

# 8900 FH/FHJ/FHP

Friction Hold Open for  
Regular, top jamb and parallel mount

## Installation instructions

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| 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 180°.

 Maximum 4-1/2" reveal on top jamb mounts for 180° degree openings.
-  Hold open range is from 30° to 140° with optional hold open kit.

 Know the swing of the door which is being installed prior to installation.

 Verify closer spring size prior to installation.

 Make sure door efficiently operates prior to installing closer.

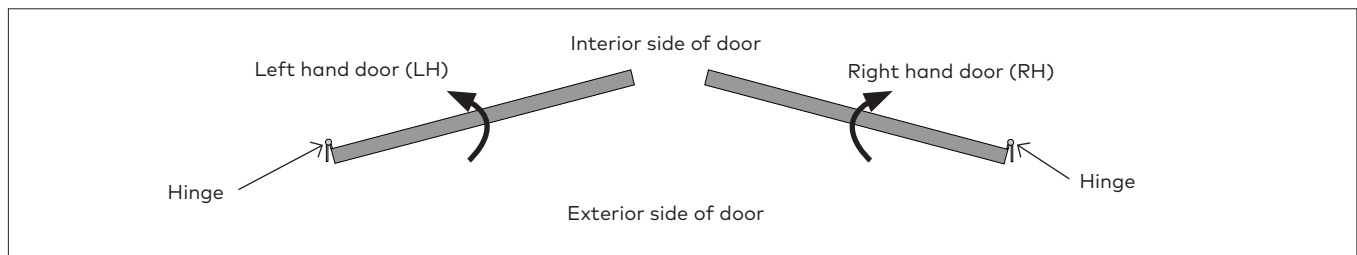
## 1.2 Tools recommended

Table 1

Drill bits:	#3 Phillips screwdriver
Metal: 7/32" drill bit; 1/4-20 tap	3/16" flat head screwdriver
Wood: 3/8" and 5/32" bit	5mm hex key
1/2" box wrench	10" adjustable wrench

## 1.3 Handing the door

Fig.1



## 1.4 Surface closer components

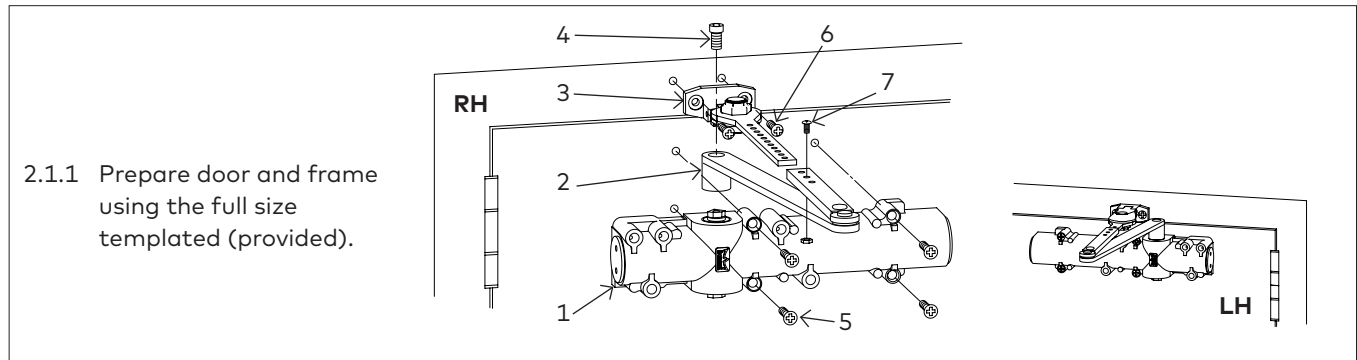
The surface closer is comprised of the following components.

