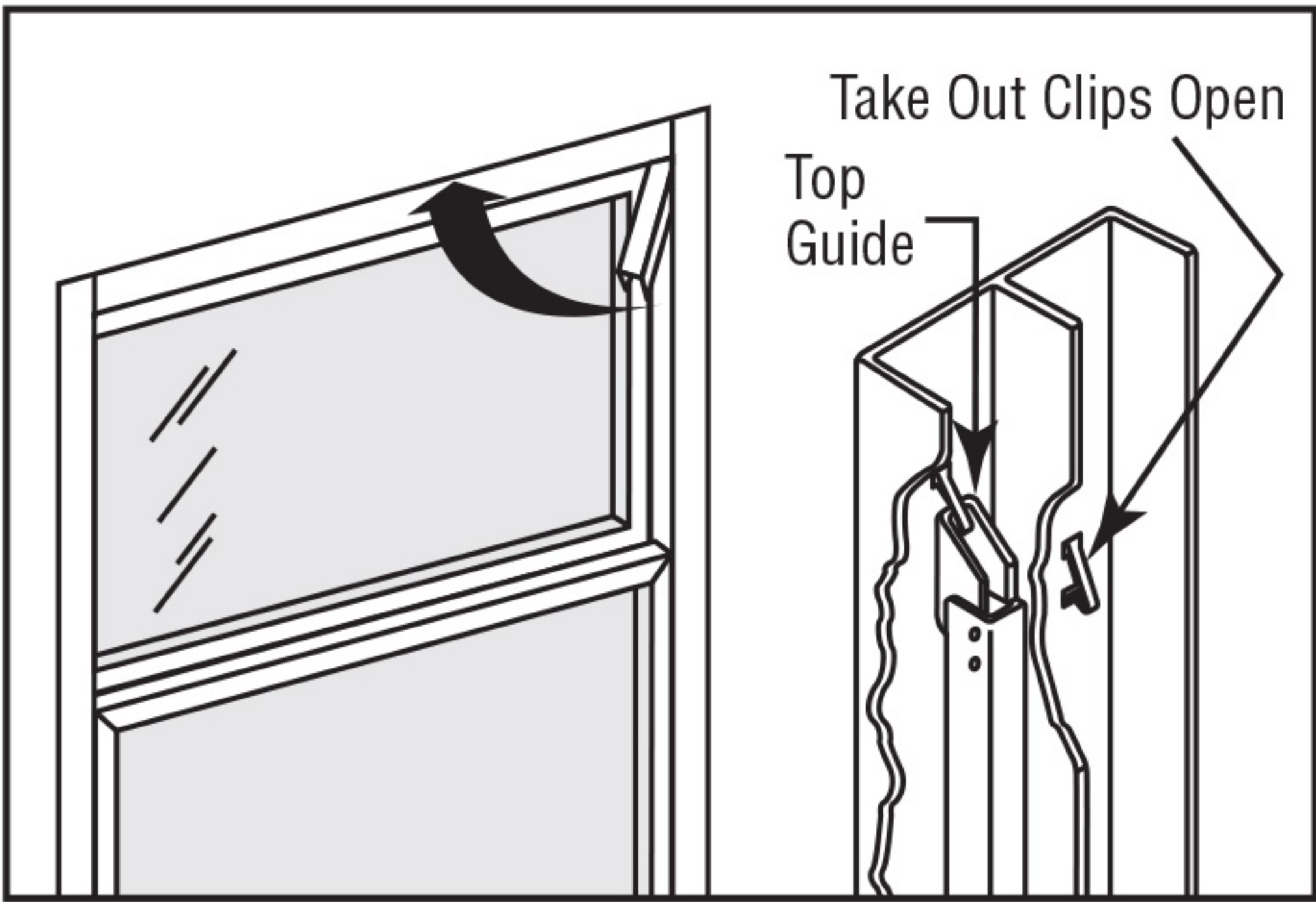
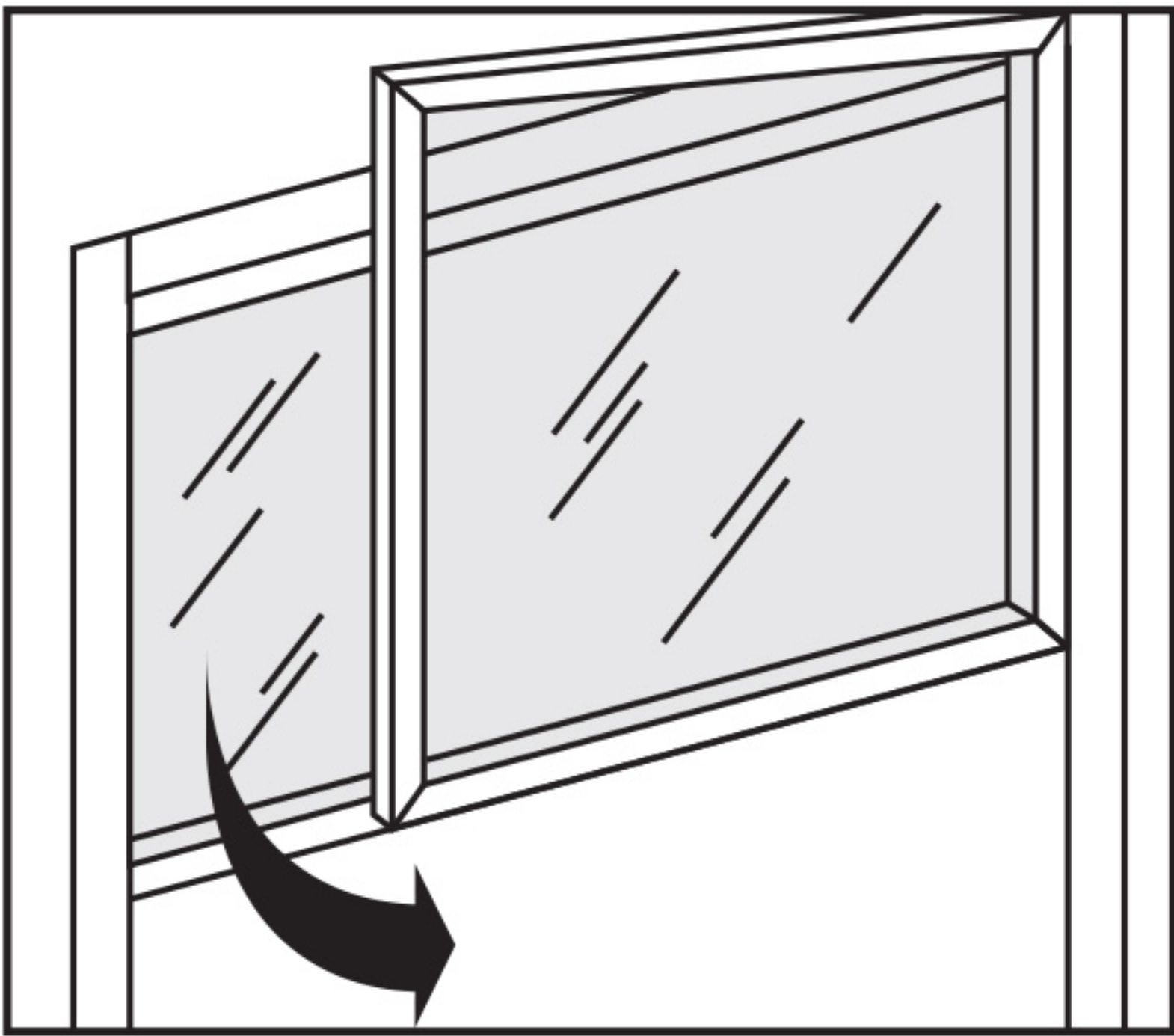


