

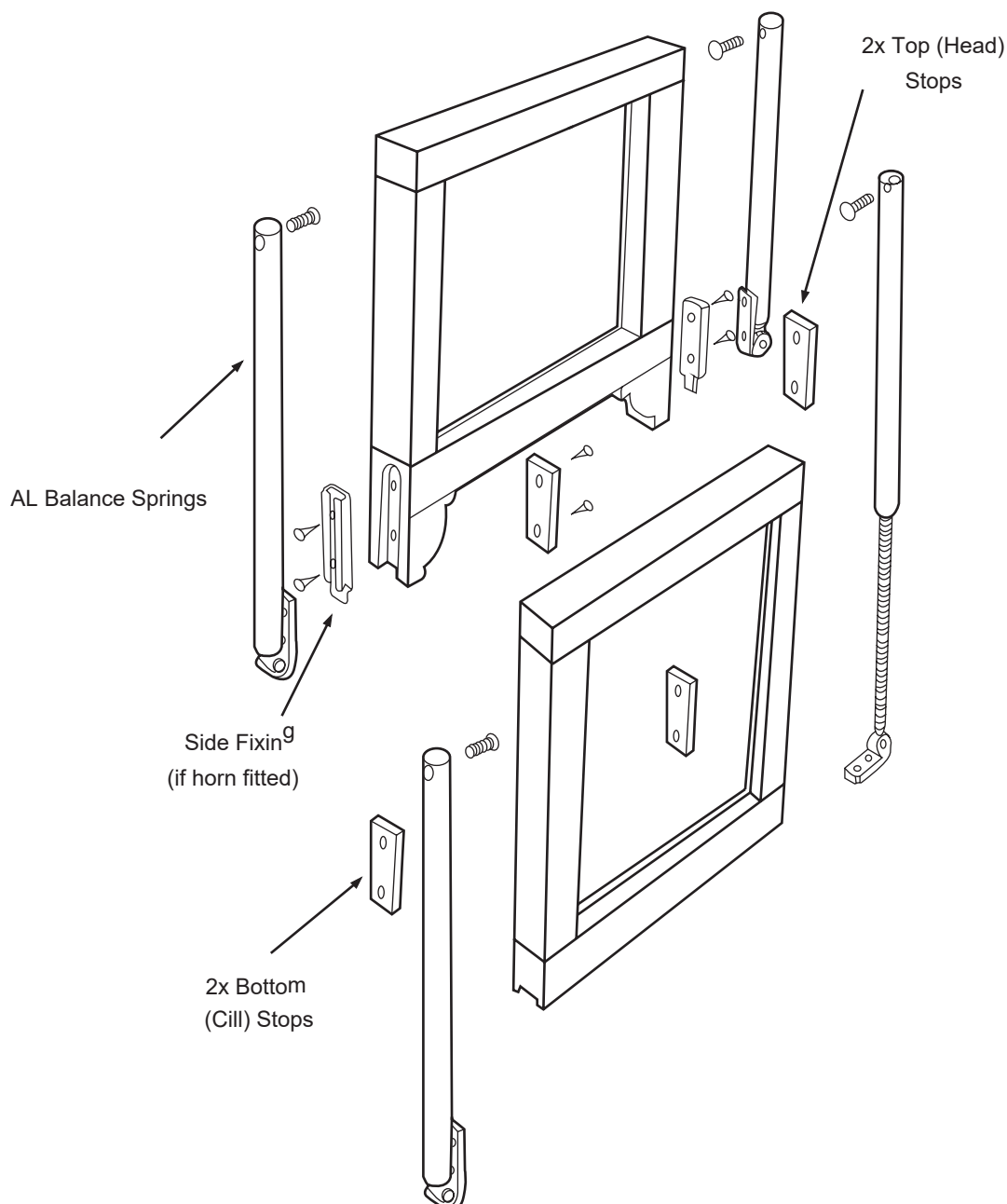
Sash Balance Installation

Type AL - Assisted Lift V2 & V3



It is recommended that the sashes are glazed and painted to ensure both sashes slide freely in the frame.

