



01

Single & double hung hardware



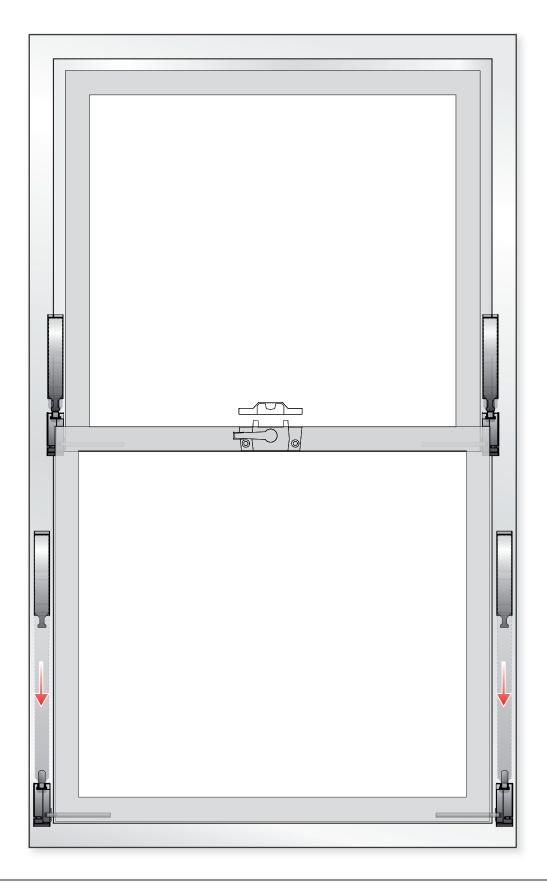
01

Hardware Installation Instructions





Window shown as viewed from inside

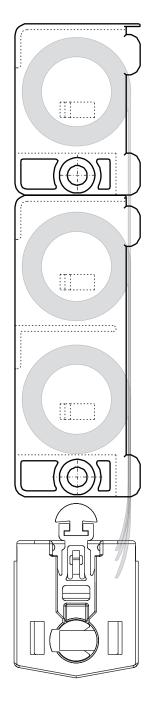




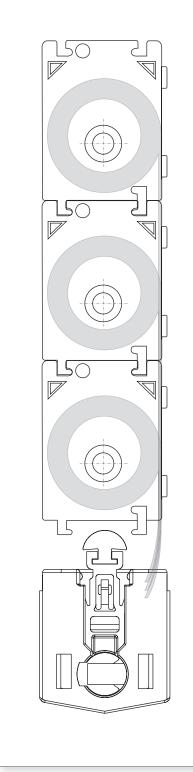


Choice of holders for balance system

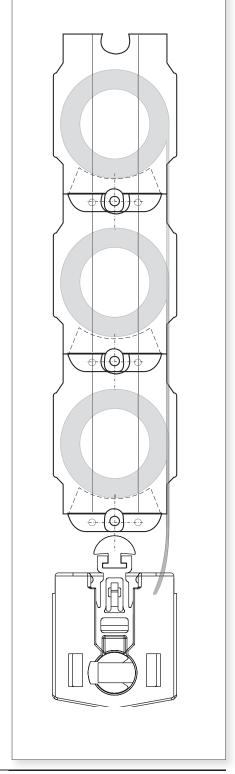
ASSEMBLY WITH MONOBLOC CASSETTES - SINGLE AND/OR **DOUBLE CASSETTES** (springs are not included)



ASSEMBLY WITH CASSETTES - UP TO 3 CASSETTES (springs are included)



ASSEMBLY WITH STANDARD SUPPORTS - UP TO 3 SUPPORTS (springs are not included)







Balance system weight chart

NOTES

- This chart is based on standard vinyl profiles for double hung windows now being used in Canada. It will help you to select for each sashes the right sizes of springs according to the width and the height of the window.
- The chart is designed for windows which are split equally, however the top sash should be over balanced by selecting the next highest balance (1 lb extra per assembly). The lower sash as per the chart.
- To select the correct spring assembly, measure the overall width and height of the window and refer to the weight chart.
- In order to get the correct operation of your window, you may have to make adjustments to the weight chart, always consider your glass weight, your sash weight, and the resistance of the weather stripping, then adjust the spring poundage as required (increase or decrease).
- The force of each spring is expressed in pounds (lbs) and marked on the tail of each spring.
- The force and the quantity of springs indicated on the chart is for one side of sash only.
- We recommend one dust block be inserted over each spring assembly.

