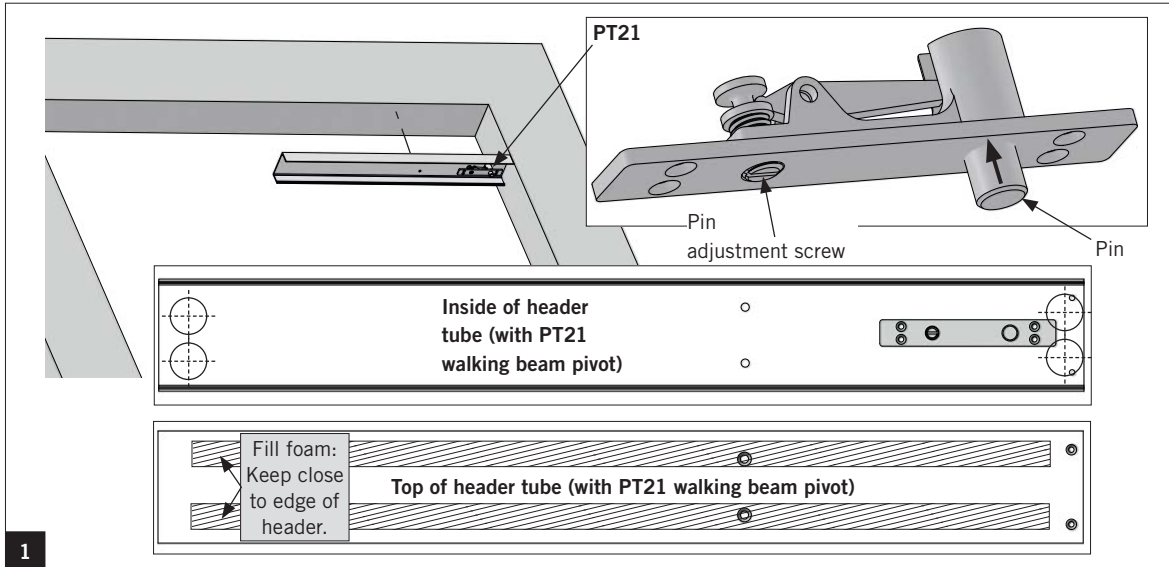
NOTE: Ensure set screw is fully engaged with spindle. If set screw is tightened properly, spindle should NOT rotate.

▪ Secure floor pivot cover with included fastener.

6.7 Snap covers onto both sides of patch fittings.

DORMA PURE® FRAMELESS PIVOTING
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Option 2: PURE Pivot System (with/without sidelite):
Top Pivot (PT21 Walking Beam Pivot) and Concealed Floor Closer (BTS75)

Install top pivot (PT21)
(consult DORMA for other options)

PT21

Pin
adjustment screw

Pin

Inside of header tube (with PT21 walking beam pivot)

Fill foam: Keep close to edge of header.
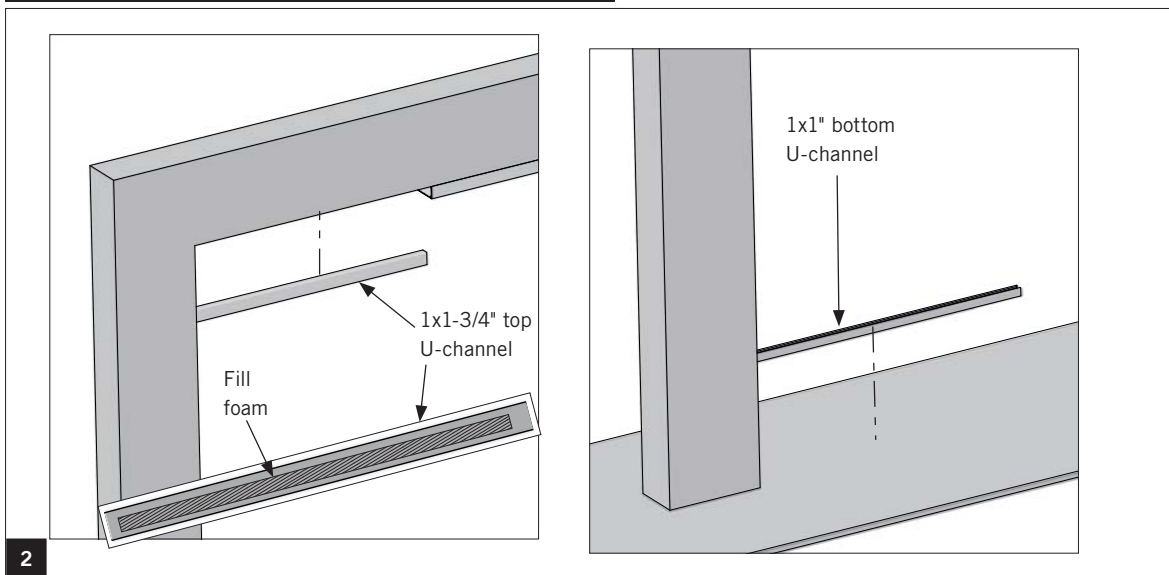
Top of header tube (with PT21 walking beam pivot)

1

1.1 Remove cover from header tube and pre-drill holes for installation. See image for hole locations.

1.2 Apply fill foam if necessary.

1.3 Secure header using appropriate fasteners.

NOTE: Always ensure the proper fastener and adequate number of fixing points for your specific field conditions.

