



# TS93 SPT

Surface Applied Closer

Push side mount spring track (SPT)

## Installation instructions

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| EN |

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# 1 Technical specifications

## 1.1 Overview

-  Caution: sex nuts are required for attachment of components to unreinforced doors and to wood or plastic faced composite type fire doors, unless an alternative method is identified in the individual door manufacturer's listings.
-  Arrows on closer mounting plate point upward.
-  Maximum door opening degree is 110°.
-  Follow included template to properly prepare door and frame for all accessories of the closer installation.
-  Minimum door with 42".
-  Know the swing of the door which is being installed prior to installation.
-  Hold open range is from 85° to 115° with optional hold open kit.
-  Verify closer spring size prior to installation.
-  Use closer body style "G" for this installation.
-  Make sure door efficiently operates prior to installing closer.

## 1.2 Size selection chart

Table 1

Door Width						
Closer	Interior/ Exterior	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
TS9315	Interior	♿	♿	♿	NA	NA
	Exterior	•	•	•	NA	NA
TS9356	Interior	NA	NA	•	•	•
	Exterior	NA	•	•	•	NA

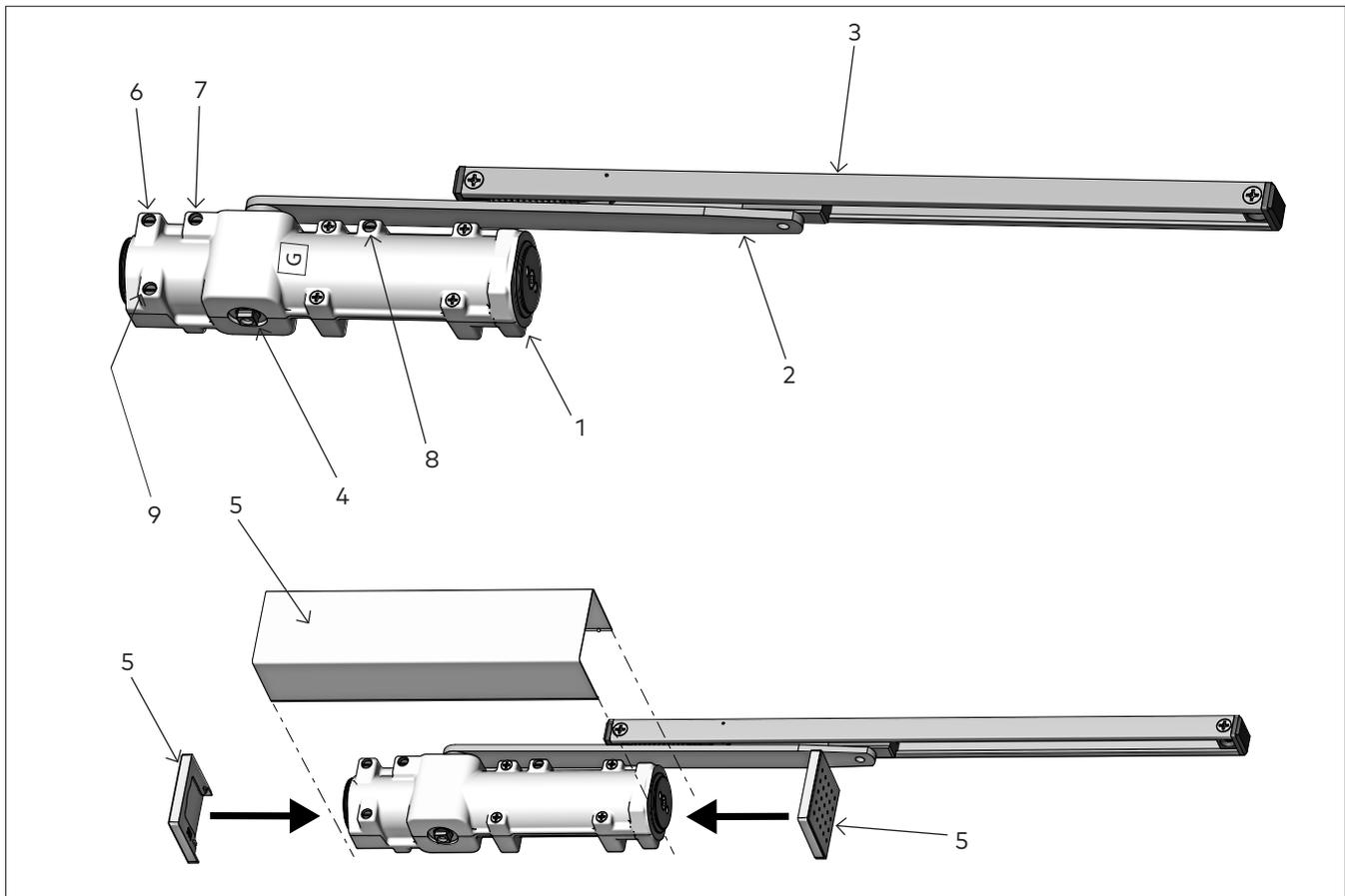
## 1.3 Tools recommended

Table 2

Drill bits:	#0 Phillips screwdriver
Metal: No. 21 & 10-32 tap	#2 Phillips screwdriver
No. 7 & 1/4-20 tap	3/16" flat head screwdriver
Wood: 9/64"	M5 hex key
11/64"	3/16" hex key

## 1.4 Surface closer system

Fig.1

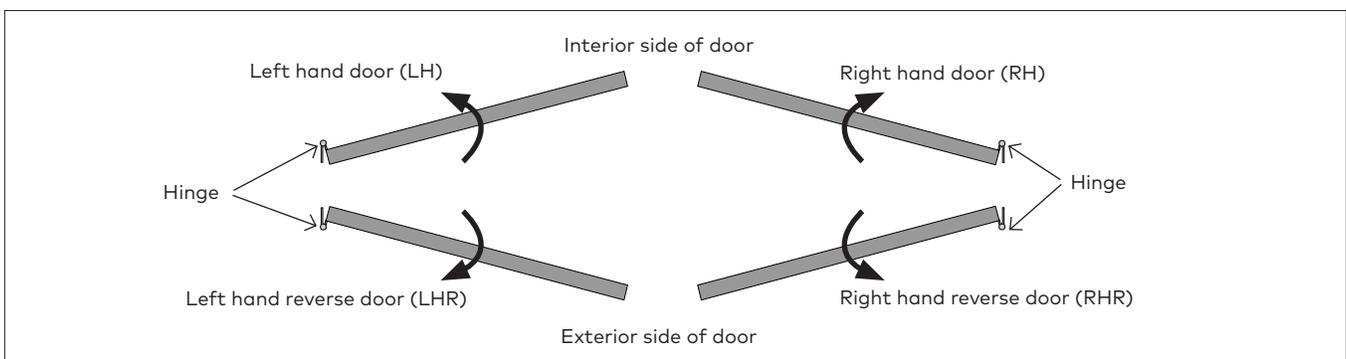


The surface closer is comprised of the following components.

- |                          |                              |
|--------------------------|------------------------------|
| 1. Closer body: "G" body | 5. Cover and end caps        |
| 2. Main arm              | 6. Closing/sweep adjustment  |
| 3. Track assembly        | 7. Latch speed adjustment    |
| 4. Pinion                | 8. Backcheck adjustment      |
|                          | 9. Delayed action adjustment |

