Waterson®
Multifunction Closer Hinges

Adjustment Instructions

A3 B3 Series

How To Use This Sheet

The following Installation Instructions are divided into three parts: I) How To Adjust key functions; II) Set A3 for setting mechanical only self-closing without hold-open; III) Set B3 for setting hydraulic hybrid soft closing without hold-open.

How To Adjust

Waterson hinge sets are easily adjustable using 3mm and 5mm hex wrenches. See H1 – H6 for specific adjustments.

H1 ADJUSTMENT - TENSION

Use 5mm hex wrench to increase and decrease tension on numerical panel.

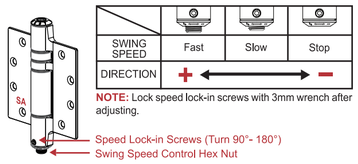
Increase Tension: Turn (△) to greater number.
Decrease Tension: Depress and turn to lower number.

NOTE: Spring tension adjustment is done on SA, SB & SA1 top ends, as well as on HS bottom & DS both sides.

CAUTION: Setting tension beyond 5 may decrease spring longevity.

H2 ADJUSTMENT - SWING SPEED

Use 5mm hex wrench to adjust swing speed. Swing speed is only adjusted on SA and HA hinge bottoms.

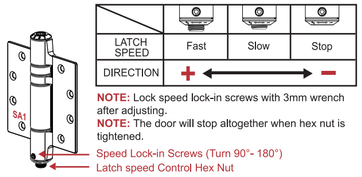


NOTE: Lock speed lock-in screws with 3mm wrench after adjusting.

Speed Lock-in Screws (Turn 90°- 180°)
Swing Speed Control Hex Nut

H3 ADJUSTMENT - LATCH SPEED

Use 5mm hex wrench to adjust latch speed. Latch speed is only adjusted on SA1 hinge bottom.



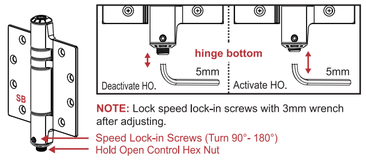
NOTE: Lock speed lock-in screws with 3mm wrench after adjusting.
NOTE: The door will stop altogether when hex nut is tightened.

Speed Lock-in Screws (Turn 90°- 180°)
Latch speed Control Hex Nut

H4 ADJUSTMENT - HOLD OPEN

Use 5mm hex wrench to enable and disable hold open feature. Hold-open adjustment is only done on SB hinge bottom.

Turn hex nut (-) to enable hold open.
Turn hex nut (+) to disable hold open.

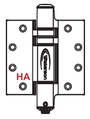


NOTE: Lock speed lock-in screws with 3mm wrench after adjusting.

Speed Lock-in Screws (Turn 90°- 180°)
Hold Open Control Hex Nut

H5 ADJUSTMENT - HYDRAULIC POWER

Use 3mm hex wrench to adjust the 30° hydraulic damper action zone (HDAZ) power. Hydraulic power adjustment is only done on HA or HS hinge.



Manufacture 8mm: factory use only
Recessed 3mm: Reduce speed.
Recessed 5mm: Shift HDAZ.

CLOSING SPEED	Fast	Slow	Stop
HYDRAULIC POWER	Min	Middle	Max
DIRECTION	+		−

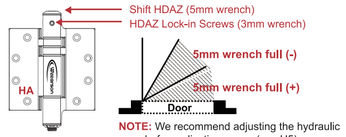
NOTE: Door will stop in HDAZ if you turn full (-), and may result in hydraulic mechanism damage.

CAUTION: Hydraulic mechanism operates best from 0-120°. Opening beyond 120° will damage hinge and violate warranty.

H6 ADJUSTMENT - HYDRAULIC ZONE

Use 3mm wrench to loosen HDAZ lock-in screws before adjusting then tighten after. Use 5mm hex wrench to move HDAZ.

Latched doors: Turn full(-). This is factory setting.
Latchless doors: Turn full(+) to shift HDAZ



NOTE: We recommend adjusting the hydraulic zone before adjusting power (see H5).

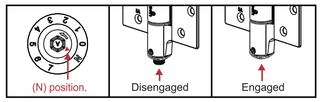
Process Set A3

Waterson A3 (SA.SA.SA1) set is composed of two SA hinges and one SA1. This set is designed to provide heavy-duty commercial fire rated doors with speed control and self-closing.

A1 BEFORE ADJUSTING

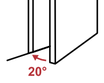
Install door so it swings freely and latches. Hinges should be in the following factory settings upon installation:

- **Numerical panel at neutral (N) position**
- **Speed control hex nut disengaged**



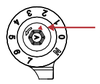
NOTE: Hinge positions are interchangeable.