1. Closer body
2. Connecting arm
3. Bar and shoe
4. Pinion screw
5. Flat head screws
6. Pan head screws
7. Connecting arm screw and nut
8. PA shoe screws
9. PA bracket
10. Cover
11. Plates
12. Full metal cover

# 2 Installation - regular mount

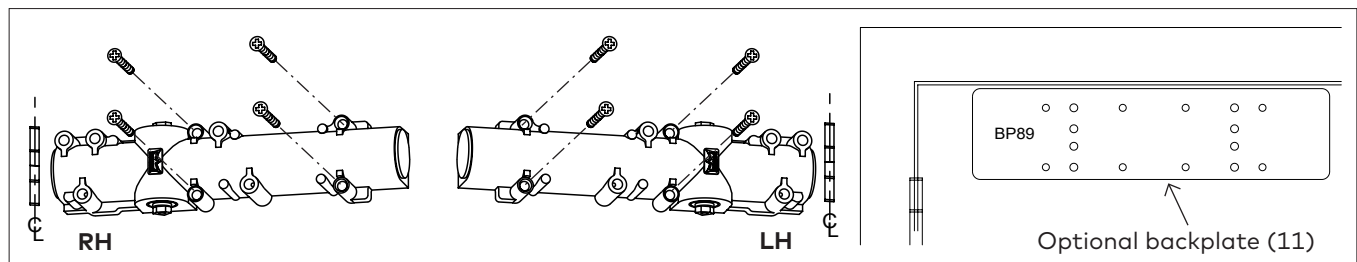
## 2.1 Surface closer system

Fig.2



## 2.2 Installing the surface closer and (optional) backplate

Fig.3