Single & double hung hardware





Weight chart – Top sash

			WINDOW WIDTH (INCHES)																				
		12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
	20	-	-	-	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	6	6	6	6
	22	-	-	-	4	4	4	4	4	4	4	4	5	5	5	5	5	6	6	6	6	6	7
	24	-	-	4	4	4	4	4	4	4	5	5	5	5	5	6	6	6	6	7	7	8	8
	26	-	4	4	4	4	4	4	4	5	5	5	5	5	6	6	6	6	7	8	8	8	8
	28	-	4	4	4	4	4	4	5	5	5	5	6	6	6	6	7	7	8	8	8	8	4-5
	30	4	4	4	4	4	4	5	5	5	5	6	6	6	6	7	8	8	8	8	4-5	4-5	4-5
	32	4	4	4	4	4	4	5	5	5	6	6	6	7	7	8	8	8	4-5	4-5	4-5	4-5	4-6
	34	4	4	4	4	4	5	5	5	6	6	6	7	7	8	8	8	4-5	4-5	4-5	4-5	4-6	5-6
	36	4	4	4	4	5	5	5	5	6	6	7	7	8	8	8	4-5	4-5	4-5	4-6	4-6	5-6	5-6
	38	4	4	4	4	5	5	5	6	6	6	7	8	8	8	4-5	4-5	4-5	4-6	4-6	5-6	5-6	5-6
	40	4	4	4	5	5	5	6	6	6	7	8	8	8	4-5	4-5	4-5	4-6	5-6	5-6	5-6	6-6	6-6
	42	4	4	4	5	5	5	6	6	7	8	8	8	4-5	4-5	4-5	4-6	5-6	5-6	5-6	6-6	6-6	6-6
	44	4	4	4	5	5	6	6	6	7	8	8	4-5	4-5	4-5	4-6	5-6	5-6	5-6	6-6	6-6	6-7	6-7
	46	4	4	5	5	5	6	6	7	8	8	4-5	4-5	4-5	4-6	5-6	5-6	5-6	6-6	6-6	6-7	6-7	7-7
	48	4	4	5	5	6	6	7	8	8	8	4-5	4-5	4-6	4-6	5-6	5-6	6-6	6-6	6-7	6-7	7-7	7-8
HES)	50	4	4	5	5	6	6	7	8	8	4-5	4-5	4-5	4-6	5-6	5-6	6-6	6-6	6-7	6-7	7-7	7-8	8-8
(INCHES)	52	4	5	5	5	6	6	8	8	8	4-5	4-5	4-6	5-6	5-6	6-6	6-6	6-7	6-7	7-7	7-8	8-8	8-8
댎	54	4	5	5	6	6	7	8	8	4-5	4-5	4-6	5-6	5-6	5-6	6-6	6-6	6-7	7-7	7-8	8-8	8-8	8-8
WINDOW HEIGHT	56	4	5	5	6	6	7	8	8	4-5	4-5	4-6	5-6	5-6	6-6	6-6	6-7	6-7	7-8	8-8	8-8	8-8	6-6-5
NDON	58	4	5	5	6	7	8	8	4-5	4-5	4-6	5-6	5-6	6-6	6-6	6-7	6-7	7-7	8-8	8-8	8-8	6-6-5	6-6-5
8	60	5	5	6	6	7	8	8	4-5	4-5	4-6	5-6	5-6	6-6	6-7	6-7	7-7	7-8	8-8	8-8	6-6-5	6-6-5	6-6-6
	62	5	5	6	6	7	8	4-5	4-5	4-6	5-6	5-6	6-6	6-6	6-7	6-7	7-8	8-8	8-8	6-6-5	6-6-5	6-6-6	6-6-6
	64	5	5	6	7	8	8	4-5	4-5	4-6	5-6	5-6	6-6	6-7	6-7	7-7	8-8	8-8	6-6-5	6-6-5	6-6-6	6-6-6	6-6-7
	66	5	5	6	7	8	8	4-5	4-6	5-6	5-6	6-6	6-6	6-7	7-7	7-8	8-8	8-8	6-6-5	6-6-5	6-6-6	6-6-7	6-6-7
	68	5	6	6	7	8	4-5	4-5	4-6	5-6	5-6	6-6	6-7	6-7	7-8	8-8	8-8	6-6-5	6-6-5	6-6-6	6-6-7	6-6-7	6-7-7
	70	5	6	6	8	8	4-5	4-5	4-6	5-6		6-6	6-7	7-7	8-8	8-8	8-8	6-6-5	6-6-6	6-6-6	6-6-7	6-7-7	6-7-7
	72	5	6	7	8	8	4-5	4-6	5-6	5-6	6-6	6-7	6-7	7-8	8-8	8-8	6-6-5	6-6-5	6-6-6	6-6-7	6-7-7	6-7-7	7-7-7
	74	5	6	7	8	4-5	4-5	4-6	5-6	6-6	6-6	6-7	7-7	8-8	8-8	6-6-5	6-6-5	6-6-6	6-6-7	6-6-7	6-7-7	7-7-7	7-8-8
	76	5	6	7	8	4-5	4-5	4-6	5-6	6-6	6-7	6-7	7-8	8-8	8-8	6-6-5	6-6-6		6-6-7	6-7-7	6-7-7	7-7-8	8-8-8
	78	5	6	8	8	4-5	4-6	5-6	5-6	6-6	6-7	7-7	7-8	8-8	6-6-5	6-6-5	6-6-6	6-6-7	6-6-7	6-7-7	7-7-8	7-8-8	8-8-8
	80	6	6	8	8	4-5	4-6	5-6	6-6	6-6	6-7	7-7	8-8	8-8	6-6-5	6-6-6	6-6-6	6-6-7	6-7-7	7-7-7	7-8-8	8-8-8	8-8-8
	82	6	6	8	4-5	4-5	4-6	5-6	6-6	6-7	6-7	7-8	8-8	6-6-5	6-6-5	6-6-6	6-6-7	6-7-7			8-8-8	8-8-8	8-8-8
	84	6	7	8	4-5	4-5	5-6	5-6	6-6	6-7	7-7	8-8	8-8	6-6-5	6-6-6	6-6-6	6-6-7	6-7-7	7-7-7	7-8-8	8-8-8	8-8-8	6-6-6-7
	86	6	7	8	4-5	4-6	5-6	6-6	6-6	6-7	7-8	8-8	8-8	6-6-5	6-6-6	6-6-7	6-7-7			8-8-8	8-8-8	8-8-8	6-6-6-8
	88	6	7	8	4-5	4-6	5-6	6-6	6-7	6-7	7-8	8-8	6-6-5	6-6-5	6-6-6	6-6-7	6-7-7	7-7-7	7-8-8	8-8-8	8-8-8	6-6-6-7	6-6-6-8
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^{*} We recommend for you to check the accuracy of this chart, that the actual windows are manufactured and tested to ensure that they function correctly.

