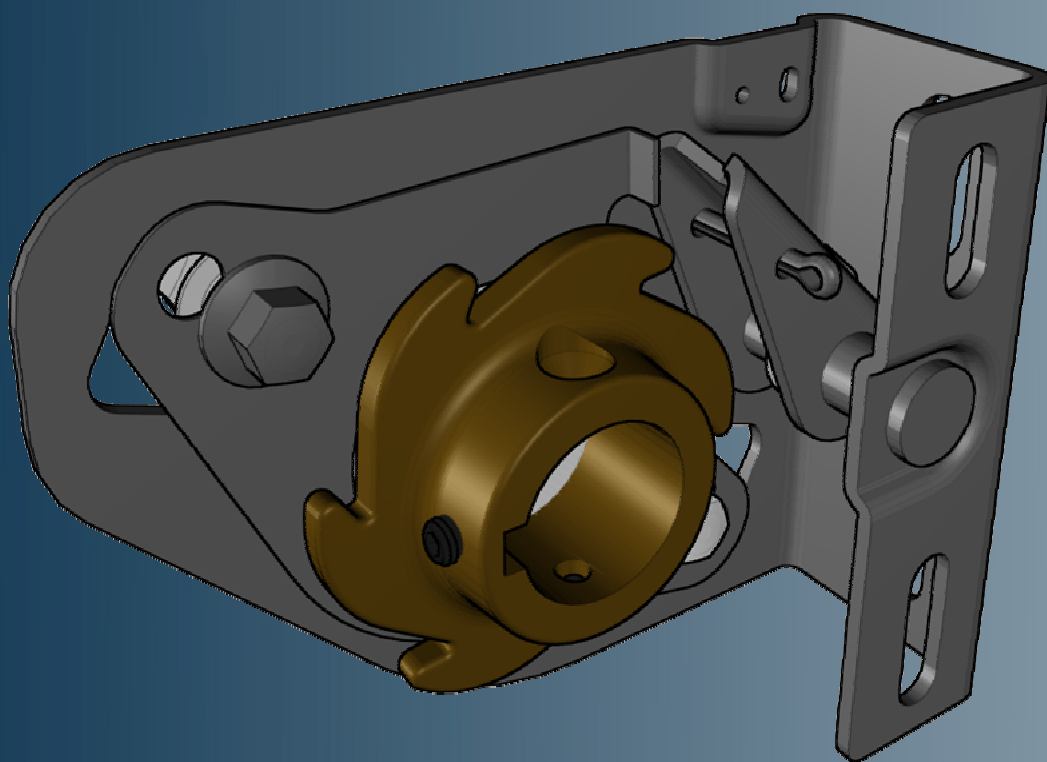


**TORQUE**  
**FORCE**  
*a division of*



**SPRING BREAK DEVICE**  
**RESIDENTIAL**  
**SBD ONE**  
Reference manual



DT0155-R01EN  
06/2012

**Canimex Inc.**  
285, St-Georges  
Drummondville (Quebec) Canada J2C 4H3  
☎ 819.477.1335 ☎ 819.477.0776  
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# SAFETY INSTRUCTIONS



## WARNING

Torsion springs are under high tension and can cause serious injuries.



## WARNING

If the spring breaks, the door will not work under normal condition and must not be operated (manually or motor operated).



## WARNING

Only a qualified and experienced overhead door mechanic should work on a garage door and install or uninstall a Spring Break Device.



## WARNING

The maximum door weight, specified by the cable drum manufacturer, must not be exceeded.



## WARNING

It is the installer's responsibility to fix this spring break device to the wall or wall console with proper fixing material.

## NOTICE

A limit switch must be installed if the door is motor operated. The limit switch will stop the motor if the spring breaks.

## NOTICE

Only use Canimex Torque Force threaded plug or "Clever" plug with this Spring Break Device. Spring Break Device may not work properly with other type of plug.

## NOTE

This Spring Break Device is designed to work with overhead doors that use torsion springs as a counterbalancing method. Verify with your door manufacturer if this system can be installed on your door.

## NOTE

A Spring Break Device must be installed for every spring that counterbalances a door.

## NOTE

This product is laboratory tested. Note that performance of this product could vary depending on door manufacturer, installation or conditions of use.

# APPLICATION RANGE

**TYPE OF DOOR:** Residential garage overhead door (manually or power operated).

**MAXIMUM DOOR WEIGHT:**

1 Spring Counterbalancing - 125 kg (275 lb)

2 Springs Counterbalancing - 250 kg (550 lb)

Canimex strongly recommend to always use 2 torsion spring to counterbalance a door.

Maximum length of each torsion spring should be 1000 mm.

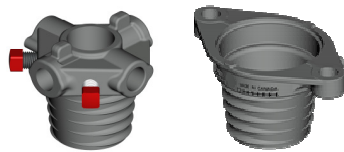
**TORSION SPRING DIAMETERS:** 45 mm (1:3/4") OR 50 mm (2") OR 67 mm (2:5/8")

**MAXIMUM COUNTERBALANCING TORQUE PER SPRING BREAK DEVICE:**

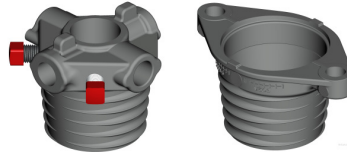
66 N·m (585 lb-in)

**MANDATORY SPRING PLUGS:**

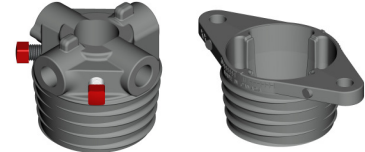
CANIMEX M45 (P175)



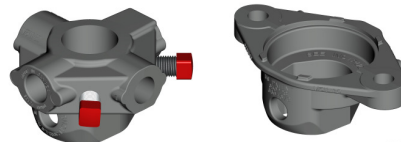
CANIMEX M50 (P200)



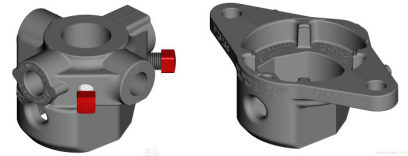
CANIMEX M67 (P2625)



CANIMEX CLEVER PLUG M51 (P201)

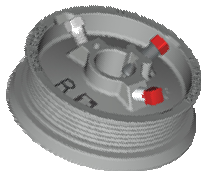


CANIMEX CLEVER PLUG M68 (P2626)

