

# TENSOR Double-Acting Hinge

Frame mount

## Installation instructions

812002 – 01-2018

| EN |

dormakaba 

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# 1 Technical specifications

## 1.1 Overview

These instructions are for installation of TENSOR Double-Acting Hinges for the following mounting and style versions:

### 1. Frame mount

#### 1.1.1 General information

- dormakaba requires use of 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. Ensure proper installation of limiting stop to prevent door from opening too far.

#### 1.1.2 Intended use

- For swinging doors in dry indoor and covered areas only.
- For manual slow 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 monolithic 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.



##### CAUTION

Due to the reset-mechanism, a low degree of operational sounds can be expected.



##### TIPS AND RECOMMENDATIONS

Information note

##### TIPS AND RECOMMENDATIONS



No further warranty is provided if the identification label has been damaged or removed.



##### CLOSING EDGE OF DOOR

#### 1.1.7 Maintenance, care, repair

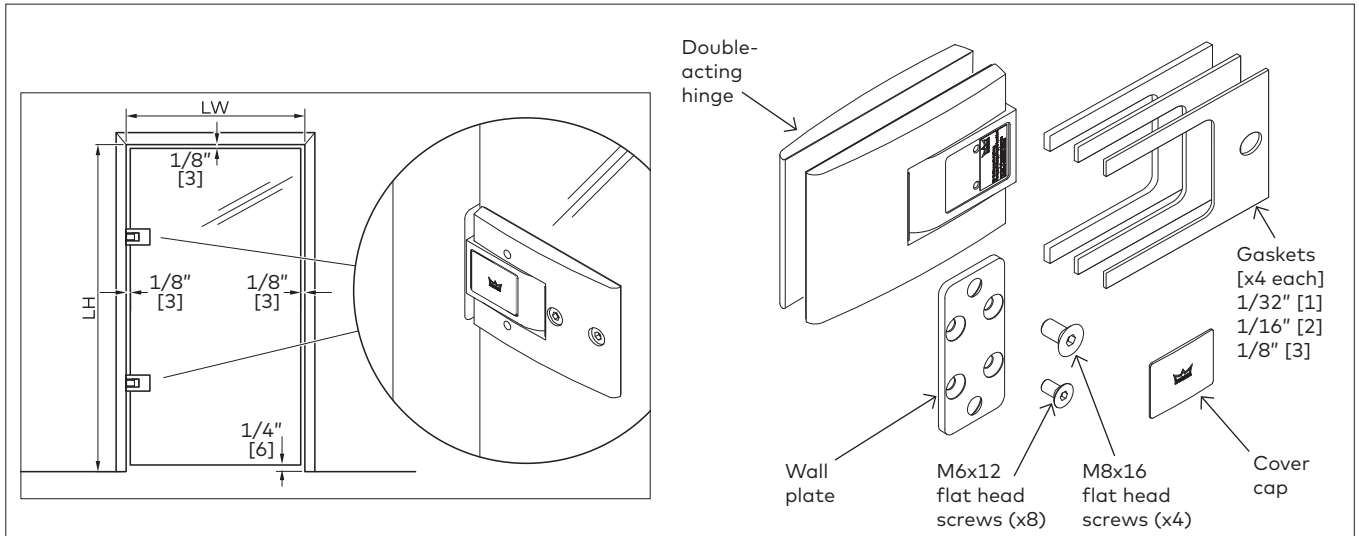
- Immediately replace damaged parts.
- Always use original dormakaba parts.
- Clean clamping area with alcohol-based standard commercial cleaning agent before mounting the glass hardware.
- Use a damp cloth for occasional cleaning.
- Always use silicone - and oil-free cleaners (e.g. acetone).
- Lightly grease bushings during maintenance using multi-functioning oil (silicone-, resin-, teflon-free, acid-free only) (example: white lithium grease).
- 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 annually or every 100,000 movements by a specialist.

#### 1.1.8 Disposal

Disposal in accordance with local, state and national regulations.