Single & double hung hardware





Weight chart – Bottom sash

			WINDOW WIDTH (INCHES)																				
		12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
	20	-	-	-	-	-	-	-	-	4	4	4	4	4	4	4	4	4	5	5	5	5	6
	22	-	-	-	-	-	-	-	4	4	4	4	4	4	4	4	5	5	5	5	6	6	6
	24	-	-	-	-	-	-	4	4	4	4	4	4	4	5	5	5	5	6	6	6	7	7
	26	-	-	-	-	-	4	4	4	4	4	4	4	5	5	5	6	6	6	7	7	7	7
	28	-	-	-	-	4	4	4	4	4	4	5	5	5	6	6	6	6	7	7	7	8	8
	30	-	-	-	4	4	4	4	4	4	5	5	5	6	6	6	7	7	7	8	8	8	4-5
	32	-	-	-	4	4	4	4	4	5	5	5	6	6	6	7	7	7	8	8	4-5	4-5	4-5
	34	-	-	4	4	4	4	4	4	5	5	6	6	6	7	7	8	8	8	4-5	4-5	4-5	5-5
	36	-	-	4	4	4	4	4	5	5	6	6	6	7	7	8	8	8	4-5	4-5	5-5	5-5	5-5
	38	-	4	4	4	4	4	5	5	6	6	6	7	7	8	8	4-5	4-5	4-5	5-5	5-5	5-6	5-6
	40	-	4	4	4	4	4	5	5	6	6	7	7	8	8	4-5	4-5	4-5	5-5	5-5	5-6	5-6	6-6
	42	-	4	4	4	4	5	5	6	6	7	7	8	8	4-5	4-5	4-5	5-5	5-5	5-6	5-6	6-6	6-6
	44	-	4	4	4	4	5	5	6	6	7	7	8	8	4-5	4-5	5-5	5-5	5-6	5-6	6-6	6-6	6-7
	46	4	4	4	4	5	5	6	6	7	7	8	8	4-5	4-5	5-5	5-5	5-6	5-6	6-6	6-6	6-7	7-7
	48	4	4	4	4	5	5	6	7	7	8	8	4-5	4-5	5-5	5-5	5-6	5-6	6-6	6-7	6-7	7-7	7-7
HES)	50	4	4	4	5	5	6	6	7	7	8	4-5	4-5	5-5	5-5	5-6	5-6	6-6	6-6	6-7	7-7	7-7	7-8
WINDOW HEIGHT (INCHES)	52	4	4	4	5	5	6	7	7	8	8	4-5	4-5	5-5	5-6	5-6	6-6	6-6	6-7	7-7	7-7	7-8	7-8
括	54	4	4	4	5	6	6	7	7	8	4-5	4-5	5-5	5-5	5-6	6-6	6-6	6-7	7-7	7-7	7-8	7-8	8-8
里	56	4	4	5	5	6	6	7	8	8	4-5	5-5	5-5	5-6	6-6	6-6	6-7	6-7	7-7	7-8	7-8	8-8	6-6-5
DOM	58	4	4	5	5	6	7	7	8	4-5	4-5	5-5	5-6	5-6	6-6	6-7	6-7	7-7	7-8	7-8	8-8	6-6-5	6-6-5
×	60	4	4	5	6	6	7	8	8	4-5	5-5	5-5	5-6	6-6	6-6	6-7	7-7	7-7	7-8	8-8	8-8	6-6-5	6-6-6
	62	4	4	5	6	6	7	8	4-5	4-5	5-5	5-6	5-6	6-6	6-7	6-7	7-7	7-8	8-8	8-8	6-6-5	6-6-6	6-6-6
	64	4	5	5	6	7	7	8	4-5	5-5	5-5	5-6	6-6	6-7	6-7	7-7	7-8	7-8	8-8	6-6-5	6-6-6	6-6-6	6-6-7
	66	4	5	5	6	7	8	8	4-5	5-5	5-6	5-6	6-6	6-7	7-7	7-7	7-8	8-8	6-6-5	6-6-5	6-6-6	6-6-7	6-7-7
	68	4	5	6	6	7	8	4-5	4-5	5-5	5-6	6-6	6-7	6-7	7-7	7-8	8-8	8-8	6-6-5	6-6-6	6-6-7	6-6-7	6-7-7
	70	4	5	6	7	7	8	4-5	5-5	5-6	5-6	6-6	6-7	7-7	7-8	7-8	8-8	6-6-5	6-6-6	6-6-6	6-6-7	6-7-7	7-7-7
	72	4	5	6	7	8	8	4-5	5-5	5-6	6-6	6-7	6-7	7-7	7-8	8-8	6-6-5	6-6-5	6-6-6	6-6-7	6-7-7	7-7-7	7-7-7
	74	5	5	6	7	8	4-5	5-5	5-5	5-6	6-6	6-7	7-7	7-8	7-8	8-8	6-6-5	6-6-6	6-6-7	6-7-7	6-7-7	7-7-7	7-7-8
	76	5	6	6	7	8	4-5	5-5	5-6	6-6	6-6	6-7	7-7	7-8	8-8	6-6-5	6-6-6	6-6-6	6-6-7	6-7-7	7-7-7	7-7-8	7-8-8
	78	5	6	7	7	8	4-5	5-5	5-6	6-6	6-7	7-7	7-7	7-8	8-8	6-6-5	6-6-6	6-6-7	6-7-7	7-7-7	7-7-8	7-7-8	7-8-8
	80	5	6	7	8	4-5	4-5	5-5	5-6	6-6	6-7	7-7	7-8	8-8	6-6-5	6-6-6	6-6-6	6-6-7	6-7-7	7-7-7	7-7-8	7-8-8	8-8-8
	82	5	6	7	8	4-5	5-5	5-6	6-6	6-6	6-7	7-7	7-8	8-8	6-6-5	6-6-6	6-6-7	6-7-7	7-7-7	7-7-8	7-8-8	8-8-8	8-8-8
	84	5	6	7	8	4-5	5-5	5-6	6-6	6-7	7-7	7-8	8-8	6-6-5	6-6-6	6-6-6	6-6-7	6-7-7	7-7-7	7-7-8	7-8-8	8-8-8	6-6-6-7
	86	5	6	7	8	4-5	5-5	5-6	6-6	6-7	7-7	7-8	8-8	6-6-5	6-6-6	6-6-7	6-7-7	7-7-7	7-7-8	7-8-8	8-8-8	6-6-6-7	6-6-6-8
	88	5	6	7	8	4-5	5-5	5-6	6-6	6-7	7-7	7-8	8-8	6-6-5	6-6-6	6-6-7	6-7-7	7-7-7	7-7-8	7-8-8	8-8-8	6-6-6-7	6-6-6-8
	90	6	7	8	4-5	5-5	5-6	6-6	6-7	7-7	7-8	8-8	6-6-5	6-6-6	6-6-7	6-7-7	7-7-7	7-7-8	7-8-8	8-8-8	6-6-6-7	6-6-6-8	6-7-7-7