IMPORTANT NOTICE: These balances are supplied tensioned to the weight range of your sash but will require adjustment to perfectly balance the sash. See **Page 4** for tensioning instructions.



NOTE: Read instructions fully before installing balances. It is recommended that before balances are installed the sashes are glazed and in the case of timber windows all painting is completed ensuring that both sashes slide freely in the frame. While sketches show timber windows throughout, fitting instructions apply to all types.

Preparation of the window

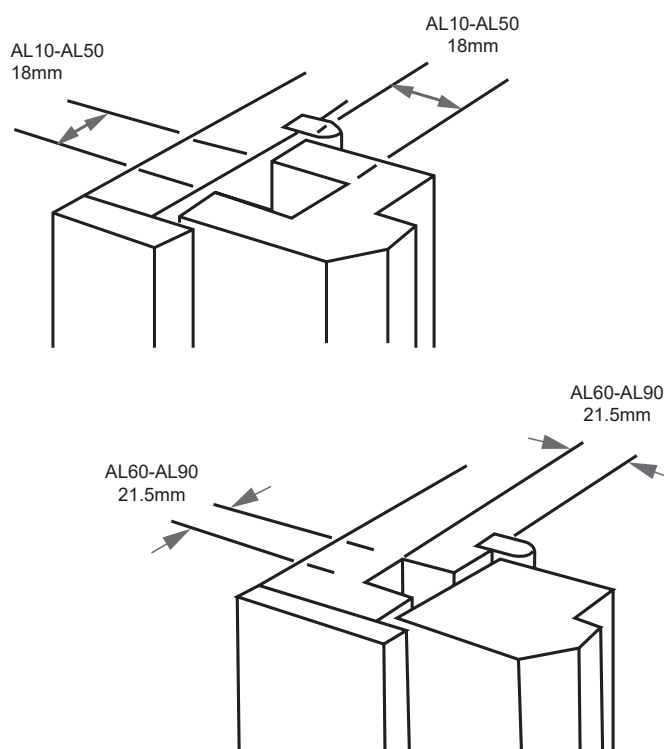
1) Groove dimensions

Provision must be made to house each balance in a groove or channel which can be either in frame jamb or sash stile and must be minimum dimensions shown above.

The groove must run the full length of the sash run. Bottoms of sashes should be prepared to suit balance foot attachment to be used.

Cut-outs to be of sufficient depth to receive attachments and screw heads.

Typically diagram 2a is prep work for the bottom sash and diagram 2b is for the top sash. However if you wish to hide all visible fittings follow diagram 2b for both sashes.



2) Checking the balances

It is important that the balances used are suitable for the weight of the sash. The relevant weight in lbs is printed on the tube and on the accompanying paperwork.

Check that the glazed sash weight is within 1lbs (0.5kg) of the figure that is shown on the side of the balance.

FIG 2a

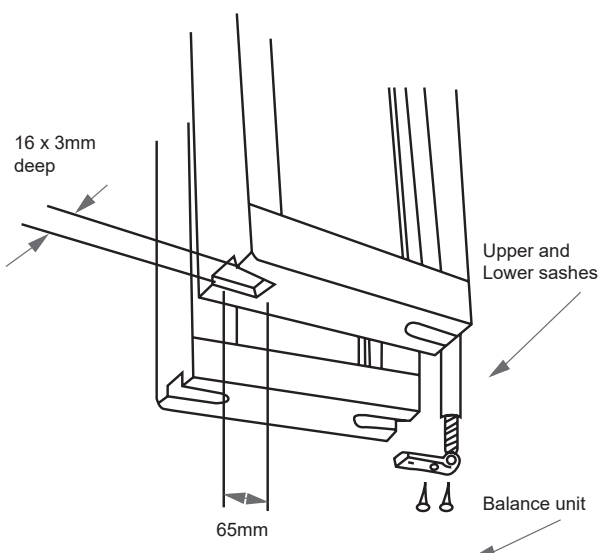
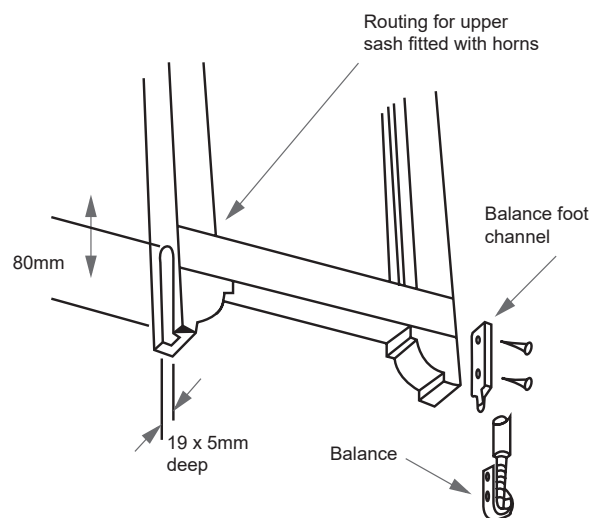


