



# 3IN1 SELF-CLOSING HINGE USER GUIDE

(TOP, MIDDLE, BOTTOM) = (SS, HA, SA)  
For door < 260 pounds (120 kg)

## Before Hinge Adjustment

The quality of door installation is super important and could affect the self-closing feature greatly.

Install like regular hinges with reliable precision and hinge alignment. After installing the door,

1. Moving Freely Without Any Interference: Push the door edge lightly from 90° to 0° and the door should swing freely.
2. No Spring Back in the Lower Closing Angle: Try to close the door by hand. Fix first if the door springs back in lower angle and can't easily be latched.

If the above 2 concerns have solved – move to the hinge adjustment section.

If no – follow the check points below to solve the problems.



**Point 1:** Do your door and frame have enough clearance in between or they are hitting each other?

Use a piece of 0.3-0.5mm thick metal (or a credit card / gap gauge) to verify the clearance. There should be enough clearance to move the 0.3-0.5mm thick metal.

If not, try to **shim** the door or **chisel** the door or frame to create more clearance.

**Point 2:** Does your door lock and the strike plate match properly or they are creating interference?

Check you latch bolt. It should engage properly with the strike plate. If they are hitting each other, try to realign or create fitting depth for the strike plate, or grind off the strike plate a little bit to get rid of the interference. Consider replacement for strike plate of fitting size and thickness if the interference persists.

**Point 3:** Do you use an electric drill to screw the hinges on the door or frame?

It's highly possible that you are tightening the screws too tight and creating hinge itself to twist or bind. Go to the **middle** hinge. Try to mildly loosen the screws on the door and frame by tool and retighten again. Feel the swing again. 80% this could solve the problem.

# Hinge orientation & Codes for hinge

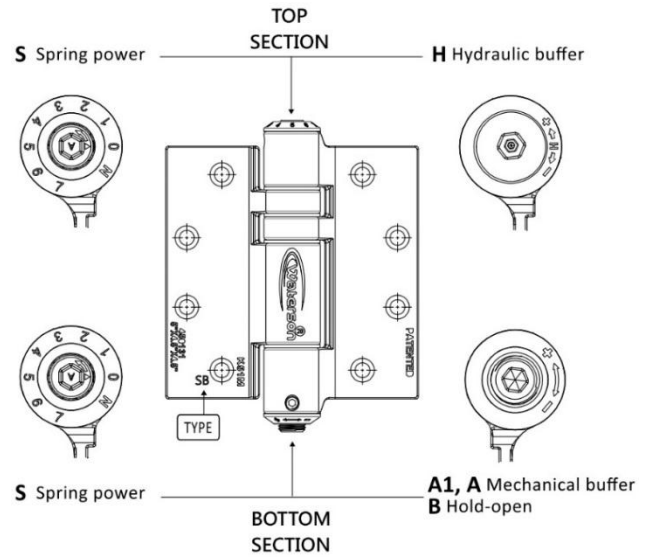
**S:** Spring power; offers closing force