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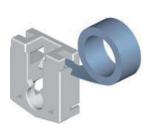


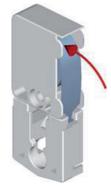
New constant force balance

The new constant force balance system is now easier to manipulate and faster to install in your windows.









Only three steps for installation:

- 1. Insertion of the coil(s) into the shoe
- **2**. Slip the coil(s) into the holder
- 3. Screw the holder into the jamb

With the new self locating tabs you don't have to worry about positioning the coil holder at the wrong place.

The new oversized spacers now allow extra room between the jamb and the holder which result into smooth movement and prevent any kink in the coil. The addition of a dust cover eliminates the accumulation of debris that can sit on the extended coil.

CONSTANT FORCE BALANCE CHARACTERISTICS:

- Gives the sash smooth and even operation force throughout its travel.
- Low inventory = low operating costs.
- Rust resistant stainless steel coils.
- The balance system is completely hidden behind the sashes.

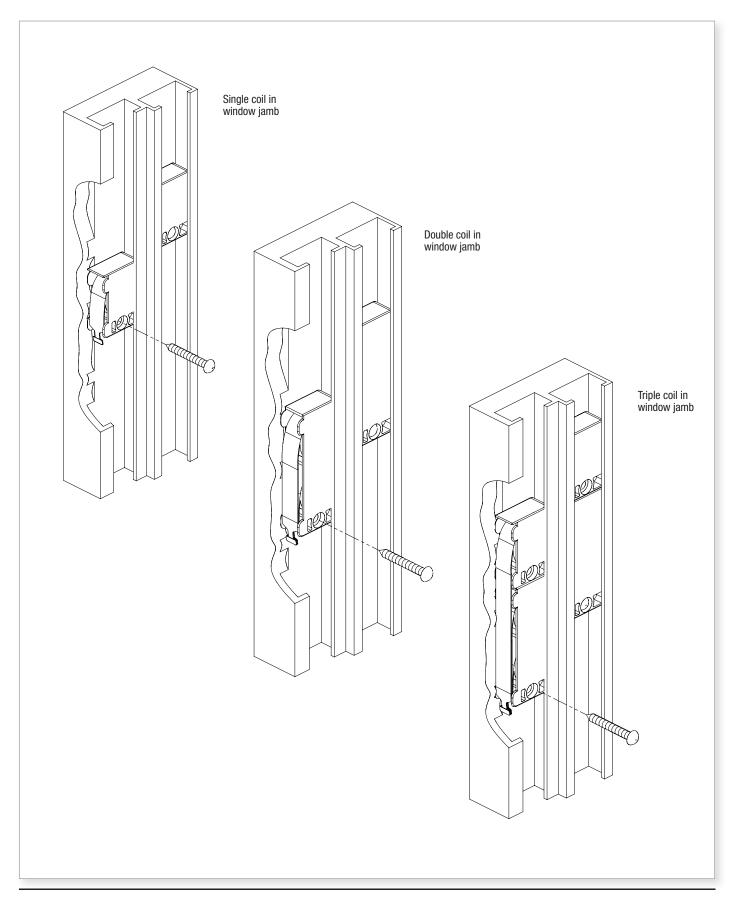
SPECIFICATIONS:

- Each coil carrying capacity: 3 to 8 lbs.
- Sash weight carrying capacity: 6 to 48 lbs.
- You can stack up to 3 coils on each sides of the sash.
