



SPRING BALANCE | WINDOW HARDWARE
RANGE
DORIC CATALOGUE - 2024



SPRING BALANCE

WINDOW HARDWARE RANGE



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DOUBLE HUNG WINDOWS

Double Hung windows have been installed in Australian houses for decades.

The unique window design allows warm air to escape through the top of the window whilst drawing cool air in through the bottom. This circulation is ideal where ventilation is desired.

As Double Hung windows have become more common and sizes have become larger the challenge has been to provide reliable hardware to meet this requirement.

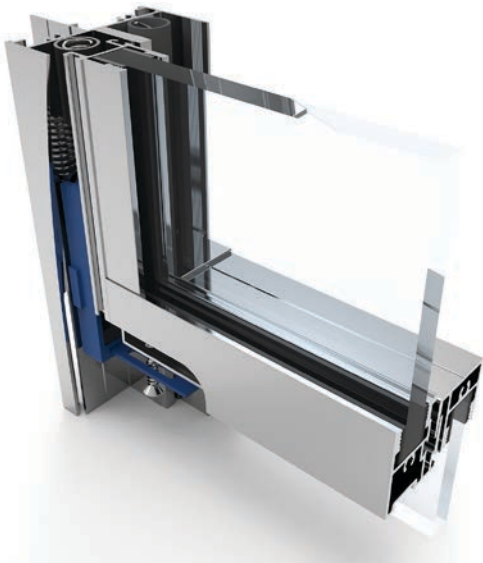
Doric draws on over 30 years of experience to offer a Spring Balance mechanism that is recognised as the most reliable maintenance free balance system available.



BALANCES TO SUIT ALUMINIUM WINDOWS

Designed to complement and work within the dimensional restraints of modern aluminium double hung windows.

The Doric Spring balance suits windows from 1.6kg through to 22kg providing a reliable easy to operate mechanism to balance a window.



FEATURES

- Comprehensive range of sizes and strengths. (See size chart)
- Accessories available such as stops, guides, and friction feet.
- Durable materials provide reliability and longevity.
- Compatible with the majority of Australian Double Hung Windows and brands.
- Made in Australia

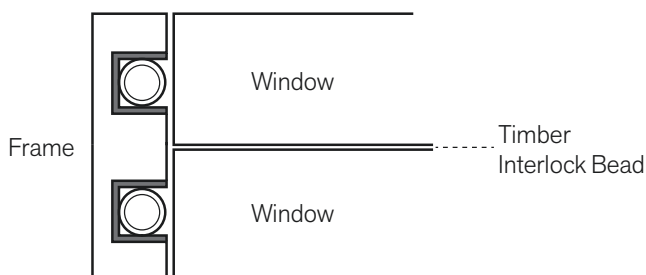
BALANCES TO SUIT TIMBER WINDOWS

The Timber spring balance is essentially the same mechanism as the aluminium variant with the addition of an aluminium channel. When installed the timber window is balanced and smooth.

There are two methods to install the Doric Spring Balance into a Timber Window:

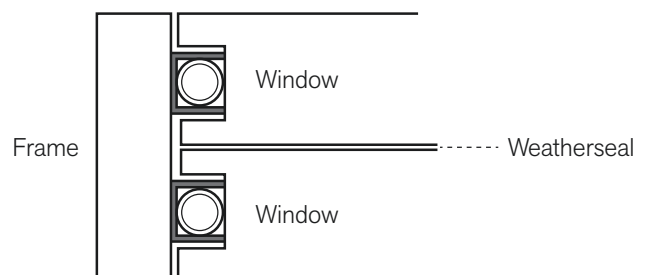
METHOD 1

Trench the window frame to accommodate the supplied aluminium channel and balance mechanism. Install a timber bead to locate, secure, separate and seal each sash in its operation.



METHOD 2

Surface mount the channel to the frame. Machine the sash to the dimension of the channel allowing 1mm - 2 mm clearance. The sash then travels up and down using the aluminium channel as a guide.



SELECTING THE CORRECT BALANCE

Spring balances are separated by length and strength. The height of the window determines the spring length, the weight of the window determines the spring strength.