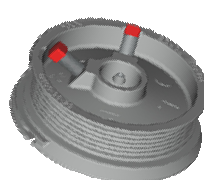


**MANDATORY CABLE DRUMS:**

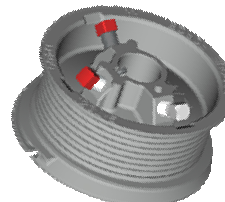
CANIMEX M102-2400KW  
CANIMEX D400-96KW



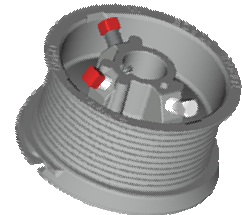
CANIMEX M102-2400  
CANIMEX D400-96



CANIMEX M102-3125  
CANIMEX D400-123

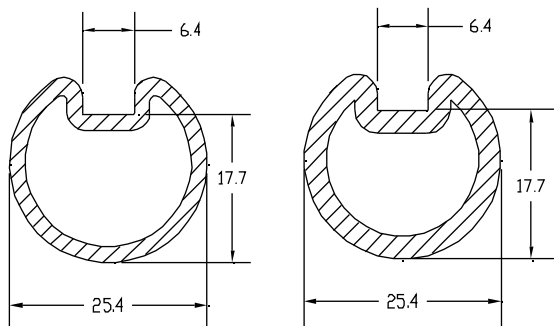


CANIMEX M102-3695  
CANIMEX D400-144

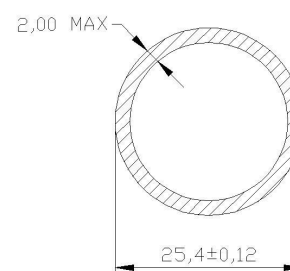


**MANDATORY COUNTERBALANCING SHAFT:**

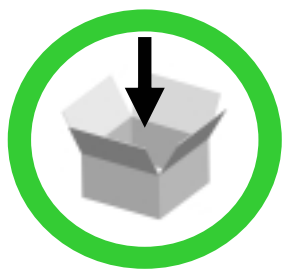
HOLLOW SHAFT WITH KEY 2mm OR 3mm



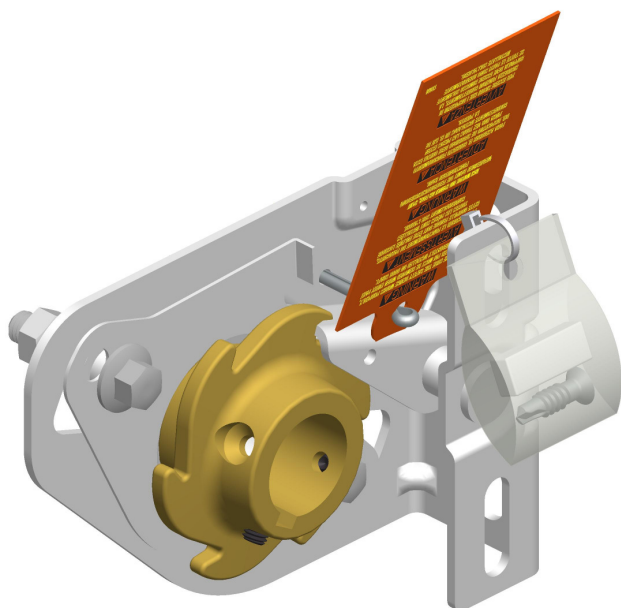
HOLLOW SHAFT ROUND 2mm



# COMPONENTS



1X



1 X



13 mm

1 X



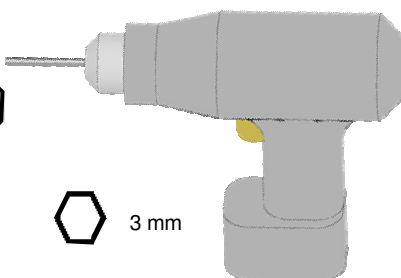
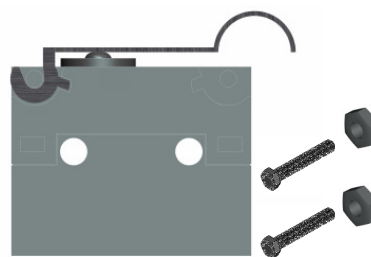
Canimex threaded or « Clever » plug

1 X



3 mm

1 X

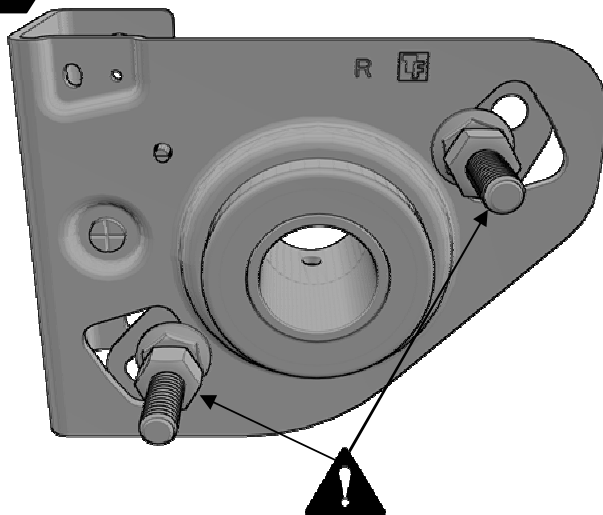


3 mm

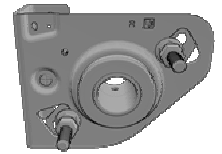
DRAWINGS NOT TO SCALE

# INSTALLATION GUIDE

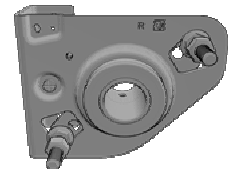
1



M45 (P175)  
M50 (P200)  
M51 (P201)

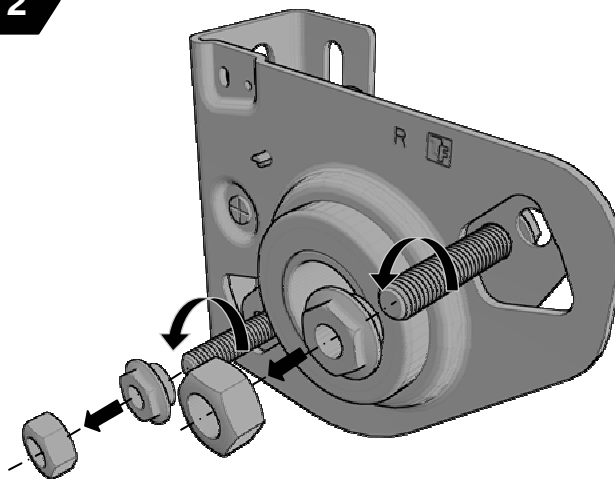


M67 (P2625)  
M68 (P2626)