A2 CLOSING FORCE SETTING



Increase tension one number at a time until door closes and latches from 20°. (Refer to H1)

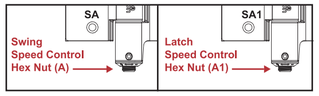
NOTE: Optimal function is achieved when hinges are set similarly. Tension settings are cumulative.



Example:
Tension set at 2.

A3 ENABLING SWING & LATCH SPEED CONTROL

First adjust swing speed control (A) then latch speed control (A1) to avoid slamming. (Refer to H2 and H3)

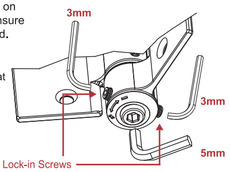


A4 LOCK-IN PLACE

Tighten speed lock-in screws on SA, SA1 and SB hinges to ensure that your settings remain fixed.

NOTE: Each hinge has two speed lock-in screws. Tighten at least one of them.

NOTE: Proceed to A5 if door does not close and latch



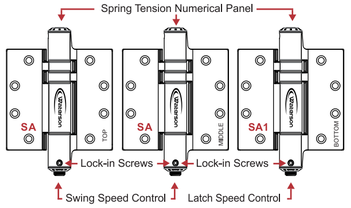
A5 FINE ADJUSTMENT

For optimal performance, adjust swing speed, latch speed, and closing tension reciprocally until slamming stops and door latches properly.

ADJUSTMENTS:

- **Door Slams**: Reduce (-) swing speed or latch speed or decrease tension.
- **Poor Latching**: Increase (+) swing speed or latch speed or increase tension.

NOTE: Adjust speed control by 5°-10° at a time.
NOTE: Increase or decrease spring tension incrementally one number at a time.



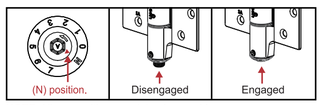
Process Set B3

Waterson B3 (DS.HA.SA1) set is comprised of DS, HA and SA1 hinges. This set is designed to provide soft closing in interior breezy environments, as well as on latchless doors.

B1 BEFORE ADJUSTING

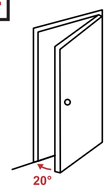
Install door so it swings freely and latches. Hinges should be in the following factory settings upon installation:

- **Numerical panel at neutral (N) position**
- **Speed control hex nut disengaged**



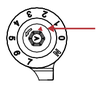
NOTE: Hinge positions are interchangeable.

B2 CLOSING FORCE SETTING



Increase tension one number at a time until door closes and latches from 20°. (Refer to H1)

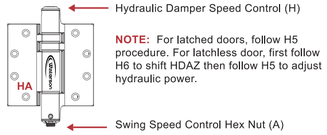
NOTE: Optimal function is achieved when hinges are set similarly. Tension settings are cumulative.



Example:
Tension set at 2.

B3 ENABLING SWING SPEED CONTROL

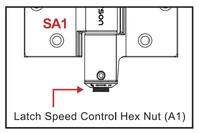
First adjust swing speed control (A) then hydraulic damper speed control (H) to avoid slamming. (Refer to H2, H5 and H6)



NOTE: For latched doors, follow H5 procedure. For latchless door, first follow H6 to shift HDAZ then follow H5 to adjust hydraulic power.

B4 ENABLING LATCH SPEED CONTROL

Adjust latch speed control (A1) to avoid slamming. (Refer to H3)

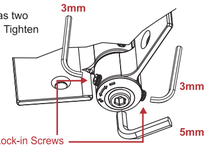


B5 LOCK-IN PLACE

Tighten the barrel-side speed lock-in screws on SA, SA1 and SB hinges to ensure that your settings remain fixed.

NOTE: Each hinge has two speed lock-in screws. Tighten at least one of them.

NOTE: Proceed to B6 if door does not close and latch properly.



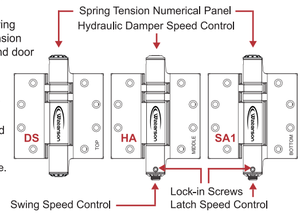
B6 FINE ADJUSTMENT

For optimal performance, adjust swing speed, latch speed, and closing tension reciprocally until slamming stops and door latches properly.

ADJUSTMENTS:

- **Door Slams**: Reduce (-) swing speed or latch speed or decrease tension.
- **Poor Latching**: Increase (+) swing speed or latch speed or increase tension.

NOTE: Adjust speed control by 5°-10° at a time.
NOTE: Increase or decrease spring tension incrementally one number at a time.