- Up to 30" (760 mm) of travel.
- Meets AAMA 902-99 Specs.





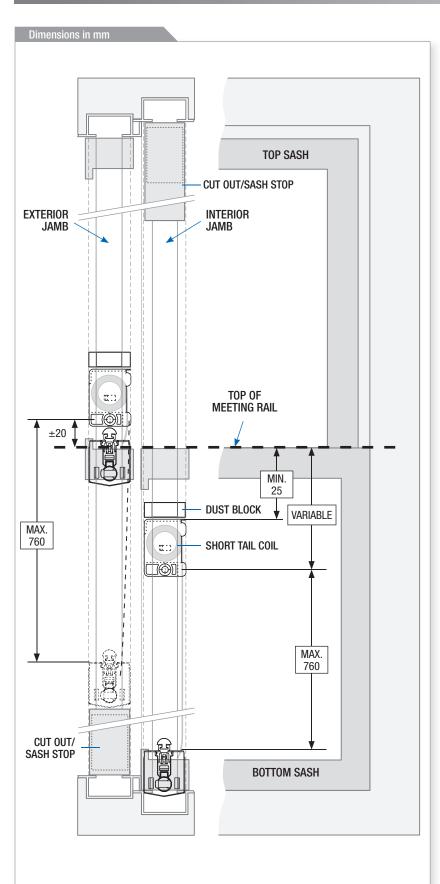
New monobloc cassettes







Frame assembly - Installation with single monobloc cassette



BALANCE SYSTEM INSTALLATION WITH SINGLE CASSETTE (1 COIL) FOR DOUBLE HUNG WINDOW - 50/50 SASHES

BALANCE PREPARATION

- 1. Prepare the springs as required.
 - See the load chart pages for the springs selection
- **2.** Insert the tail into the slot of the shoe.
 - Don't insert the pivot bar retainer to the shoe, this should be done after installing the sashes to the frame



3. Slip the coil into the cassette.

FRAME INSTALLATION

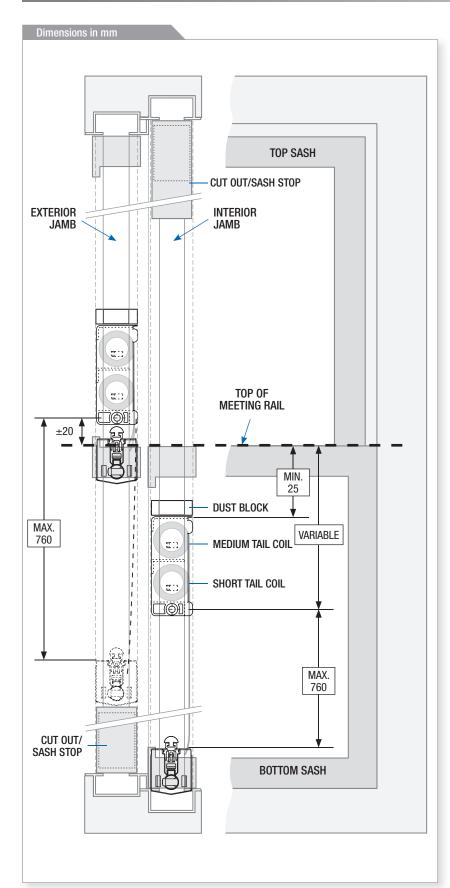
- Slide the balance assemblies into the interior and exterior jambs prior to welding the frame.
- * For further possible repairs, it is recommended to punch an opening of 64 mm in height minimum at the top of the interior track and at the bottom of the exterior track.
- **5.** TOP SASH ASSEMBLIES: Locate the top of the meeting rail. Install the support ±20 mm **ABOVE** the meeting rail line in the middle of the **EXTERIOR** track.
- **6.** BOTTOM SASH ASSEMBLIES: Install the support 760 mm + 35 mm (the shoe height) from the sill in the middle of the **INTERIOR** track.

