# 8900 IS, ISJ, ISH, ISJH

Integra stop arm for regular and top jamb mounts with hold open (ISH, ISJH)

## Installation instructions

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### **Technical specifications** 1

#### 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 110°.

Maximum 4-1/2" reveal on top jamb mounts for 110° degree openings.

 $\wedge$ 

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.

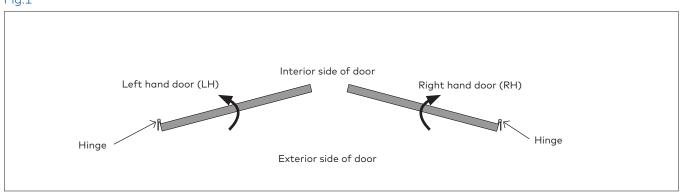
#### 1.2 Tools recommended

#### Table 1

Drill bits:	#3 phillips screwdriver
Metal: 7/32″ drill bit; 1/4-20 tap	1/2" or 13mm box wrench
Wood: 5/32" bit	10" adjustable wrench
DPK: 1/8"	3/16″ hex key
Sex nuts: 3/8"	5mm hex key

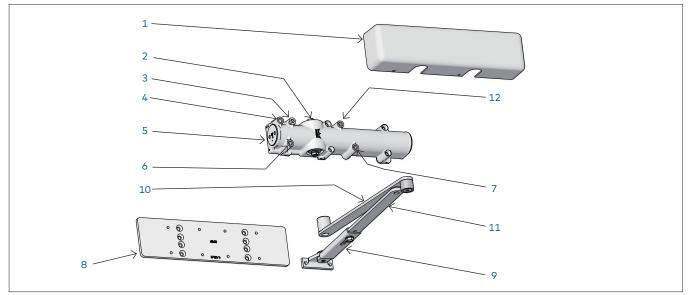
#### 1.3 Handing the door

Fig.1



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### 1.4 Surface closer components



The surface closer is comprised of the following components.

- 1. Cover
- 2. Pinion

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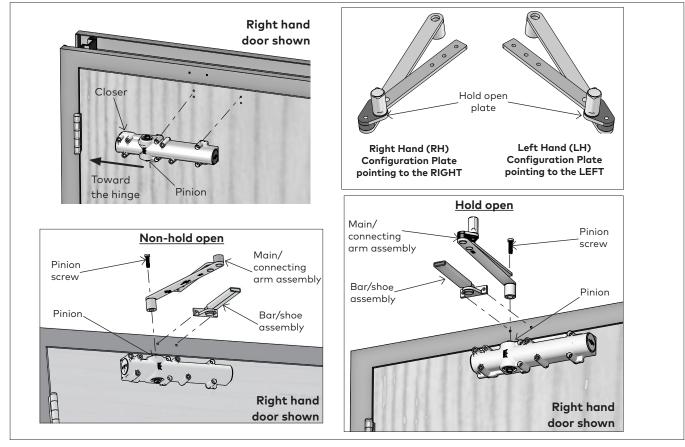
- 3. Delayed action adjustment
- 4. Latch speed adjustment
- 5. Closer body
- 6. Closing/sweep speed adjustment

- 7. Backcheck adjustment
- 8. Optional backplate
- 9. Bar/shoe assembly
- 10. Main arm
- 11. Connecting arm
- 12. Backcheck positioning

## 2 Installation - regular mount

2.1 Securing surface closer and main arm to door/frame

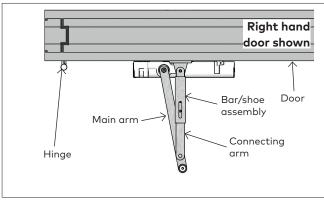
Fig.2



- 2.1.1 Secure closer body to door.
  Use four 1/4-20 x 2" PH flat head screws [#14 x 2-3/4" PH
- flat head wood screws] provided. 2.1.2 Secure the bar/shoe assembly to frame.
- Use two 1/4-20 x 5/8" Phillips round head screws [#14 x 1-1/4" round head wood screws] provided.
- 2.1.3 Secure main arm to operator pinion.
- Use a torque wrench (25 ft-lbs) and provided pinion screw [M8 x 30 socket head cap screw].

### 2.2 Securing main arm to closer

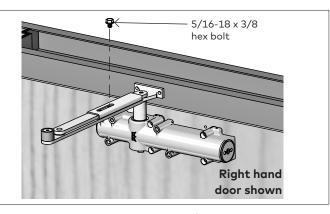
#### Fig.3



2.2.1 Slide end of connecting arm into end of bar/shoe assembly.

#### NOTE: To disassemble hold open plate:

- Remove both screws from bottom of plate using a 3/16"
   hex key.
- Keeping all washers in place, flip plate over to orient as per image above.
- Re-secure plate with both screws.

