

DORMA PURE®

Frameless pivoting glass wall systems

Installation instructions

925966 – 07-2021

| EN |

dormakaba 

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1 Technical specifications

1.1 Overview

These instructions are for installation of the DORMA PURE® Frameless Pivoting Glass Wall Systems 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

- dormakaba requires use of fully tempered glass, which complies with ASTM C 1036 and ASTM C 1048. Secondary heat soaking processes are optional but not required.
- 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.



CLOSING EDGE OF DOOR

1.1.7 Maintenance, care, repair

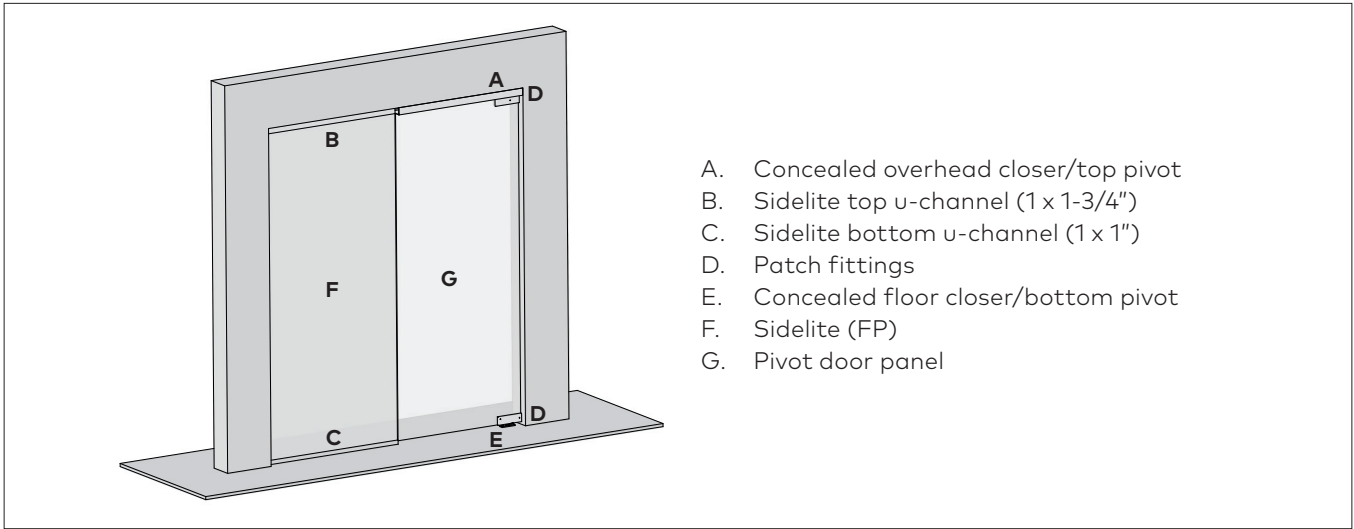
- Immediately replace damaged parts.
- Always use original dormakaba parts.
- Clean clamping area with alcohol-based standard commercial cleaning agent before mounting the glass hardware.
- Use a damp cloth for occasional cleaning.
- Always use silicone - and oil-free cleaners (e.g. acetone).
- Check 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 Overall view

Fig. 1

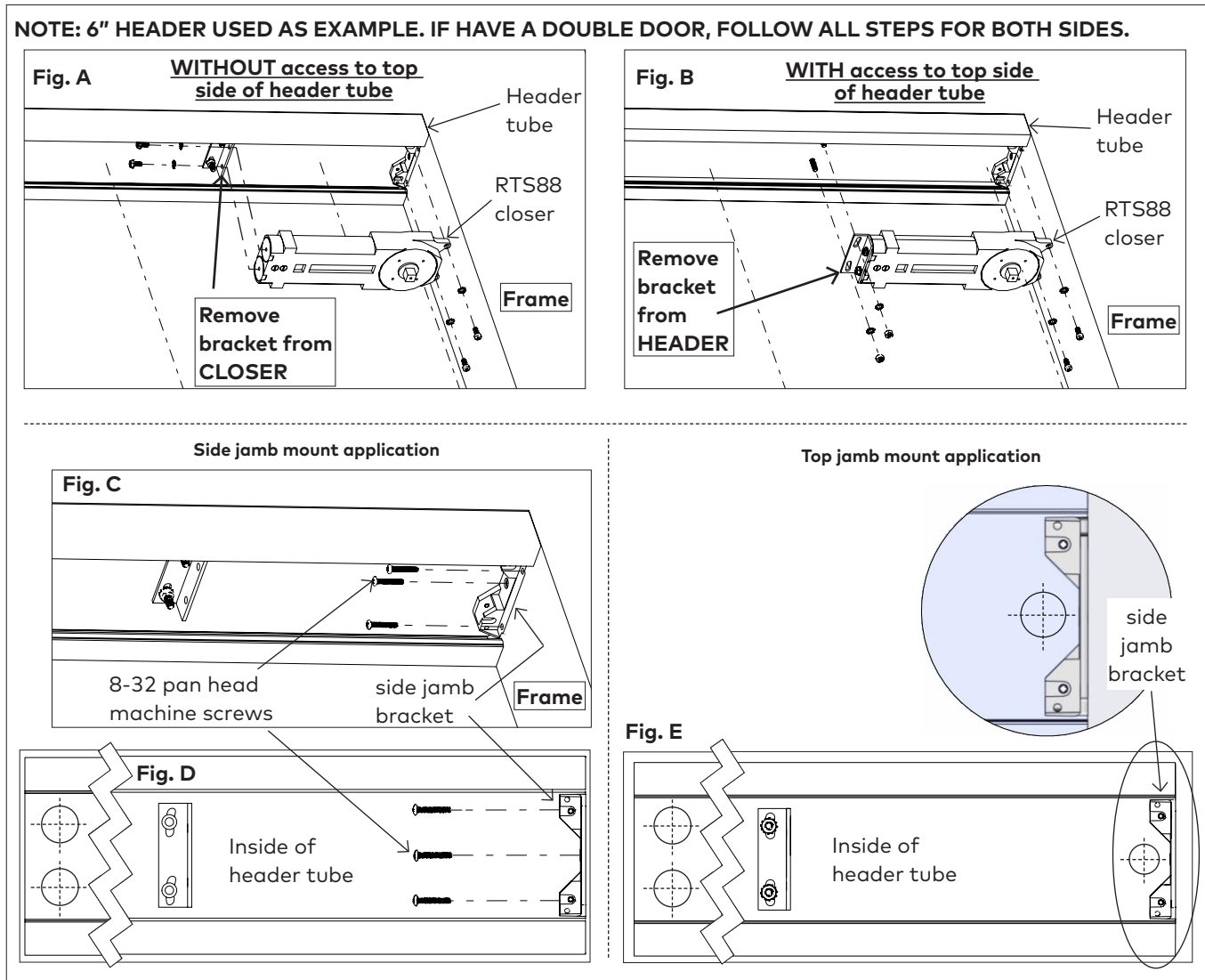


2 Installation instructions - Option 1

Concealed overhead closer (RTS88) and floor pivot (355.6)

2.1 Install RTS88

Fig. 2



2.1.1 Remove covers and closer from header tube **dependent upon access to top side of header tube**. Figures A & B.

2.1.2 Pre-drill holes and secure header tube using appropriate fasteners dependent upon application: side jamb or top jamb mount:

Side jamb mount:

- Secure frame to side jamb bracket using three 8-32 pan head machine screws [#10 pan head wood screws]. Figures C & D.
- And secure header to overhead frame using appropriate fasteners. Figure D.

Top jamb mount: Figure E.

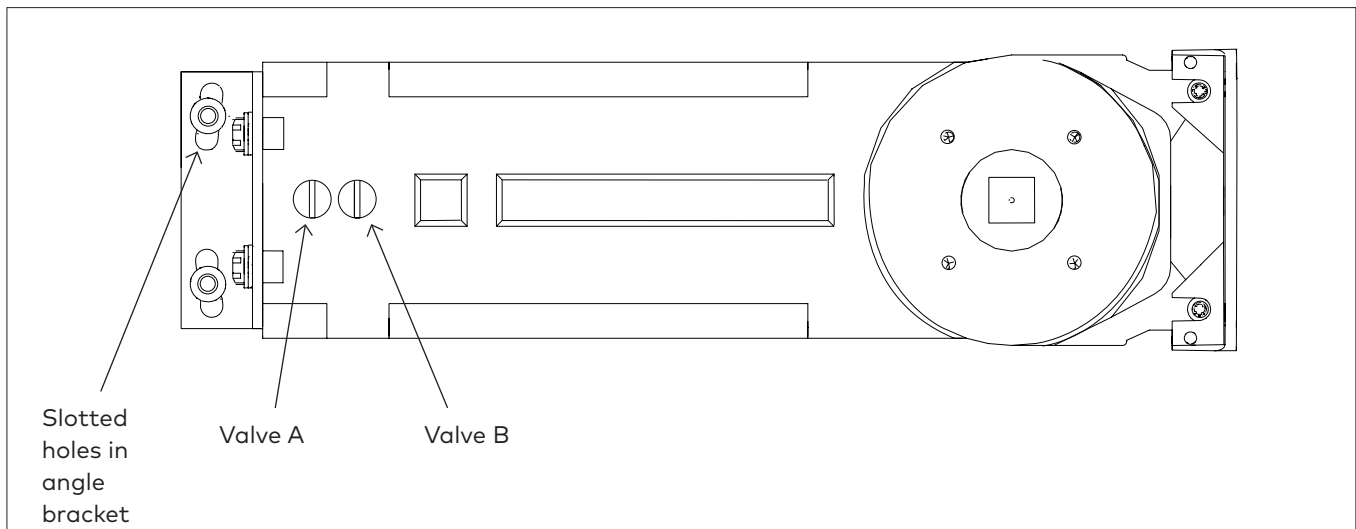
- Secure header to overhead frame **only**, using appropriate fasteners.

