TS93 T/TH

Surface Applied Closer

Pull side jamb mount with dead stop (T)

Optional hold open(TH)

Installation instructions

08279221 – 08-2019

| EN |

dormakaba

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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.
- Maximum door opening degree is 175°.
- Minimum door width 24".
- Hold open range is from 50° to 140° with optional hold open kit.
- Arrows on mounting plate point upward.
- Follow included template to properly prepare door and frame for all accessories of the closer installation.
- Know the swing of the door which is being installed prior to installation.
- Make sure door efficiently operates prior to installing closer.
- Verify closer spring size prior to installation.

1.2 Size selection chart

Table 1

		Door Width						
Closer	Interior/ Exterior	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
TS9315	Interior	•	•	♿	♿	♿	N/A	N/A
TS9356	Interior	N/A	N/A	N/A	N/A	•	•	•

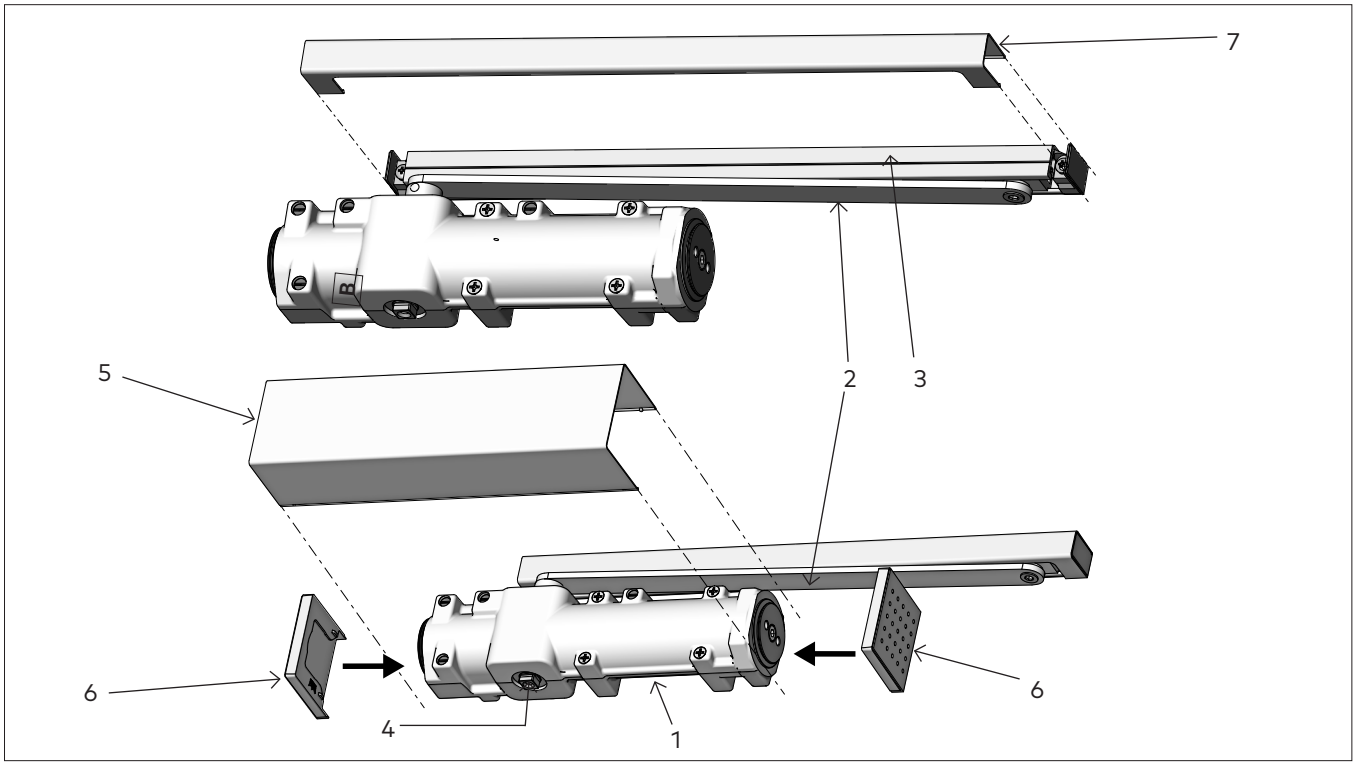
1.3 Tools recommended

Table 2

Drill bits:	#2 Phillips screwdriver	M5 hex key
Metal: No. 21 & 10-32 tap	3/16" flat head screwdriver	M2.5 hex key
Wood: 9/64"	Pozidriv PZ-2	

