

8900 AF89 x MJ

Flat arm for regular arm mount
with mortised jamb bracket and backplate (BP89)

Installation instructions


08279901 – 09-2019


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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°.

 Ensure the arrows on the plate face upwards.
-  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.

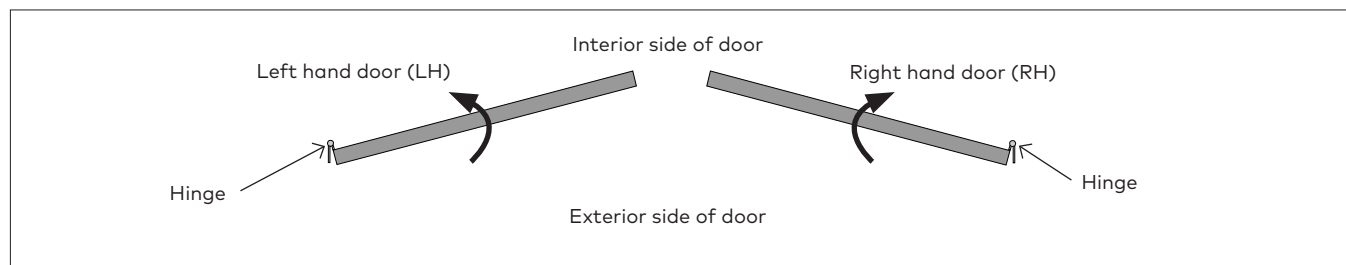
1.2 Tools recommended

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 | |

1.3 Handing the door

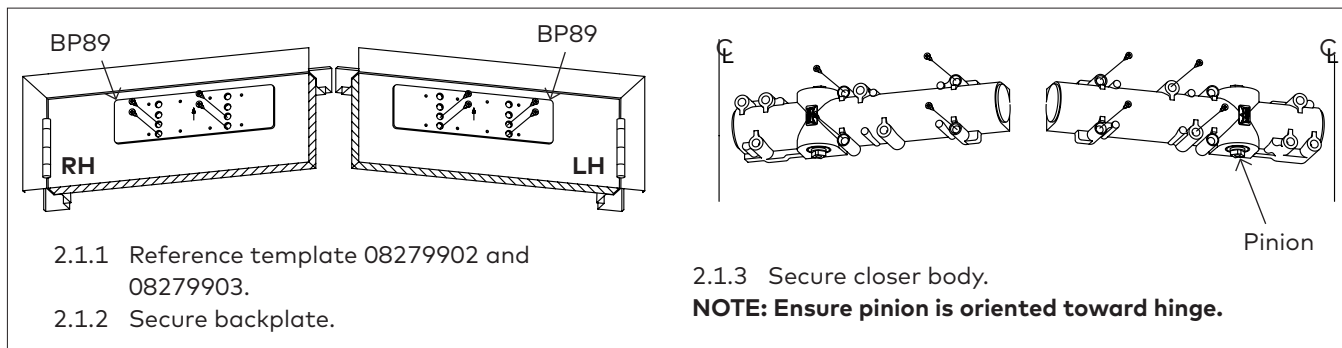
Fig.1



2 Instructions - regular mount

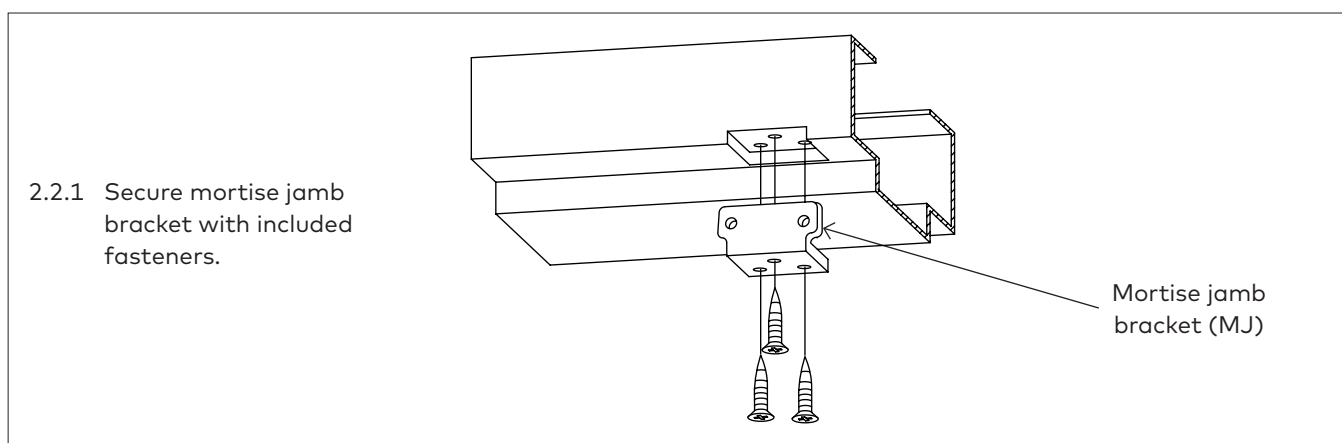
2.1 Installing backplate and surface closer