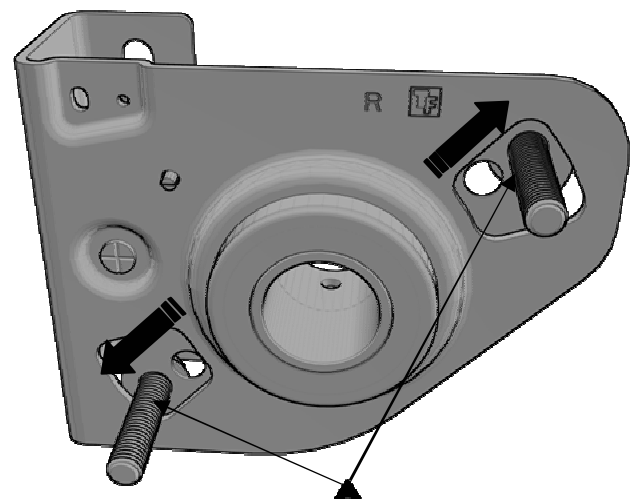


50mm TO 67 mm (WHEN NECESSARY)

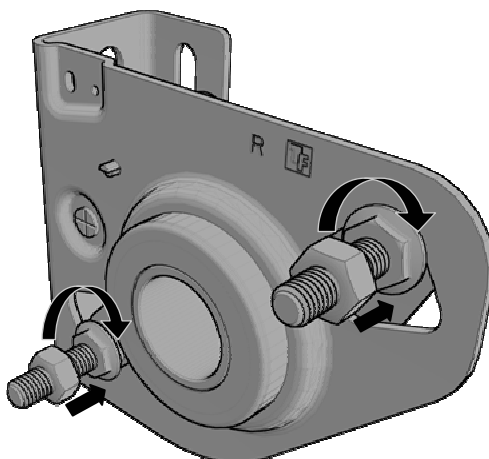
2



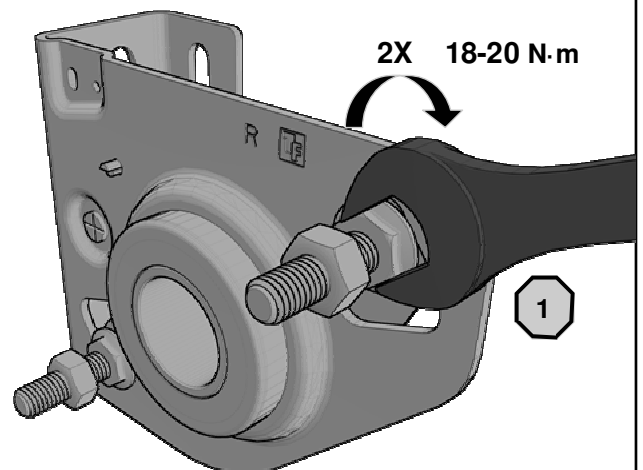
2a



2b

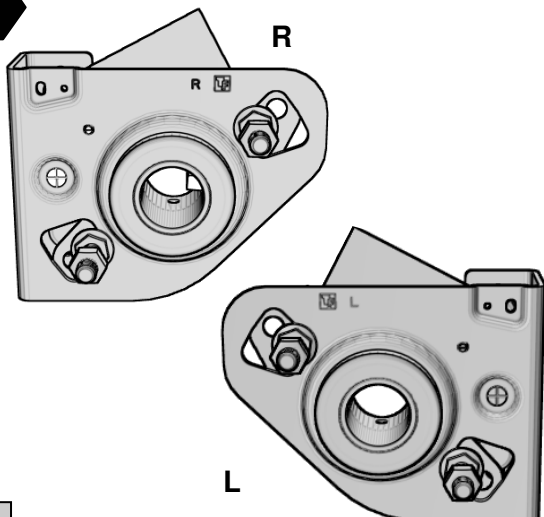


2c

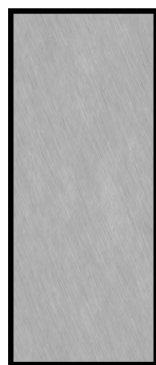


2d

3



WALL MOUNTING SHOULD ALWAYS BE MADE IN SOLID MATERIAL USING THE PROPER FASTENERS.



STEEL



CONCRETE

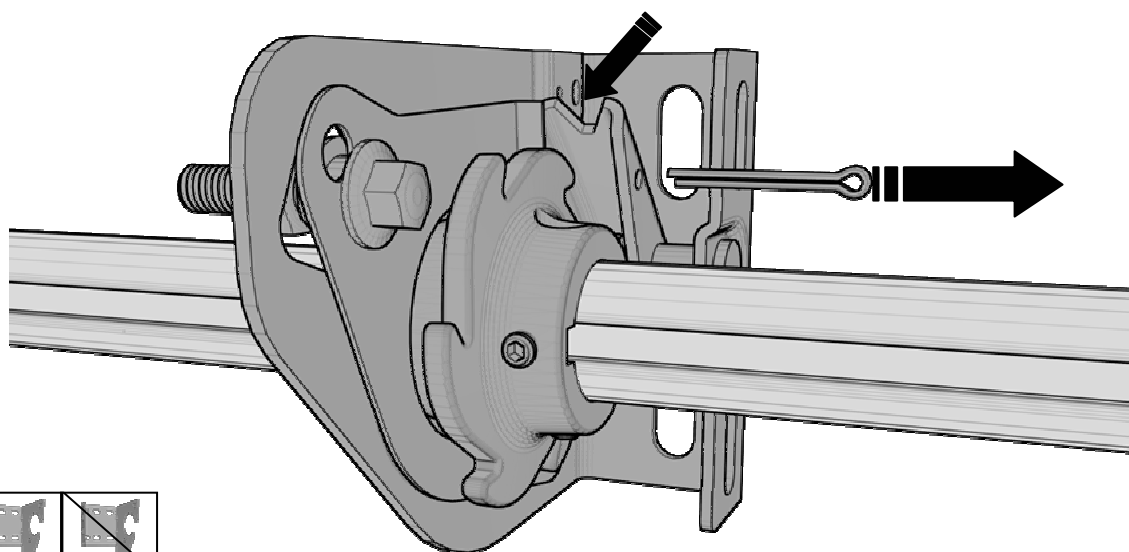


BRICK

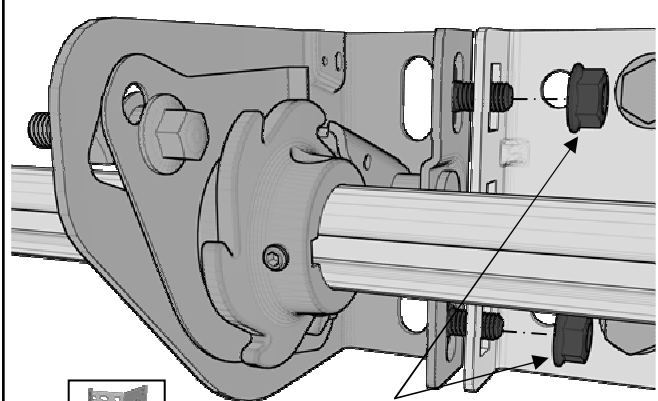
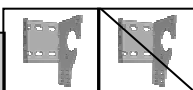