1.4 Surface closer system

Fig.1

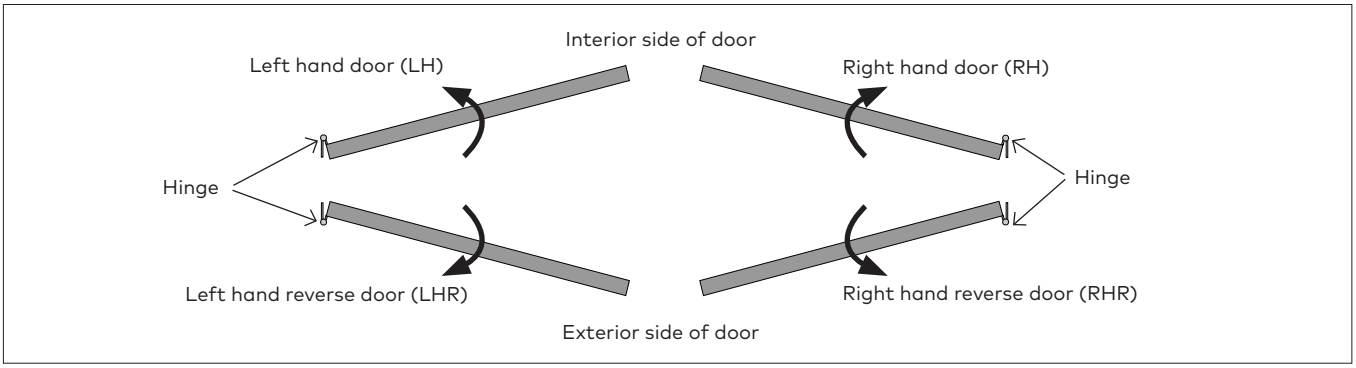


The surface closer is comprised of the following components.

1. Closer body: "B" body
2. Main arm
3. Track assembly
4. Pinion
5. Closer cover
6. Closer end covers
7. Track cover

1.5 Handing the door

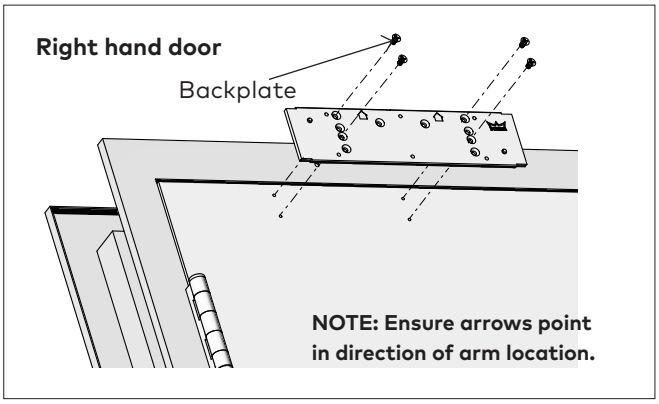
Fig.2



2 Installation instructions

2.1 Installing the back plate

Fig.3

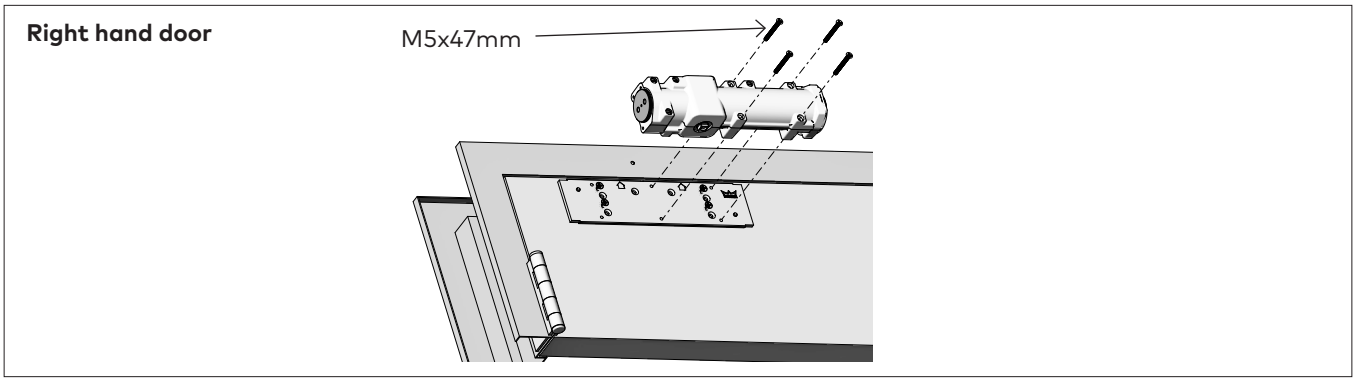


NOTE: For use on top jamb applications on the pull side of the door.