FIG 2b

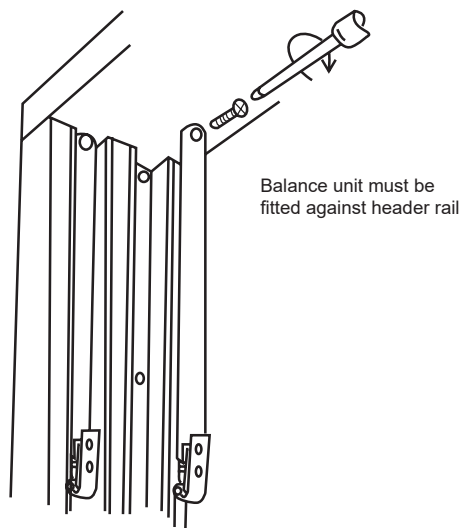


Installing the balances

3) Standard method

Note that the shorter pair of balances is normally for the top sash, given sashes of equal height. With the sashes lowered, insert the appropriate pair of balances into the grooves. In the case of unequal size sashes it is possible to slightly bow the balance for insertion into the groove of the larger sash. In some cases, larger sashes may have to be removed.

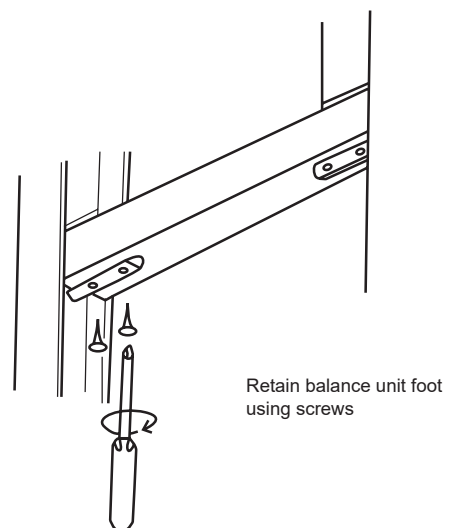
Fit the top of the balances to the frame jamb at the centre of the groove tight up against the frame head, with the flat of the foot attachment against the jamb. Fix using wood screws provided.



To attach balances to sashes, firstly raise the sashes as high as possible and prop in position. The foot attachment at the bottom of each balance should now be visible. An installation tool is available to assist in pulling the balance down when fitting.

Now fold the foot attachment under the bottom rail of the sash.

Using the wood screws provided, fix the foot attachment to the underside of the bottom rail, ensuring that the balance is kept tight to the sash.



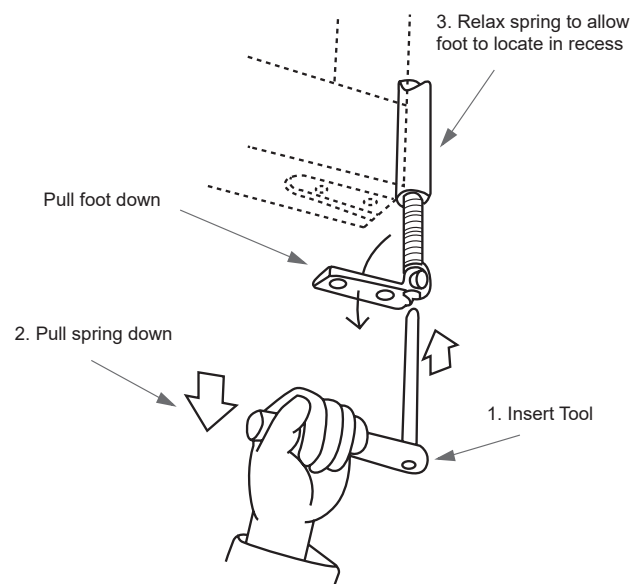
4) Alternate method - Non-Horned Sash

For unequal sashes, very heavy sashes.