WOOD

3a



3b



3c

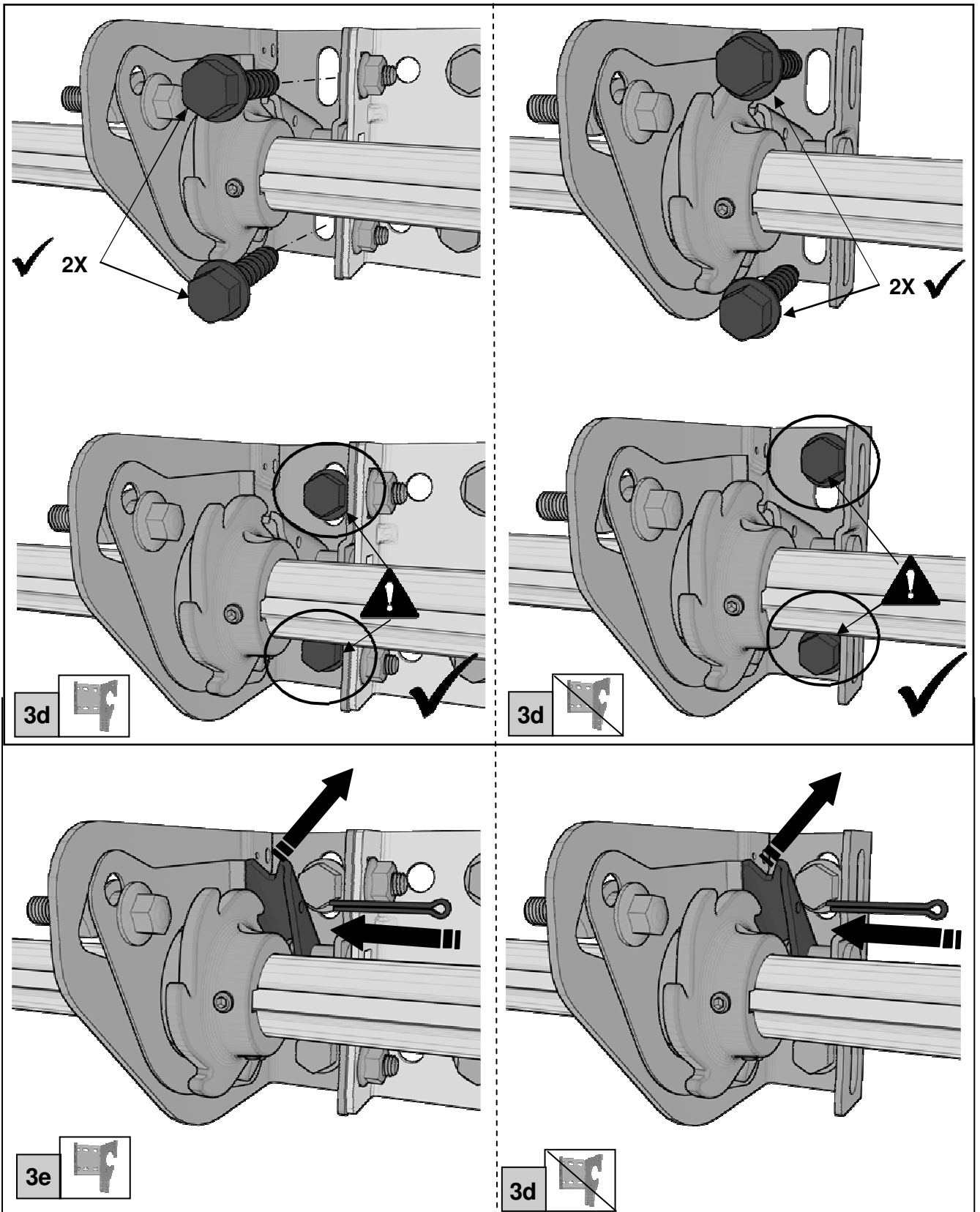


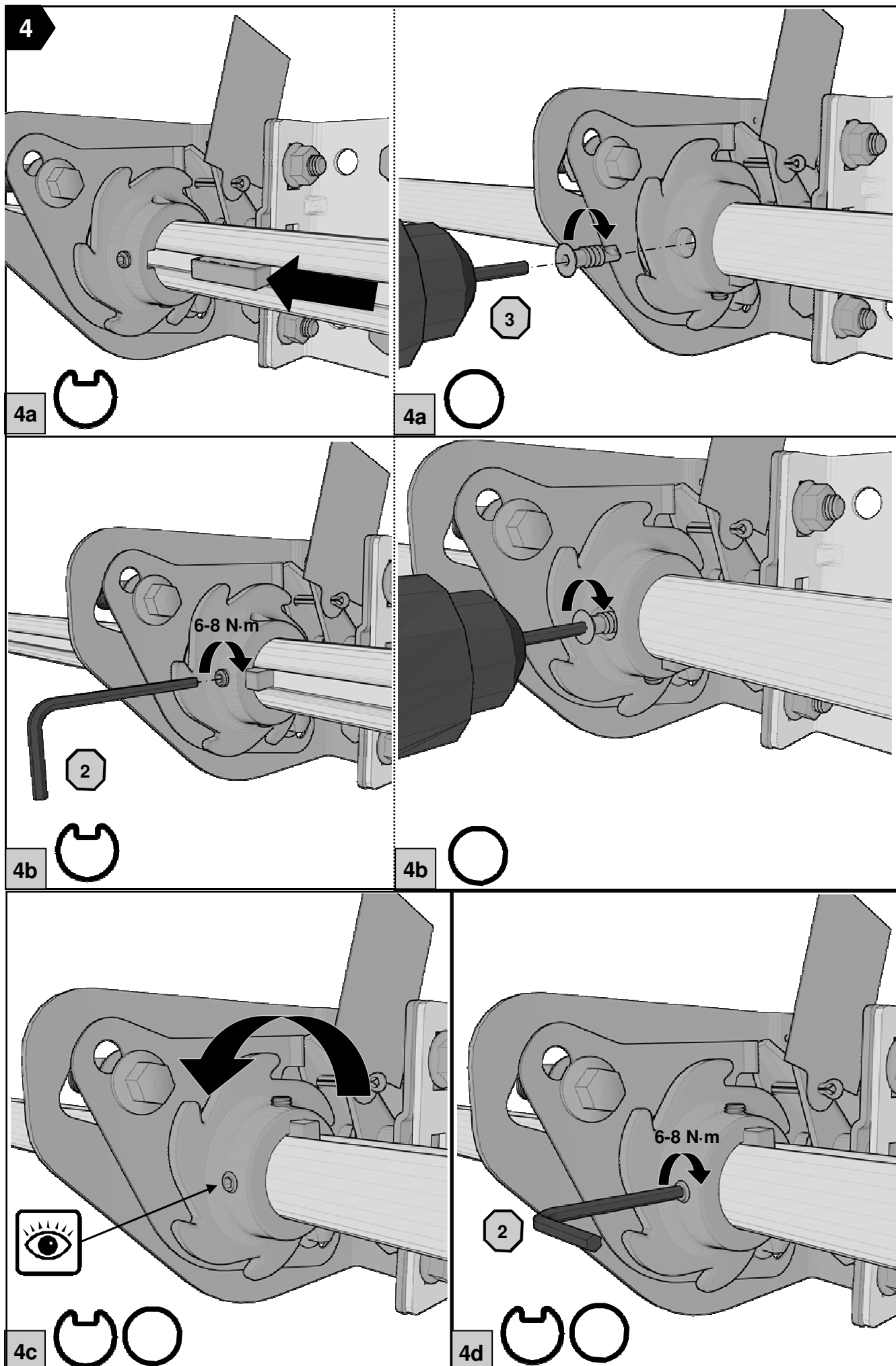
2X

3c



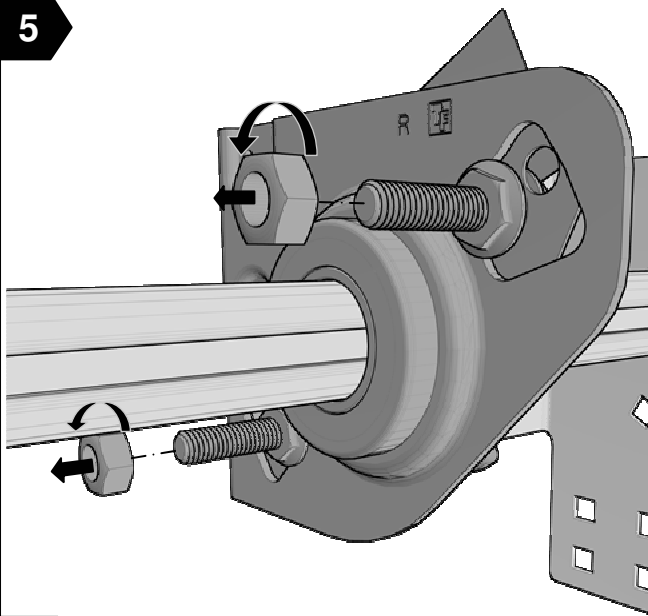