## 1.5 Handing the door

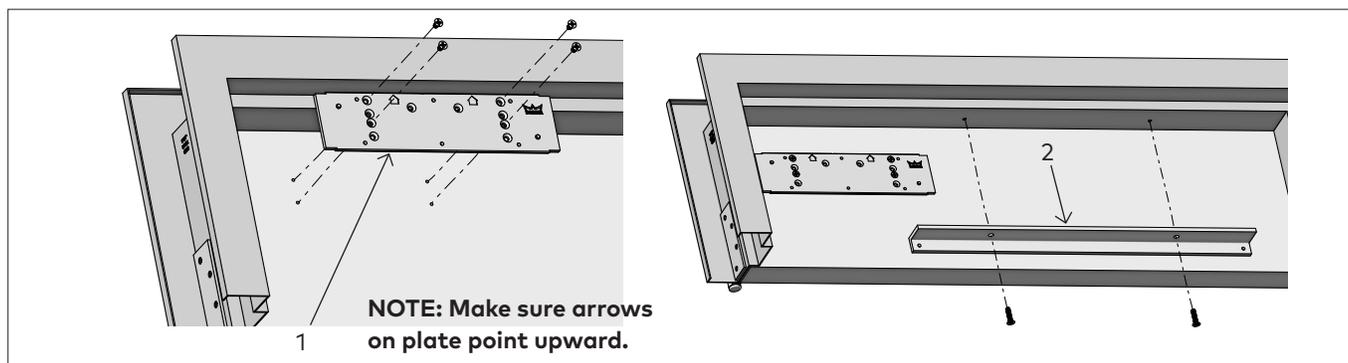
Fig.2



# 2 Installation instructions

## 2.1 Installing the back plate and angle bracket

Fig.3



Reference template 08280192

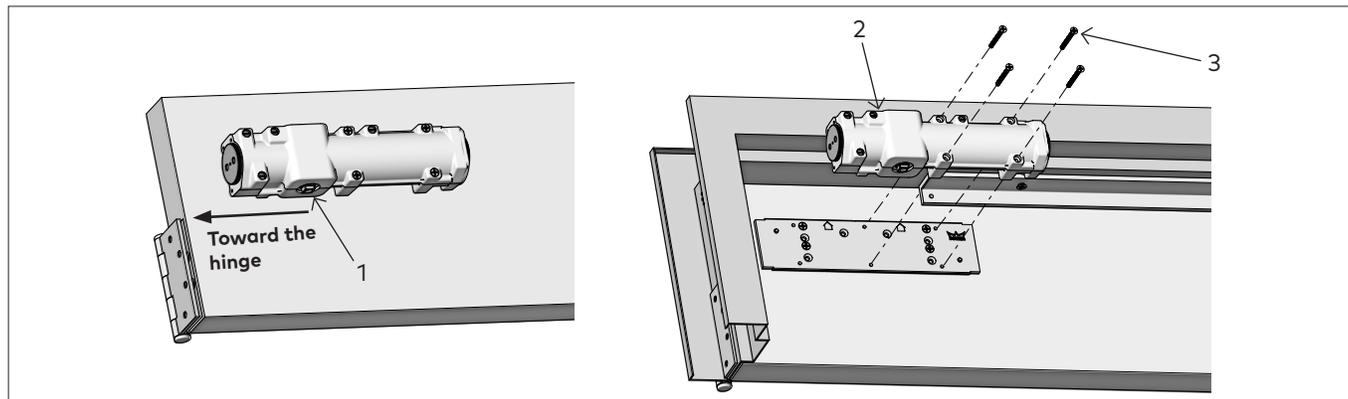
**NOTE: For use on regular mount applications on the push side of the door.**

2.1.1 Attach the back plate (1) to the mounting surface using the four screws [10-32 machine screws or #10 wood screws] provided with the surface closer.

2.1.2 Attach the angle bracket (2) to the bottom of the soffit using the three [1/4-20 machine screws or #10 wood screws] provided.