Before inserting balances into groove you can insert an installation tool (available) into the brass thread at the bottom of the balance.

Proceed as previously described, using the tool, pull the foot attachment downwards and across under the bottom rail of the sash. Fix using wood screws provided before fully tightening screws, carefully remove the adjustment tool.

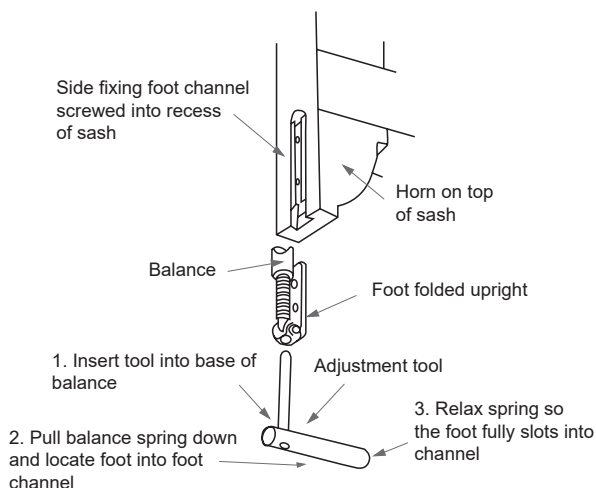
Note: when using adjustment tool pull spring down from tube, do not twist or turn spring.



5) Alternative method - Horned sash

For sashes with horns, using the standard horn channel attachments and use the tool to pull the balance foot down so that it can be located into the bottom of the channel and then carefully released.

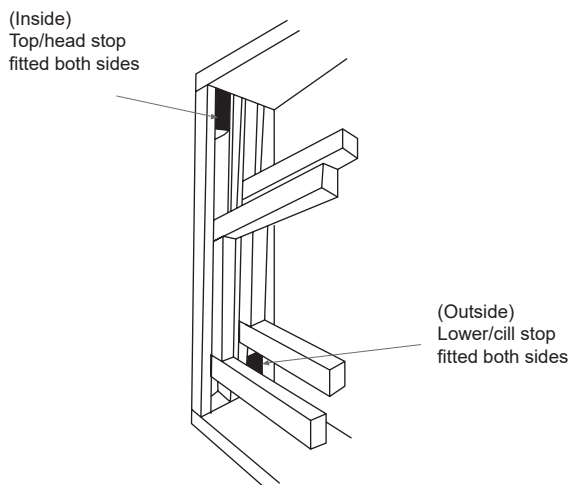
Carefully remove the adjustment tool.



6) Fixing the travel stops

Fix travel stops provided, the shorter one at the top of the window at the head, the longer one at cill. In the case of non-standard applications special stop may be required. In such cases suitable longer timber stops should be substituted for the standard metal type supplied. These should be long enough to prevent the balance from being extended by more than twice its tube length minus 2 inches.