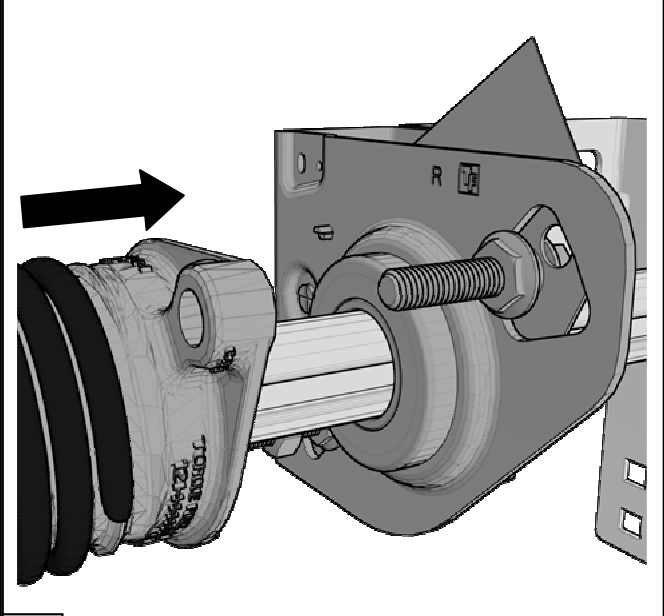




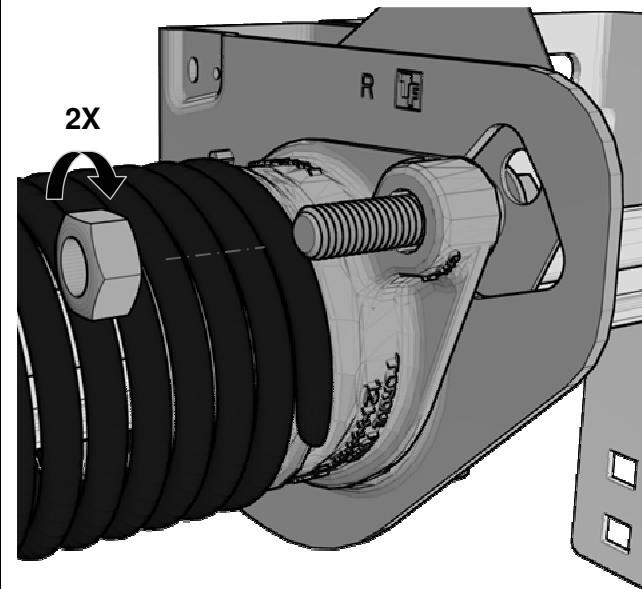
5



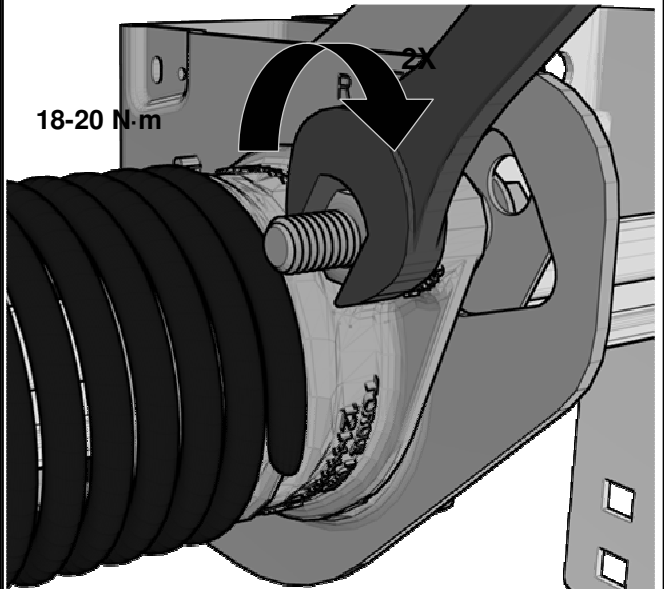
5a



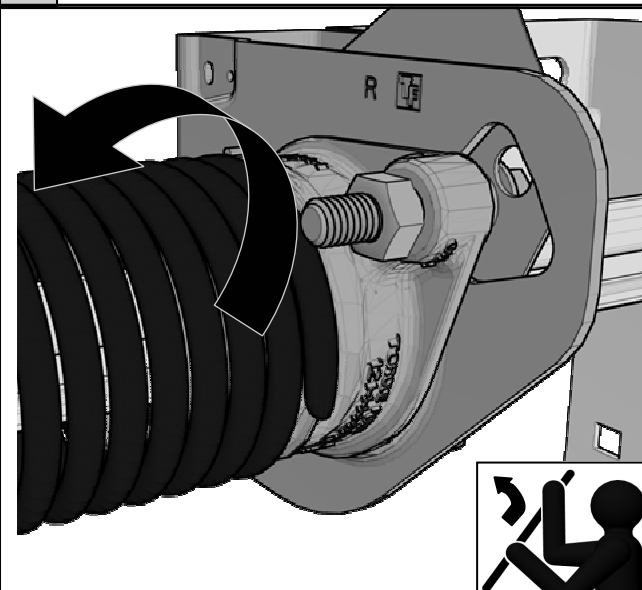
5b