1.4 Raise walking beam pivot pin up completely by rotating pin adjustment screw.

NOTE: Ensure closer is plumb and level.

Install U-channel for sidelite glass (for sidelite option only)

1x1-3/4" top U-channel

Fill foam

1x1" bottom U-channel

2

2.1 **If using tempered laminated glass:** remove one gasket.

2.2 Pre-drill u-channel if necessary.

2.3 Insert setting blocks into bottom U-channel.

2.4 Apply fill foam to top U-channel if necessary.

2.5 Properly secure U-channel to floor/ceiling mounting surfaces dependent upon application.

▪ Top: use 1x1-¾" U-channel

▪ Bottom: use 1x1" U-channel

DORMA PURE® FRAMELESS PIVOTING

OPTION 2 - Top pivot & concealed floor closer

Install sidelite glass panel (for sidelite option only)
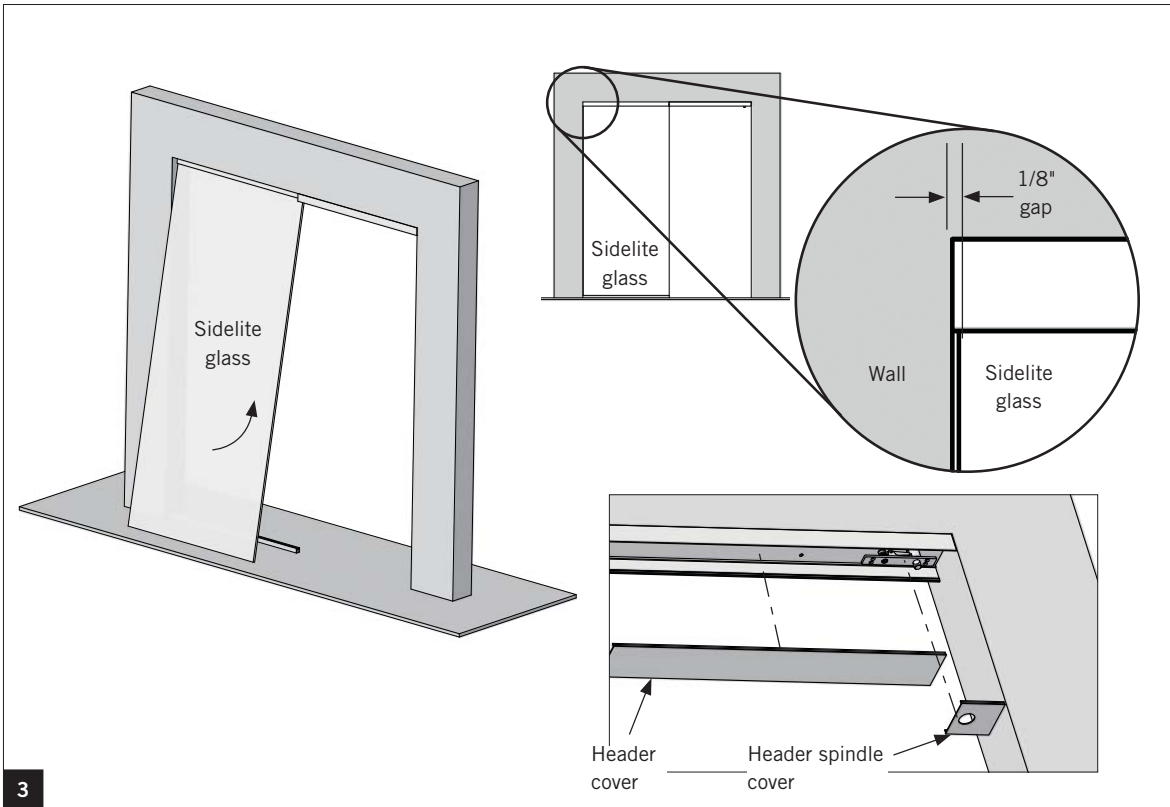
3.1 Spray inside of each U-channel for ease of setting in glass panel.

3.2 Lift glass up and into u-channel.

NOTE: Ensure glass does not contact inside of channel.