- The sash travel is limited to 760 mm. if the travel exceeds 760 mm, a stop point must be provided (for the top sash) to limit the opening. As for the bottom sash, modify the location of the first support.
- Use #7 x 1" screws (E-12562-25-0-1) to fasten the supports to the frame.
- We recommend one dust block be inserted over each spring assembly.





Frame assembly – Installation with double monobloc cassette



BALANCE SYSTEM INSTALLATION WITH DOUBLE CASSETTE (2 COILS) FOR DOUBLE HUNG WINDOW - 50/50 SASHES

BALANCE PREPARATION

- 1. Prepare the springs as required.
 - See the load chart pages for the springs selection
- Insert the tails into the slot of the shoe.
 Don't insert the pivot bar retainer to the shoe, this should be done after installing the sashes to the frame



Slip the short tail coil and then the medium tail coil into the cassette.

FRAME INSTALLATION

- Slide the balance assemblies into the interior and exterior jambs prior to welding the frame.
- * For further possible repairs, it is recommended to punch an opening of 64 mm in height minimum at the top of the interior track and at the bottom of the exterior track.
- **5.** TOP SASH ASSEMBLIES:

Locate the top of the meeting rail. Install the support ± 20 mm ABOVE the meeting rail line in the middle of the EXTERIOR track.

6. BOTTOM SASH ASSEMBLIES:

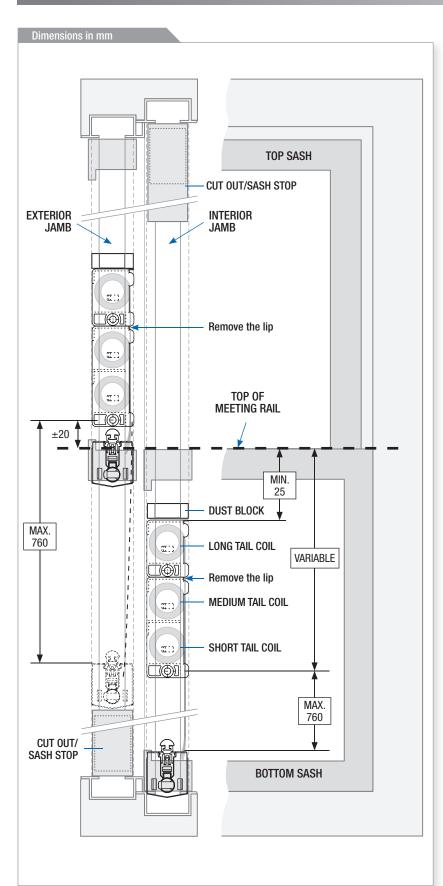
Install the support 760 mm + 35 mm (the shoe height) from the sill in the middle of the INTERIOR track.

- The sash travel is limited to 760 mm. if the travel exceeds 760 mm, a stop point must be provided (for the top sash) to limit the opening. As for the bottom sash, modify the location of the first support.
- Use #7 x 1" screws (E-12562-25-0-1) to fasten the supports to the frame.
- We recommend one dust block be inserted over each spring assembly.





Frame assembly – Installation with double and single monobloc cassettes



BALANCE SYSTEM INSTALLATION WITH DOUBLE & SINGLE CASSETTES (3 COILS) FOR DOUBLE HUNG WINDOW - 50/50 SASHES

BALANCE PREPARATION

- **1.** Prepare the springs as required.
 - See the load chart pages for the springs selection
- **2.** Insert the tails into the slot of the shoe.
 - Don't insert the pivot bar retainer to the shoe, this should be done after installing the sashes to the frame



- 3. Slip the coils into the cassettes as follow: the short tail coil and then the medium tail coil into the double cassette, the long tail coil into the single cassette on top of the double cassette.
 - Don't forget to remove the lip on the double cassette as shown

FRAME INSTALLATION

- Slide the balance assemblies into the interior and exterior jambs prior to welding the frame.
- * For further possible repairs, it is recommended to punch an opening of 64 mm in height minimum at the top of the interior track and at the bottom of the exterior track.
- 5. TOP SASH ASSEMBLIES:

Locate the top of the meeting rail. Install the support ± 20 mm **ABOVE** the meeting rail line in the middle of the **EXTERIOR** track.