## 2.2 Installing the surface closer

Fig.4

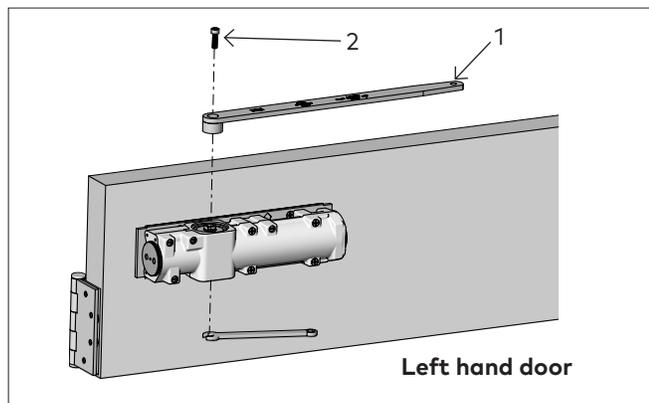


**NOTE: Orient pinion (1) closest to hinge.**

2.2.1 Attach the closer body (2) to the plate using the four screws (3) provided with the plate itself [M5x45mm flat head screw].

## 2.3 Installing main arm

Fig.5

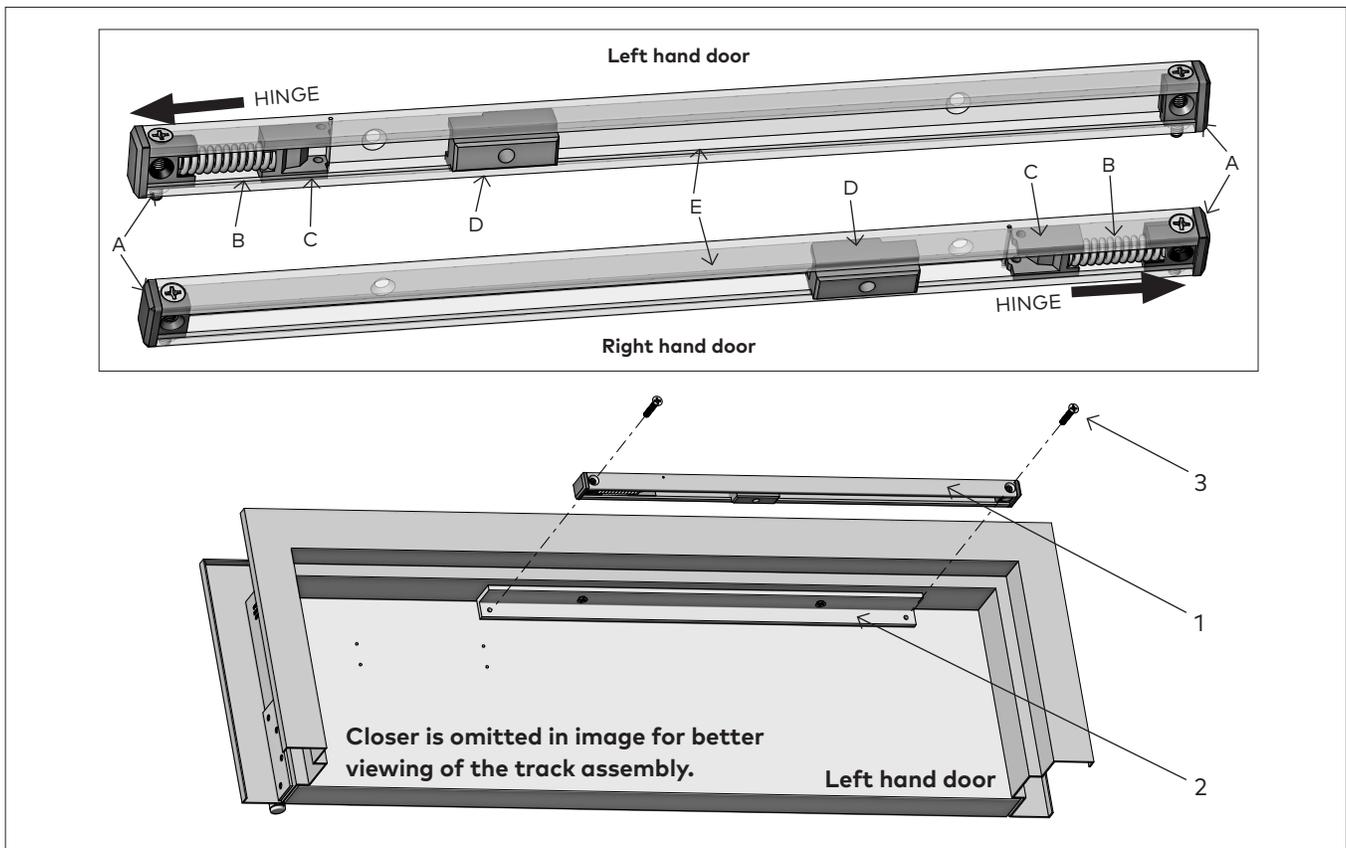


- 2.3.1 Using an adjustable wrench (and looking up at the bottom of the closer):
- **Left hand door** - turn the bottom pinion counter-clockwise 5°.
  - **Right hand door** - turn the bottom pinion clockwise 5°.