3.3 Lower glass into bottom channel onto pre-installed shims.

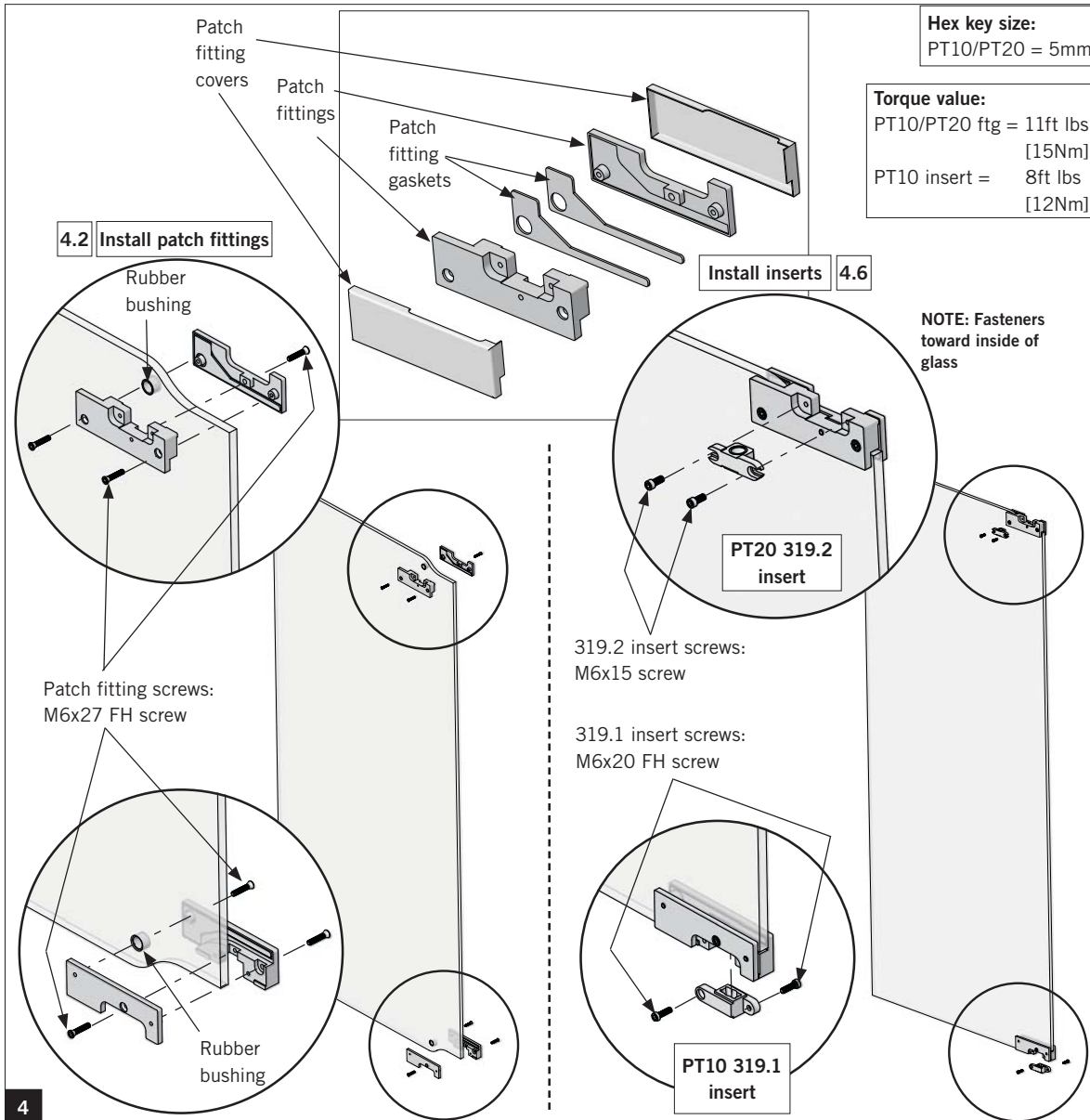**3.4** Ensure there is 1/8" [3mm] gap between wall and edge of sidelite glass.

3.5 **If using tempered laminated glass**, gently press glass panel against gasket and dispense silicone along full length of non-gasket side of U-channel.

3.6 Snap header and spindle covers into place.

DORMA PURE® FRAMELESS PIVOTING

OPTION 2 - Top pivot & concealed floor closer

Install top (PT20) and bottom patch fittings (PT10)
(consult DORMA for other options)

Patch fitting covers

Patch fittings

Patch fitting gaskets

Hex key size:
PT10/PT20 = 5mm

Torque value:
PT10/PT20 ftg = 11ft lbs
[15Nm]
PT10 insert = 8ft lbs
[12Nm]

4.2 Install patch fittings

Rubber bushing

Install inserts 4.6

NOTE: Fasteners toward inside of glass

PT20 319.2 insert

319.2 insert screws:
M6x15 screw

319.1 insert screws:
M6x20 FH screw

Patch fitting screws:
M6x27 FH screw

Rubber bushing

PT10 319.1 insert

4

NOTE: Ensure center line of pivot is in correct location dependent upon application.

4.1 Completely separate patch fitting parts.

▪ Throw away spacer blocks.

▪ Remove backing tape from gaskets.

4.2 Secure gasket to inside of each patch fitting.

4.3 Place rubber bushing inside hole cut-out in glass panel.

Secure patch fittings:

4.4 Properly align and level patch fitting on door.

4.5 Secure with included fasteners through glass.

▪ **PT10/PT20 fittings**: Use a 5mm hex key and 11 ft lbs (15Nm) of force.