# 2 Application - Frame mount

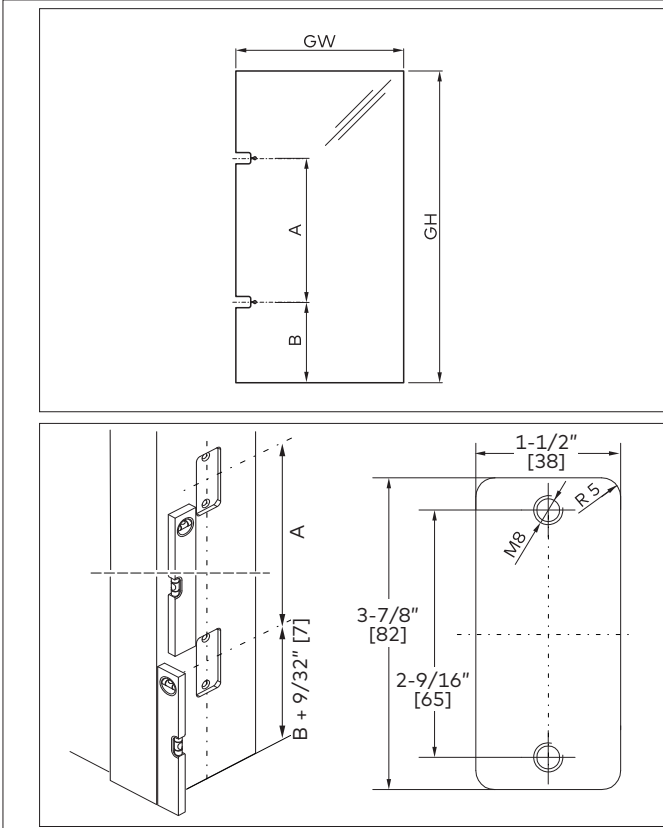
Fig 1



# 3 Installation instructions - frame mount

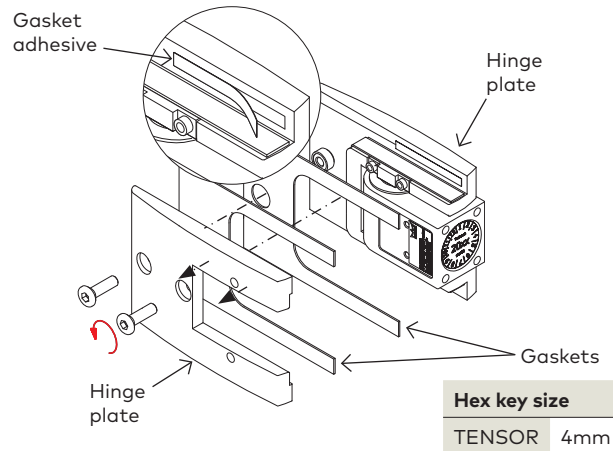
## 3.1 Prep door frame, disassemble and prep hinge

Fig 2



Gasket size reference chart	
GH	Glass height
GW	Glass width
A	Distance between each hinge, on center
B	Distance from center of bottom hinge to bottom of glass

Gasket size reference chart			
Glass thickness	1/2" [12]	3/8" [10]	5/16" [8]
Gaskets	1/32" [1]	1/16" [2]	1/18" [3]

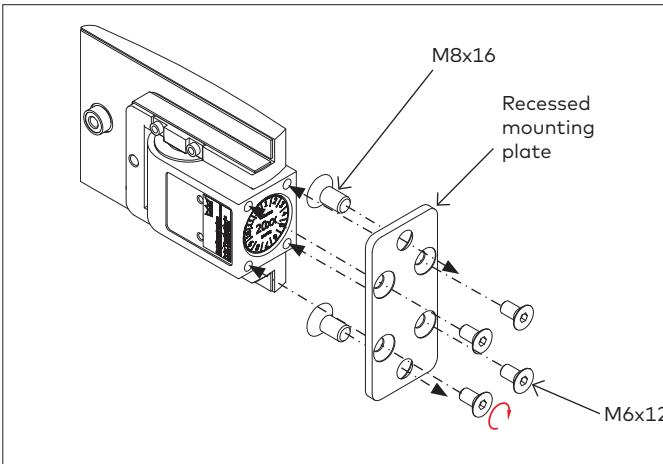


- 3.1.1 Measure and prepare door frame for recessed mounting plates. Use dimensions above.
  - Cut 3/16" [4] deep recess for mounting plate.
- 3.1.2 Disassemble hinges.

- 3.1.3 Determine appropriate gasket size.
  - Use chart for reference.
- 3.1.4 Peel adhesive from back of hinge plates.
- 3.1.5 Adhere gaskets to inside of hinge plates.

