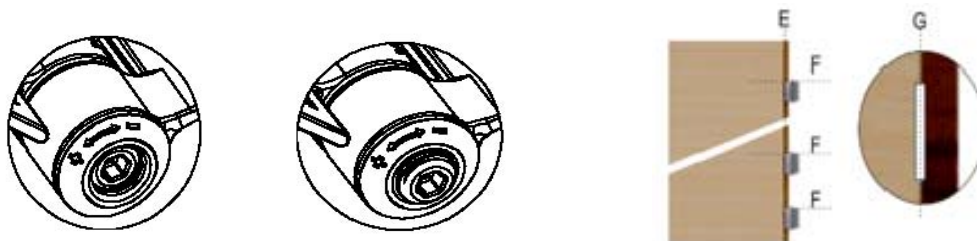


## Installation of hinge

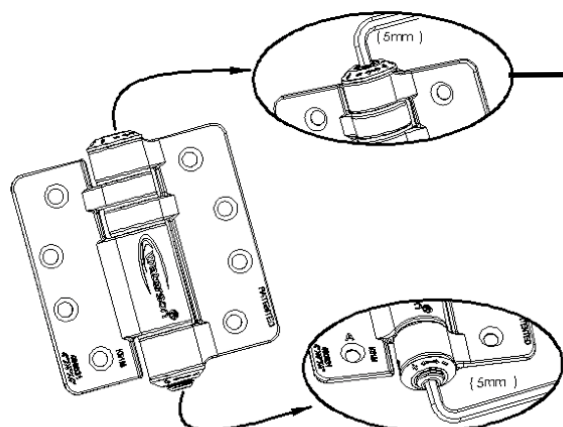
1. Open the hinge to the desired angle. Insert a 5mm hex wrench into the bottom of the hinge and rotate in the L (-) direction until tightened.
2. Install the hinge like any regular full mortise hinge. The cutout depth should be 3.3mm.
3. After installation, rotate in the H (+) direction until released. The outer thread of the thread cover should be exposed by about 3mm. The door should move freely just as a normal spring hinge has been installed.
4. Make sure the three F Lines are parallel. Line E & Line G must be perpendicular with Line Fs.



| Door weights                      | 120 lbs ( 60 kg ) | 180 lbs ( 90 kg ) | 250 lbs ( 120 kg ) |
|-----------------------------------|-------------------|-------------------|--------------------|
| Qty of hinges                     | 3                 | 3                 | 4                  |
| Settings of hinges                | ( 3, 3, 3 )       | ( 5, 5, 5 )       | ( 5, 5, 5, 5 )     |
| Types of hinges without hold-open | ( A1, NM, A )     | ( A1, A, A )      | ( A1, A1, A, A )   |
| Type of hinges with hold-open     | ( A1, B, A )      | ( A1, B, A )      | ( A1, B, A, A )    |

## Suggested set-up procedure

1. Adjust the closing force. Rotate all hinge number panels located at top of hinge to setting #3 and adjust up to 5 one setting at a time as needed.
2. Open the door to 20, 60, and 90 degree. Release and test the function of auto-closing. Make sure the door closes by itself at any angle.
3. If the door closes too fast at 0~20- degree, adjust the A1 hinge by tightening the bottom tension screw to reduce closing speed.
4. If the door closes too fast at 20~90 degree, adjust the A hinge by tightening the bottom tension screw to reduce closing speed.



### Closing Force Adjustment

Please set up all hinges at #3 and adjust up to 5 one setting at a time as needed.

### Closing Speed Adjustment

Type A1 : control closing speed at 0~20 degree  
Type A : control closing speed at 20~90 degree

### Hold-Open function Adjustment

[ Do not apply this function for fire-rated door unless special circumstances are present ]

Type B : control hold-open function

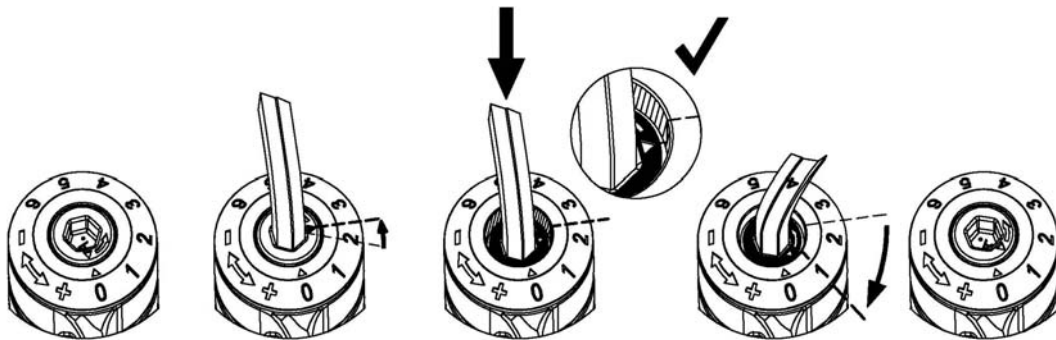
## General Information

1. Conform to ANSI/BHMA A156.7.
2. The hinges are non-handed.
3. For fire door use: maximum door size and number of spring hinges required are based on limits set forth in NFPA-80. [ Doors up to 60" in height should be provided with 2 hinges and an additional hinge for each additional 30" of door height or fraction thereof. ]
4. One Waterson hinge can bear maximum 60 lbs in door weight.

## Closing force adjustment

- Insert a 5mm hex wrench into the top of the hinge

1. Increase the door closing force. The tensions force starts at #0 setting. Rotate in a counterclockwise (+) direction. The larger the number is, the greater the force.
2. Decrease the door closing force. Press down and rotate clockwise (-) to the lower #number setting.



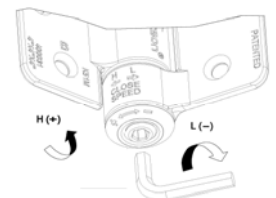
3. Settings should be equally applied on each hinge to ensure balance.
4. Hinge maximum setting is # 6 and a stop is in place to insure against over tightening which would void the warranty.
5. For cUL standard, please contact Waterson Corp. for the specification of the closing force adjustment of CAN / ULC-S133-07. The maximum door weight is 54kg.

## Hold-open function adjustment

**(Applicable to Type B hinge only. Do not apply this function to fire rated door unless special circumstances are present.)**

- Insert a 5mm hex wrench to the bottom of the hinge

1. Open the door to 90 degree. Insert a 5mm hex wrench into the bottom of the hinge. Rotate in the L (-) direction until the function engages in a hold open position.
2. The tighter the set screw is set the sooner the hold open function will engage.
3. To release the hold-open function, rotate in the H (+) direction until the function reduces.



## Closing speed adjustment

**(Applicable to Type A hinge only. Do not apply this function to fire rated door unless special circumstances are present.)**

- Insert a 5mm hex wrench into the bottom of the hinge

1. Increase the door closing speed - Rotate in the H (+) direction.
2. Decrease the door closing speed - Rotate in the L (-) direction.