Secure patch fitting inserts:

4.6 Install inserts into patch fittings.

4.7 Secure insert with included fasteners, alternating while tightening.

▪ **PT20 insert**: Use a 5 mm hex key and 11 ft lbs (15Nm) of force.

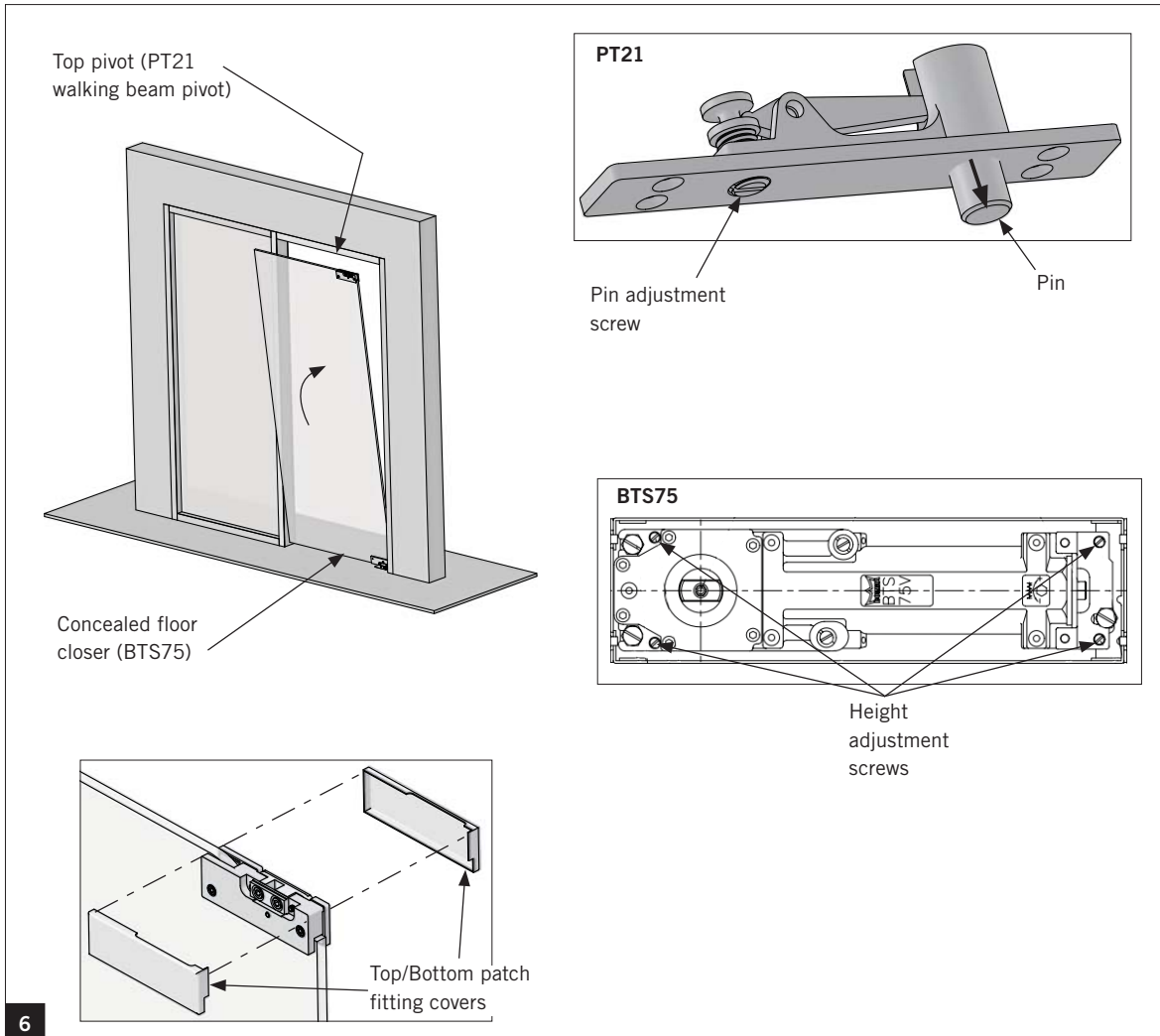▪ **PT10 insert**: Use a 5 mm hex key and 8 ft lbs (12Nm) of force.

DORMA PURE® FRAMELESS PIVOTING

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OPTION 2 - Top pivot & concealed floor closer

Install concealed floor closer (BTS75)
(consult DORMA for other options)

Please refer to the BTS75 installation instructions located on the Dorma website. **Ensure proper height spindle is installed in closer.**

Install glass door panel

Top pivot (PT21 walking beam pivot)

Concealed floor closer (BTS75)

PT21

Pin adjustment screw

Pin

BTS75

Height adjustment screws

Top/Bottom patch fitting covers

6

Install door into concealed floor closer (BTS75):
(For ease of loading door.)