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

- 2.1.3 Resecure RTS88 closer inside header tube using included fasteners.
- 2.1.4 Adjust closer if necessary. See adjustments section: 2.2
- 2.1.5 For double door applications, follow steps 2.1.1 through 2.1.5.

2.2 RTS88 adjustments

Fig. 3



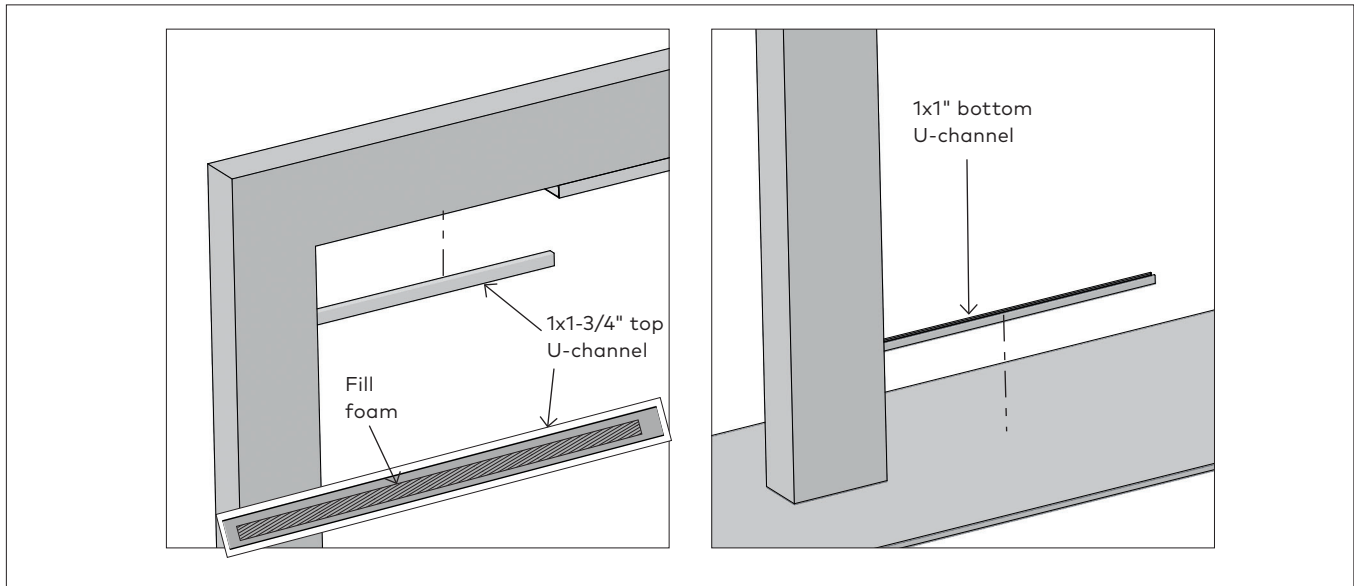
2.2.1 Ensure closer is plumb and level.

2.2.2 Adjust via slotted holes in angle bracket prior to fully tightening screws.

- Valve "A" - Closing/sweep speed - from maximum opening to 0°.
Clockwise - decrease closing speed
Counter-clockwise - increase closing speed
- Valve "B" - Latch speed - from maximum opening to 20°.
Clockwise - decrease closing speed
Counter-clockwise - increase closing speed

2.3 Install u-channel for sidelite glass (for sidelite option only)

Fig. 4



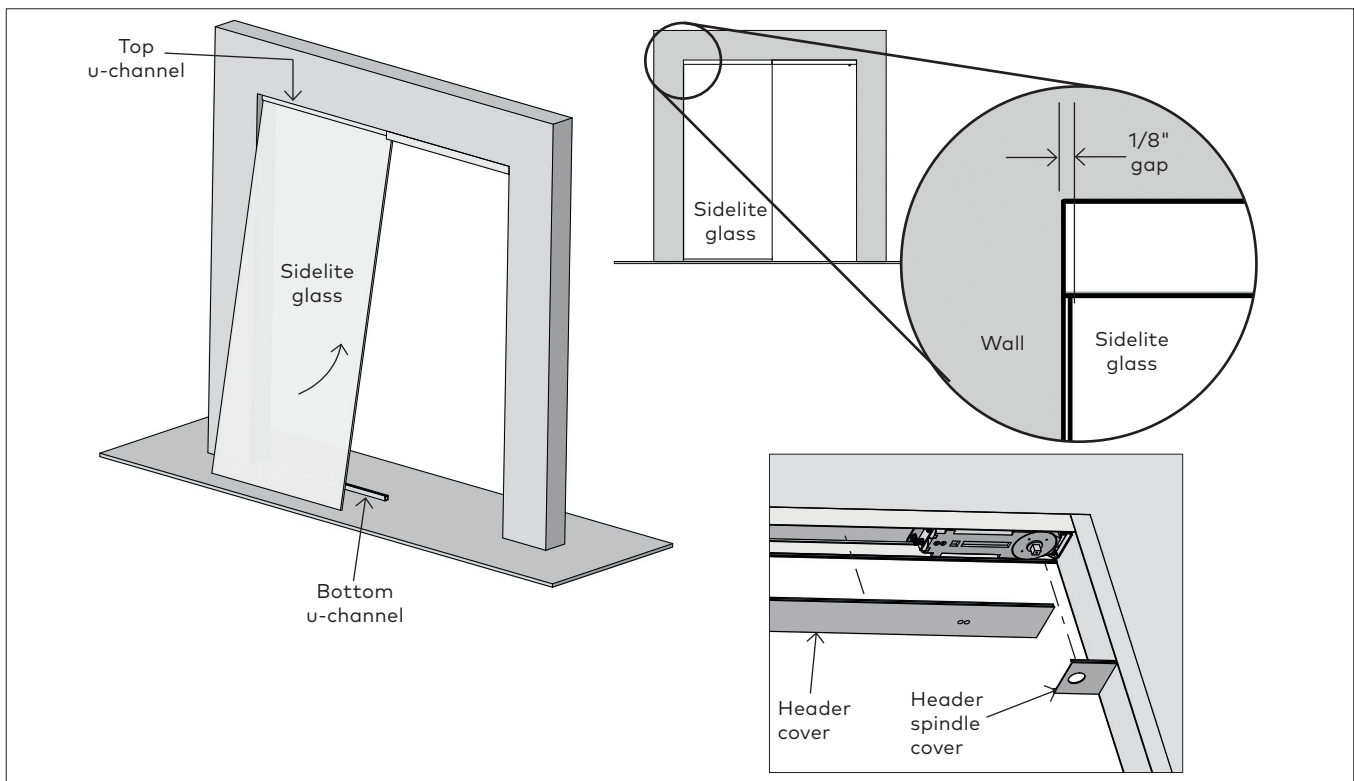
- 2.3.1 If using tempered laminated glass: remove one gasket.
 2.3.2 Apply fill foam to top U-channel if necessary.

- 2.3.3 Secure U-channel to floor/ceiling using appropriate fasteners.

- Top: use 1 x 1-3/4" U-channel
- Bottom: use 1 x 1" U-channel

2.4 Install sidelite glass (for sidelite option only)

Fig. 5



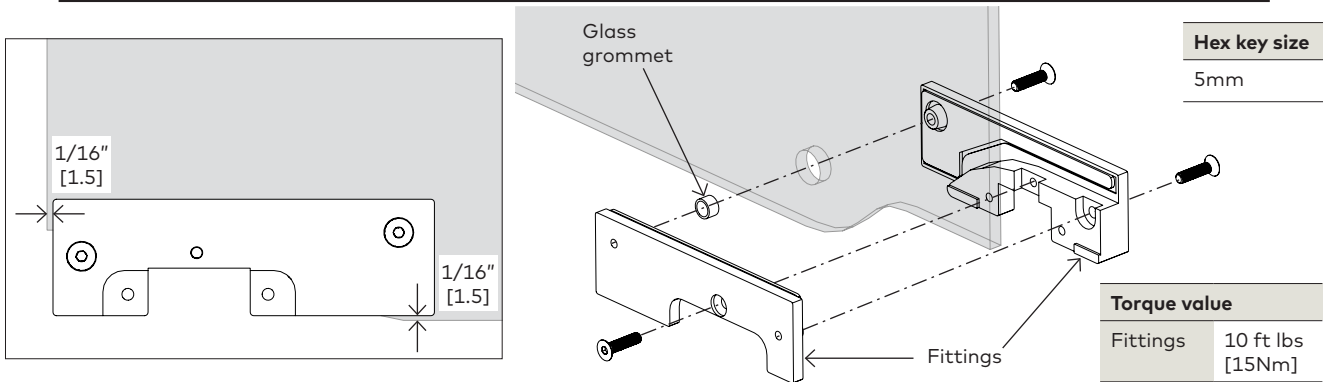
- 2.4.1 Place setting blocks into u-channel.
 2.4.2 Spray inside of each u-channel with glass cleaner.
 2.4.3 Lift glass up and into top u-channel.
NOTE: Ensure glass does not contact inside of channel.
 2.4.4 Lower glass into bottom u-channel.