- 2.3.2 Attach the main arm (1) to the top pinion with an M6x20 socket head cap screw (2) using an M5 hex key.

 Be sure the main arm is parallel to the door during application.

## 2.4 Installing track assembly

Fig.6



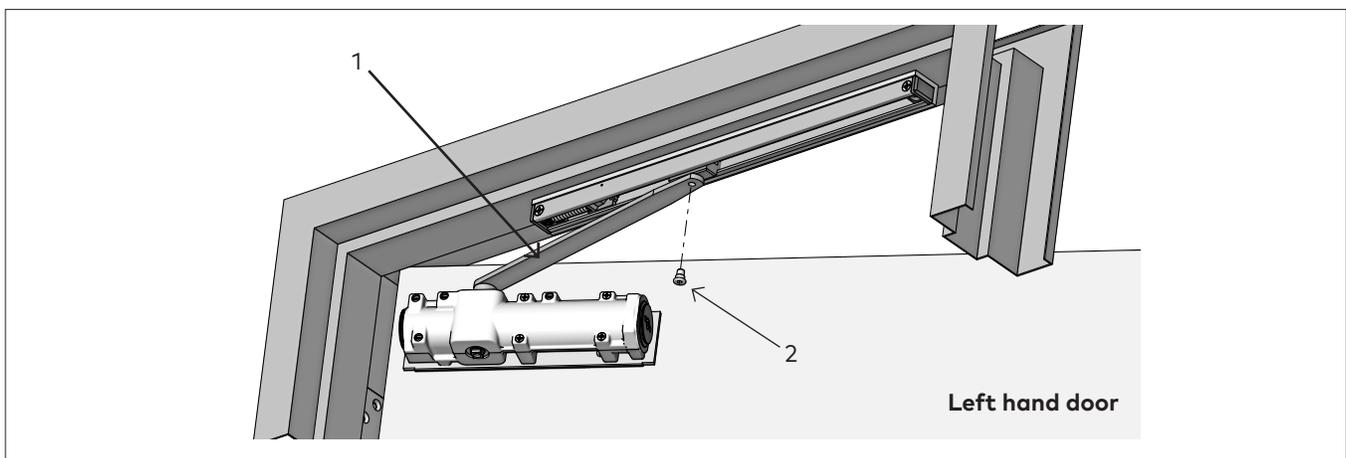
**NOTE: Spring tracks are pre-assembled.**

2.4.1 Attach the track channel (1) to the angle bracket (2) through the end blocks with two flat head Phillips screws (3) [1/4-20 x 1-3/4" flat head screws or #14 - 2-3/4" wood screws].