6.1   Open door to preset hold open position.

6.2   Set bottom patch fitting onto closer spindle.

Install door into top pivot (PT21 walking beam pivot):

6.3   Tip glass up vertically and in line with pivot spindle.

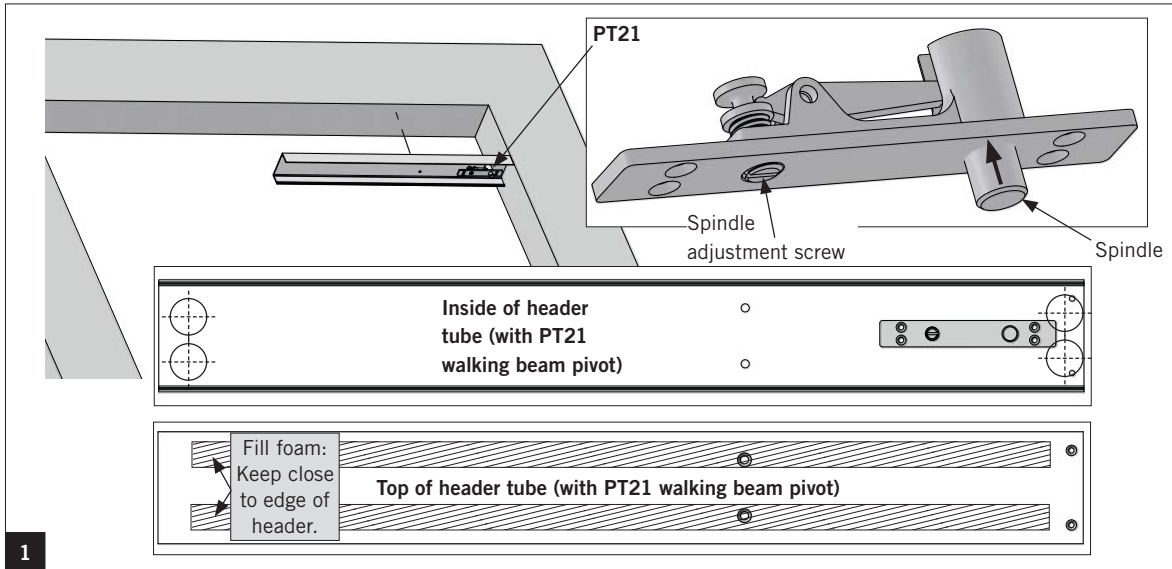**6.4**   Rotate PT21 pin down into patch fitting insert by rotating pin adjustment screw.

Adjust door height:

▪   Rotate height adjustment screws in BTS75 until proper door height is met.

6.5   Snap covers onto both sides of patch fittings.

DORMA PURE® FRAMELESS PIVOTING

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Option 3: PURE Pivot System (with/without sidelite) Free Swing: Top Pivot (PT21 Walking Beam Pivot) and Floor Pivot (355.6)

Install top pivot (PT21)
(consult DORMA for other options)

PT21

Spindle adjustment screw

Spindle

Inside of header tube (with PT21 walking beam pivot)

Fill foam: Keep close to edge of header.

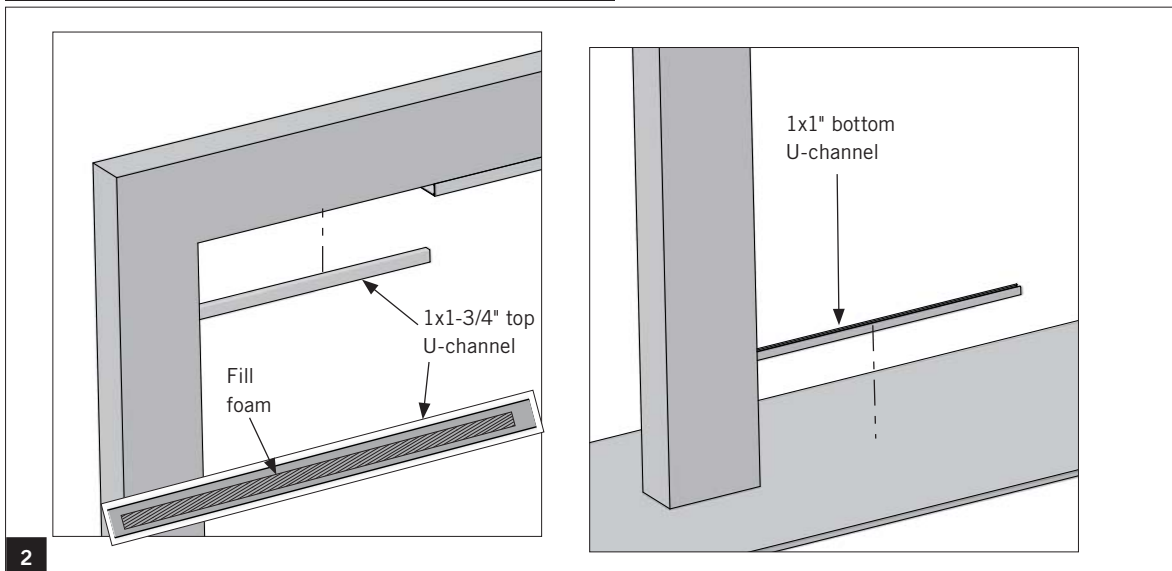Top of header tube (with PT21 walking beam pivot)

1

1.1   Remove cover from header tube and pre-drill holes for installation. See image for hole locations.

1.2   Apply fill foam if necessary.

1.3   Secure header using appropriate fasteners.

NOTE: Always ensure the proper fastener and adequate number of fixing points for your specific field conditions.