**H:** Hydraulic buffer; offers speed buffer

**A1:** Mechanical buffer; offers speed buffer for 0-20°

**A:** Mechanical buffer; offers speed buffer for 20-90°

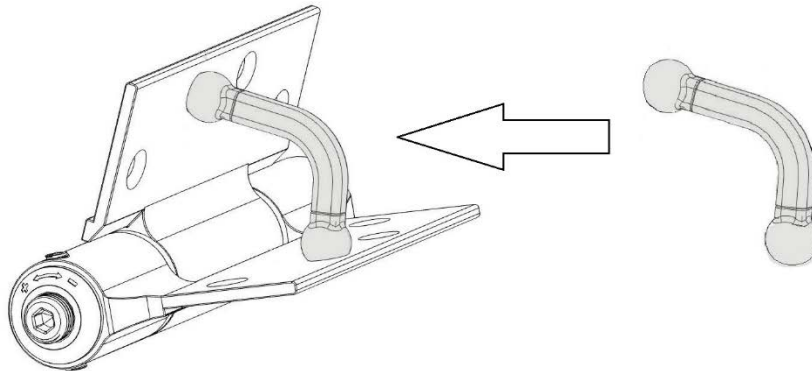
**B:** Hold-open for 85-95°



Stainless Steel hinge Types - For Wood/Metal/Fire-Rated Doors					
Type of Hinge	Top	Function	Bottom	Function	Mechanism
<b>SS</b>	<b>S</b>	Spring power (provide closing power)	<b>S</b>	Spring power (provide closing power)	Spring power + Spring power
<b>SA1</b>	<b>S</b>	Spring power (provide closing power)	<b>A1</b>	Control closing speed in 0°-20°	Spring power + Mechanical buffer
<b>SA</b>	<b>S</b>	Spring power (provide closing power)	<b>A</b>	Control closing speed in 20°-90°	Spring power + Mechanical buffer
<b>SB</b>	<b>S</b>	Spring power (provide closing power)	<b>B</b>	Hold-open in 90°+/-5°	Spring power + Hold-open
<b>HA</b>	<b>H</b>	Hydraulic Buffer	<b>A</b>	Control closing speed in 20°-90°	Hydraulic Buffer + Mechanical buffer
<b>HB</b>	<b>H</b>	Hydraulic Buffer	<b>B</b>	Hold-open in 90°+/-5°	Hydraulic Buffer + Hold-open

# Adjustment Procedures for door < 260pounds (120 kg) (Top, Middle, Bottom) = (SS, HA, SA)

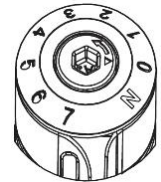
**\*\*Leaf holder - use it to help install the hinge.**



## **A. Set up self-closing power. Only adjust the power adjuster of SS hinge and SA hinge.**

### **A-1 How to decide the self-closing power setting**

A-1.1 SS hinge includes 2 power adjusters. One is on the top of the hinge, and the other is on the bottom of the hinge. SA hinge includes 1 power adjuster on the top of the hinge.



A-1.2 Each adjuster includes N-7 setting value. N(Neutral) is open-box setting without closing force. Keep this setting during hinge installation. From 0-7, one setting value provides 15 pounds(7kg) of closing force.



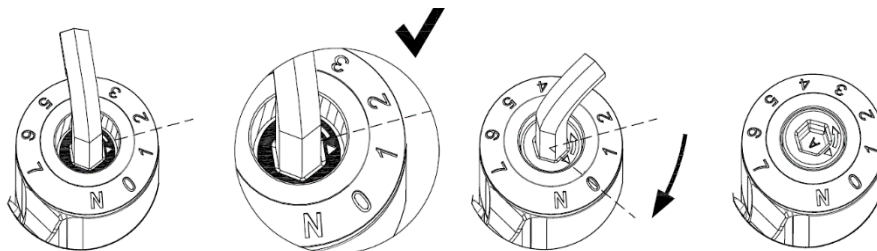
A-1.3 Example:  
(Try to set the values evenly)

Position	TOP		Middle	Bottom	
Hinge	SS-top	SS-bottom	HA	SA-top	Total force
Setting	4	4	n/a	4	180 pounds (12*15 pounds) 84 kg (12*7 kgs)
	5	5	n/a	4	210 pounds (14*15 pounds) 98 kg (14*7 kg)

### **A-2 How to Increase or decrease power setting**

A-2.1 To increase power: adjust the power adjuster to higher numbers;

A-2.2 To decrease power: press down the power adjuster and turn to lower numbers.



### **A-3 Set up closing power for different angles**

A-3.1 Ensure 3 hinges together can close the door at 20°, 60° and 90°.