IMPORTANT - FAILURE TO FIT TRAVEL STOPS MAY RESULT IN BALANCE FAILURE



Adjusting the balances

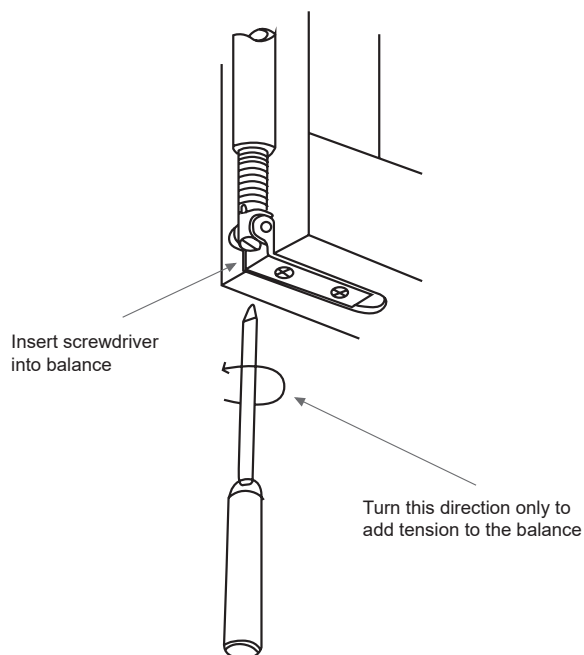
7) Adjustment

Try the sashes up and down TO THE LIMIT OF THEIR TRAVEL.

If there is a tendency for either sash to drop when in the up position, adjust the balances as follows: A screwdriver OR the tensioning key can now be inserted in the slot in the ratchet fitting at the bottom of the balance.

Adjust by turning the ratchet in an anti-clockwise direction as viewed from underside. Two 'clicks' of the ratchet equal one complete turn. Ensure that the same number of turns that are applied to each balance pair.

Note: Do not over tension. Only turn each balance a maximum of 4 clicks (2 Turns). If the sash still drops call our team.



8) Important information

Don't use balances on sashes beyond their respective weight.

Don't tension balances more than 4 clicks (2 Turns). Don't tension balances before glazing. Do keep the foot attachment tight into the sash and make sure that the covers of the fitting do not rub the jamb when the sash is moved. Do fit correct travel stops.

Tube and groove

V2/V3 AL10-50

Tube diameter: 17mm

Groove dimension: 18mm

V2/V3 AL60-90

Tube diameter: 19mm

Groove dimension: 21.5mm

Sash weight range

V2/V3 AL10-50

3.6Kg (8Lbs) - 26.7Kgs (59lbs)

V2/V3 AL60-90

27.2Kg (60Lbs) - 40.8Kgs (90lbs)

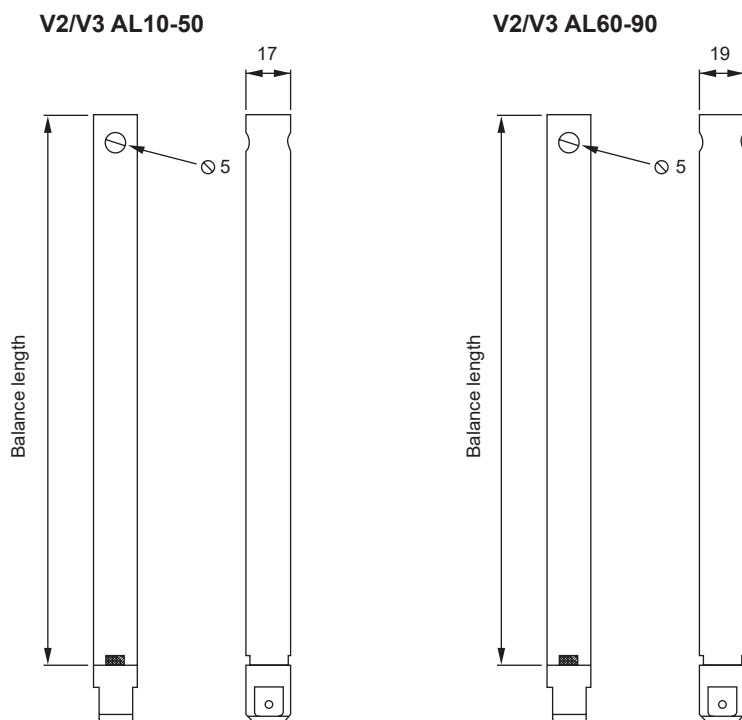


Diagram not to scale
All dimensions are in mm and are nominal

The diagram shows two views of a window frame. The left view is a side elevation showing a semi-circular top with a height of A and a width of W . The top section has a height of D and the bottom rectangular section has a height of B . The right view is a top-down plan view showing a rectangular frame with a width of W and a height of A . The top section has a width of B and the bottom rectangular section has a width of C . The text above the diagrams states: A' must be less than $B' + C'$.

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