1.4   Raise walking beam pivot spindle up completely by rotating spindle adjustment screw.

NOTE: Ensure closer is plumb and level.

Install U-channel for sidelite glass (for sidelite option only)

1x1-3/4" top U-channel

Fill foam

1x1" bottom U-channel

2

2.1   **If using tempered laminated glass:** remove one gasket.

2.2   Pre-drill u-channel if necessary.

2.3   Insert setting blocks into bottom U-channel.

2.4   Apply fill foam to top U-channel if necessary.

2.5   Properly secure U-channel to floor/ceiling mounting surfaces dependent upon application.

▪   Top: use 1x1-¾" U-channel

▪   Bottom: use 1x1" U-channel

OPTION 3 - Free swing - Top pivot & floor pivot

Install sidelite glass panel (for sidelite option only)

Sidelite glass

1/8" gap

Sidelite glass

Sidelite glass

Header cover

Header spindle cover
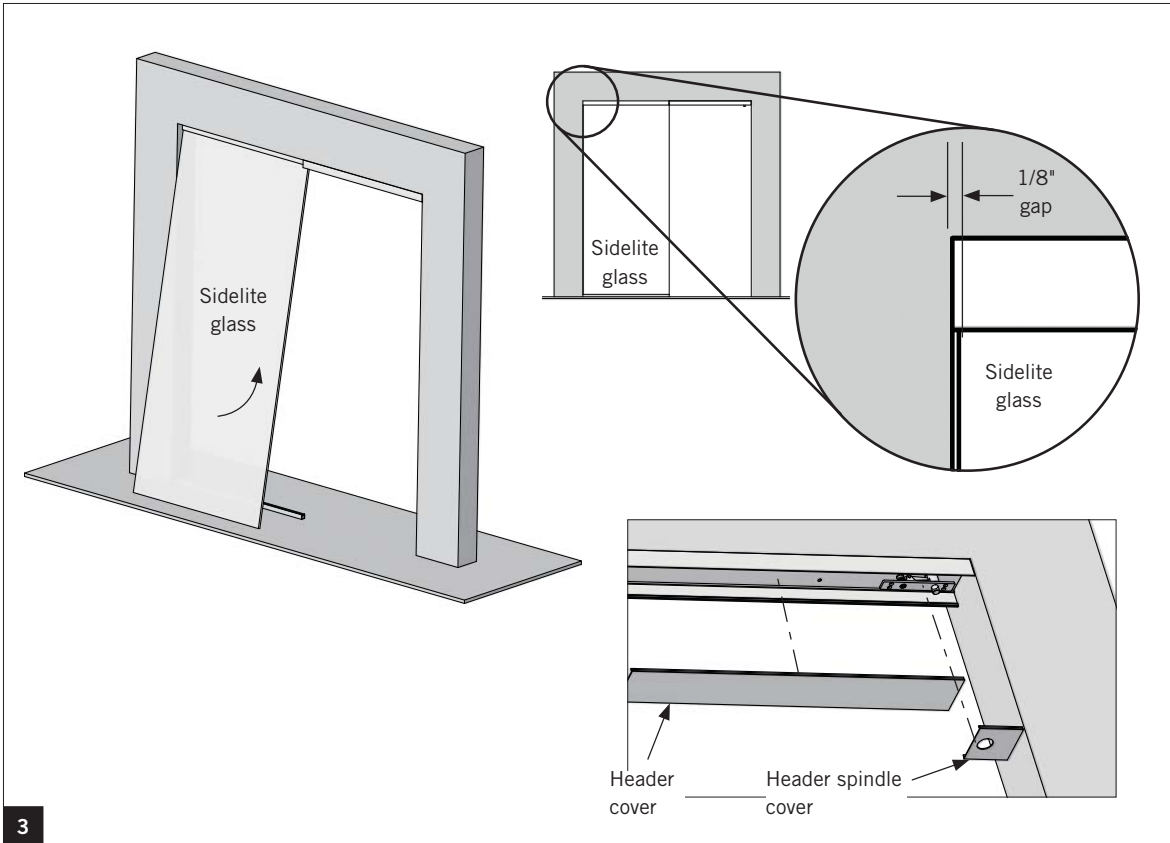
3

3.1 Spray inside of each U-channel for ease of setting in glass panel.

3.2 Lift glass up and into u-channel.

NOTE: Ensure glass does not contact inside of channel.