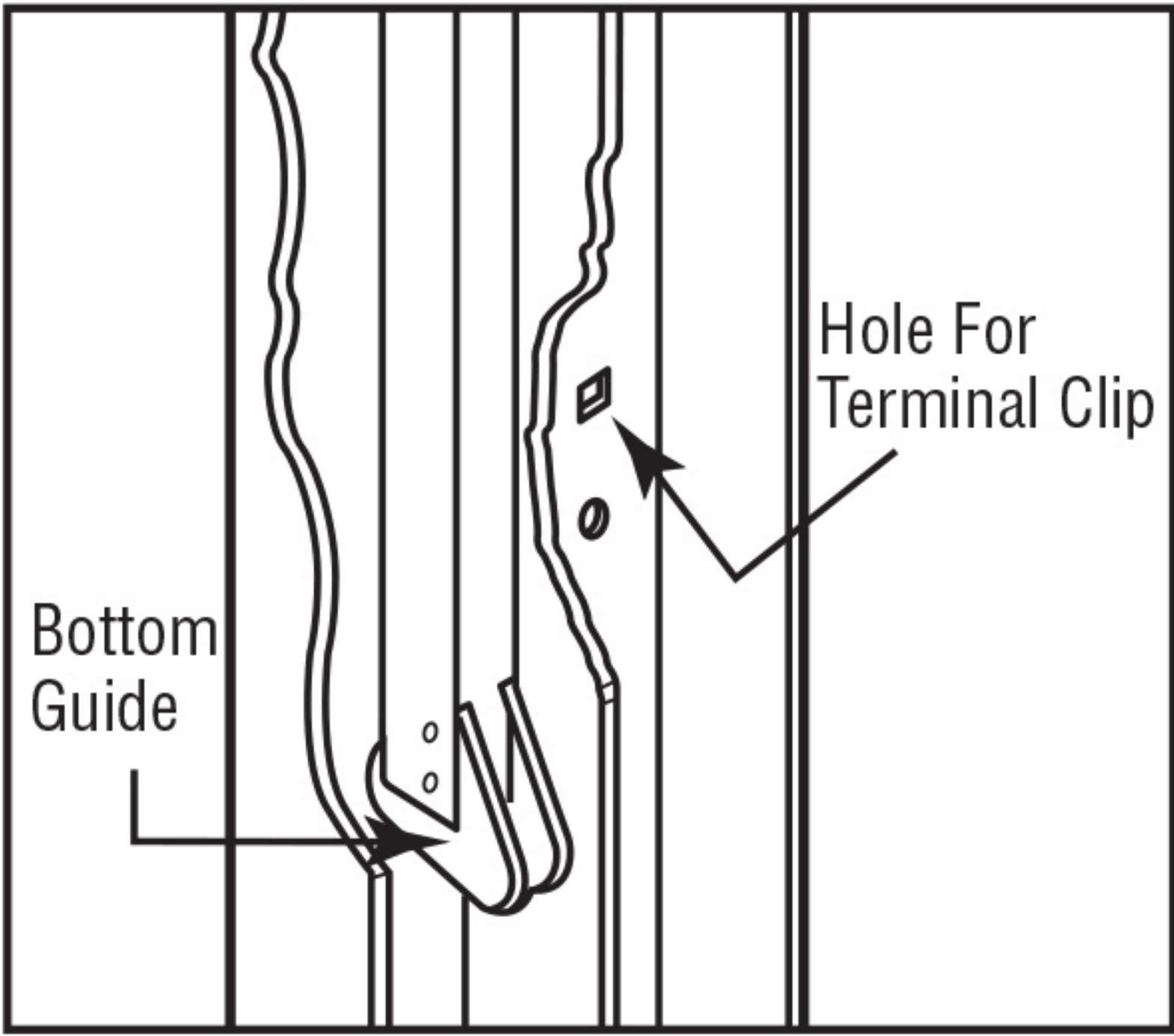
HOW TO...
Channel Window Balances



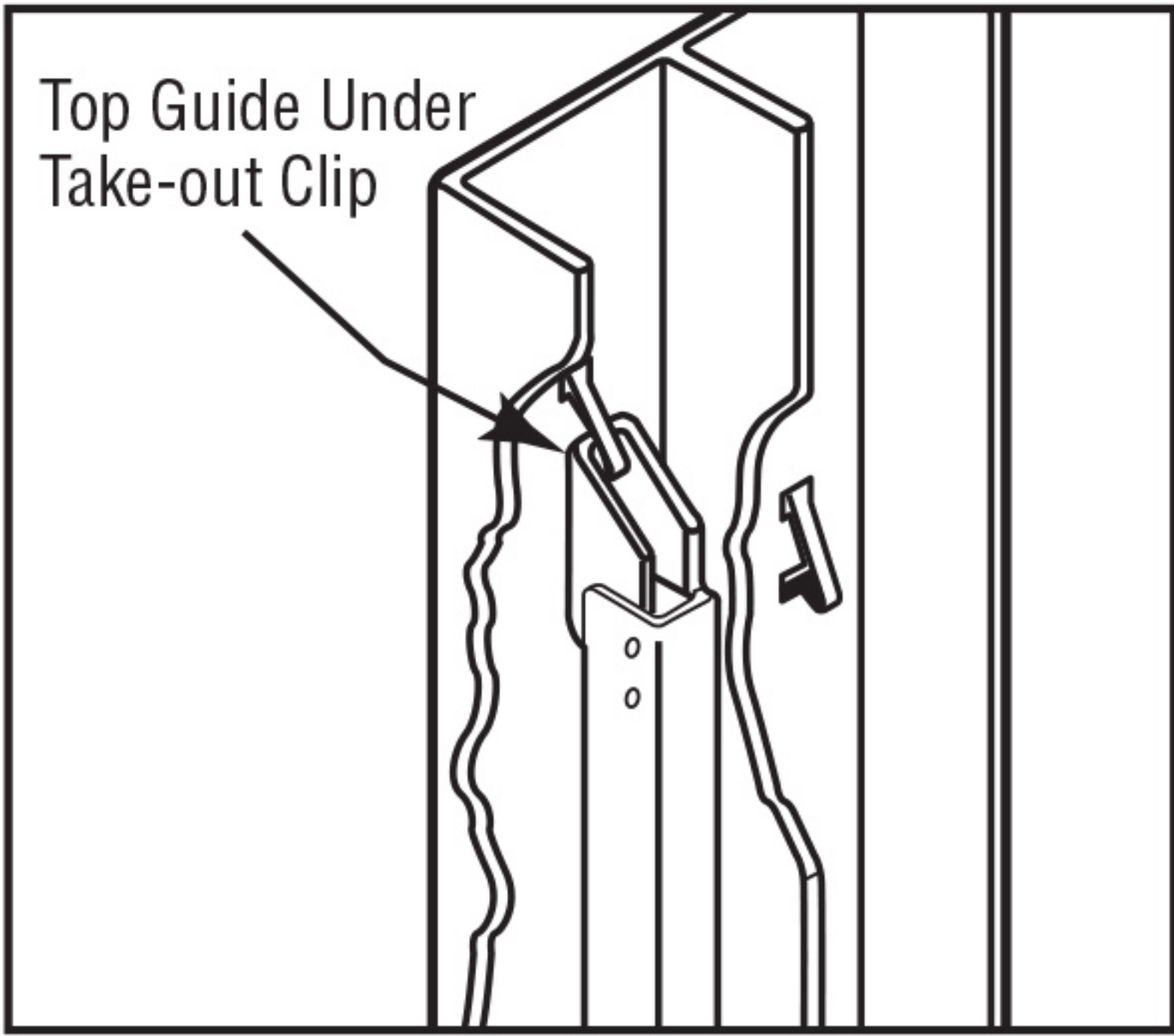
Remove the sash stops. Close sash to expose take-out clips. Open both clips for sash removal. Raise sash until top guide engages take-out clip. Continue to raise sash, 2 to 3 inches more.



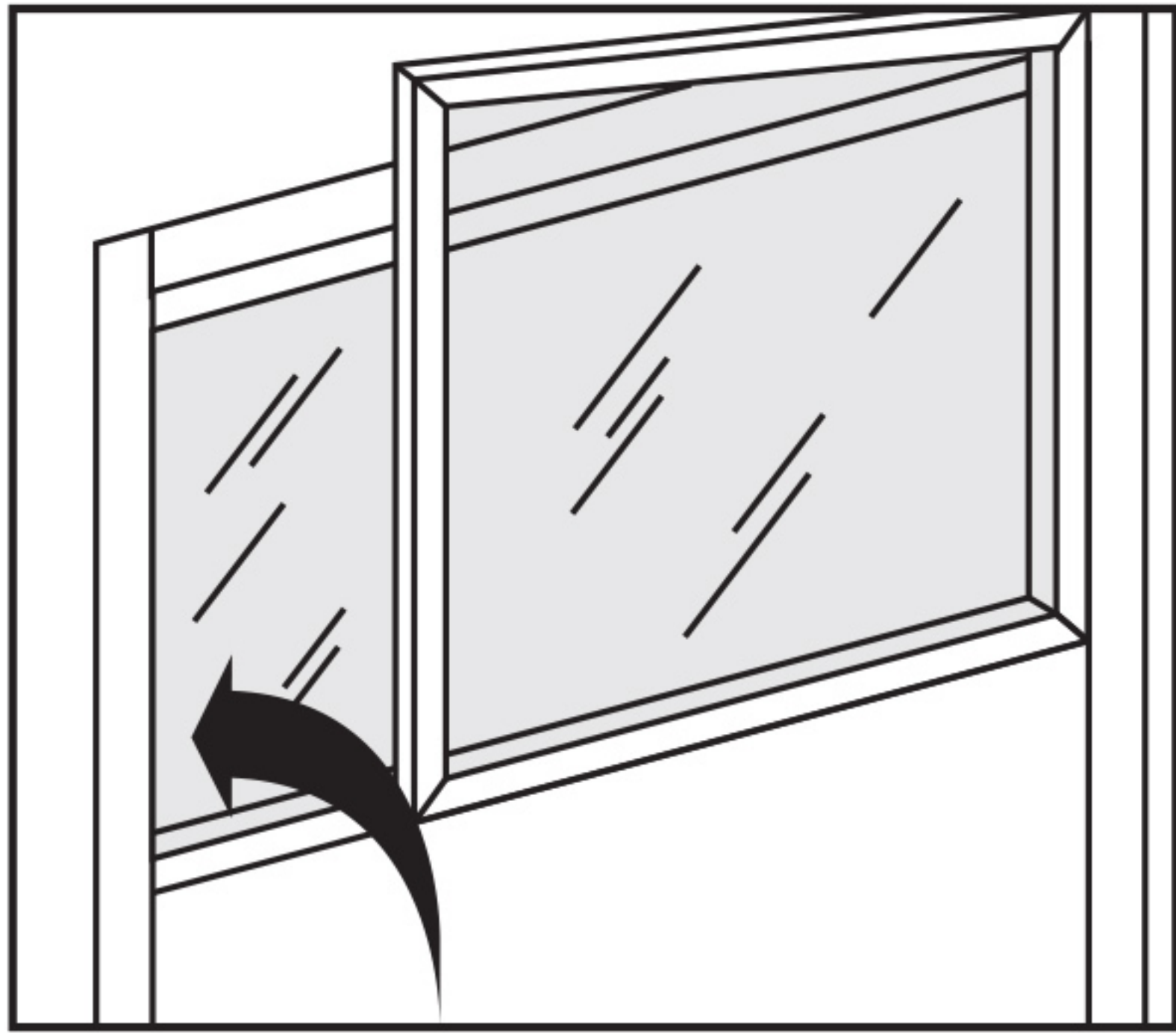
Move sash right or left as far as possible. Removal is then accomplished by swinging the opposite side of sash inward.



Make sure that the "take-out clip" is rotated away from the jamb. Hook the terminal clip into the square hole in the jamb.

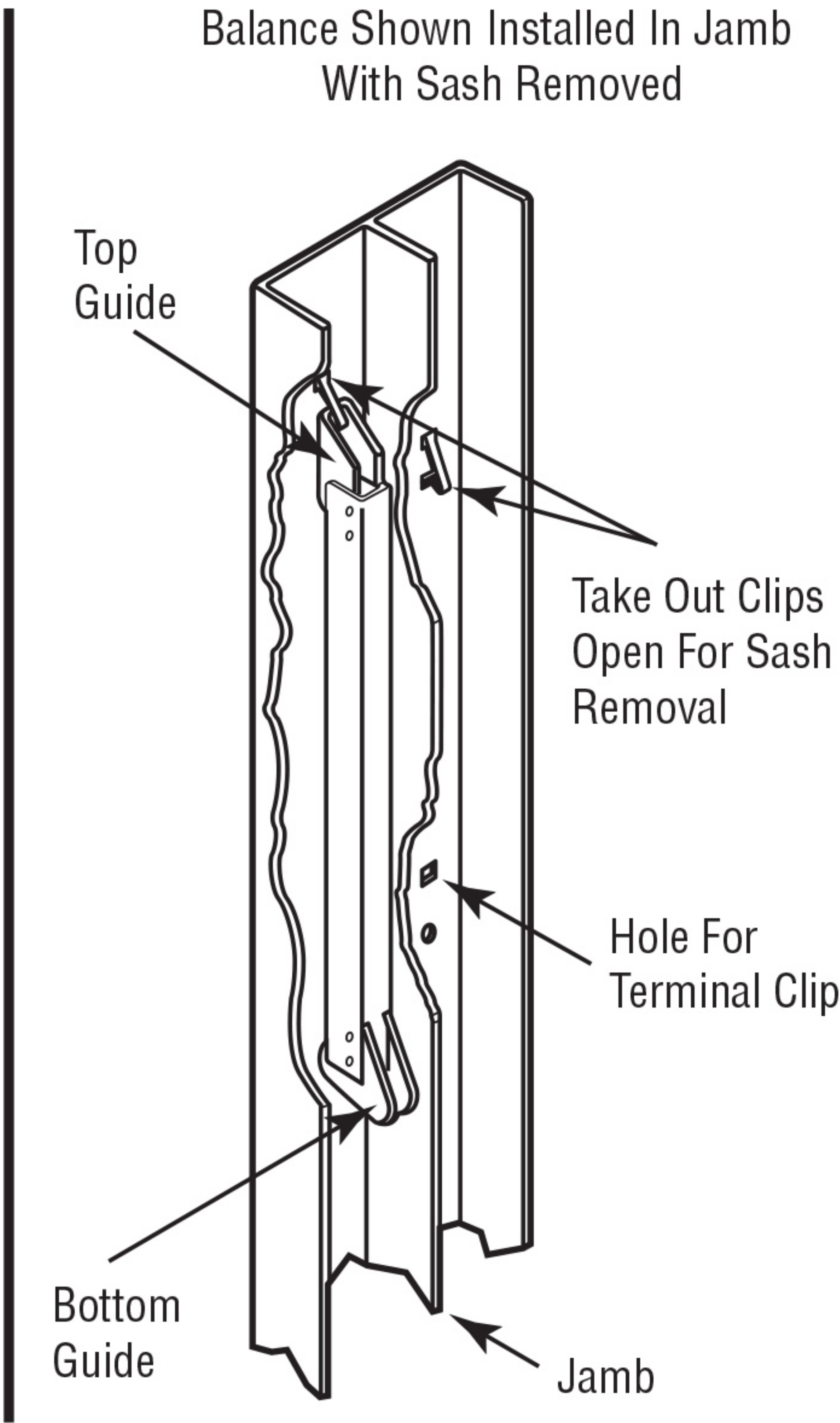
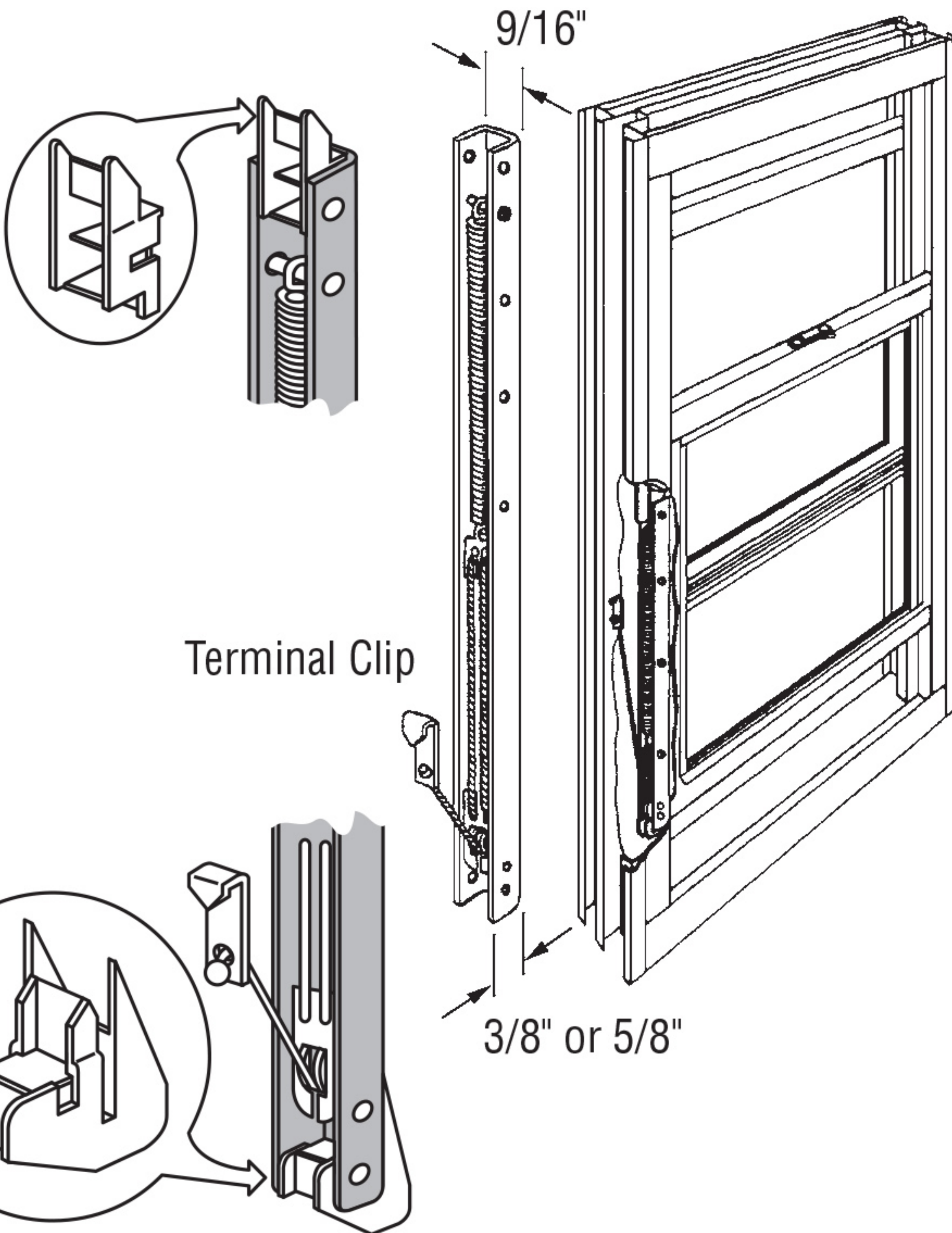