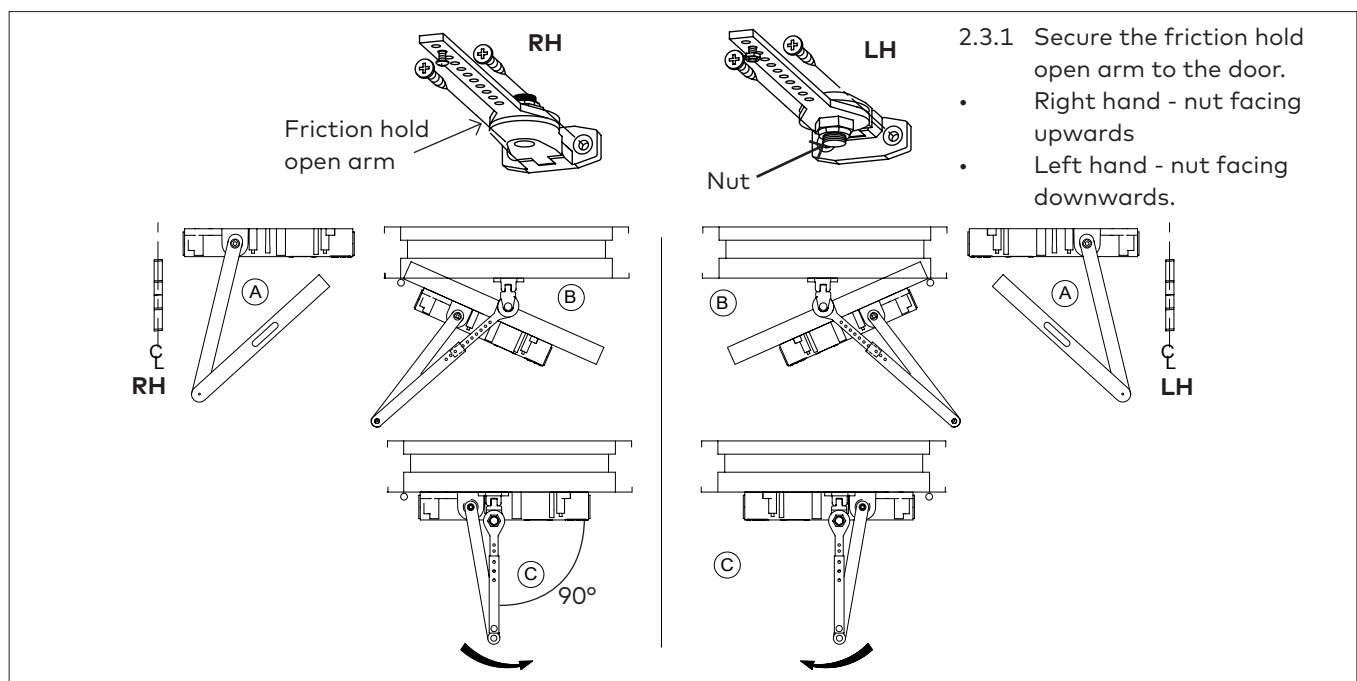


**NOTE:** Orient pinion closest to hinge.

2.2.1 Secure closer body and/or backplate to door.

## 2.3 Installing main arm

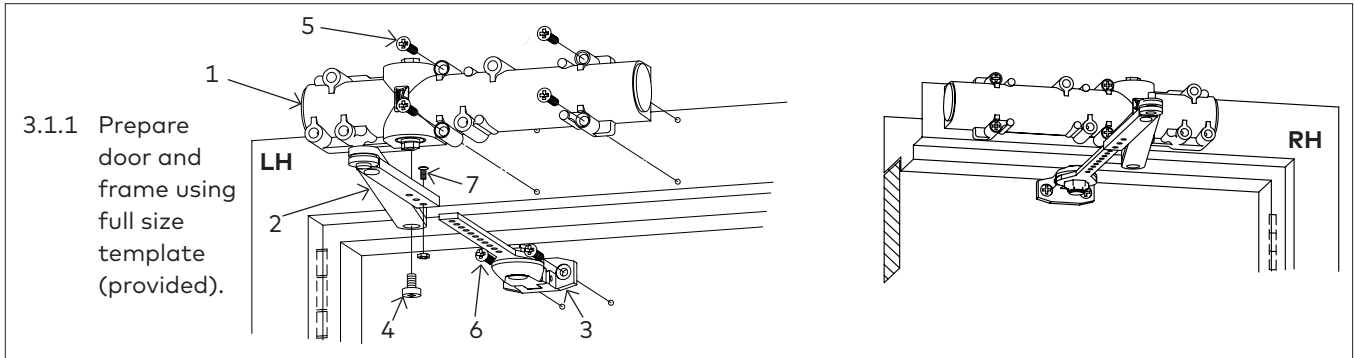
Fig.4



# 3 Instructions - top jamb mount

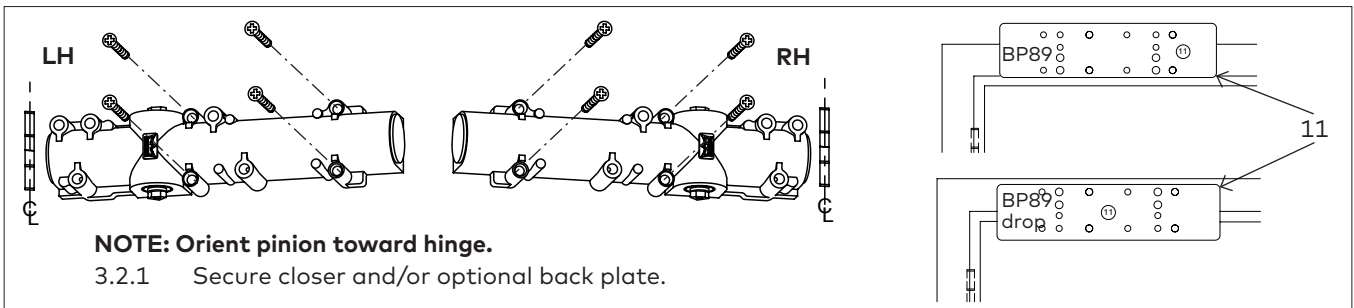
## 3.1 Surface closer system

Fig.5



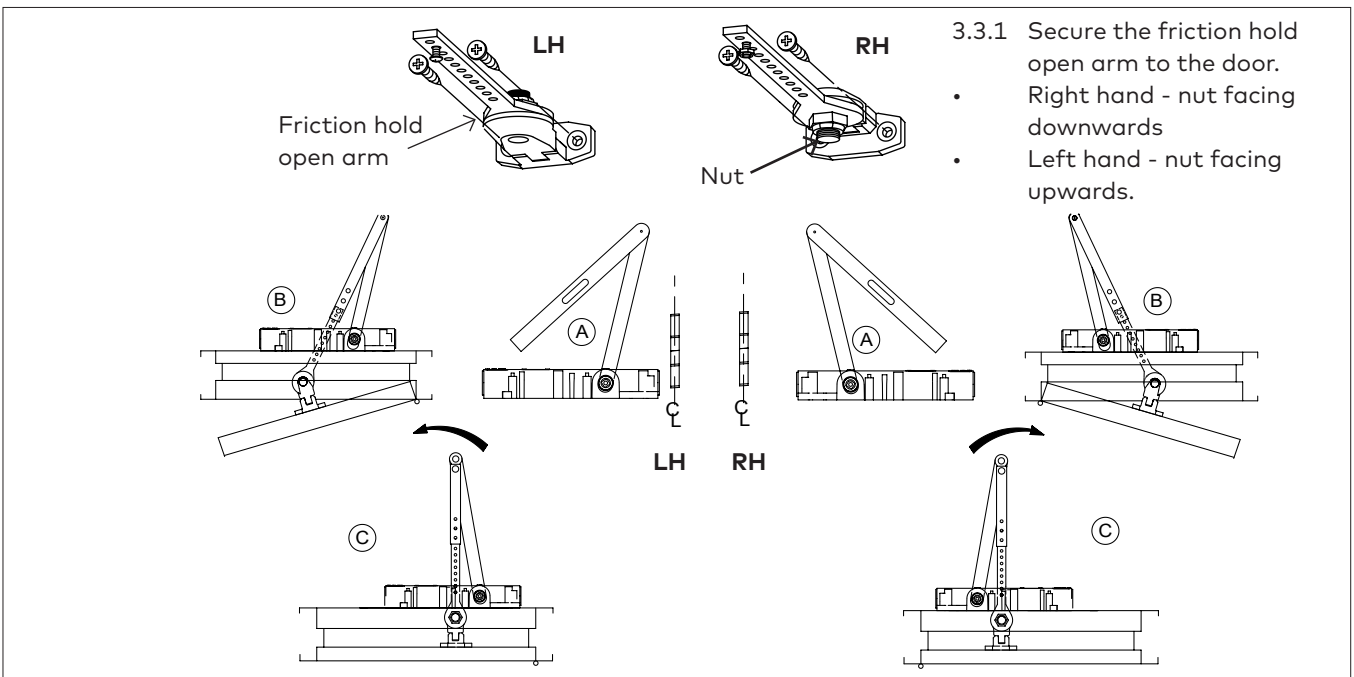
## 3.2 Installing the surface closer and (optional) backplate