3.3 Lower glass into bottom channel onto pre-installed shims.

3.4 Ensure there is 1/8" [3mm] gap between wall and edge of sidelite glass.

3.5 **If using tempered laminated glass**, gently press glass panel against gasket and dispense silicone along full length of non-gasket side of U-channel.

3.6 Snap on header and spindle covers.

DORMA PURE® FRAMELESS PIVOTING

OPTION 3 - Free swing - Top pivot & floor pivot

Install top (PT20) and bottom patch fittings (PT10) (consult DORMA for other options)

Patch fitting covers

Patch fittings

Patch fitting gaskets

Hex key size:
PT10/PT20 = 5mm

Torque value:
PT10/PT20 ftg = 11ft lbs [15Nm]
PT10 insert = 8ft lbs [12Nm]

4.2 Install patch fittings

Rubber bushing

Install inserts 4.6

NOTE: Fasteners toward inside of glass

PT20 319.2 insert

319.2 insert screws: M6x15 screw

319.1 insert screws: M6x20 FH screw

Patch fitting screws: M6x27 FH screw

Rubber bushing

PT10 319.1 insert

NOTE: Ensure center line of pivot is in correct location dependent upon application.

4.1 Completely separate patch fitting parts.

▪ Throw away spacer blocks.

▪ Remove backing tape from gaskets.

4.2 Secure gasket to inside of each patch fitting.

4.3 Place rubber bushing inside hole cut-out in glass panel.

Secure patch fittings:

4.4 Properly align and level patch fitting on door.

4.5 Secure with included fasteners through glass.

▪ **PT10/PT20 fittings**: Use a 5mm hex key and 11 ft lbs (15Nm) of force.
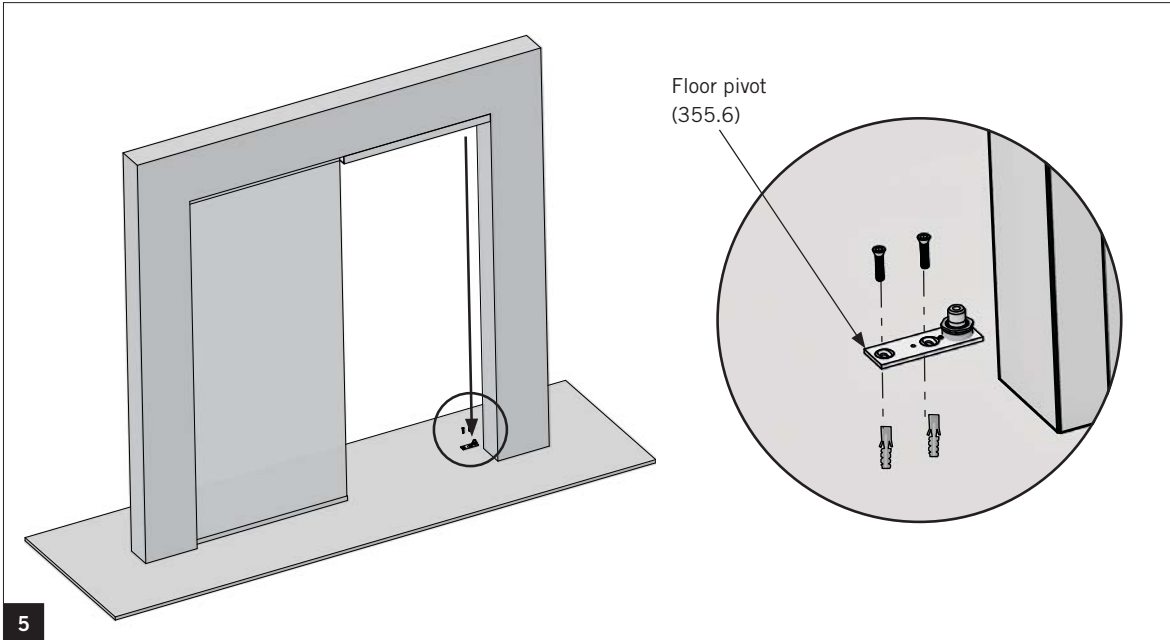
Secure patch fitting inserts:

4.6 Install inserts into patch fittings.

4.7 Secure insert with included fasteners, alternating while tightening.

▪ **PT20 insert**: Use a 5 mm hex key and 11 ft lbs (15Nm) of force.

▪ **PT10 insert**: Use a 5 mm hex key and 8 ft lbs (12Nm) of force.