- 2.4.5 Ensure there is 1/8" [3mm] gap between wall and edge of sidelite glass.
 2.4.6 If using tempered laminated glass, gently press glass panel against gasket and dispense silicone along full length of non-gasket side of U-channel.
 2.4.7 Snap on header and spindle covers.

2.5 Install patch fittings (PT22 and PT10) and inserts

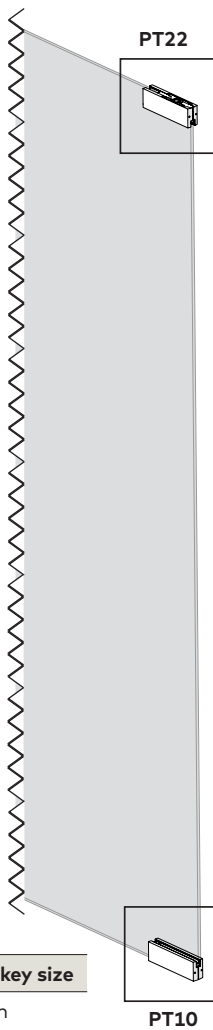
Fig. 6

NOTE: FITTINGS COME WITH 2MM [3/32"] GASKETS PRE-SECURED. IF USING 3/8" [9] OR 5/8" [15] GLASS, REMOVE 2MM GASKETS AND REPLACE WITH EITHER ONE OR TWO 3MM [1/8"] GASKETS.



- 2.5.1 Insert glass grommet.
- 2.5.2 Place fittings onto glass.

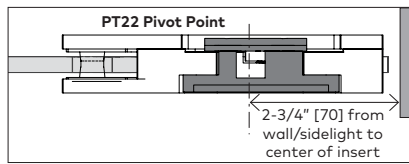
- 2.5.3 Secure fittings with included fasteners.
 - Tighten using a 5mm hex key.



PT22 Insert:

- 2.5.4 Place insert into fitting.
- 2.5.5 Secure insert with included M6x18 flat head fasteners.
 - Tighten and torque accordingly.

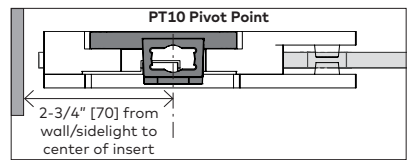
Torque value	
PT22 insert	11 ft lbs [15Nm]



PT10 Insert (single-sided):

- 2.5.6 Place insert into fitting.
- 2.5.7 Secure insert with included M6x20 flat head fasteners.
 - Tighten and torque accordingly.

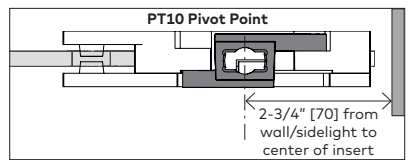
Torque value	
PT10 insert (single-sided)	9 ft lbs [12Nm]



PT10 Insert (offset):

- 2.5.6 Place insert into fitting.
- 2.5.7 Secure insert with included M6x20 flat head fasteners.
 - Tighten and torque accordingly.

Torque value	
PT10 insert (offset)	9 ft lbs [12Nm]

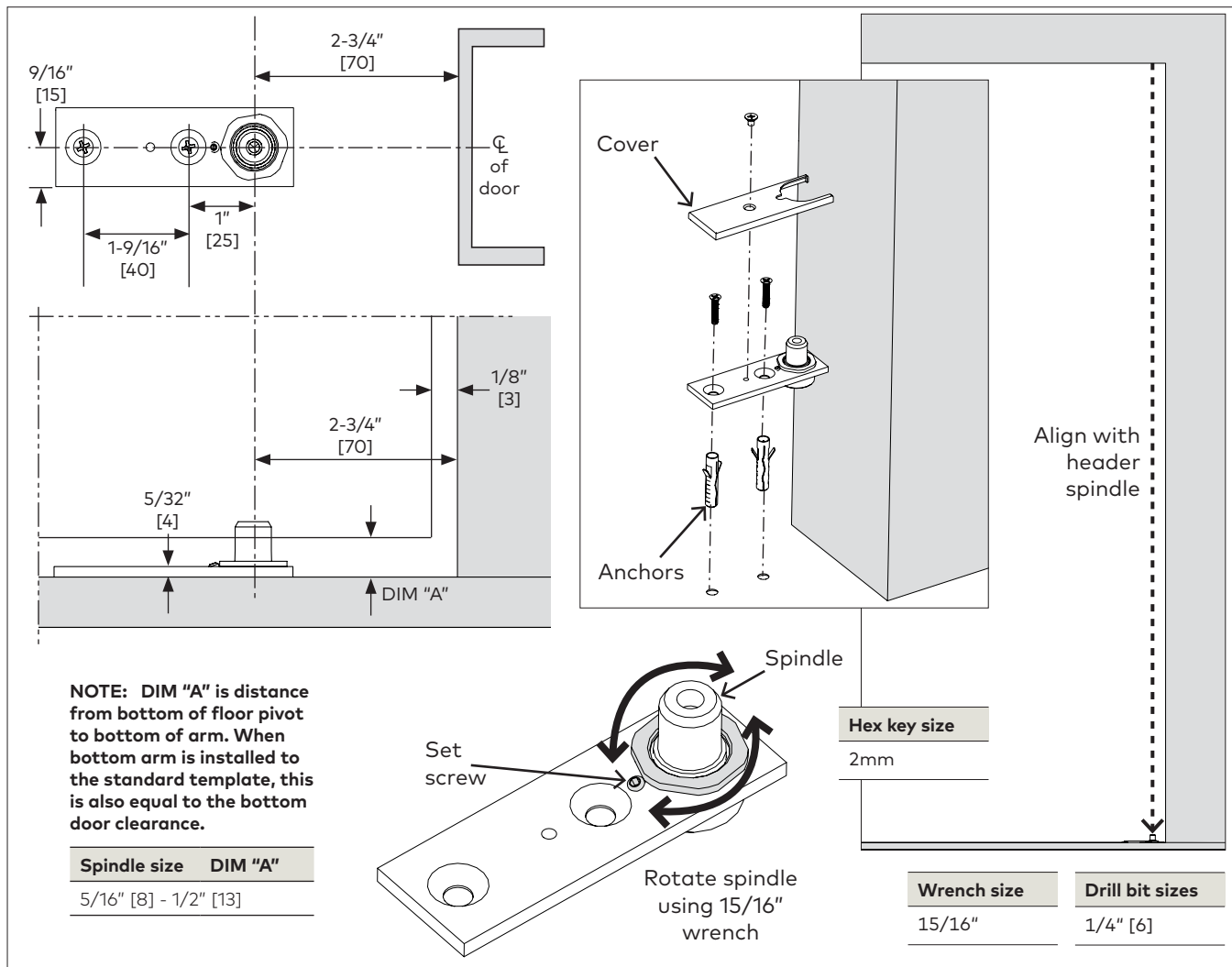


Hex key size
5mm

PT10

2.6 Install floor pivot (355.6)

Fig. 7



- 2.6.1 Using a plumb bob, align header spindle with bottom pivot spindle.
- 2.6.2 Mark and drill holes, and recess in flooring surface.
- Recess: 3/8" [10] deep x 1" [25] diameter recess
 - Concrete Floors: Drill 1" [25] deep holes, using 1/4" [6] drill bit