6. BOTTOM SASH ASSEMBLIES:

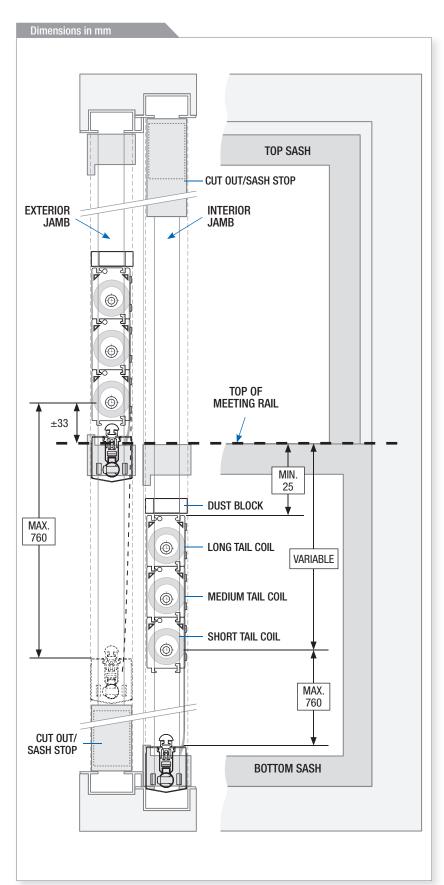
Install the support 760 mm + 35 mm (the shoe height) from the sill in the middle of the **INTERIOR** track.

- The sash travel is limited to 760 mm. if the travel exceeds 760 mm, a stop point must be provided (for the top sash) to limit the opening. As for the bottom sash, modify the location of the first support.
- Use #7 x 1" screws (E-12562-25-0-1) to fasten the supports to the frame.
- We recommend one dust block be inserted over each spring assembly.





Frame assembly – Installation with cassette (springs included)



BALANCE SYSTEM INSTALLATION WITH 1, 2 OR 3 CASSETTES FOR DOUBLE HUNG WINDOW - 50/50 SASHES

BALANCE PREPARATION

- Prepare the cassettes as required (springs are included). – See the load chart pages for the springs selection
- Join together the cassette(s). If more than one, the first one should be with the short tail, the second one with the medium tail and the third one with the long tail.
- Insert the tail(s) into the slot of the shoe.
 Don't insert the pivot bar retainer to the shoe, this should be done after installing the sashes to the frame



FRAME INSTALLATION

- Slide the balance assemblies into the interior and exterior jambs prior to welding the frame.
- * For further possible repairs, it is recommended to punch an opening of 64 mm in height minimum at the top of the interior track and at the bottom of the exterior track.
- 5. TOP SASH ASSEMBLIES: Locate the top of the meeting rail. Install the support ±33 mm ABOVE the meeting rail line in the middle of the EXTERIOR track.
- **6.** BOTTOM SASH ASSEMBLIES: Install the support 760 mm + 35 mm (the shoe height) from the sill in the middle of the **INTERIOR** track.

IMPORTANT:

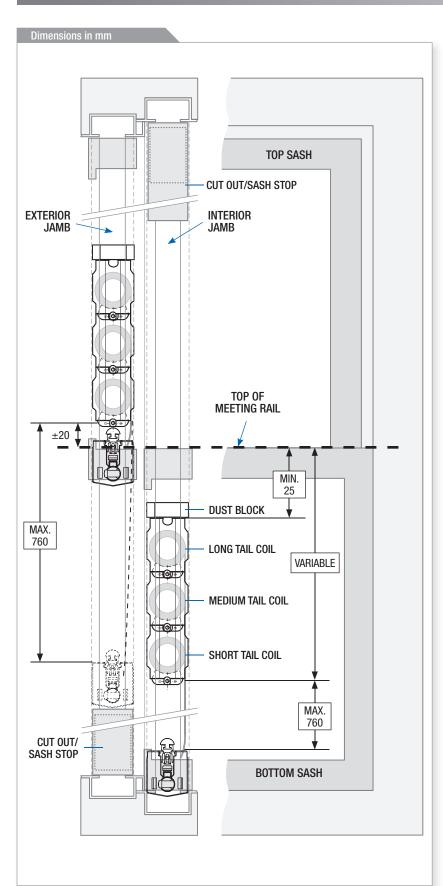
- The sash travel is limited to 760 mm. if the travel exceeds 760 mm, a stop point must be provided (for the top sash) to limit the opening. As for the bottom sash, modify the location of the first support.
- Use #7 x 1" screws (E-12562-25-0-1) to fasten the supports to the frame.
- We recommend one dust block be inserted over each spring assembly.

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Frame assembly – Installation with standard support



BALANCE SYSTEM INSTALLATION WITH 1, 2 OR 3 SUPPORTS FOR DOUBLE HUNG WINDOW -50/50 SASHES

BALANCE PREPARATION

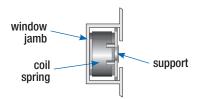
- 1. Prepare the springs as required.
 - See the load chart pages for the springs selection
- Insert the tail(s) into the slot of the shoe.If more than one, insert the short tail then the medium tail and then the long tail.