Insert balance into channel, allowing it to connect under the take-out clip.



Position right or left side of sash into jamb, 2 to 3 inches above take-out clip and swing opposite side into alignment with frame. Lower sash to engage balances and on down to clear take-out clips. This will automatically center the sash. Snap take-out clips into jamb to facilitate normal operation.

Used On Single Or Double Hung Sash



Channel Balances:

Channel balances, sometimes referred to as "block and tackle" balances because they contain cord and pulleys, are square in shape. In addition to the cord and pulleys, they have a long spring, which can be seen from the open side of the "U" frame. The depth of the balance may be either 3/8" or 5/8" (considered 1/2" in the trade). Riveted through the "U" frame, on both ends are nylon end pieces, which serve as guides.

To remove the balance, the first step is to remove the sash stop. The sash stop is located at the top of both jambs. It is the part that the sash contacts so that the sash cannot be raised higher. The sash stops are usually pressed into the jambs and they can be pried out. Unlatch the sash and raise it to the uppermost position. The balance will disengage from the sash. Push one side into the jamb and rotate the other side towards you. The sash can now be carefully set aside.

Near the top of the jamb there is a retainer, which is called a "take-out clip". Take hold of the top of the balance carefully and pull it down to clear the bottom of the clip. Then tilt the balance towards the center of the window and allow the spring to relax. Now the cord terminal can be disconnected.

Look for a four (4) digit number stamped into the balance housing. The number may be something like 2820, 2830 or 2840. The first two digits represent the length of the metal portion of the housing minus 1". The last two digits represent the weight of the window for which the balance was designed and therefore takes into consideration the tension in the spring when the balance was manufactured.

The new balance can now be installed. Make sure that the "take-out clip" is rotated away from the jamb. Hook the terminal clip into the square hole in the jamb. Pull down on the balance while inserting it into the channel and allowing it to connect under the take-out clip. Do the same for the opposite side.

SELECTION CHART (All balances sold individually in bulk)

Top and bottom guides are not included.

Balance* Number	Alternate Number	Balance Height	Vent Weight	Balance* Number	Alternate Number	Balance Height	Vent Weight	Balance* Number	Alternate Number	Balance Height	Vent Weight
FA-1210	12A	13"	3 - 6	FA-2310	23A	24"	5 - 9	FA-3410	34A	35"	8 - 13
FA-1220	12B	13"	6 - 9	FA-2320	23B	24"	9 - 15	FA-3420	34B	35"	13 - 18
FA-1230	12C	13"	9 - 11	FA-2330	23C	24"	15 - 18	FA-3430	34C	35"	18 - 23
FA-1240	12D	13"	11 - 12	FA-2340	23D	24"	18 - 23	FA-3440	34D	35"	23 - 30
FA-1310	13A	14"	3 - 6	FA-2410	24A	25"	5 - 9	FA-3510	35A	36"	8 - 13
FA-1320	13B	14"	6 - 9	FA-2420	24B	25"	9 - 15	FA-3520	35B	36"	13 - 18
FA-1330	13C	14"	9 - 11	FA-2430	24C	25"	15 - 19	FA-3530	35C	36"	18 - 23
FA-1340	13D	14"	11 - 12	FA-2440	24D	25"	19 - 24	FA-3540	35D	36"	23 - 30
FA-1410	14A	15"	4 - 6	FA-2510	25A	26"	5 - 9	FA-3610	36A	37"	8 - 13
FA-1420	14B	15"	6 - 10	FA-2520	25B	26"	9 - 15	FA-3620	36B	37"	13 - 18
FA-1430	14C	15"	10 - 12	FA-2530	25C	26"	15 - 19	FA-3630	36C	37"	18 - 23
FA-1440	14D	15"	12 - 13	FA-2540	25D	26"	19 - 25	FA-3640	36D	37"	23 - 30
FA-1510	15A	16"	4 - 6	FA-2610	26A	27"	5 - 9	FA-3710	37A	38"	8 - 13
FA-1520	15B	16"	6 - 10	FA-2620	26B	27"	9 - 13	FA-3720	37B	38"	13 - 18
FA-1530	15C	16"	10 - 12	FA-2630	26C	27"	13 - 19	FA-3730	37C	38"	18 - 23
FA-1540	15D	16"	12 - 13	FA-2640	26D	27"	19 - 26	FA-3740	37D	38"	23 - 30
FA-1610	16A	17"	5 - 8	FA-2710	27A	28"	5 - 9	FA-3810	38A	39"	9 - 14
FA-1620	16B	17"	8 - 12	FA-2720	27B	28"	9 - 13	FA-3820	38B	39"	14 - 19
FA-1630	16C	17"	12 - 14	FA-2730	27C	28"	13 - 19	FA-3830	38C	39"	19 - 24
FA-1640	16D	17"	14 - 19	FA-2740	27D	28"	19 - 26	FA-3840	38D	39"	24 - 30
FA-1710	17A	18"	5 - 8	FA-2810	28A	29"	7 - 12	FA-3910	39A	40"	9 - 14
FA-1720	17B	18"	8 - 12	FA-2820	28B	29"	12 - 16	FA-3920	39B	40"	14 - 19
FA-1730	17C	18"	12 - 14	FA-2830	28C	29"	16 - 23	FA-3930	39C	40"	19 - 24
FA-1740	17D	18"	14 - 17	FA-2840	28D	29"	23 - 28	FA-3940	39D	40"	24 - 30
FA-1810	18A	19"	5 - 8	FA-2910	29A	30"	7 - 12	FA-4010	40A	41"	9 - 14
FA-1820	18B	19"	8 - 12	FA-2920	29B	30"	12 - 16	FA-4020	40B	41"	14 - 19
FA-1830	18C	19"	12 - 14	FA-2930	29C	30"	16 - 23	FA-4030	40C	41"	19 - 23
FA-1840	18D	19"	14 - 17	FA-2940	29D	30"	23 - 28	FA-4040	40D	41"	23 - 30
FA-1910	19A	20"	5 - 8	FA-3010	30A	31"	7 - 12	FA-4110	41A	42"	9 - 14
FA-1920	19B	20"	8 - 12	FA-3020	30B	31"	12 - 16	FA-4120	41B	42"	14 - 19
FA-1930	19C	20"	12 - 14	FA-3030	30C	31"	16 - 23	FA-4130	41C	42"	19 - 24
FA-1940	19D	20"	14 - 17	FA-3040	30D	31"	23 - 28	FA-4140	41D	42"	24 - 30
FA-2010	20A	21"	5 - 8	FA-3110	31A	32"	7 - 12	FA-4210	42A	43"	9 - 14
FA-2020	20B	21"	8 - 12	FA-3120	31B	32"	12 - 16	FA-4220	42B	43"	14 - 19
FA-2030	20C	21"	12 - 15	FA-3130	31C	32"	16 - 23	FA-4230	42C	43"	19 - 24
FA-2040	20D	21"	15 - 23	FA-3140	31D	32"	23 - 28	FA-4240	42D	43"	24 - 30
FA-2110	21A	22"	5 - 8	FA-3210	32A	33"	8 - 13				
FA-2120	21B	22"	8 - 12	FA-3220	32B	33"	13 - 18				
FA-2130	21C	22"	12 - 15	FA-3230	32C	33"	18 - 23				
FA-2140	21D	22"	15 - 23	FA-3240	32D	33"	23 - 28				
FA-2210	22A	23"	5 - 8	FA-3310	33A	34"	8 - 13				
FA-2220	22B	23"	8 - 12	FA-3320	33B	34"	13 - 18				
FA-2230	22C	23"	12 - 19	FA-3330	33C	34"	18 - 23				
FA-2240	22D	23"	19 - 23	FA-3340	33D	34"	23 - 28				