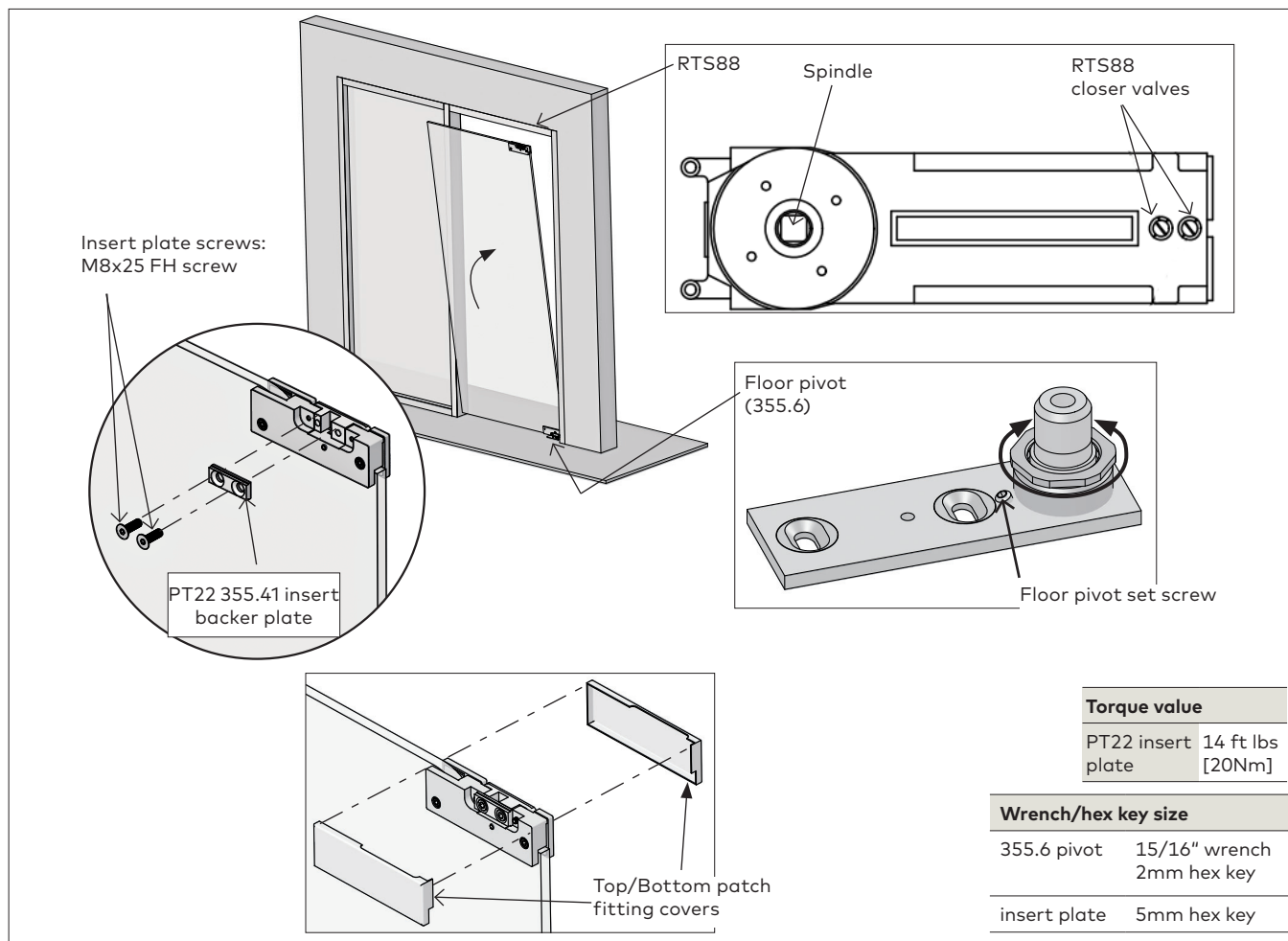
2.6.3 Insert anchors, if necessary.

Ensure pivot is aligned and plumb.

2.6.4 Secure floor bearing and cover using included fasteners.

2.7 Install door panel

Fig. 8



Install door onto 355.6 floor pivot:

2.7.1 Place bottom patch fitting onto floor pivot spindle.

OPTION 1 (without HOLD OPEN): Install door into RTS88:

(For ease of loading door.)

- 2.7.2 Close both valves on RTS88 closer.
- 2.7.3 Using a wrench, rotate spindle towards swing of the door (fully open) until it stops.
- 2.7.4 Tip glass up and onto header spindle.

NOTE: Ensure door is in proper orientation.

- 2.7.5 Secure PT22 insert plate (355.41) with provided M8x25 fasteners, alternating while tightening.

Adjustments:

- 2.7.6 Rotate spindle up or down until correct door height is met.
 - Use a 15/16" wrench.

OPTION 2 (with HOLD OPEN): Install door into RTS88: (For ease of loading door.)

- 2.7.2 Close both valves on RTS88 closer.
- 2.7.3 Open door to preset hold open position.
- 2.7.4 Tip glass up and onto header spindle.

NOTE: Ensure backer plate is flush against spindle.

- 2.7.5 Secure PT22 insert plate (355.41) with provided M8x25 fasteners, alternating while tightening.

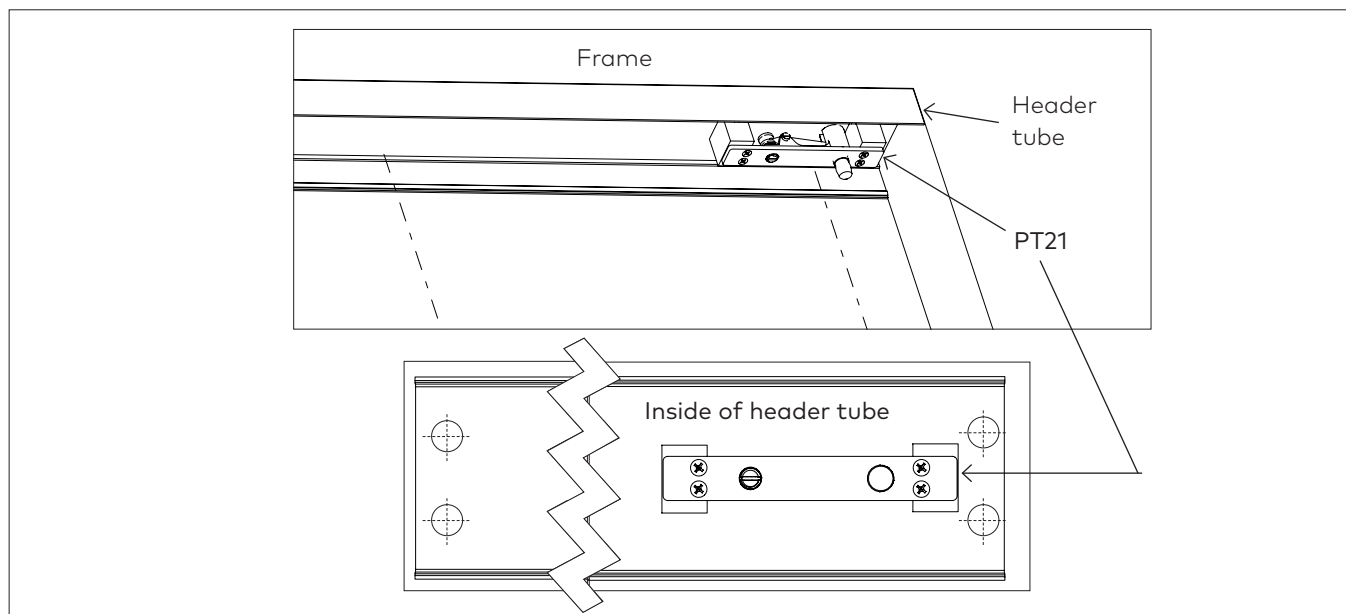
- 2.7.7 Tighten set screw to secure spindle in place.
 - Use a 2mm hex key.

Ensure set screw is fully engaged with spindle. If tightened correctly, spindle should NOT rotate.

3 Installation instructions - Option 2 Top pivot (PT21) and concealed floor closer (BTS)

3.1 Install PT21

Fig. 9



- 3.1.1 Remove covers from header tube
- 3.1.2 Pre-drill holes for installation.
- 3.1.3 Secure header to overhead frame using appropriate fasteners dependent upon application.

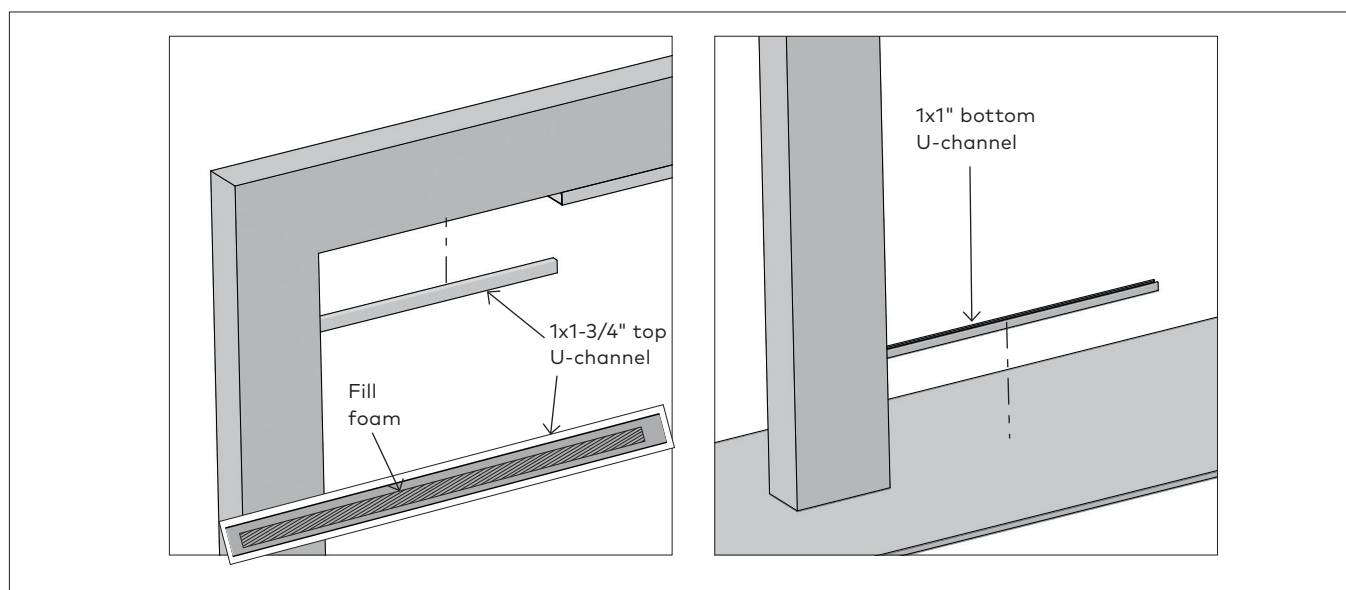
NOTE: Always ensure the proper fasteners and adequate number of fixing points for your specific field conditions.