Fig.6



## 3.3 Installing main arm

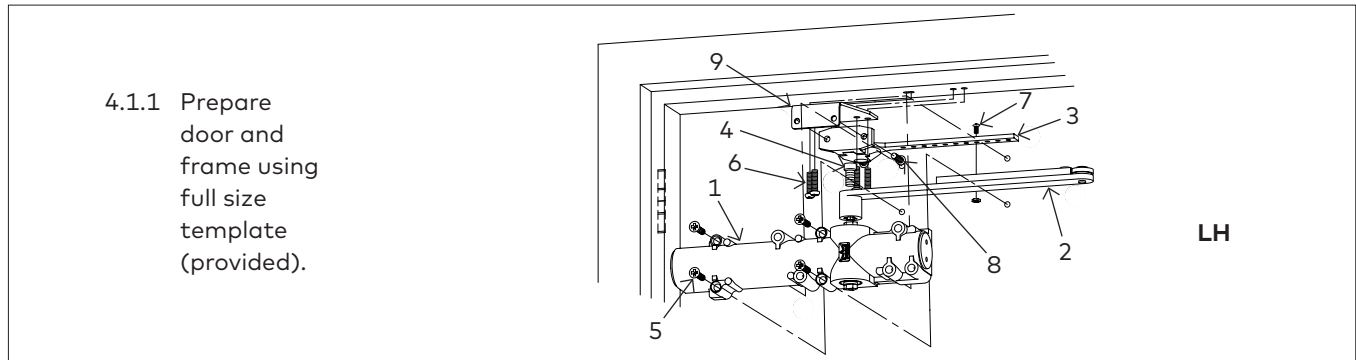
Fig.7



# 4 Instructions - parallel mount

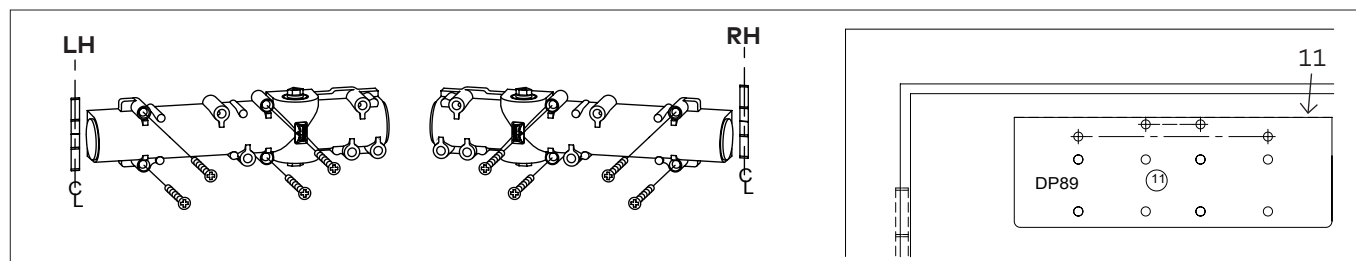
## 4.1 Surface closer system

Fig.8



## 4.2 Installing the surface closer and (optional) backplate

Fig.9

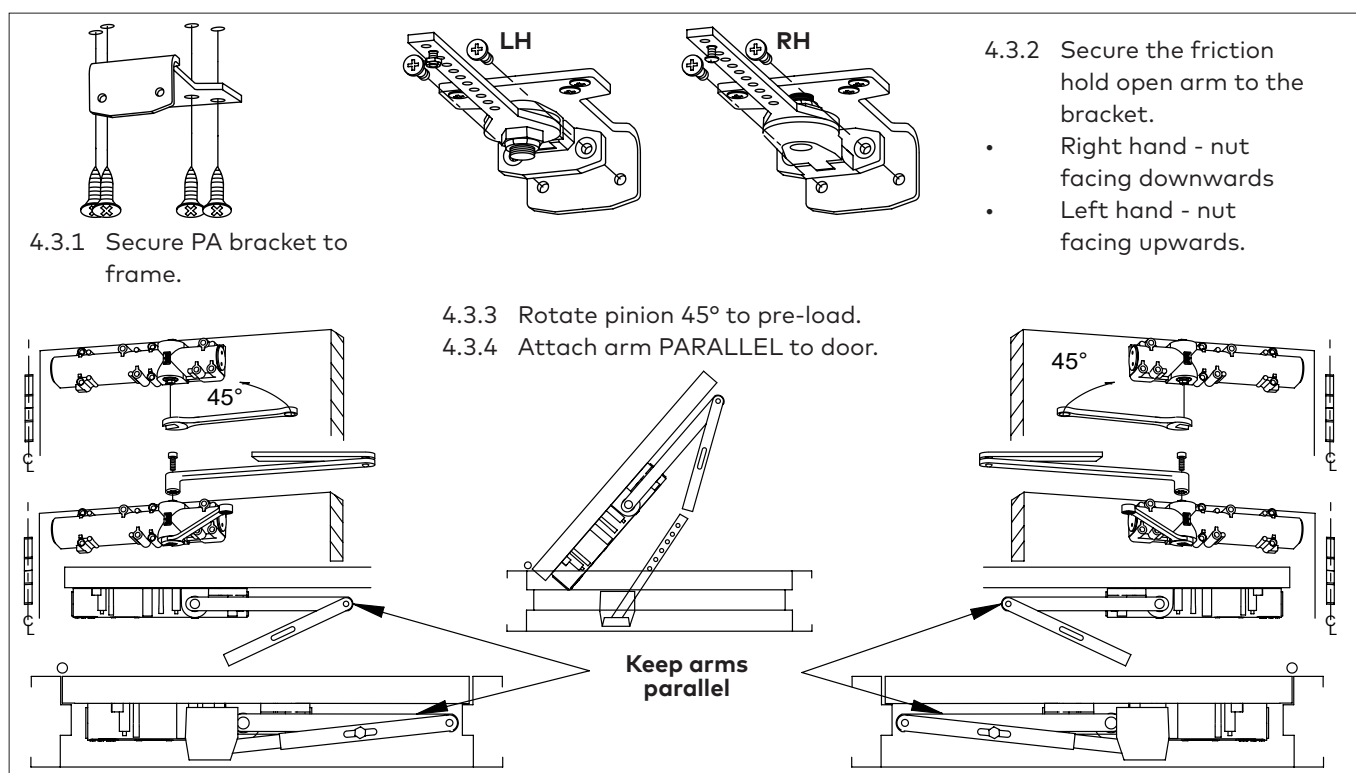


**NOTE:** Orient pinion away from hinge.



4.2.1 Secure closer body and/or back plate to door.




## 4.3 Installing main arm

Fig.10



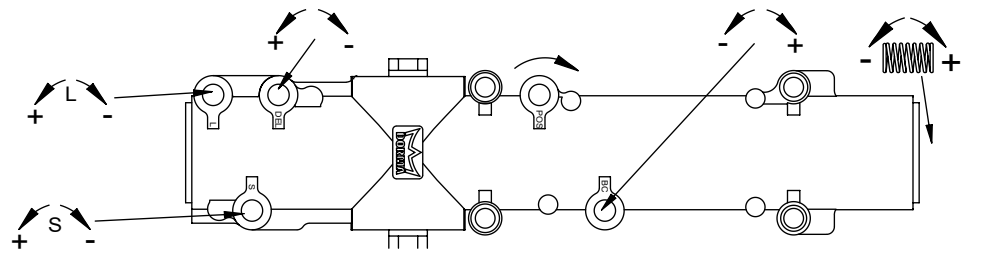
# 5 Adjustments

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

-  Maximum opening angle is 180°.
-  Door should close in 3 to 6 seconds from 90°.
-  Do not close valves completely.

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

Fig.11