## 3.2 Secure recessed mounting plate

Fig 3

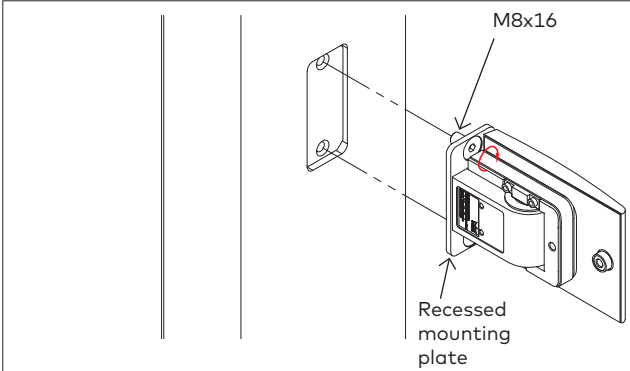


Hex key size	
TENSOR	5mm

- 3.2.1 Pre-insert wall fasteners into plate for later securing (M8x16).
- 3.2.2 Secure recessed mounting plate to hinge.
  - Use included fasteners (M6x12).
  - Tighten at 9 ft lbs [12Nm].

### 3.3 Secure hinge to frame

Fig 4



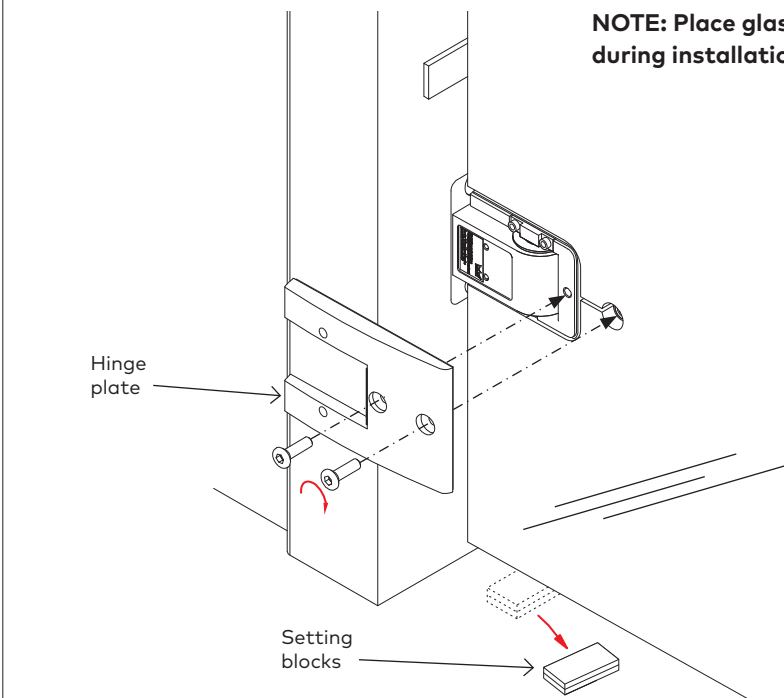
Hex key size	
TENSOR	5mm

3.3.1 Secure recessed mounting plate to frame.

- Use pre-installed M8x16 fasteners.
- Tighten with 15 ft lbs [20Nm].

### 3.4 Secure glass door to hinge

Fig 5



**NOTE: Place glass door on setting blocks during installation.**

Hex key size	
TENSOR	4mm

3.4.1 Tip glass door up and onto setting blocks.

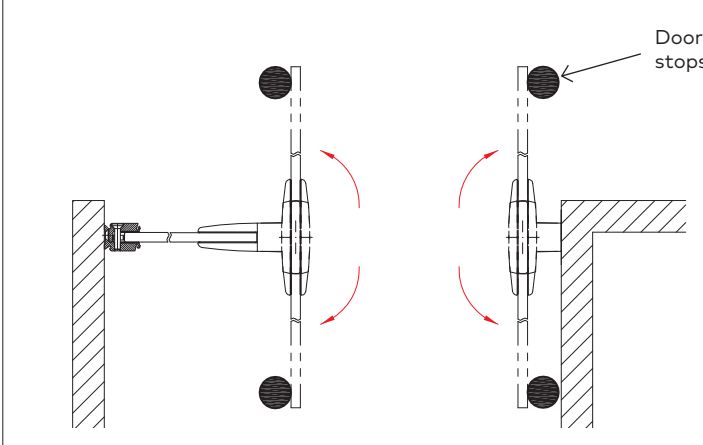
3.4.2 Set door in place.

3.4.3 Secure hinge plates to glass.

- Use included fasteners.
- Tighten at 11 ft lbs [15Nm].