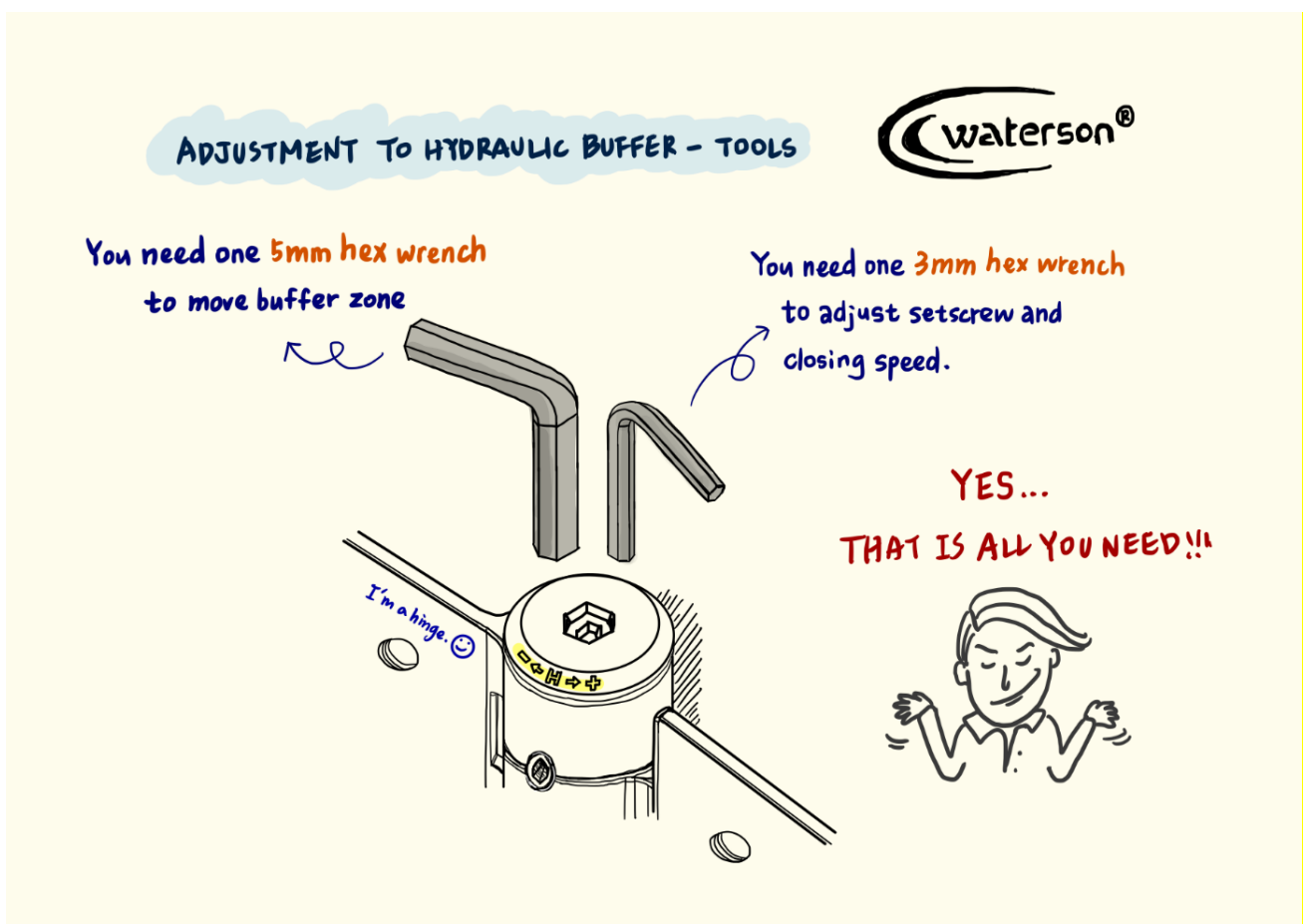
**A-3.2 The door may slam at this stage. Keep going. Just make sure the door could close at 20°**

## B. Go to Middle hinge (Type HA Hinge) to set up hydraulic buffer. Only adjust the top of the hinge.

### B-1 What does hydraulic buffer do

The initial buffer zone comes into engagement during the swing from 50° to 25°. The door would start to slow down. The buffer would then disappear below 20° so that the door is with enough closing power for the door latch.

In some cases (e.g., door without latch. The door does not need latching power in the end.), we need to move the buffer zone to 25°-0° so that the buffer effect would be still in power at lower angle, creating a quieter closing experience.



## B-2 How to increase or decrease buffer

B-2.1 Adjust the TOP section of the HA hinge with 3 mm hex wrench.

B -2.2 Turn 3 mm hex wrench from + to – to slower speed (turn only 1/4 circle at a time)

B -2.3 Turn 3 mm hex wrench from - to + to faster speed (turn only 1/4 circle at a time)

B -2.4 Usually, total 2 circles turn could get the largest buffer effect.



### ADJUSTMENT TO HYDRAULIC BUFFER - CLOSING SPEED



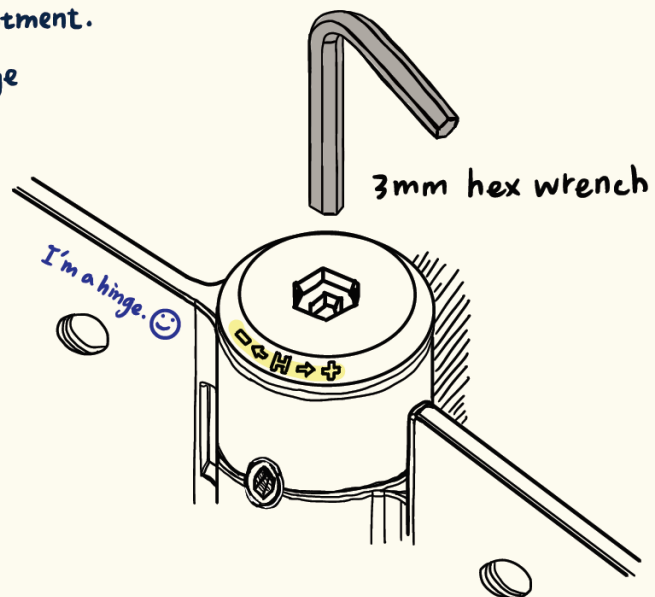
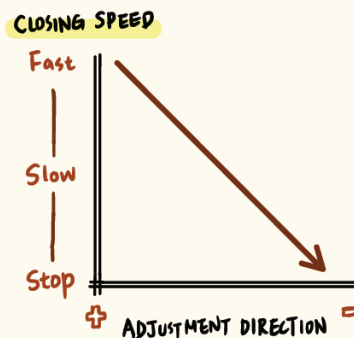
▶ PLEASE FOLLOW THE STEPS:

① Open the door to 90° before adjustment.

② Adjust the TOP section of the hinge with 3mm hex wrench.

→ FROM + TO - : SLOWER SPEED

→ FROM - TO + : FASTER SPEED



If your door is door with latch, just follow B-1 & B-2 step. Skip B-3. You don't need this.

### B-3 How to move buffer zone

B -3.1 Remove the pick sticker and use 3 mm hex wrench to loosen the setscrew a little.

B -3.2 Adjust the TOP section of the HA hinge. Use 5 mm hex wrench and rotate from - to + 1 circle turn.

B -3.3 Turn from - to +: move engagement angle toward direction of 0° (turn only 1/4 circle at a time)

B -3.4 Turn from + to -: move engagement angle toward direction of 50° (turn only 1/4 circle at a time)

B -3.5 Check the buffer zone by testing the self-closing feature.

B-3.6 Tighten the loosened setscrew in step B-3.1

(Insufficient tightening of setscrews may damage the hinges)



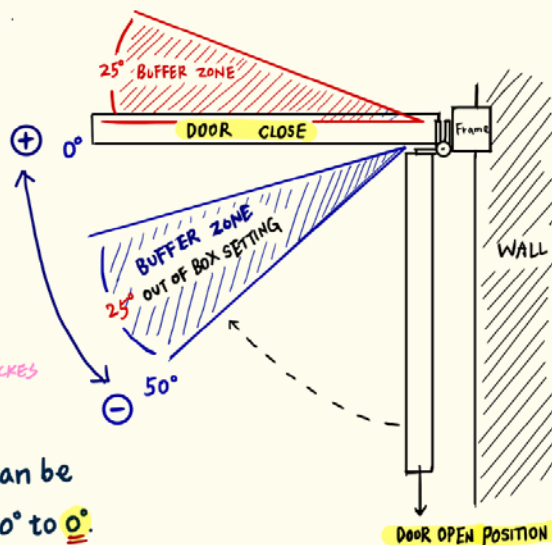
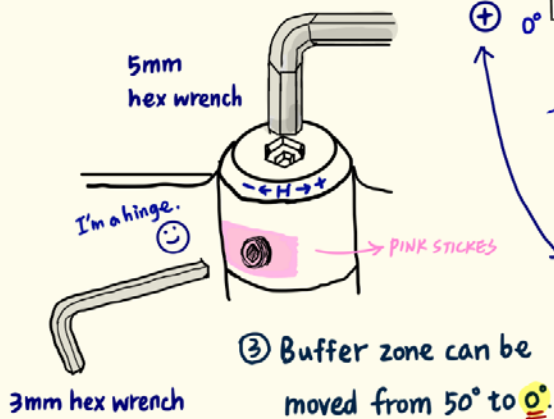
### ADJUSTMENT TO HYDRAULIC BUFFER - HOW TO MOVE BUFFER ZONE ?



▶ PLEASE FOLLOW THE STEPS:

① Remove the pink stickers. Use 3mm hex wrench to loosen the set screw a little.

② Use 5mm hex wrench to move the buffer zone.



If your door is door without latch, B-1 & B-2 & B-3 steps are all important to make a good adjustment.

## C. Go to Middle and Bottom hinge to set up mechanical buffer in 20-90°. Only adjust the bottom of hinge.

### C-1 What does A mechanical buffer do

C-1.1 A mechanical buffer provides speed control in 20-90°. You can adjust it through the speed screw at the bottom of the hinge.