Waterson®
Multifunction Closer Hinges

Adjustment Instructions

C3 D3 Series

How To Use This Sheet

The following Installation Instructions are divided into three parts: I) How To Adjust key functions; II) Set C3 for setting mechanical only self-closing with hold-open; III) Set D3 for setting hydraulic hybrid soft closing with hold-open.

How To Adjust

Waterson hinge sets are easily adjustable using 3mm and 5mm hex wrenches. See H1 – H6 for specific adjustments.

H1 ADJUSTMENT - TENSION

Use 5mm hex wrench to increase and decrease tension on numerical panel.

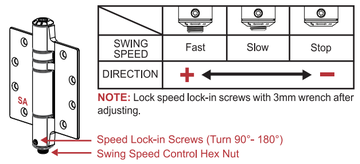
Increase Tension: Turn (△) to greater number.
Decrease Tension: Depress and turn to lower number.

NOTE: Spring tension adjustment is done on SA, SB & SA1 top ends, as well as on HS bottom & DS both sides.

CAUTION: Setting tension beyond 5 may decrease spring longevity.

H2 ADJUSTMENT - SWING SPEED

Use 5mm hex wrench to adjust swing speed. Swing speed is only adjusted on SA and HA hinge bottoms.

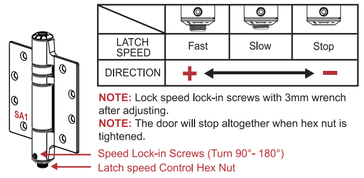


NOTE: Lock speed lock-in screws with 3mm wrench after adjusting.

Speed Lock-in Screws (Turn 90°- 180°)
Swing Speed Control Hex Nut

H3 ADJUSTMENT - LATCH SPEED

Use 5mm hex wrench to adjust latch speed. Latch speed is only adjusted on SA1 hinge bottom.



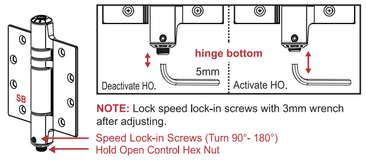
NOTE: Lock speed lock-in screws with 3mm wrench after adjusting.
NOTE: The door will stop altogether when hex nut is tightened.

Speed Lock-in Screws (Turn 90°- 180°)
Latch speed Control Hex Nut

H4 ADJUSTMENT - HOLD OPEN

Use 5mm hex wrench to enable and disable hold open feature. Hold-open adjustment is only done on SB hinge bottom.

Turn hex nut (-) to enable hold open.
Turn hex nut (+) to disable hold open.

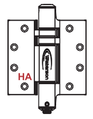


NOTE: Lock speed lock-in screws with 3mm wrench after adjusting.

Speed Lock-in Screws (Turn 90°- 180°)
Hold Open Control Hex Nut

H5 ADJUSTMENT - HYDRAULIC POWER

Use 3mm hex wrench to adjust the 30° hydraulic damper action zone (HDAZ) power. Hydraulic power adjustment is only done on HA or HS hinge.



Manufacture 8mm: factory use only
Recessed 3mm: Reduce speed.
Recessed 5mm: Shift HDAZ.

CLOSING SPEED	Fast	Slow	Stop
HYDRAULIC POWER	Min	Middle	Max
DIRECTION	+		−

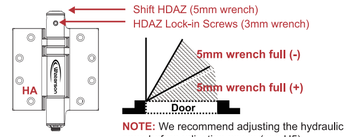
NOTE: Door will stop in HDAZ if you turn full (-), and may result in hydraulic mechanism damage.

CAUTION: Hydraulic mechanism operates best from 0-120°. Opening beyond 120° will damage hinge and violate warranty.

H6 ADJUSTMENT - HYDRAULIC ZONE

Use 3mm wrench to loosen HDAZ lock-in screws before adjusting then tighten after. Use 5mm hex wrench to move HDAZ.

Latched doors: Turn full(-). This is factory setting.
Latchless doors: Turn full(+) to shift HDAZ



NOTE: We recommend adjusting the hydraulic zone before adjusting power (see H5).

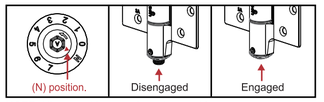
Process Set C3

Waterson C3 (SB.SA.SA1) set is composed of SB,SA and SA1 hinges. This set is designed to provide heavy-duty commercial doors with self-closing, speed control, and hold-open.

C1 BEFORE ADJUSTING

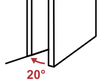
Install door so it swings freely and latches. Hinges should be in the following factory settings upon installation:

- **Numerical panel at neutral (N) position**
- **Speed control hex nut disengaged**



NOTE: Hinge positions are interchangeable.