### 3.5 Install door stops (not provided)

Fig 6



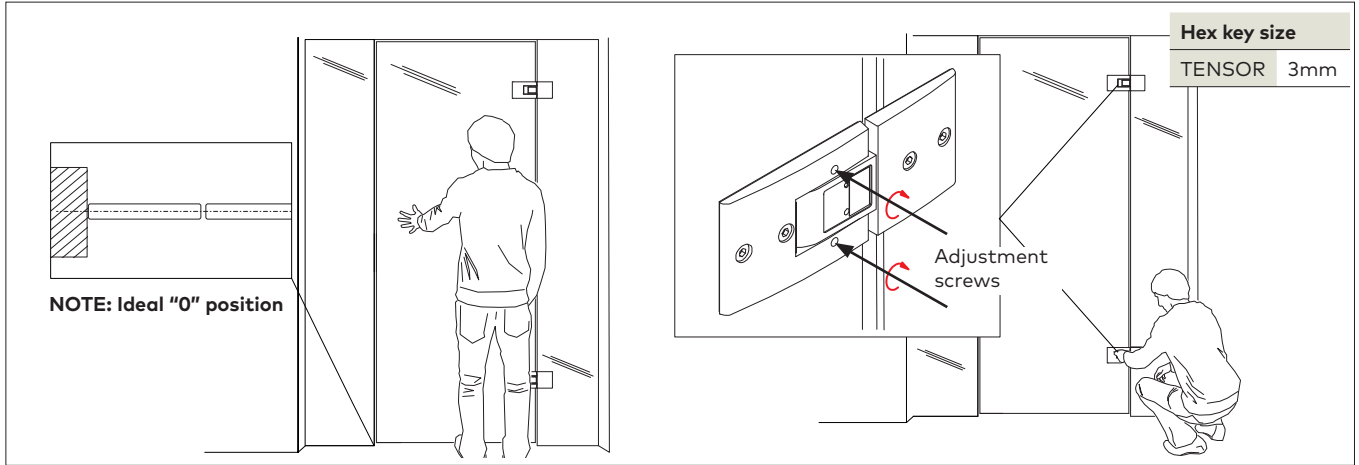
**NOTE: Do not allow door to open past 90°.**

**NOTE: Install door stops to prevent door from opening past its maximum swing angle.**

# 4 Adjustments

## 4.1 Adjust door to "0" position

Fig 7

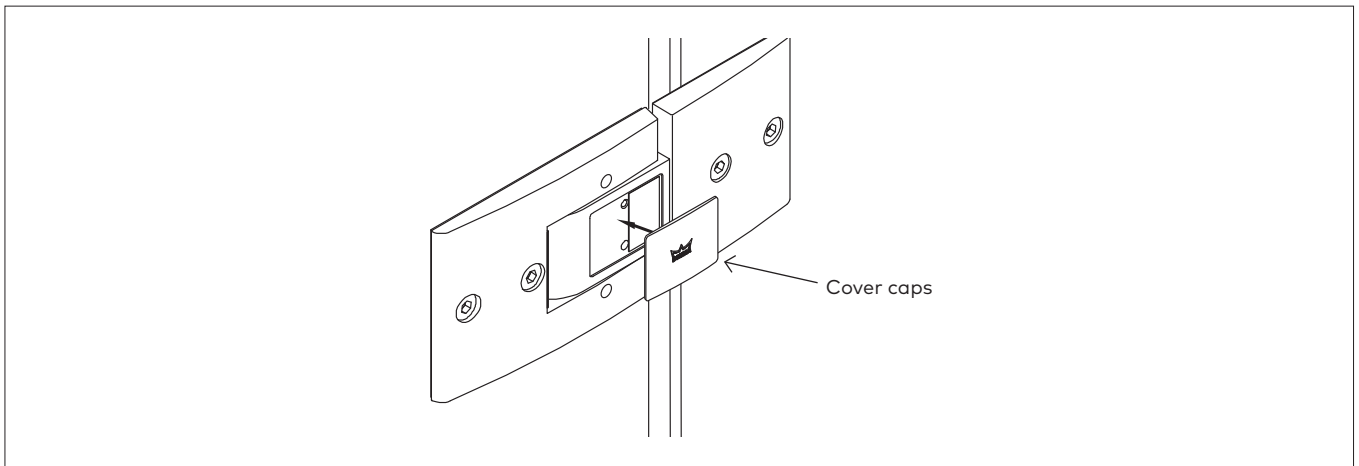


- 4.1.1 Remove all setting blocks.
- 4.1.2 Bring door panel to ideal "0" position. See image above for reference.

- 4.1.3 Tighten adjustment screws (2x upper hinge and 2x lower hinge).
  - At 4 ft lbs [5Nm]
- 4.1.4 Check swing of door. Readjust if necessary.

## 4.2 Install cover caps

Fig 8



- 4.2.1 Snap cover caps into place.