To select the correct spring, measure the internal dimensions of the window. See figure 1.

Reference the height, the width and the glass thickness with the "SASH WEIGHT CHART".

Note: Round the measured window height up to the nearest value found in the chart.

For example; a window that measures 1230mm high, will require a spring with a length of 1299mm. If the width is 650mm and the glass thickness is 6mm a blue spring is required.

If you do not know the glass thickness the sash must be weighed and the weight referenced against the "SASH WEIGHT CHART".

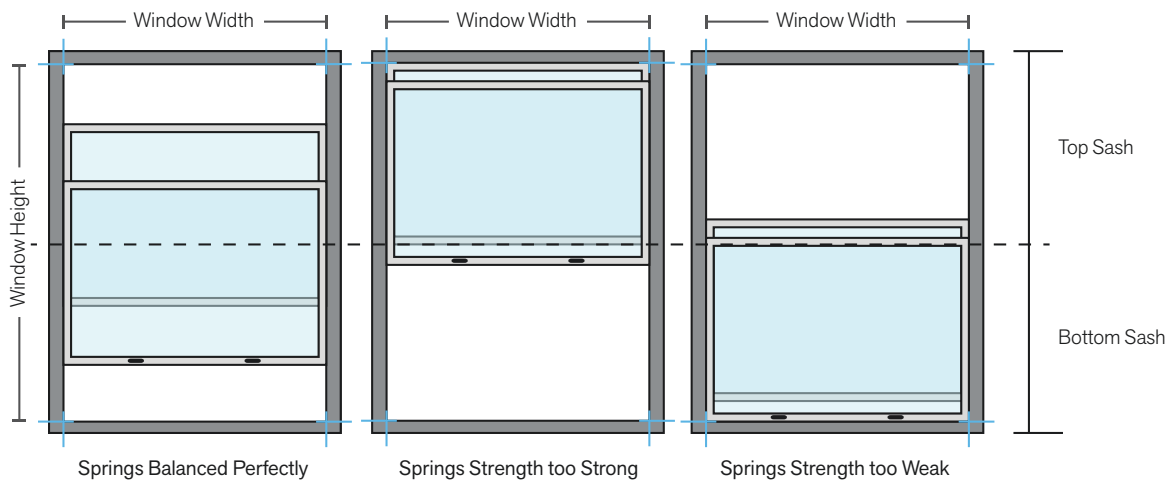
| 6mm Glass - Sash Weight Chart | | Window Width Range | | | | | |
|-------------------------------|---------------|--------------------|------|------|------|------|------|
| Window Height Range | Spring Length | 600 | 650 | 700 | 750 | 800 | 850 |
| 699 | 179 | 3.3 | 3.5 | 3.8 | 4.1 | 4.4 | 4.6 |
| 799 | 229 | 3.7 | 4.1 | 4.4 | 4.7 | 5.0 | 5.3 |
| 899 | 279 | 4.2 | 4.6 | 4.9 | 5.3 | 5.6 | 6.0 |
| 999 | 329 | 4.7 | 5.1 | 5.5 | 5.8 | 6.2 | 6.6 |
| 1099 | 379 | 5.1 | 5.6 | 6.0 | 6.4 | 6.9 | 7.3 |
| 1199 | 429 | 5.6 | 6.1 | 6.5 | 7.0 | 7.5 | 7.9 |
| 1299 | 479 | 6.1 | 6.6 | 7.1 | 7.6 | 8.1 | 8.6 |
| 1399 | 529 | 6.5 | 7.1 | 7.6 | 8.2 | 8.7 | 9.3 |
| 1499 | 579 | 7.0 | 7.6 | 8.2 | 8.8 | 9.4 | 9.9 |
| 2499 | 1079 | 11.7 | 12.7 | 13.6 | 14.6 | 15.6 | 16.6 |

Source; 6mm Glass Sash Weight Chart

IDENTIFYING CORRECT COLOUR

Using the internal height and width axis, this is known as "daylight opening size". The Daylight Opening Size is the measurement to be applied to the Sash Weight Chart. Additionally, the glass thickness is required to identify the correct chart to use.