C2 CLOSING FORCE SETTING



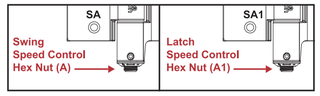
Increase tension one number at a time until door closes and latches from 20°. (Refer to H1)

NOTE: Optimal function is achieved when hinges are set similarly. Tension settings are cumulative.

Example:
Tension set at 2.

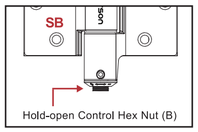
C3 ENABLING SWING & LATCH SPEED CONTROL

First adjust swing speed control (A) then latch speed control (A1) to avoid slamming. (Refer to H2 and H3)



C4 ENABLING HOLD OPEN CONTROL

Adjust hold-open control (B) to hold the door at 90°. (Refer to H4)

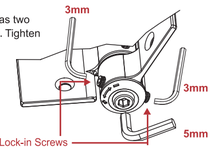


C5 LOCK-IN PLACE

Tighten speed lock-in screws on SA, SA1 and SB hinges to ensure that your settings remain fixed.

NOTE: Each hinge has two speed lock-in screws. Tighten at least one of them.

NOTE: Proceed to C6 if door does not close and latch



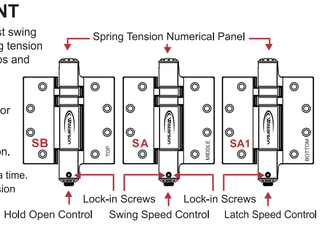
C6 FINE ADJUSTMENT

For optimal performance, adjust swing speed, latch speed, and closing tension reciprocally until slamming stops and door latches properly.

ADJUSTMENTS:

- **Door Slams**: Reduce (-) swing speed or latch speed or decrease tension.
- **Poor Latching**: Increase (+) swing speed or latch speed or increase tension.

NOTE: Adjust speed control by 5°-10° at a time.
NOTE: Increase or decrease spring tension incrementally one number at a time.



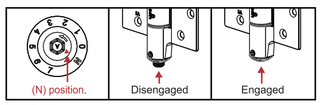
Process Set D3

Waterson D3 (DS.HA.SB) set is comprised of DS, HA and SB hinges.This set is designed to provide soft closing with hold-open in interior breezy environments as well as latchless doors.

D1 BEFORE ADJUSTING

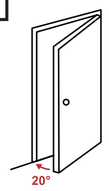
Install door so it swings freely and latches. Hinges should be in the following factory settings upon installation:

- **Numerical panel at neutral (N) position**
- **Speed control hex nut disengaged**



NOTE: Hinge positions are interchangeable.

D2 CLOSING FORCE SETTING



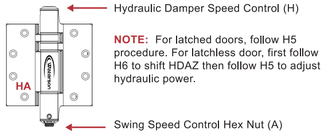
Increase tension one number at a time until door closes and latches from 20°. (Refer to H1)

NOTE: Optimal function is achieved when hinges are set similarly. Tension settings are cumulative.

Example:
Tension set at 2.

D3 ENABLING SWING SPEED CONTROL

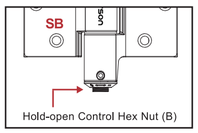
First adjust swing speed control (A) then hydraulic damper speed control (H) to avoid slamming. (Refer to H2, H5 and H6)



NOTE: For latched doors, follow H5 procedure. For latchless door, first follow H6 to shift HDAZ then follow H5 to adjust hydraulic power.

D4 ENABLING HOLD OPEN CONTROL

Adjust hold-open control (B) to hold the door at 90°. (Refer to H4)

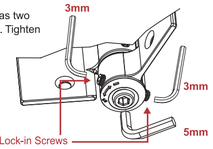


D5 LOCK-IN PLACE

Tighten the barrel-side speed lock-in screws on SA, SA1 and SB hinges to ensure that your settings remain fixed.

NOTE: Each hinge has two speed lock-in screws. Tighten at least one of them.

NOTE: Proceed to D6 if door does not close and latch properly.



D6 FINE ADJUSTMENT

For optimal performance, adjust swing speed, latch speed, and closing tension reciprocally until slamming stops and door latches properly.

ADJUSTMENTS:

- **Door Slams**: Reduce (-) swing speed or latch speed or decrease tension.
- **Poor Latching**: Increase (+) swing speed or latch speed or increase tension.

NOTE: Adjust speed control by 5°-10° at a time.
NOTE: Increase or decrease spring tension incrementally one number at a time.