



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

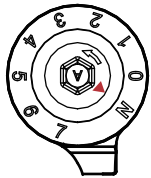
Waterson hinge sets are easily adjustable using 3mm and 5mm hex wrenches. See H1 – H6 for specific adjustments.

H1

ADJUSTMENT - TENSION

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

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



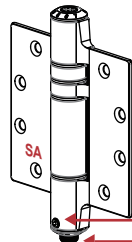
NOTE: Spring tension adjustment is done on SA, SB & SA1 top ends, as well as on HS bottom & DS both sides.

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	+ ← → -		

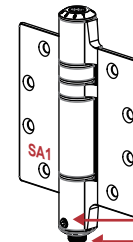
NOTE: Lock speed lock-in screws with 3mm wrench after adjusting.

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.

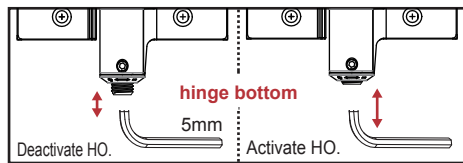
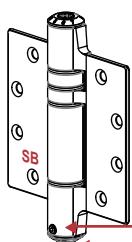
Speed Lock-in Screws (Turn 90°- 180°)
Latch speed Control Hex Nut

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.



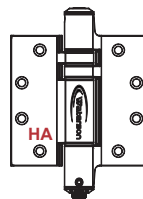
NOTE: Lock speed lock-in screws with 3mm wrench after adjusting.

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.

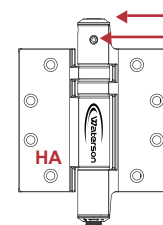
CAUTION: Hydraulic mechanism operates best from 0-120°. Opening beyond 120° will damage hinge and violate warranty.

H6

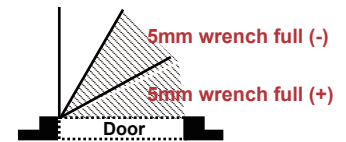
ADJUSTMENT - HYDRAULIC ZONE

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



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



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

Process Set C3

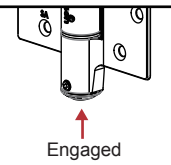
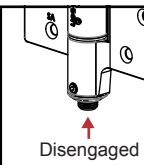
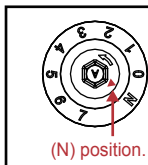
Waterson C3 (SB.SA.SA1) set is composed of SB,SA and SA1 hinges. This set is designed to provide heavy-duty commercial doors with self-closing, speed control, and hold-open.

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



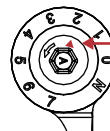
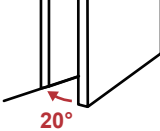
NOTE: Hinge positions are interchangeable.

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.

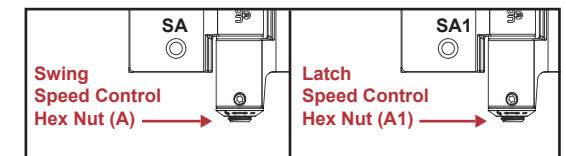


Example:
Tension set at 2.

C3

ENABLING SWING & LATCH SPEED CONTROL

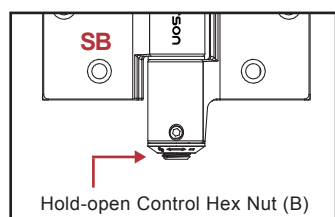
First adjust swing speed control (A) then latch speed control (A1) to avoid slamming. (Refer to H2 and H3)



C4

ENABLING HOLD OPEN CONTROL

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



Hold-open Control Hex Nut (B)

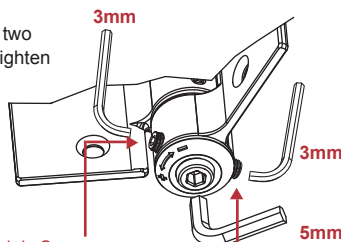
C5

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



Speed Lock-in Screws

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.