Figure 1.



Once installed and without adjustment applied to the friction foot, a correctly selected spring will balance the sash within the middle third of the window stroke. If this is not the case the spring weight colour is not correct and the spring should be changed for the correct colour.

COLOUR CODES

Specific colour coding of the spring balances is clearly marked, visible on the spring ends and the tube end caps so you can cross check and ensure the right spring balance is used.

| | | | | | | |
|------------|---------------|---------------|----------------|-----------------|-----------------|-----------------|
| RED | YELLOW | WHITE | BLUE | GREEN | BLACK | GREY |
| 0 - 2.75kg | 2.75 - 4.25kg | 4.25 - 6.00kg | 6.00 - 10.00kg | 10.00 - 14.00kg | 14.00 - 18.00kg | 18.00 - 22.00kg |

Note: Grey Springs are not available for general sales. Consultation required and signed disclaimer. Functional performance is not guaranteed or warranted.

FRICTION FEET

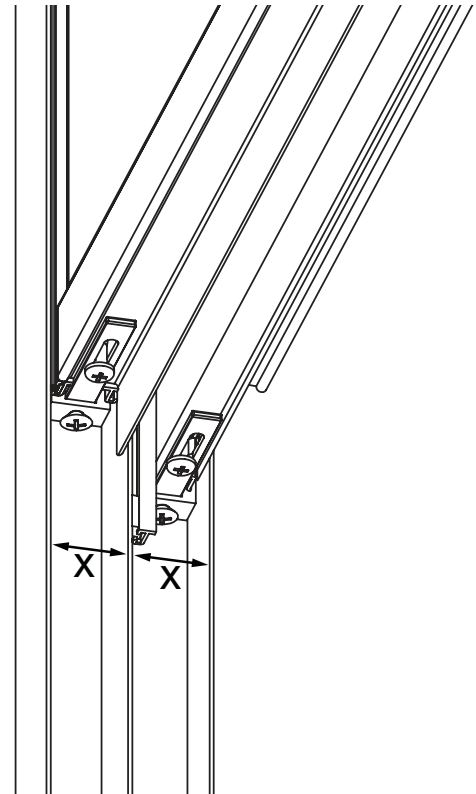
Friction feet are required in every spring balance application. A friction foot is designed specifically to hold the window in the desired position. It is not designed to compensate for an incorrect spring strength. See **"SELECTING THE CORRECT BALANCE"**.

Once the correct spring balance length and weight (strength) is selected, the right friction needs to be applied. There is a variety of friction feet available to suit the majority of window suite dimensions with widths ranging from 13 mm to 35 mm.

To identify the correct friction foot, the window internal channel width (**X**) is required. For example, a 21 mm wide aluminium channel will require a friction foot of 21mm or less as so adjustment can be achieved.

A friction foot has approximately 3-4 mm of adjustment from it's base position.

If the window brand is known, Doric can provide the exact friction foot for the window. If the window brand isn't known simply measure the channel width where the friction foot will be located and include this dimension on your order sheet and your Doric representative will nominate the appropriate friction foot to suit your application.



FRICTION FOOT ADJUSTMENT

Once the Spring Balance is installed and checked to be the correct weight for the window the following procedure should followed to tension the friction feet:

1. Loosen the friction foot adjustment screw until the friction foot no longer applies friction to the extrusion.
2. Cycle the sash (window) up and down several times to check if the friction feet are disengaged.
3. Tighten the friction foot adjustment screw until a small amount of tension is felt on the screw. Repeat on the opposing side.
4. Cycle the window again to make sure a small amount of friction is present.
5. Tighten the adjustment screw half a turn.
6. Cycle the window and attempt to set the window in the position where the spring is not in tension. The window should remain in place. If the window moves add another half turn to the friction feet and check again.
7. Tighten the adjustment screw an additional quarter turn to account for wear in the friction foot.

Your window should now be correctly balanced.