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

NOTE: Ensure closer is plumb and level.

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

Fig. 10



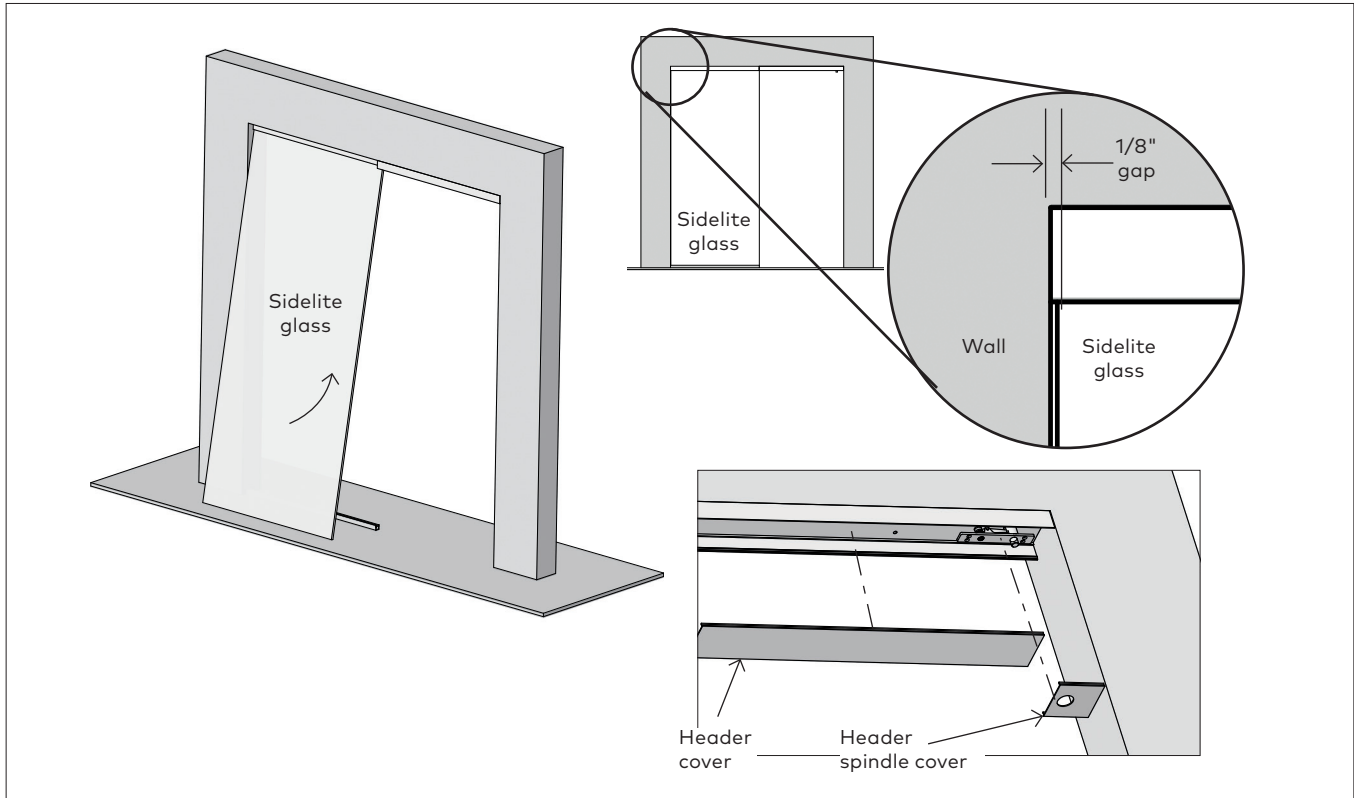
- 3.2.1 If using tempered laminated glass: remove one gasket.
- 3.2.2 Apply fill foam to top U-channel if necessary.

- 3.2.3 Secure U-channel to floor/ceiling using appropriate fasteners.

- Top: use 1 x 1-3/4" U-channel
- Bottom: use 1 x 1" U-channel

3.3 Install sidelite glass (for sidelite option only)

Fig. 11



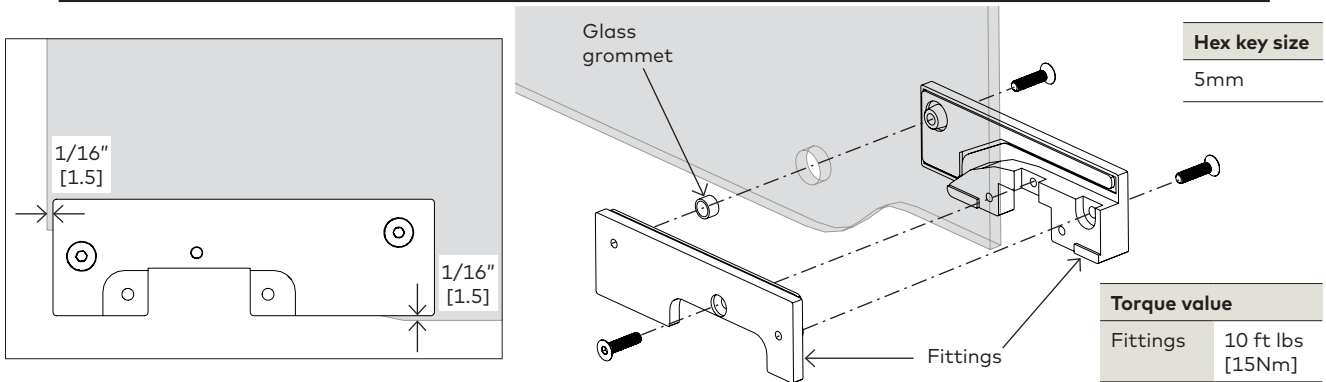
- 3.3.1 Place setting blocks into u-channel.
- 3.3.2 Spray inside of each u-channel with glass cleaner.
- 3.3.3 Lift glass up and into top u-channel.
- NOTE: Ensure glass does not contact inside of channel.**
- 3.3.4 Lower glass into bottom u-channel.

- 3.3.5 Ensure there is 1/8" [3mm] gap between wall and edge of sidelite glass.
- 3.3.6 If using tempered laminated glass, gently press glass panel against gasket and dispense silicone along full length of non-gasket side of U-channel.
- 3.3.7 Snap on header and spindle covers.

3.4 Install patch fittings (PT20 and PT10) and inserts

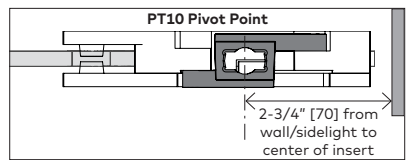
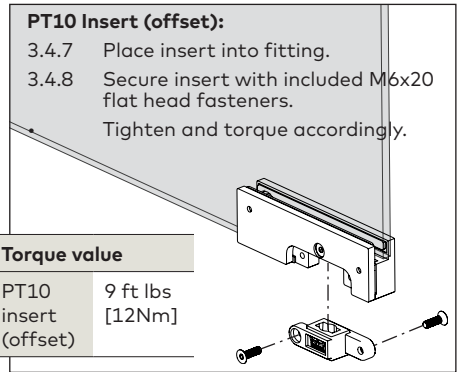
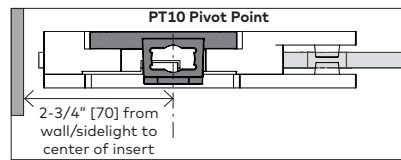
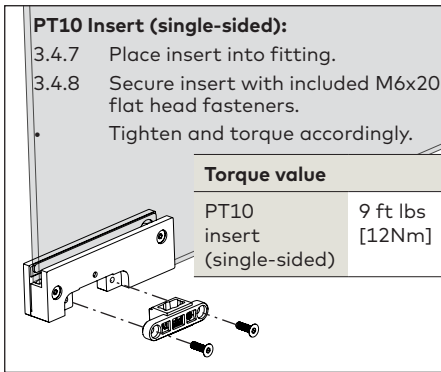
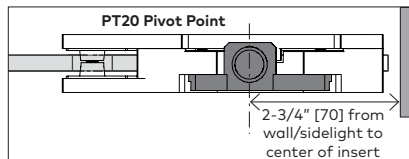
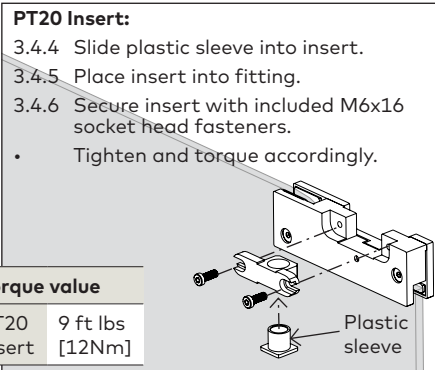
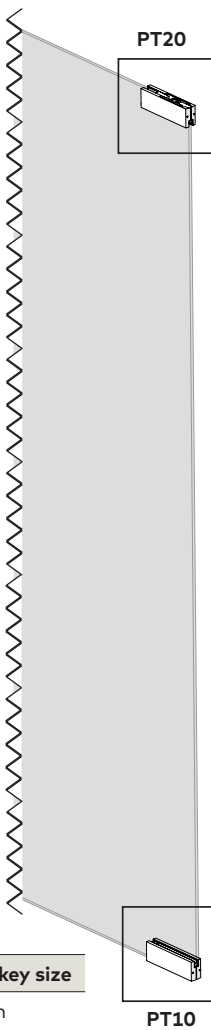
Fig. 12

NOTE: FITTINGS COME WITH 2MM [3/32"] GASKETS PRE-SECURED. IF USING 3/8" [9] OR 5/8" [15] GLASS, REMOVE 2MM GASKETS AND REPLACE WITH EITHER ONE OR TWO 3MM [1/8"] GASKETS.