2.1.1 Secure back plate to door.
- Use four 10-32x5/8" machine screws [#10x1" wood screws] provided.

2.2 Installing the surface closer

Fig.4

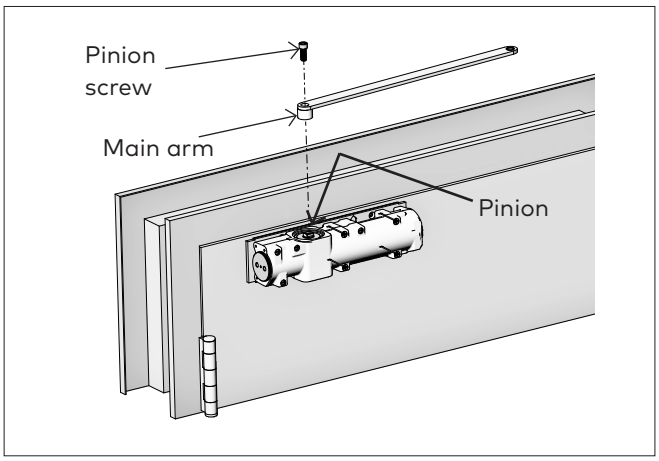


NOTE: Orient pinion closest to hinge.
NOTE: Use ONLY hand Phillips bit driver #2 or Pozidriv PZ-2.

