Introduction
Following installation, and if required thereafter, the hardware of 325 Series casement and awning vents can be adjusted to achieve and maintain optimal performance, and air and water tightness.

*Note:* Adjustments to Cascadia’s window and door hardware should only be performed by skilled and experienced window installers or service providers, familiar with multi-point hardware.

Adjustments can be made to the casement and awning vents for sash alignment, gasket compression and handle position. The following instructions indicate the method and goal of each possible adjustment, including what potential issues they address.
The range of possible adjustments may not be sufficient to compensate for some installation deficiencies. It is always recommended to correct any significant installation deficiency, rather than attempt to compensate for it with hardware adjustments. Hardware adjustments should only be used to optimise the performance and ease of operation of a correctly installed product.

Hardware Type
- Casement and Awning Hardware: X-drive operator and 2-bar hinges, by Roto-Frank of America.

Required Tools
Adjustment 1:
- Low-profile 14mm wrench – Roto part no: HG05-2005 (available from Cascadia if required).

Adjustment 2:
- 14mm wrench (the low-profile wrench from adjustment 1 can be used)

Adjustment 3:
- Slot head screw driver (3/32” or 1/8” size)

Summary of Adjustments
1. Sash Alignment
   Corrects following issues:
   a. General misalignment (visual);
   b. Rubbing or binding of sash and frame;
   c. Rubbing or binding of sash against lock bar on frame;
   d. Sash does not close tightly enough for lock bar to engage.

2. Gasket Compression
   Corrects following issue:
   a. Insufficient compression of gasket when locked;
   b. Operation of the lock bar is difficult, due to too much compression.

3. Rotary Handle Position
   Corrects following issue:
   a. Final (folded) closed position of handle does not align with operator housing.

1. Sash Alignment
Sash alignment is controlled by one adjustment nut on each of the two hinge tracks. The location and method of adjusting the nuts is depicted below (figures 1 & 2). A casement vent is shown; awning vents are similar, however the hinges are located on the jambs, rather than on the head and sill.

Adjusting the nut moves the sash (relative to the frame) in the directions parallel to the hinge track. Adjust one or both nuts to correct general alignment, and/or binding of the sash against the frame and/or lock cams on the lock bar (figure 3).
Figure 1 – Hinge adjustment instructions

ATTACHMENT, ADJUSTMENT & DETACHMENT

INSERT AND SNAP HINGE PIN INTO ADJUSTABLE NUT

ATTACHMENT

INSERT SCREWdriver UNDER ARM CLOSE TO NUT A TWIST TO Pry OFF

DETACHMENT

NOTES:
1. DO NOT ADJUST NUT MORE THAN 1/4 TURN MAX EACH DIRECTION
2. 3MM TOTAL SASH ADJUSTMENT
3. INFORMATION IS FOR REFERENCE ONLY.

Figure 2 – Hinge adjustment nut

Figure 3 – Lock bar

Striker
Lock bar
Lock cam
2. **Gasket Compression**

The lock bar (casement or tall awnings) has several lock cams, which engage the strikers on the sash.

Info only:

*The strikers are positioned to allow the lock cams to sequentially engage, rather than all at the same time. On a casement, the lowest striker engages first, then the next one above, and finally the top (if three strikers).*

Adjustment of each individual lock cam is possible, to effect tighter or looser compression, once locked. Adjust the lock cam with a 14mm wrench (the low-profile 14mm wrench HG05-2005 can be used, but is not required). Cams are factory set to the middle of the adjustment range. The adjustment range is 90 degrees in either direction from the factory setting (180 degrees total).

![Figure 4 – Lock bar on casement (lower end shown)](image)

![Figure 5 – General schematic drawing of lock bar](image)
3. Handle position
If the folding handle on the operator does not align with the housing when the window is closed (and locked), the handle can be repositioned to correct this (figures 6 & 7).

To re-position handle:
- Unfold handle (operating position);
- Loosen set screw, using slot head screwdriver (figure 8);
- Slide handle off of splined gear;
- Slide handle back onto splined gear in new position;
- Tighten set screw (do not over tighten).