- 3.4.1 Insert glass grommet.
- 3.4.2 Place fittings onto glass.

- 3.4.3 Secure fittings with included fasteners.
 - Tighten using a 5mm hex key.



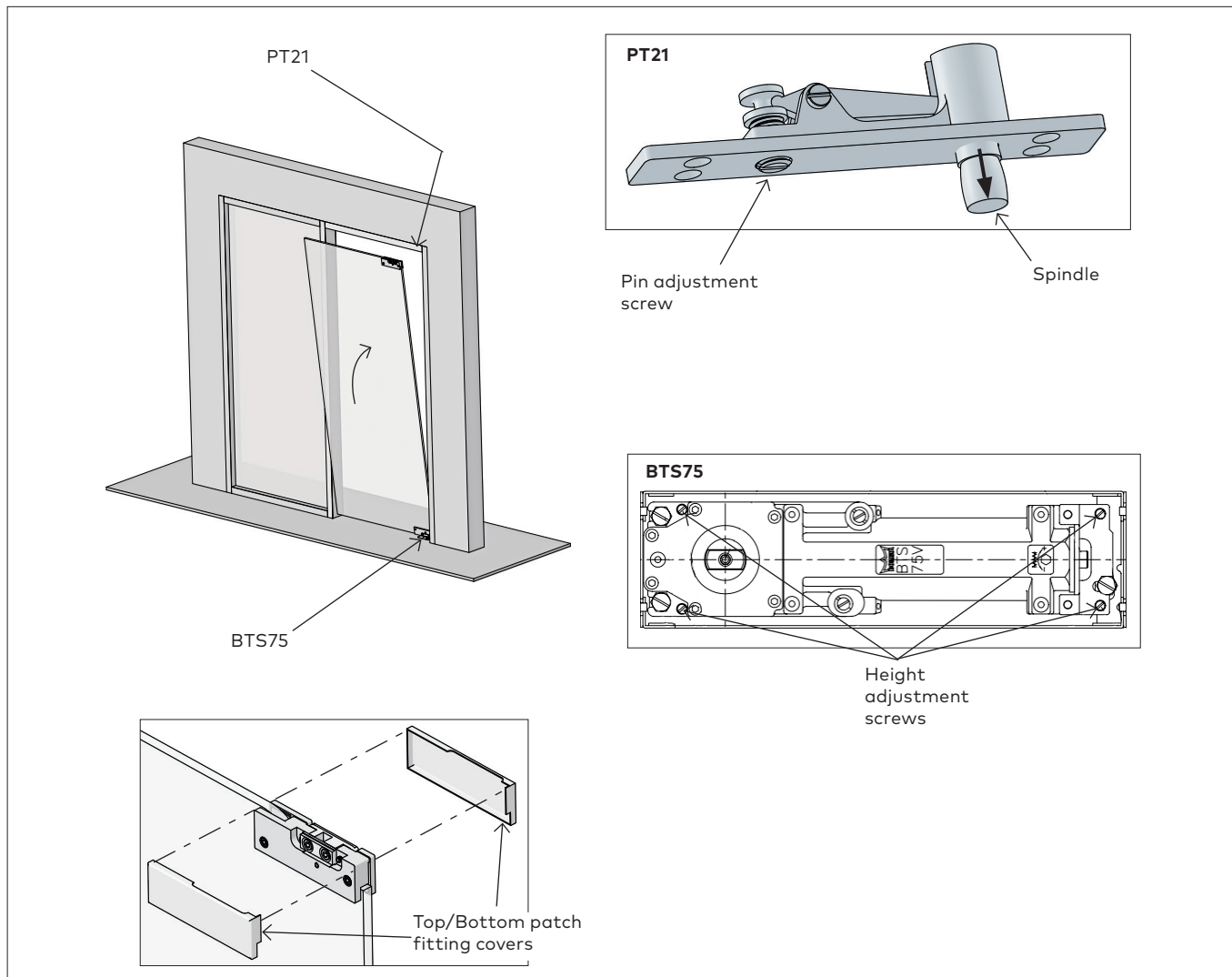
Hex key size
5mm

3.5 Install BTS75

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

3.6 Install door panel

Fig. 13



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

- 3.6.1 Open door to preset hold open position.
- 3.6.2 Set bottom patch fitting onto closer spindle.

Install door into PT2:

- 3.6.3 Tip glass up vertically and in line with pivot spindle.
- 3.6.4 Rotate PT21 spindle down into patch fitting insert by rotating spindle adjustment screw.

Adjust door height:

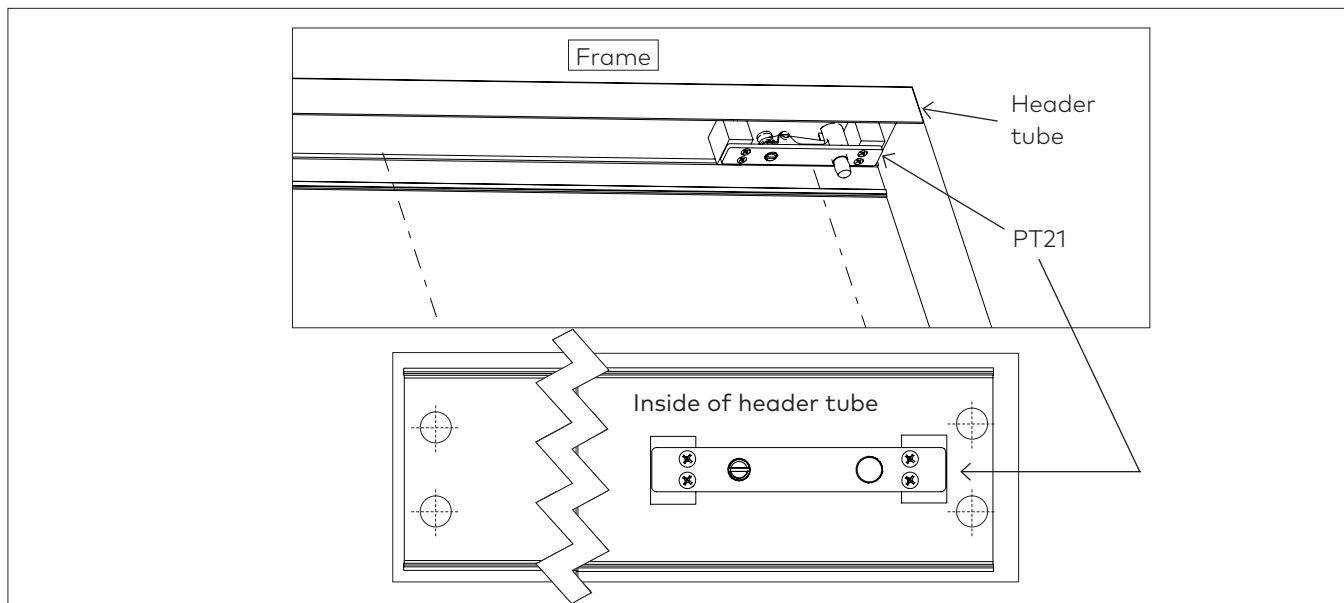
- 3.6.5 Rotate height adjustment screws in BTS75 until proper door height is met.
- 3.6.6 Snap covers onto both sides of patch fittings.

4 Installation instructions - Option 3

Top pivot (PT21) and floor pivot (355.6)

4.1 Install PT21

Fig. 14



- 4.1.1 Remove covers from header tube
- 4.1.2 Pre-drill holes for installation.
- 4.1.3 Secure header to overhead frame using appropriate fasteners dependent upon application.

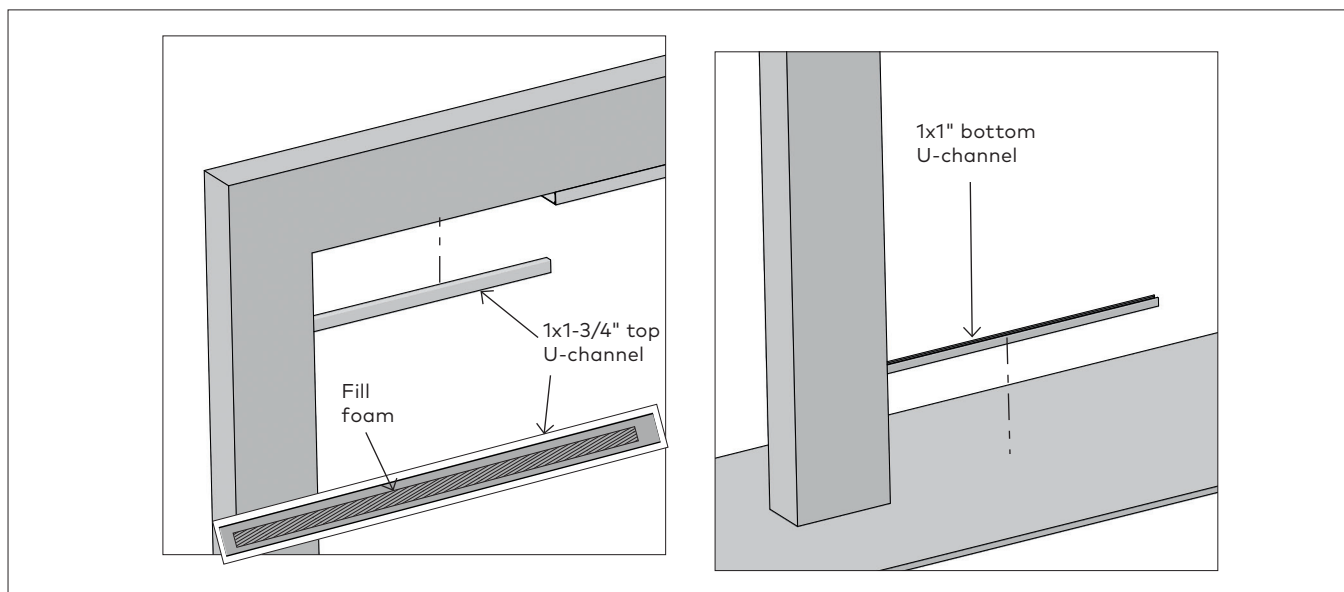
NOTE: Always ensure the proper fasteners and adequate number of fixing points for your specific field conditions.