- A. End block
- B. Spring
- C. Shock block
- D. Slide shoe
- E. Track channel

## 2.5 Secure main arm

Fig.7



2.5.1 Align the arm (1) with the slide shoe of the track channel.

2.5.2 Attach with one 3/8-24 x 1/2" shoulder bolt (2) using an M5 hex key.

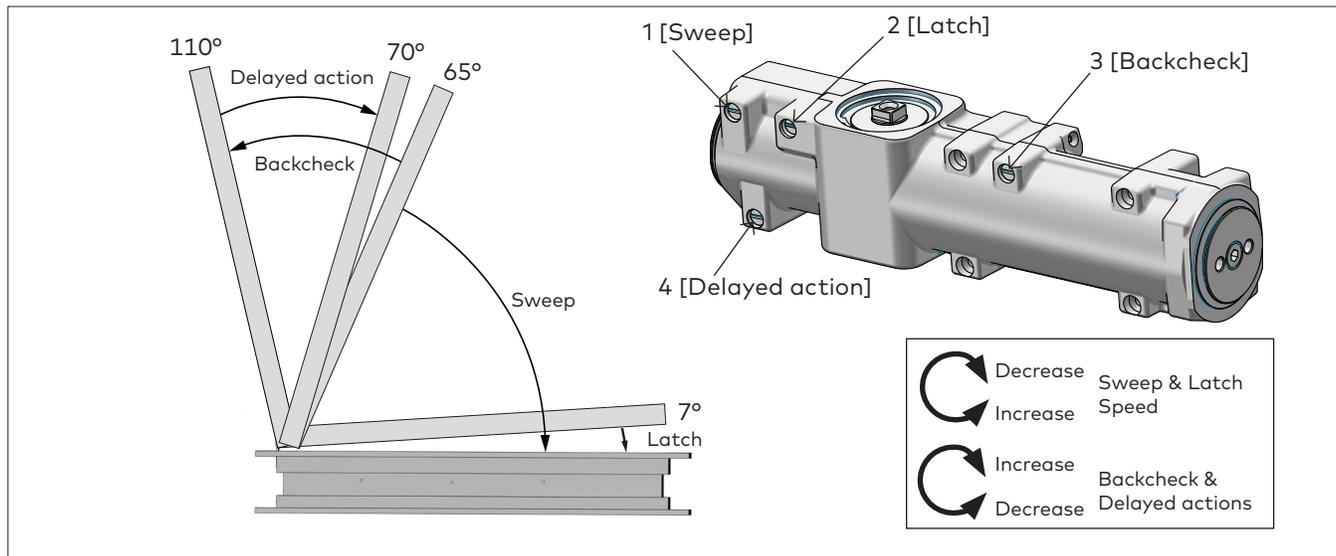
# 3 Adjustments

-  Confirm closer spring size prior to making any closing speed adjustments.
-  Do not back valve heads out beyond closer casting.

-  Maximum opening angle is 110°.
-  Door should close in 3 to 6 seconds from 90°.
-  Do not close valves completely.

## 3.1 Adjust closing speeds: sweep, latch, backcheck, delayed action

Fig.8



3.1.1 Adjust the **closing sweep speed** (1) for the area from 70° - 0°

- Increase sweep speed: Turn valve counter-clockwise
- Decrease sweep speed: Turn valve clockwise.

3.1.2 Adjust the **closing latch speed** (2) for the area from 7° - 0°.

- Increase latch speed: Turn valve counter-clockwise

3.1.3 Adjust the **opening backcheck** (3) for the area from 65° - 110°.

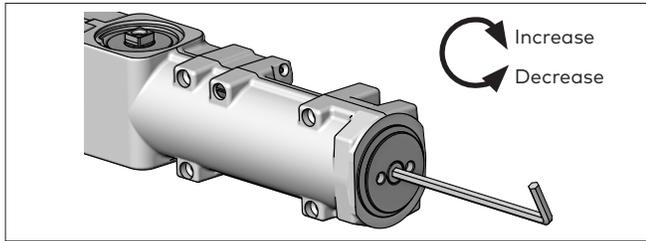
- Increase resistance: Turn valve clockwise
- Decrease resistance: Turn valve counter-clockwise.

3.1.4 Adjust the **closing delayed action** (4) for the area from 110° - 70°.

- Increase delayed action: Turn valve clockwise
- Decrease delayed action: Turn valve counter-clockwise

### 3.2 Adjust spring force

Fig.9



#### TS9356

**NOTE: Supplied with a size 6 spring setting.**

- Increase force: turn clockwise 6 times (max)

#### TS9315

**NOTE: Supplied with a size 2 spring setting.**

**Barrier free openings:** Take an opening force reading from the pull on the door. If required, adjust the spring force to meet the barrier-free requirement.