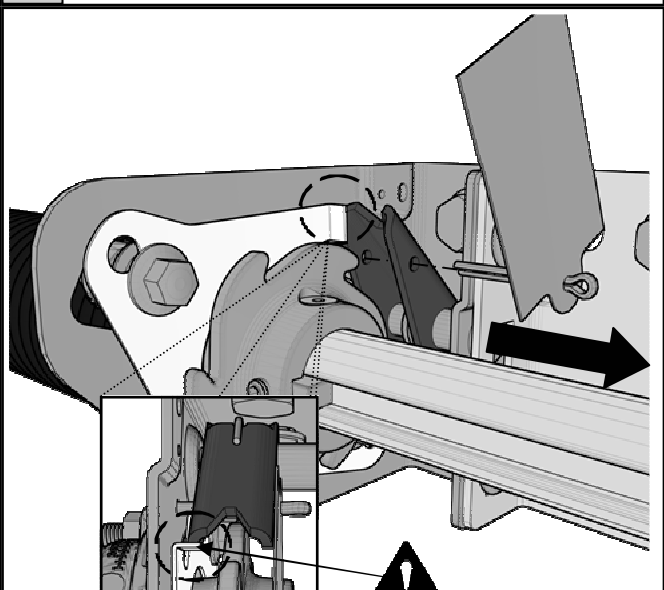
5c



5d

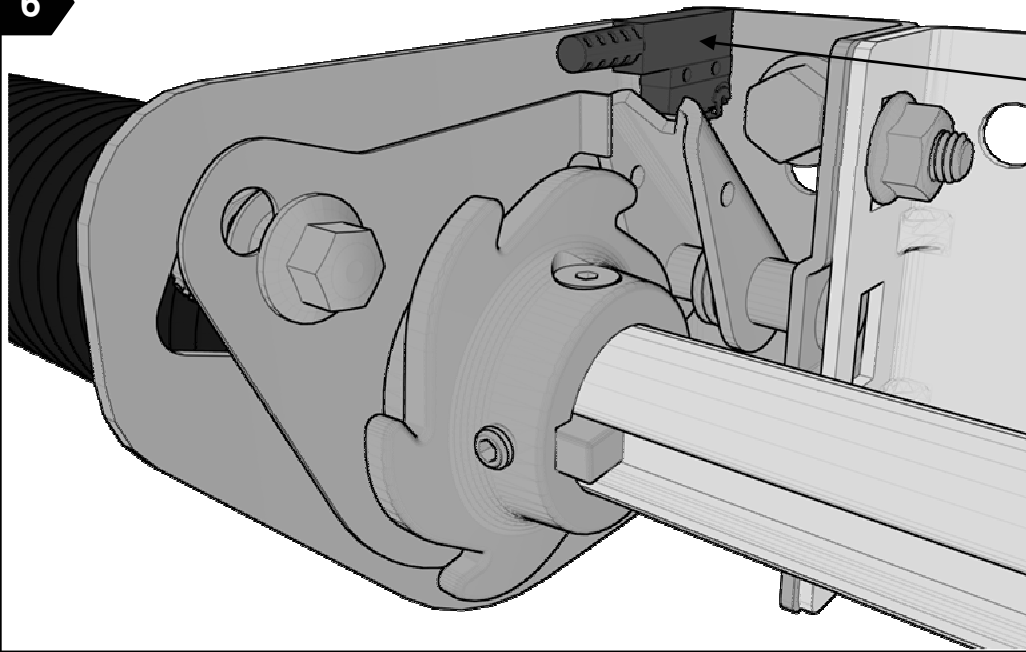


5e

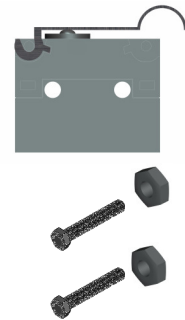


5f

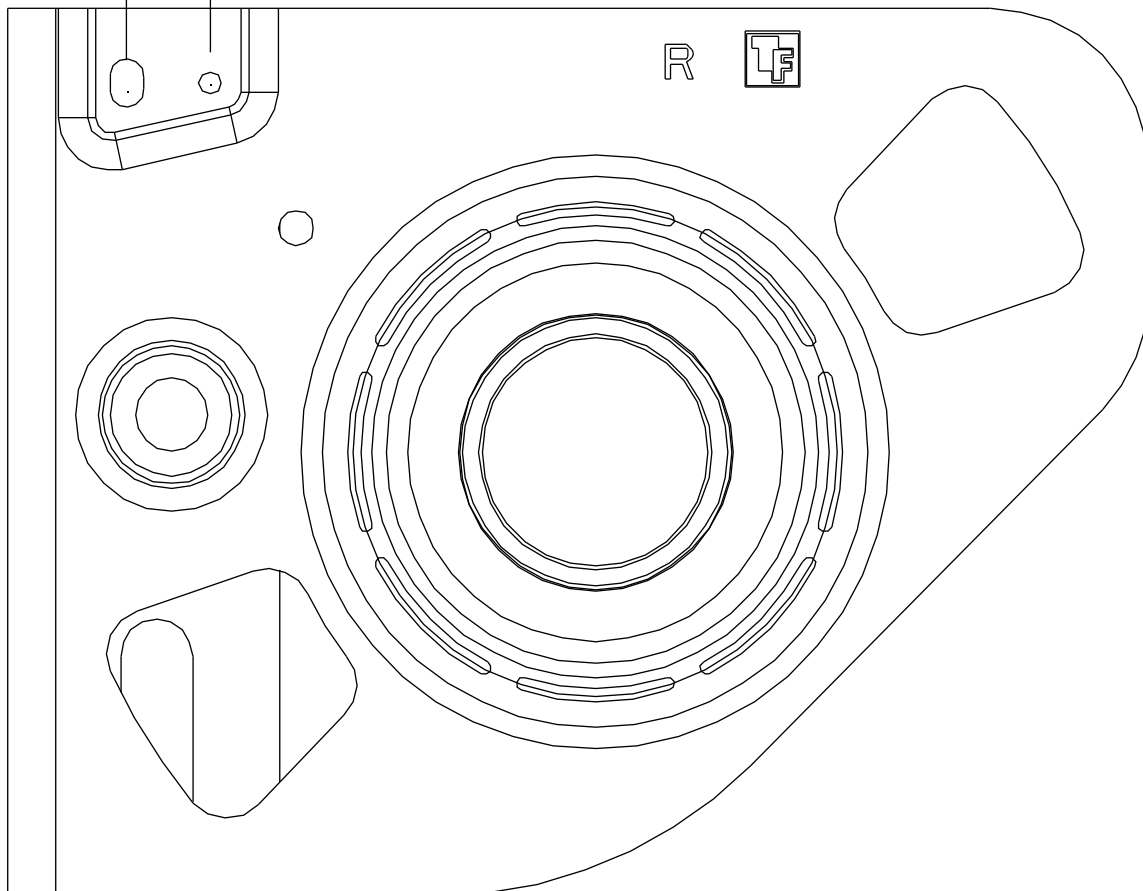