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

NOTE: Ensure closer is plumb and level.

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

Fig. 15



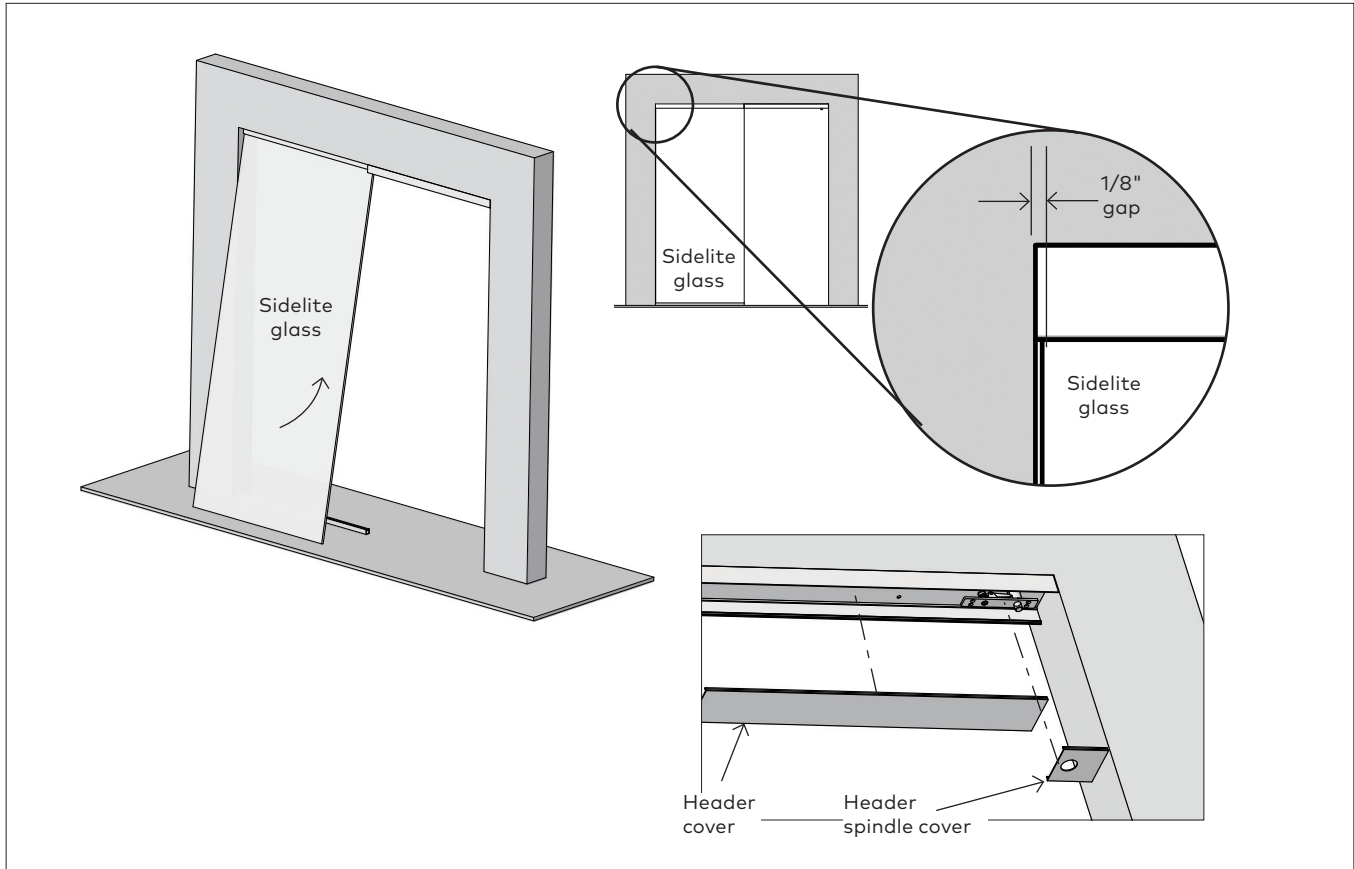
- 4.2.1 If using tempered laminated glass: remove one gasket.
- 4.2.2 Apply fill foam to top U-channel if necessary.

- 4.2.3 Secure U-channel to floor/ceiling using appropriate fasteners.

- Top: use 1 x 1-3/4" U-channel
- Bottom: use 1 x 1" U-channel

4.3 Install sidelite glass (for sidelite option only)

Fig. 16



- 4.3.1 Remove covers from header tube.
- 4.3.2 Pre-drill holes for installation.
- 4.3.3 Secure header to overhead frame using appropriate fasteners dependent upon application.

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

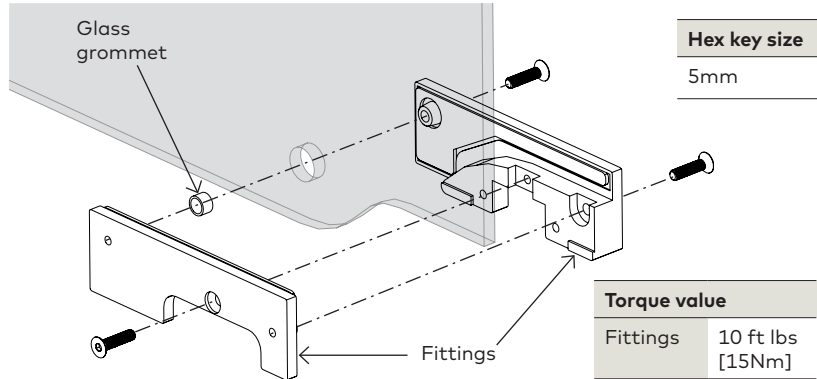
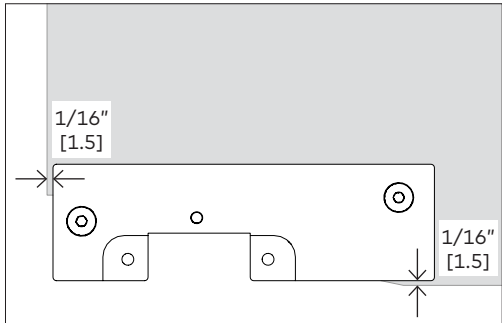
- 4.3.4 Raise walking beam pivot pin up completely by rotating pin adjustment screw.

NOTE: Ensure closer is plumb and level.

4.4 Install patch fittings (PT20 and PT10) and inserts

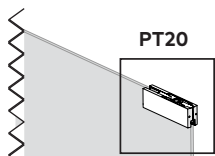
Fig. 17

NOTE: FITTINGS COME WITH 2MM [3/32"] GASKETS PRE-SECURED. IF USING 3/8" [9] OR 5/8" [15] GLASS, REMOVE 2MM GASKETS AND REPLACE WITH EITHER ONE OR TWO 3MM [1/8"] GASKETS.



- 4.4.1 Insert glass grommet.
- 4.4.2 Place fittings onto glass.

- 4.4.3 Secure fittings with included fasteners.
 - Tighten using a 5mm hex key.

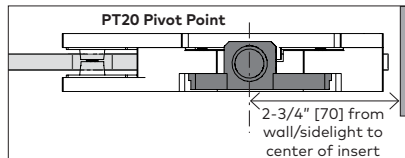


PT20 Insert:

- 4.4.5 Slide plastic sleeve into insert.
- 4.4.6 Place insert into fitting.
- 4.4.7 Secure insert with included M6x16 socket head fasteners.
 - Tighten and torque accordingly.

Torque value

PT20 insert	9 ft lbs [12Nm]
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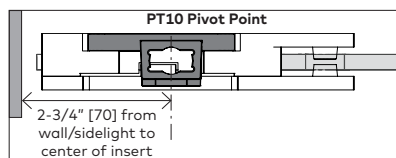


PT10 Insert (single-sided):

- 4.4.8 Place insert into fitting.
- 4.4.9 Secure insert with included M6x20 flat head fasteners.
 - Tighten and torque accordingly.

