



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 (Δ) 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.

SWING SPEED	Fast	Slow	Stop
DIRECTION	+ ← → -		

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.

LATCH SPEED	Fast	Slow	Stop
DIRECTION	+ ← → -		

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.

Deactivate HO. Activate HO.

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.

	Fast	Slow	Stop
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

Shift HDAZ (5mm wrench)
 HDAZ Lock-in Screws (3mm wrench)

5mm wrench full (-)
 5mm wrench full (+)

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

(N) position. Disengaged Engaged

NOTE: Hinge positions are interchangeable.

A2 CLOSING FORCE SETTING

Increase tension one number at a time until door closes and latches from 20°.

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

Example: Tension set at 2.

20°

A3 ENABLING SWING & LATCH SPEED CONTROL

First adjust swing speed control (A) then latch speed control (A1) to avoid slamming.

Swing Speed Control Hex Nut (A) Latch Speed Control Hex Nut (A1)

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

3mm 3mm 5mm

Speed Lock-in Screws

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.

Spring Tension Numerical Panel

SA SA SA1

Lock-in Screws Lock-in Screws

Swing Speed Control Latch Speed Control