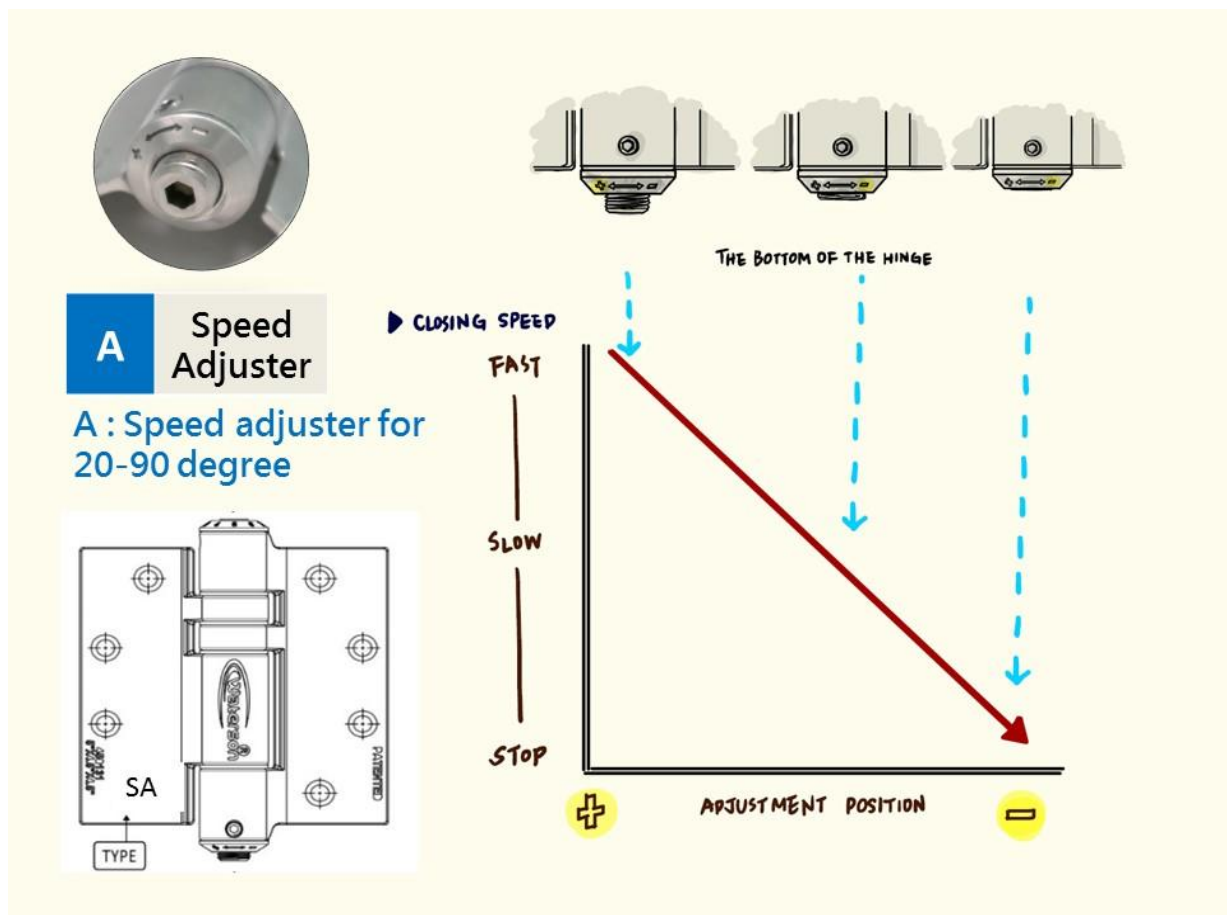
### C-2 How to increase or decrease buffer

C-2.1 Adjust the Bottom section of the SA hinge with 5 mm hex wrench.

C-2.2 Turn 5 mm hex wrench from + to – to slower speed & from - to + to faster speed

C-2.3 Adjust this mechanical buffer 1/2 turn at a time. Test the door opening again.

C-2.4 If the speed screw is more engaged in the barrel, the brake is more engaged.

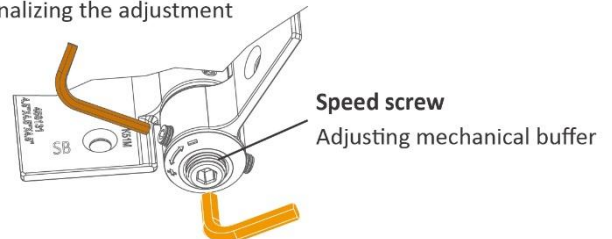


## D. Finalize the adjustment

D-1.1 Make sure self-closing feature works in all angles.

D-1.2 Tighten the 2 side setscrews on each hinge using 3 mm hex wrench to finalize the settings.

3mm hex wrench  
For finalizing the adjustment



5mm hex wrench

- ⊕ For speed increase
- ⊖ For speed decrease