Torque value

PT10 insert (single-sided)	9 ft lbs [12Nm]
----------------------------	-----------------

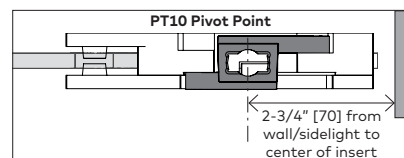


PT10 Insert (offset):

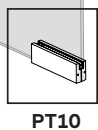
- 4.4.8 Place insert into fitting.
- 4.4.9 Secure insert with included M6x20 flat head fasteners.
 - Tighten and torque accordingly.

Torque value

PT10 insert (offset)	9 ft lbs [12Nm]
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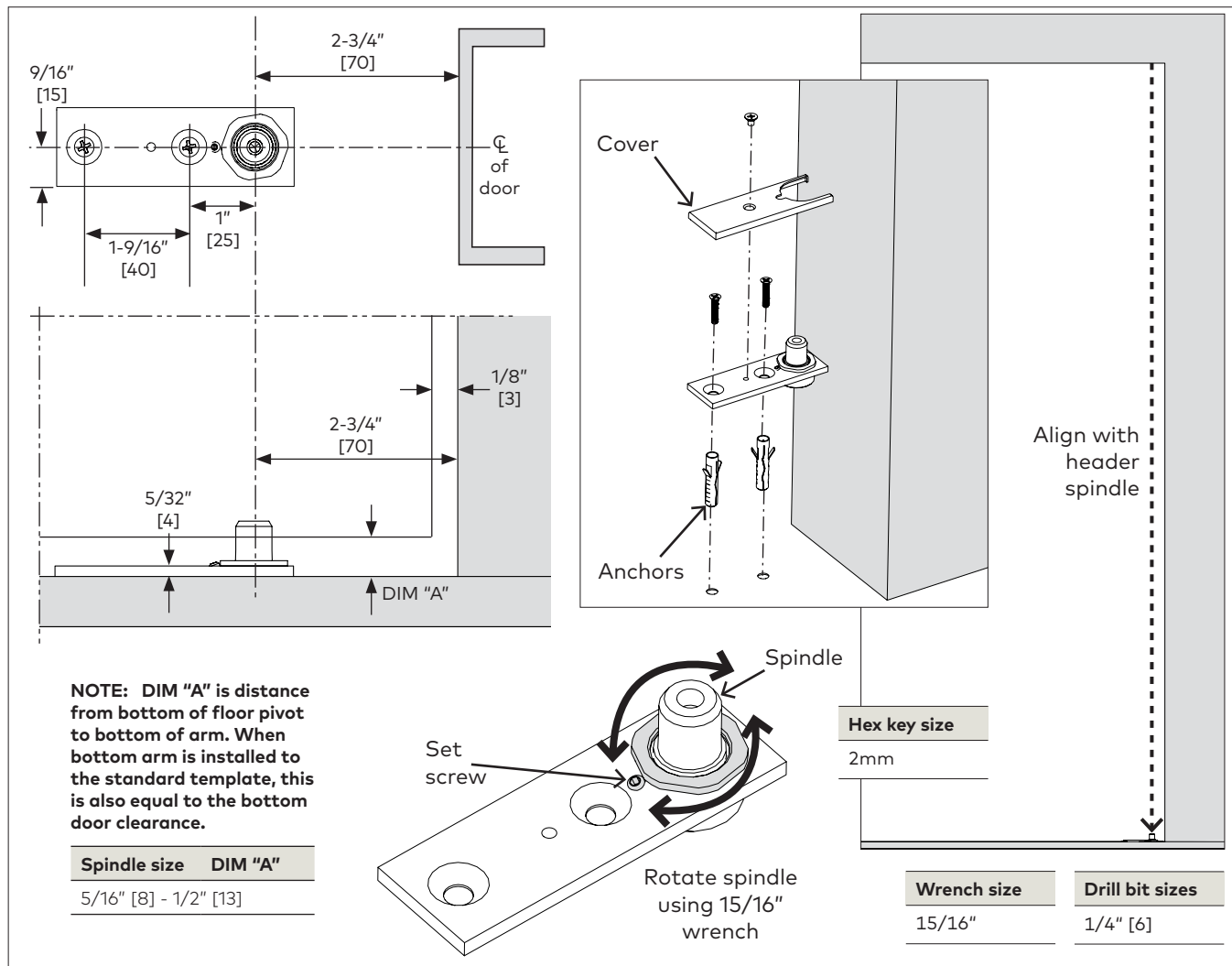


Hex key size
5mm



4.5 Install floor pivot (355.6)

Fig. 18

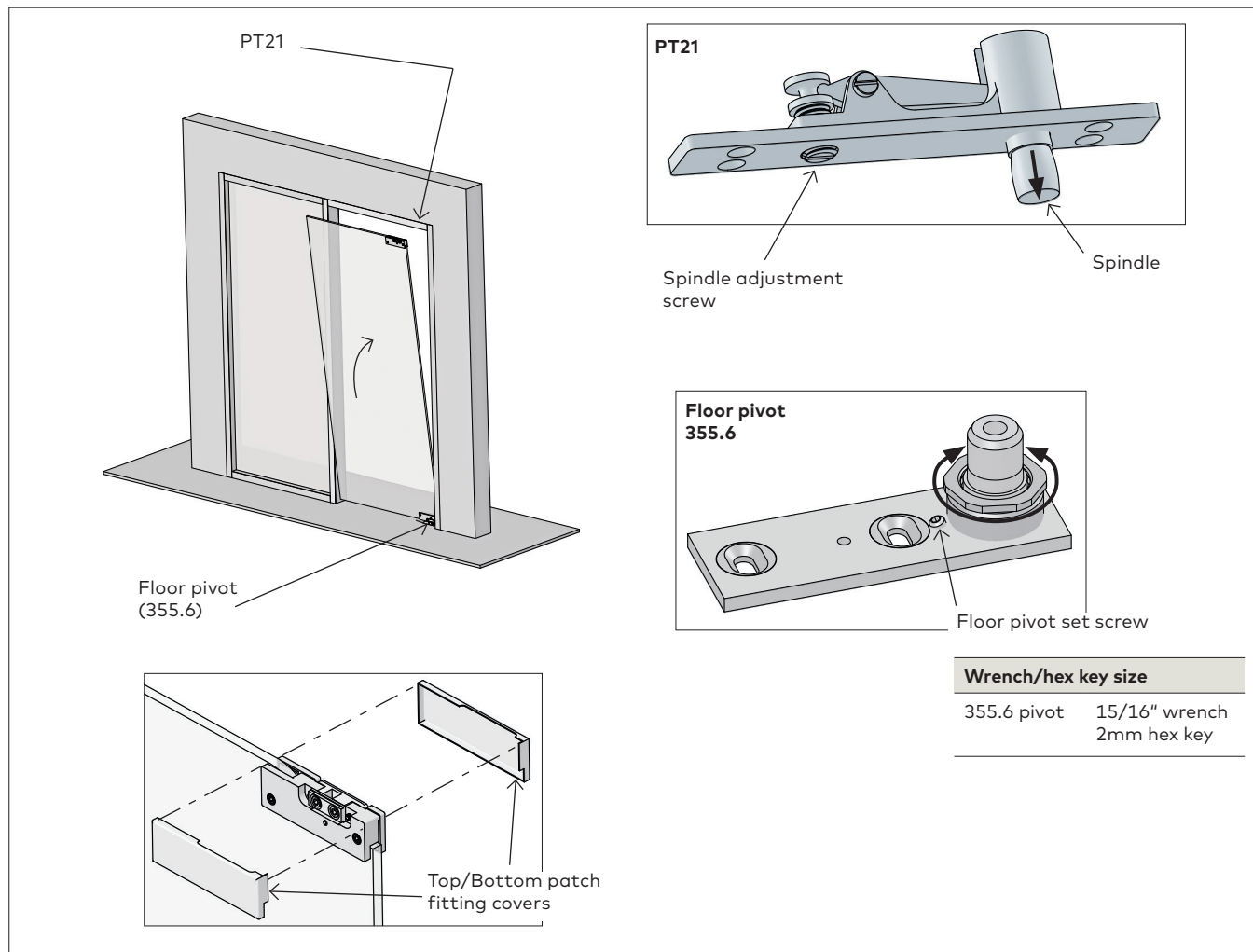


- 4.5.1 Using a plumb bob, align header spindle with bottom pivot spindle.
- 4.5.2 Mark and drill holes, and recess in flooring surface.
- Recess: 3/8" [10] deep x 1" [25] diameter recess
 - Concrete Floors: Drill 1" [25] deep holes, using 1/4" [6] drill bit

- 4.5.3 Insert anchors, if necessary.
- Ensure pivot is aligned and plumb.**
- 4.5.4 Secure floor bearing and cover using included fasteners.

4.6 Install glass door panel

Fig. 19



Install door onto 355.6 floor pivot:

4.6.1 Place bottom patch fitting onto floor pivot spindle.

Install door into PT21:

- 4.6.2 Tip glass up vertically and in line with pivot spindle.
- 4.6.3 Rotate PT21 spindle down into patch fitting insert by rotating the spindle adjustment screw.

Adjust door height:

- 4.6.4 Adjust floor pivot spindle to adjust for door height.
- 4.6.5 Spin adjustable floor pivot (355.6) spindle up or down, using a 15/16" wrench, until correct door height is met.
- 4.6.6 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.

- 4.6.7 Secure floor pivot cover with included fastener
- 4.6.8 Snap on header and spindle covers.