2.2.1 Secure closer body to plate.
- Use four M5x47mm screws provided with plate itself.

2.3 Installing main arm

Fig.5

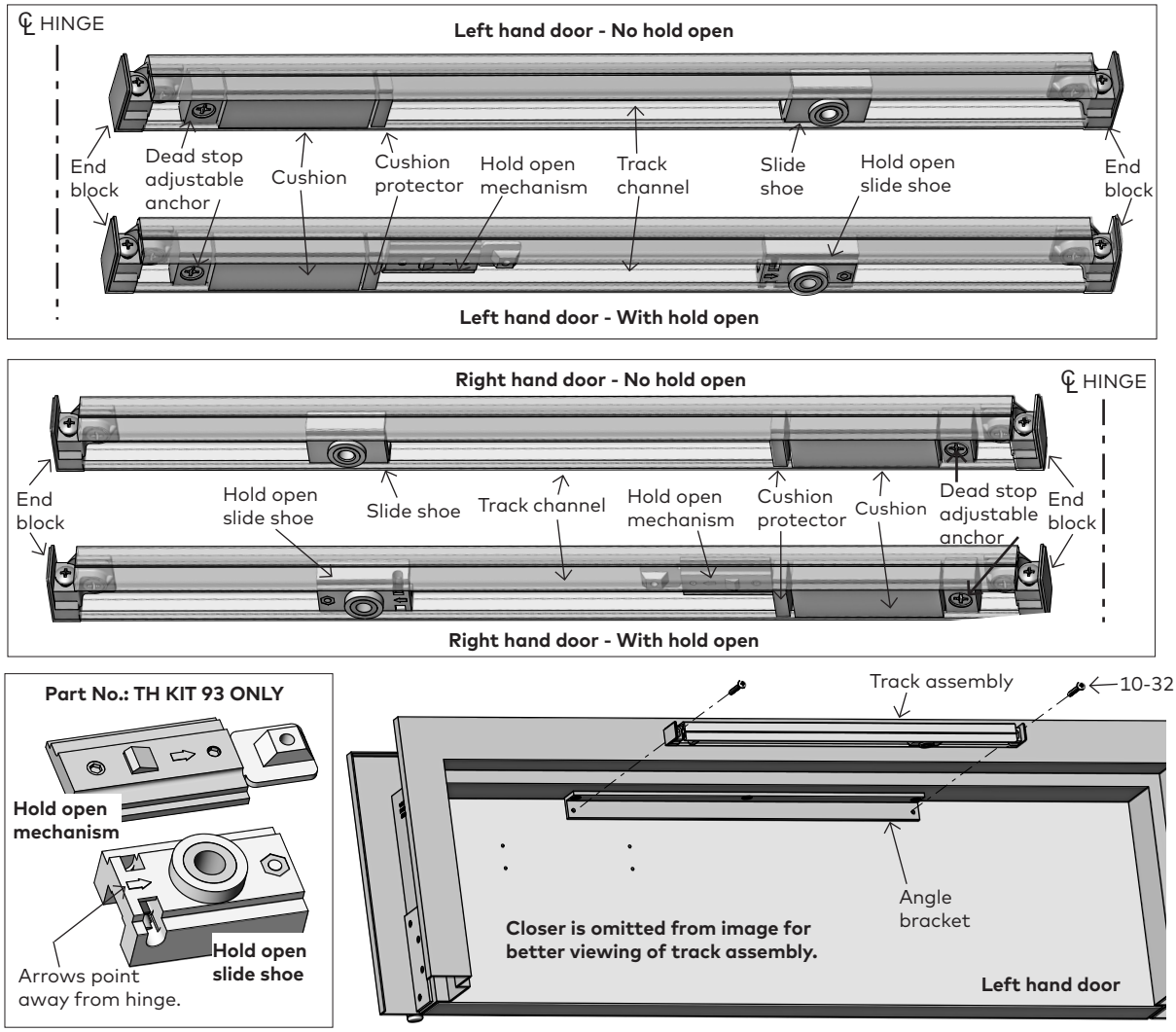


2.3.1 Attach 1/2" wrench to bottom pinion.
2.3.2 While looking up, rotate pinion (square) until it aligns to square hole in arm.
- **LH** = turn 5° counter-clockwise
- **RH** = turn 5° clockwise