- **Decrease force:** turn counter-clockwise 5 times (max)
- **Increase force:** turn clockwise 12 times (max)

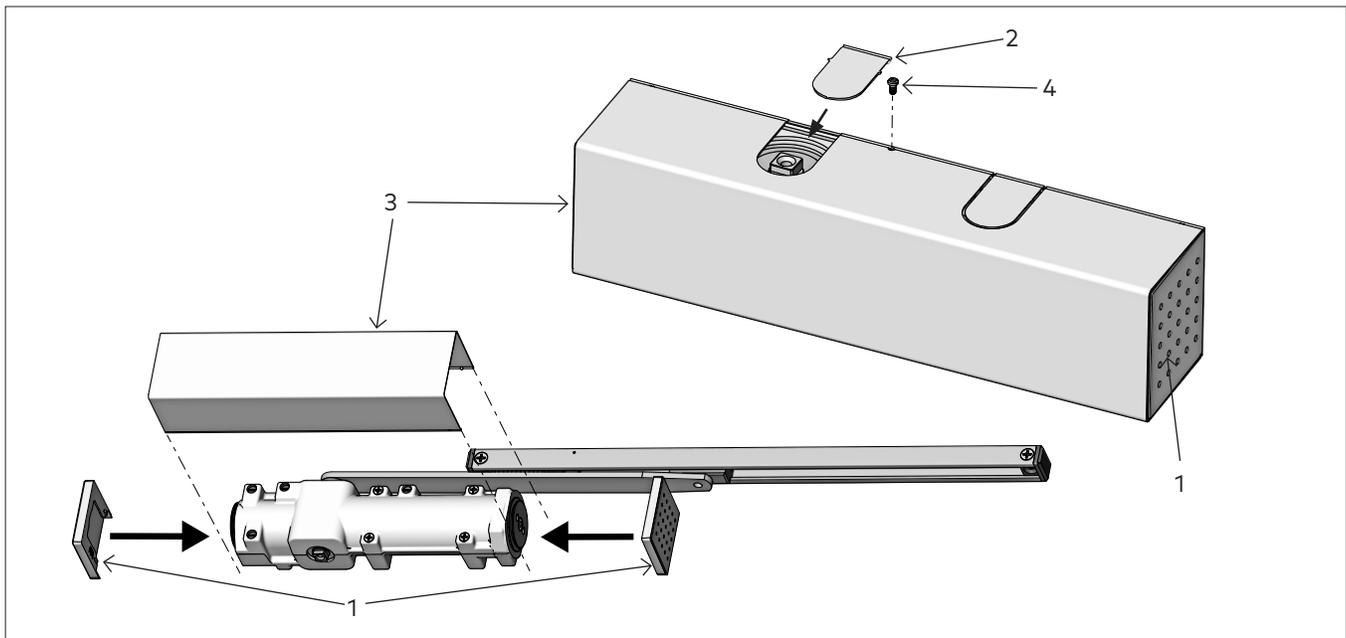
Depending on opening conditions, a door adjusted to meet barrier-free forces may not have sufficient power to reliably close and latch the door.

Closer type	Max door weight (lbs)	Spring size	Full turns of spring adjuster
TS9315	100	2	0
	125	3	+3
	150	4	+9
	200	5	+12
TS9356	200	5	-4
	250	6	0

	Door width		Full turns of spring adjuster	Closer size
	Interior	Exterior		
TS9315	2'-6"	--	0	2
	3'	2'-6"	+3	3
	3'-6"	3'	+9	4
	4'	3'-6"	+12	5
TS9356	4'	3'-6"	-4	5
	4'-6"	4'	0	6

## 4 Install covers

Fig.10



4.1.1 Snap both end covers (1) into place.

4.1.2 Remove the un-needed tab (2), and snap the closer body cover (3) into place.

4.1.3 Attach with a 4-40 Phillips pan head screw (4).