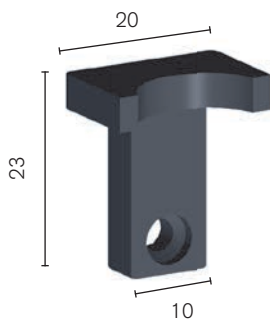


CAUTION: Never use a power drill to adjust a friction foot or over tension the adjustment screw. This causes the friction foot to distort and can damage the window channel surface.

SPRING BALANCE | COMPONENTS & ACCESSORIES

DB0215 | SASH GUIDE

| | |
|-------------------|--------------------|
| MATERIAL | Engineered Plastic |
| ORDER CODE | 9000165 |



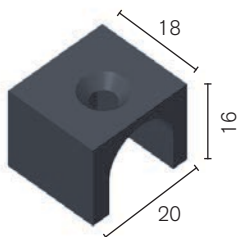
DB0327 | ADJUSTABLE SLIDING WINDOW CARRIAGE

| | |
|-------------------|------------------------------------|
| MATERIAL | Polesium™ |
| OPTIONS | Large - DB0327L Small - DB0327S |
| ORDER CODE | 9000263 |



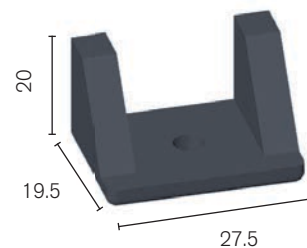
DB0341 | DOUBLE HUNG SASH STOP

| | |
|-------------------|--------------------|
| MATERIAL | Engineered Plastic |
| ORDER CODE | 9003259 |



DB0344 | DOUBLE HUNG SASH STOP

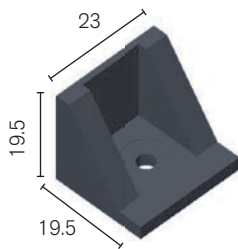
| | |
|-------------------|--------------------|
| MATERIAL | Engineered Plastic |
| ORDER CODE | 9000281 |



SPRING BALANCE | COMPONENTS & ACCESSORIES

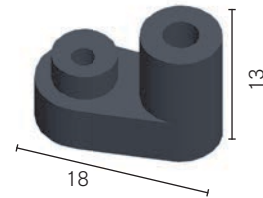
DB0483 | DOUBLE HUNG STOP

| | |
|-------------------|--------------------|
| MATERIAL | Engineered Plastic |
| ORDER CODE | 9002504 |



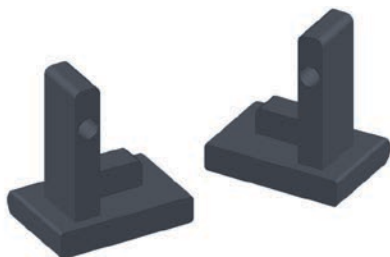
DB0502 | BOOT

| | |
|---------------------|------------------------|
| WINDOW SUITE | Alcan or Capral System |
| MATERIAL | Engineered Plastic |
| ORDER CODE | 9000804 |



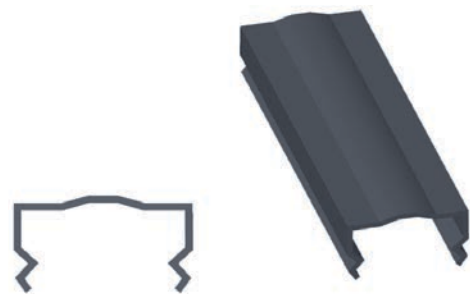
DB0510 | DOUBLE HUNG GUIDE

| | |
|---------------------|------------------------|
| WINDOW SUITE | Alcan or Capral System |
| MATERIAL | Engineered Plastic |
| ORDER CODE | 9002679 |



DB0511 | SPRING COVER

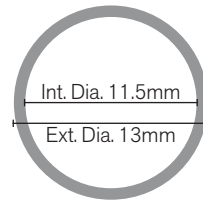
| | |
|---------------------|------------------------|
| WINDOW SUITE | Alcan or Capral System |
| LENGTH | 4m |
| ORDER CODE | 9000806 |