2.3.3 Arm is parallel to door.
2.3.4 Secure with M6x20 socket head fastener.
- Use M5 hex key.

2.4 Installing track assembly

Fig.6

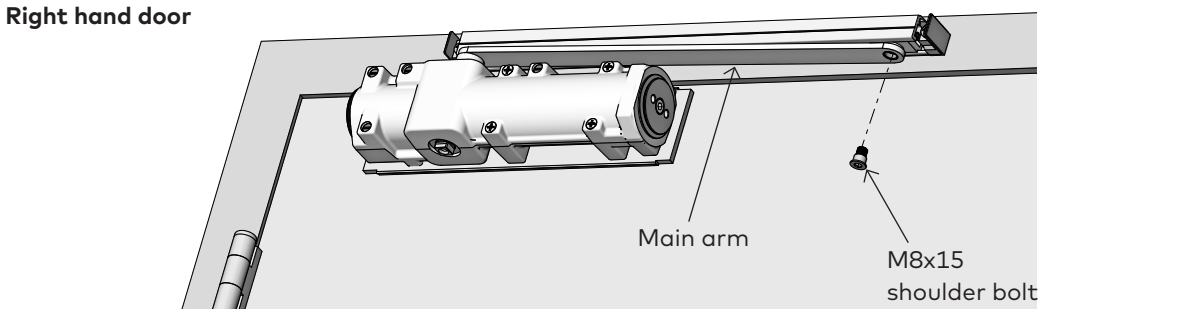


2.4.1 Position individual components inside track channel and screw down each fitting with a Phillips flat head driver.

2.4.2 Attach track assembly to angle bracket through end blocks with two M5 flat head Phillips screws.

2.5 Secure main arm

Fig.7



2.5.1 Secure arm to slide shoe.

2.5.2 Secure with shoulder bolt and 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.

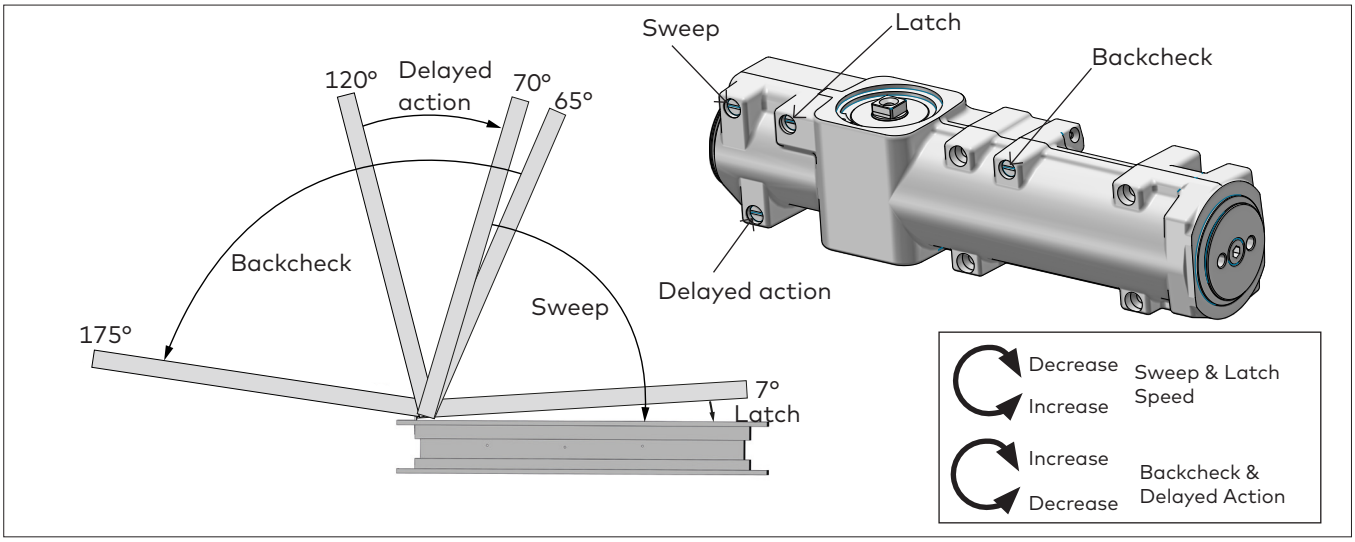
⚠ Maximum opening angle is 175°.

⚠ 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 closing **sweep speed**: 70° to start of latch speed.
- Increase sweep speed: Turn valve counter-clockwise
- Decrease sweep speed: Turn valve clockwise.

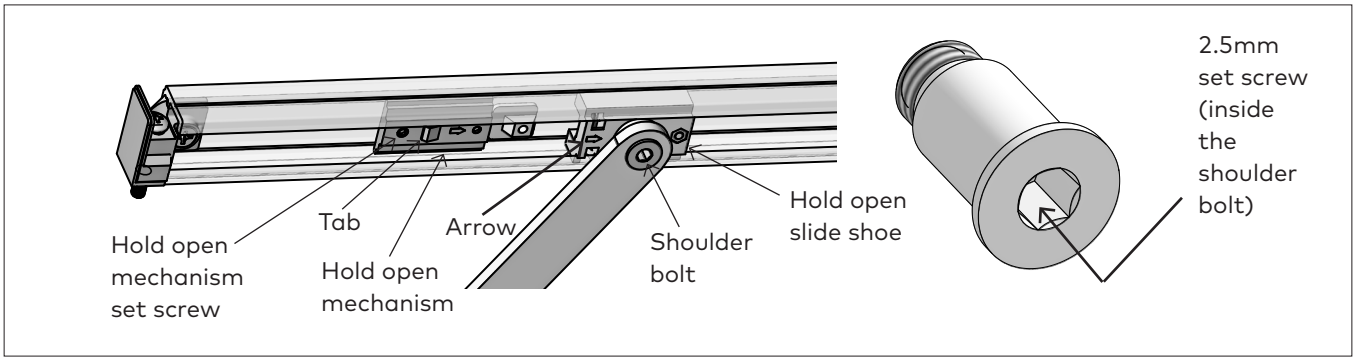
3.1.2 Adjust closing **latch speed**: 7° to close.
- Increase latch speed: Turn valve counter-clockwise

3.1.3 Adjust opening **backcheck**: beginning at 65°.
- Increase resistance: Turn valve clockwise
- Decrease resistance: Turn valve counter-clockwise.

3.1.4 Adjust closing **delayed action**: angle 120° to start of sweep.
- Increase delayed action: Turn valve clockwise
- Decrease delayed action: Turn valve counter-clockwise

3.2 Adjust optional hold open

Fig.9



3.2.1 **Adjust door position**:
- Slide hold open mechanism to desired hold open location inside track.

NOTE: Refer to step 2.4 for hold open mechanism location dependent upon handing of door.

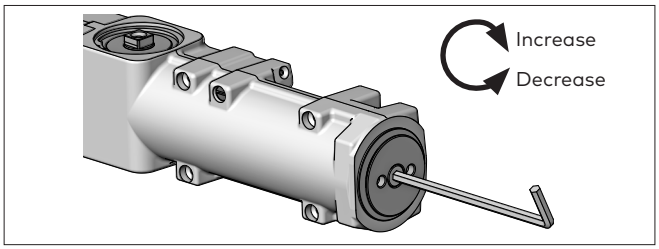
- Secure hold open mechanism set screw with M2.5 hex key.