- Don't insert the pivot bar retainer to the shoe, this should be done after installing the sashes to the frame
- **3.** If you use more than one support, snap them together. Place the short tail coil on the first support, the medium tail coil on the second support and the long tail coil on the third support.

FRAME INSTALLATION

Slide the balance assemblies into the interior and exterior jambs prior to welding the frame.



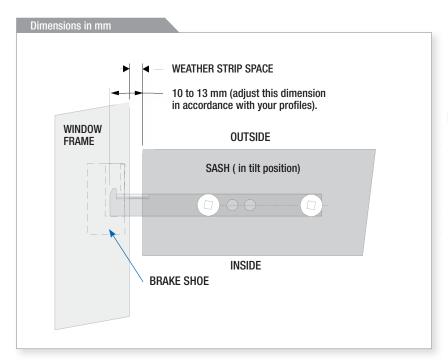
- * For further possible repairs, it is recommended to punch an opening of 64 mm in height minimum at the top of the interior track and at the bottom of the exterior track.
- 5. TOP SASH ASSEMBLIES: Locate the top of the meeting rail. Install the support ±20 mm ABOVE the meeting rail line in the middle of the EXTERIOR track.
- **6.** BOTTOM SASH ASSEMBLIES: Install the support 760 mm + 35 mm (the shoe height) from the sill in the middle of the **INTERIOR** track.

- The sash travel is limited to 760 mm. if the travel exceeds 760 mm, a stop point must be provided (for the top sash) to limit the opening. As for the bottom sash, modify the location of the first support.
- Use #7 x 1" screws (E-12562-25-0-1) to fasten the supports to the frame.
- We recommend one dust block be inserted over each spring assembly.



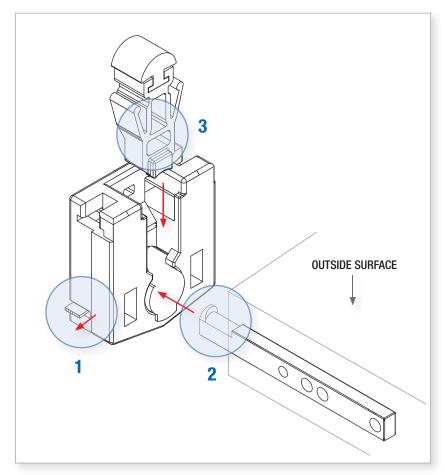


Sashes assembly & installation



INSTALL THE PIVOT BARS TO THE SASHES

- In the tilt or horizontal position, make sure the tip of the pivot bar points upward to the outside surface of the sash.
- Allow clearance for the weather strip.
- Allow some play between bottom of shoe and pivot bar tip.



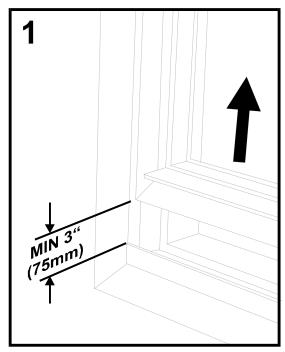
INSTALL THE SASHES TO THE FRAME

- **1.** Before installing the sashes, move the shoes about 40 mm further to give more space and rotate the locking cams 90° to lock the shoes in place.
- 2. Install the sashes in horizontal position (90°) to the frame. Make sure that each pivot bar sits completely at the bottom of the locking cam.
- **3.** Install the pivot bar retainers in each shoe for more security.

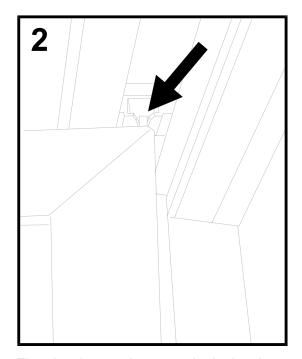




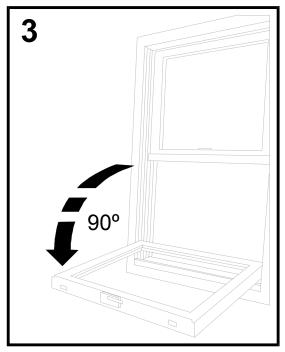
To tilt and/or remove the sash



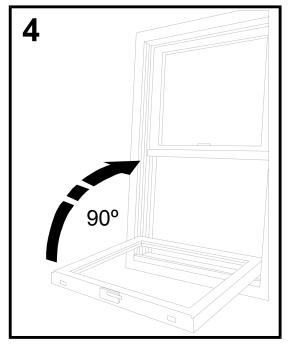
Before you tilt the sash it must be opened by at least 3" (75 mm).



The pivot bar retainer must be in the shoe. To remove sash: a) First remove pivot retainers - one in each shoe, b) Lift sash until clear of shoes - tilt sideways and remove.



Release tilt latches, making sure the sash is centrally supported. Tilt the sash to horizontal position only.



For correct operation and a secure window, pivot retainers must be installed.