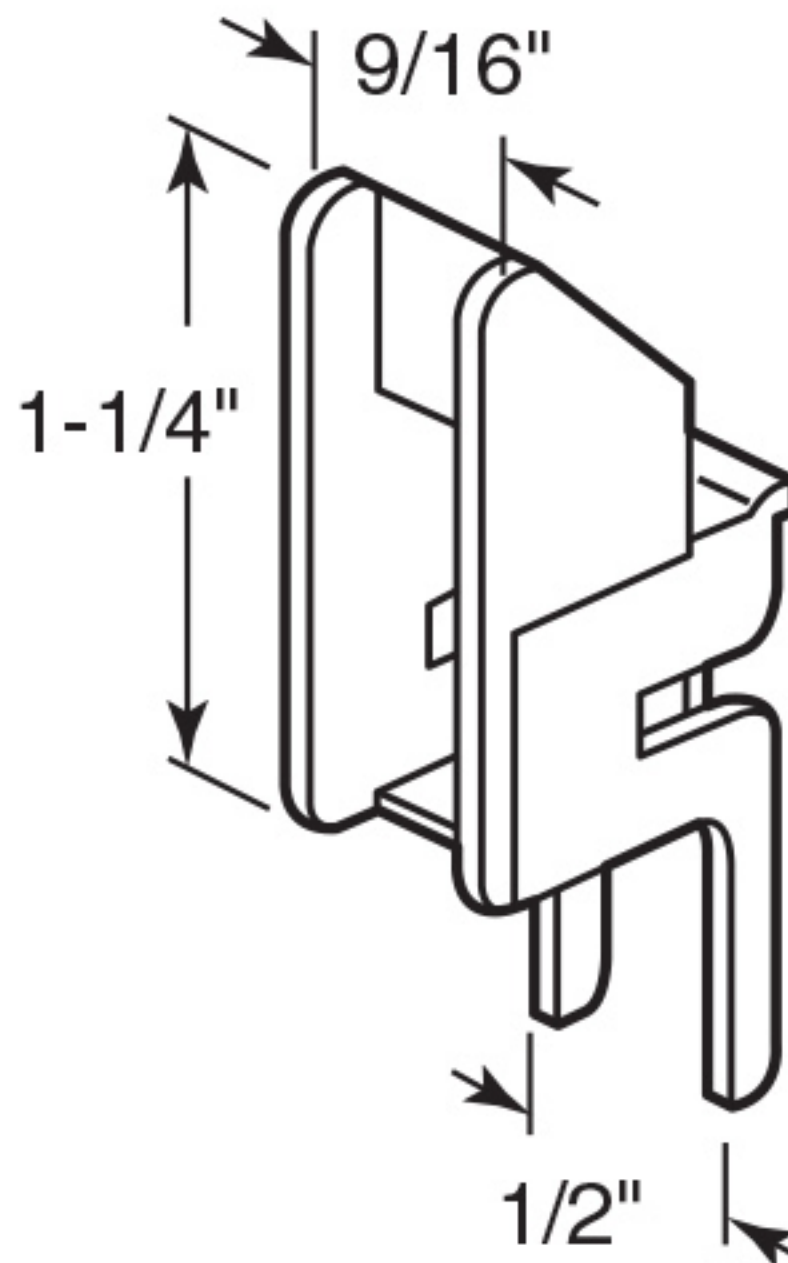
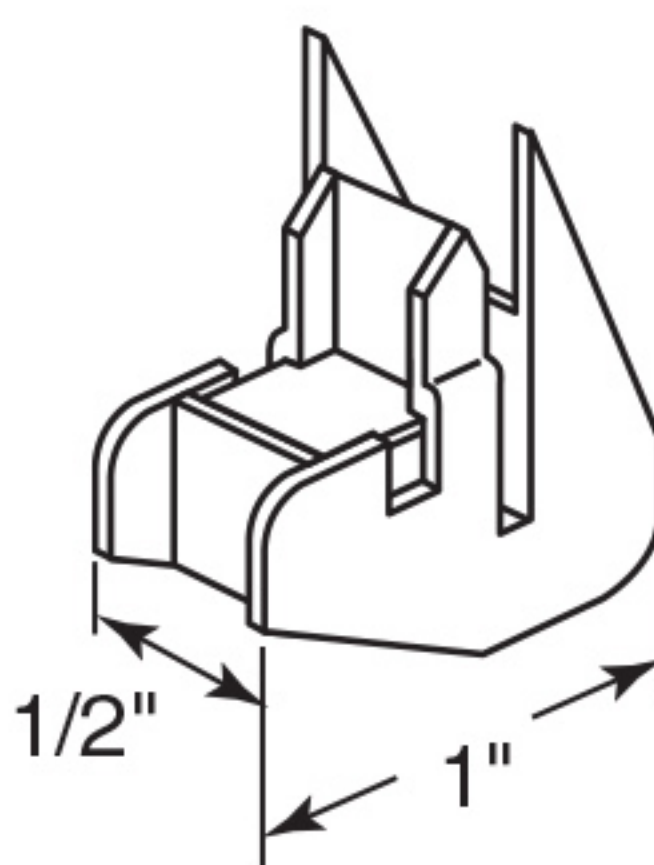
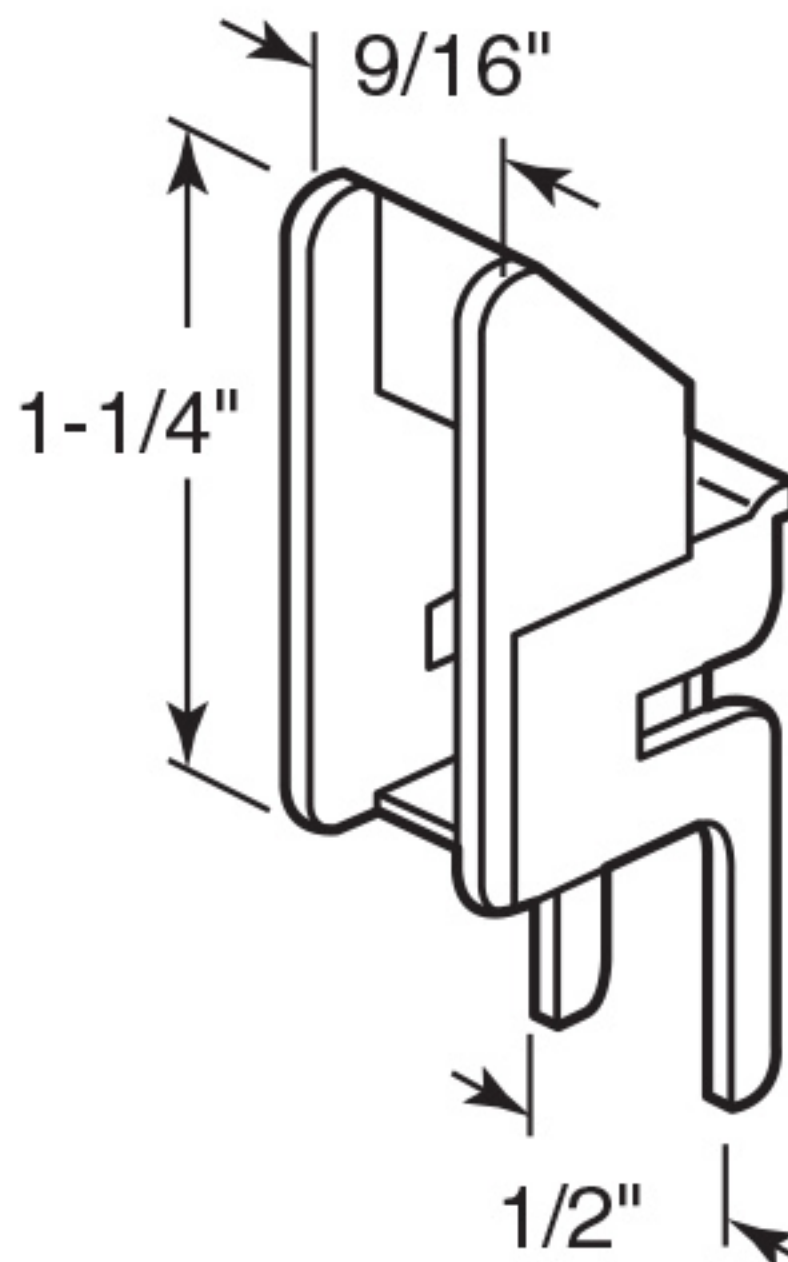
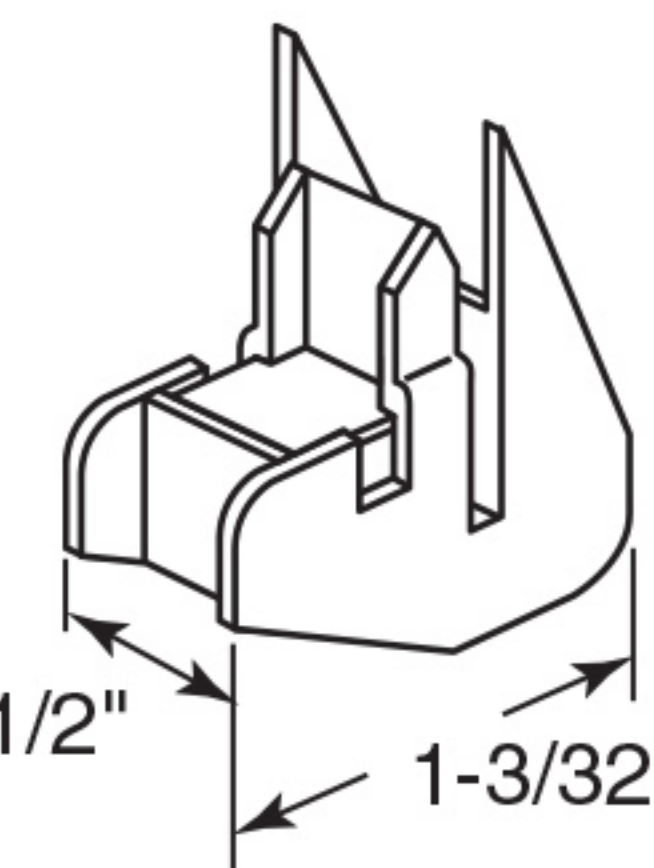
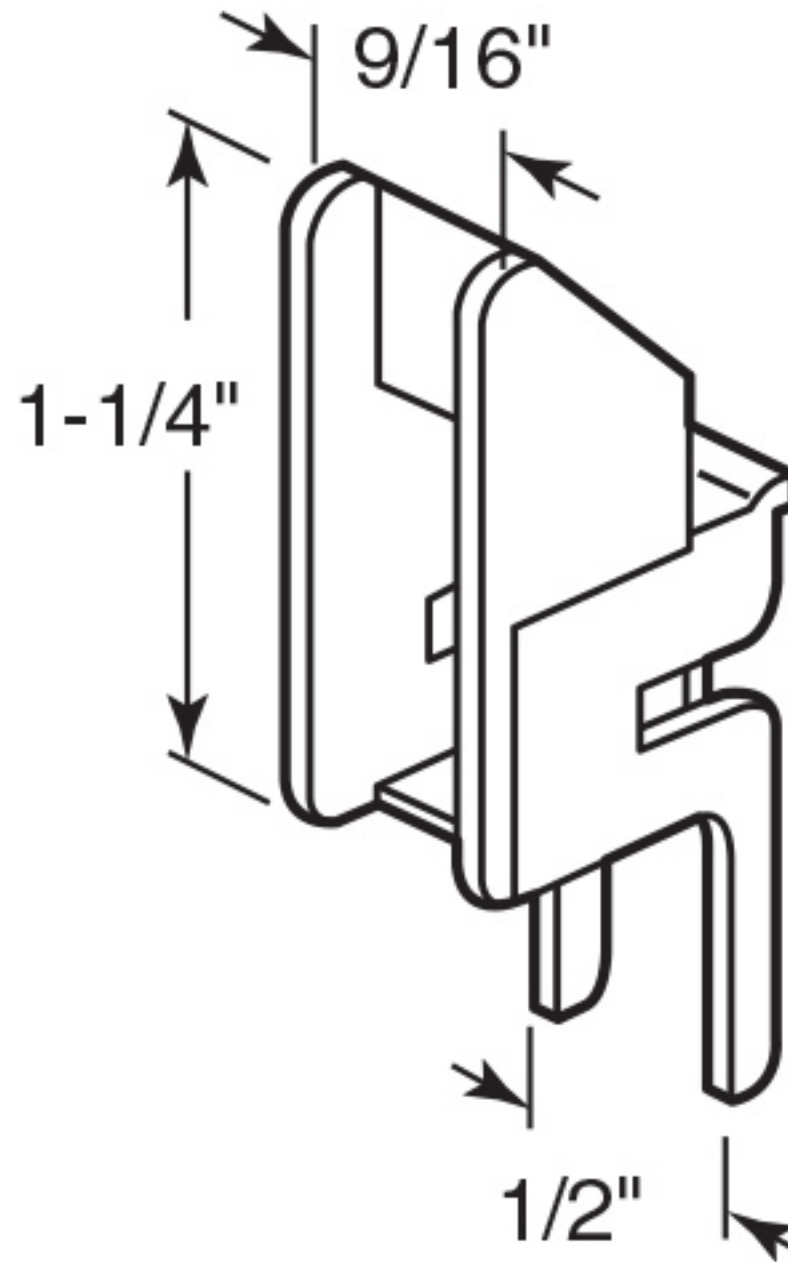