3.2.2 **Hold open activation**:
- Place door in hold open.
- *Deactivate*: Push tab, attached to end of hold open mechanism, in direction of arrow.
- *Activated*: When tab is pressed against hold open mechanism.

3.2.3 **Adjust hold open force:**
- Slide hold open slide shoe over hold open mechanism and click into place.
- Use an M2.5 hex key and rotate set screw to set desired hold open force.
(located inside shoulder bolt).
- *Increase force* = clockwise
- *Decrease force* = counter-clockwise

3.3 Adjust spring force

Fig.10



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.

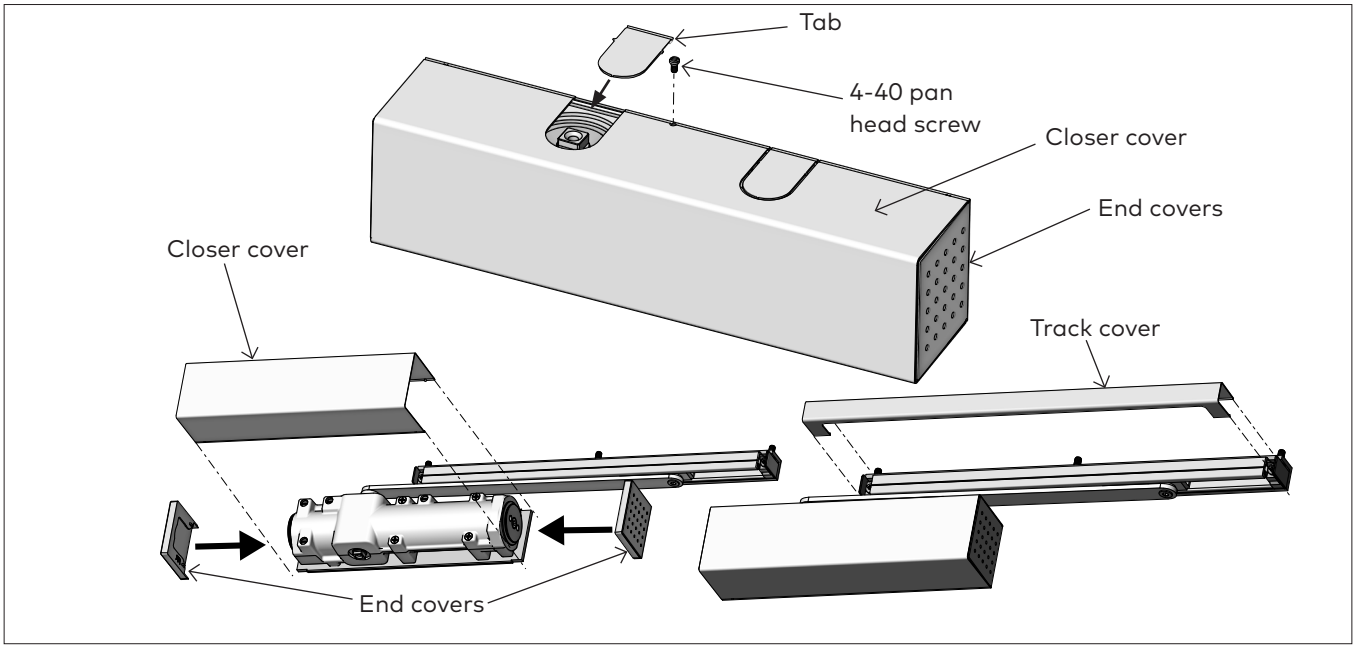
- **Decrease force:** turn counter-clockwise
- **Increase force:** turn clockwise

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

Top Jamb Mount, Pull side closers					
	Closer size	Max door weight (lbs)	Door width		Full turns
			Interior	Exterior	
TS9315	2	100	2'6"	---	0
	3	125	3'	2'6"	+3
	4	150	3'6"	3'	+9
	5	200	4'	3'6"	+12
TS9356	5	200	4'	3'6"	-4
	6	250	4'6"	4'	0

4 Install covers

Fig.11



4.1.1 Snap both end covers onto close body end caps.

4.1.2 Remove un-needed tab and snap cover over closer body.

4.1.3 Secure with one 4-40 Phillips pan head screw.

4.1.4 Snap track cover onto track.

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