SPRING BALANCE | COMPONENTS & ACCESSORIES

DB0692 | POLY TUBING

| | |
|--------------------|--|
| APPLICATION | Suits Spring Balances |
| DIMENSIONS | Length: 4m Int. Dia: 11.5 Ext Dia: 13mm |
| FINISH | Black |

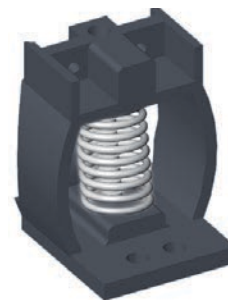


Not available for individual sale.
Included with Spring Balance orders



DB0714 | FRICTION BLOCK

| | |
|---------------------|---------|
| WINDOW SUITE | Stegbar |
| ORDER CODE | 9003593 |



SPRING BALANCE | FRICTION FEET COMPONENTS

DB0708 | ADJUSTABLE FRICTION FOOT

| | |
|--------------|----------------------------|
| WINDOW SUITE | Vincent Windows |
| APPLICATION | Suits 23mm - 25mm channels |
| ORDER CODE | 9001002 |



DB0708/R | ADJUSTABLE FRICTION FOOT (REVERSE ASSEMBLY)

| | |
|--------------|----------------------------|
| WINDOW SUITE | Capral |
| APPLICATION | Suits 23mm - 25mm channels |
| ORDER CODE | 9005363 |



DB0718 | ADJUSTABLE FRICTION FOOT

| | |
|--------------|------------------------|
| DETAIL | With 53mm Connector |
| WINDOW SUITE | Wintec |
| APPLICATION | Suits 23-25mm channels |
| ORDER CODE | 9005417 |



SPRING BALANCE | FRICTION FEET

DB0721 | ADJUSTABLE FRICTION FOOT

| | |
|--------------|------------------------------|
| WINDOW SUITE | Bradnams |
| APPLICATION | Suits 23mm channels |
| ORDER CODE | 9008932 - LH 9008933 - RH |



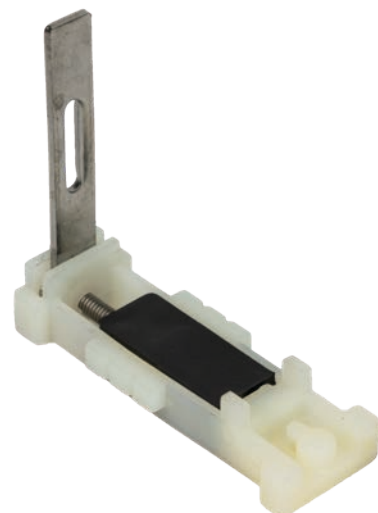
DB0722 | ADJUSTABLE FRICTION FOOT

| | |
|--------------|------------------------|
| WINDOW SUITE | PWD Suite No.2 |
| APPLICATION | Suits 32-35mm channels |
| ORDER CODE | 9007743 |



DB0723 | ADJUSTABLE FRICTION FOOT - STD

| | |
|--------------|----------------------------|
| WINDOW SUITE | Wideline |
| APPLICATION | Suits 23mm - 25mm channels |
| ORDER CODE | 9008931 |



SPRING BALANCE | FRICTION FEET

DB0723/R | ADJUSTABLE FRICTION FOOT (REVERSE ASSEMBLY)

| | |
|--------------|----------------------------|
| WINDOW SUITE | Wideline |
| APPLICATION | Suits 23mm - 25mm channels |
| ORDER CODE | 9106015 |



DB0724 | ADJUSTABLE FRICTION FOOT

| | |
|--------------|----------------------------|
| WINDOW SUITE | G.James |
| APPLICATION | Suits 20mm - 22mm channels |
| ORDER CODE | 9010640 |



DB0725 | ADJUSTABLE FRICTION FOOT

| | |
|--------------|---------------------|
| WINDOW SUITE | BGC Window |
| APPLICATION | Suits 28mm channels |
| ORDER CODE | 9018157 |



DB0726 | ADJUSTABLE FRICTION FOOT

See DB0708/R

INNOVATORS

OF HARDWARE FOR WINDOWS AND DOORS

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