DORMA PURE® FRAMELESS PIVOTING

OPTION 3 - Free swing - Top pivot & floor pivot

Install floor pivot (355.6)
(consult DORMA for other options)
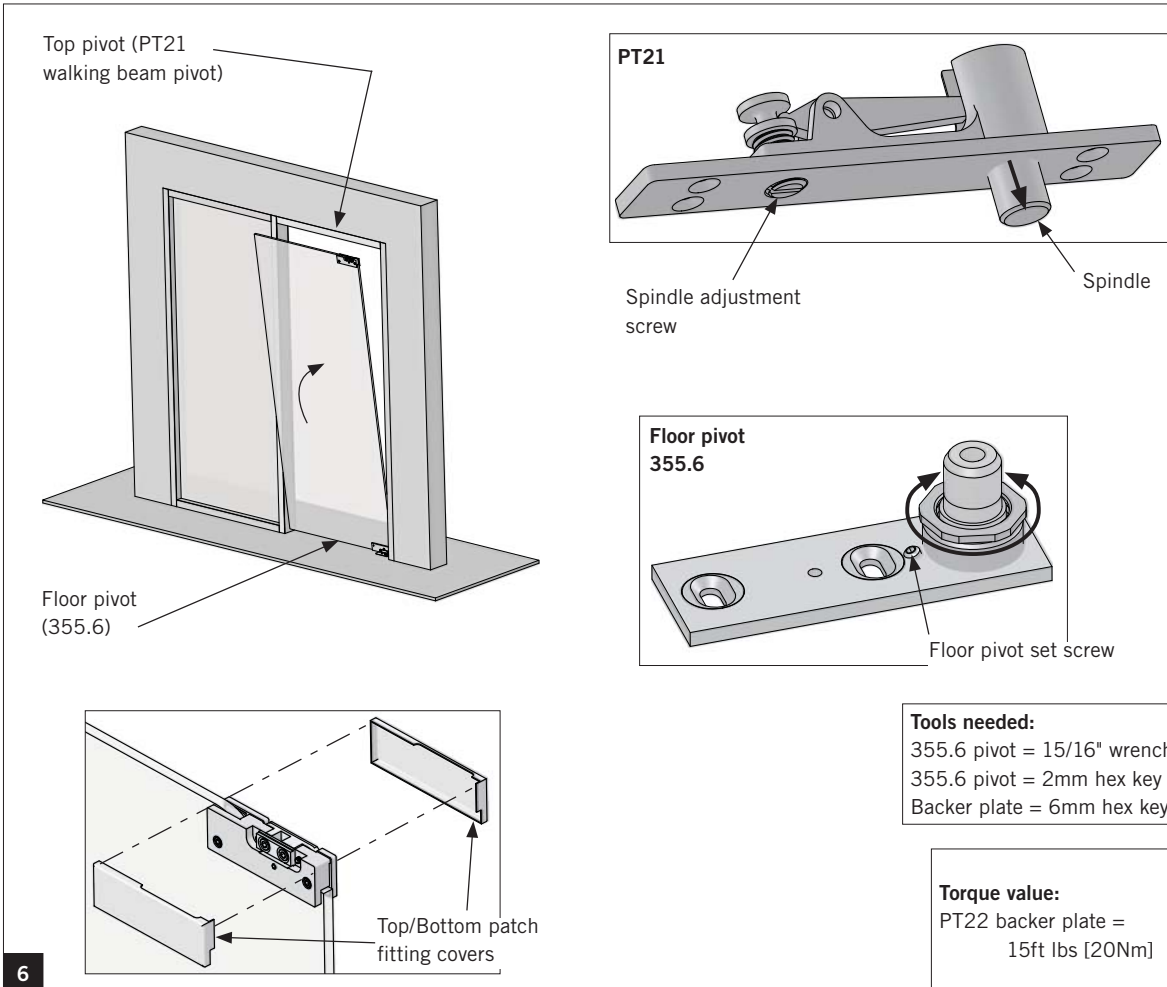

Floor pivot
(355.6)

5

5.1 Using a plumb bob or laser plumb, align the PT21 walking beam pivot spindle with the location of the bottom pivot spindle.

5.2 Bore a 1" [25mm] diameter hole 3/8" [10mm] deep.

5.3 Secure floor pivot to mounting surface using appropriate fasteners.

DORMA PURE® FRAMELESS PIVOTING

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OPTION 3 - Free swing - Top pivot & floor pivot

Install glass door panel

Top pivot (PT21 walking beam pivot)

PT21

Spindle adjustment screw

Spindle

Floor pivot (355.6)

Floor pivot 355.6

Floor pivot set screw

Tools needed:
355.6 pivot = 15/16" wrench
355.6 pivot = 2mm hex key
Backer plate = 6mm hex key

Torque value:
PT22 backer plate =
        15ft lbs [20Nm]

Top/Bottom patch fitting covers

6

Install door onto 355.6 floor pivot:

6.1   Place bottom patch fitting onto floor pivot spindle.

Install door into top pivot (PT21 walking beam pivot):

6.2   Tip glass up vertically and in line with pivot spindle.

6.3   Rotate PT21 pin down into patch fitting insert by rotating the pin adjustment screw.

Adjust door height:

6.4   Adjust floor pivot spindle to adjust for door height.

▪   Spin adjustable floor pivot (355.6) spindle up or down, using a 15/16" wrench, until correct door height is met.

▪   Tighten set screw, using 2mm hex key, to secure spindle in position.

NOTE: Ensure set screw is fully engaged with spindle. If set screw is tightened properly. spindle should NOT rotate.

▪   Secure floor pivot cover with included fastener

6.5   Snap on header and spindle covers.

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