6



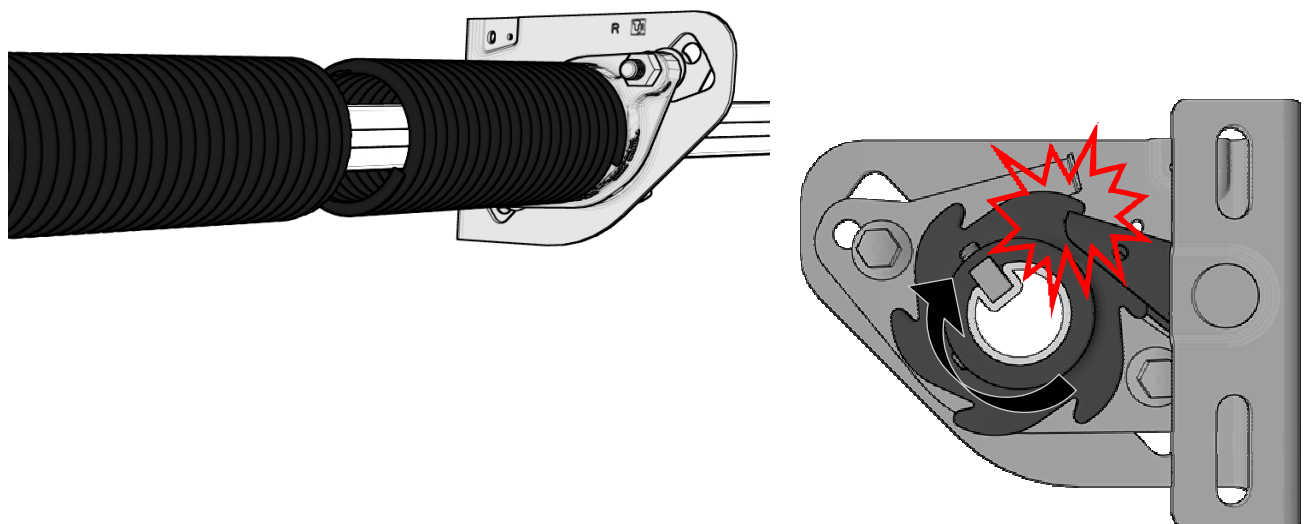
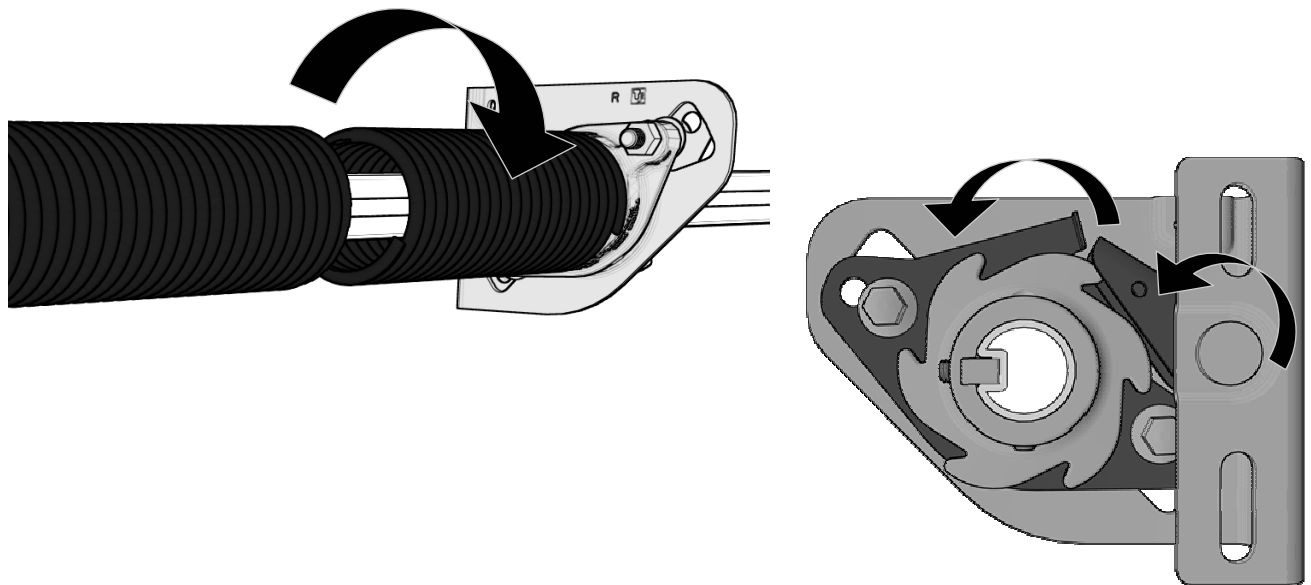
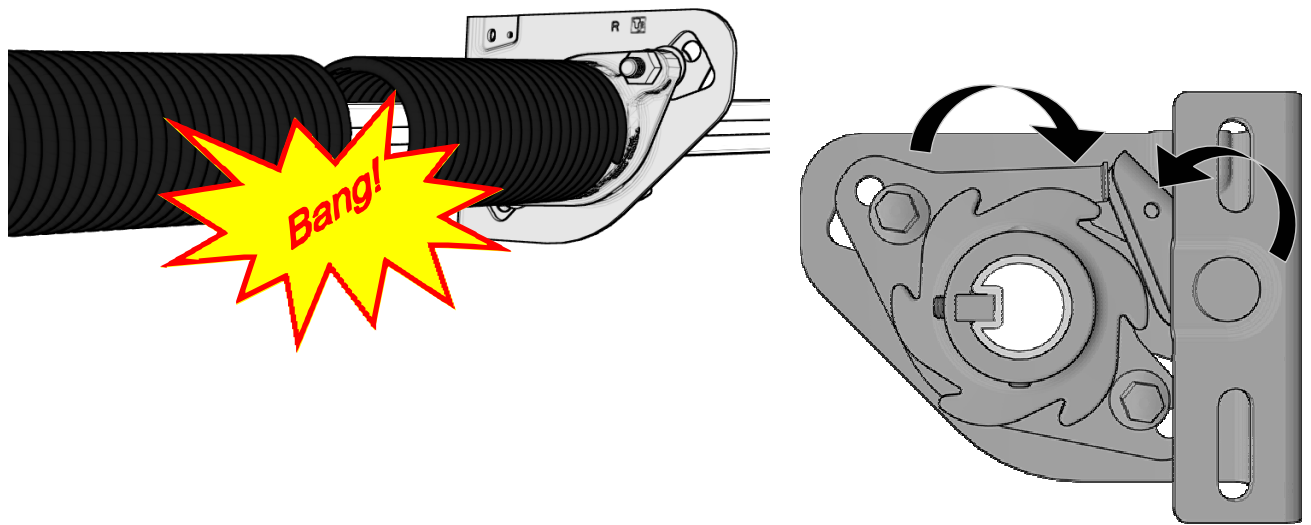
IF MOTOR OPERATED,  
USE SWITCH.