NOTE: Backcheck positioning is shipped in the "ON" fully CW position.

NOTE: Backcheck positioning must remain "ON" for **parallel arm mounts**.

NOTE: Backcheck position will advance approximately 15° in the "ON" position.

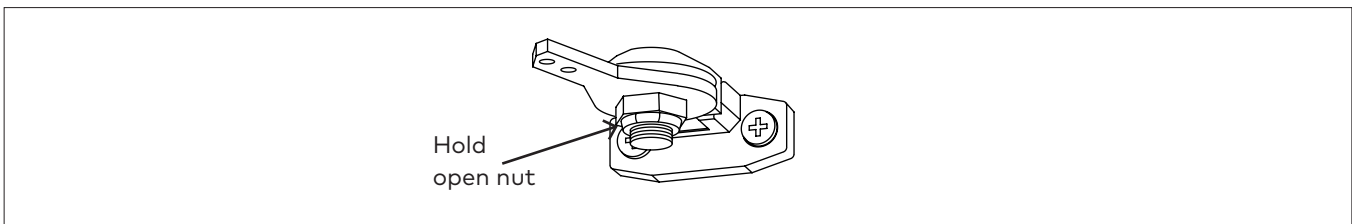
NOTE: Turn of backcheck positioning by rotating valve CCW.

NOTE: 8907 has no spring power adjustment. 8907 uses a size 7 spring designed for unusually large or heavy doors.

	Decrease	Sweep, Latch & Delayed Action
	Increase	
	Increase	Backcheck
	Decrease	

## 5.2 Adjust optional hold open

Fig.12

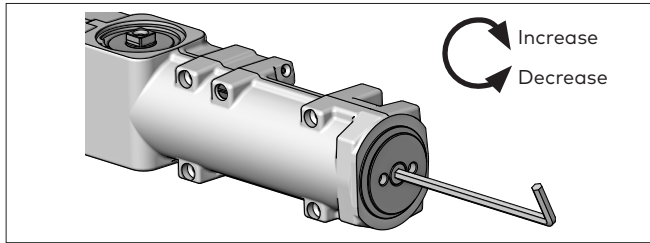


- 5.2.1 Loosen hold open nut.
- 5.2.2 Open door 3° - 5° before desired hold open position.
- 5.2.3 Tighten hold open nut securely.
- 5.2.4 Pull door closed.
- 5.2.5 Open door to hold open position. (Do not push door beyond hold open position. An auxiliary stop must be used to limit door swing.)
- 5.2.6 To disengage, pull door closed until hold open releases and door closer takes over.



### 5.3 Adjust spring force

Fig.13



#### 8916

**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.

Regular and top jamb mounts					
	Closer size	Max door weight (lbs)	Door width		Full turns
			Interior	Exterior	
8916	2	100	2'6"	---	-20
	3	125	3'	2'6"	-12
	4	150	3'6"	3'	0
	5	200	4'	3'6"	+4
	6	250	---	4'	+12
8956	5	200	4'	3'6"	-6
	6	250	---	4'	0
Parallel mount					
8916	3	100	2'6"	----	-12
	4	125	3'	2'6"	0
	5	150	3'6"	3'	+4
	6	200	4'	3'6"	+12
8956	5	150	3'6"	3'	-6
	6	200	4'	3'6"	6
	6+	250	---	4'	+6

## 6 Install covers

Fig.14