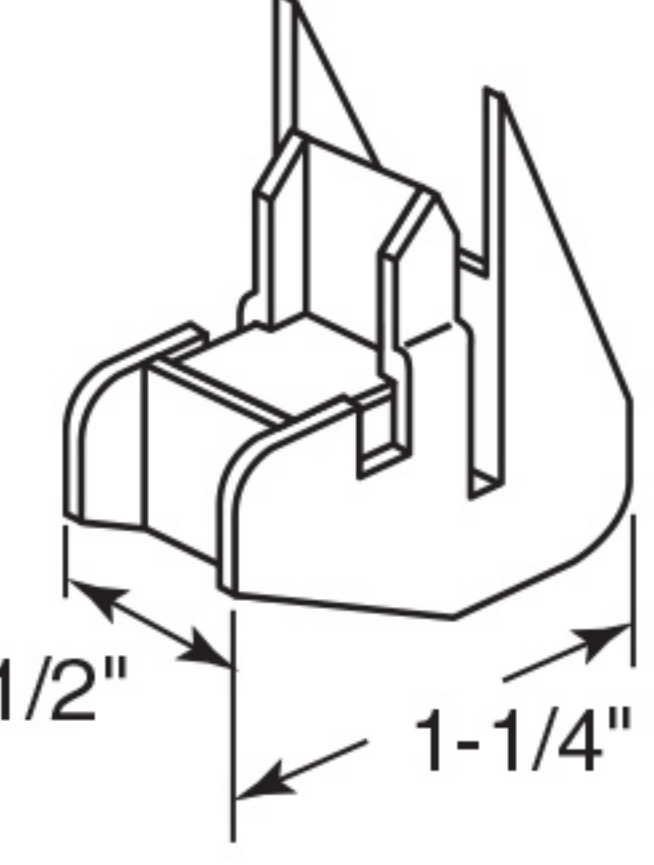
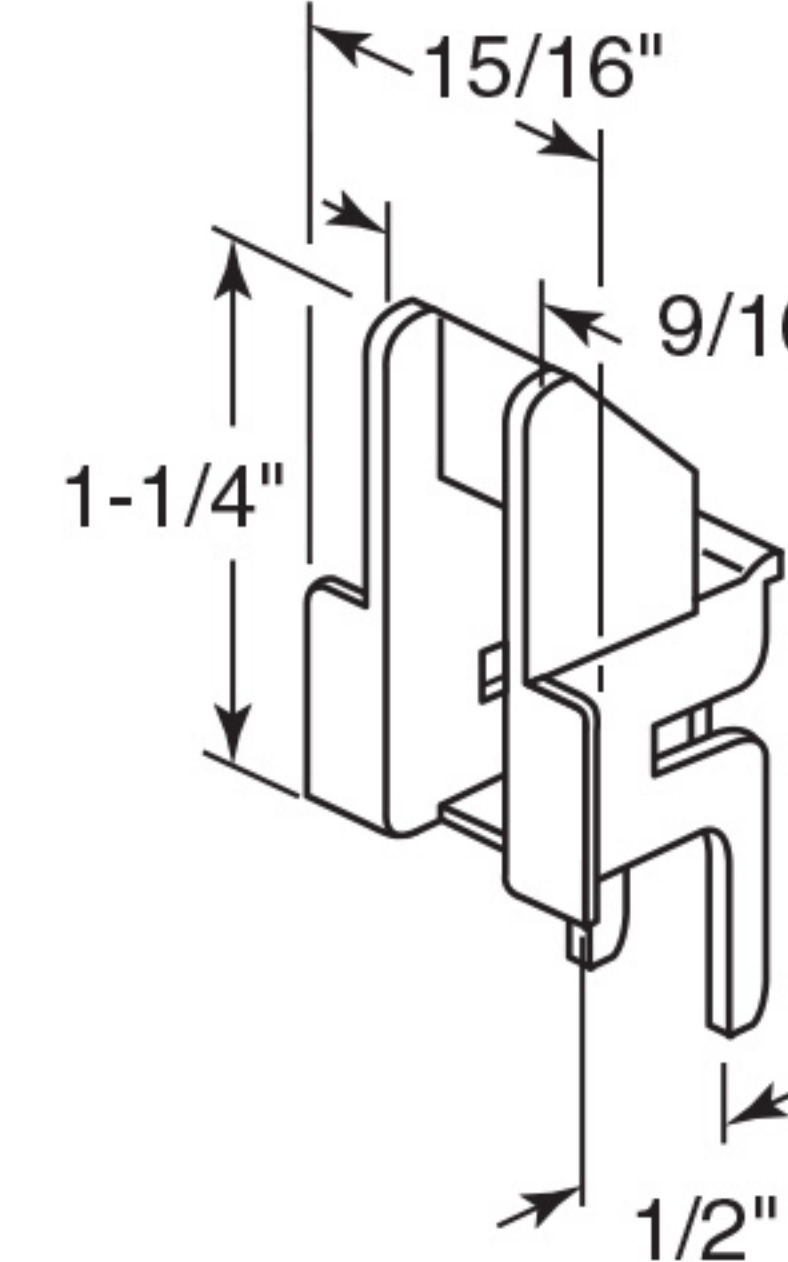
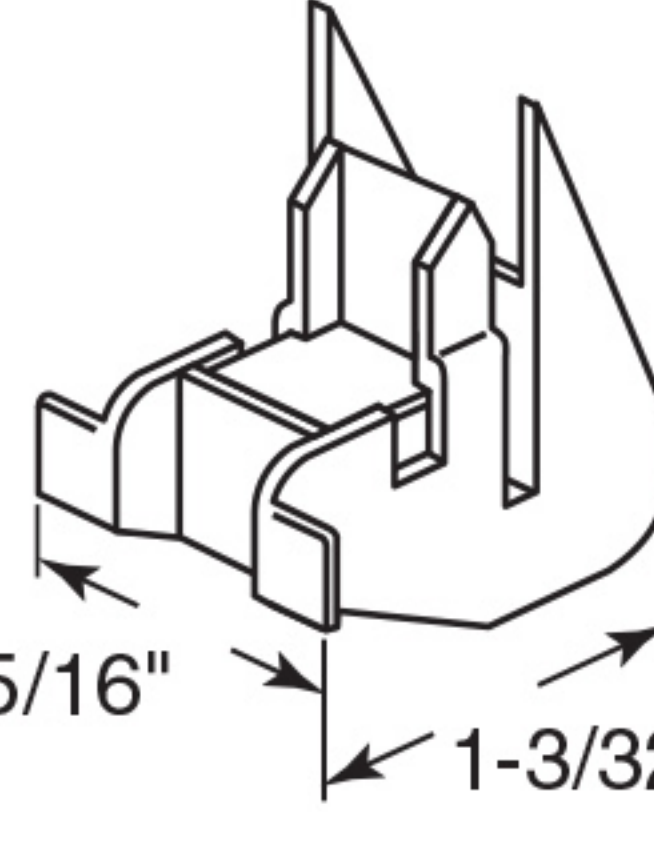
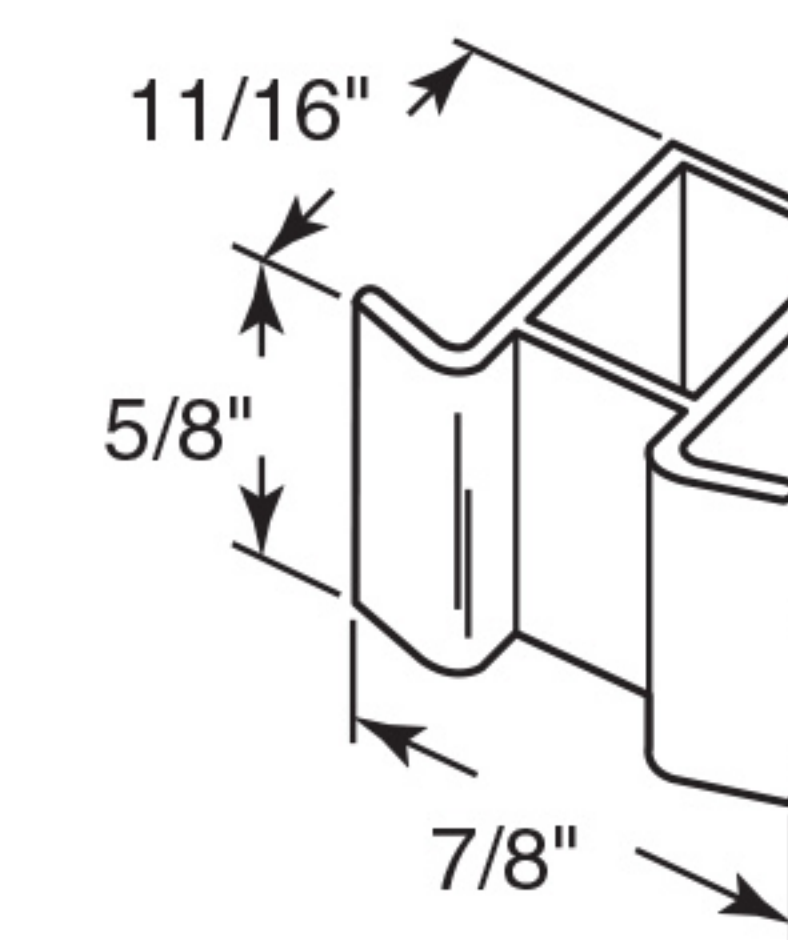
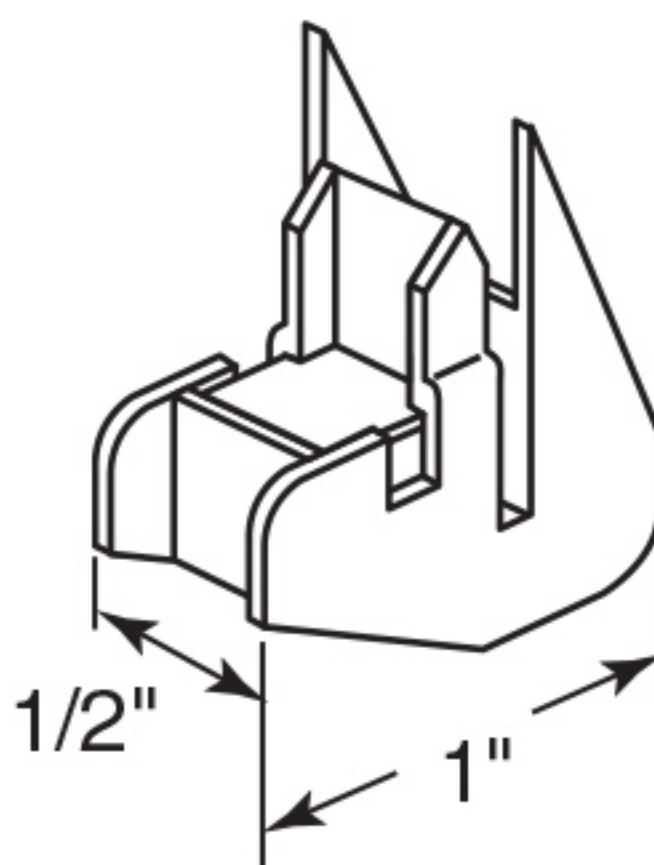
Ordering Tips:

1. Check the back side of channel for stamped numbers (i.e.; 1410, 28A, 3620, etc.).

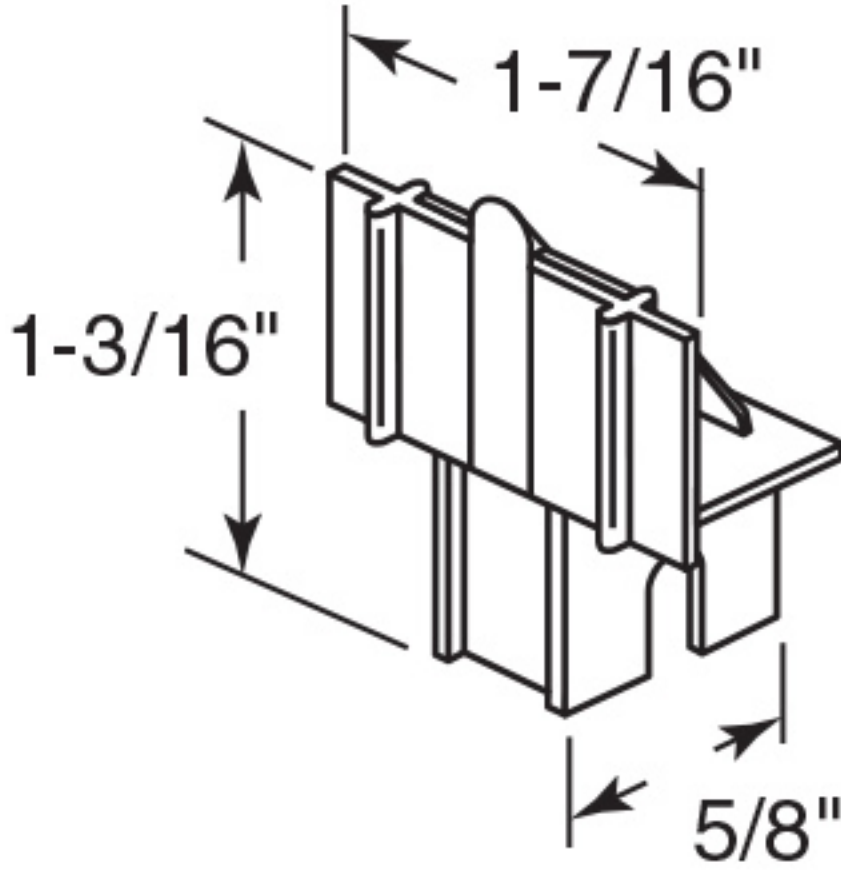
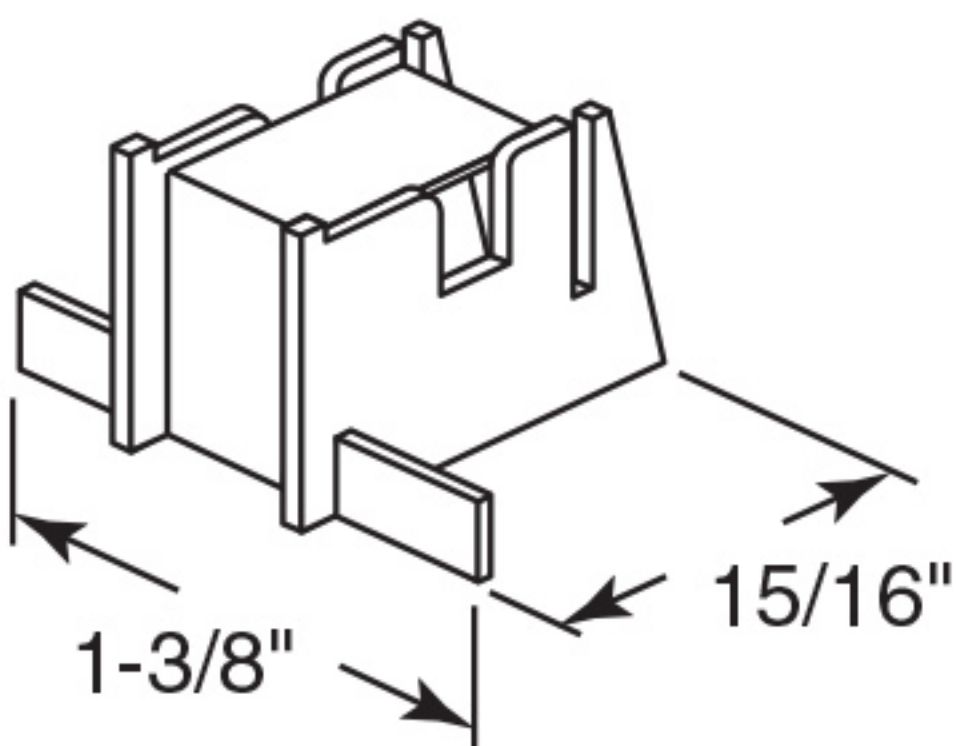
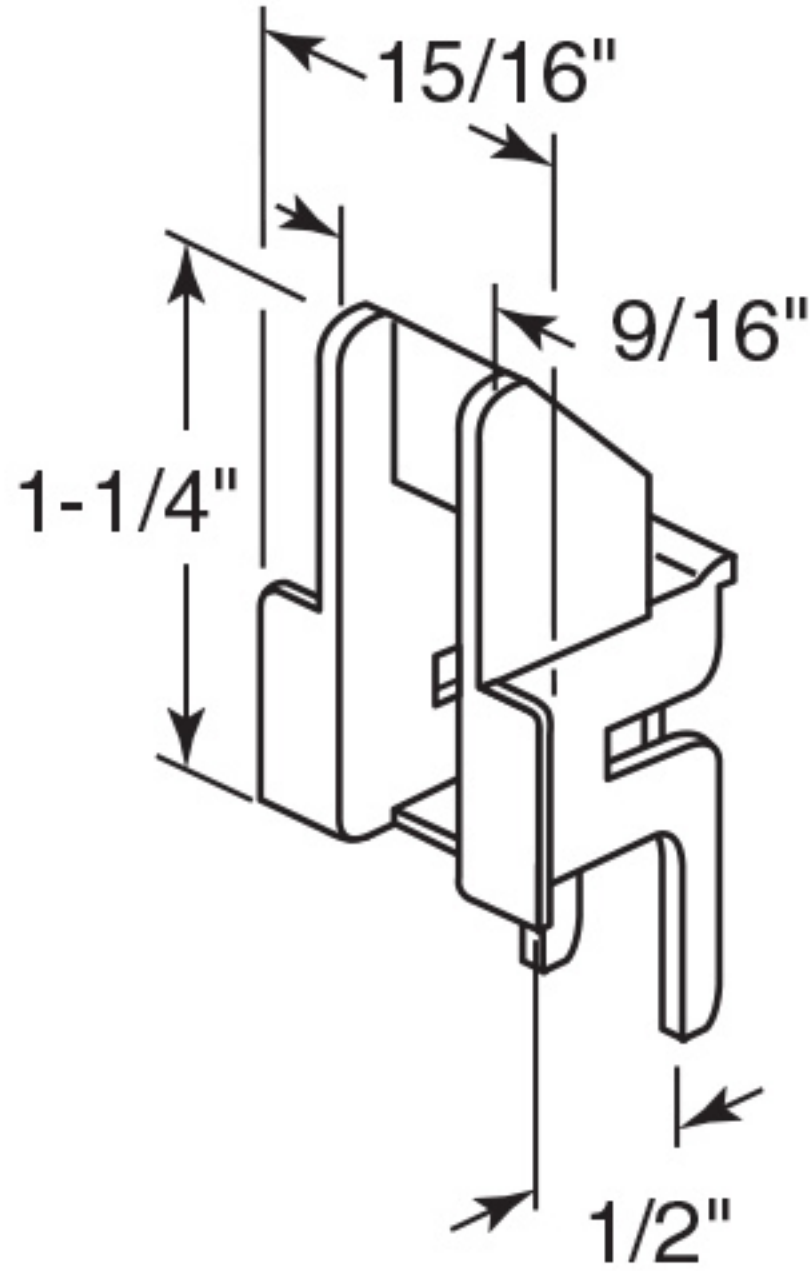
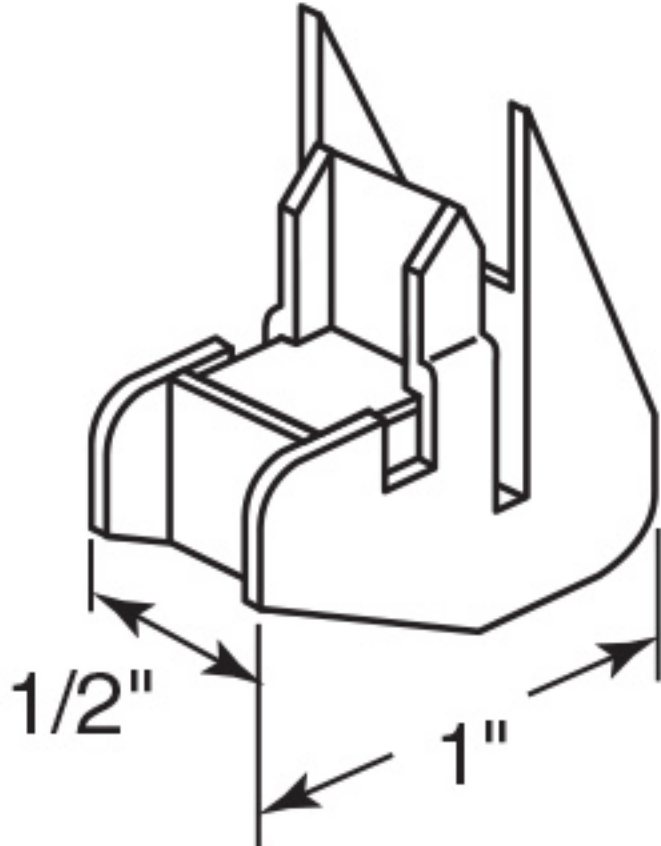
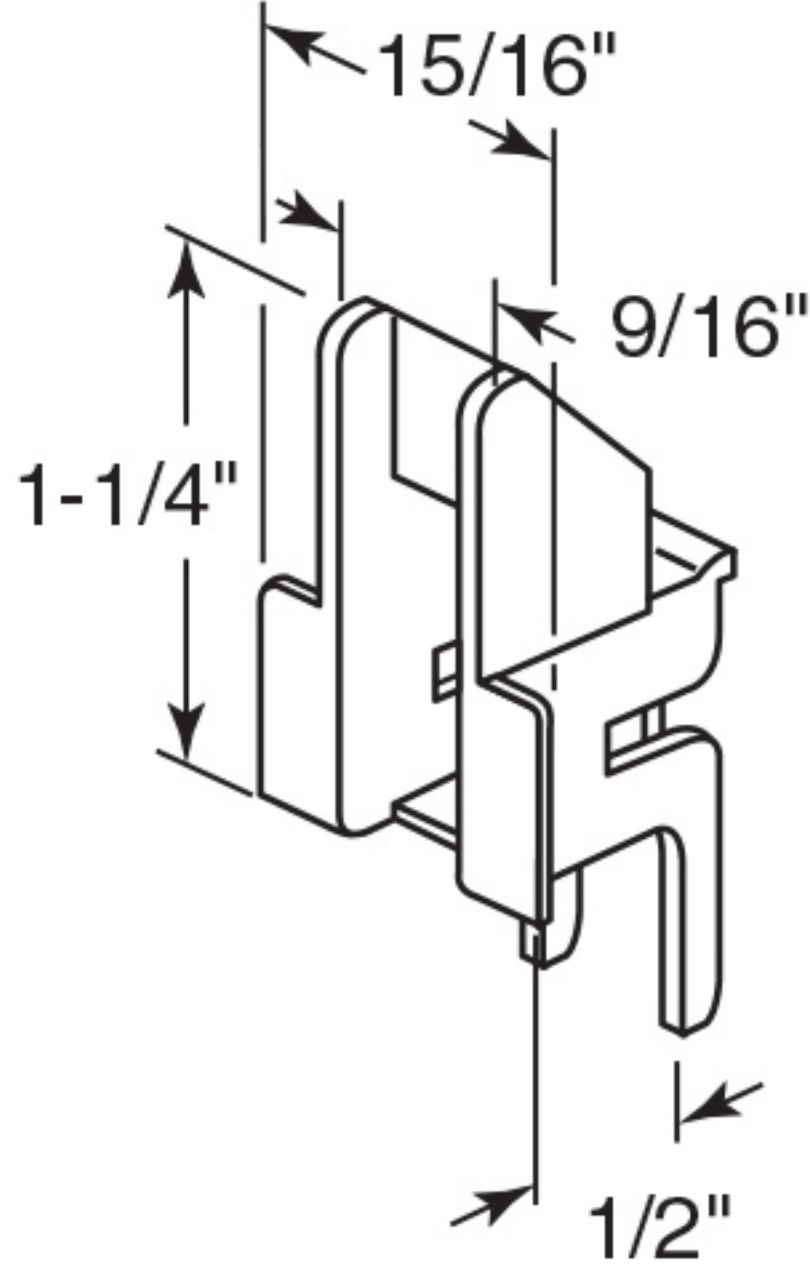
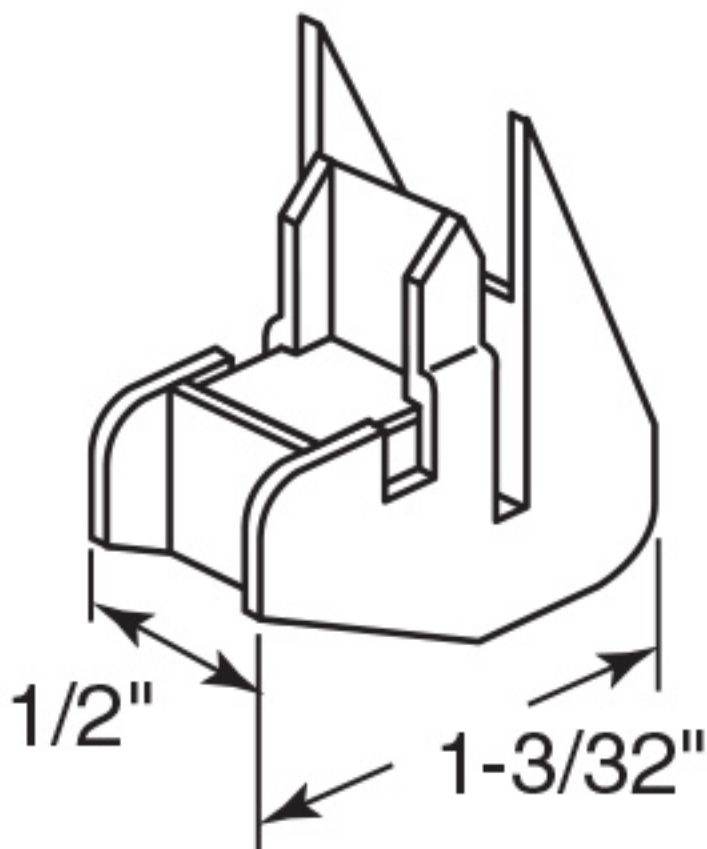
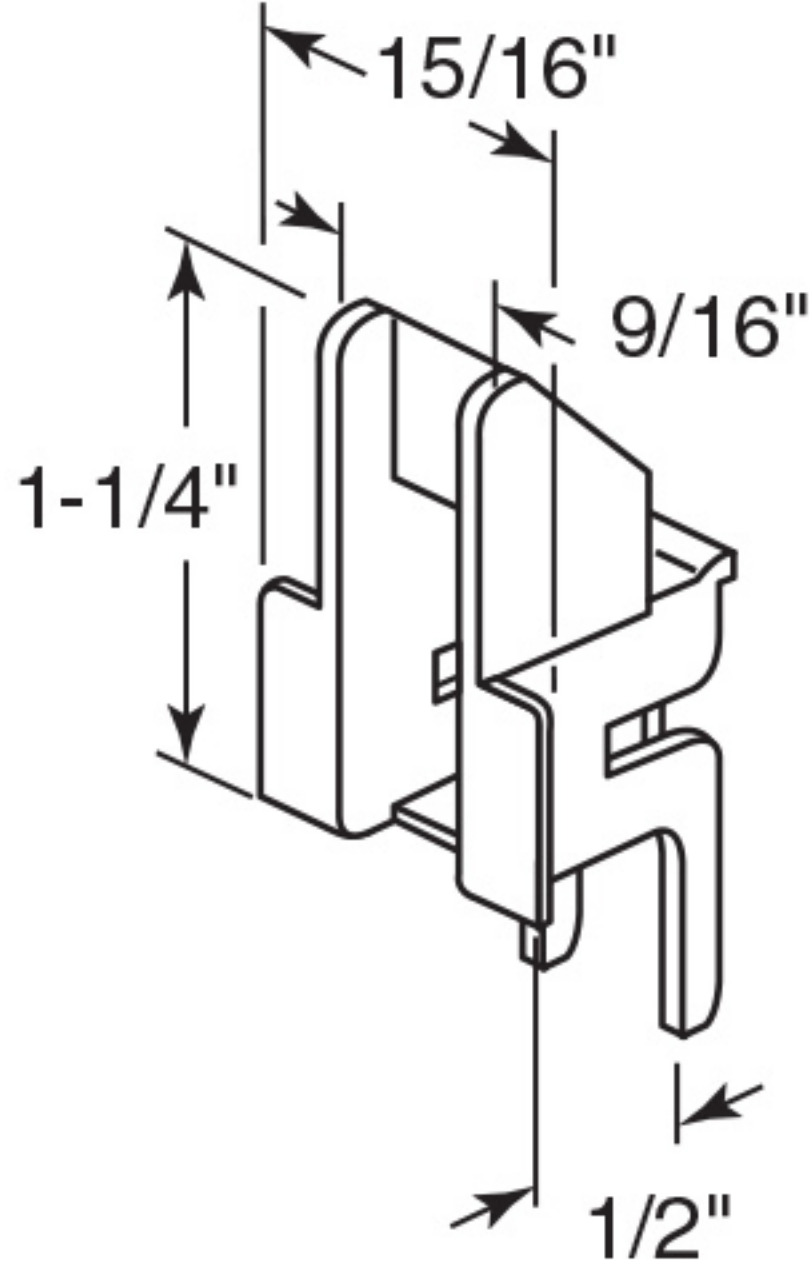
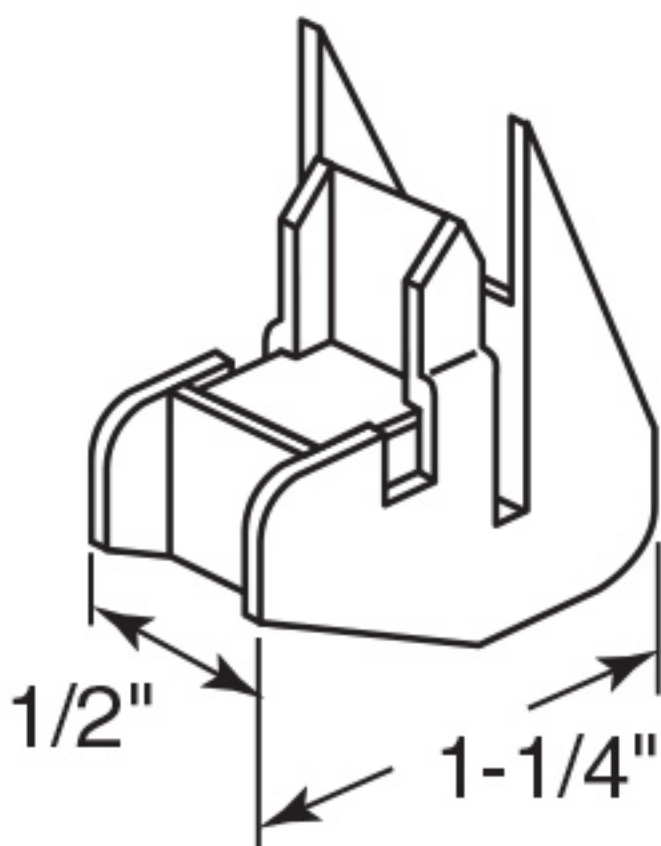
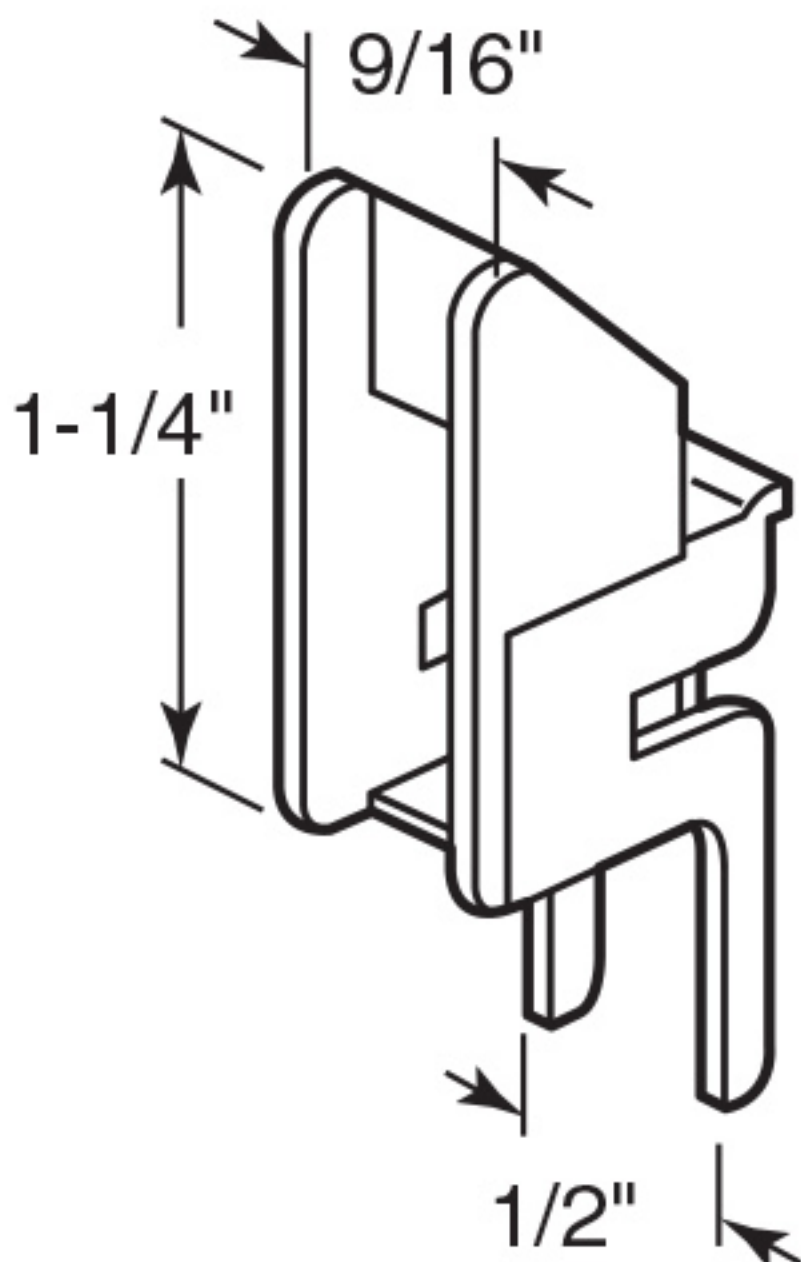
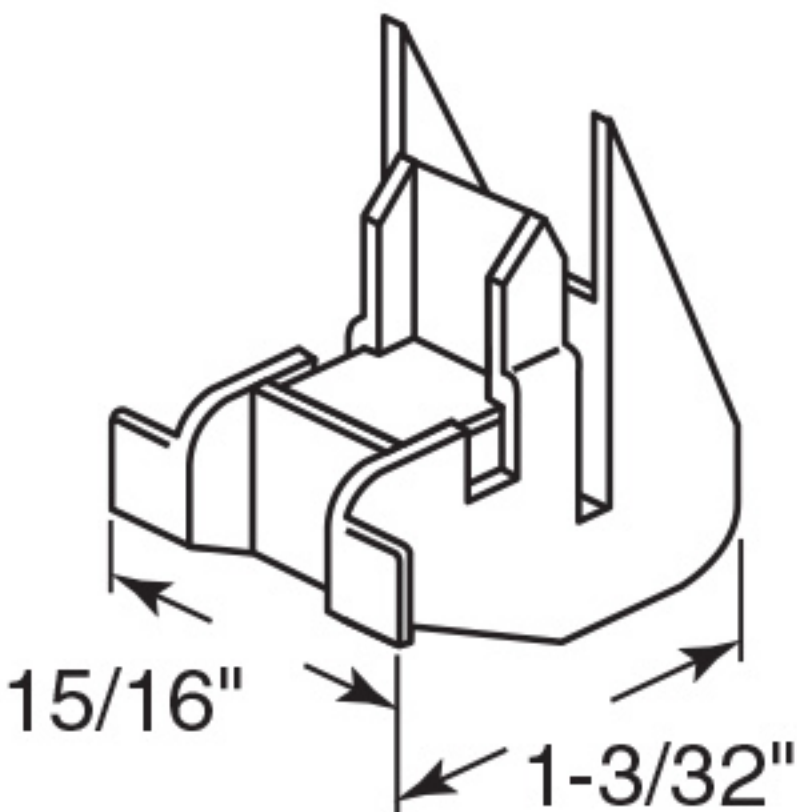
a). The first two digits indicate the actual glass height.
b). The balance is **1" LONGER** than the part number indicates (i.e.; **#1410 is 15" long**).
c). The second two digits or letter designation (A, B, C, D) denote the weight series of the balance (i.e.; #1410 or 14A is for light weight sash, 1420 or 14B is medium, 1430 or 14C is medium to heavy and 1440 or 14D is heavy. Please see the enclosed **Selection Chart** for actual weight variations.
2. **The balance number, by itself, does not include top or bottom guides.**