Fig.2



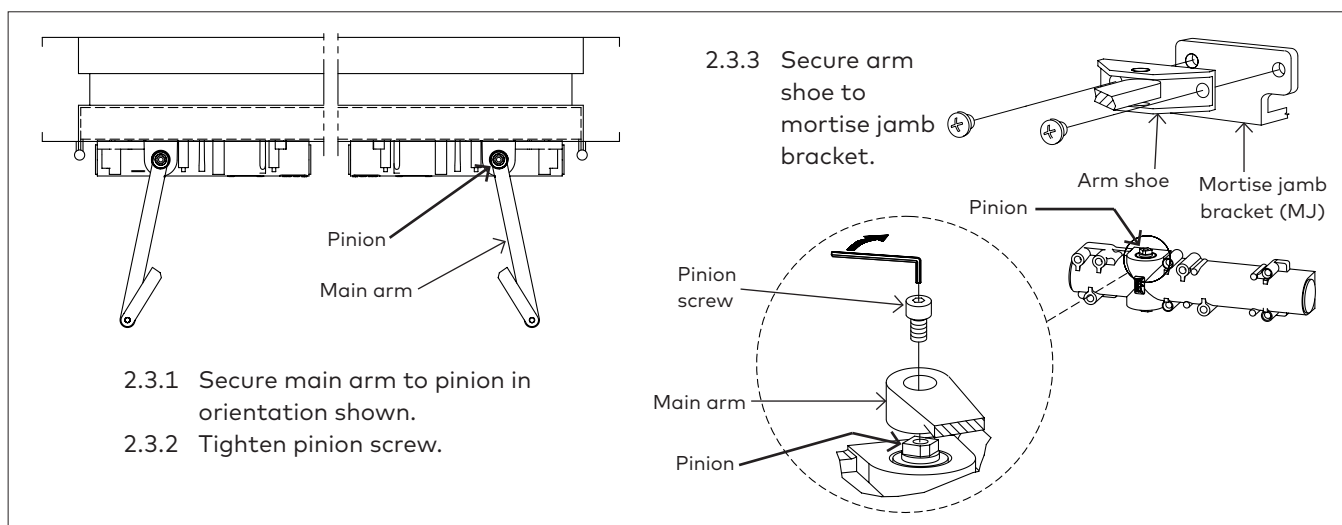
2.2 Installing mortise jamb bracket

Fig.3



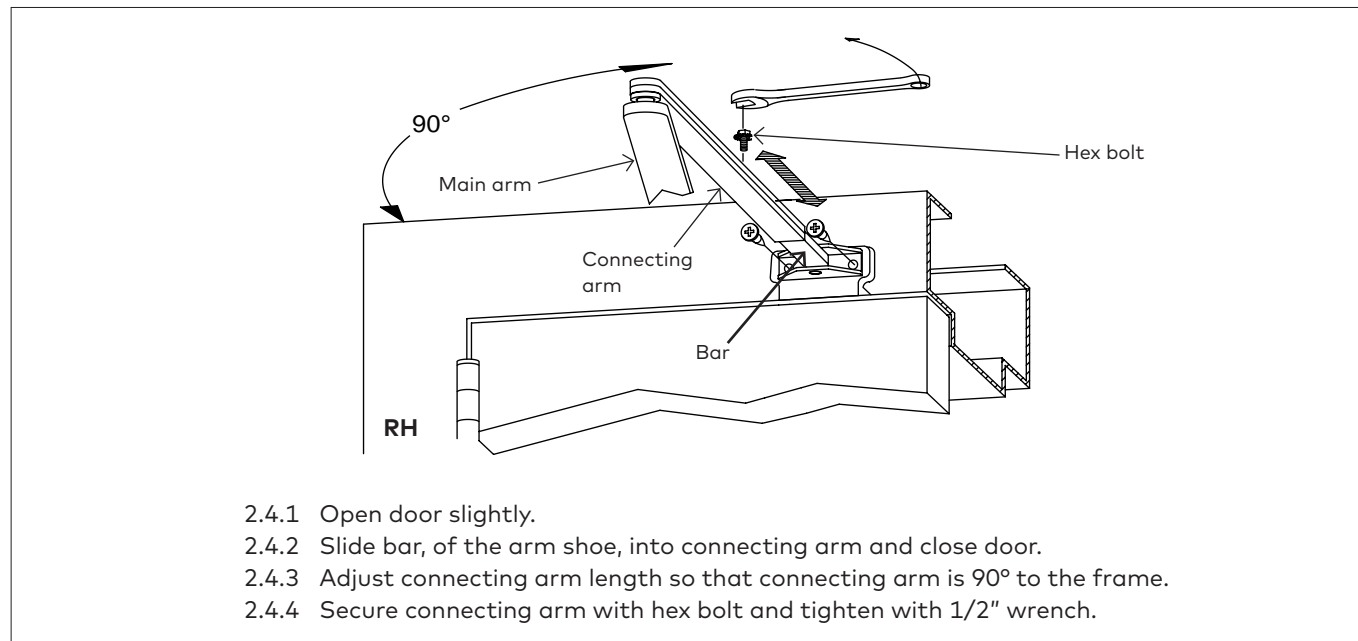
2.3 Installing and securing main arm

Fig.4



2.4 Installing and securing connecting arm

Fig.5



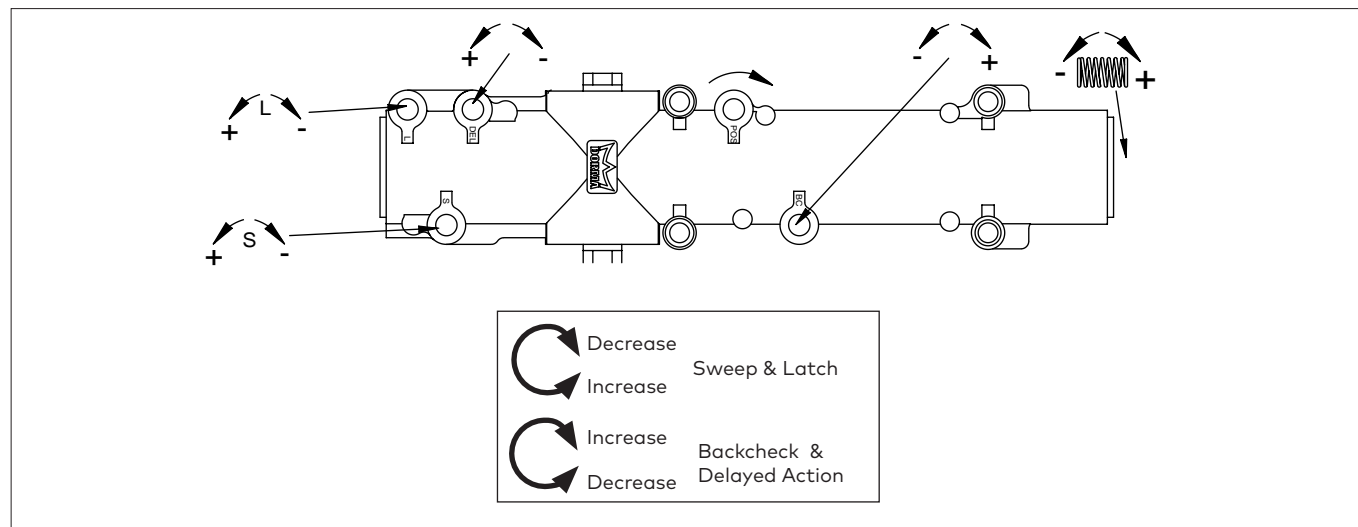
3 Adjustments

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

- ⚠ Maximum opening angle is 180°.
- ⚠ 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.6

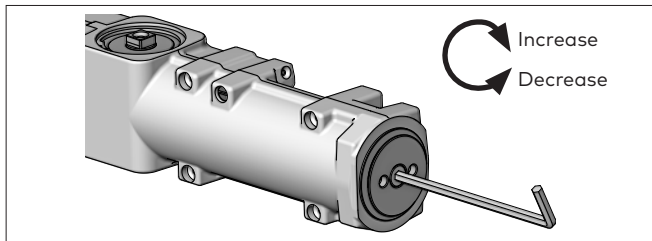


- 3.1.1 Adjust **closing sweep speed**: 90° to start of latch speed.
- Increase sweep speed: Turn valve counter-clockwise
 - Decrease sweep speed: Turn valve clockwise.
- 3.1.2 Adjust **closing latch speed**: 15° to close.
- Increase latch speed: Turn valve counter-clockwise

- 3.1.3 Adjust **opening backcheck**: beginning at 80°.
- Increase resistance: Turn valve clockwise
 - Decrease resistance: Turn valve counter-clockwise.
- 3.1.4 Adjust **closing delayed action**: angle 180° to start of sweep.
- Increase delayed action: Turn valve clockwise
 - Decrease delayed action: Turn valve counter-clockwise

3.2 Adjust spring force

Fig.7



8916 - supplied with a size 4

8956 - supplied with a size 6

8916 ONLY - 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; 8 turns max.
- **Increase force:** turn clockwise; 14 turns 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.

| Regular mount | | | | | |
|---------------|-------------|-----------------------|------------|----------|------------|
| | 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 |

4 Install covers

Fig.8