9.5 → ←



## METHOD OF OPERATION



# UNINSTALLATION INSTRUCTIONS



## WARNING

Only qualified and experienced overhead door mechanic can install or uninstall a Spring Break Device. Torsion springs are under high tension and can cause injuries to an unqualified or inexperienced person.

### IF THE SYSTEM HAS NOT BEEN ACTIVATED:

- 1) Lower the door completely and disconnect the motor operator. Remove tension from all counterbalancing springs.
- 2) Remove the Spring Break Device by unscrewing it from the wall and/or bracket and from the threaded plug inserted in the counterbalancing spring.
- 3) The Spring Break Device is designed for a single use only. A system should not be installed twice. Mark the system as being used. Recycle the Spring Break Device (steel).

### IF THE SYSTEM HAS BEEN ACTIVATED:

Mark the door as being not functional and disconnect motor if the door is motor operated. Secure the area and make sure one will not pass under the door.



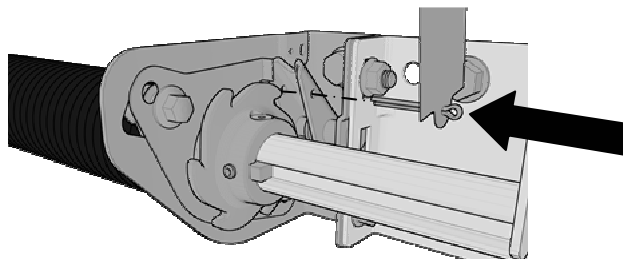
## WARNING

Door can be unstable and free-fall at anytime. Do not stand under the door at anytime.

IF THE SPRING BREAK DEVICE IS ACCESSIBLE WITHOUT MOVING THE DOOR, PROCEED TO STEP 2.

IF THE SPRING BREAK DEVICE IS NOT ACCESSIBLE WITHOUT MOVING THE DOOR, PROCEED TO STEP 1.

- 1) Use a Canimex Torque Force winding plug 3.75" (95 mm). Install the plug at the end of the door shaft. Use a winding bar to raise the door until the Spring Break Device is accessible. The Spring Break Device should act as a ratchet and enable one to raise the door, but not to lower it.
- 2) Once the system is accessible, secure the door from falling. Make sure to select a securing system that will hold the total weight of the door.
- 3) Disengage the lock from the ratchet wheel. Use a cotter pin or something similar to block the lock at its installing position. Do not remove the device from the wall at this point.



- 4) Lower the door to the ground with the winding bar and the winding plug attached to the door shaft. Be careful: all the remaining weight of the door will pass through the winding bar. If the weight is too excessive, use other mean to lower the door to the ground.
- 5) If applicable, remove remaining tension by unwinding other counterbalancing springs that are not broken. Refer to the manufacturer to perform this action.
- 6) Remove the activated Spring Break Device by unscrewing it from the wall and/or bracket. The Spring Break Device is designed for a single use only. A system should not be installed twice. Mark the system as being used. Recycle the Spring Break Device (steel).



Remove the other Spring Break Device using the same method. It is recommended to change all counterbalancing springs and Spring Break Devices even if only one spring has been activated.

## MAINTENANCE

- 1) Keep the Residential SBD system clean in order to allow free movement of all rotating parts at all time.
- 2) Replace any Residential SBD system for which corrosion obstruct the free movement of any rotating parts.

## TESTING

Tension of the lock spring must be checked twice a year by qualified door mechanic. If lock spring is broken, the device must be replaced.

## MALFUNCTION

Manufacturer cannot be held responsible for device misinstallation. If a malfunction due to installation should happen, its causes need to be found and solved.

In such case, the device must be replaced and has to be sent to CANIMEX with the following information:

- Type of malfunction,
  - Door dimensions and weight,
  - Drop height of the door.
- CANIMEX will investigate the cause of malfunction.

## MALFUNCTION

Manufacturer cannot be held responsible for device malfunctioning if such device has not been maintained properly.

## MALFUNCTION

Manufacturer cannot be held responsible for device malfunction if such device has been abused.

**MANUFACTURER:**

**Canimex Incorporated  
Torque Force division  
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Internet: [www.canimex.com](http://www.canimex.com)**