a). Determine the correct guides required from the accessory page. You may use the existing guides from the defective balance, however, this will require drilling out the attaching rivets.
b). New guides may be ordered (installed) using the double asterisk (**) part number on page 83. They may also be ordered in bulk (50/bag with rivets or, in individual kits) and installed by the dealer. A "Universal Kit" (**EP-3719**) is available which includes a popular assortment (2 top guides, 3 bottom guides, 2 rivets and 1 take-out clip).
3. A rivet set tool (**EP-3740**) is available to expedite installation of guides to balance.

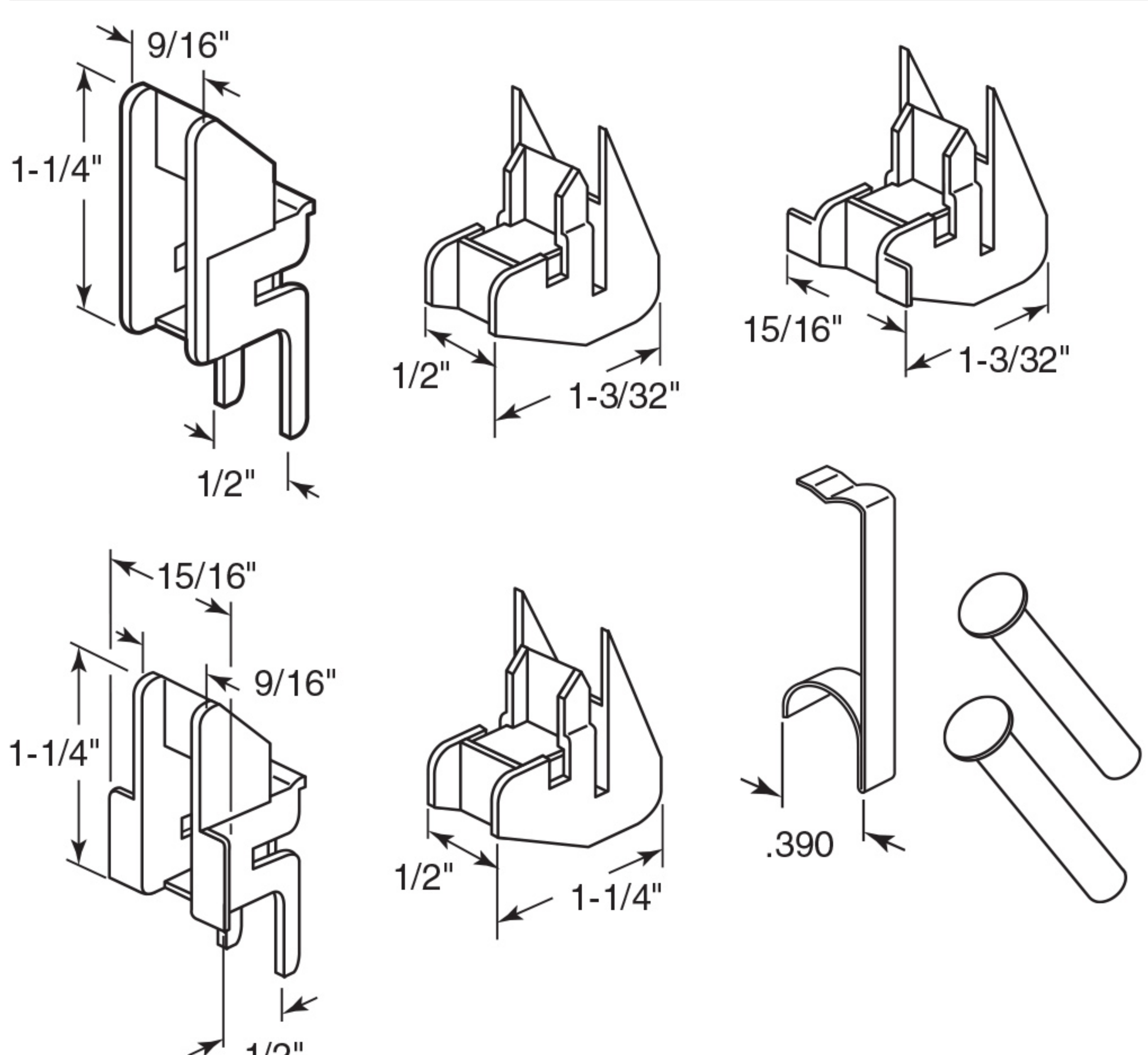
CHANNEL BALANCE ACCESSORIES

Typical Combinations		Pack Qty.	Part Number		
Top	Bottom		Top	Bottom	
NYLON GUIDES - Glass Filled					
		1 Each (Installed)	FS-100**	FS-150**	** = INSTALLED
		50 / Bulk	FS-100PB	FS-150PB	
		Kit (Bulk)	FS-290B <i>(Top guide; bottom guide; take-out clip; 2 rivets)</i>		
<hr/>					
		1 Each (Installed)	FS-100**	FS-151**	** = INSTALLED
		50 / Bulk	FS-100PB	FS-151PB	
		Kit (Bulk)	FS-291B <i>(Top guide; bottom guide; take-out clip; 2 rivets)</i>		
<hr/>					
		1 Each (Installed)	FS-100**	FS-152**	** = INSTALLED
		50 / Bulk	FS-100PB	FS-152PB	
		Kit (Bulk)	FS-292B <i>(Top guide; bottom guide; take-out clip; 2 rivets)</i>		
<hr/>					
		1 Each (Installed)	FS-101**	FS-153**	** = INSTALLED
		50 / Bulk	FS-101PB	FS-153PB	
		Kit (Bulk)	FS-293B <i>(Top guide; bottom guide; take-out clip; 2 rivets)</i>		
<hr/>					
		1 Each (Installed)	FS-102**	FS-150**	** = INSTALLED
		50 / Bulk	FS-102PB	FS-150PB	
		Kit (Bulk)	FS-294B <i>(Top guide; bottom guide; take-out clip; 2 rivets)</i>		

CHANNEL BALANCE ACCESSORIES

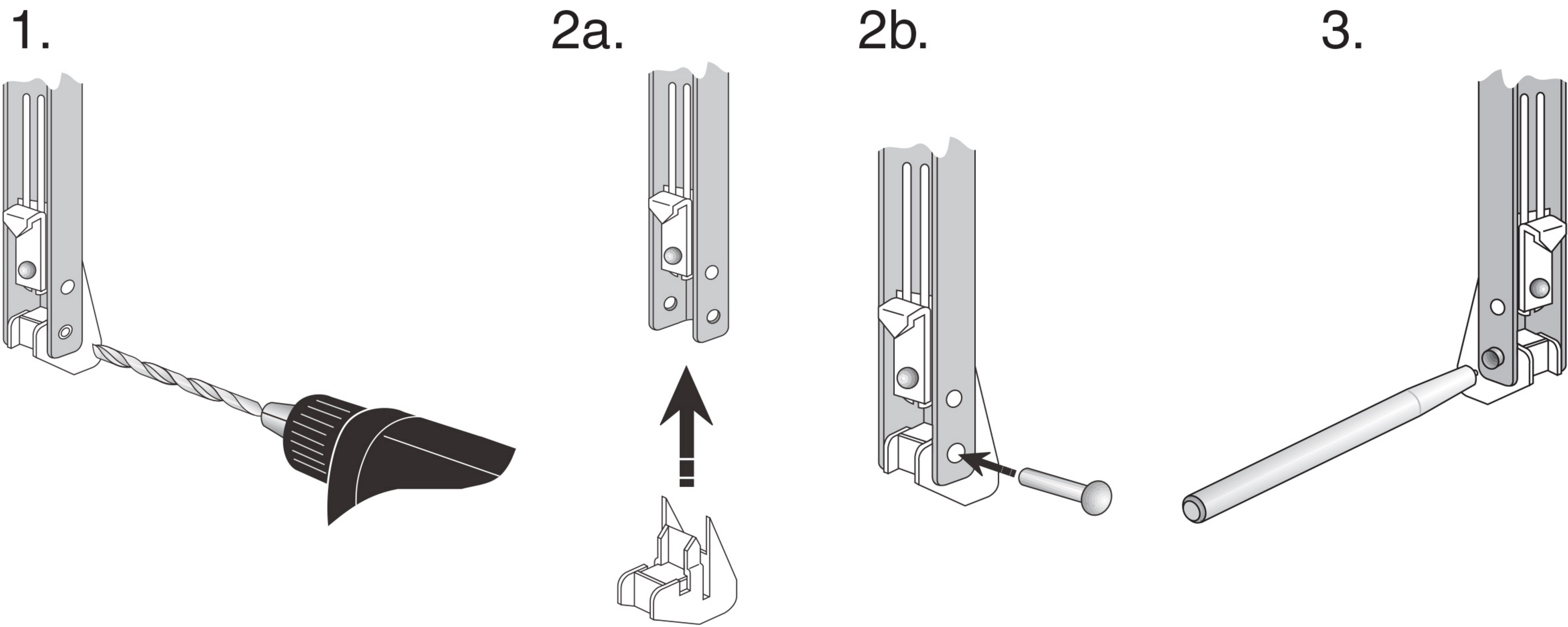
Pack Qty.	Part Number			Typical Combinations	
	Top	Bottom		Top	Bottom
1 Each (Installed) 50 / Bulk Kit (Bulk)	FS-103** FS-103PB	FS-154** FS-154PB	** = INSTALLED		
1 Each (Installed) 50 / Bulk Kit (Bulk)	FS-101** FS-101PB	FS-150** FS-150PB	** = INSTALLED		
1 Each (Installed) 50 / Bulk Kit (Bulk)	FS-101** FS-101PB	FS-151** FS-151PB	** = INSTALLED		
1 Each (Installed) 50 / Bulk Kit (Bulk)	FS-101** FS-101PB	FS-152** FS-152PB	** = INSTALLED		
1 Each (Installed) 50 / Bulk Kit (Bulk)	FS-100** FS-100PB	FS-153** FS-153PB	** = INSTALLED		

CHANNEL BALANCE ACCESSORIES

Pack Qty.		Part Number	
		BALANCE REPAIR KIT	
6 Kits		EP-3719	
		Kit contains: 2 top guides, 3 bottom guides, 2 rivets and 1 take-out clip.	

CHANNEL BALANCE ACCESSORIES
Easy Guide Replacement

1. Drill out existing rivet using 3/32" bit (drill thru crimped side of rivet).
2. Slide new self locating guide (top or bottom) on to appropriate end of balance. Align holes and insert rivet thru the drilled out hole in balance.
3. Place balance on solid surface with rivet head down. Locate pointed end of rivet installation tool in open end of rivet. Tap end of tool firmly with hammer to crimp rivet.



CHANNEL BALANCE ACCESSORIES

Pack Qty.	Part Number	
SASH CAM - 5/8" Channel Balance		
25/Bag	EP-3837	
SASH CAM - 5/8" Channel Balance		
25/Bag	EP-3838	
TERMINAL CLIPS - Stainless Steel		
100/Bag	FS-250B	
100/Bag	FS-251B	
TAKE-OUT CLIP		
100/Bag	FS-260B	
RIVET INSTALLATION TOOL		
1	EP-3740	
RIVETS		
1000/Bag	FS-261B	