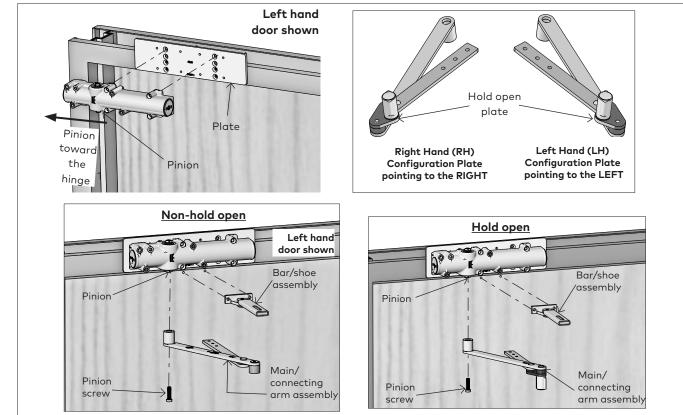


2.2.2 Secure connecting arm and bar/shoe assembly.
Use provided fastener [5/16-18 x 3/8 hex bolt].

## 3 Instructions - top jamb mount

3.1 Securing surface closer and main arm to door/frame

#### Fig.4



3.1.4

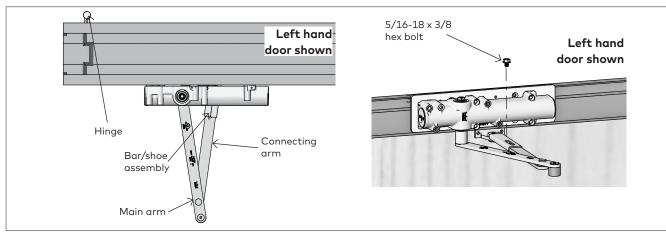
- 3.1.1 Secure plate (BP89) to frame.
- Use four  $1/4-20 \times 5/8''$  flat head screws [#14 x 1-1/2 Phillips flat head wood screws] provided.
- 3.1.2 Secure closer body to plate.
- Use four 1/4-20 x 1-3/4" Phillips flat head screws provided with plate itself.
- 3.1.3 Secure bar/shoe assembly to mounting surface.
  Use two 1/4-20 x 5/8" PH round head screws

[#14 x 1-1/4" round head wood screws] provided.

### 3.2 Securing main arm to closer

#### Fig.5

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3.2.1 Slide end of connecting arm into end of bar/shoe assembly.

3.2.2 Secure connecting arm and bar/shoe assembly.
Use provided fastener [5/16-18 x 3/8 hex bolt].

Secure main arm to operator pinion.

[M8 x 30 socket head cap screw].

Re-secure plate with both screws.

NOTE: To disassemble hold open plate:

hex key.

image above.

Use a torque wrench (25 ft-lbs) and provided pinion screw

Remove both screws from bottom of plate using a 3/16"

Keeping all washers in place, flip plate over to orient as per

## 4 Adjustments

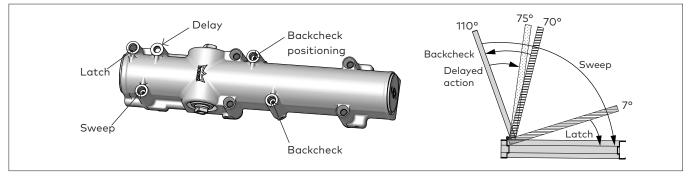
Confirm closer spring size prior to making any closing speed adjustments.

A Do not back valve heads out beyond closer casting.

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

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

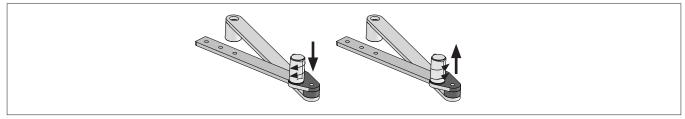
#### Fig.6



- 4.1.1 Adjust sweep speed for the area from 70° 10°.
  Increase sweep speed: Turn valve counter-clockwise
  Decrease sweep speed: Turn valve clockwise
- 4.1.2 Adjust latch speed from 10° 0°.
- Increase latch speed: Turn valve counter-clockwise
   Decrease latch speed: Turn valve clockwise
- 4.1.3 Adjust backcheck for the area from 110° 70°.
- Increase resistance: Turn valve clockwise
- Decrease resistance: Turn valve counter-clockwise.
- 4.1.4 Adjusting Backcheck positioning will advance approximately 15° in the "ON" position. Shipped from factory fully "ON".
- Turn OFF: Rotate counter-clockwise
- Turn ON: Rotate clockwise
- 4.1.5 Adjust Delayed Action for the are from 75° 110°.
- Increase delay: Turn valve counter-clockwise
  Decrease delay: Turn valve clockwise
- Decrease delay: Turn valve clockwise

### 4.2 Adjust optional hold open

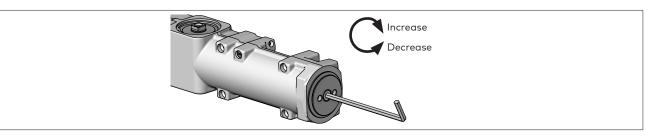




- 4.2.1 Enabling or disabling hold open.
- Twist hold open handle up or down to loosne or tighten, respectively, the hold open capacity.
- 4.2.2 Engaging or disengaging hold open.
  - Engaging hold open: Push door open until hold open ball connects with detent in handle.
- Disengaging hold open: Pull door to pop hold open ball out of detent.

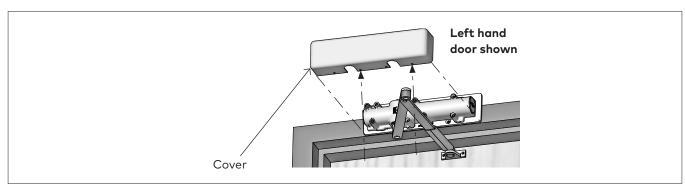
## 4.3 Adjust spring force

Fig.8



Regular and top jamb mounts								
	Closer size	Door width		Evil turns				
		Interior	Exterior	Full turns				
	1	28″						
	2	34"	28″	-19				
8915, 8956	3	38″	30″	-11				
0472, 0420	4	48″	36″	0				
	5	54"	42"	+5				
	6	60"	54″	+13				

# 5 Install covers



5.1.1 Snap cover over closer body.

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